

TENANT INFILL FOR  
LOT 10  
I-470  
BUSINESS & TECHNOLOGY CENTER  
AT  
2605 NE MCBAIN DRIVE  
LEE'S SUMMIT MISSOURI

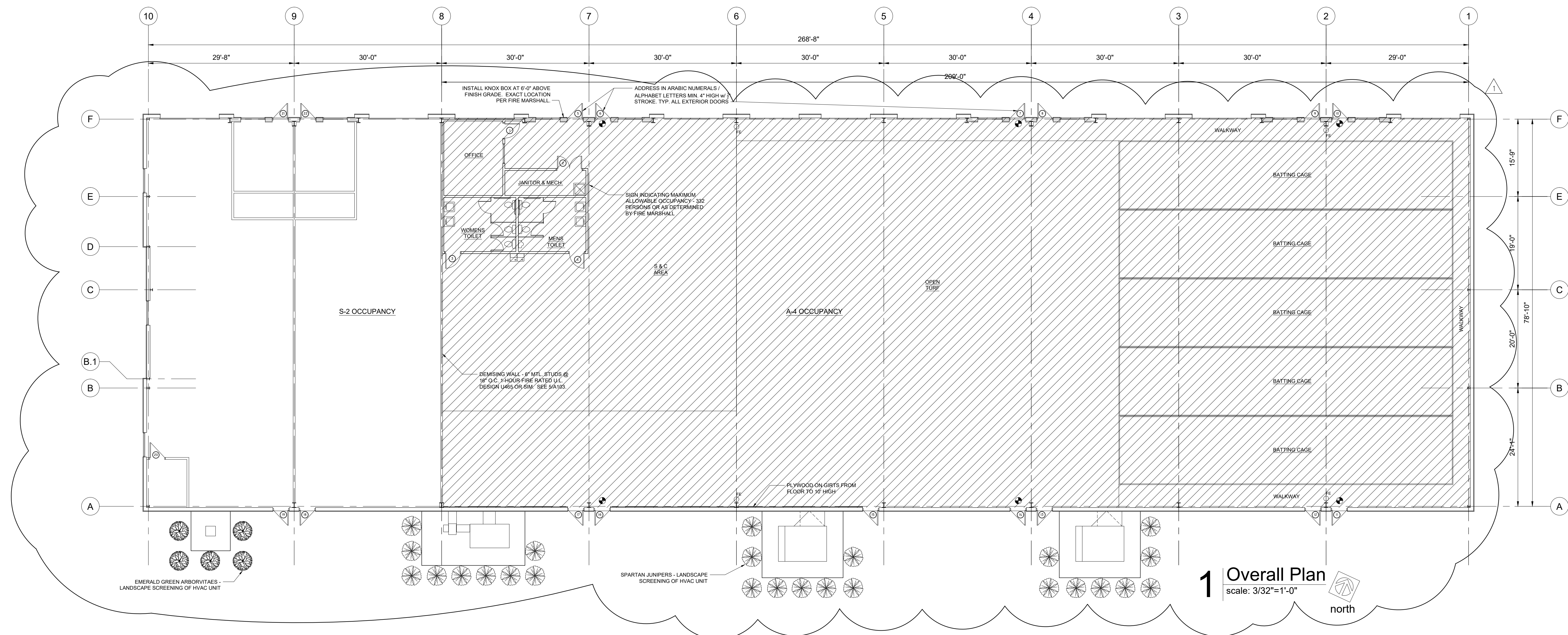
DATE: 3/3/2022

REVISIONS:  
▲ 4/4/2022 City Comments  
▲  
▲  
▲  
▲



ARCHITECTURAL SERVICES  
Robert J. Shirk Jr. - Principal / Project Mgr.

3009 ELMIRA CT.  
INDEPENDENCE, MISSOURI 64057  
(816) 797-7115



**1 Overall Plan**  
scale: 3/32"=1'-0"  
north



LOCATION PLAN

PROJECT SITE



**project synopsis:**

Governing Municipality: Lee's Summit, Missouri  
Address: 2605 NE McBaine Drive  
Stories: one  
Building Height: 22'-2" unchanged  
Construction Type: VB  
Total Building Area: 21,897 sq. ft. unchanged  
Tenant Area: 16,600 sq. ft.  
Fire Suppression: Yes (NFPA13)  
Occupant Group: A-3 (Indoor recreation without spectator seating)  
Allowable Area: 24,000 sq. ft. before separation increases for A-3 Occupancy, Sprinklered, Type VB  
Occupant Load: 16,600 sq. ft. / 50 gross = 332 persons

**applicable codes:**

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 A117.1-2017, Accessible and Usable Buildings and Facilities

**general notes:**

- Exterior dimensions on Architectural sheets are for reference only.
- Double keyed locks are not permitted on any required or marked exit.
- Provide 2A-10BC fire extinguishers (min. 5 lb.) - location & quantity per fire marshal.
- Exit/emergency lighting are subject to an on site inspection.
- Furnish and install approved address numbers on front and rear of building (5" white vinyl numbers to contrast). Refer to sign standards manual.
- Building construction must fully comply with all requirements of ADA accessibility guidelines.
- Exit doors shall be openable from the inside without the use of a key or any special knowledge or effort.
- Coordinate window mullion & exterior opening locations with shell building contractor & existing conditions and notify architect of any discrepancies.
- Egress illumination will be provided at an intensity of not less than 1 foot candle at floor level & at the exterior of the building.
- Any new exterior utility service equipment shall be painted to match the building standard colors.
- Provide 3-1/2" batt insulation between conditioned & unconditioned spaces.
- Furnish and install electrical outlets at 15' a f.f. to the lowest outlet per ADA.
- HVAC system to have approved interconnected, smoke detector activated, automatic shutoffs with the detectors located in the return duct.
- HVAC rooftop units shall have an accessible G.F.C.I. outlet per code.
- Furnish and install horns and strobes as required.

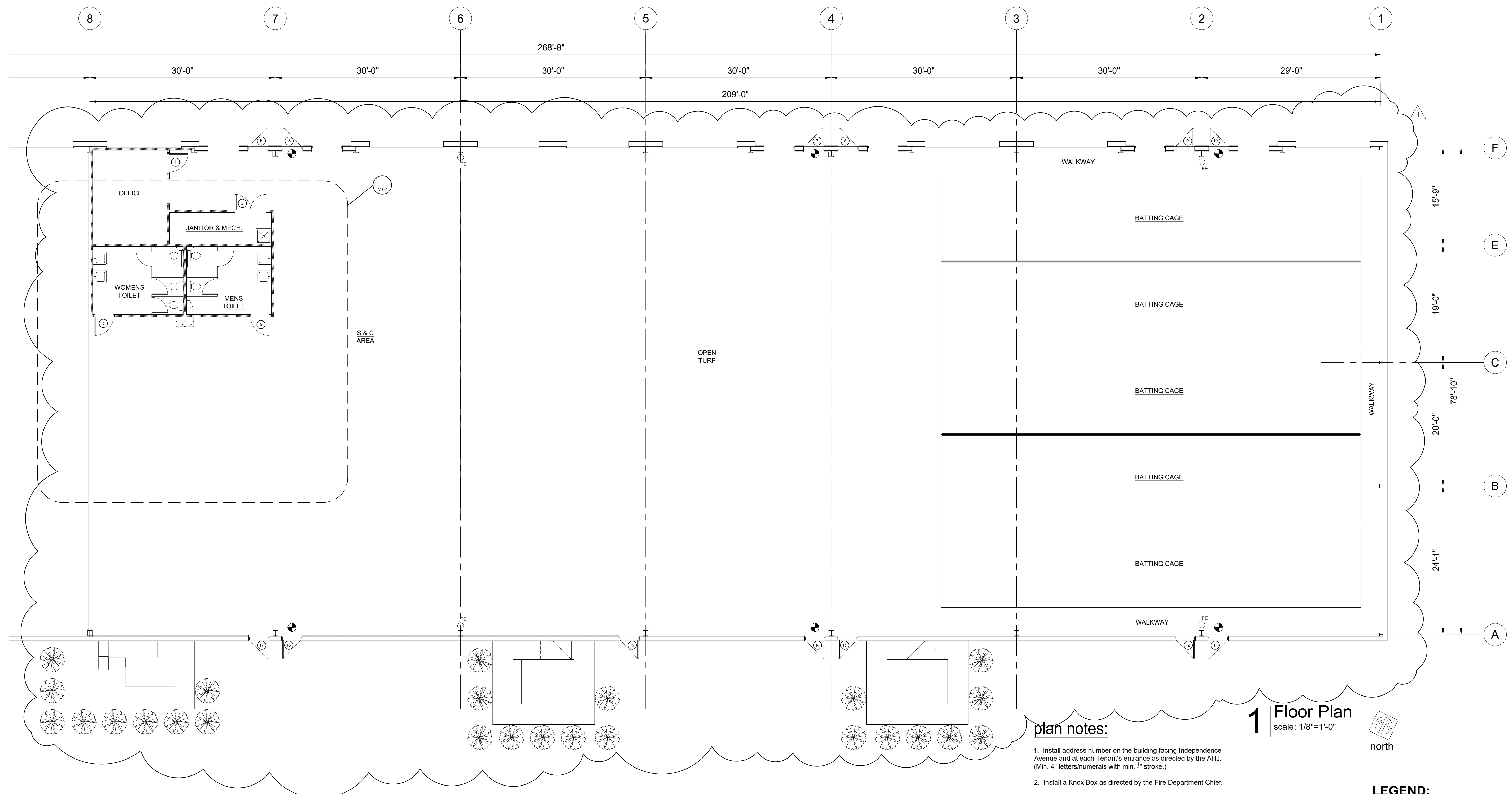
**sheet index:**

- ARCHITECTURAL
- A101 Cover & Overall Plan
  - A102 Floor Plan
  - A103 Enlarged Floor Plan
- MECH / ELECT / PLUMB
- MEP101 Specifications
  - M101 Mechanical Plan
  - P101 Plumbing Plan
  - P102 Plumbing Details
  - E101 Electrical Plan
  - E102 Electrical Details



3-21-2022

SHEET NO.  
**A101**



TENANT INFILL FOR  
LOT 10  
I-470  
BUSINESS & TECHNOLOGY CENTER  
AT  
2605 NE MCBAIN DRIVE  
LEE'S SUMMIT MISSOURI

DATE: 3/3/2022

REVISIONS:  
 ▲ 4/4/2022 City Comments  
 ▲  
 ▲  
 ▲  
 ▲

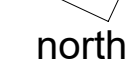


3009 ELMIRA CT.  
INDEPENDENCE, MISSOURI 64057  
(816) 797-7115

**1** Floor Plan  
scale: 1/8"=1'-0"

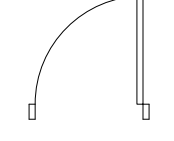
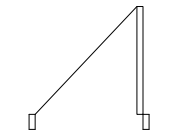



**plan notes:**

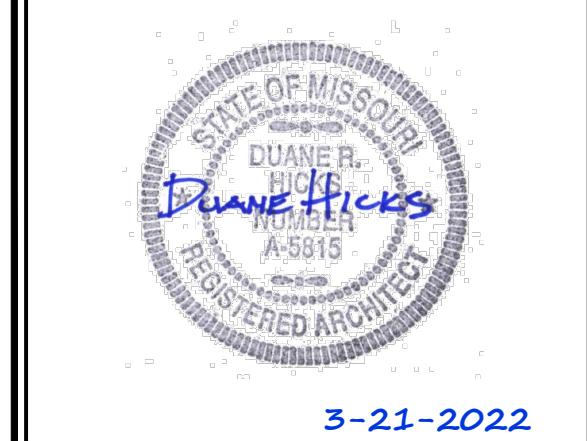
1. Install address number on the building facing Independence Avenue and at each Tenant's entrance as directed by the AHJ. (Min. 4" letters/numerals with min. 1/2" stroke.)
2. Install a Knox Box as directed by the Fire Department Chief.



north

**LEGEND:**

-  NEW DOOR
-  EXISTING DOOR TO REMAIN
-  PROPOSED GYPBOARD PARTITION
-  FIRE EXTINGUISHER
-  EXIT DOOR w/ PANIC HARDWARE



SHEET NO.  
**A102**

TENANT INFILL FOR  
LOT 10  
I-470  
BUSINESS & TECHNOLOGY CENTER  
AT  
2605 NE MCBAIN DRIVE  
LEE'S SUMMIT MISSOURI

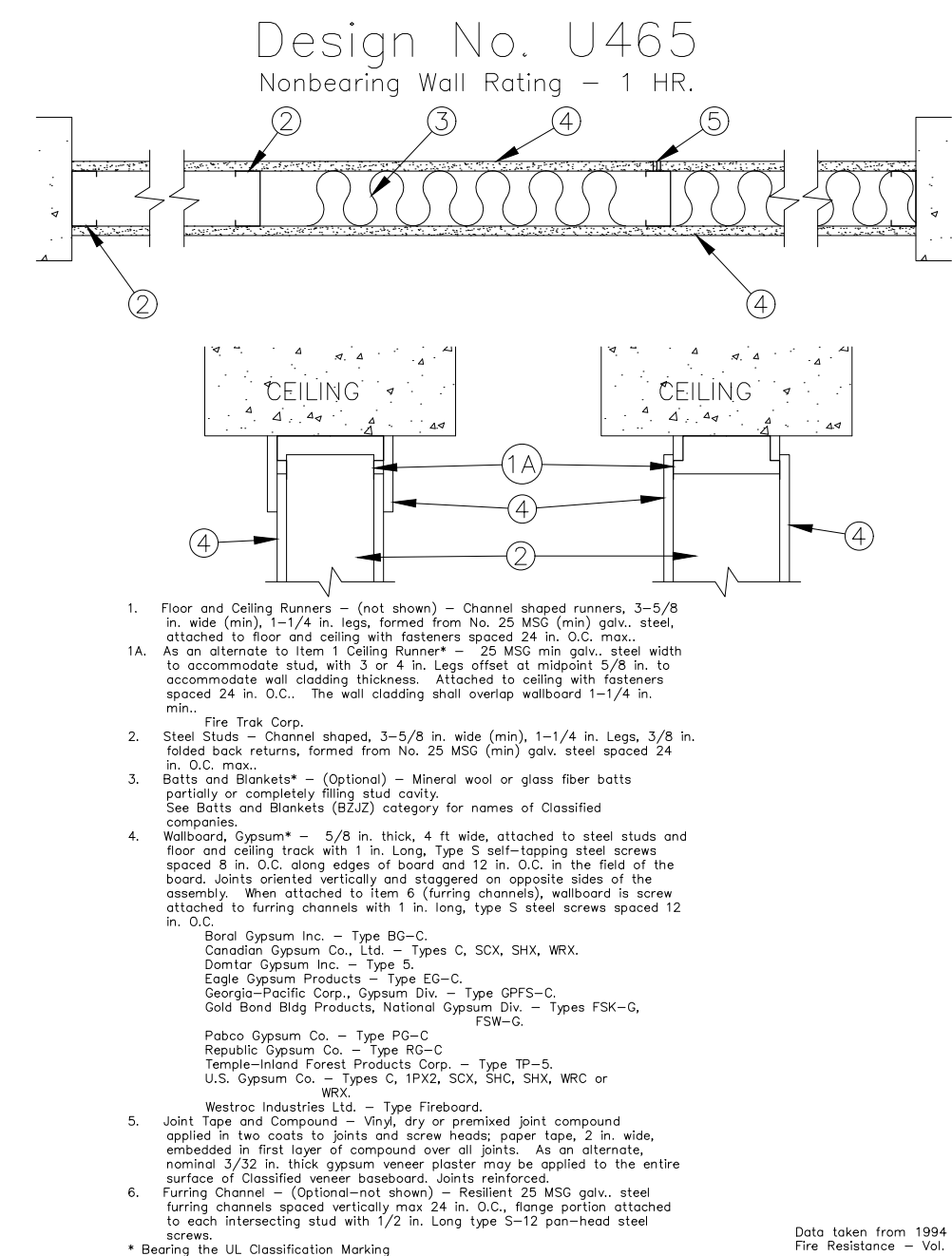
DATE: 3/3/2022

REVISIONS:  
4/4/22 City Comments



ARCHITECTURAL SERVICES  
Robert J. Shirk Jr. - Principal / Project Mgr.

3009 ELMIRA CT.  
INDEPENDENCE, MISSOURI 64057  
(816) 797-7115

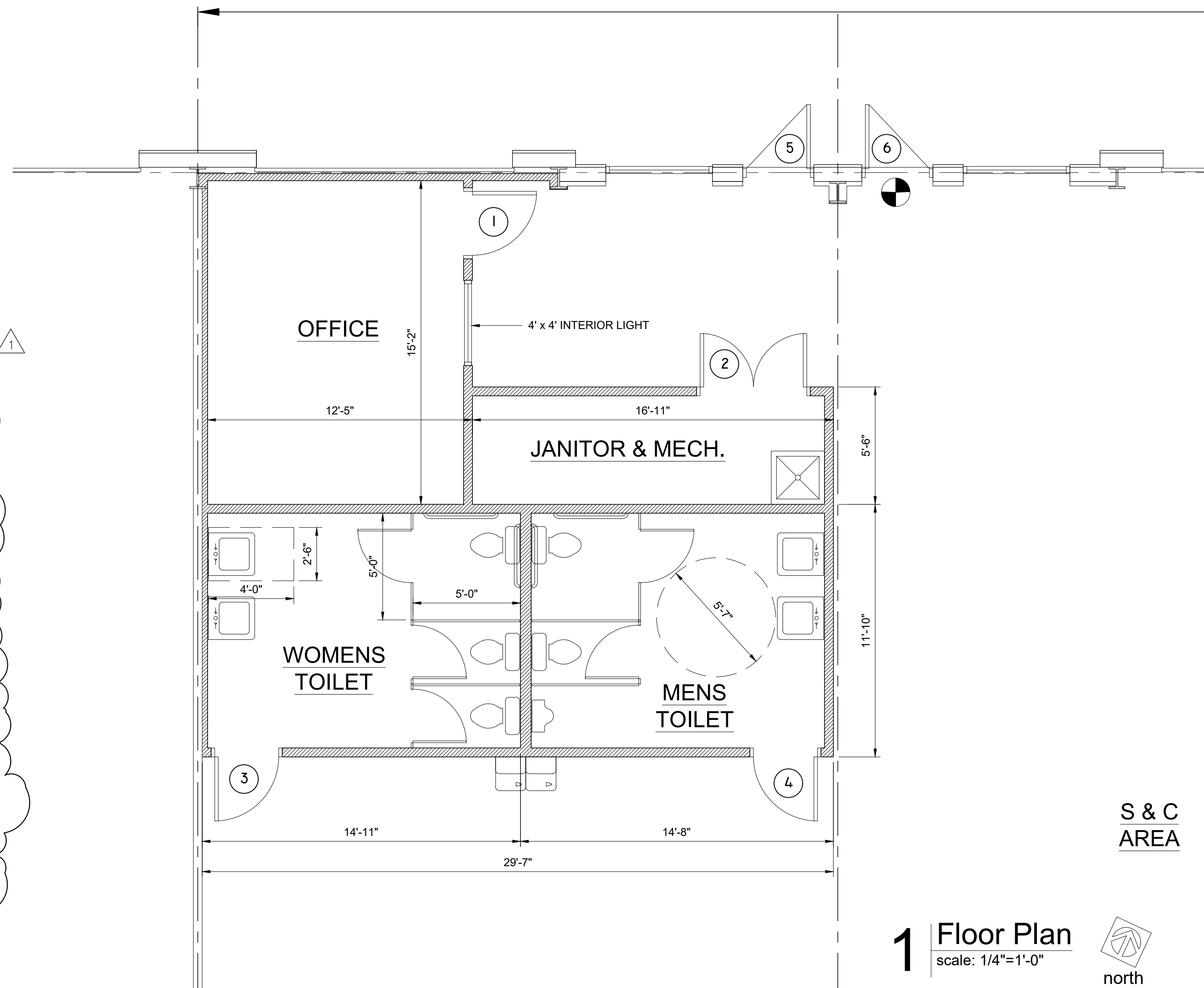


- Floor and Ceiling Runners - (not shown) - Channel shaped runners, 3-5/8 in. wide (min), 1-1/4 in. high, formed from No. 20 MSJ (min) galv. steel, attached to floor and ceiling with fasteners spaced 24 in. O.C. min. As an alternate to Item 1 Ceiling Runner - 20 MSJ min galv. steel with 1/2 in. wide (min) flange, attached to ceiling with fasteners spaced 24 in. O.C. min. to accommodate wall blocking thickness. Attached to ceiling with fasteners spaced 24 in. O.C. min. See wall blocking detail on sheet U474 in.
- Fire Trak Corp.
- Steel Stud - Channel shaped, 3-5/8 in. wide (min), 1-1/4 in. high, 1/8 in. thick, formed from No. 20 MSJ (min) galv. steel spaced 24 in. O.C. min.
- Batts and Blower - (Optional) - Mineral wool or glass fiber batts per manufacturer's instructions. R19 or R22. See Batts and Blowers (B&B) category for names of classified companies.
- Wallboard System - 5/8 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track with 1 in. Long, Type 3 self-tapping steel screws spaced 8 in. O.C. along edge of board and 12 in. O.C. in the field of the board. Joints oriented vertically and staggered on opposite sides of the assembly. When attached to Item 6, furring channels, wallboard is screw attached to furring channels with 1 in. Long, Type 3 self-tapping screws spaced 12 in. O.C.
- Board System Inc. - Type B-C; Donohoe Gypsum Co., Ltd. - Types C, S-CX, S-M, W-K; Eagle Gypsum Products - Type B-C; Georgia-Pacific Corp., Gypsum Div. - Type GFS-C; Gaf-Bond Dry Products, National Gypsum Div. - Types FSX-C, FSW-C; Fibroc Gypsum Co. - Type PC-C; Republic System Co. - Type RB-C; U.S. Gypsum Co. - Types T, T-20, S-C, S-M, S-W, W-C or W-W; Western Industrial Ltd. - Type Fireboard.
- Joint Tape and Compound - Vinyl, dry or premixed joint compound applied to face screws to joints and screw heads, cover type 2 in. wide, embedded in first layer of board and over all joints. As an alternate, nominal 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of classified under layovers, joint reinforcement.
- Furring Channel - (Optional-not shown) - Resilient 20 MSJ galv. steel furring channels spaced vertically max 24 in. O.C. Furring portion attached to each intersecting stud with 1/2 in. Long type 3-12 pan-head steel screws.

**5 FIRE-RATED ASSEMBLY**  
scale: None

**DOOR SCHEDULE**

DOOR NO.	SIZE	MATERIAL	REMARKS
1	3'-0"x7'-0"	WOOD	
2	PR 3'-0"x7'-0"	WOOD	
3	3'-0"x7'-0"	WOOD	
4	3'-0"x7'-0"	WOOD	
5	EXISTING		PANIC HARDWARE
6	EXISTING		PANIC HARDWARE
7	EXISTING		PANIC HARDWARE
8	EXISTING		PANIC HARDWARE
9	EXISTING		PANIC HARDWARE
10	EXISTING		PANIC HARDWARE
11	EXISTING		PANIC HARDWARE
12	EXISTING		PANIC HARDWARE
13	EXISTING		PANIC HARDWARE
14	EXISTING		PANIC HARDWARE
15	EXISTING		PANIC HARDWARE
16	EXISTING		PANIC HARDWARE
17	EXISTING		PANIC HARDWARE
18	EXISTING		
19	EXISTING		
20	EXISTING		
21	EXISTING		

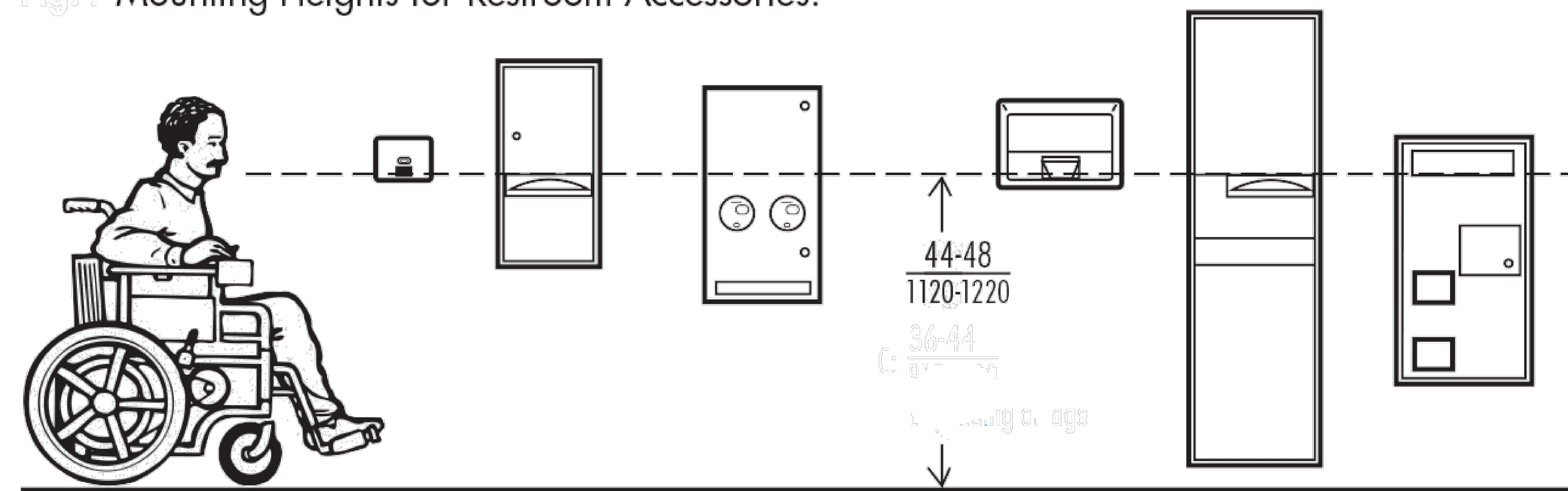


S & C AREA

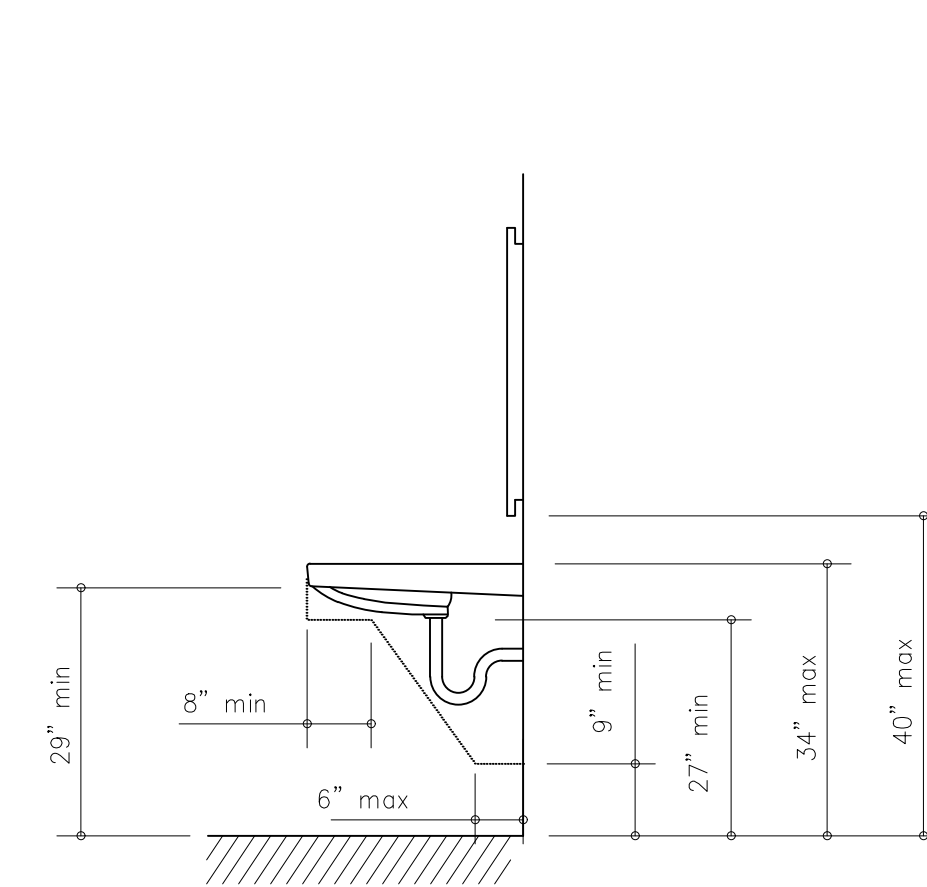
**1 Floor Plan**  
scale: 1/4"=1'-0"



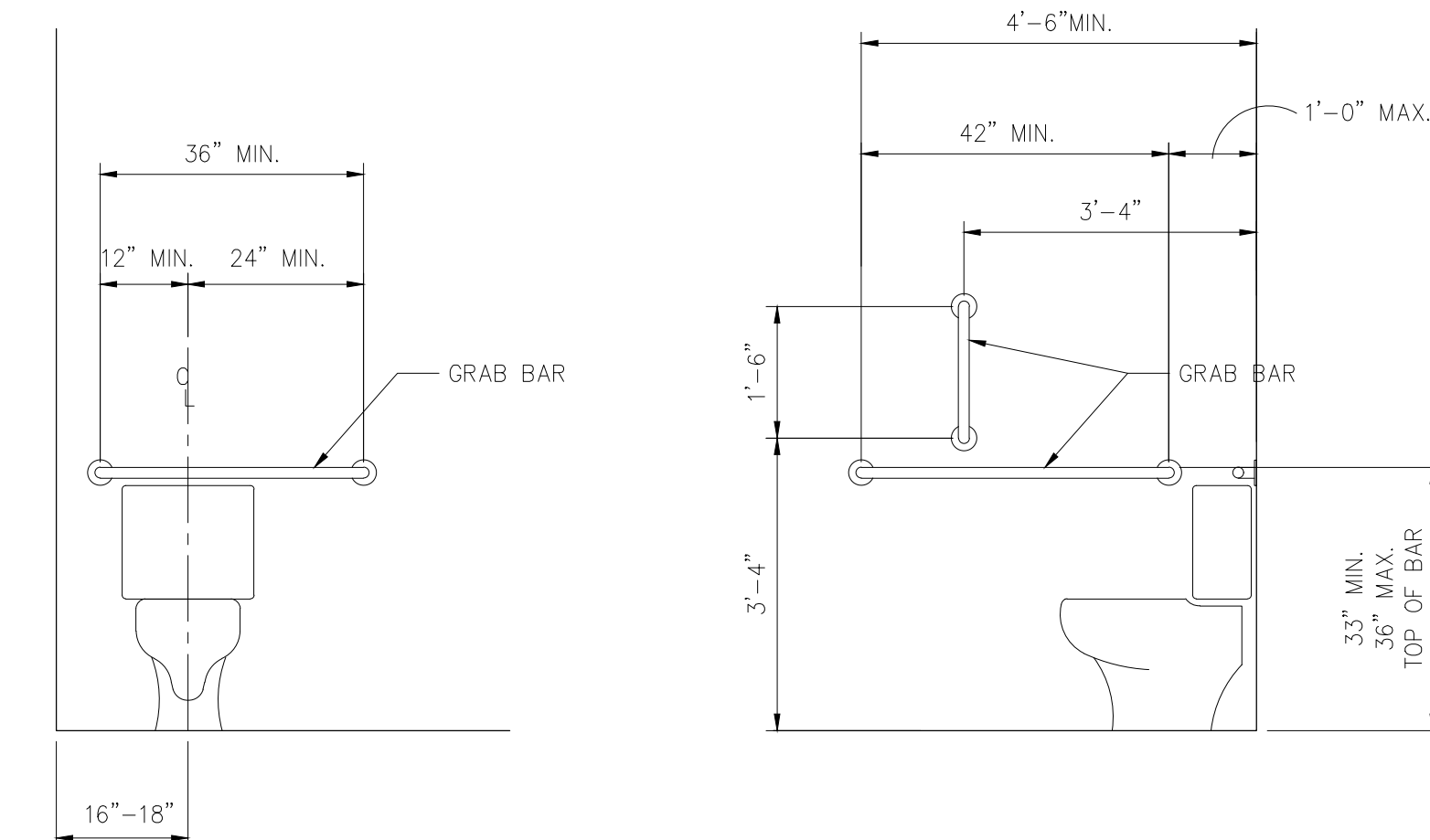
Fig. 1 Mounting Heights for Restroom Accessories.



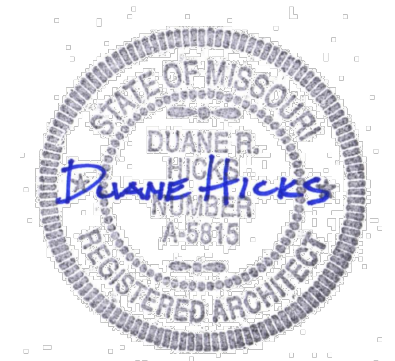
**4 ACCESSORY MOUNTING HEIGHTS**  
scale: None



**3 LAVATORY CLEARANCES**  
scale: 1/2"=1'-0"



**2 GRAB BAR HEIGHTS**  
scale: 1/2"=1'-0"



3-3-2022

SHEET NO.

A103

**TENANT INFILL FOR**  
**LOT 10**  
**I-470**  
**BUSINESS & TECHNOLOGY CENTER**  
**AT**  
**2601 NE**  
**MCBAINE DRIVE**  
**LEE'S SUMMIT**  
**MISSOURI**

DATE: 3/9/2022

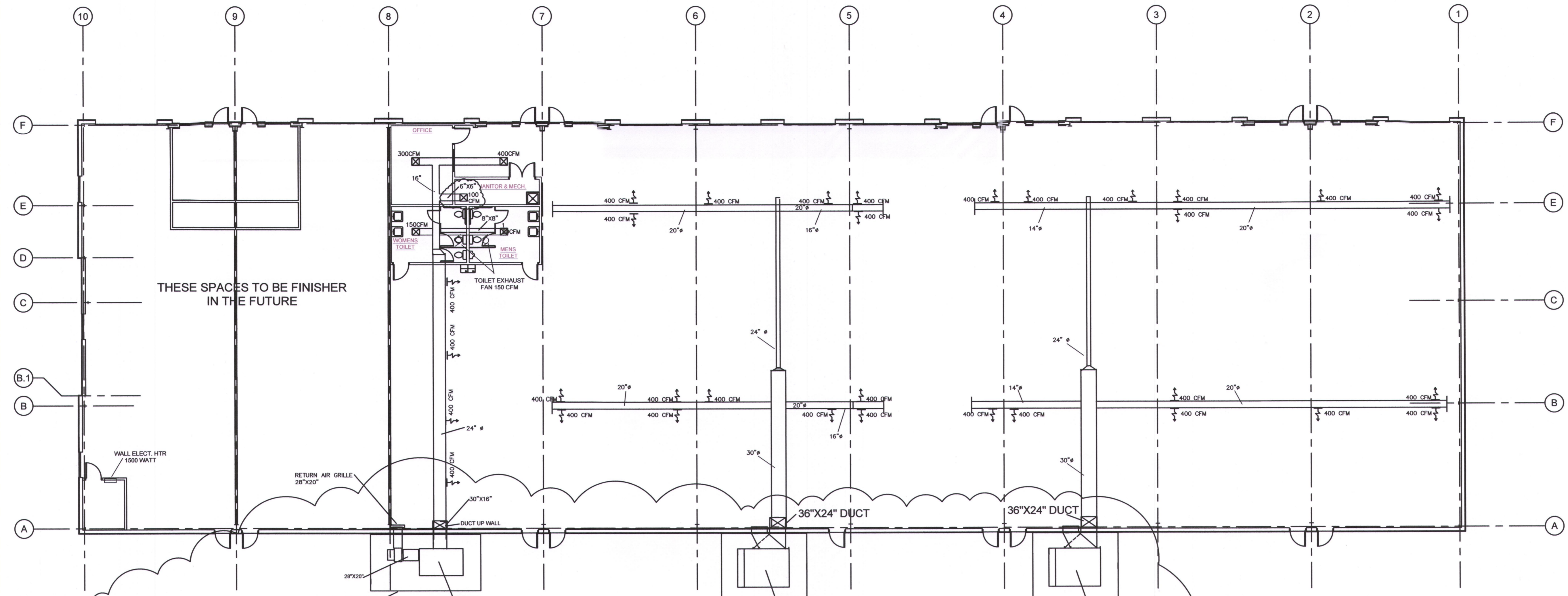
REVISIONS:  
 Δ 4/5/22  
 Δ ADDED DETECTORS & REV AHU'S  
 Δ ADDED HEAT TO JAN.ROOM  
 Δ 4/25/22  
 Δ  
 Δ



3009 ELMIRA CT.  
INDEPENDENCE,  
MISSOURI 64057  
(816) 797-7115



SHEET NO.  
**M101**  
● 2022



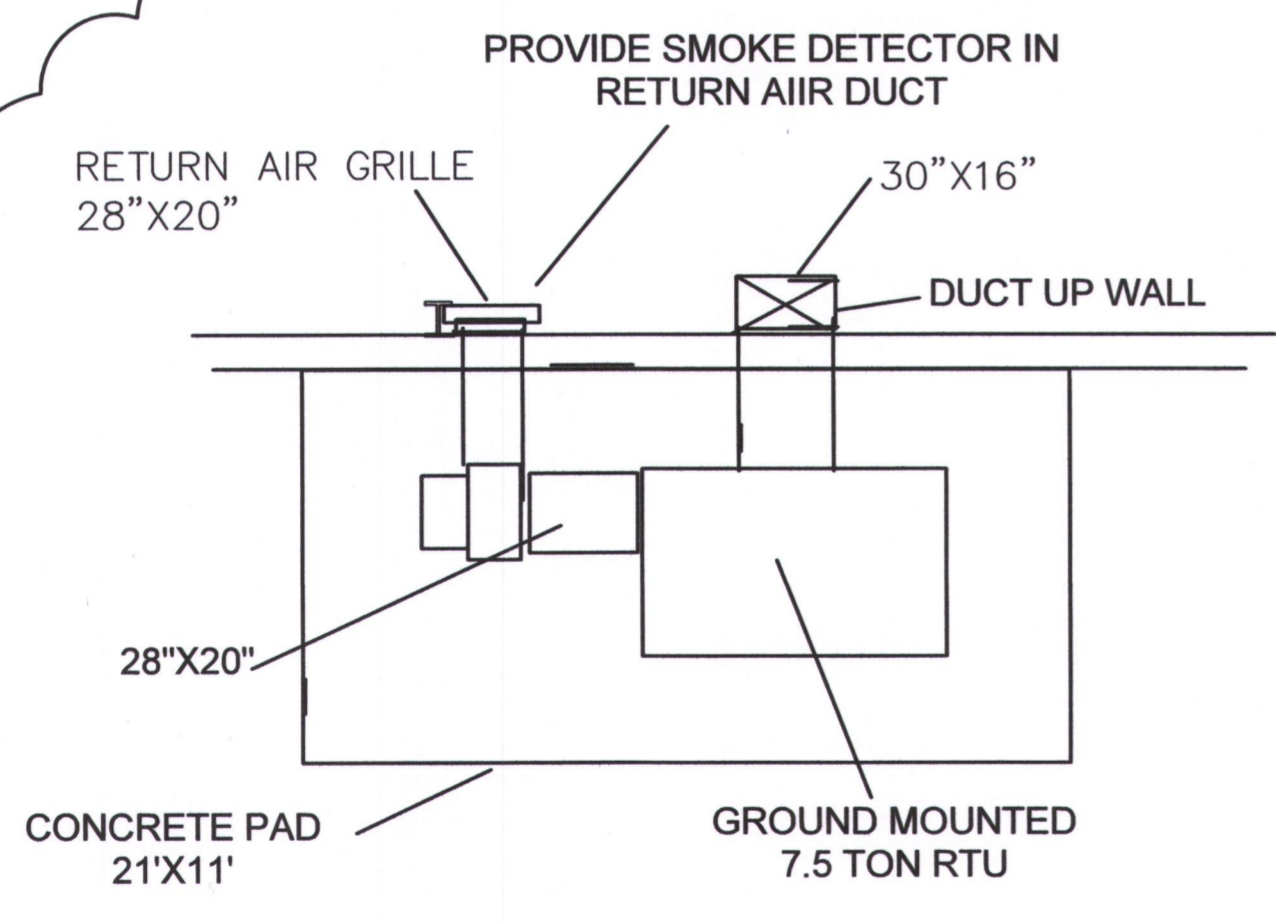
**1 Overall Plan**  
scale: 3/32"=1'-0"  
north

**GAS FIRED MECHANICAL EQUIPMENT SCHEDULE**

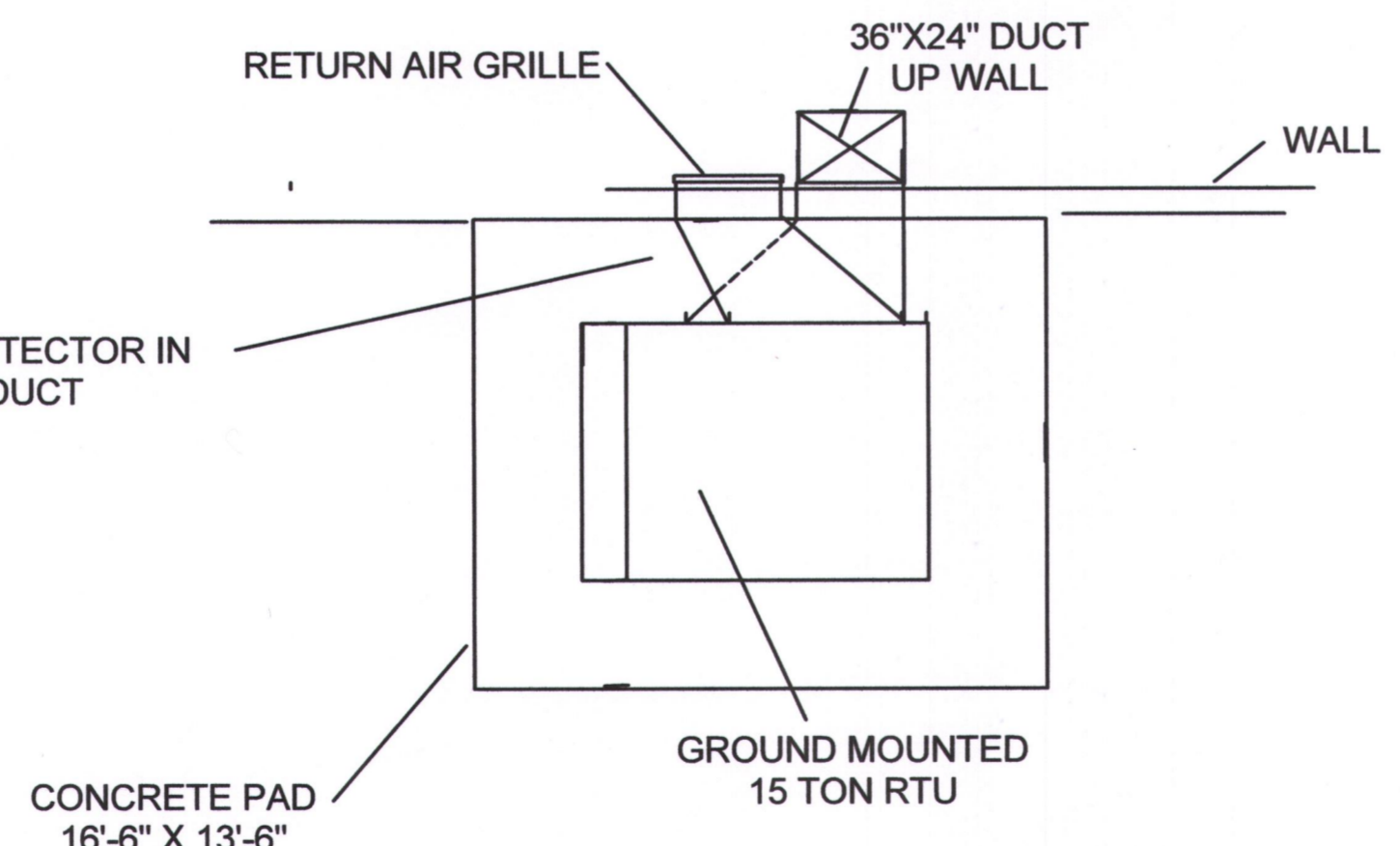
- #1 & #2 RTU-1 & 2 ROOF TOP UNIT SHALL BE A 15 TON FOR ELECTRIC COOLING AND GAS HEAT. WITH SUPPLY FAN, 360 CFH OF GAS INPUT, ECONOMIZER AND AMBIENT KIT. HORIZONTAL AIR FLOW, WITH BASE MANUAL OUTSIDE AIR DAMPER. 6000 CFM 208V, 3Ø, SET OUTSIDE AIR DAMPER FOR REQUIRED AIR PROVIDE REQUIRED SMOKE DETECTOR IN RETURN AIR DUCT WITH WARNING LIGHT. PROVIDE UNIT MOUNTED WP GFCI RECEPTACLE CONN. AHEAD OF UNIT DISCONNECT.
- #3 RTU-3 ROOF TOP UNIT SHALL BE A 7.5 TON FOR ELECTRIC COOLING AND GAS HEAT. WITH SUPPLY FAN, 180 CFH OF GAS INPUT, ECONOMIZER AND AMBIENT KIT. HORIZONTAL AIR FLOW, MANUAL OUTSIDE AIR DAMPER. 3000 CFM 208V, 3Ø, SET OUTSIDE AIR DAMPER FOR REQUIRED AIR PROVIDE REQUIRED SMOKE DETECTOR IN RETURN AIR DUCT WITH WARNING LIGHT. PROVIDE UNIT MOUNTED WP GFCI RECEPTACLE CONN. AHEAD OF UNIT DISCONNECT.
- EF-E EXHAUST FAN - SERVING TOILETS . BROAN #684, 150 CFM, 120V, 1Ø PROVIDE DAMPER AND FLASH WATER TIGHT.

**DIFFUSER & REGISTER SCHEDULE**

MANUF.	MODEL	SIZE	FINISH
SPIRAL DUCT	TITUS	300FL	24"X6" WHITE



**PAD DETAIL FOR 7.5 TON UNIT**

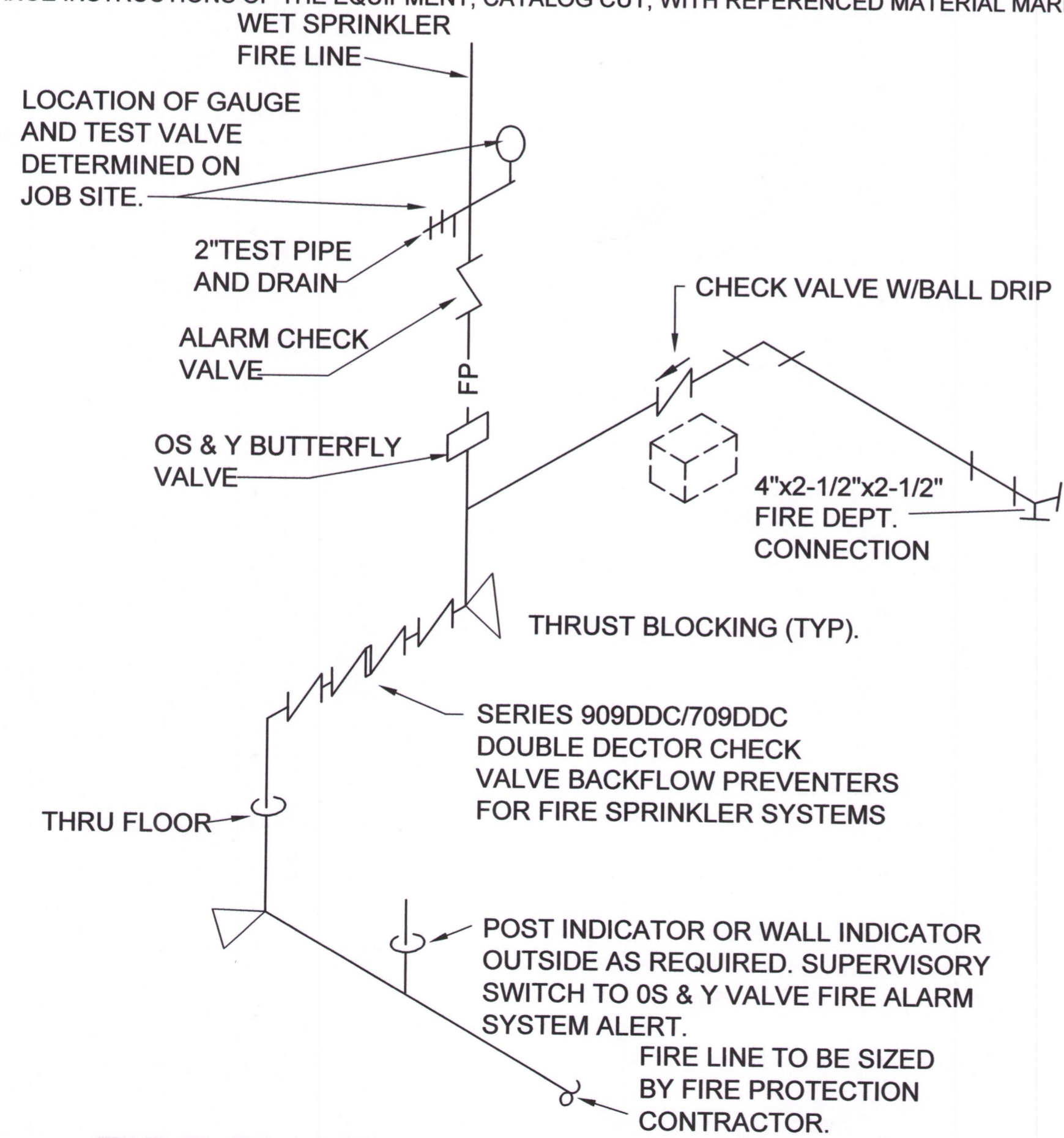


**PAD DETAIL FOR 15 TON UNIT**

THESE SPACES TO BE FINISHER IN THE FUTURE

# FIRE PROTECTION SYSTEM NOTES

1. GENERAL
  - (A) SPRINKLER CONTRACTOR TO PROVIDE COMPLETE "SPRINKLER SYSTEM" FOR FIRE PROTECTION THROUGHOUT THE NEW PROPOSED BUILDING, CONFORMING TO THE REQUIREMENTS OF THE N.F.P.A., STATE AND LOCAL AUTHORITIES, AND INSURANCE INTEREST INVOLVED. BUILDING SHALL HAVE A N.F.P.A. 13 SYSTEM.
  - (B) ALL ITEMS OF EQUIPMENT SHALL BE U.L. APPROVED AND THE INSTALLATION OF PIPING, FITTINGS, VALVES, POST INDICATOR VALVES, SIAMESE CONNECTIONS, ALARM SWITCHES, VALVES AND BELLS, TEST AND DRAIN VALVES GAUGES, AIR VALVES, COMPRESSORS, HANGERS AND SUPPORTS SHALL BE AS RECOMMENDED BY THE N.F.P.A.
  - (C) SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, LAYOUT AND FURNISHING AND INSTALLATION OF THE ENTIRE FIRE PROTECTION SYSTEM. HE SHALL PREPARE ALL DRAWINGS REQUIRED AND RECEIVE APPROVAL FROM STATE AND LOCAL AUTHORITIES AND THE ARCHITECT PRIOR TO STARTING INSTALLATION. CONTRACTOR SHALL ALSO COORDINATE HIS WORK WITH ALL OTHER TRADE INVOLVED ON THE PROJECT IN ORDER TO CLEAR PIPING, LIGHTING AND DUCTWORK. SPRINKLER HEADS TO BE PATTERNED TO SUIT CEILING PANELS.
  - (D) SPRINKLER CONTRACTOR TO SIZE AND INSTALL DUCTILE IRON SERVICE LINE FROM STREET MAIN INTO BUILDING AS SHOWN ON SHEET MP-1, SITE PLAN. VERIFY AND COORDINATE DOMESTIC WATER LINE LOCATIONS, SIZE AND REQUIREMENTS WITH THE PLUMBING CONTRACTOR AND CITY AUTHORITIES. INSTALL CONCRETE BLOCKING AT ALL TEES AND ELBOWS IN UNDERGROUND PIPING.
- NOTE: SERVICE LINE INTO BUILDING MECHANICAL ROOM HAS BEEN SHOWN ON THE DRAWINGS FOR INFORMATIONAL PURPOSES ONLY. ACTUAL INSTALLATION INCLUDING SIAMESE CONNECTIONS, POST OR WALL INDICATOR VALVE, IF REQUIRED SHALL BE AS DIRECTED BY LOCAL AUTHORITY.
- (E) SYSTEM TO BE "WET" TYPE TO PROTECT ALL PORTIONS OF THE BUILDING INCLUDING PORTIONS SUBJECT TO FREEZING TEMPERATURES IF REQUIRED BY LOCAL AUTHORITIES.
  - (F) SPRINKLER HEADS TO BE STANDARD, PENDANT TYPE IN ROOM WITH CEILINGS AND UNFINISHED ROOMS TO HAVE UPRIGHT HEADS. HEADS AND PIPING IN EXPOSED AREAS, SUCH AS VAULTED CEILINGS AND ATRIUMS TO BE APPROVED BY THE ARCHITECT AND OR THE OWNER PRIOR TO BEGINNING ANY INSTALLATION.
  - (G) SPRINKLER CONTRACTOR SHALL APPRAISE THE ELECTRICAL REQUIREMENTS AND THE LOCATIONS OF SUCH REQUIREMENTS. SCHEMATIC LOCATION SHOWN AND INSTALLATION.
  - (H) SYSTEM SHALL BE TESTED IN ACCORDANCE WITH THE N.F.P.A. CODE AND LOCAL CODES. GENERALLY, THE SYSTEM, INCLUDING YARD PIPING, SHALL BE TESTED HYDROSTATICALLY AT NO LESS THAN 200 PSI FOR 2 HOURS. THE TESTS SHALL BE IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE AND OR THE REPRESENTATIVE OF THE INSURANCE INTEREST AND LOCAL AUTHORITY. ALTERATIONS OR REPAIR SHALL BE MADE IMMEDIATELY AND THE SYSTEM RETESTED.
  - (I) IN ALL AREAS WITH CEILINGS, PIPING TO BE INSTALLED ABOVE CEILING UNLESS OTHERWISE DIRECTED BY THE ARCHITECT.
  - (J) FURNISH SEVEN SETS OF SHOP DRAWING MATERIAL, EQUIPMENT AND COMPLETE OPERATIONS AND MAINTENANCE INSTRUCTIONS OF THE EQUIPMENT, CATALOG CUT, WITH REFERENCED MATERIAL MARKED.



**FIRE PROTECTION RISER SCHEMATIC**  
NO SCALE

## GENERAL ELECTRICAL NOTES

1. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH A PULL WIRE.
  2. TELEPHONE/DATA CABLES TO BE 4-PAIR CAT. 5. CABLE TO BE FURNISHED AND INSTALLED BY COMMUNICATIONS CONTR.. ALL CABLING TO BE PLENUM RATED.
  3. ELECTRICAL CONTRACTOR TO INCLUDE GROUND WIRE IN ALL RACEWAYS. SIZE RACEWAYS AS NECESSARY TO COMPLY WITH N.E.C.
  4. REFER TO REFLECTED CEILING PLAN AND DETAILS FOR THE EXACT LOCATION OF ALL LIGHTING FIXTURES AND ANY OTHER EQUIPMENT INSTALLED IN THE CEILING SYSTEM. VERIFY EXACT MOUNTING HEIGHTS AND FINISHES WITH CONSTRUCTION COMPANY PRIOR TO ROUGH-IN.
  5. DUAL LIGHT SWITCH TO BE PROVIDED IN RESTROOMS, ONE FOR FAN VENT, AND ONE FOR LIGHTING.
  6. EMPTY MUD RING W/ CONDUIT AND PULL STRING NEXT TO LIGHT SWITCH FOR SPEAKER CONTROLS
  7. PLYWOOD TELEPHONE BACKERBOARD (4"x4") TO HAVE ROUTED 2" EMPTY CONDUIT BACK TO THE EXISTING TELEPHONE SERVICE ENTRANCE AND 110V OUTLET, FIELD COORDINATE.
  8. THE WORD "PROVIDE" HEREIN SHALL MEAN FURNISH AND INSTALL.
- ### D. ELECTRICAL SPECIFICATIONS
1. THE ENTIRE ELECTRICAL SYSTEM SHALL COMPLY WITH THE FOLLOWING:
    - A. NATIONAL ELECTRICAL CODE AND ANY OTHER APPLICABLE LOCAL CODES.
    - B. ALL FEEDER AND BRANCH CIRCUIT WIRING SHALL BE ALUMINUM OR COPPER
    - C. THE REQUIREMENTS FOR ALL ROOF AND WALL OPENINGS DESCRIBED IN SECTIONS HEREIN.
  2. MATERIALS, PRODUCTS AND EQUIPMENT INCLUDING COMPONENTS THEREOF, SHALL BE NEW AND SUITABLE FOR THE PURPOSE AND SHALL MEET THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE AND OF THE LOCAL AUTHORITIES HAVING JURISDICTION. MATERIALS, PRODUCTS AND EQUIPMENT, INCLUDING COMPONENTS THEREOF, SHALL BE SIZED IN CONFORMITY WITH THE REQUIREMENTS OF OTHER RECOGNIZED STANDARDS, SUCH AS, ASTM, IEEE, IPCEA, NFPA AND NEMA WHERE THE REQUIREMENTS OF SUCH STANDARDS ARE MORE STRINGENT THAN THOSE CITED ABOVE.
  3. ELECTRICAL SERVICE PROVIDED IS 800 AMPS, 120/208VOLT, THREE PHASE, 4 WIRE.
  4. ALL CONDUCTORS SHALL BE ALUMINUM OR COPPER. MINIMUM SIZE SHALL BE #12 FOR POWER WIRING AND #14 FOR CONTROL WIRING. WIRE SHALL BE 600 VOLT INSULATED, NEC TYPE THW, OR THHN/THWN. ALL WIRE SHALL BE RUN IN CONDUIT OR ROMAX. PLASTIC CONDUIT MAY BE USED WHERE ALLOWED BY THE NEC
  5. LIGHTING AND APPLIANCE PANELBOARDS WITHIN THE SPACE, THEY SHALL BE OF THE SINGLE PHASE, THREE WIRE DISTRIBUTED PHASING TYPE. ALL BREAKERS SHALL BE BOLT-ON TYPE. CIRCUITING SHALL BE ARRANGED TO PRESENT, AS NEARLY AS POSSIBLE, AND EVENLY BALANCED LOAD ON ALL PHASES. PANELBOARDS SHALL BE CIRCUIT BREAKER TYPE. ALL CIRCUIT BREAKERS SHALL HAVE INTERRUPTING CAPACITY AT LEAST 10% GREATER THAN THE AVAILABLE FAULT CURRENT AT THE BREAKER LOCATION.
  6. ALL ELECTRICAL WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATING, SERVICING, MAINTAINING AND REPAIRING. ALL CONDUIT SHALL BE CONCEALED WHERE POSSIBLE EXPOSED CONDUIT SHALL BE IN STRAIGHT LINES PARALLEL WITH, OR AT LEAST 3 INCHES FROM WATER LINES WHENEVER THEY RUN ALONGSIDE OR ACROSS SUCH LINES. HANGERS SHALL BE FASTENED TO STEEL, CONCRETE OR MASONRY, BUT NOT TO PIPING. HANGERS AND SUPPORT SYSTEMS ARE AN INTEGRAL PART OF THE VISUAL ENVIRONMENT. ALL HANGERS AND SUPPORTS EXPOSED TO PUBLIC VIEW MUST BE SHOWN IN DETAIL ON PLANS SUBMITTED TO LANDLORD FOR APPROVAL OF APPEARANCE. ALL HANGERS MUST BE UNIFORMLY SPACED AND NEATLY INSTALLED WITH NO EXCESS MATERIAL BEYOND WHAT IS REQUIRED FOR THE SUPPORT FUNCTION. SELECT ACCESSORIES AND HARDWARE WITH A SMOOTH, NEAT FINISHED APPEARANCE. PAINT ALL EXPOSED CONDUIT HANGERS TO MATCH THE ADJACENT FINISHES.
  7. GROUNDING SHALL CONSIST OF COPPER OR ALUMINUM CONDUCTORS IN CONDUIT WITH BOLTED, OR BRAZED CONNECTION TO COLD WATER LINE FOR THE NEUTRAL GROUNDING AND BONDING SHALL COMPLY WITH NEC ARTICLE 250. ALL METALLIC RACEWAYS SHALL BE GROUNDED.
  8. PROVIDE WIRING DEVICES EQUAL TO THE FOLLOWING: TOGGLE SWITCHES LEVITON CAT #1221, RECEPTACLES- LEVITON CAT # 5262, GFCI RECEPTACLES, LEVITON #6699, PROVIDE AN EMPTY CONDUIT SYSTEM FOR THE TELEPHONE SYSTEMS.
  9. EQUIPMENT TO BE APPROVED BY THE LOCAL TELEPHONE COMPANY. COORDINATE ALL CONDUIT REQUIREMENTS AND TERMINATION WITH THE LOCAL SOUTHWESTERN BELL TELEPHONE COMPANY OR OTHER TELEPHONE SYSTEM PROVIDER.
  10. DUPLEX RECEPTACLES AND TELE-COMMUNICATION OUTLETS SHALL BE MOUNTED AT 15" ABOVE FINISH FLOOR UNLESS OTHERWISE NOTED. TOGGLE SWITCHES SHALL MOUNT AT 48" ABOVE FINISH FLOOR. WALL MOUNTED TELEPHONE OUTLETS SHALL BE MOUNTED AT 48" ABOVE FINISH FLOOR.

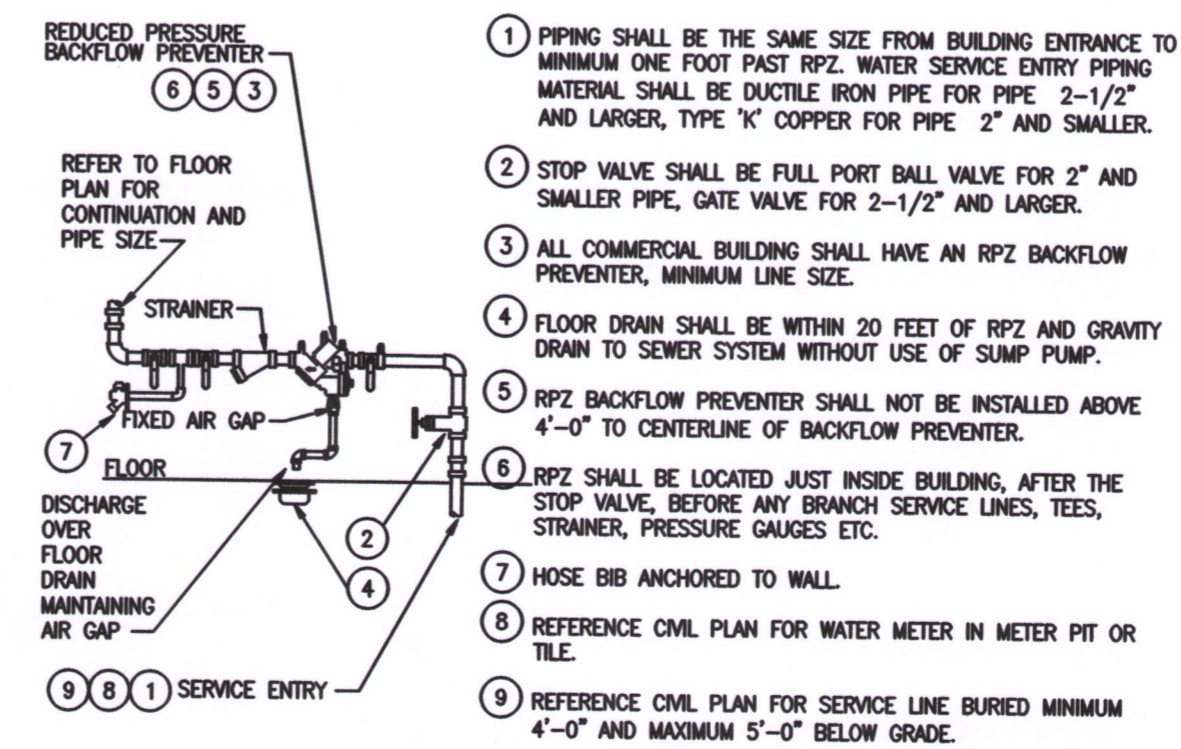
## A. PLUMBING SPECIFICATIONS

1. ALL PLUMBING SYSTEMS MUST BE COMPATIBLE WITH THE TYPE OF MATERIALS USED BY LANDLORD AND SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:
 

DRAINAGE AND VENT PIPE FITTING FOR SHALL BE PVC PLASTIC

WATER PIPING ABOVE GRADE SHALL BE TYPE L COPPER TUBING, SEAMLESS DRAWN, HARD TEMPERED WITH PLAIN ENDS ASTM B88. FITTING SHALL BE WROUGHT, OR CAST, COPPER WITH SOCKET ENDS FOR LEAD FREE SOLDER PEX IS ALLOWED WHERE IT HAS CITY APPROVAL.
2. ALL VALVES FOR DOMESTIC WATER SHALL BE 125 PSI TEST ALL BRONZE LINE SIZE FULL PORT BALL VALVES QUARTER-TURN INSTALLED IN THE PROPER ORIENTATION. BALL VALVES SHALL BE MANUFACTURED BY ONE OF THE FOLLOWING:
  - NIBCO
  - CRANE
  - WATTS

ALL VALVES SHALL BE ACCESSIBLE FOR EASE OF OPERATIONS.
3. PIPE IS TO BE SUPPORTED SECURELY FROM HANGERS AS FOLLOWS:
  - IN AREAS WITH CONCRETE FLAT SLABS AND CONCRETE ON METAL INSERTS, SELF-DRILLING ANCHORS OR POWER-DRIVEN ANCHORS WILL BE ALLOWED.
  - NO PIPE HANGERS WILL BE SUPPORTED FROM THE METAL ROOF DECK. HANGERS SHALL NOT PIERCE PIPING INSULATION VAPOR BARRIER.
  - ALL STEEL HANGERS, RODS, SEAM CLAMPS, ETC., EXPOSED TO PUBLIC VIEW SHALL BE PAINTED TO MATCH ADJACENT FINISH.
  - APPEARANCE AND SPACING OF HANGERS EXPOSED TO PUBLIC VIEW ARE IMPORTANT ASPECTS OF THE FINAL VISUAL ENVIRONMENT, SPECIFIC DETAILS OF SUPPORT METHODS AND LOCATION OF HANGERS MUST BE DEDICATED ON DRAWINGS SUBMITTED TO LANDLORD FOR REVIEW AND ARE SUBJECT TO LANDLORDS APPROVAL. ALL HANGERS MUST BE EVENLY SPACED AND GROUPED AS MUCH AS POSSIBLE WITH SUPPORTS FOR OTHER TRADES TO MINIMIZE VISUAL CLUTTER IN THE UPPER PORTIONS OF ALL SPACES EXPOSED TO PUBLIC VIEW. SUPPORT SYSTEMS MUST BE NEAT AND WORKMANLIKE AND FREE OF EXTRA LENGTH OF SUPPORT RODS BELOW THE SUPPORTED MEMBER/HARDWARE AND ACCESSORIES MUST BE SELECTED WITH A SMOOTH- FINISHED APPEARANCE FOR THE COMPLETED SUPPORT ASSEMBLY. HANGERS EXPOSED TO PUBLIC VIEW SHALL BE OF THE CLEVIS, OR TRAPEZE TYPE, COMPLETE WITH BOLTS, RODS, AND NUTS.
  - MINIMUM HANGER ROD DIAMETER SHALL BE LESS THAN, AND MAXIMUM SPACING OF SUPPORTS FOR STEEL AND COPPER HORIZONTAL PIPING MUST NOT BE GREATER THAN, THE VALUES IN THE LATEST ISSUE OF THE ASHRAE EQUIPMENT HANDBOOK. CAST IRON PIPE MUST BE SUPPORTED AT LEAST EVERY FIVE FEET AND AT EVERY JOINT AND FITTING. CAST IRON PIPE BRANCHES MUST HAVE HANGERS FOUR FOOT ON CENTER MAXIMUM. WHERE REQUIRED TO MEET MINIMUM SPACING OF HANGERS, PLUMBING CONTRACTOR IS RESPONSIBLE FOR INSTALLING ADDITIONAL INTERMEDIATE STRUCTURAL SUPPORTS.
  - PROVIDE CAST BRASS OR CHROME ESCUTCHEONS WITH SET SCREWS, DEEP TYPE, TO COVER SLEEVES OR OF A SIZE TO COVER FITTING PROJECTIONS. PROVIDE ESCUTCHEONS FOR ALL EXPOSED PIPING THROUGH WALLS, FLOORS, AND EXPOSED CEILING.
5. ALL PIPE INSULATION IN AREAS EXPOSED TO PUBLIC VIEW SHALL BE INSTALLED IN THE MOST WORKMANLIKE MANNER AND IS SUBJECT TO THE APPROVAL OF PROJECT DESIGNER FOR APPEARANCE.



ARRANGEMENT SHOWN IS SCHEMATIC. MODIFY TO SUIT MANUFACTURER'S STANDARDS, MEET LOCAL CODE REQUIREMENTS, AND ALL OTHER APPLICABLE CODE REQUIREMENTS. ROUTE ALL DRAINS TO NEARBY FLOOR DRAIN. CLEAN STRAINER BEFORE TURNING BUILDING OVER TO OWNER. PROVIDE ANY REQUIRED CERTIFICATION OF TEST OF BACKFLOW PREVENTER TO LOCAL AUTHORITIES. ALL ITEMS SHALL BE APPROVED FOR DOMESTIC WATER.

**REDUCED PRESSURE ZONE  
BACKFLOW PREVENTER DETAIL**

## B. MECHANICAL SPECIFICATIONS

1. NOISE AND VIBRATION CONTROL. ALL EQUIPMENT INSTALLED BY MECHANICAL CONTRACTOR SHALL BE PROVIDED WITH VIBRATION ISOLATORS, SOUND TRAPS, DUCT LINING, ACOUSTICAL HOUSINGS, ACOUSTICAL LOUVERS, AND OTHER NOISE AND VIBRATION CONTROL APPARATUS REQUIRED TO LIMIT INTRUSION INTO THE ADJACENT SPACES ACCORDINGLY.
  - A. INTRUSIVE NOISE LEVELS IN ADJACENT SPACES SHALL NOT EXCEED NC-40 WHEN MEASURED IN THESE SPACES.
  - B. TENANT EQUIPMENT NOISE EMITTED TO THE EXTERIOR SHALL NOT EXCEED 55 DBA IN ANY OCCUPIED EXTERIOR SPACES.
  - C. MECHANICAL CONTRACTOR SHALL PROVIDE VIBRATION ISOLATION OF DUCTWORK, PIPING AND EQUIPMENT IN ACCORDANCE WITH PRACTICES DESCRIBED IN THE LATEST ASHRAE HANDBOOK SO THAT THE MEASUREMENTS MADE IN ADJACENT SPACES DO NOT EXCEED 5 DECIBELS.
2. FIELD CONDITIONS MAY VARY FROM THOSE SHOWN ON THE DRAWINGS. THE MECHANICAL CONTRACTOR IS REQUIRED TO VISIT THE SITE AND VERIFY FIELD CONDITIONS WHICH MAY AFFECT THE DESIGN AND INSTALLATION BEFORE SUBMITTING A BID.
3. ALL ROOF PENETRATIONS SHALL BE BY LANDLORDS APPROVED ROOF CONTRACTOR ONLY.
 

ALL OPENINGS THROUGH STRUCTURALLY SUPPORTED SLABS MUST BE CORE BORED, SLEEVED, GROUTED, SEALED AND MADE WATERPROOF. SLEEVES, EXCEPT FOR WATER CLOSETS, MUST EXTEND AT LEAST TWO INCHES (2) ABOVE THE FINISHED FLOOR. LOCATION OF ALL FLOOR OPENINGS MUST BE APPROVED BY THE LANDLORD IN WRITING. WATERPROOFING MUST BE INSPECTED AND APPROVED BY THE LANDLORD BEFORE ANY FLOOR MATERIAL IS INSTALLED. MECHANICAL CONTRACTOR IS RESPONSIBLE TO TAKE WHATEVER MEASURES ARE NECESSARY INCLUDING, BUT NOT LIMITED TO, THOSE MEASURES PRESCRIBED BY LANDLORD IN THE EXERCISE OF ITS REASONABLE JUDGEMENT TO ASSURE THAT CORE BORING WILL NOT DAMAGE THE LANDLORDS STRUCTURE, CONDUITS, ETC. THE COST OF SUCH TESTS OR REPAIR OF ANY DAMAGE WILL BE BORNE BY THE MECHANICAL CONTRACTOR.

## C. HVAC SPECIFICATIONS

1. WHERE ANY HVAC UNITS, DUCTWORK AND/OR DIFFUSERS, OR OUTLETS ARE PROVIDED BY MECHANICAL CONTRACTOR, M.C. SHALL ENGAGE THE SERVICES OF A CERTIFIED AIR BALANCE CONTRACTOR TO ADJUST AND COMPLETELY BALANCE GENERAL CONTRACTORS PORTION OF THE SYSTEM TO DESIGN AIR AND CHILLED WATER QUANTITIES. GENERAL CONTRACTOR SHALL PROVIDE TO LANDLORD A COPY OF THE CERTIFIED BALANCE REPORT SHOWING DESIGN AND MEASURED QUANTITIES, STATIC PRESSURE, FAN MOTOR RPM, MOTOR CURRENT AND EXHAUST QUANTITIES.
2. CONSTRUCTION OF ALL DUCTWORK SHALL BE FABRICATED FROM GALVANIZED SHEET STEEL IN ACCORDANCE WITH THE BEST RECOMMENDED PRACTICES OF THE AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR CONDITIONING ENGINEERS (ASHRAE) AND IN STRICT COMPLIANCE WITH ALL THE APPLICABLE STANDARDS OF THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATIONS (SMACNA) LATEST EDITIONS. BRANCHES FROM THE MAIN LOW VELOCITY TRUNK DUCTWORK SHALL BE FURNISHED WITH SPLITTER DAMPERS OR SIMILAR BALANCE DEVICES IN THE LATEST STANDARDS OF THE ASSOCIATED AIR BALANCE COUNCIL. ACCESS PANELS ARE REQUIRED FOR THESE DEVICES IN THE CEILINGS.
3. DUCT INSULATION: ALL SUPPLY AND RETURN AIR DUCTWORK SHALL BE INSULATED WITH A MINIMUM R-5 VALUE GLASS FIBER INSULATION WITH FOIL VAPOR BARRIER, EXCEPT THOSE PORTIONS WHICH ARE LINED FOR ACOUSTICAL PURPOSES, (USE 2" MINIMUM LINER) AND SUPPLY AIR DUCTWORK WITHIN AIR CONDITIONED SPACES (NOT RETURN AIR PLUNUMS.)
4. AIR DISTRIBUTION DEVICES: AIR DISTRIBUTION DEVICES SHALL BE GRILLES OR CEILING DIFFUSERS INSTALLED AS REQUIRED TO ACHIEVE DRAFT FREE DISTRIBUTION IN ACCORDANCE WITH GOOD ENGINEERING PRACTICE. DIFFUSERS OR GRILLES SHALL HAVE LOCKABLE, INDIVIDUAL MANUAL VOLUME CONTROL DEVICES.
5. PIPING SYSTEMS: ALL PIPING SYSTEMS MUST BE COMPATIBLE WITH THE TYPE OF MATERIALS USED BY THE LANDLORD AND SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS: PIPE SUPPORTS AND VALVES SHALL BE AS SPECIFIED UNDER PLUMBING SPECIFICATIONS UNLESS OTHERWISE NOTED.
6. PIPING SUPPORTS AND VALVES SHALL BE SPECIFIED UNDER PLUMBING SPECIFICATIONS UNLESS OTHERWISE NOTED.

TENANT INFILL FOR

LOT 10 I-470 BUSINESS & TECHNOLOGY CENTER

AT 2601 NE MCBAIN DRIVE LEE'S SUMMIT MISSOURI

DATE: 3/9/2022

REVISIONS:

- △
- △
- △
- △
- △



ARCHITECTURAL SERVICES  
Robert J. Shirk, Jr. - Principal / Project Mgr.

3009 ELMIRA CT.  
INDEPENDENCE,  
MISSOURI 64057  
(816) 797-7115

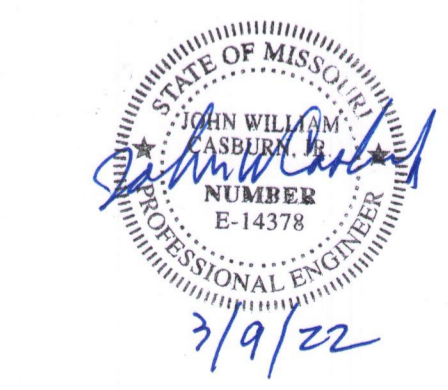
METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATIONS (SMACNA) LATEST EDITIONS. BRANCHES FROM THE MAIN LOW VELOCITY TRUNK DUCTWORK SHALL BE FURNISHED WITH SPLITTER DAMPERS OR SIMILAR BALANCE DEVICES IN THE LATEST STANDARDS OF THE ASSOCIATED AIR BALANCE COUNCIL. ACCESS PANELS ARE REQUIRED FOR THESE DEVICES IN THE CEILINGS.

DUCT INSULATION: ALL SUPPLY AND RETURN AIR DUCTWORK SHALL BE INSULATED WITH A MINIMUM R-5 VALUE GLASS FIBER INSULATION WITH FOIL VAPOR BARRIER, EXCEPT THOSE PORTIONS WHICH ARE LINED FOR ACOUSTICAL PURPOSES, (USE 2" MINIMUM LINER) AND SUPPLY AIR DUCTWORK WITHIN AIR CONDITIONED SPACES (NOT RETURN AIR PLUNUMS.)

AIR DISTRIBUTION DEVICES: AIR DISTRIBUTION DEVICES SHALL BE GRILLES OR CEILING DIFFUSERS INSTALLED AS REQUIRED TO ACHIEVE DRAFT FREE DISTRIBUTION IN ACCORDANCE WITH GOOD ENGINEERING PRACTICE. DIFFUSERS OR GRILLES SHALL HAVE LOCKABLE, INDIVIDUAL MANUAL VOLUME CONTROL DEVICES.

PIPING SYSTEMS: ALL PIPING SYSTEMS MUST BE COMPATIBLE WITH THE TYPE OF MATERIALS USED BY THE LANDLORD AND SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS: PIPE SUPPORTS AND VALVES SHALL BE AS SPECIFIED UNDER PLUMBING SPECIFICATIONS UNLESS OTHERWISE NOTED.

PIPING SUPPORTS AND VALVES SHALL BE SPECIFIED UNDER PLUMBING SPECIFICATIONS UNLESS OTHERWISE NOTED.



SHEET NO.

MEP 101



SCHEDULE OF PIPE AND FITTING MATERIAL

SERVICE	MATERIAL	JOINTS	FITTINGS	NOTES
ROOF DRAINS	SERVICE WEIGHT CAST IRON (CI)			
CONDENSATE DRAINS	COPPER "M" HARD	SOLDERED OD BRAZED	WROUGHT COPPER OR CAST BRONZE	①
VENTS AND WASTE LINES (ABOVE GROUND)	SERVICE WEIGHT CAST IRON (CI) (PVC WHEN APPROVED BY CITY)	LEAD OR TYSEAL	CAST IRON-PVC APPROVED	①
SOIL LINES (BELOW GROUND) - UNDER SLAB	CAST IRON (CI) (PVC WHEN APPROVED BY CITY)	LEAD OR TYSEAL	CAST IRON-PVC APPROVED	②
REFRIGERANT AND DOMESTIC WATER PIPE - (BELOW GROUND) SMALLER THAN 3"	COPPER "K" SOFT DRAWN	SOLDERED OR BRAZED	WROUGHT COPPER OR CAST BRONZE	⑥ ⑦
DOMESTIC WATER 3" AND LARGER	DUCTILE IRON	MECHANICAL		
DOMESTIC WATER PIPE (ABOVE GROUND)	COPPER "L" HARD ASTM C-200	SOLDERED OR BRAZED	WROUGHT COPPER OR CAST BRONZE	⑦
SEWER LINE PIPING (BELOW GROUND) NOT UNDER SLAB	PVC	ASTM C-425	ASTM C-200	① ②
GAS PIPE (BELOW GROUND)	SCHEDULE 40, BLACK STEEL-X-TRUE COATED AND WRAPPED	CAST IRON	CAST IRON MALLEABLE IRON	③ ④
GAS PIPE (ABOVE GROUND)	SCHEDULE 40 BLACK STEEL	SCREWED	CAST IRON MALLEABLE IRON	③ ⑤

NOTES

- PVC OR ABS SCHEDULE 40, SOLVENT WELDED JOINTS MAY BE USED ONLY WITH WRITTEN AUTHORIZATION OF APPROVAL BY LOCAL INSPECTING AUTHORITY SUBMITTED BELOW TO ARCHITECT AND ENGINEER PRIOR TO BIDDING. CONDITIONS OF NOTE 2 BELOW. SCR-35 SANITARY PIPE WHEN APPROVED.
- NO PVC OR ABS TO BE USED IN TYPE II CONSTRUCTION, THROUGH OR IN RETURN AIR PLENUMS, IN CITIES WHERE SUCH MATERIAL IS NOT ACCEPTABLE, OR BELOW BUILDING SLAB OR DRIVEWAY SURFACES.
- SCREWED GAS CONNECTION FOR 2" AND SMALLER; WELDED CONNECTION FOR 2" AND LARGER, AND IN RETURN AIR PLENUMS.
- THREADS AND WELDS PAINTED PRIOR TO WRAPPING. ALL EXTERIOR PIPING (ESPECIALLY ON ROOF) TO BE PAINTED (COLOR BY ARCHITECT) TO MATCH ADJACENT SURFACE. PROVIDE CATHODIC UNDERGROUND PROTECTION ON GAS PIPING AS RECOMMENDED BY LOCAL GAS SERVICE (FOR GOVERNING AUTHORITY)
- CONNECT ALL GAS TO EQUIPMENT THROUGH GAS COCK, UNION AND DIRT LEG.
- NO WATER FITTINGS OR CONNECTIONS BELOW FLOOR SLAB. MAKE GRADUAL BEND OR RADIUS.
- PROVIDE WATER HAMMER ARRESTORS PRIOR TO CONNECTION OF HOT/COLD WATER LINES TO PLUMBING FIXTURES. COLD WATER LINES TO PLUMBING FIXTURES. ALL POTABLE WATER SYSTEMS SOLDERING TO BE 95/5, TIN/ANTIMONIAL OR UL, BOCA, UPC APPROVAL FOR SUBSTITUTION.

PIPING INSULATION SCHEDULE

PIPE SYSTEM	INSULATION	THICKNESS	TEMP.
REFRIGERANT SUCTION		1/2"	-20°F TO 70°F
DOMESTIC HOT & COLD HORIZONTAL MAINS ONLY		1/2"	-20°F TO 70°F
HANDICAP "P" TRAP & HOT WATER UNDER LAVATORY'S		1/2"	-20°F TO 70°F

NOTE: ALL HORIZONTAL HOT & COLD WATER MAINS ARE TO BE INSULATED. VERTICAL MAINS AS NOTED OR SHOWN ON PLANS.

INSULATE UNCONDITIONED AND UNCONDITIONAL SPACES.

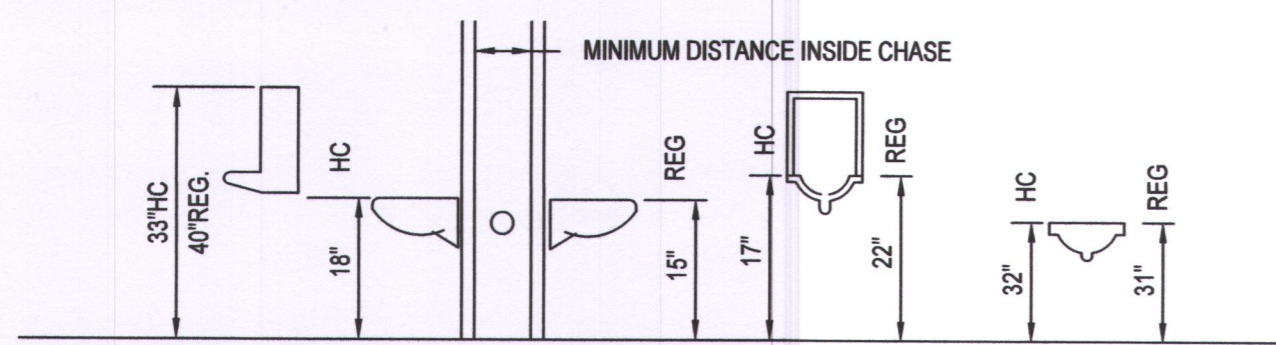
\*\* FLEXIBLE UNICELLULAR (UP THRU 2") UNICELLULAR ELASTOMERIC CLOSED CELL INSULATION, 0.27 BTU-INH-SF THERMAL CONDUCTANCE AT 75°F, 3% MAXIMUM WATER ABSORPTION BY WEIGHT. ARMSTRONG AP ARMAFLEX OR RUBATEX.

PLUMBING CONNECTION/MOUNT.


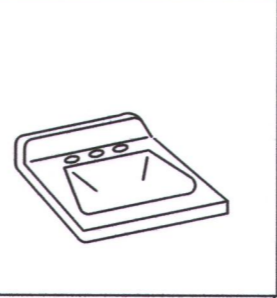

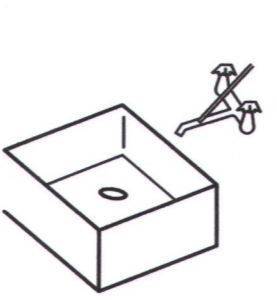
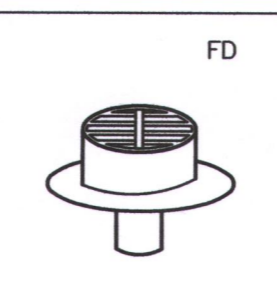
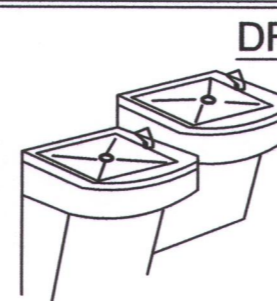
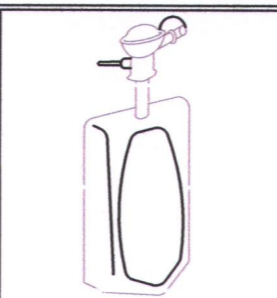
FIXTURE	HOT WATER	COLD WATER	WASTE	VENT
LAVATORY OR SINK	1/2"	1/2"	1-1/2"	1-1/2"
WATER CLOSET, TANK TYPE		1/2"	4"	3"
URINALS		3/4"	2"	1-1/2"
DRINKING FOUNTAINS		1/2"	1-1/4"	1-1/4"

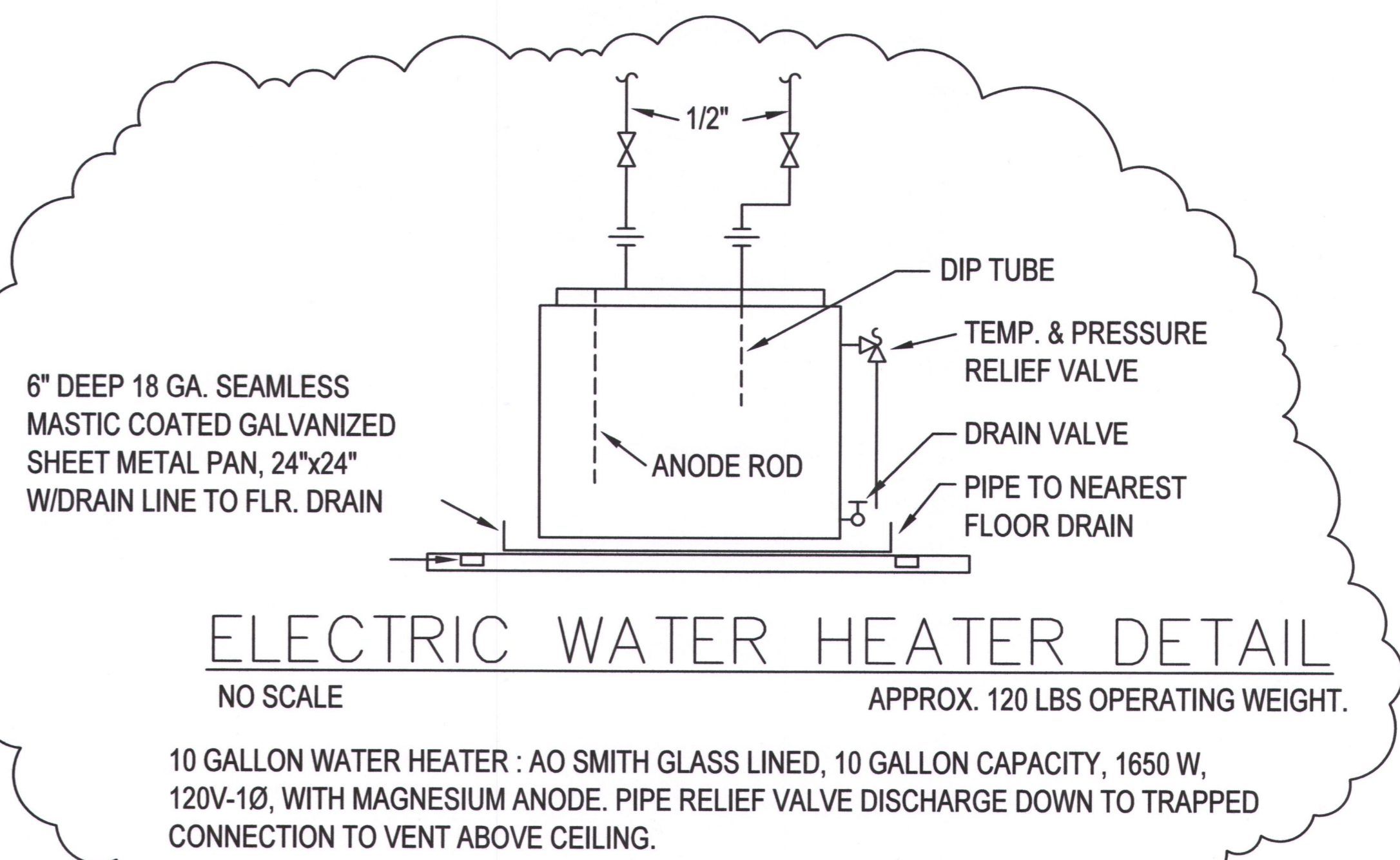
FIXTURE	MOUNTING HEIGHT
LAVATORY OR SINK	31" FLOOR TO RIM
HANDICAPPED LAVATORIES	34" FLOOR TO RIM
WATER CLOSET	15" FLOOR RIM
HANDICAPPED WATER CLOSET	18" FLOOR TO RIM
STANDARD URINALS	22" FLOOR TO RIM
HANDICAPPED URINALS	17" FLOOR TO RIM
HANDICAPPED DRINKING FOUNTAIN	35" FLOOR TO RIM, 27" KNEE SPACE

PLUMBING CONTRACTOR TO REFERENCE PLUMBING FLOOR PLANS AND DETAIL SHEET AND SPECIFICATIONS FOR SPECIFIC FIXTURE IDENTIFICATION USED.



PLUMBING FIXTURE SCHEDULE

	<b>HWC</b> WATER CLOSET - GERBER, AQUA SAVER 21-702 ROUND VITREOUS CHINA, ELONGATED FLOOR OUTLET, SIPHON JET ACTION, TANK TYPE TOILET WHITE, SOLID PLASTIC - KOHLER #K4716 OPEN FRONT SEAT LESS COVER. PROVIDE FLEXIBLE SUPPLY PIPE WITH WHEEL HANDLE STOP. 1/2", 4"WASTE, 2"VENT. HWC - HANDICAPPED WC GERBER, AQUA SAVER 21-718, 18" A.F.F. TO RIM, KOHLER K-4712 SEAT
	<b>BATHMASTER</b> - BF7404-00 WINTHROP 20 X 18 WALL HUNG, 4" CENTERSET FAUCET, INCLUDE STRAINER, OR EQUAL FAUCET: DELTA 2567 - LPH H22, A22 CHROME, OR EQUAL
	<b>WH</b> WALL HYDRANT - EXTERIOR WOODFORD #65 NON-FREEZE HYDRANT W/VACUUM BREAKER AND AUTOMATIC DRAIN OR EQUAL. 3/4" CW.
	<b>JANITOR SINK</b> - WILLIAMS MODEL MTB-24"x24" FLOOR MOUNTED BASIN W/AMERICAN STANDARD 8341.075 FAUCET WITH VACUUM BREAKER. INCLUDE VINYL BUMPER FOR EXPOSED SIDE & PROVIDE P-TRAP FOR DRAIN. 1/2" H & CW, 3"WASTE, 2"VENT.
	<b>FD</b> FLOOR DRAIN - JOSAM 32000 CAST IRON, ROUND 7" NIKOLLOY MEDIUM DUTY LOOSE SET ANTI-TILTING GRATE. SIZE TO SUIT PIPE SIZE AS SHOWN ON DWG. OR EQUAL.
	<b>DF</b> DRINKING FOUNTAIN - HALSEY TAYLOR #HACBFSBL-QADA BARRIER FREE COOLER, 120V, 1Ø, 4 AMP. 1/2" CW, 1 1/2" WASTE, 1 1/4" VENT
	<b>URINAL</b> - AMERICAN STANDARD #6400.014 VITREOUS CHINA WATER SAVER (1.5 GALLONS PER FLUSH) URINAL W/INTEGRAL SPREADER FLOOR MOUNTED WISLOAN ROYAL 186 FLUSH VALVE, STRAINER TOP SPUD. 1/2" CW, 2"WASTE, 1-1/2" VENT.



TENANT INFILL FOR  
LOT 10  
I-470  
BUSINESS & TECHNOLOGY CENTER  
AT  
2601 NE MCBAIN DRIVE  
LEE'S SUMMIT MISSOURI

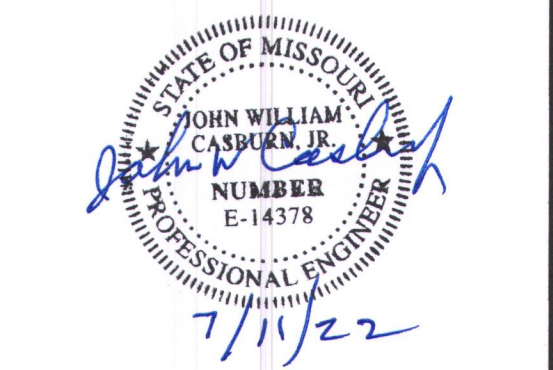
DATE: 3/9/2022

REVISIONS:  
3/21/22 ASSES WATER HAMMER & COMBAIR  
7/11/22 REV WTR HTR



ARCHITECTURAL SERVICES  
Robert J. Shirk Jr. - Principal / Project Mgr.

3009 ELMIRA CT.  
INDEPENDENCE,  
MISSOURI 64057  
(816) 797-7115



SHEET NO.  
P102

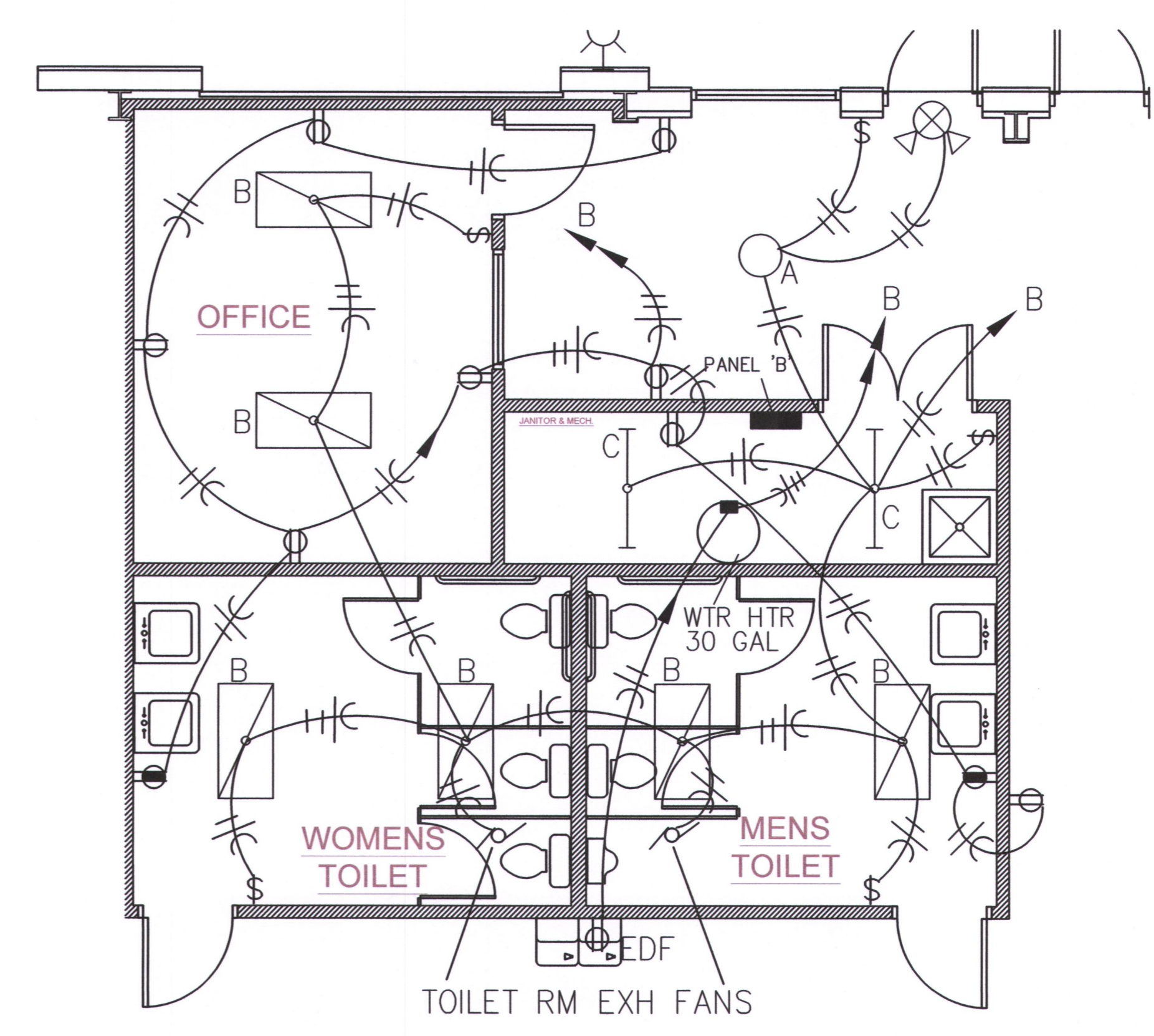
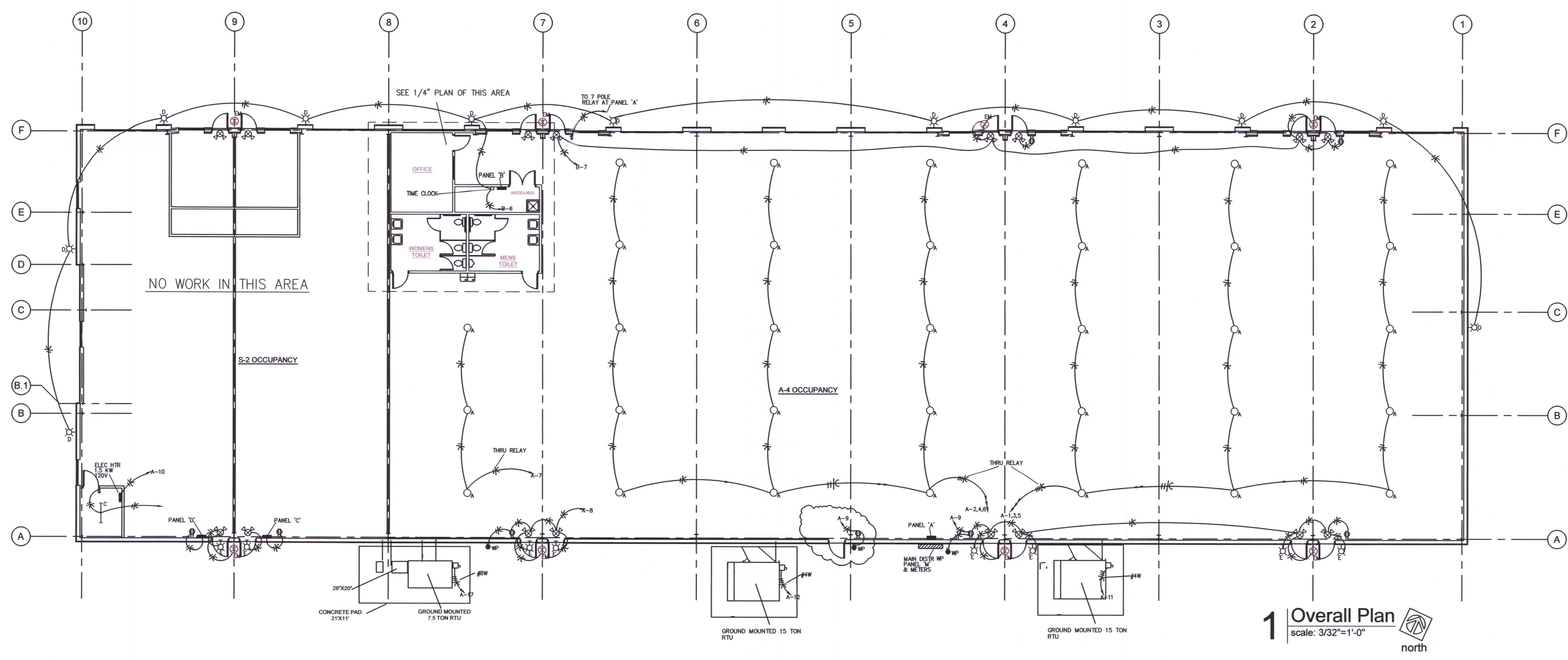
TENANT INFILL FOR  
LOT 10  
I-470  
BUSINESS & TECHNOLOGY CENTER  
AT  
2601 NE MCBAIN DRIVE  
LEE'S SUMMIT MISSOURI

DATE: 3/9/2022

REVISIONS:  
 ▲ REV RTU'S  
 4/5/22  
 ▲  
 ▲  
 ▲

**SBC**  
 ARCHITECTURAL SERVICES  
 Robert J. Shirk Jr. - Principal / Project Mgr.

3009 ELMIRA CT.  
 INDEPENDENCE, MISSOURI 64057  
 (816) 797-7115



STATE OF MISSOURI  
 JOHN WILLIAM  
 CARROLL  
 NUMBER  
 E-14378  
 PROFESSIONAL ENGINEER  
 4/5/22

SHEET NO.  
**E101**



PANEL B MOUNTING SURFACE BUS 100A MAIN MLO TYPE BOLT-ON							
LOCATION		WAREHOUSE		VOLT 120/208		3 Ø 4 WIRE	
CKT. NO.	DESCRIPTION	BKR.	CKT. V.A.	CKT. V.A.	BKR.	DESCRIPTION	CKT. NO.
1	LIGHTING	20	800	500	20	WTR HTR	2
3	RECEPTS	20	1600	800	20	EDF	4
5	RECEPTS	20	800	1200	20	LIGHTING	6
7	LIGHTING	20	800		20	SPARE	8
9	SPARE	20			20	SPARE	10
11	SPARE	20			20	SPARE	12
13	SPARE	20			20	SPARE	14
15	SPACE				20	SPARE	16
17	SPACE				20	SPARE	18
19	SPACE					SPACE	20
21	SPACE					SPACE	22
23	SPACE					SPACE	24
25	SPACE					SPACE	26
27	SPACE					SPACE	28
29	SPACE					SPACE	30
			6500	TOTAL VOLT AMPS		18 AMPS	

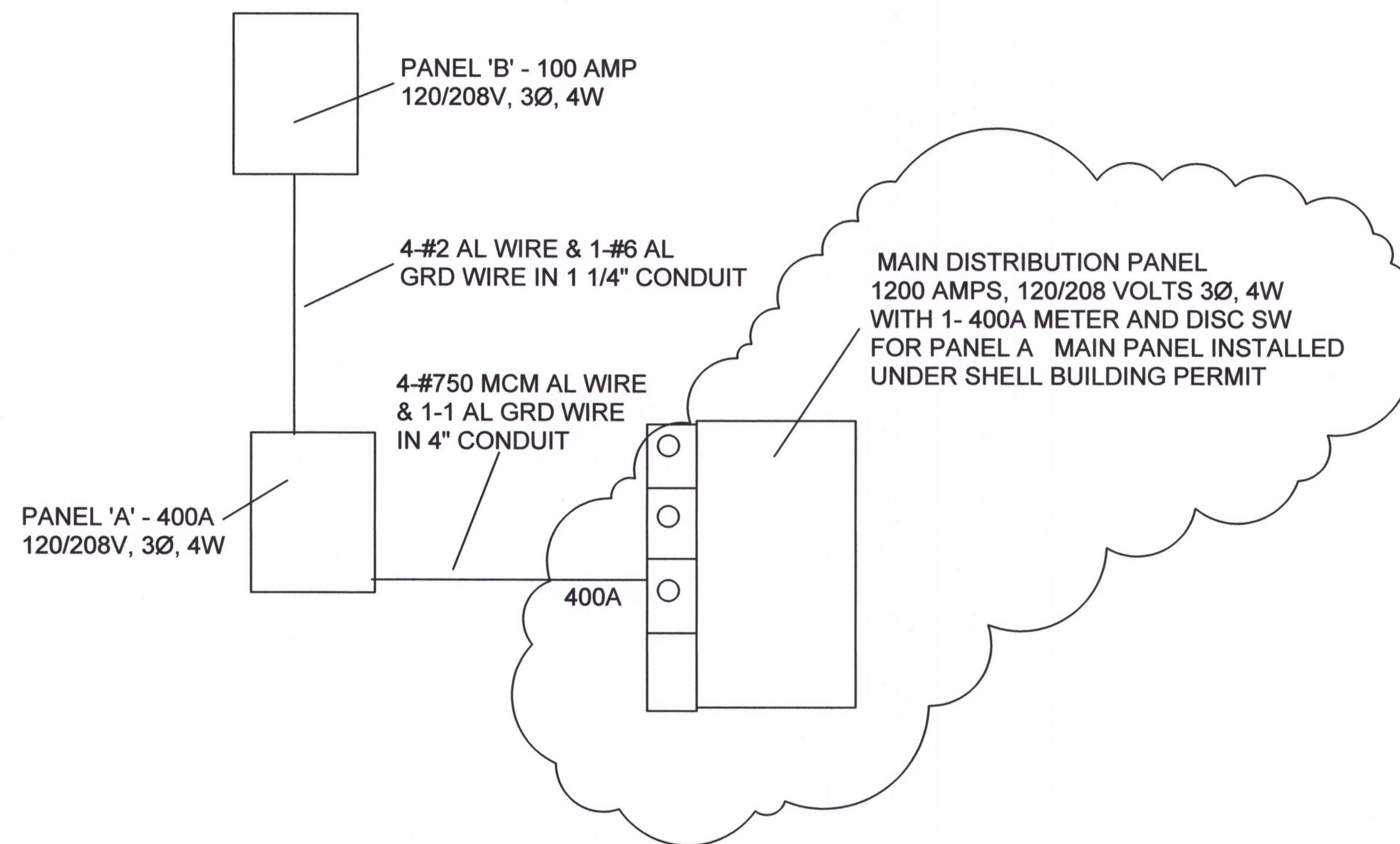
PANEL A MOUNTING SURFACE BUS 400A MAIN MLO TYPE BOLT-ON							
LOCATION		WAREHOUSE		VOLT 120/208		3 Ø 4 WIRE	
CKT. NO.	DESCRIPTION	BKR.	CKT. V.A.	CKT. V.A.	BKR.	DESCRIPTION	CKT. NO.
1	LIGHTING	20	1075	1075	20	LIGHTING	2
3	LIGHTING	20	1075	1075	20	LIGHTING	4
5	LIGHTING	20	1075	1075	20	LIGHTING	6
7	LIGHTING	20	1075	500	20	LIGHTING	8
9	LIGHTING	20	500	1500	20	WALL HTR	10
11	RTU-15TON	70/3	22000	22000	70/3	RTU-15TON	12
13							14
15							16
17	RTU-7.5 TON	50/3	14000	6500	100/3	PANEL B	18
19							20
21							22
23	SPARE	20			20	SPARE	24
25	SPARE	20			20	SPARE	26
27	SPARE				20	SPARE	28
29	SPARE				20	SPARE	30
31	SPARE				20	SPARE	32
33	SPARE				20	SPARE	34
35	SPACE					SPACE	36
37	SPACE					SPACE	38
39	SPACE					SPACE	40
41	SPACE					SPACE	42
			74525	TOTAL VOLT AMPS		207 AMPS	

SYMBOLS & LEGEND	
\$	SINGLE POLE SWITCH, MOUNTED AT 46" O.C. A.F.F. UNLESS OTHERWISE NOTED.
\$2	TWO POLE SWITCH, MOUNTED AT 46" O.C. A.F.F. UNLESS OTHERWISE NOTED.
\$3	THREE-WAY SWITCH, MOUNTED AT 46" O.C. A.F.F. UNLESS OTHERWISE NOTED.
\$4	FOUR-WAY SWITCH, MOUNTED AT 46" O.C. A.F.F. UNLESS OTHERWISE NOTED.
EL	EMERGENCY LIGHTING, MOUNTED AT 7'-6" A.F.F. UNLESS OTHERWISE NOTED.
GR	GFCI RECEPTACLE, MOUNTED AT 18" O.C. A.F.F. UNLESS OTHERWISE NOTED.
DR	DUPLEX RECEPTACLE, MOUNTED AT 18" O.C. A.F.F. UNLESS OTHERWISE NOTED.
QR	QUADRAPLEX RECEPTACLES, MOUNTED AT 18" O.C. A.F.F. UNLESS OTHERWISE NOTED.
VO	VOICE OUTLET, MOUNTED AT 18" O.C. A.F.F. WITH 3/4" CONDUIT TO ABOVE CEILING.
JB	JUNCTION BOX
M	MOTION SENSOR WALL SWITCH
FR	FLOOR MOUNTED RECEPTACLE
CD	COMBINATION DISCONNECT AND STARTER
OS	WALL MOUNTED OCCUPANCY SWITCH
EF	EXHAUST FAN
PB	PANELBOARD
WP	WEATHERPROOF
ALL SYMBOLS NOT NECESSARILY REFERENCED ON PLAN	

**TENANT INFILL FOR**  
**LOT 10 I-470 BUSINESS & TECHNOLOGY CENTER**  
**AT**  
**2601 NE MCBAIN DRIVE LEE'S SUMMIT MISSOURI**

DATE: 3/9/2022

**REVISIONS:**  
 Δ REV RTU'S 4/5/22  
 Δ  
 Δ  
 Δ



**ELECTRICAL RISER DIAGRAM**

ESTIMATED AVAILABLE FAULT CURRENT IS 58077 AMPS  
 EQUIPMENT SHALL BE RATED 65,000 AMPS

**LIGHT FIXTURE SCHEDULE**

- A LED HIGH BAY FIXTURE LITHONIA #JEBL 30000 LM, 50K, 80CRI, PFL, PCLR 50K 215 W., 120V, WGX WIRE GUARD
- B LITHONIA #2TL4X 72L FWA19 E21LP40, 67 WATTS 2'X4', 7200 LUMENS, 4000K, #19 LENS
- C LED STRIP LIGHT, 4' LONG
- D LITHONIA WEDGE LIGHT #WDGE3, 59 WATT, 4000K LED, #2 PACKAGE
- E SIMILAR TO TYPE D EXCEPT WITH A "PE" PHOTOCELL
- EM COMBO EXIT/ EMERGENCY LIGHT LITHONIA #LHQM LED RHO PROVIDE WIRE PROTECTIVE COVER OVER FIXTURE IN PLAY AREA
- EL EMERGENCY LIGHT LITHONIA #ELM2 LED
- EM EXTERIOR EMERGENCY LIGHT MOUNTED NEXT TO DOOR AND CONNECTED TO COMBO EXIT/ EMERGENCY FIXTURE LITHONIA #ELMRW SP640L DDBTXD SGL INSTALL ON EXTERIOR IF NONE ARE PRESENTLY INSTALLED ON BUILDING EXTERIOR.

STATE OF MISSOURI  
 JOHN WILLIAM CASBERG, JR.  
 PROFESSIONAL ENGINEER  
 NUMBER E-14378  
 4/5/22

SHEET NO.  
**E102**