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Dockside Investments

TENANT IMPROVEMENT

SHEET TITLE:
GENERAL
INFORMATION

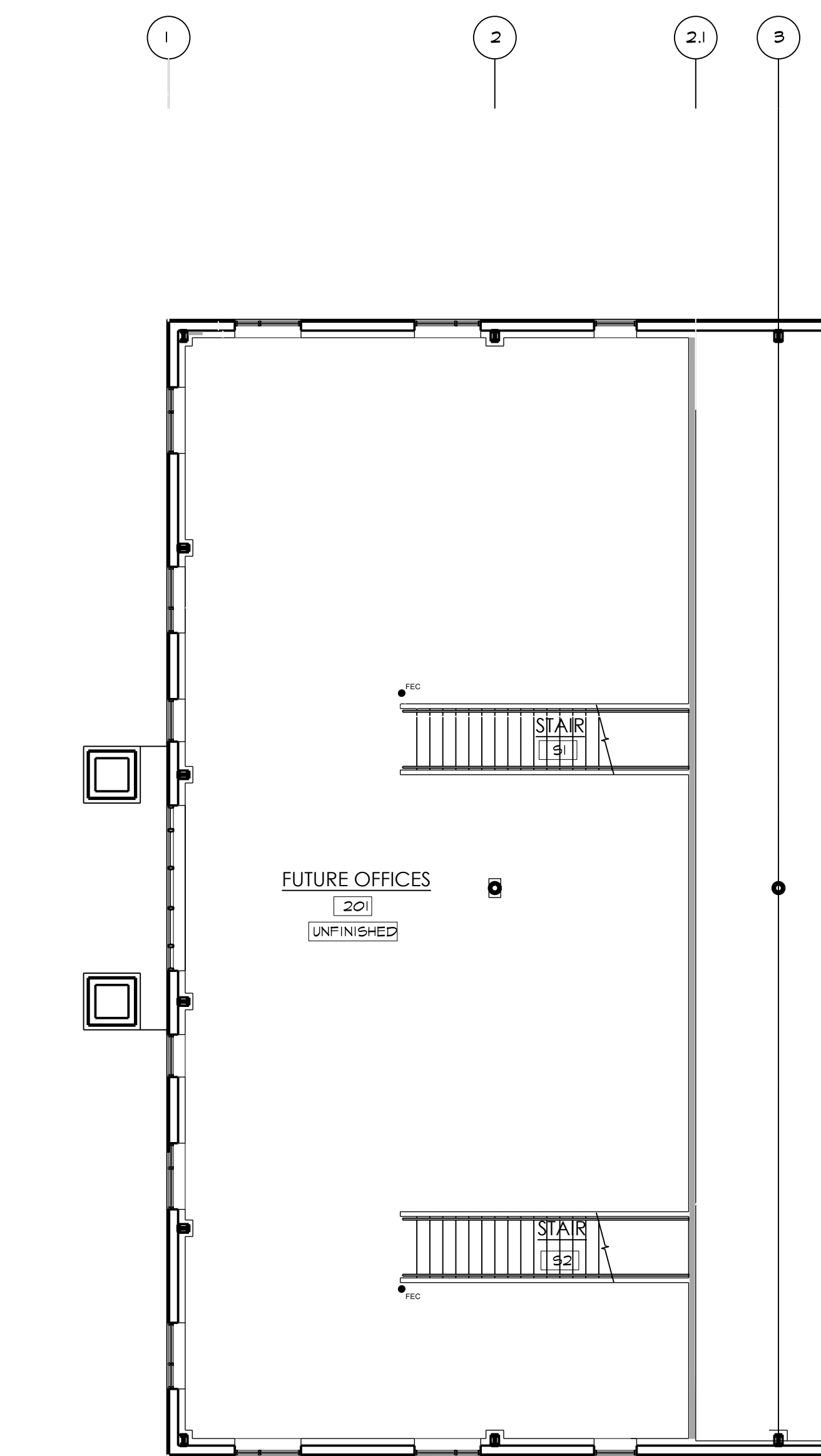
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PROJECT NO: 031.22

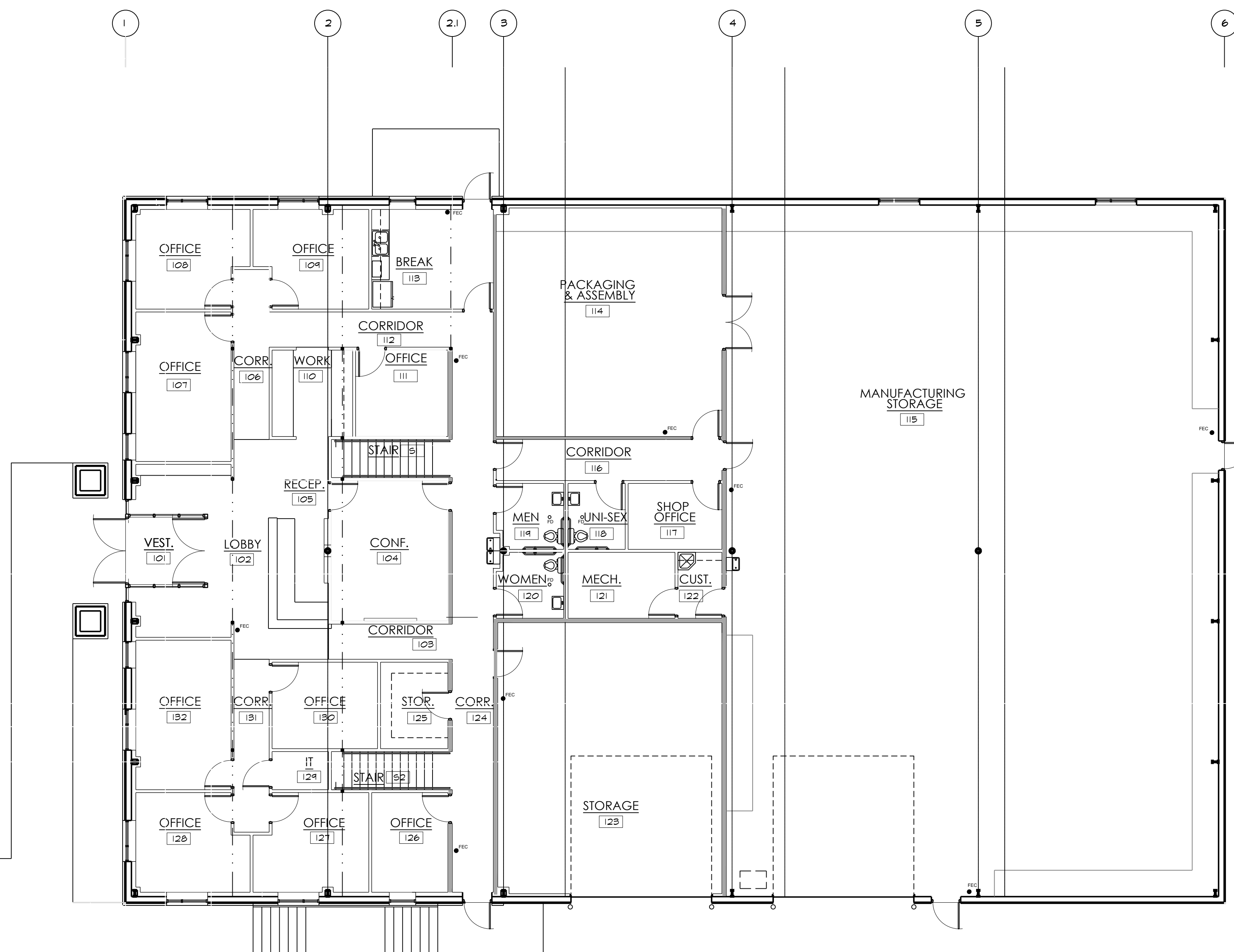
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G1



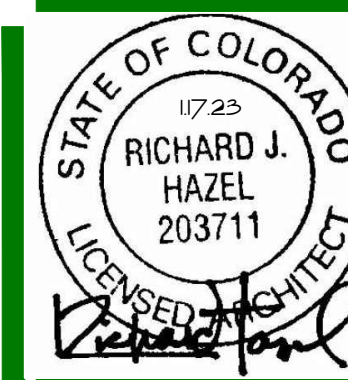
Harris Constructors, Inc.



AS-BUILT UPPER LEVEL FLOOR PLAN
 SCALE: 1/8" = 1'-0"
 2,890 G.S.F.



AS-BUILT MAIN LEVEL FLOOR PLAN
 SCALE: 1/8" = 1'-0"
 10,000 G.S.F.



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Dockside Investments
 TENANT IMPROVEMENT

SHEET TITLE:
 LIFE SAFETY PLAN

REVISION BLOCK:	DATE:	BY:	CHK:
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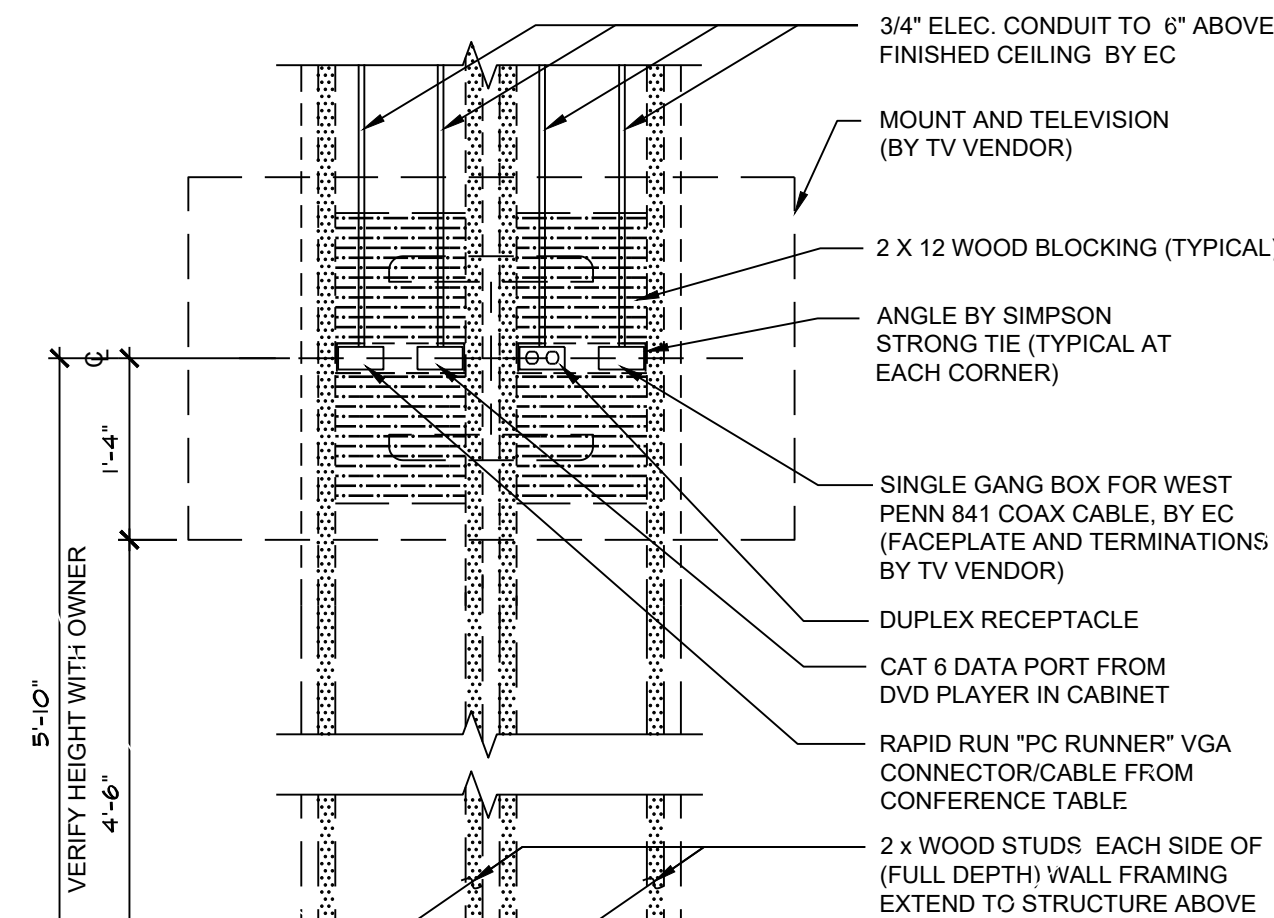
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PLAN GENERAL NOTES

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STATE AND LOCAL CODES AND AGENCIES HAVING JURISDICTION. THE GENERAL CONTRACTOR AND RESPECTIVE SUB-CONTRACTORS ARE RESPONSIBLE IN SATISFYING THESE CODES AND CALLING FOR ALL NECESSARY INSPECTIONS.
- THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS AND REPORT ALL DISCREPANCIES TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK. DO NOT SCALE DRAWINGS. CONTACT ARCHITECT FOR CLARIFICATIONS IN THE EVENT OF ANY DISCREPANCY IN THE CONSTRUCTION DOCUMENTS OR ANY AMBIGUITY OF ARCHITECTURAL INTENT.
- CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL PROVIDE ALL LABOR MATERIALS AND EXPERTISE NECESSARY TO COMPLETE THE WORK AS SHOWN OR IMPLIED BY THESE CONSTRUCTION DOCUMENTS.
- IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND ALL OF THEIR SUB-CONTRACTORS TO REVIEW THE COMPLETE SET OF CONSTRUCTION DOCUMENTS AND SPECIFICATIONS AND IN NO WAY JUST REVIEW PORTIONS OF THE DRAWING SET AS IT RELATES TO THEIR TRADE OR SCOPE OF WORK. NO EXTRAS WILL BE ALLOWED FOR WORK SHOWN ON CONSULTANT DRAWINGS.
- THE LARGEST SCALE DRAWINGS SHALL GOVERN OVER ALL OTHER DRAWINGS.
- ALL REQUIRED CLEAR DIMENSIONS SHALL BE VERIFIED PRIOR TO CONSTRUCTION AND MEET ALL APPLICABLE CODES AT CORRIDORS, HALLWAYS, RESTROOM FIXTURE GROUND SPACE CLEARANCES AND DOOR MANEUVERING CLEARANCES.
- ALL INTERIOR DIMENSIONS ARE TAKEN FROM FACE OF STUD. WALLS SHOWN ON PLAN DO NOT INCLUDE ANY FINISH MATERIAL THICKNESS.
- UNLESS DIMENSIONED OTHERWISE, DOOR LOCATIONS SHALL BE 4" FROM FINISH WALL TO EDGE OF DOOR OPENING.
- PROVIDE BLOCKING IN WALL PER MANUFACTURES RECOMMENDATIONS FOR ALL WALL MOUNTED EQUIPMENT, ACCESSORIES, AND CASEWORK. FOLLOW ALL RECOMMENDED INSTALLATION PROCEDURES OF THE MANUFACTURER FOR THEIR SPECIFIC PRODUCTS. FIELD VERIFY ALL DIMENSIONS AND CONDITIONS.
- PREP ALL FLOORS AS NECESSARY TO RECEIVE NEW FLOOR FINISHES.
- VERIFY ALL APPLIANCE AND EQUIPMENT SIZES WITH OWNER AND LOCATIONS PRIOR TO INSTALLING ANY CASEWORK.
- ALL CABINETS, COUNTERS, SHELVES ARE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS NOTED OTHERWISE. VERIFY WITH THE OWNER.
- COORDINATE ALL DUCT, FLUE AND VENT PENETRATIONS WITH MECHANICAL CONTRACTOR.
- PAINT ALL EXPOSED CONDUIT, DUCTWORK, PIPING, ETC. IN ALL FINISH SPACES TO MATCH ADJACENT SURFACES.
- CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- PROVIDE PRODUCTS OR MATERIAL SHOWN OR AN EQUIVALENT PRODUCT OR MATERIAL APPROVED IN ADVANCE BY ARCHITECT OR OWNER.
- THE GENERAL CONTRACTOR SHALL CLEAN UP SITE AFTER WORK EACH DAY AND AT THE COMPLETION OF WORK.
- THROUGHOUT THE WORK, CAULK AND SEAL ALL JOINTS AS REQUIRED TO PROVIDE A POSITIVE BARRIER AGAINST PASSAGE OF AIR AND MOISTURE.
- CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CONSTRUCTION ACTIVITIES AS WELL AS SCHEDULING AND COORDINATING PROJECT PHASING WITH OWNER.
- ALL FURNITURE, APPLIANCES, AND EQUIPMENT IS FURNISHED BY OWNER AND INSTALLED BY THE CONTRACTOR. CONTRACTOR TO VERIFY WITH OWNER.
- PROVIDE SOUND BLANKETS IN ALL INTERNAL WALL STUD CAVITY LOCATIONS. FILL ENTIRE WALL CAVITY. REFER TO SOUND TRANSMISSION CLASS SCHEDULE.
- PROVIDE VERTICAL CONTROL JOINTS 20 FEET MAXIMUM IN GYP. BD. WALLS AND CEILINGS.
- SAFETY GLAZING IS REQUIRED AT ALL DOORS AND SIDELIGHTS, AND ANY OTHER LOCATIONS AS REQUIRED BY CODE.
- THE LOCATION OF FIRE DEPARTMENT CONNECTIONS AND FIRE EXTINGUISHERS, AND CABINETS SHALL BE APPROVED BY THE BUILDING OFFICIAL OR FIRE DEPARTMENT HAVING JURISDICTION.
- ALL INTERIOR STUD PARTITIONS NOT INDICATED TO BE FULL HEIGHT SHALL EXTEND A MINIMUM OF 4" ABOVE THE FINISHED CEILING. THE TOP STEEL RUNNERS SHALL BE CONTINUOUS. PROVIDE 45 DEG. STUD STRUT BRACING TO THE STRUCTURE ABOVE AT ALL DOOR OPENINGS ABOVE BOTH JAMBS AND AT 15'-0" O.C. MAX. UNLESS A CROSS WALL OCCURS AT 15'-0" MAX.



LCD TV WALL MOUNT DETAIL
SCALE: 3/4" = 1'-0"

CEILING GENERAL NOTES

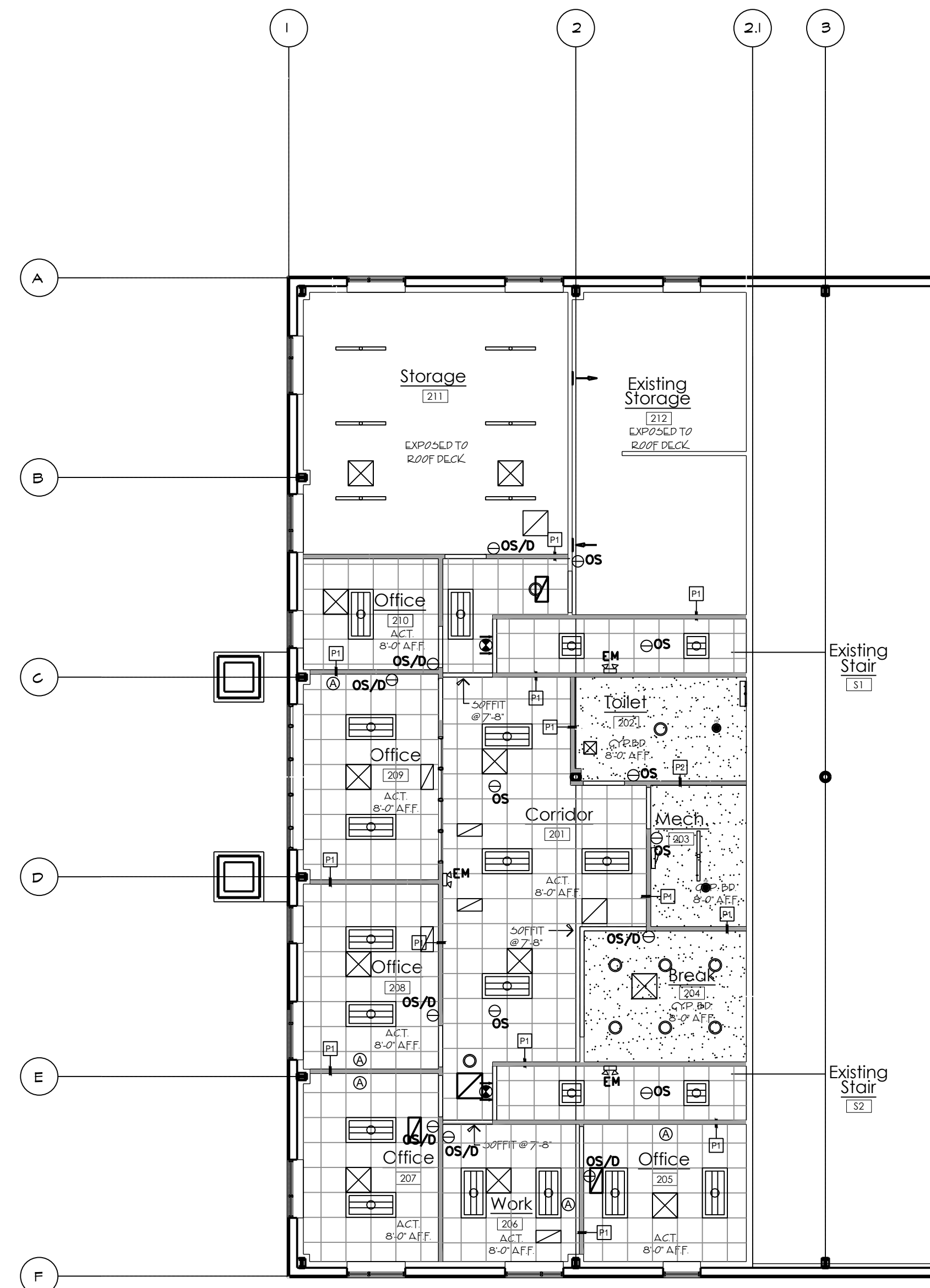
- VERIFY ALL MATERIALS, FINISHES, AND COLORS WITH OWNER.
- PROVIDE SAT CEILINGS AT HEIGHTS INDICATED ON REFLECTED CEILING PLANS AND SCHEDULE.
- ALL GYP BOARD CEILINGS ARE 5/8" TYPE X. SEE HEIGHTS INDICATED ON REFLECTED CEILING PLAN AND SCHEDULE.
- CONTRACTOR TO VERIFY IN FIELD IF DESIGNATED CEILING HEIGHTS IN ROOMS ARE POSSIBLE. IF NOT, MAXIMIZE CEILING HEIGHTS AND NOTIFY ARCHITECT OR PROJECT MANAGER IMMEDIATELY.
- CEILING HVAC CONTRACTOR TO LOCATE ALL CEILING DIFFUSERS AND COORDINATE WITH ELECTRICAL CONTRACTOR, AS REQUIRED.
- ELECTRICAL CONTRACTOR TO LOCATE ALL LIGHT FIXTURES AS SHOWN ON ELECTRICAL DRAWINGS.
- SUSPENDED CEILING SYSTEM TO BE 2'x2'x5/8" LAY-IN ACOUSTICAL TILE STANDARD GRID.
- TV VENDOR TO BE SELECTED BY OWNER. OWNER TO VERIFY IF ANY TVS WILL BE REQUIRED.
- ALL GYP. BD. CEILINGS TO BE PAINTED, MATCH ADJACENT WALL PAINT COLOR, UNLESS OTHERWISE NOTED BY OWNER.
- PROVIDE PERIMETER GYP. BD. SOFFIT AT CONFERENCE ROOM.

DRAWING LEGEND

EXISTING PARTITION WALL	QVB SOFFIT	XXX ROOM TAG
NEW FRAMED PARTITION WALL	2'x2' SAT. CEILING	XXX DOOR TAG
PARTITION TYPE SYMBOL. SEE WALL PARTITION DETAILS	(A) ACCENT PAINTED WALL / SOFFIT (ALSO REFER TO INT. ELEV.)	(V) WINDOW TAG
	FIRE EXTINGUISHER CABINET OR PER FIRE DEPT. LOCATION	CG CORNER GUARD

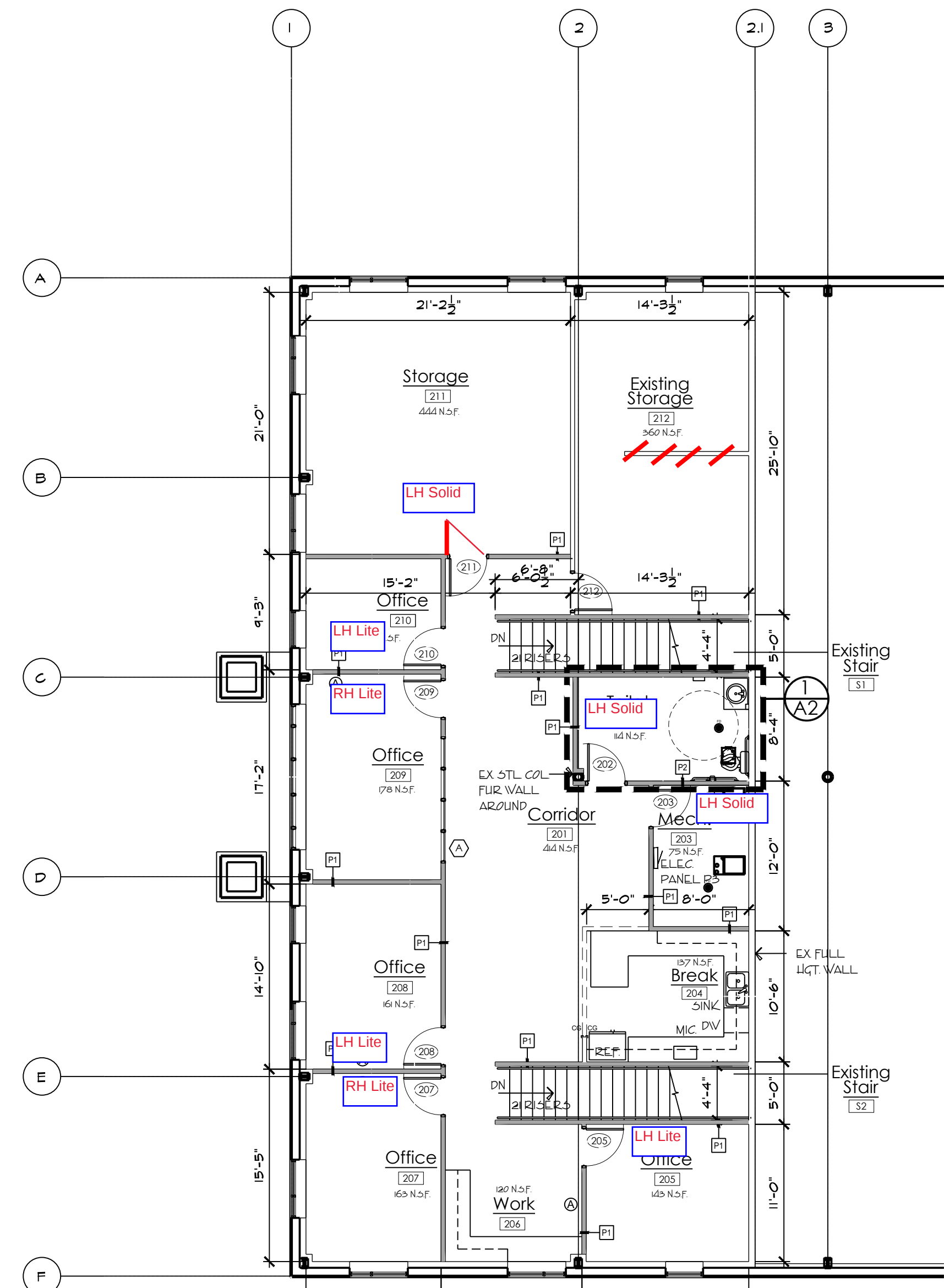
SOUND TRANSMISSION CLASS

STC-50	FOR WALLS ADJACENT TO CORRIDORS, OFFICE OR CONFERENCE ROOMS
STC-53	FOR WALLS ADJACENT TO TOILET ROOMS



UPPER LEVEL REFLECTED CEILING PLAN

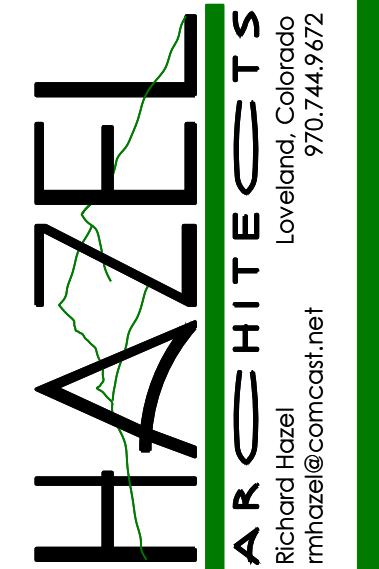
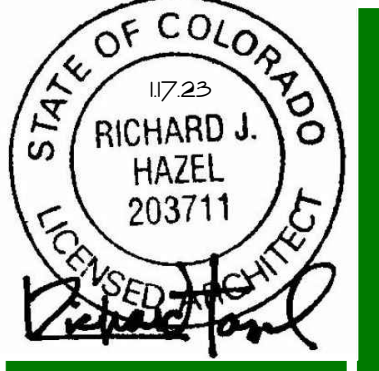
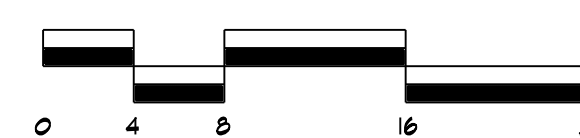
SCALE: 1/8" = 1'-0"



UPPER LEVEL FLOOR PLAN

SCALE: 1/8" = 1'-0"

2,890 G.S.F.



Dockside Investments
TENANT IMPROVEMENT

SHEET TITLE:
FLOOR PLAN

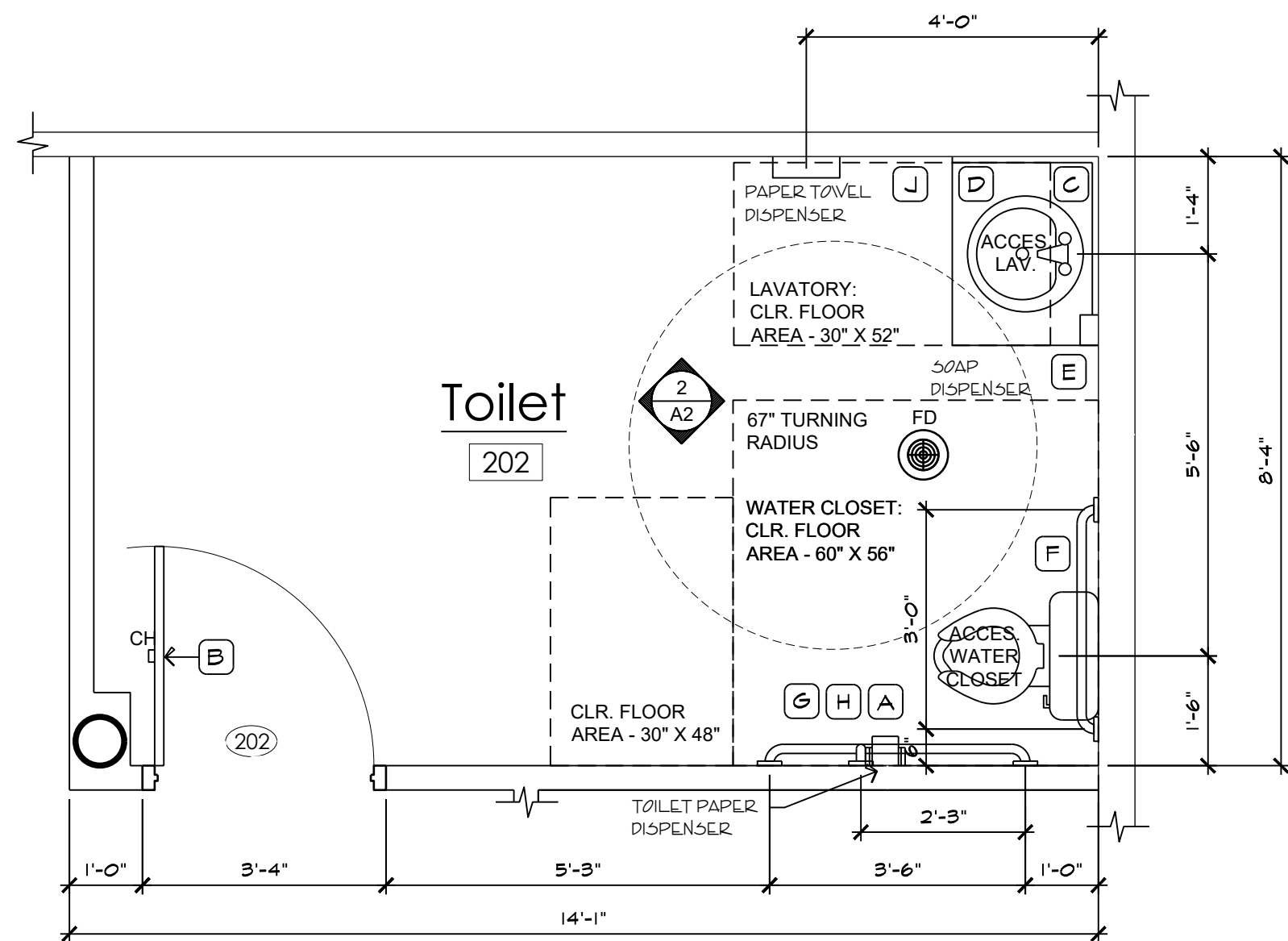
DATE:	1/7/23
REVISION BLOCK:	
BUILDING PERMIT SET	

PROJECT NO: 031.22

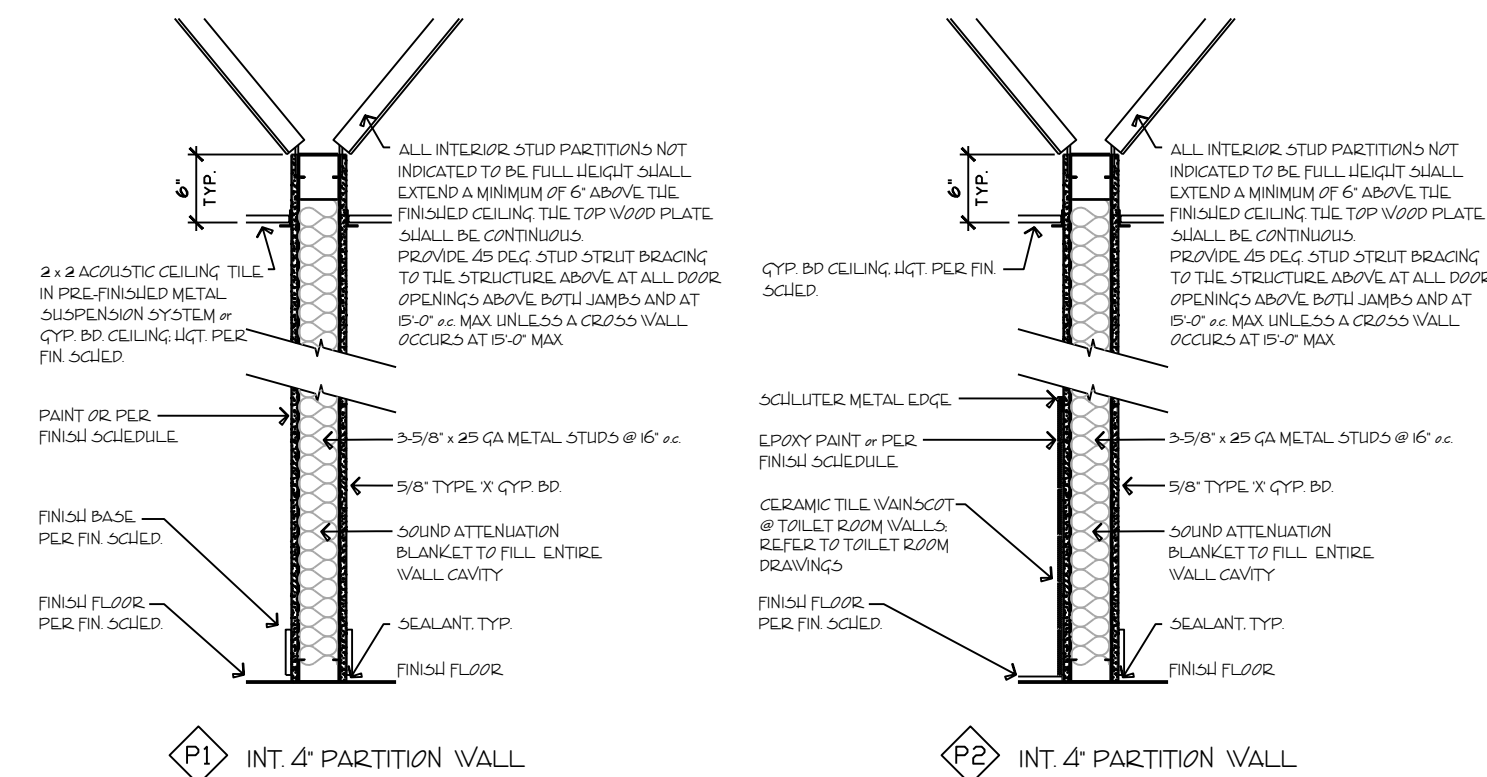
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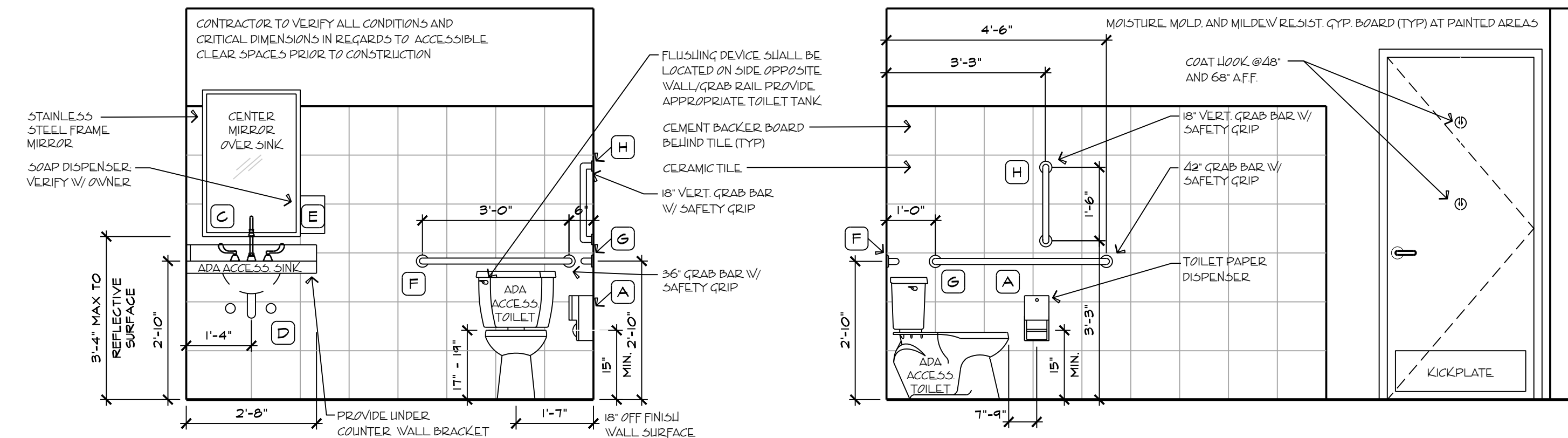
841 AUTOMATION DRIVE WINDSOR, CO 80550



1 TOILET ROOM 202 ENLARGED FLOOR PLAN
SCALE: 1/2" = 1'-0"



WALL PARTITION TYPES
SCALE: 3/4" = 1'-0"



2 TOILET ROOM 202 ELEVATIONS
SCALE: 1/2" = 1'-0"

TOILET ACCESSORIES SCHEDULE

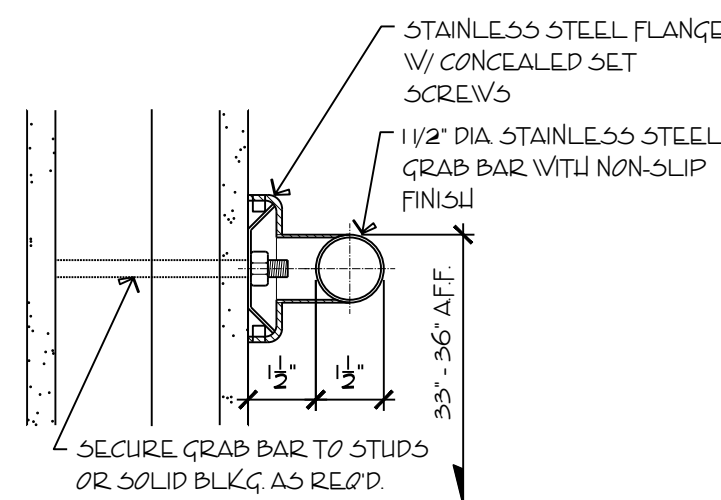
ID	QTY.	ITEM	BRADLEY MANUF. MODEL NO.	REMARKS
A	1	TOILET PAPER DISPENSER	BOBRICK B-2888	SURFACE MOUNTED
B	2	COAT / HOOKS	BOBRICK B-682	COAT HOOKS TO BE MOUNTED @ BOTH 48" AND 68" A.F.F. INSTALL ON INSIDE FACE OF TOILET ROOM DOOR.
C	1	24" x 36" MIRROR	BOBRICK B-290 2436	(BOTTOM AT 40" MAX LIT) STAINLESS STEEL CHANNEL FRAME MIRROR
D	1	PROTECTED / INSULATED DRAIN PIPES	-	TO BE INSTALLED AT SINK IN TOILET ROOM
E	1	SOAP DISPENSER	BOBRICK B-415	PROVIDE ONE IN TOILET ROOM AND AT SINK LOCATION AT BREAK
F	1	REAR WALL GRAB BAR: 1/2" DIA x 36" BAR SHALL BE CENTERED ON TOILET	BOBRICK STAINLESS STEEL B-5806 x 36"	INSTALL IN EACH TOILET ROOM
G	1	SIDE WALL GRAB BAR: 1/2" DIA x (42" MIN)	BOBRICK STAINLESS STEEL B-5806 x 42"	INSTALL IN EACH TOILET ROOM
H	1	VERTICAL WALL GRAB BAR: 1/2" DIA x (18" MIN)	BOBRICK STAINLESS STEEL B-5806 x 18"	INSTALL IN EACH TOILET ROOM
J	1	PAPER TOWEL DISPENSER	BOBRICK B-262	PROVIDE ONE IN TOILET ROOM AND AT SINK LOCATION AT BREAK

TOILET ACCESSORIES NOTES

- ALL ACCESSORIES SHALL BE BOBRICK (BASIS OF DESIGN)
- GRAB BARS TO BE STAINLESS STEEL
- GENERAL CONTRACTOR WILL BE REQUIRED TO VERIFY ALL TOILET ACCESSORIES AND QUANTITIES WITH OWNER PRIOR TO ORDERING AND INSTALLING
- PROVIDE WOOD BLOCKING IN THE PARTITION WALLS AS REQUIRED TO MOUNT THE TOILET ACCESSORIES SHOWN
- INSTALL SOUND BATT INSULATION BEHIND ALL RECESSED OR SEMI-RECESSED ACCESSORIES

GENERAL TOILET ROOM NOTES

- PROVIDE SCULLITER METAL FINISH AND EDGE TRIMMING AT ALL TILE, OUTSIDE CORNERS AND TOP OF TILE WALL
- PROVIDE PLASTIC LAMINATE ADA SKIRT APRON TO CONCEAL PLUMBING AT SINK COUNTER TOP IN NEW TOILET ROOMS



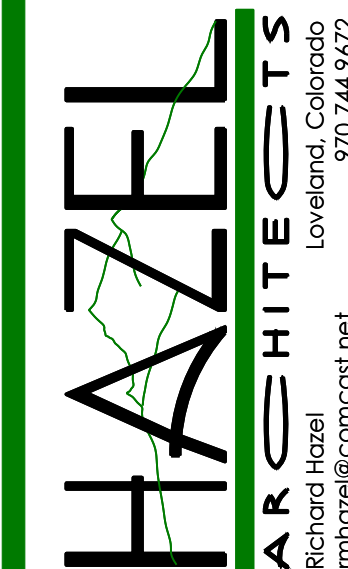
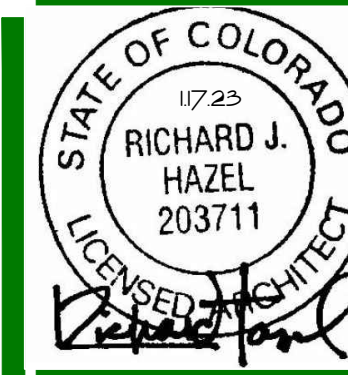
SECTION @ TYP. GRAB BAR
SCALE: 3" = 1'-0"

TOILET ROOM GENERAL NOTES

- ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH ALL APPLICABLE STATE, LOCAL AND FEDERAL CODES.
- ALL HARDWARE SHALL BE MOUNTED IN FULL COMPLIANCE WITH ALL APPLICABLE CODE REQUIREMENTS.
- ALL ACCESSIBLE TOILET ROOM ACCESSORIES MUST BE INSTALLED IN COMPLIANCE WITH THE ADA / ANSI AND LOCAL CODES FOR MOUNTING HEIGHTS AND LOCATIONS.
- PROVIDE AN ADA / ANSI APPROVED SINK WITH TOUCH FREE FAUCET, RIM OR COUNTER SURFACE OF LAVATORY OR SINK SHALL BE 34" MAX. A.F.F. & PROVIDED WITH ANSI APPROVED KNEE CLEARANCE. WATER SUPPLY AND DRAIN PIPES SHALL BE INSULATED/PROTECTED.
- ALL TOILETS AND LAVATORIES SHALL BE HANDICAP ACCESSIBLE.
- SINKS SHALL BE LOCATED NO CLOSER THAN 15" CENTERED FROM NEAREST WALL.
- TOILETS SHALL BE CENTERED 18" FROM NEAREST WALL.
- 36" GRAB BARS SHALL BE LOCATED BEHIND TOILETS 6" FROM ADJACENT WALL AND 42" GRAB BARS SHALL BE LOCATED ON ADJACENT WALL 12" FROM REAR WALL. 18" VERTICAL GRAB BARS SHALL BE LOCATED ON ADJACENT WALL 33" FROM REAR WALL.
- TOUCH FREE RECESSED OR FLUSH MOUNTED SOAP DISPENSER TO BE LOCATED ADJACENT TO SINK. BOTTOM OF DISPENSER TO BE SET 40" MAX. ABOVE FINISH FLOOR
- TOILET PAPER DISPENSER TO BE MOUNTED ON SIDE WALL & SHALL BE 1" - 9" IN FRONT OF W.C. - OUTLET SHALL BE 15" - 48" A.F.F. - T.P. DISPENSER TO BE CONTINUOUS FLOW
- PROVIDE ANSI PAPER TOWEL DISPENSER WITH TRASH RECEPTACLE. PAPER TOWEL OUTLET & TRASH RECEPTACLE SHALL BE 48" MAX. A.F.F.
- FLUSH CONTROL ON WIDE SIDE OF TOILET - CONTROLS TO BE BETWEEN 48" & 15" A.F.F. PROVIDE TOUCH FREE FLUSH CONTROL.
- MIRROR TO BE MOUNTED WITH BOTTOM EDGE @ 40" A.F.F. MAX.
- PROVIDE RESTROOM SIGNAGE. SIGN WITH INTERNATIONAL SYMBOL OF ACCESSIBILITY CENTERED @ 60" A.F.F.
- GRAB BARS TO BE 1-1/2" DIA. W/ 1-1/2" SPACE BETWEEN WALL AND MOUNTED @ 33" TO 36" A.F.F.
- PROVIDE KICKPLATES ON BOTH SIDES OF DOORS.
- COAT HOOKS TO BE INSTALLED ON ALL DOORS AT 48" AND 68" A.F.F.
- PROVIDE CEMENT BOARD BEHIND ALL CERAMIC TILE IN TOILET ROOMS. PROVIDE MOISTURE, MOLD AND MILDEW RESISTANT GAB IN TOILET ROOMS.

GRAB BAR CONSTRUCTION NOTES

- GRAB BAR SHALL NOT ROTATE WITHIN FITTING.
- BENDING STRESS IN GRAB BAR INDUCED BY THE MAXIMUM MOMENT FROM THE APPLICATION OF 250 LBS. SHALL BE LESS THAN THE ALLOWABLE STRESS FOR THE MATERIAL OF THE GRAB BAR.
- SHEAR STRESS INDUCED IN A GRAB BAR OR SEAT BY THE APPLICATION OF 250 LBS. (112N) SHALL BE LESS THAN THE ALLOWABLE SHEAR STRESS OF THE MATERIAL OF THE GRAB BAR OR SEAT. IF THE CONNECTION BETWEEN THE GRAB BAR OR SEAT AND ITS MOUNTING BRACKET OR OTHER SUPPORT IS CONSIDERED TO BE FULLY RESTRAINED, THEN DIRECT AND TORSIONAL SHEAR STRESSES SHALL BE TOTALLED FOR THE COMBINED SHEAR STRESS, WHICH SHALL NOT EXCEED THE ALLOWABLE SHEAR STRESS.
- SHEAR FORCE INDUCED IN A FASTENER OF MOUNTING DEVICE FOR THE APPLICATION OF 250 LBS. (112N) SHALL BE LESS THAN THE ALLOWABLE LATERAL LOAD OF EITHER THE FASTENER OF MOUNTING DEVICE OR THE SUPPORTING STRUCTURE, WHICHEVER IS THE SMALLER ALLOWABLE LOAD.
- TENSILE FORCE INDUCED IN A FASTENER BY A DIRECT TENSION FORCE OF 250 LBS. (112N) PLUS THE MAXIMUM MOMENT FROM THE APPLICATION OF 250 LBS. (112N) SHALL BE LESS THAN THE ALLOWABLE WITHDRAWAL LOAD BETWEEN THE FASTENER AND THE SUPPORTING STRUCTURE.



Dockside Investments
TENANT IMPROVEMENT

SHEET TITLE:
TOILET ROOM
DETAILS

REVISION BLOCK:		DATE:
BUILDING PERMIT SET		1/7/23

PROJECT NO: 031.22

SHEET:

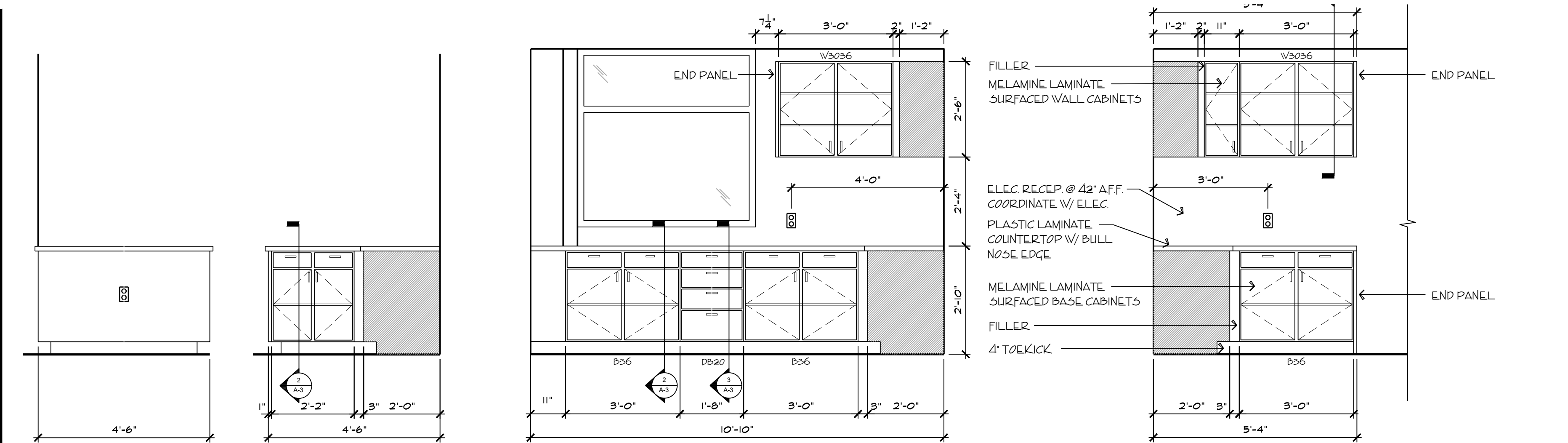
A2



Cabinets to be installed at a later date- NOT IN SCOPE

GENERAL CASEWORK NOTES:

1. VERIFY ALL MATERIALS, FINISHES, AND COLORS WITH OWNER.
2. ALL MELAMINE LAMINATE FACED CASEWORK TO HAVE MELAMINE INTERIOR, INTERIOR TO BE LIGHT BEIGE, EXTERIOR COLOR TO BE SELECTED BY OWNER.
3. ALL COUNTER TOP AND BACK SPLASH LOCATIONS SHALL BE PLASTIC LAMINATE SURFACE, U.N.O. COLOR TO BE SELECTED BY OWNER.
4. PROVIDE ADJUSTABLE SHELVING IN INTERIOR OF ALL CABINETS AND OPEN SHELVING UNITS.
5. PROVIDE MELAMINE LAMINATE END PANELS AT ALL EXPOSED SIDES OF MELAMINE LAMINATE FACED CASEWORK UPPER WALL CABINETS AND BASE CABINETS.
6. CABINET HARDWARE TO BE 'D' RING STYLE, MATCH TO US 32 D FINISH, U.N.O. CONTRACTOR TO VERIFY WITH OWNER.
7. ALL APPLIANCES AND EQUIPMENT TO BE PROVIDED BY THE CONTRACTOR OR OWNER. CONTRACTOR TO VERIFY ALL DIMENSIONS AND COORDINATE INSTALLATION. NOTE ALL COUNTERTOP HEIGHTS.
8. PROVIDE GOOSENECK FAUCETS & LEVER CONTROLS AT BISTRO SINK.
9. ALL CASEWORK SHALL CONFORM TO ANSI STANDARDS.
10. CASEWORK SUPPLIER / INSTALLER / CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.
11. CASEWORK SHOP DRAWINGS SHALL BE REVIEWED AND APPROVED BY EACH OF THE FOLLOWING PARTIES: CONTRACTOR, OWNER AND ARCHITECT WITH ASSOCIATED STAMPS OR SIGNATURES PRIOR TO FABRICATION.

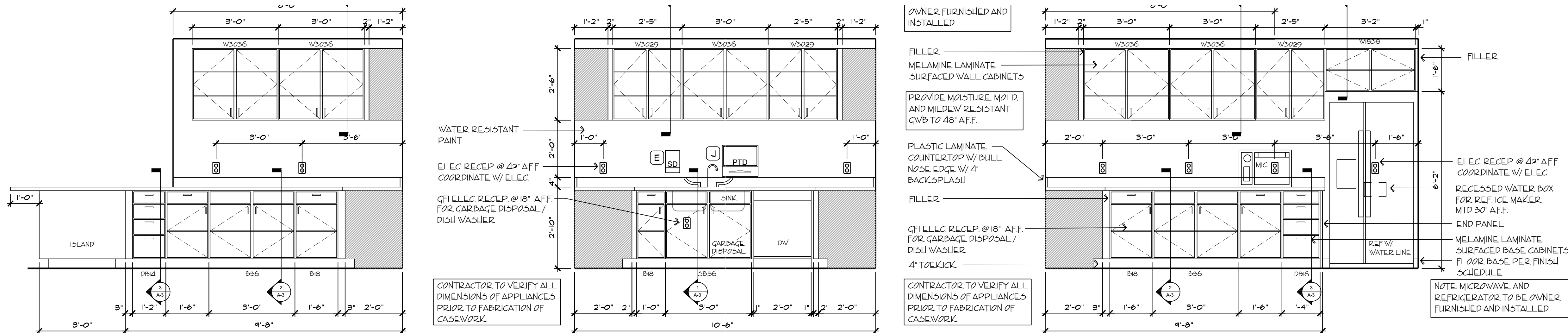


BREAK 204 ISLAND ELEVATIONS

SCALE: 1/2" = 1'-0"

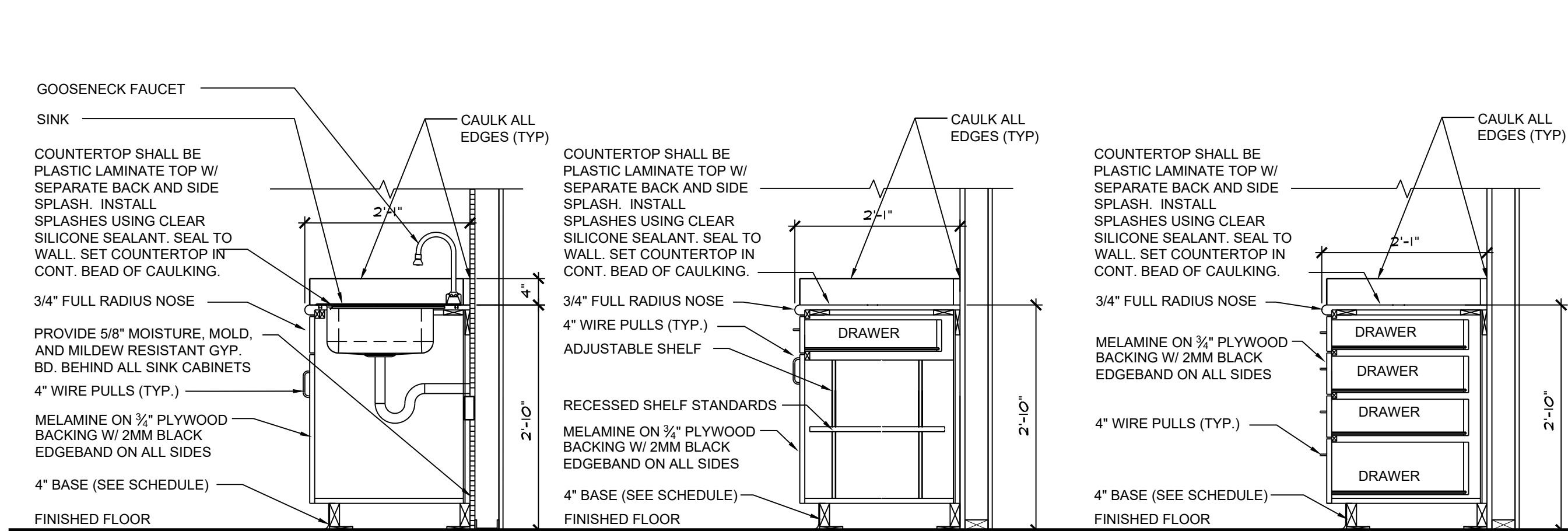
WORK 206 ELEVATIONS

SCALE: 1/2" = 1'-0"



BREAK 204 ELEVATIONS

SCALE: 1/2" = 1'-0"



① SINK CABINET

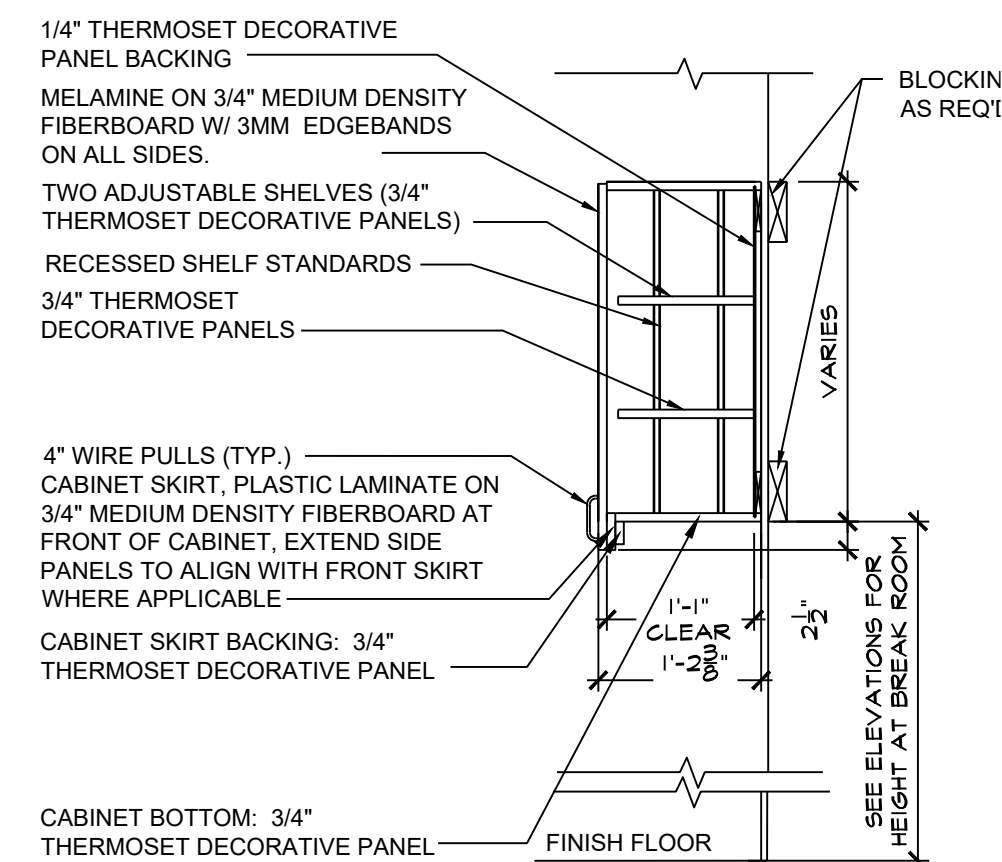
SCALE: 3/4" = 1'-0"

② BASE CABINET

SCALE: 3/4" = 1'-0"

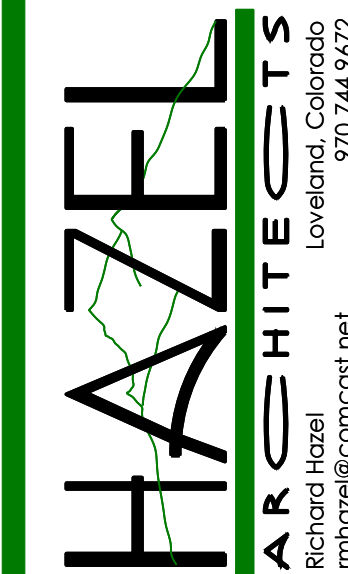
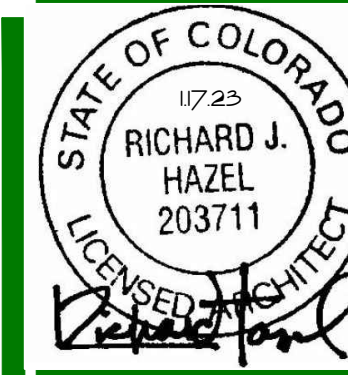
③ DRAWER BASE CABINET

SCALE: 3/4" = 1'-0"



④ WALL CABINET

SCALE: 1/2" = 1'-0"



Dockside Investments

TENANT IMPROVEMENT

841 AUTOMATION DRIVE WINDSOR, CO 80550

SHEET TITLE:
CASEWORK DETAILS

DATE:	07/23
REVISION BLOCK:	
BY:	
CHK:	
APP:	

PROJECT NO: 031.22

SHEET:

A3



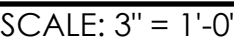
GENERAL FINISH NOTES

1. ALL CABINETS, COUNTERS, SHELVES ARE FURNISHED AND INSTALLED BY THE OWNER, UNLESS NOTED OTHERWISE. VERIFY WITH THE OWNER.
2. ALL GYP. BD. CEILINGS 5/8" TYPE 'X'. SEE HEIGHTS AND TYPE INDICATED ON REFLECTED CEILING PLAN AND SCHEDULE, U.N.O.
3. ALL TOILET ROOM WALLS TO HAVE PARTIAL HEIGHT TILE WALL FINISHES. REFER TO TOILET ELEVATIONS / DETAILS.
4. PROVIDE CORNER GUARDS AT ALL GYP. BD WALLS CORNERS AS INDICATED ON PLAN, VERIFY ALL LOCATIONS WITH OWNER.
5. PROVIDE MMMSMB TO 48" A.F.F. BEHIND ALL SINK AREAS IN TOILET ROOM.
6. PROVIDE SOUND ATTENUATION BATTS IN TENANT DEMISING WALL AND TOILET ROOM INTERIOR WALL STUD CAVITIES FOR FULL THICKNESS OF WALL CAVITY.
7. PROVIDE BLOCKING FOR WINDOW COVERINGS THROUGHOUT THE BUILDING AT ALL WINDOW LOCATIONS. CONTRACTOR TO VERIFY IF OWNER IS SUPPLYING ANY OR ALL WINDOW COVERINGS.
8. PROVIDE WATER RESISTANT GYP. BD. AT ALL FRAMED WALLS & EPOXY PAINT ON ALL WALLS AND CEILINGS WITHIN TOILET ROOM.
9. PROVIDE MINIMUM LEVEL 4 GYPSUM BOARD WALL FINISH THROUGHOUT.
10. ALL RUBBER BASE IN WET AREAS TO BE SET IN BEAD OF SILICONE SEALANT.
11. CONTRACTOR TO PERFORM MOISTURE TESTS TWO WEEKS PRIOR TO INSTALLATION OF FLOORING IF OTHER THAN SEALED CONCRETE. (PERFORM FOUR EVENLY DISPERSED MOISTURE BARRIER TESTS ON NEW CONCRETE SLABS) MOISTURE TESTING: PERFORM ANHYDROUS CALCIUM CHLORIDE TEST, ASTM F1869/ RESULTS TO BE COPIED TO OWNER AND ARCHITECT.
12. CONTRACTOR TO PERFORM ALKALINITY, PH TESTING TWO WEEKS PRIOR TO INSTALLATION OF FLOORING IF OTHER THAN SEALED CONCRETE. ACCEPTABLE SCALE LEVEL READING FOR SPRAYLOCK 6500 FOR SPECIFIED FLOORING SHALL BE MET. IF THE PH IS ABOVE ACCEPTABLE LEVEL, PROVIDE AN ADDITIONAL MOISTURE BARRIER. SPRAYS LOCK 6500 COMMERCIAL ADHESIVE IS TO BE USED TO INSTALL LUXURY VINYL TILE AND CARPET TILE FLOORING FOR MOISTURE VAPOR EMISSIONS OF UP TO 8 POUNDS. CONTRACTOR TO PROVIDE AN ADDITION MOISTURE BARRIER ON THE SLAB AT ALL LOCATIONS IF TEST RESULTS ARE HIGHER THAN 8 POUNDS.

GENERAL DOOR NOTES

1. VERIFY ALL MATERIALS, FINISHES, AND COLORS WITH OWNER.
2. ALL INTERIOR WOOD DOORS ARE SOLID CORE PRE-FINISHED BIRCH OR MAPLE NATURAL, PLAIN-SLICED VENEER DOORS W/ CLEAR FINISH IN PAINTED HOLLOW METAL FRAME. CONTRACTOR TO VERIFY FINISHES W/ OWNER.
(DOORS BASIS OF DESIGN IS VT INDUSTRIES).
3. VERIFY WITH OWNER ALL DOOR HARDWARE IN REGARDS TO MANUFACTURER, APPLICABLE HARDWARE, FINISH, CORES AND KEYING.
4. VERIFY WITH OWNER ALL DOOR HARDWARE IN REGARDS TO SECURITY SYSTEM.
5. CONTRACTOR TO VERIFY WITH FIRE DEPARTMENT ALL PANIC HARDWARE REQUIREMENTS.
6. FIELD VERIFY ALL DIMENSIONS PRIOR TO SHOP DRAWINGS SUBMITTAL AND SUBSEQUENT FABRICATION OF ALL DOORS AND FRAMES.
7. HARDWARE SHALL BE GRADE 2 THROUGHOUT CONTRACTOR TO VERIFY WITH OWNER.
8. MAIN ENTRY DOOR TO BE LABELED "THIS DOOR TO REMAIN UNLOCKED WHEN THIS SPACE IS OCCUPIED".

DOOR / FRAME MATERIAL		DOOR FINISH	
HM	HOLLOW METAL	PT	PAINT
WD	SOLID CORE WOOD VENEER	ST	PRE-FINISHED CLEAR

[illegible]

ROOM FINISH LEGEND			
FLOOR FINISH	FLOOR BASE FINISH	WALL FINISH	CEILING FINISH
F1 CARPET	B1 4" WOOD BASE TO MATCH EXISTING	W1 TYPE 'X' GYPSUM BOARD (TEXTURE & PAINT)	C1 2x2' SUSPENDED ACOUSTIC CEILING (SAT) TILE
F2 LUXURY VINYL TILE	B2 CERAMIC TILE	W2 MOISTURE, MOLD, AND MILDEW RESISTANT GYPSUM BOARD (TEXTURE & PAINT)	C2 MOISTURE, MOLD, AND MILDEW RESISTANT GYPSUM BOARD (TEXTURE & PAINT)
F3 EXISTING	B3 4" RESILIENT	W3 CERAMIC TILE	C3 EXPOSED TO ROOF DECK ABOVE (VERIFY WITH OWNER IF PAINTED)

[illegible]

Interior Door A202

30" x 70" x 1 3/4" - WD x Hx FR

- 3 Standard Hinge, McKinley T4271 4 1/4" x 1 1/2" US260, Standard Weight Five Knuckle Bearing US260
- 1 Latchset Sargent & G. 0155 1 1/2" US260, Standard Weight Function Lockset US260
- 1 Surface Caster Norton 851 RWPA 689, Regular Arm Caster to 3" Reveal 689
- 3 Door Silencer Rockwood 608-RW, Door Silencers, Dursley grey rubber

The lockset listed is a privacy set with an occupancy indicator

Interior Door 203 through 212

30" x 70" x 1 3/4" - WD x Hx FR

- 3 Standard Hinge, McKinley T4271 4 1/4" x 1 1/2" US260, Standard Weight Five Knuckle Bearing US260
- 1 Latchset Sargent & G. 0155 1 1/2" US260, Standard or Closed Function Lockset US260
- 1 Surface Caster Norton 851 RWPA 689, Regular Arm Caster to 3" Reveal 689
- 1 Wall Door Stop Rockwood 407 US260, Wrought Concrete Bumper, SMS & Protic Toggle US23D
- 3 Door Silencer Rockwood 608-RW, Door Silencers, Dursley grey rubber

1. VERIFY ALL MATERIALS, FINISHES, AND COLORS WITH OWNER.
2. ALL INTERIOR WINDOWS ARE FIXED HOLLOW METAL;
PAINTED TO MATCH DOOR FRAMES
3. PROVIDE GYP. BD. RETURN @ WINDOW HEAD, JAMBS
AND WINDOW SILL.
4. SAFETY GLAZING REQUIRED AT ALL DOORS AND SIDELIGHTS,
AND ANY OTHER LOCATIONS AS REQUIRED BY CODE.

1. VERIFY ALL MATERIALS, FINISHES, AND COLORS WITH OWNER.
2. ALL INTERIOR WOOD DOORS ARE SOLID CORE WOOD DOORS, STAINED TO MATCH EXISTING IN WOOD FRAMED JAMBS. CONTRACTOR SHALL VERIFY WOOD SPECIES AND STAIN COLOR WITH OWNER.
3. VERIFY WITH OWNER ALL DOOR HARDWARE IN REGARDS TO MANUFACTURER, APPLICABLE HARDWARE, FINISH, CORES AND KEYS.
4. VERIFY WITH OWNER ALL DOOR HARDWARE IN REGARDS TO SECURITY SYSTEM.
5. CONTRACTOR TO VERIFY WITH FIRE DEPARTMENT ALL PANIC HARDWARE REQUIREMENTS.
6. FIELD VERIFY ALL DIMENSIONS PRIOR TO SHOP DRAWINGS SUBMITTAL AND SUBSEQUENT FABRICATION OF ALL DOORS AND PARTS.
7. HARDWARE SHALL BE GRADE 2 AT TOLLET ROOMS AND EXTERIOR DOORS AND IS ACCEPTABLE TO BE GRADE 1 EVERYWHERE ELSE. CONTRACTOR TO VERIFY WITH OWNER.



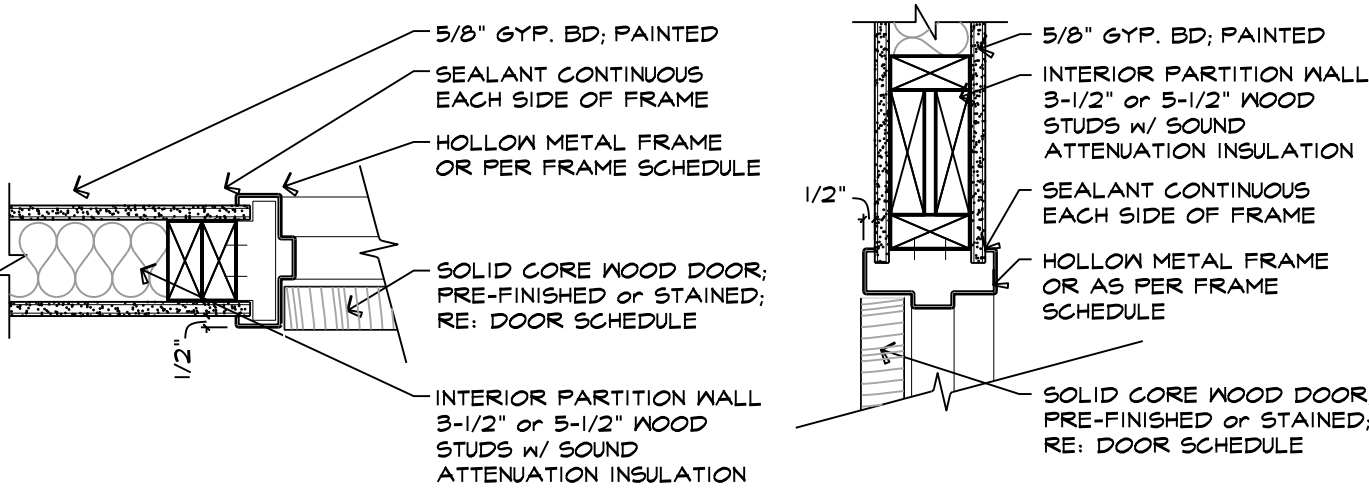
SIGNAGE
CHARACTER PROPORTION. LETTERS AND NUMBERS ON SIGNS SHALL HAVE A WIDTH-TO HEIGHT RATIO BETWEEN 3:5 AND 1:1 AND A STROKE-WIDTH-TO-HEIGHT RATIO BETWEEN 1:5 AND 1:10.

RAISED AND BRAILLE CHARACTERS AND PICTORIAL SYMBOL SIGNS. (PICTOGRAMS). LETTERS AND NUMERALS SHALL BE RAISED 1/32 IN., UPPER CASE, SANS SERIF OR SIMPLE SERIF TYPE AND SHALL BE ACCOMPANIED WITH GRADE BRAILLE. RAISED CHARACTERS SHALL BE AT LEAST 5/8 IN. (16 MM) HIGH BUT NO HIGHER THAN 2 IN. (50 MM). PICTOGRAMS SHALL BE ACCOMPANIED BY THE EQUIVALENT VERBAL DESCRIPTION PLACED DIRECTLY BELOW THE PICTOGRAM. THE BORDER DIMENSION OF THE PICTOGRAM SHALL BE 6 IN. (152 MM) MINIMUM OF HEIGHT.

FINISH AND CONTRAST. THE CHARACTERS AND BACKGROUND OF SIGNS SHALL BE EGGSHELL, MATTE OR OTHER NON-GLARE FINISH. CHARACTERS AND SYMBOLS SHALL CONTRAST WITH THEIR BACKGROUND EITHER LIGHT CHARACTERS ON A DARK BACKGROUND OR DARK CHARACTERS ON A LIGHT BACKGROUND.

MOUNTING LOCATION AND HEIGHT. WHERE PERMANENT IDENTIFICATION IS PROVIDED FOR ROOMS AND SPACES, SIGNS SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR. WHERE THERE IS NO WALL SPACE TO THE LATCH SIDE OF THE DOOR, INCLUDING AT DOUBLE LEAF DOORS, SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL. MOUNTING HEIGHT SHALL BE 60 INCHES (1525 MM) ABOVE THE DOOR. THE CENTER OF THE SIGN, INCLUDING LOCATION FOR ANY MOUNTING HARDWARE, SHALL BE 60 INCHES (1525 MM) ABOVE THE DOOR. THE SIGN SHALL BE 17 INCHES (432 MM) WIDE. THE SIGN SHALL BE SUCH A MOUNTING BE SO THAT A PERSON, STANDING WITHIN A 76 MM (3 IN) OF SIGNAGE WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE DOOR, SYMBOLS OF ACCESSIBILITY, FACILITIES AND ELEMENTS REQUIRED TO BE IDENTIFIED AS ACCESSIBLE BY SECTION 4.1 OF THE ADAAG, SHALL USE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY.

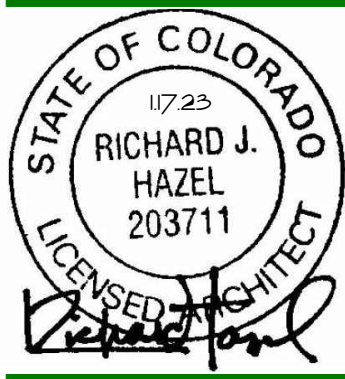
SCALE: NTS



SCALE: 1-1/2" = 1'-0"



SCALE: 1/4" = 1'-0" T = TEMPERED



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Dockside Investments

TENANT IMPROVEMENT

SHEET TITLE:
DOOR / WINDOW /
FINISH SCHEDULES /
DETAILS

[illegible]

PROJECT NO: 031.22

SHEET:

A4

GENERAL MECHANICAL REQUIREMENTS:

CODES AND PERMITS

WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES, REGULATIONS AND ORDINANCES. PERMITS NECESSARY FOR PERFORMANCE OF WORK SHALL BE SECURED AND PAID FOR BY THE CONTRACTOR.

PRE-BID

FOR EXISTING BUILDINGS, THE BIDDERS SHALL PERFORM A BUILDING AND SPACE SITE VISIT PRIOR TO BID. THE ACT OF SUBMITTING A BID INDICATES THE BIDDER DOES AGREE THEY HAVE A FULL UNDERSTANDING OF THE SCOPE OF WORK INVOLVED WITH THE EXISTING CONDITIONS.

DRAWINGS AND COORDINATION

DRAWINGS FOR MECHANICAL WORK ARE DIAGRAMMATIC IN NATURE, AND ARE NOT INTENDED TO BE SCALED FOR EXACT MEASUREMENTS NOR TO SERVE AS SHOP DRAWINGS. CHANGES FROM THE PLANS MADE WITHOUT CONSENT OF THE ENGINEER SHALL RELIEVE THE ENGINEER OF RESPONSIBILITY FOR ALL CONSEQUENCES ARRIVING OUT OF SUCH CHANGES. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. WHERE CONDITIONS REQUIRE REASONABLE CHANGES TO THOSE INDICATED ON THE DRAWINGS, MAKE SUCH CHANGES WITHOUT ADDITIONAL COST TO THE OWNER. COORDINATE ALL WORK WITH OTHER TRADES.

WARRANTY

WORKMANSHIP, MATERIALS, EQUIPMENT AND PROPER OPERATION SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE FROM THE OWNER. INITIAL ACCEPTANCE OF WORK SHALL NOT WAIVE THIS GUARANTEE. THIS GUARANTEE SHALL NOT INCLUDE NORMAL MAINTENANCE REQUIRED BY THE OWNER AS DESCRIBED IN EQUIPMENT OPERATION AND MAINTENANCE MANUALS.

SUBMITTALS

CONTRACTOR SHALL SUBMIT TO THE ARCHITECT/ENGINEER A PORTABLE DOCUMENT FORMAT "PDF" COPY OF SUBMITTAL BROCHURES FOR REVIEW. PROVIDE INFORMATION ON ALL MAJOR EQUIPMENT AS LISTED ON DRAWING EQUIPMENT SCHEDULES, AS WELL AS VALVES, DUCTWORK ACCESSORIES AND TEMPERATURE CONTROL DIAGRAMAS AS APPLICABLE.

OPERATION AND MAINTENANCE MANUALS

CONTRACTOR SHALL FURNISH AT THE COMPLETION OF THE PROJECT A PORTABLE DOCUMENT FORMAT "PDF" COPY OF COMPLETE OPERATION AND MAINTENANCE MANUALS TO THE ARCHITECT/ENGINEER FOR REVIEW PRIOR TO TURNOVER TO OWNER. MANUALS TO BE BOUND AND INCLUDE INSTALLATION INSTRUCTIONS, REPLACEMENT PARTS LISTS AND MAINTENANCE INFORMATION ON ALL EQUIPMENT AS DESCRIBED IN THE SUBMITTALS SECTION. COMPLETED OPERATION AND MAINTENANCE MANUALS ARE TO BE FORWARDED TO THE OWNER WITHIN 90 DAYS AFTER OWNER BUILDING ACCEPTANCE.

PRODUCT SUBSTITUTIONS

MANUFACTURER MODEL NUMBERS LISTED ON THE DRAWINGS AND/OR SPECIFICATIONS ARE TO BE CONSIDERED AS THE BASIS OF DESIGN. WHERE TWO OR MORE ALTERNATE MANUFACTURERS OR MATERIALS ARE LISTED, THE CHOICE OF THESE SHALL BE OPTIONAL WITH THE CONTRACTOR. PRIOR TO THE AWARDING OF THE CONTRACT, CONTRACTOR MAY REQUEST A PROPOSED SUBSTITUTION OF MATERIALS IN WRITING TO THE ARCHITECT/ENGINEER NO LATER THAN SEVEN DAYS PRIOR TO THE RECEIPT OF BIDS. THE COST OF ANY CHANGES REQUIRED BY OTHER TRADES, INCLUDING A/E DESIGN, DUE TO THE USE OF EQUIPMENT AND/OR MATERIALS OTHER THAN THAT OF THE BASIS OF DESIGN SHALL BE PAID BY THE CONTRACTOR.

RECORD DRAWINGS

CONTRACTORS SHALL MAINTAIN A COMPLETE AND ACCURATE SET OF MARKED UP DRAWINGS SHOWING ACTUAL LOCATIONS OF INSTALLED WORK. THESE DRAWINGS ARE TO BE FORWARDED TO THE OWNER AS PART OF THE OPERATION AND MAINTENANCE MANUALS AT THE COMPLETION OF THE PROJECT.

ACCESS DOORS

PROVIDE ALL ACCESS DOORS/PANELS AS REQUIRED FOR ACCESS TO VALVES, DAMPERS, CONTROL DEVICES, FILTERS AND ANY OTHER ITEMS FOR WHICH ACCESS IS REQUIRED FOR EITHER OPERATION OR SERVICING. WHERE ACCESS DOORS ARE TO BE INSTALLED IN ASSEMBLIES REQUIRED TO HAVE A SPECIFIC FIRE RATING, ACCESS DOORS SHALL ALSO BE FIRE RATED.

PIPING AND DUCTWORK SEALANT THROUGH RATED ASSEMBLIES

PENETRATIONS SHALL BE SEALED AS REQUIRED IN ACCORDANCE WITH BUILDING AND MECHANICAL CODES TO RESIST THE PASSAGE OF FLAME AND PRODUCTS OF COMBUSTION IN ORDER TO MAINTAIN THE RESISTANCE RATING OF THE CONSTRUCTION BEING PENETRATED.

PROTECTION OF MATERIALS AND EQUIPMENT

CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ALL WORK, MATERIALS, AND EQUIPMENT PROVIDED UNDER THIS SECTION. PIPE OPENINGS SHALL BE CLOSED WITH CAPS OR PLUGS TO PREVENT THE ENTRANCE OF DEBRIS DURING CONSTRUCTION. ALL DUCTWORK OPENINGS SHALL BE SEALED CLOSED DURING CONSTRUCTION.

ALTITUDE

SUPPLIERS SHALL CONFIRM THAT ALL EQUIPMENT BEING FURNISHED IS APPROPRIATE FOR USE AT THE ALTITUDE OF THE SITE.

EQUIPMENT AND PIPING IDENTIFICATION

PROVIDE EQUIPMENT LABELS FOR ALL MAJOR EQUIPMENT, INCLUDING BUT NOT LIMITED TO AIR HANDLING SYSTEMS, FANS, VAV BOXES, CONTROLS, DAMPERS, CONTROL VALVES AND PUMPS. PROVIDE PIPE MARKERS ON CW, HW AND HWC SYSTEMS. LABELS TO BE AT MAXIMUM 8 FEET APART, WITH FLOW DIRECTION INDICATED, AS APPLICABLE. ADDITIONALLY, PROVIDE LABELING ON POTABLE WATER MANIFOLDS INDICATING PLUMBING FIXTURE SERVED BY THE OUTLET, AS APPLICABLE.

LABELS SHALL BE AFFIXED OR ADHERED PERMANENTLY TO EQUIPMENT. EQUIPMENT INSTALLED INDOORS TO BE LABELED WITH EMBOSSING TAPE.

EQUIPMENT INSTALLED OUTDOORS TO BE LABELED WITH ENGRAVED PLASTIC LAMINATE SIGNS.

PIPE MARKERS TO BE SELF-ADHESIVE, MANUFACTURED FOR SUCH PURPOSE.

STARTERS AND DISCONNECTS

EQUIPMENT STARTERS SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR. EQUIPMENT DISCONNECTS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE ON THE DRAWINGS. STARTERS SHALL BE NEMA TYPE, AND SHALL INCLUDE PHASE MONITORING FOR MOTORS 5 HP AND LARGER.

TESTING

TESTING SHALL BE PERFORMED ON THE FOLLOWING SYSTEMS SPECIFIED. ALL SYSTEMS LISTED MAY NOT BE INCLUDED IN PROJECT. REFER TO DRAWINGS FOR APPLICABLE SYSTEMS.

SOIL, WASTE AND STORM DRAINAGE PIPING SHALL BE TESTED IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL CODES. DOMESTIC WATER PIPING SHALL BE TESTED AND PROVEN WATERTIGHT UNDER A PRESSURE NOT LESS THAN THE WORKING PRESSURE OF THE SYSTEM FOR A 24 HOUR PERIOD.

DOMESTIC WATER PIPING SYSTEM SHALL BE CHLORINATED AND STERILIZED IN ACCORDANCE WITH REQUIREMENTS OF LOCAL JURISDICTION.

NATURAL GAS PIPING SHALL BE TESTED WITH AN AIR PRESSURE OF MINIMUM TWO TIMES THE DESIGN SYSTEM PRESSURE, BUT NO LESS THAN 3 PSIG, FOR A PERIOD OF 24 HOURS WITHOUT PRESSURE DROP.

BALANCING

SYSTEM BALANCING SHALL BE PERFORMED BY A CERTIFIED BALANCING CONTRACTOR. BALANCE ALL SYSTEMS INCLUDING AIRFLOW TO AND FROM ALL OPENINGS, AND PUMPED WATER SYSTEMS INCLUDING DOMESTIC WATER RECIRCULATION SYSTEMS AS APPLICABLE. MAKE ANY ADJUSTMENTS NECESSARY TO RESULT IN CONDITIONS INDICATED AND PROVIDE READJUSTMENTS TO ITEMS IN REPORT AS MAY BE REQUESTED BY ARCHITECT/ENGINEER. SUBMIT TWO COPIES OF TEST AND BALANCE REPORT FOR APPROVAL. FAN AND PUMP SYSTEMS TO BE BALANCED WITHIN PLUS OR MINUS 5 PERCENT OF LISTED VALUES. AIR INLETS AND OUTLETS TO BE BALANCED WITHIN PLUS 10 PERCENT OR MINUS 5 PERCENT OF LISTED VALUES. BALANCE REPORT TO INCLUDE:

- UNIT IDENTIFICATION
- MANUFACTURER AND NAMEPLATE DATA
- EQUIPMENT NAMEPLATE AMPERAGE AND ACTUAL AMPERAGE
- RPM (DESIGN AND ACTUAL)
- FAN CFM (DESIGN AND ACTUAL)
- FAN STATIC PRESSURE (DESIGN AND ACTUAL)
- PUMP GPM (DESIGN AND ACTUAL)
- PUMP DISCHARGE AND SUCTION PRESSURE
- REGISTER, GRILLE, DIFFUSER REFERENCE NUMBER AND LOCATION
- INLET/OUTLET CFM (DESIGN AND ACTUAL)
- FLOW DEVICE PRESSURE DROP, CFM OR GPM

A FINAL BALANCING REPORT SHALL BE PROVIDED TO THE OWNER AFTER COMPLETION OF THE PROJECT.

CLEANING

AT THE COMPLETION OF WORK, ALL FIXTURES AND EQUIPMENT SHALL BE THOROUGHLY CLEANED AND DELIVERED IN A CONDITION SATISFACTORY TO THE ARCHITECT. ALL FILTERS SHALL BE REPLACED WITH NEW PRIOR TO OWNER ACCEPTANCE OF THE BUILDING.

GENERAL MECHANICAL NOTES

- THE MECHANICAL DESIGN IS BASED ON THE 2018 INTERNATIONAL MECHANICAL CODE. MECHANICAL WORK SHALL COMPLY WITH ALL APPLICABLE CODES AND LOCAL CODE AMENDMENTS. VERIFY ALL REQUIREMENTS PRIOR TO SUBMITTING BID OR COMMENCING WORK.
- ALL DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEET METAL – CONSTRUCTION AND INSTALLATION SHALL CONFORM TO THE CURRENT EDITION OF SMACNA OR AS REQUIRED BY ALL APPLICABLE CODES.
- CONSTRUCT ALL SUPPLY AND RETURN DUCTWORK TO SMACNA 2" PRESSURE CLASS.
- CONSTRUCT ALL EXHAUST DUCTWORK TO SMACNA 1" PRESSURE CLASS.
- DIMENSIONS OF DUCTWORK SHOWN INDICATES CLEAR INSIDE DIMENSIONS – WHERE DUCT LINER IS TO BE ADDED, INCREASE THE SIZE OF SHEET METAL ACCORDINGLY.
- UNLESS NOTED OTHERWISE, THE SIZE OF THE BRANCH DUCT SERVING A SINGLE DIFFUSER SHALL BE THE SAME AS THE NECK SIZE OF THE DIFFUSER SERVED. FLEXIBLE DUCTWORK SHALL NOT EXCEED 8'-0" IN LENGTH. FLEXIBLE DUCTWORK SHALL BE UL181 LISTED WITH 50/25 SMOKE/FLAME RATING, CONSISTING OF POLYESTER FILM ENCAPSULATING AN INNER CORROSION RESISTANT STEEL WIRE HELIX CORE. FLEXIBLE DUCT SHALL INCLUDE AN EXTERIOR FIBERGLASS INSULATION WITH FOIL SCRIM FILM VAPOR BARRIER JACKET, R-6.
- MAINTAIN A MINIMUM 10'-0" SEPARATION FROM OUTSIDE AIR INTAKES TO EXHAUST TERMINATIONS AND PLUMBING VENTS.
- MAINTAIN A MINIMUM 3'-0" SEPARATION FROM EXHAUST TERMINATIONS TO OPERABLE WINDOWS AND DOORS.
- WALL MOUNTED THERMOSTATS AND SENSORS SHALL BE INSTALLED 48" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE. THERMOSTATS AND SENSORS LOCATED ON EXTERIOR WALL SURFACES SHALL BE PROVIDED WITH AN INSULATED SUB-BASE.
- THERMOSTATS FOR COOLING AND HEATING EQUIPMENT SHALL BE 7-DAY PROGRAMMABLE TYPE, 4 PERIODS PER DAY, 10-HOUR BATTERY BACK-UP, 2-HOUR OVERRIDE, 5 DEG DEAD-BAND, HEAT/COOL/OFF/AUTO CHANGEOVER, AUTO SETBACK TO 55 DEG F (HEAT) AND 85 DEG F (COOL), LCD BACKLIT DISPLAY, HARD WIRED POWER, HARD WIRED CONTROL.
- TEMPORARY HEATING: THE PERMANENT HVAC SYSTEM MAY NOT BE UTILIZED FOR HEATING UNTIL ALL GYPSUM WORK IS COMPLETED AND HAS BEEN PAINTED. IF THE PERMANENT HVAC SYSTEM IS UTILIZED DURING CONSTRUCTION, ALL DUCT INTAKES SHALL BE COVERED WITH FILTER MEDIA (MERV-8 RATING). IF EXCESSIVE DUST OR DEBRIS HAS ENTERED THE SYSTEM THEN ALL COIL AND DUCT SURFACES SHALL BE CLEANED. NEW FILTERS ARE TO BE PROVIDED JUST PRIOR TO TURNOVER TO OWNER. TEMPORARY HEATING OF THE BUILDING PRIOR TO ANY USE OF THE PERMANENT HVAC SYSTEM SHALL BE THE RESPONSIBILITY OF THE G.C.
- REFRIGERATION PIPING FOR SYSTEMS 5 TONS AND LESS SHALL BE KIT TYPE. THE KIT SHALL BE SIZED AND PROVIDED BY THE EQUIPMENT SUPPLIER AND INSTALLED BY THE MC. THE SUCTION LINE SHALL BE INSULATED WITH MINIMUM 1 INCH CLOSED CELL FOAM INSULATION. INSULATION INSTALLED OUTSIDE OF THE BUILDING SHALL BE ADDITIONALLY ENCASED IN A UV/TEAR PROTECTIVE SLEEVE.
- TEMPERATURE CONTROLS SHALL BE DESIGN BUILD, CUSTOM, FIELD FABRICATED TO MATCH CORRESPONDING EQUIPMENT. THE SYSTEM SHALL UTILIZE STAND ALONE ELECTRONIC COMPONENTS. THE CONTRACTOR SHALL PROPERLY SELECT, PROVIDE AND INSTALL SYSTEM(S) INCLUDING ALL COMPONENTS NECESSARY FOR A FULL AND COMPLETE, OPERATIONAL SYSTEM. THIS INCLUDES, BUT IS NOT LIMITED TO: LOW VOLTAGE WIRING, THERMOSTATS, DAMPER MOTORS, SOLENOIDS, RELAYS, CONTACTORS, STARTERS, TIME CLOCKS, CONTROL PANELS, SYSTEM COMMISSIONING AND OWNER TRAINING. ALL LINE VOLTAGE INTERFACING SHALL BE COORDINATED DIRECTLY WITH THE ELECTRICAL CONTRACTOR. PROVIDE SUBMITTALS ON COMPONENTS AND WIRING DIAGRAMS PRIOR TO ORDERING
- HANGING, ANCHORING AND SUPPORT OF EQUIPMENT, DUCTS, PIPING AND ACCESSORIES IS DESIGN BUILD BY THE MC. THE SUPPORTS SHALL MEET CODE.
- ALWAYS INSTALL EQUIPMENT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

INSULATION NOTES AND MECHANICAL ENERGY CODE

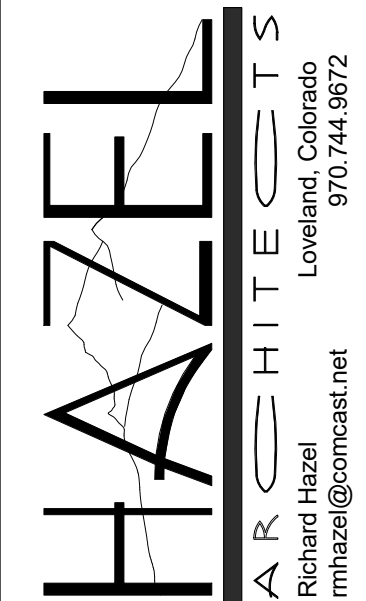
- THE MECHANICAL DESIGN IS BASED ON THE 2018 INTERNATIONAL ENERGY CONSERVATION CODE.
- ALL SUPPLY, RETURN AND EXHAUST DUCTWORK SHALL BE SEALED AIRTIGHT WITH DUCT SEALANT ALONG ALL SEAMS AND JOINTS.
- SEE HVAC INSULATION SCHEDULE ON SHEET H8.1 FOR DUCT INSULATION REQUIREMENTS.

HVAC LEGEND:

- RECT DUCT (NEW SHADED/EXISTING UNSHADED)
- ROUND DUCT (NEW SHADED/EXISTING UNSHADED)
- RECT DUCT SIZE CHANGE
- RECT DUCT CHANGE TO ROUND
- RECT ELBOW UP (SUPPLY)
- RECT ELBOW UP (NON-SUPPLY)
- RECT ELBOW DOWN (SUPPLY)
- RECT ELBOW DOWN (NON-SUPPLY)
- ROUND ELBOW UP
- ROUND ELBOW DOWN
- RECT ELBOW W/ TURNING VANES
- ROUND ELBOW
- ROUND TAKE-OFF W/ DAMPER FROM RECT MAIN
- ROUND TAKE-OFF W/ DAMPER FROM ROUND MAIN
- RECT TAKE-OFF W/ DAMPER FROM RECT MAIN
- RECT TAKE-OFF W/ DAMPER FROM ROUND MAIN
- DIFFUSER WITH FLEX DUCT
- RETURN GRILLE (UNDUCTED)
- RETURN/EXHAUST GRILLE (DUCTED)
- AIRFLOW PATTERNS
- THERMOSTAT WITH ZONE TAG
- SENSOR WITH ZONE TAG
- CARBON DIOXIDE SENSOR
- FIRE DAMPER TAG
- CEILING RADIATION DAMPER TAG
- FIRE/SMOKE DAMPER WITH DUCT DETECTOR
- SMOKE DAMPER WITH DUCT DETECTOR
- DUCT WITH VOLUME DAMPER
- DUCT WITH MOTORIZED DAMPER
- DUCT WITH COUNTERBALANCED DAMPER
- DEMOLISHED DUCTWORK
- RL — REFRIGERANT LIQUID
- RS — REFRIGERANT SUCTION
- HP — REFRIGERANT HIGH PRESSURE
- LP — REFRIGERANT LOW PRESSURE

MECHANICAL DRAWING INDEX

SHEET NUMBER	SHEET NAME
H0.1	HVAC NOTES, LEGEND, AND DRAWING INDEX
H2.1	HVAC SECOND FLOOR PLAN
H4.1	HVAC ISOMETRIC
H7.1	HVAC DETAILS
H8.1	HVAC SCHEDULES
H8.2	HVAC SCHEDULES



DOCKSIDE INVESTMENTS
TENANT IMPROVEMENTS

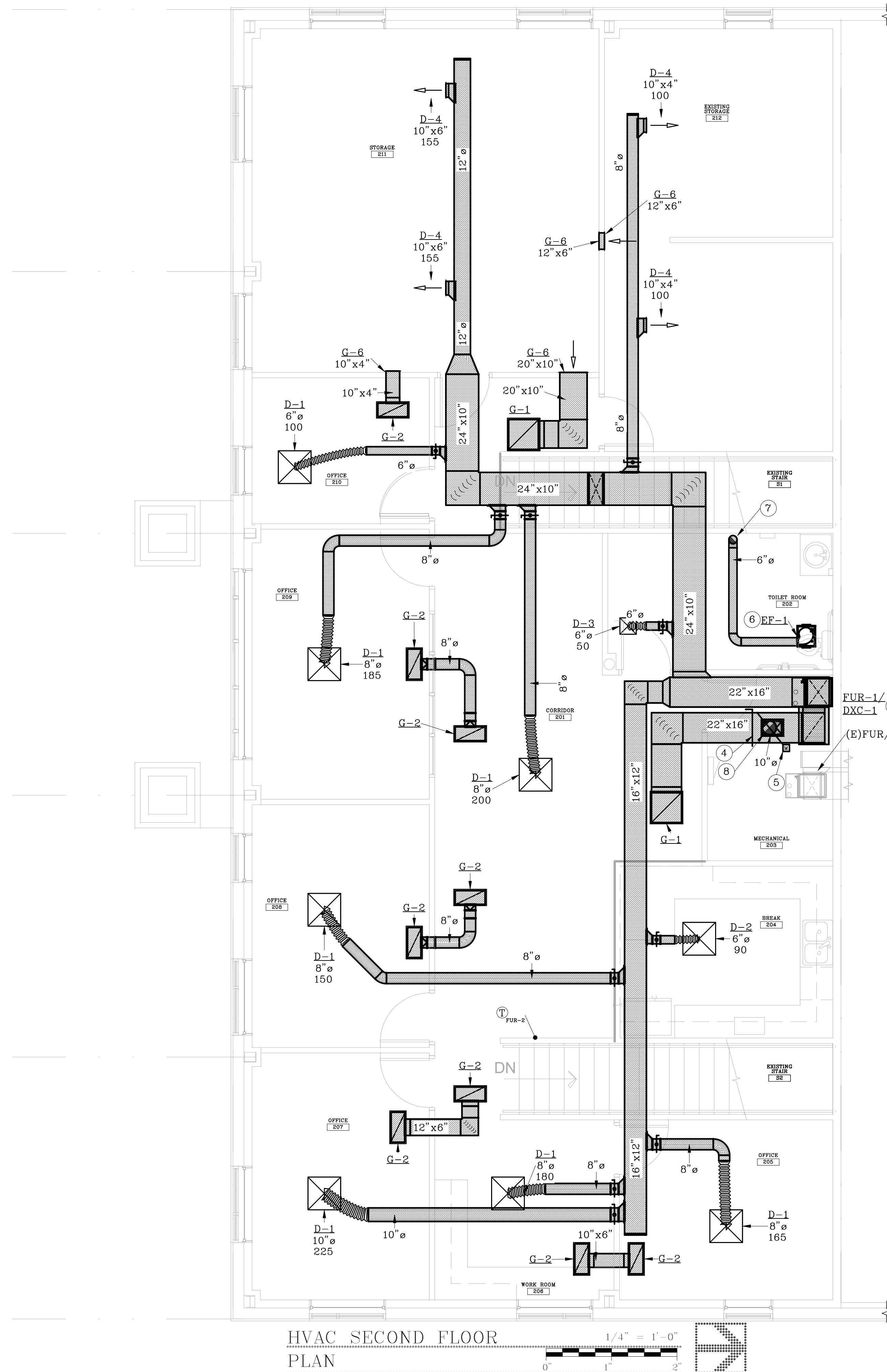
841 AUTOMATION DRIVE
WINDSOR, CO 80550

SHEET TITLE:
HVAC NOTES,
LEGEND, AND
DRAWING INDEX

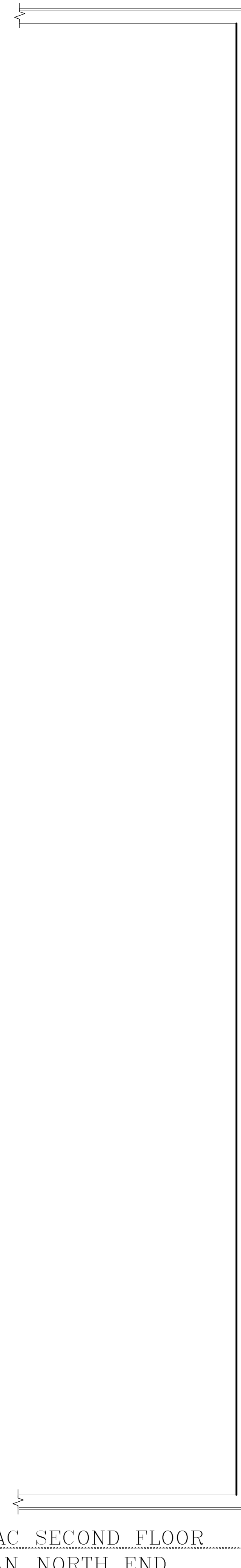
DATE:	01-17-23								
REVISION BLOCK:	BUILDING PERMIT SET								

PROJECT NO: 22-226

SHEET:
H0.1



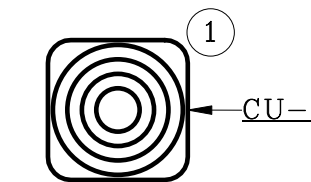
HVAC SECOND FLOOR
PLAN



HVAC SECOND FLOOR
PLAN-NORTH END

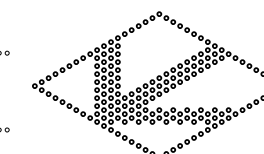
FLAG NOTES: (ALL PLANS THIS SHEET)

1. INSTALL NEW CONDENSING UNIT ON MANUFACTURER'S 3" INSTALLATION PAD AT LOCATION OF EXISTING CONDENSING UNITS. COORDINATE FINAL UNIT LOCATION WITH GC.
2. FURNACE SPLIT SYSTEM INSTALLED IN MECHANICAL ROOM. REFER TO GAS FURNACE DETAIL ON SHEET H7.1 FOR INSTALLATION INFORMATION. ROUTE CONDENSATE DRAIN PIPING TO NEAREST FLOOR DRAIN. COORDINATE FURNACE INSTALLATION WITH EXISTING FURNACE AND DUCTWORK. RE-ROUTE (E)OSA DUCT CONNECTED TO THE (E)FURNACE TO ALLOW FOR NEW WORK.
3. ROUTE 2"Ø PVC FLUE AND COMBUSTION AIR UP AND TERMINATE THROUGH ROOF TO CONCENTRIC VENT KIT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. COORDINATE ROOF PENETRATION WITH GC, OBSERVING ALL CODE REQUIRED CLEARANCES.
4. PROVIDE MANUAL RETURN AIR DAMPER TO ASSIST WITH OSA BALANCING.
5. MC TO PROVIDE, INSTALL, AND CONTROL 24v MOTORIZED DAMPER AND MANUAL DAMPER AT OSA CONNECTION TO RETURN AIR. INTERLOCK MOTORIZED DAMPER WITH FURNACE OCCUPIED OPERATION. BALANCE MANUAL DAMPER TO OSA VALUE LISTED IN FURNACE SCHEDULES.
6. REFER TO CEILING EXHAUST FAN DETAIL ON SHEET H7.1 FOR INSTALLATION INFORMATION.
7. ROUTE EXHAUST DUCT OF SIZE INDICATED UP THROUGH ROOF TO SLOPED ROOF CAP. COORDINATE ROOF PENETRATION WITH GC, OBSERVING ALL CODE REQUIRED CLEARANCES.
8. ROUTE OUTSIDE AIR INTAKE DUCTWORK OF SIZE INDICATED UP THROUGH ROOF. TERMINATE WITH GOOSENECK FITTING WITH 0.5" WIRE MESH, AT MINIMUM 2'-0" ABOVE ROOF DECK.





NO SCALE



TRANSFER GRILLES,
LOW ON WALL



INTEGRATED
MECHANICAL

HAZEL
A R C H I T E C T S
Richard Hazel
Loveland, Colorado
mhzazel@comcast.net 970.744.9672

DOCKSIDE INVESTMENTS TENANT IMPROVEMENTS

WINDSOR, CO 80550

841 AUTOMATION DRIVE

SHEET TITLE:

HVAC
SOMETRIC

01-17-23

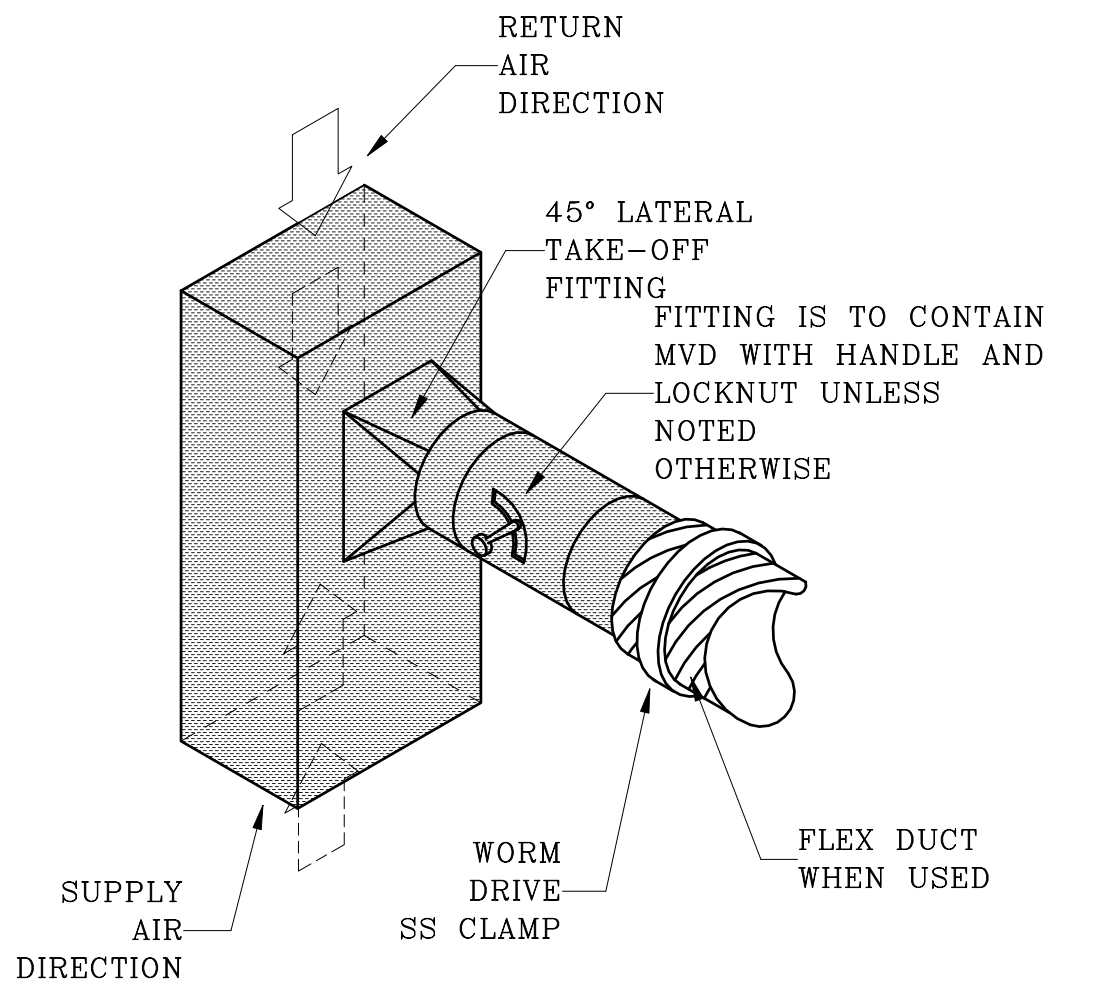
01-17-23

BUILDING PERMIT SET

PROJECT NO: 22-226

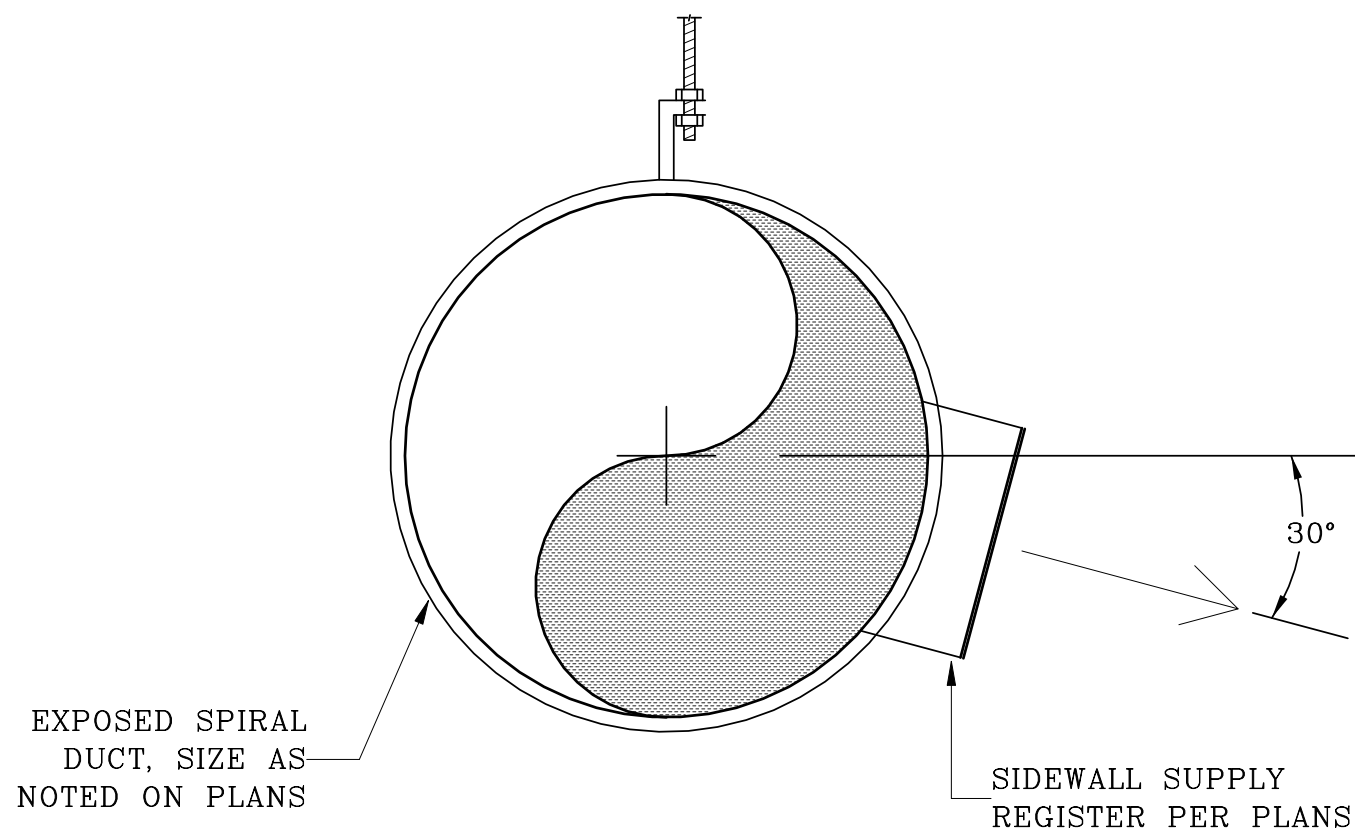
SET:

14.1



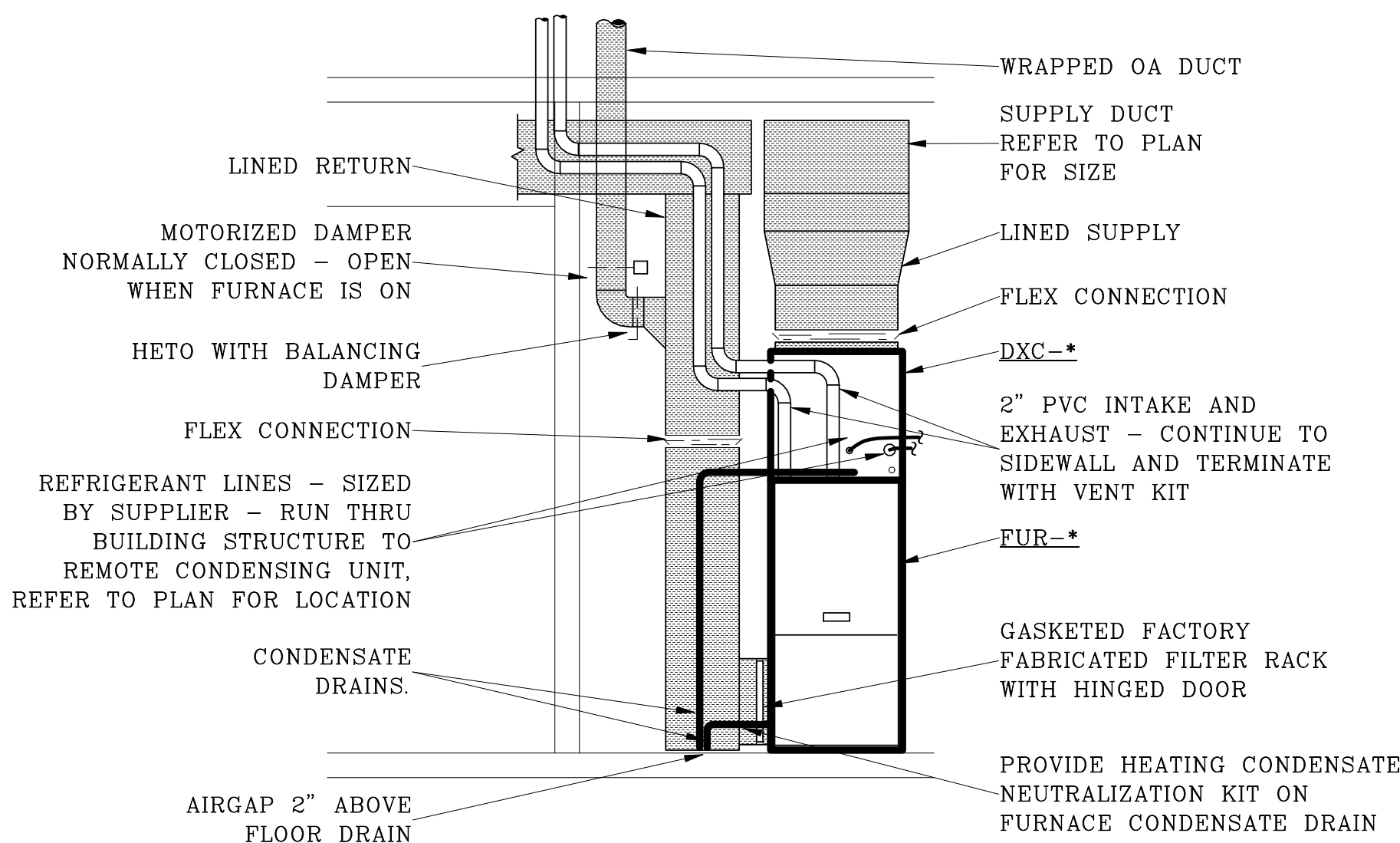
DUCT TAKE-OFF DETAIL
ROUND

SCALE: NONE



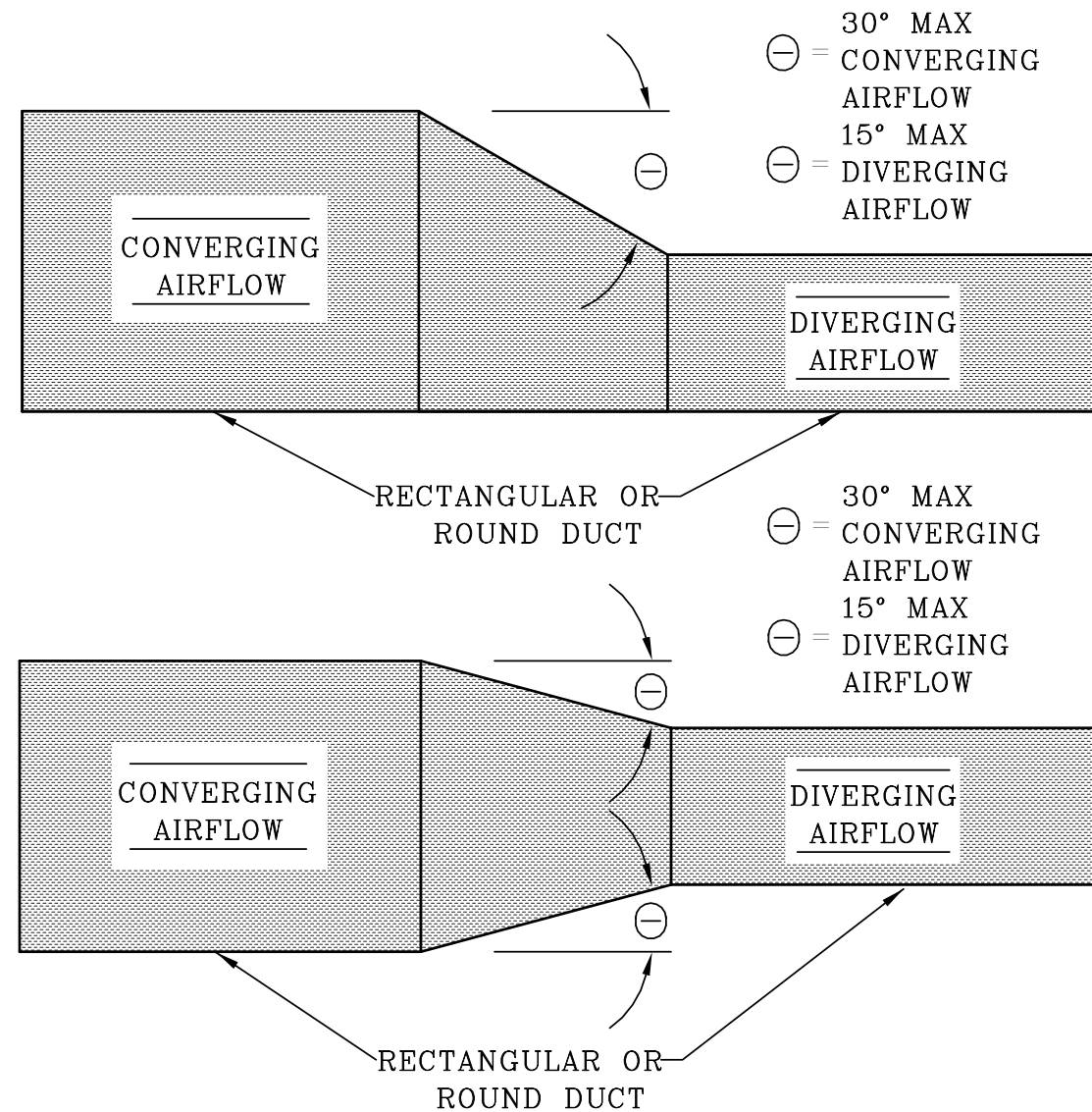
DUCT MOUNTED SIDEWALL
SUPPLY REGISTER DETAIL

SCALE: NONE



GAS FURNACE
DETAIL

SCALE: NONE

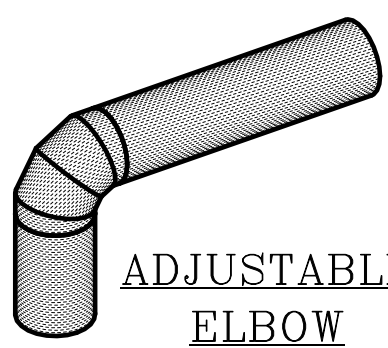


NOTE: 1) DETAIL APPLIES TO ALL DUCTWORK

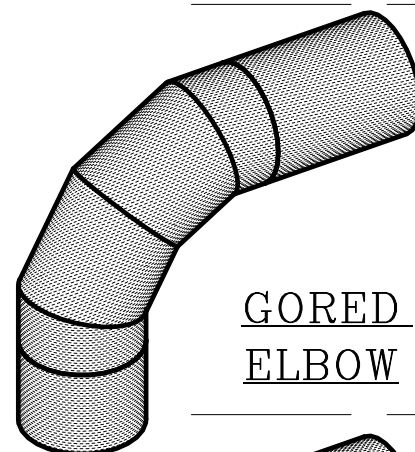
2) ON DUCTWORK TRANSITIONING ON ALL FOUR SIDES, NONE OF THE TRANSITION ANGLES MAY EXCEED 15°

DUCT TRANSITION
DETAIL

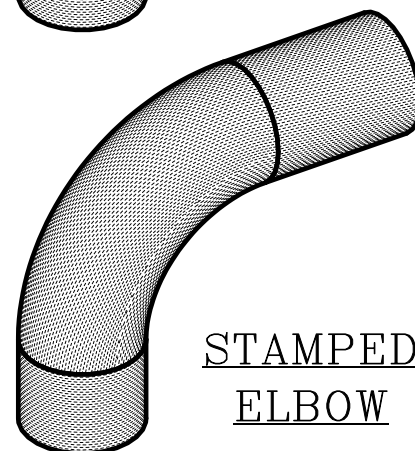
SCALE: NONE



ADJUSTABLE
ELBOW



GORED
ELBOW



STAMPED
ELBOW

ROUND DUCT ELBOW
DETAIL

SCALE: N/A

PERMITTED USES:

- ALL RESIDENTIAL SYSTEMS
- DUCT SYSTEMS 12" DIAMETER AND LESS AND CONCURRENTLY 2"WC PRESSURE CLASS AND LESS

PROHIBITED USES:

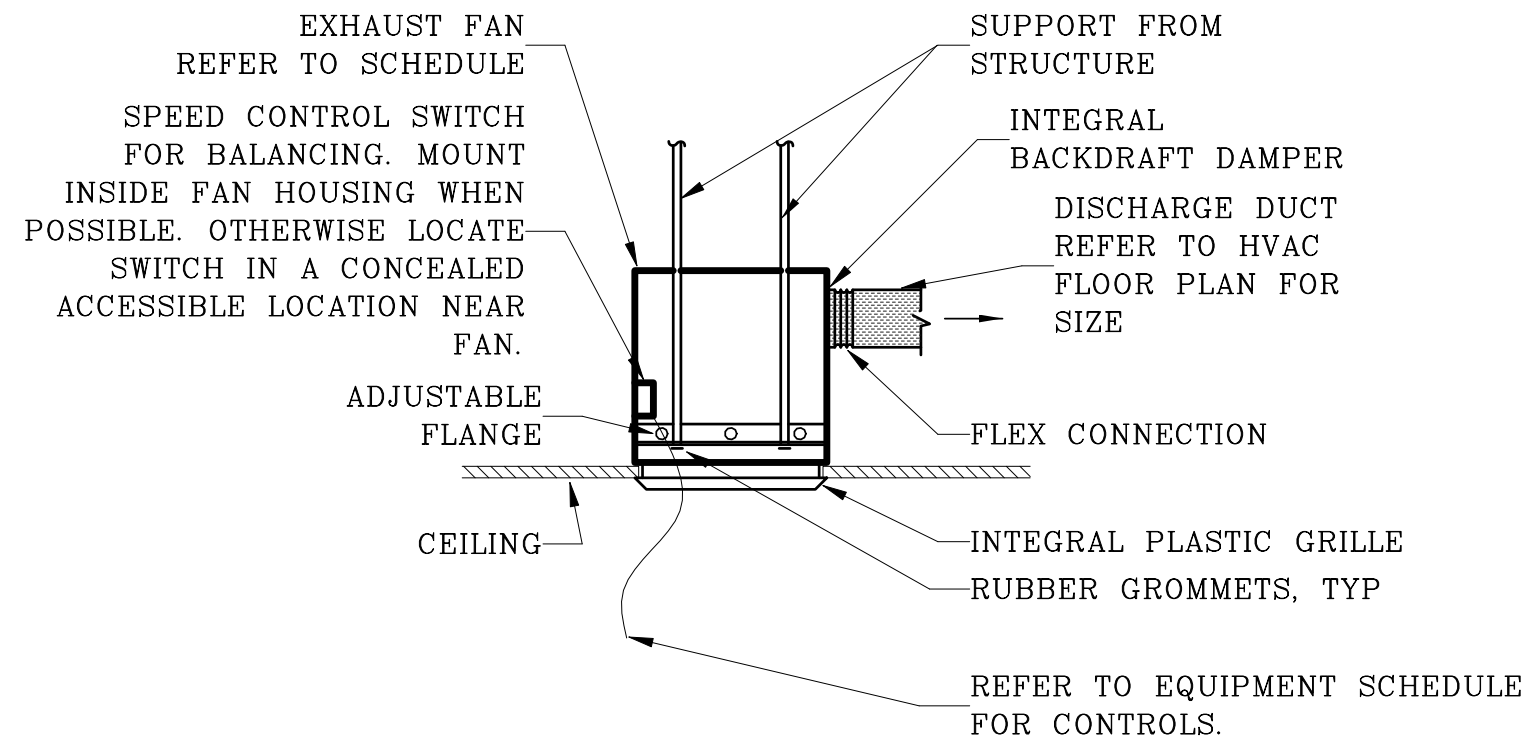
- DUCT SYSTEMS OVER 2"WC PRESSURE CLASS
- DUCTS LARGER THAN 12" DIAMETER
- DUST COLLECTION SYSTEMS
- STAINLESS OR ALUMINUM DUCT SYSTEMS
- GREASE DUCT SYSTEMS

REQUIREMENTS:

- MINIMUM 5 GORE
- MAY BE USED FOR ANY SIZE
- 1.5 CENTERLINE RADIUS
- JOINTS MAY REQUIRE FULL WELDING - SEE GENERAL NOTES

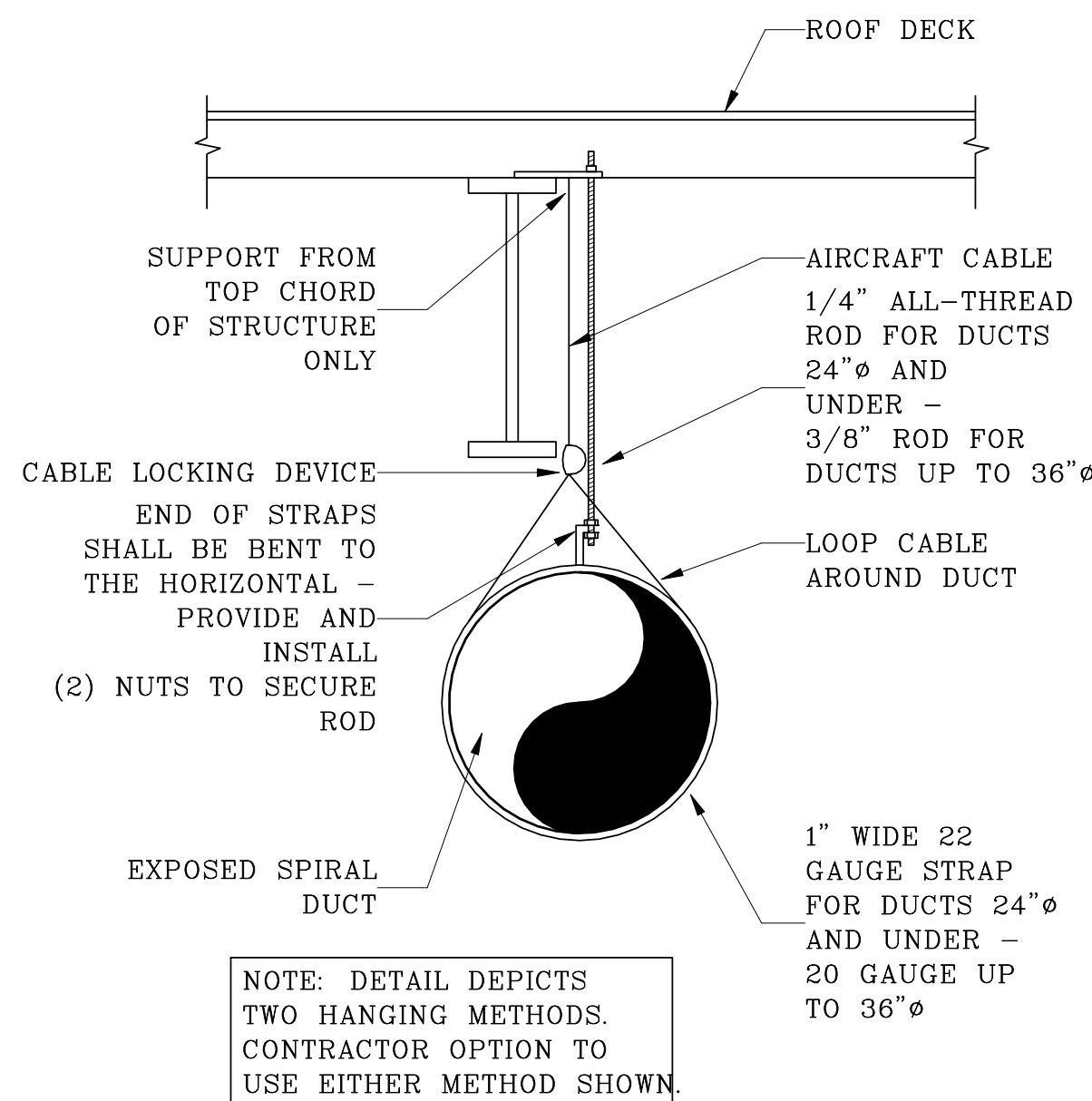
REQUIREMENTS:

- ANY PRESSURE CLASS
- MAY BE USED FOR ANY SIZE
- 1.5 CENTERLINE RADIUS
- JOINTS MAY REQUIRE FULL WELDING - SEE GENERAL NOTES



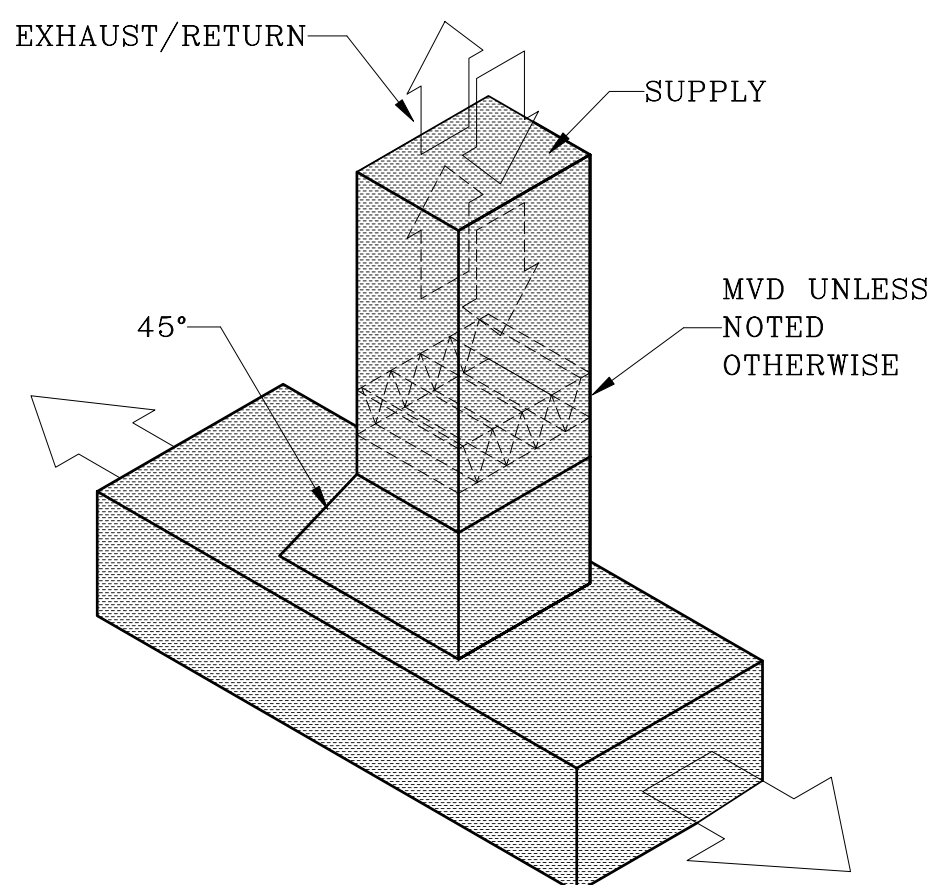
CEILING EXHAUST FAN
DETAIL

SCALE: NONE



EXPOSED SPIRAL
HANGER DETAIL

SCALE: NONE



DUCT TAKE-OFF DETAIL
RECTANGULAR

SCALE: NONE

EXHAUST FAN - EF-1



GEMINI Vari-Flow®
Ceiling Fans
100 Series

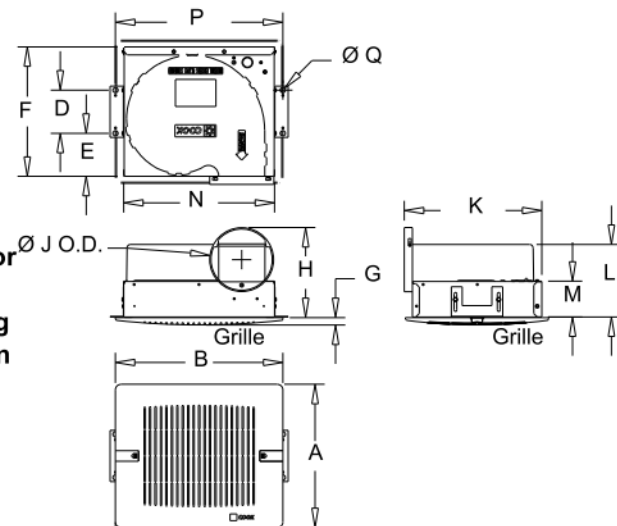
STANDARD CONSTRUCTION FEATURES:
Forward curved injection molded polypropylene fan wheel - Injection molded flame resistant fan housing with round outlet duct - 22 ga. galvanized steel inlet box - Isolation mounted motor, mounted to one piece galvanized stamped steel integral motor mount/inlet
Permanently lubricated electronically commutated variable speed motor with built-in electronic overload protection and disconnect plug - Field wiring compartment with receptable - Adjustable prepunched mounting bracket - White, high impact styrene injection molded grille - Shipped in ISTA certified transit tested packaging

Performance							
Qty	Catalog Number	Flow (CFM)	SP (inwc)	Nominal RPM	Input Watts	Speed Control	
1	GCVF-100	75	.330	907	9	EC	
Altitude (ft): 5361 Temperature (F): 70							
Motor Information							
Volts/Ph/Hz	Nameplate Amps						
115/1/60	.26						

Sound Data Inlet Sound Power by Octave Band												
1	2	3	4	5	6	7	8	LwA dBA	Sones			
47	48	51	52	47	40	34	25	52	41	1.5		

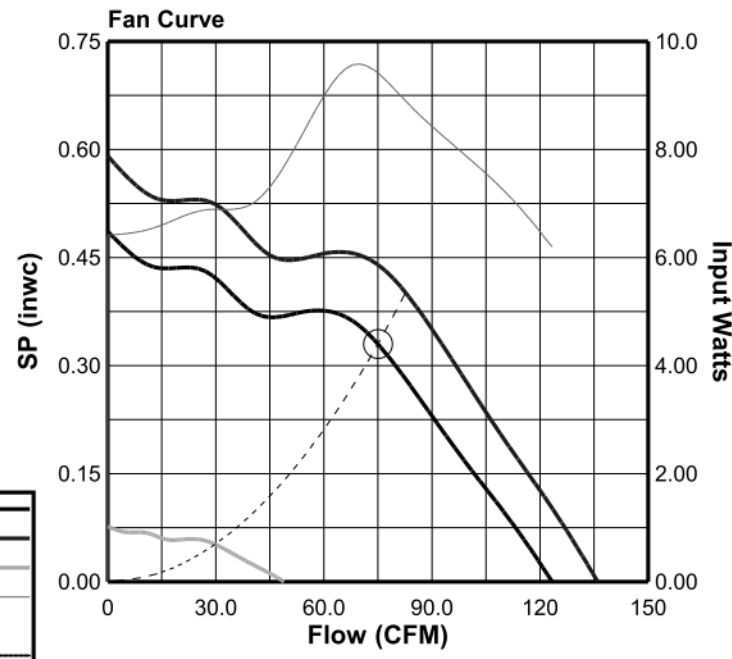
Accessories:
WHITE PLASTIC GRILLE
INTEGRAL BD DAMPER

NOTE:
-CONTROL VIA OCCUPANCY SENSOR
WITH TIME DELAY OFF, PROVIDED,
WIRED AND CONTROLLED BY EC.
-PROVIDE ROOF CAP WITH BIRD
SCREEN, FIELD VERIFY ROOF TYPE
BEFORE ORDERING



Dimensions (inches)		
A Plastic	13-1/4	H 8-3/8
B Plastic	15-1/2	J O.D. 5-15/16
A Steel	13-1/2	K 12-3/4
B Steel	15-1/2	L 6-11/16
A Aluminum	13-3/4	M 3-1/4
B Aluminum	15-1/2	N 14
D	4	P 15-1/2
E	4	Q 1/2
F	12	
G	5/8	

NOTE: Accessories may affect dimensions shown
[Weight(lbs)]** [Shipping 20 Unit] 17
**includes fan, motor & accessories



Fan Curve Legend
CFM vs SP (907)
100% EC (1000)
Min EC (360)
CFM vs Watts
Point of Operation
System Curve

v10.2.189.15392

MECHANICAL DUCT INSULATION SCHEDULE

INSULATION KEY	INSULATION DESCRIPTION	TYPE	THICKNESS (IN)	DENSITY (PCF)	TOTAL R VALUE	ACCOUSTICAL (NRC)
H01	RECTANGULAR DUCT IN CEILING SPACE WITH NO ROOF	LINER	1.0	1.5	4.2	0.70
H02	RECTANGULAR DUCT IN CEILING SPACE ADJACENT TO EXTERIOR ROOF	LINER	1.5	1.5	6.0	0.80
H03	RECTANGULAR DUCT IN CEILING SPACE ADJACENT TO EXTERIOR ROOF AND SPACE IS A RETURN PLENUM	LINER	1.0	1.5	4.2	0.70
H04	FLEXIBLE DUCT TO DIFFUSER	FLEX	1.5	~	6.0	~
H05	ROUND DUCT IN CEILING SPACE WITH NO ROOF	WRAP	1.5	0.75	4.2	~
H06	ROUND DUCT IN SPACE ADJACENT TO EXTERIOR ROOF	WRAP	2.1	0.75	6.0	~
H07	RECTANGULAR DUCT EXTERIOR TO BUILDING ENVELOPE. DOUBLE WALL WATER TIGHT CONSTRUCTION. WRAP NOT ACCEPTABLE	LINER	3.0	1.5	12	0.95
H08	ROUND DUCT EXPOSED IN CONDITIONED SPACE	N/R		~	~	~
H09	RECTANGULAR DUCT EXPOSED IN CONDITIONED SPACE	LINER	1.0	1.5	4.2	0.70
H10	ROUND OR RECTANGULAR OUTSIDE AIR DUCT	WRAP	5.0	0.75	12	~
H11	ROUND DUCT IN VENTILATED CRAWL SPACE	WRAP	5.0	0.75	12	~
H12	RECTANGULAR DUCT IN VENTILATED CRAWL SPACE	LINER	3.0	1.5	12	0.95
H13	BURIED ROUND DUCT	INTERNAL		~	6.0	~

GRILLES, REGISTERS AND DIFFUSERS SCHEDULE

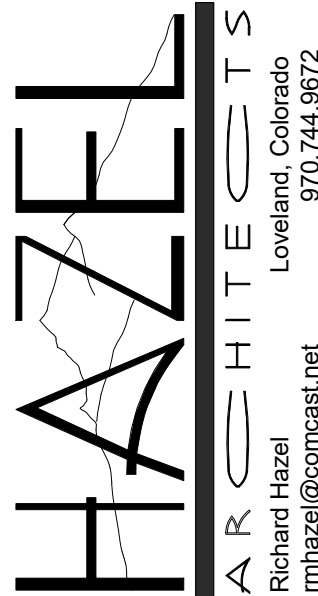
TAG	MAKE & MODEL NUMBER	DESCRIPTION	NECK SIZE	DUTY	COLOR	FRAME SIZE	FRAME TYPE	FRAME CONST	DAMPER	REMARKS
D-1	TITUS OMNI-3	ARCHITECTURAL UNI-FLO DIFFUSER	6"ø	SUPPLY	WHITE	24"x24"	LAY-IN	STEEL	NO	
D-1	TITUS OMNI-3	ARCHITECTURAL UNI-FLO DIFFUSER	8"ø	SUPPLY	WHITE	24"x24"	LAY-IN	STEEL	NO	
D-1	TITUS OMNI-3	ARCHITECTURAL UNI-FLO DIFFUSER	10"ø	SUPPLY	WHITE	24"x24"	LAY-IN	STEEL	NO	
D-2	TITUS OMNI-1	ARCHITECTURAL UNI-FLO DIFFUSER	6"ø	SUPPLY	WHITE	24"x24"	SURFACE	STEEL	YES	WITH TRIM FRAME
D-3	TITUS OMNI-1	ARCHITECTURAL UNI-FLO DIFFUSER	6"ø	SUPPLY	WHITE	12"x12"	SURFACE	STEEL	YES	WITH TRIM FRAME
D-4	TITUS 300RL-1	SIDEWALL SUPPLY DIFFUSER	10"x4"	SUPPLY	WHITE	NECK +2	SIDEWALL	STEEL	YES	
D-4	TITUS 300RL-1	SIDEWALL SUPPLY DIFFUSER	10"x6"	SUPPLY	WHITE	NECK +2	SIDEWALL	STEEL	YES	
G-1	TITUS PAR-3	PERFORATED FACE GRILLE	22"x22"	RETURN	WHITE	24"x24"	LAY-IN	STEEL	NO	
G-2	TITUS PAR-3	PERFORATED FACE GRILLE	22"x10"	RETURN	WHITE	24"x12"	LAY-IN	STEEL	NO	
G-6	TITUS 350RL	LOUVERED FACE GRILLE	10"x4"	RETURN	WHITE	NECK +1.75"	SIDEWALL	ALUM	NO	
G-6	TITUS 350RL	LOUVERED FACE GRILLE	12"x6"	RETURN	WHITE	NECK +1.75"	SIDEWALL	ALUM	NO	
G-6	TITUS 350RL	LOUVERED FACE GRILLE	20"x10"	RETURN	WHITE	NECK +1.75"	SIDEWALL	ALUM	NO	

VENTILATION SCHEDULE - FUR-1

OUTDOOR AIR RATES HAVE BEEN ADJUSTED FOR 80% DISTRIBUTION EFFECTIVENESS

(BASED ON 2018 IMC)

SPACE NUMBER	SPACE NAME	AREA (SF)	OCCUPANCY CLASSIFICATION	OCCUPANT DENSITY (#/1000 SF)	PEOPLE COUNT	PEOPLE OA RATE (CFM/#)	AREA OA RATE (CFM/SF)	PEOPLE OA (CFM)	AREA OA (CFM)	SPACE OA (CFM)
201	Corridor	474	018-80%-Corridor	1	1	0.00	0.075	0	36	36
202	Toilet	113	018-80%-Restroom	1	1	0.00	0.000	0	0	0
203	Mech	85	018-80%-Storage-Room	1	1	0.00	0.150	0	13	13
204	Break	142	018-80%-Break	5	1	6.25	0.075	6	11	17
205	Office	143	018-80%-Office-Private	5	1	6.25	0.075	6	11	17
206	Work	120	018-80%-Copy	5	1	6.25	0.075	6	9	15
207	Office	162	018-80%-Office-Private	5	1	6.25	0.075	6	12	18
208	Office	160	018-80%-Office-Private	5	1	6.25	0.075	6	12	18
209	Office	177	018-80%-Office-Private	5	1	6.25	0.075	6	13	20
210	Office	95	018-80%-Office-Private	5	1	6.25	0.075	6	7	13
211	Storage	442	018-80%-Storage-Room	1	1	0.00	0.150	0	66	66
212	Existing Storage	359	018-80%-Storage-Room	1	1	0.00	0.150	0	54	54
Grand total: 12										287



DOCKSIDE INVESTMENTS
TENANT IMPROVEMENTS

SHEET TITLE:
HVAC
SCHEDULES

DATE:
01-17-23

REVISION BLOCK:
BUILDING PERMIT SET

PROJECT NO: 22-226

SHEET:
H8.1

IM INTEGRATED
MECHANICAL

3220 MAPLE ST. SUITE 110
FORT COLLINS
COLORADO 80521
INT.MECH.COM
970.556.0570
FRONT.DESIGN@MECH.COM

DOCKSIDE INVESTMENTS
TENANT IMPROVEMENTS

1 AUTOMATION DRIVE
WINDSOR, CO 80553

REVISION BLOCK:	DATE:
BUILDING PERMIT SET	01-17-23

SHEET:
H8.2

Project: 22-226 - Docksider Investments
Prepared By:

01/16/2023

Certified Drawing For FUR-1

NOTES:
1. Doors may vary by model.
2. Minimum return-air openings at furnace, based on metal duct. If flex duct is used, see flex duct manufacturer's recommendations for equivalent diameter.
a. For 800 CFM 16-in. (406 mm) round or 14 1/2 x 12-in. (368 x 305 mm) rectangle.
b. For 1200 CFM 20-in. (508 mm) round or 14 1/2 x 14 1/2-in. (368 x 369 mm) rectangle.
c. For 1600 CFM 22-in. (559 mm) round or 14 7/8 x 22 1/16-in. (384 x 560mm) rectangle.
d. Return air above 1800 CFM at 25.5 in. w.c. (CFM on 24-37 casing; requires use of the following configurations). A door is also required in addition to the supply table in this document for specific use to allow for sufficient airflow to the furnace.
3. Vent and Combustion Air pipes through blower compartment must use accessory "Vent Kit" Through the Cabinet". See accessory list for current part number.

The diagram shows four main views of the furnace unit: Top View, Front View, Side View, and Rear View. Each view includes detailed dimensions for different models (FUR-1A, FUR-1B, FUR-1C, FUR-1D) and components like doors, vents, and piping. The side view is labeled 'DIMENSIONAL DRAWING' vertically. Below the drawings are notes regarding return-air openings, door requirements, and vent/combustion air pipe specifications. At the bottom left, there is a section for 'Furnace Model:', 'Furnace Efficiency:', and 'Htg Capacity:' with corresponding values for model 59SC and AFUE 93+.

Furnace Model: **59SC**
Furnace Efficiency: **+93 AFUE**
Htg Capacity: **80,000 Btuh (Size 090)**

Airflow: Up to 2000 Cig CFM on Evap Coil
Part Number: **59SC58080E1-20**

Dimensions			
A	B	C	D
21.00 in	19.38 in	19.50 in	10.50 in

Shipping Wgt	
A	B
145.50 lb	154.50 in

The Product and Ratings Data in this program is subject to change at any time and without notice. Please refer to the latest product literature and the AHRI directory at www.ahridirectory.org for the most up-to-date information.

Residential Carrier Products Bidr 1.30 Page 8 of 8

Project: 22-226- Dockside Investments		Unit Report for FUR-1	01/16/2023		
Prepared By:					
					
Outdoor Unit Parameters		Indoor Coil Parameters			
Unit Model:	24ACC	Unit Model:	CNPV		
Unit Size:	4 Tons (Size 48)	Unit Size:	4 Tons (Size 48)		
Voltage:	208/230-1-60	Cabinet Finish:	Painted		
		Cabinet Width:	21 Inch		
		Refrigerant Type:	Puron		
Outdoor Unit Dimensions and Weight		Indoor Coil Dimensions and Weight			
Unit Length:	35 in	Unit Length:	21 in		
Unit Width:	35 in	Unit Width:	21 in		
Unit Height:	32.0625 in	Unit Height:	22.0625 in		
Unit Shipping Weight:	291. lb	Unit Shipping Weight:	65.5 lb		
RESIDENTIAL APPLICATIONS					
This warranty is the original purchasing owner and subsequent owners only to the extent and as stated in the Warranty Conditions and below. The limited warranty period in years, depending on the part and the claimant, is as shown in the table below.					
Limited Warranty (Years)					
Item	Original Owner	Subsequent Owner			
Parts	10* (or 5)	5			
Compressor	10* (or 5)	5			
*If properly registered within 90 days of original installation, otherwise 5 years (except in California and Quebec and other jurisdictions that prohibit warranty benefits conditioned on registration). See Warranty Conditions below.					
OTHER APPLICATIONS					
The warranty period is five (5) years on the compressor, and one (1) year on all other parts. The warranty is the original owner only and is not available for subsequent owners.					
Ordering Information					
Part Number	Description	Quantity			
Outdoor Unit					
24ACC848A003	Performance Series Air Conditioner with Puron Refrigerant 4 Tons Cooling 16 SEER @ ARI Conditions	1			
Accessories					
KSALA0301410	Low-Ambient Pressure Switch for Outdoor Unit	1			
KSAWS0101AAA	Winter Start Control for Outdoor Unit	1			
KSAHS1701AAA	Start Assist - Capacitor and Relay for Outdoor Unit	1			
Indoor Coil					
CNPVP4821ALA	Cased Vertical N-Coil Evaporator Coil with Puron	1			
	Painted				
	21 inch				
Furnace					
59SC5B080E21-20	59SC5 Comfort +95 Single Stage Gas Furnace	1			
Residential Carrier Products Bldr 1.30					
		Page 3 of 4			

Unit Report For FUR-1		01/16/2023
Project: 22-226- Dockside Investments		
Prepared By:		
	+95 AFUE	
	80,000 Btuh (Size 080)	
	Up to 2000 Cfg CFM on Evap Coil	
	21.0 inches	
Accessories		
P908-0001	Condensate Neutralizer Kit for Furnace	1
TP-PRH01-B	Programmable Thermostat for Furnace	1
KGAVT0801CVT	Concentric Vent Kit (ULCS636) for Furnace	1

Furnace Parameters and Dimensions and Weight	
Furnace:	SEER Enhancing Furnace
Furnace Model:	595C
Furnace Efficiency:	+95 AFUE
Htg Capacity:	80,000 Btuh (Size 080)
Airflow:	Up to 2000 Cfg CFM on Evap Coil
Unit Length:	29.50 in
Unit Width:	21.00 in
Unit Height:	35.00 in
Unit Shipping Weight:	154.5 lb



The image shows a white, rectangular SEER Enhancing Furnace unit. It has a control panel on the left side with a digital display and several buttons. The unit is designed for wall or ceiling installation.

The Product and Ratings Data in this program is subject to change at any time and without notice. Please refer to the latest product literature and the AHRI directory at www.ahridirectory.org for the most up-to-date information.

Project: 22-226-Dockside Investments		Performance Summary for FUR-1		01/10/2023						
Prepared By:										
System Performance										
System: 24ACC/CNPV			Actual Cig Airflow: 2163.3 CFM							
System Quantity: 1			Standard Cig Airflow: 1600.0 CFM							
Altitude: 5000.0 ft			Total Net Cig Capacity: 44.51 MBH							
Furnace Type: 59SCSB080E21+20			Net Sensible Cig Capacity: 42.64 MBH							
Linear Pipe Length: 56.0 ft			Total System Power: 3.58 kW							
Liquid Lift: 16.0 ft										
SEER @ ARI Conditions: 15.0										
EER @ ARI Conditions: 12.5										
System Parameters										
Outdoor Unit Parameters			Indoor Coil Parameters							
Unit Model: 24ACC648A003			Unit Model: CNPVP4821ALA							
Unit Size (Nominal): 4 Tons (Size 48)			Unit Size (Nominal): 4 Tons (Size 48)							
Voltage: 208/230-1-60 V-Ph-Hz			Ent Air DB: 85.06 °F							
Cig Ent Air Ambient: 95.0 °F			Ent Air WB: 67.01 °F							
			Ent Enthalpy: 34.62 BTU/lb							
			Lvg Air DB: 63.13 °F							
			Lvg Air WB: 60.40 °F							
			Lvg Enthalpy: 29.12 BTU/lb							
			Total External Static Pressure: 0.19 in wg							
Furnace Ratings			Furnace Performance							
Furnace: 59SCSB080E21+20			Certified Temp High Rise Range: 40-70 F							
Furnace Efficiency: +95 AFUE										
Input Max Heat: 60,000 BTU/hr										
Output Max Heat: 78,000 BTU/hr										
The customer must ensure the specified airflow and static pressure are within furnace capabilities.										
Electrical Data										
Outdoor Electrical Data			Furnace Electrical Data							
Unit Voltage: 208/230-1-60 V-Ph-Hz			Unit Voltage: 115-1-60 V-Ph-Hz							
Fan Motor FLA: 1.20 Amps			Unit MCA: 12.3 Amps							
MCA: 26.1 Amps			Unit MOCOP: 20 Amps							
Max Fuse: 40 Amps										
Operating Range Min: 197 V										
Operating Range Max: 253 V										
Compressor LRA: 19.9 Amps										
Compressor LRA: 109.0 Amps										
The Product and Ratings Data in this program is subject to change at any time and without notice. Please refer to the latest product literature and the AHRP directory at www.ahrpdirectory.org for the most up-to-date information.										

NOTES:

1. PROVIDE CONCENTRIC VENT TERMINATION KIT.
2. PROVIDE WITH GASKETED FILTER RACK.
3. PROVIDE WITH HEATING CONDENSATE NEUTRALIZATION KIT.
4. PROVIDE COIL WITH CONDENSATE OVERFLOW SWITCH.

INTERLOCK WITH FURNACE OPERATION.

5. PROVIDE LOW AMBIENT KIT AND CONTROL.
6. LINE SETS TO BE SELECTED AND PROVIDED BY EQUIPMENT SUPPLIER, INSTALLED BY MC.
7. OUTDOOR UNIT INSTALLED ON FACTORY SUPPLIED 3" THICK MOUNTING PAD.
8. VERTICAL UPFLOW FURNACE APPLICATION.
9. TOTAL AIR BALANCE - 1800 CFM SA, 300 CFM OSA, AND 1500 CFM RA.

GENERAL MECHANICAL REQUIREMENTS:

CODES AND PERMITS

WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES, REGULATIONS AND ORDINANCES. PERMITS NECESSARY FOR PERFORMANCE OF WORK SHALL BE SECURED AND PAID FOR BY THE CONTRACTOR.

PRE-BID

FOR EXISTING BUILDINGS, THE BIDDERS SHALL PERFORM A BUILDING AND SPACE SITE VISIT PRIOR TO BID. THE ACT OF SUBMITTING A BID INDICATES THE BIDDER DOES AGREE THEY HAVE A FULL UNDERSTANDING OF THE SCOPE OF WORK INVOLVED WITH THE EXISTING CONDITIONS.

DRAWINGS AND COORDINATION

DRAWINGS FOR MECHANICAL WORK ARE DIAGRAMMATIC IN NATURE, AND ARE NOT INTENDED TO BE SCALED FOR EXACT MEASUREMENTS NOR TO SERVE AS SHOP DRAWINGS. CHANGES FROM THE PLANS MADE WITHOUT CONSENT OF THE ENGINEER SHALL RELIEVE THE ENGINEER OF RESPONSIBILITY FOR ALL CONSEQUENCES ARRIVING OUT OF SUCH CHANGES. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. WHERE CONDITIONS REQUIRE REASONABLE CHANGES TO THOSE INDICATED ON THE DRAWINGS, MAKE SUCH CHANGES WITHOUT ADDITIONAL COST TO THE OWNER. COORDINATE ALL WORK WITH OTHER TRADES.

WARRANTY

WORKMANSHIP, MATERIALS, EQUIPMENT AND PROPER OPERATION SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE FROM THE OWNER. INITIAL ACCEPTANCE OF WORK SHALL NOT WAIVE THIS GUARANTEE. THIS GUARANTEE SHALL NOT INCLUDE NORMAL MAINTENANCE REQUIRED BY THE OWNER AS DESCRIBED IN EQUIPMENT OPERATION AND MAINTENANCE MANUALS.

SUBMITTALS

CONTRACTOR SHALL SUBMIT TO THE ARCHITECT/ENGINEER A PORTABLE DOCUMENT FORMAT "PDF" COPY OF SUBMITTAL BROCHURES FOR REVIEW. PROVIDE INFORMATION ON ALL MAJOR EQUIPMENT AS LISTED ON DRAWING EQUIPMENT SCHEDULES, AS WELL AS VALVES, DUCTWORK ACCESSORIES AND TEMPERATURE CONTROL DIAGRAM AS APPLICABLE.

OPERATION AND MAINTENANCE MANUALS

CONTRACTOR SHALL FURNISH AT THE COMPLETION OF THE PROJECT A PORTABLE DOCUMENT FORMAT "PDF" COPY OF COMPLETE OPERATION AND MAINTENANCE MANUALS TO THE ARCHITECT/ENGINEER FOR REVIEW PRIOR TO TURNOVER TO OWNER. MANUALS TO BE BOUND AND INCLUDE INSTALLATION INSTRUCTIONS, REPLACEMENT PARTS LISTS AND MAINTENANCE INFORMATION ON ALL EQUIPMENT AS DESCRIBED IN THE SUBMITTALS SECTION. COMPLETED OPERATION AND MAINTENANCE MANUALS ARE TO BE FORWARDED TO THE OWNER WITHIN 90 DAYS AFTER OWNER BUILDING ACCEPTANCE.

PRODUCT SUBSTITUTIONS

MANUFACTURER MODEL NUMBERS LISTED ON THE DRAWINGS AND/OR SPECIFICATIONS ARE TO BE CONSIDERED AS THE BASIS OF DESIGN. WHERE TWO OR MORE ALTERNATE MANUFACTURERS OR MATERIALS ARE LISTED, THE CHOICE OF THESE SHALL BE OPTIONAL WITH THE CONTRACTOR. PRIOR TO THE AWARDDING OF THE CONTRACT, CONTRACTOR MAY REQUEST A PROPOSED SUBSTITUTION OF MATERIALS IN WRITING TO THE ARCHITECT/ENGINEER NO LATER THAN SEVEN DAYS PRIOR TO THE RECEIPT OF BIDS. THE COST OF ANY CHANGES REQUIRED BY OTHER TRADES, INCLUDING A/E DESIGN, DUE TO THE USE OF EQUIPMENT AND/OR MATERIALS OTHER THAN THAT OF THE BASIS OF DESIGN SHALL BE PAID BY THE CONTRACTOR.

RECORD DRAWINGS

CONTRACTORS SHALL MAINTAIN A COMPLETE AND ACCURATE SET OF MARKED UP DRAWINGS SHOWING ACTUAL LOCATIONS OF INSTALLED WORK. THESE DRAWINGS ARE TO BE FORWARDED TO THE OWNER AS PART OF THE OPERATION AND MAINTENANCE MANUALS AT THE COMPLETION OF THE PROJECT.

ACCESS DOORS

PROVIDE ALL ACCESS DOORS/PANELS AS REQUIRED FOR ACCESS TO VALVES, DAMPERS, CONTROL DEVICES, FILTERS AND ANY OTHER ITEMS FOR WHICH ACCESS IS REQUIRED FOR EITHER OPERATION OR SERVICING. WHERE ACCESS DOORS ARE TO BE INSTALLED IN ASSEMBLIES REQUIRED TO HAVE A SPECIFIC FIRE RATING, ACCESS DOORS SHALL ALSO BE FIRE RATED.

PIPING AND DUCTWORK SEALANT THROUGH RATED ASSEMBLIES

PENETRATIONS SHALL BE SEALED AS REQUIRED IN ACCORDANCE WITH BUILDING AND MECHANICAL CODES TO RESIST THE PASSAGE OF FLAME AND PRODUCTS OF COMBUSTION IN ORDER TO MAINTAIN THE RESISTANCE RATING OF THE CONSTRUCTION BEING PENETRATED.

PROTECTION OF MATERIALS AND EQUIPMENT

CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ALL WORK, MATERIALS, AND EQUIPMENT PROVIDED UNDER THIS SECTION. PIPE OPENINGS SHALL BE CLOSED WITH CAPS OR PLUGS TO PREVENT THE ENTRANCE OF DEBRIS DURING CONSTRUCTION. ALL DUCTWORK OPENINGS SHALL BE SEALED CLOSED DURING CONSTRUCTION.

ALTITUDE

SUPPLIERS SHALL CONFIRM THAT ALL EQUIPMENT BEING FURNISHED IS APPROPRIATE FOR USE AT THE ALTITUDE OF THE SITE.

EQUIPMENT AND PIPING IDENTIFICATION

PROVIDE EQUIPMENT LABELS FOR ALL MAJOR EQUIPMENT, INCLUDING BUT NOT LIMITED TO AIR HANDLING SYSTEMS, FANS, VAV BOXES, CONTROLS, DAMPERS, CONTROL VALVES AND PUMPS.

PROVIDE PIPE MARKERS ON CW, HW AND HWC SYSTEMS. LABELS TO BE AT MAXIMUM 6 FEET APART, WITH FLOW DIRECTION INDICATED, AS APPLICABLE.

ADDITIONALLY, PROVIDE LABELING ON POTABLE WATER MANIFOLDS INDICATING PLUMBING FIXTURE SERVED BY THE OUTLET, AS APPLICABLE.

LABELS SHALL BE AFFIXED OR ADHERED PERMANENTLY TO EQUIPMENT. EQUIPMENT INSTALLED INDOORS TO BE LABELED WITH EMBOSSING TAPE.

EQUIPMENT INSTALLED OUTDOORS TO BE LABELED WITH ENGRAVED PLASTIC LAMINATE SIGNS.

PIPE MARKERS TO BE SELF-ADHESIVE, MANUFACTURED FOR SUCH PURPOSE.

STARTERS AND DISCONNECTS

EQUIPMENT STARTERS SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR. EQUIPMENT DISCONNECTS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE ON THE DRAWINGS. STARTERS SHALL BE NEMA TYPE, AND SHALL INCLUDE PHASE MONITORING FOR MOTORS 5 HP AND LARGER.

TESTING

TESTING SHALL BE PERFORMED ON THE FOLLOWING SYSTEMS SPECIFIED. ALL SYSTEMS LISTED MAY NOT BE INCLUDED IN PROJECT, REFER TO DRAWINGS FOR APPLICABLE SYSTEMS.

SOIL, WASTE AND STORM DRAINAGE PIPING SHALL BE TESTED IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL CODES. DOMESTIC WATER PIPING SHALL BE TESTED AND PROVEN WATERTIGHT UNDER A PRESSURE NOT LESS THAN THE WORKING PRESSURE OF THE SYSTEM FOR A 24 HOUR PERIOD.

DOMESTIC WATER PIPING SYSTEM SHALL BE CHLORINATED AND STERILIZED IN ACCORDANCE WITH REQUIREMENTS OF LOCAL JURISDICTION.

NATURAL GAS PIPING SHALL BE TESTED WITH AN AIR PRESSURE OF MINIMUM TWO TIMES THE DESIGN SYSTEM PRESSURE, BUT NO LESS THAN 3 PSIG, FOR A PERIOD OF 24 HOURS WITHOUT PRESSURE DROP.

BALANCING

SYSTEM BALANCING SHALL BE PERFORMED BY A CERTIFIED BALANCING CONTRACTOR. BALANCE ALL SYSTEMS INCLUDING AIRFLOW TO AND FROM ALL OPENINGS, AND PUMPED WATER SYSTEMS INCLUDING DOMESTIC WATER RECIRCULATION SYSTEMS AS APPLICABLE. MAKE ANY ADJUSTMENTS NECESSARY TO RESULT IN CONDITIONS INDICATED AND PROVIDE READJUSTMENTS TO ITEMS IN REPORT AS MAY BE REQUESTED BY ARCHITECT/ENGINEER. SUBMIT TWO COPIES OF TEST AND BALANCE REPORT FOR APPROVAL. FAN AND PUMP SYSTEMS TO BE BALANCED WITHIN PLUS OR MINUS 5 PERCENT OF LISTED VALUES. AIR INLETS AND OUTLETS TO BE BALANCED WITHIN PLUS 10 PERCENT OR MINUS 5 PERCENT OF LISTED VALUES. BALANCE REPORT TO INCLUDE:

UNIT IDENTIFICATION

MANUFACTURER AND NAMEPLATE DATA

EQUIPMENT NAMEPLATE AMPERAGE AND ACTUAL AMPERAGE

RPM (DESIGN AND ACTUAL)

FAN CFM (DESIGN AND ACTUAL)

FAN STATIC PRESSURE (DESIGN AND ACTUAL)

PUMP GPM (DESIGN AND ACTUAL)

PUMP DISCHARGE AND SUCTION PRESSURE

REGISTER, GRILLE, DIFFUSER REFERENCE NUMBER AND LOCATION

INLET/OUTLET CFM (DESIGN AND ACTUAL)

FLOW DEVICE PRESSURE DROP, CFM OR GPM

A FINAL BALANCING REPORT SHALL BE PROVIDED TO THE OWNER AFTER COMPLETION OF THE PROJECT.

CLEANING

AT THE COMPLETION OF WORK, ALL FIXTURES AND EQUIPMENT SHALL BE THOROUGHLY CLEANED AND DELIVERED IN A CONDITION SATISFACTORY TO THE ARCHITECT. ALL FILTERS SHALL BE REPLACED WITH NEW PRIOR TO OWNER ACCEPTANCE OF THE BUILDING.

GENERAL PLUMBING NOTES

1 THE PLUMBING DESIGN IS BASED ON THE 2018 INTERNATIONAL PLUMBING CODE. PLUMBING WORK SHALL COMPLY WITH ALL APPLICABLE CODES AND LOCAL CODE AMENDMENTS. VERIFY ALL REQUIREMENTS PRIOR TO SUBMITTING BID OR COMMENCING WORK.

2 WASTE AND VENT PIPING BELOW SLAB SHALL BE SCHEDULE 40, DWV, PVC, PLASTIC. FITTINGS SHALL BE PVC.

3 WASTE AND VENT PIPING ABOVE SLAB (NOT IN RETURN AIR PLENUM) SHALL BE SCHEDULE 40, DWV, PVC, PLASTIC. FITTINGS SHALL BE PVC.

4 POTABLE WATER PIPING 2" AND SMALLER SHALL BE PEX-A TUBING MANUFACTURED BY UPONOR/WIRSBO OR APPROVED EQUAL. FITTINGS SHALL BE EXPANSION TYPE WITH SECONDARY EXPANSION RING (NOT CRIMPED). CW SHALL BE RUN IN BLUE PIPE, HW & HWC IN RED, OTHER SYSTEMS CLEAR. PIPING SHALL BE PROPERLY SUPPORTED USING PLENUM RATED GALVANIZED TROUGHS OR CHANNELS HUNG AT MAXIMUM 6' INTERVALS. UNSUPPORTED PEX MAY NOT EXCEED 32".

5 PUSH-TO-CONNECT PLUMBING FITTINGS (I.E. SHARKBITE OR SIMILAR) AND PULLED TEE FITTINGS WILL NOT BE ACCEPTED.

6 POTABLE WATER VALVES SHALL BE FULL PORT, BALL TYPE. GAS PIPE 2" AND SMALLER SHALL BE SCHEDULE 40 BLACK STEEL. FITTINGS SHALL BE MALLEABLE SCREW TYPE.

8 INSTALL UNION, GAS COCK AND FULL SIZE 6" LONG DIRT LEG FOR ALL GAS FIRED EQUIPMENT.

9 INSTALL FULL SIZE CONDENSATE AND TRAP FOR ALL COOLING COILS. DISCHARGE FULL SIZE DRAIN TO MOP SINK OR LAVATORY P-TRAP TAILPIECE AND TO ROOF FOR ROOFTOP UNITS.

10 HANGING, ANCHORING AND SUPPORT OF EQUIPMENT, PIPING AND ACCESSORIES IS DESIGN BUILD BY THE PC. THE SUPPORTS SHALL MEET CODE.

11 ALWAYS INSTALL EQUIPMENT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

12 PRIOR TO BUILDING TURNOVER, THE POTABLE WATER SYSTEM SHALL BE CLEANED AND DISINFECTED PER IPC SECTION 610. THE SYSTEM SHALL BE FLUSHED, CHLORINATED AND PURGED. REPEAT UNTIL THE SYSTEM HAS BEEN PROVEN TO PASS BACTERIAL EXAMINATION. A REPORT SHALL BE SUBMITTED TO THE AUTHORITY HAVING JURISDICTION.

INSULATION NOTES AND PLUMBING ENERGY CODE

1 THE PLUMBING DESIGN IS BASED ON THE 2018 INTERNATIONAL ENERGY CONSERVATION CODE.

2 COMMERCIAL POTABLE HOT WATER PIPING, ≤ 140 DEG F, SHALL BE INSULATED USING FIBERGLASS INSULATION, WITH ALL SERVICE JACKET, HAVING MAXIMUM 'K' FACTOR OF 0.27. INSULATION THICKNESS SHALL BE:

- * 1" FOR 1.5" PIPE AND SMALLER
- * 1.5" FOR PIPES LARGER THAN 1.5"

3 COMMERCIAL POTABLE HOT WATER RECIRCULATION PIPING, ≤ 140 DEG F, SHALL BE INSULATED USING FIBERGLASS INSULATION, WITH ALL SERVICE JACKET, HAVING MAXIMUM 'K' FACTOR OF 0.27. INSULATION THICKNESS SHALL BE:

- * 1" FOR 1.5" PIPE AND SMALLER
- * 1.5" FOR PIPES LARGER THAN 1.5"

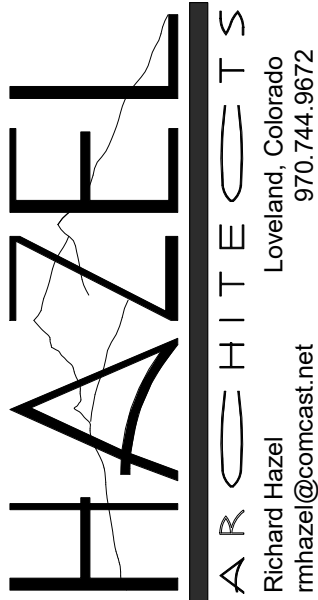
4 COMMERCIAL POTABLE COLD WATER PIPING SHALL BE INSULATED USING FIBERGLASS INSULATION WITH ALL SERVICE JACKET HAVING MAXIMUM 'K' FACTOR OF 0.27. INSULATION THICKNESS SHALL BE 0.5". DO NOT REMOVE THIS ITEM FROM THE PROJECT AS IT IS REQUIRED FOR CONDENSATE CONTROL.

PLUMBING LEGEND:

—CW—	COLD WATER PIPING		BALL VALVE
—HW—	HOT WATER PIPING		GATE VALVE
—HWC—	HOT WATER CIRC.		GAS COCK
—TW—	TEMPERED WATER		PRESS. RED. VALVE
—V—	VENT PIPING		T & P RELIEF VALVE
—W—	WASTE PIPING		SOLENOID VALVE
—GW—	GREASE WASTE PIPING		BALANCE VALVE
—CD—	CONDENSATE PIPING		CHECK VALVE
—G—	NATURAL GAS PIPING		UNION
—F—	FIRE PIPING		PIPE CAP
—LP—	PROPANE PIPING		PIPE CONTINUATION
—VAC—	VACUUM PIPING	—RD—	ROOF DRAIN PIPE
—CA—	COMP AIR PIPING	—ORD—	OVERFLOW RD PIPE
	PIPE ELBOW DOWN		ROOF DRAIN
	PIPE ELBOW UP		FLOOR/GRADE CLEANOUT
	PIPE TEE UP		FLOOR DRAIN/SINK
	PIPE TEE DOWN		WALL CLEANOUT
	DETAIL X		PIPE TO BE REMOVED
	SHEET #	I.E.	INVERT ELEVATION
		(N)	NEW
		(E)	EXISTING
	REFERENCE DETAIL OR ISOMETRIC	(R)	RELOCATE

PLUMBING DRAWING INDEX

SHEET NUMBER	SHEET NAME
P0.1	PLUMBING NOTES, LEGEND, AND DRAWING INDEX
P2.1	PLUMBING FIRST FLOOR PLAN
P2.2	PLUMBING SECOND FLOOR PLAN
P8.1	PLUMBING SCHEDULES, ISOMETRICS, AND DETAILS



DOCKSIDE INVESTMENTS
TENANT IMPROVEMENTS

SHEET TITLE:
PLUMBING
NOTES, LEGEND,
AND DRAWING
INDEX

DATE:	01-17-23								
REVISION BLOCK:	BUILDING PERMIT SET								

PROJECT NO: 22-226

SHEET:
P0.1

320 MAPLE ST SUITE 10
FISH LAKE, IN
COLORADO 80621
NT-MECH.COM
970.896.0570
rmhazel@nt-mech.com

LOVELAND, COLORADO
970.744.9672

richard.hazel
rmhazel@comcast.net

WINDSOR, CO 80550

841 AUTOMATION DRIVE



- ① CONNECT NEW 3" WASTE PIPE TO EXISTING 3" OR LARGER WASTE PIPE IN THIS APPROXIMATE LOCATION. FIELD VERIFY WASTE PIPE CONNECTION PRIOR TO NEW WORK INSTALLATION.
- ② NEW 3" WASTE PIPE UP TO SECOND FLOOR IN THIS APPROXIMATE LOCATION. PROVIDE CLEANOUT ACCESSIBLE AT BASE OF STACK. COORDINATE VERTICAL PIPE ROUTE WITH BUILDING STRUCTURE AND GC. REFER TO PLUMBING SECOND FLOOR PLAN ON SHEET P2.2 FOR CONTINUATION.
- ③ CONNECT NEW 1" CW PIPE TO EXISTING 1" OR LARGER CW PIPE IN THIS APPROXIMATE LOCATION. FIELD VERIFY NEW CONNECTION PRIOR TO NEW WORK INSTALLATION.
- ④ NEW 1" CW PIPE UP TO SECOND FLOOR IN THIS APPROXIMATE LOCATION. COORDINATE VERTICAL PIPE ROUTE WITH BUILDING STRUCTURE AND GC. REFER TO PLUMBING SECOND FLOOR PLAN ON SHEET P2.2 FOR CONTINUATION.
- ⑤ CONNECT NEW 0.75" HW PIPE TO EXISTING 0.75" OR LARGER HW PIPE IN THIS APPROXIMATE LOCATION. FIELD VERIFY NEW CONNECTION PRIOR TO NEW WORK INSTALLATION.
- ⑥ NEW 0.75" HW PIPE UP TO SECOND FLOOR IN THIS APPROXIMATE LOCATION. COORDINATE VERTICAL PIPE ROUTE WITH BUILDING STRUCTURE AND GC. REFER TO PLUMBING SECOND FLOOR PLAN ON SHEET P2.2 FOR CONTINUATION.
- ⑦ CONNECT NEW 0.5" HWC PIPE TO EXISTING HWC PIPING IN THIS APPROXIMATE LOCATION. FIELD VERIFY NEW CONNECTION PRIOR TO NEW WORK INSTALLATION.
- ⑧ NEW 0.5" HWC PIPE UP TO SECOND FLOOR IN THIS APPROXIMATE LOCATION. COORDINATE VERTICAL PIPE ROUTE WITH BUILDING STRUCTURE AND GC. REFER TO PLUMBING SECOND FLOOR PLAN ON SHEET P2.2 FOR CONTINUATION.

IM INTEGRATED
MECHANICAL

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HAZEL

ARCHITECTS

Loveland, Colorado
970.744.9672

Richard Hazel
rmhaze@comcast.net

DOCKSIDE INVESTMENTS
TENANT IMPROVEMENTS

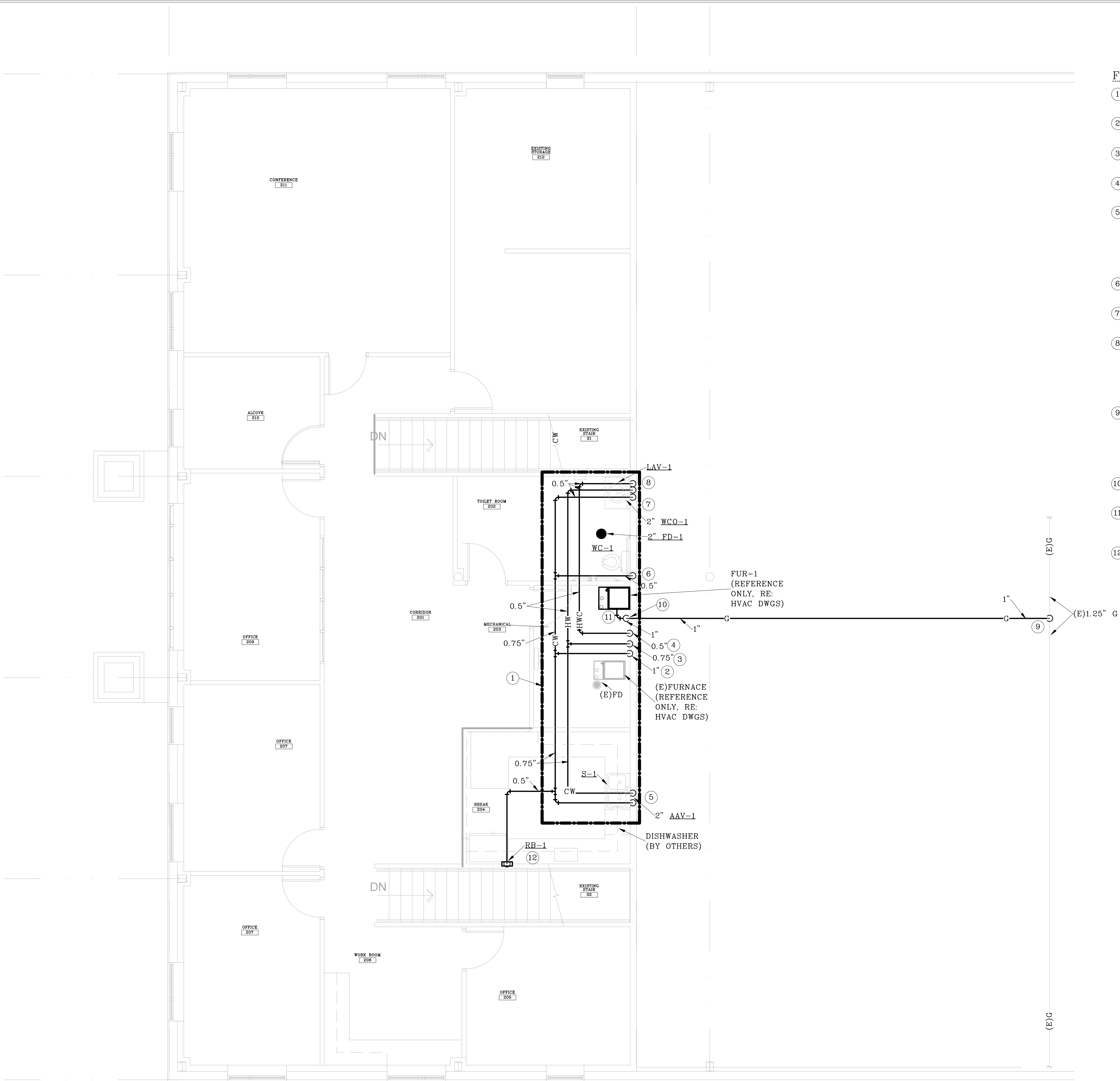
SHEET TITLE:

PLUMBING
FIRST FLOOR
PLAN

[illegible]

PROJECT NO: 22-226

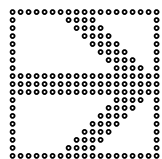
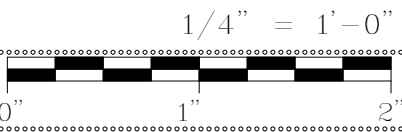
SHEET:
P2.1



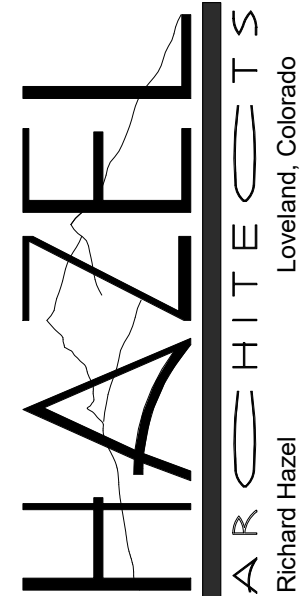
- FLAG NOTES:
- 1 REFER TO WASTE & VENT ISOMETRIC ON SHEET P8.1 FOR WORK IN THIS AREA.
 - 2 NEW 1" CW PIPE FROM FIRST FLOOR. REFER TO PLUMBING FIRST FLOOR PLAN ON SHEET P2.1 FOR CONTINUATION.
 - 3 NEW 0.75" HW PIPE FROM FIRST FLOOR. REFER TO PLUMBING FIRST FLOOR PLAN ON SHEET P2.1 FOR CONTINUATION.
 - 4 NEW 0.5" HWC PIPE FROM FIRST FLOOR. REFER TO PLUMBING FIRST FLOOR PLAN ON SHEET P2.1 FOR CONTINUATION.
 - 5 ROUTE 0.75" CW AND 0.75" HW PIPE DOWN WITHIN WALL, BRANCH 0.5" CW AND 0.5" HW AND CONNECT TO S-1. BRANCH 0.5" HW AND CONNECT TO DISHWASHER (BY OTHERS) WITHIN CASEWORK. BRANCH 0.5" CW, REFER TO SINK WITH DISHWASHER WASTE & VENT DETAIL ON SHEET P8.1 FOR WASTE AND VENT INSTALLATION IN THIS AREA.
 - 6 ROUTE 0.5" CW PIPE DOWN WITHIN WALL AND CONNECT TO WC-1.
 - 7 ROUTE 0.5" CW PIPE DOWN WITHIN WALL AND CONNECT TO LAV-1.
 - 8 ROUTE 0.5" HW PIPE DOWN WITHIN WALL AND CONNECT TO LAV-1 WITHIN 24" OF HW CONNECTION, CONNECT 0.5" HWC AND ROUTE UP WITHIN WALL AND ROUTE AS INDICATED. REFER TO LAVATORY WATER PIPING DETAIL ON SHEET P8.1 FOR MORE INSTALLATION INFORMATION. PROVIDE ACCESSIBLE VALVES PER DETAIL.
 - 9 CONNECT NEW 1" GAS PIPE TO EXISTING 1" OR LARGER EXISTING GAS PIPE IN THIS APPROXIMATE LOCATION. FIELD VERIFY GAS PIPE CONNECTION PRIOR TO NEW WORK INSTALLATION. PC SHALL VERIFY EXISTING GAS LOAD AND CONTACT THIS ENGINEER FOR DISCREPANCIES AFFECTING THE GAS PIPE SIZING.
 - 10 NEW 1" GAS PIPE DOWN WITHIN THE MECHANICAL ROOM AS INDICATED. CONNECT TO NEW GAS FIRED FURNACE.
 - 11 CONNECT 1" GAS PIPE TO GAS FIRED FURNACE WITH GAS RATED SHUT-OFF VALVE, UNION, FULL SIZED 6" DIRT LEG AND A MAXIMUM OF 1'-6" OF GAS RATD FLEX CONNECTOR.
 - 12 ROUTE 0.5" CW DOWN WITHIN WALL AND CONNECT TO RB-1.

FIXTURE ROUGH-IN SCHEDULE		
FIXTURE TYPE	COLD WATER	HOT WATER
WATER CLOSET (TANK TYPE)	0.5"	-
LAVATORY	0.5"	0.5"
SINK	0.5"	0.5"
DISHWASHER	-	0.5"
REFRIGERATOR BOX (ICE)	0.5"	-

PLUMBING SECOND FLOOR PLAN



320 MAPLE ST SUITE 100
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COLOADO 80921
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DOCKSIDE INVESTMENTS
TENANT IMPROVEMENTS

WINDSOR, CO 80550

841 AUTOMATION DRIVE

SHEET TITLE:
PLUMBING
SECOND FLOOR
PLAN

REVISION BLOCK: BUILDING PERMIT SET	DATE:		DATE:	
	10-17-23		10-17-23	

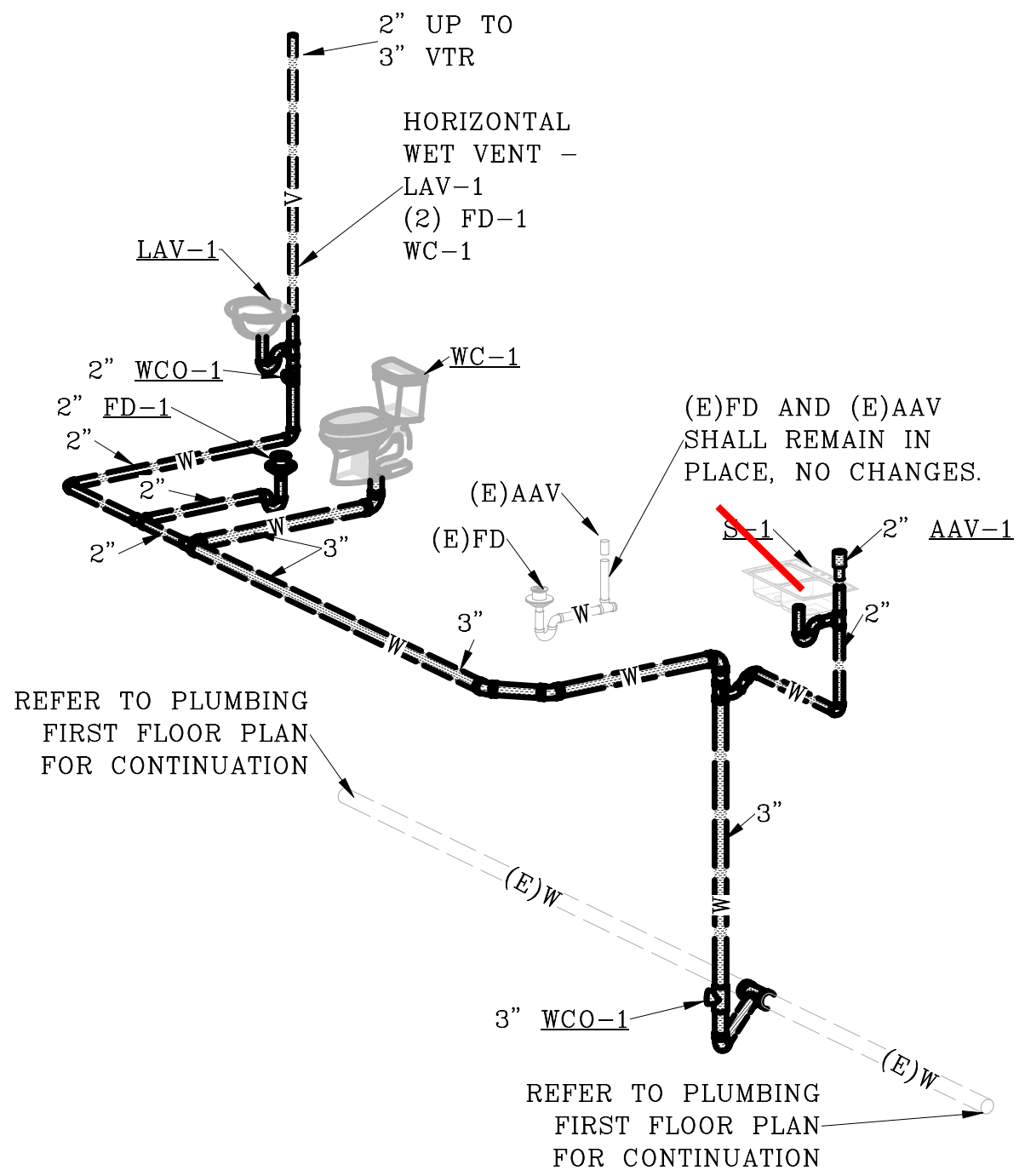
PROJECT NO: 22-226

SHEET:
P2.2

GAS METER SCHEDULE	
(6" WC DISCHARGE PRESSURE / 500 MBH / 180 T.E.L.)	
EQUIPMENT	MBH
FUR-1	100
(EXISTING GAS LOAD-ESTIMATED)	400
TOTAL GAS LOAD	500

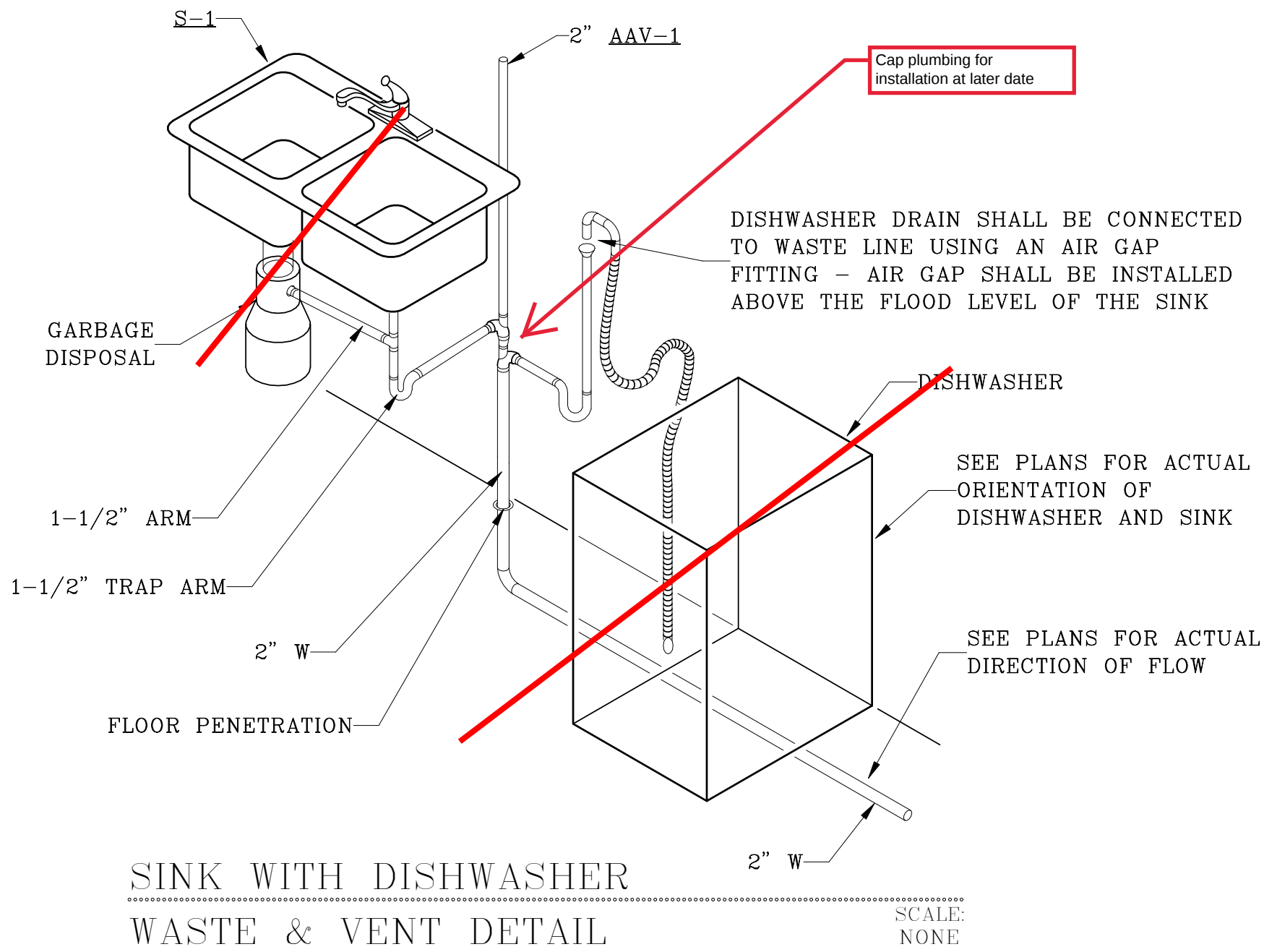
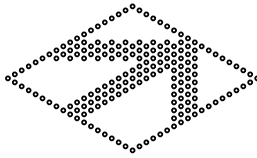
PIPE SUPPORT SCHEDULE		
PIPING MATERIAL	MAX HORIZ SPACING	MAX VERT SPACING
CPVC ≤ 1"	3 FEET	5 FEET
CPVC > 1" AND ≤ 2"	4 FEET	5 FEET
CPVC > 2"	4 FEET	10 FEET
COPPER ≤ 1.25"	6 FEET	10 FEET
COPPER > 1.25"	10 FEET	10 FEET
PEX ≤ 2"	32 INCHES	5 FEET
PEX > 2"	32 INCHES	10 FEET
PVC ≤ 2"	4 FEET	5 FEET
PVC > 2"	4 FEET	10 FEET
STEEL	12 FEET	15 FEET

PLUMBING FIXTURE SCHEDULE	
FIXTURE TAG	FIXTURE SPECIFICATIONS
AAV-1	AIR ADMITTANCE VALVE – STUDOR MINI VENT 20301 ONLY (NO ALTERNATES ALLOWED), PVC, WITH SCREEN, LIFETIME WARRANTY – SEE PLAN FOR PIPE SIZE
FD-1	FLOOR DRAIN •DRAIN – ZURN EZ1-PV, PVC DRAIN BODY, MEMBRANE CLAMP/FLASHING COLLAR, SEEPAGE SLOTS, 5" DIAMETER NICKEL BRONZE STRAINER, ADJUSTABLE HEAD HEIGHT, CONCRETE SHIELD •TRAP SEAL PROSET OR SURE SEAL ELASTOMERIC SELF CLOSING TRAP SEAL – SEE PLAN FOR DRAIN SIZE
LAV-1	LAVATORY •FIXTURE – KOHLER K-2196 PENNINGTON 20.25" X 17.5", O.D. 16" X 11" X 4" DEEP BOWL, ADA, OVAL, COUNTERTOP, SELF RIMMING, 4" CENTERS, WHITE VITREOUS CHINA •FAUCET – DELTA 523LF-HGM FAUCET, (0.5 GPM) SINGLE LEVER HANDLE, ADA, 4" CENTERSET, LESS LIFT ROD HOLE, METAL GRID STRAINER •MIXING VALVE – LEONARD 170A-LF, 0.375" INLET AND OUTLETS, MIN 0.25 GPM, MAX 4 GPM FLOW AT 20 PSI PRESSURE DROP, BRASS BODY CONSTRUCTION, FIELD TEMPERATURE ADJUSTABILITY, CHECK STOPS, SET FOR 110° F DISCHARGE TEMPERATURE, ASSE 1070 •ACCESSORIES 1.5" PVC P-TRAP, CHROME STOPS AND SUPPLIES, TRUEBRO 402W PLASTIC INSULATION PACKAGE FOR ADA PROTECTION
RB-1	REFRIGERATOR BOX – OATEY 39150 BOX WITH INTEGRAL SHOCK ABSORBER TOP MOUNTED COLD WATER VALVE – CONFIRM PIPE MATERIAL CONNECTION TYPE
S-1	SINK •FIXTURE – ELKAY GECR3321, CELEBRITY, DOUBLE COMPARTMENT, ADA, 33"x 21" O.D., 5.25" DEEP BOWLS, 20 GAUGE, 304 STAINLESS STEEL, COUNTERTOP, SELF RIMMING, 1 HOLE •FAUCET – DELTA 4353-DST, ADA, SINGLE HANDLE, SINGLE HOLE, PULL OUT SPOUT, PUSH BUTTON SPRAY/AERATED, 53" HOSE, 1.5 GPM, 9.5" SPOUT, STAINLESS FINISH •DISPOSAL – ISE CONTRACTOR 333, 3/4 HP, CONTINUOUS FEED, STAINLESS STEEL GRIND COMPONENTS, 120/1/60 VOLT, DISHWASHER DRAIN CONNECTION, STAINLESS FLANGE AND STOPPER •ACCESSORIES – ELKAY LK99 DRAIN, 1-1/2" PVC P-TRAP, CHROME STOPS AND SUPPLIES
WC-1	WATER CLOSET •FIXTURE – KOHLER K-3999/K-3999-RA, TANK TYPE, ADA, TWO-PIECE, FLOOR MOUNTED, 12" ROUGH-IN, 16.5" HIGH BOWL, ELONGATED, CLASS 5 FLUSH, WHITE VITREOUS CHINA, 1.28 GPF – TRIP LEVER SHALL BE ON ACCESSIBLE SIDE OF WATER CLOSET. PC TO CONFIRM RIGHT OR LEFT HAND TRIP LEVEL PRIOR TO ORDERING. •SEAT – CHURCH 295C, PLASTIC, OPEN FRONT •ACCESSORIES – CHROME STOP AND SUPPLY
WCO-1	WALL CLEANOUT – ZURN Z-1469 COVER PLATE, POLISHED 304 STAINLESS STEEL, PVC PIPE CLEANOUT – SEE PLAN FOR PIPE SIZE

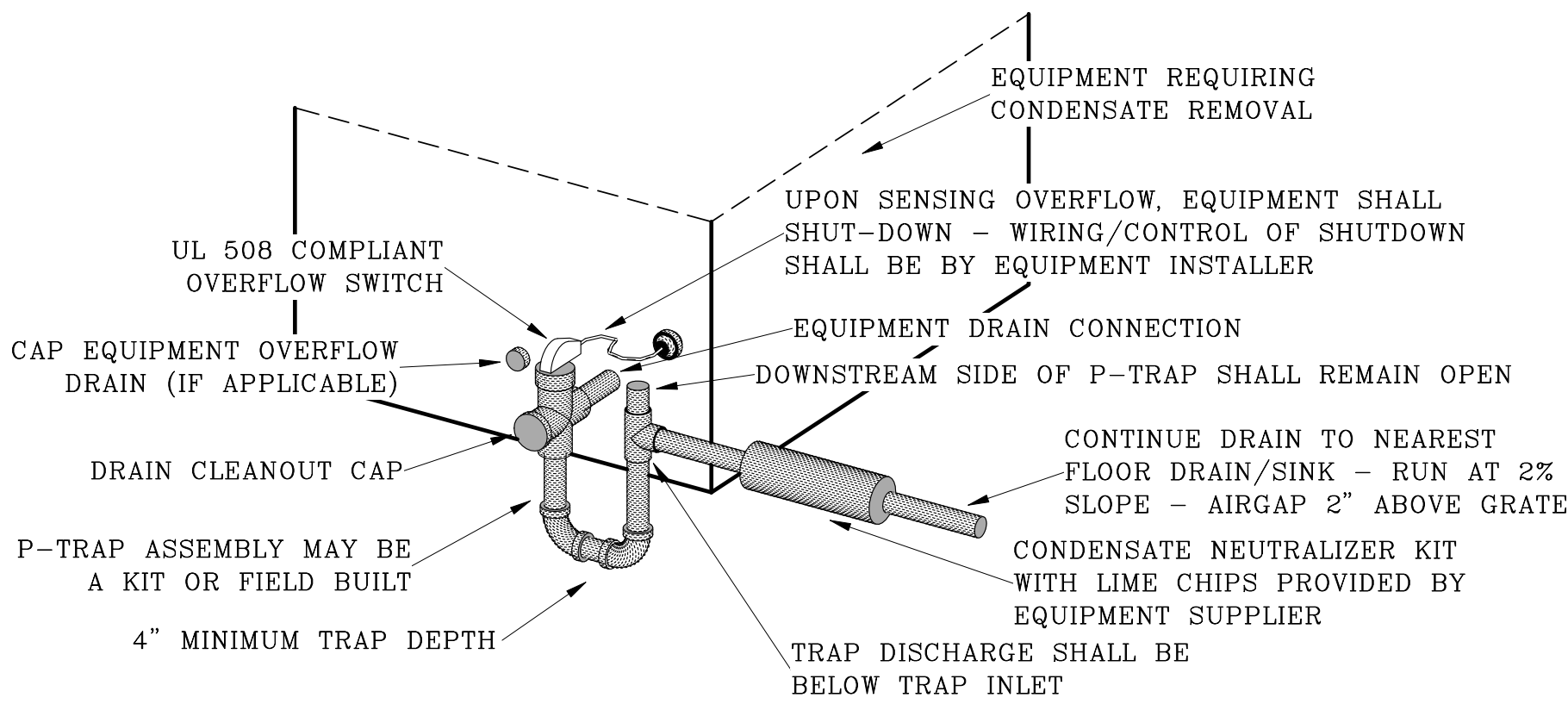


WASTE & VENT
ISOMETRIC

NO SCALE

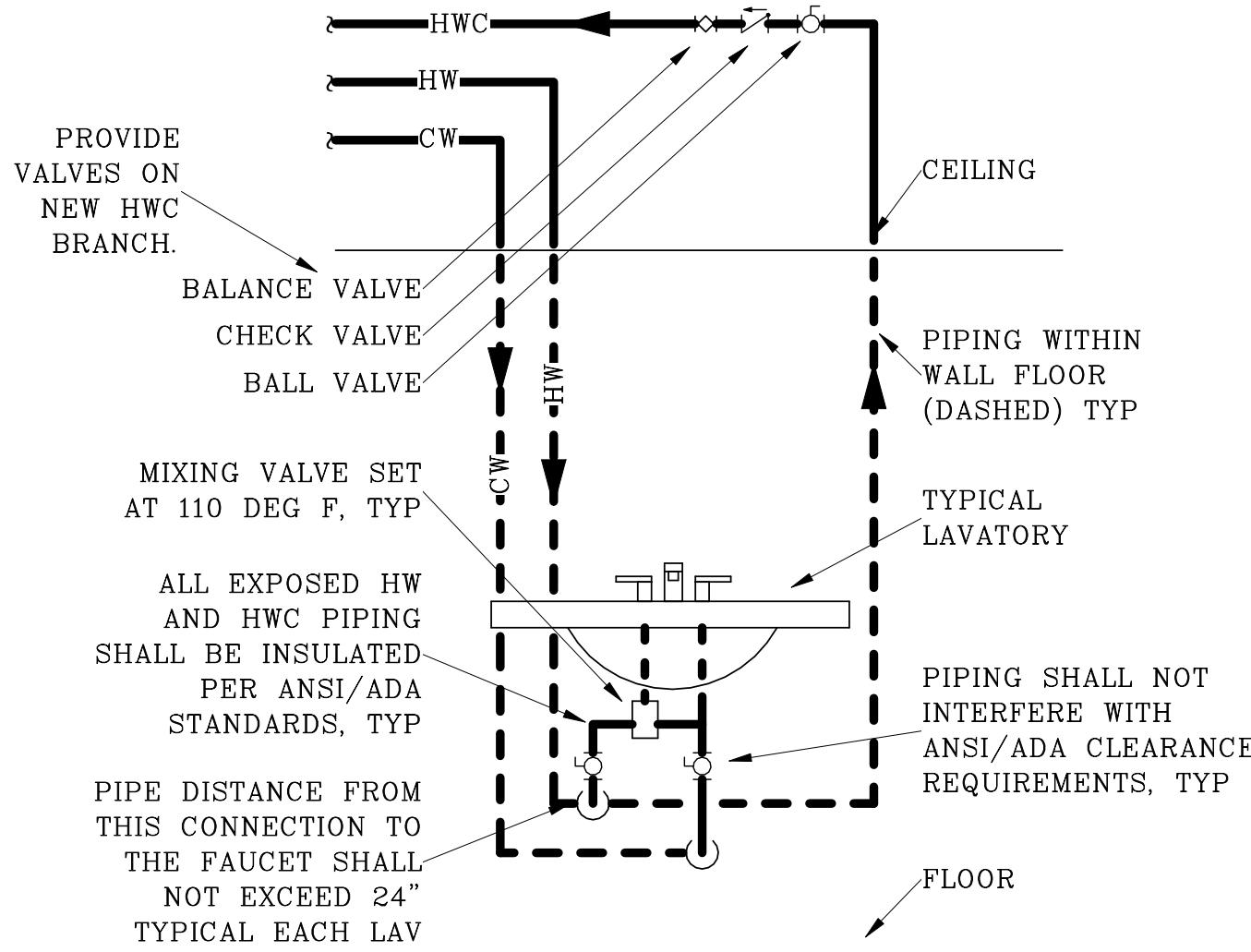


SINK WITH DISHWASHER
WASTE & VENT DETAIL



CONDENSATE DRAIN
DETAIL

SCALE:
N/A



LAVATORY WATER PIPING
DETAIL

SCALE:
NONE

ELECTRICAL SPECIFICATIONS

1. Scope

The scope of the work covered herein consists of furnishing all labor, materials, necessary equipment and services to complete the Electrical Work and related work in full accordance as indicated on the drawings, as specified herein or both and subject to the terms and conditions of the Contract.

2. Codes, Rules, Permits, Fees

Electrical Contractor is generally responsible to insure all work, both old and new, complies with the NEC and any applicable local and state codes and ordinances.

3. Drawings

Drawings are diagrammatic and indicate the general arrangement of systems and work included in the contract. Drawings are not to be scaled. The Architectural drawings and details shall be examined for exact location of fixtures and equipment. Any conflict shall be immediately brought to the attention of the Architect or Engineer before proceeding with the work.

4. Shop Drawings

Materials or products specified herein and/or indicated on drawings by trade name, manufacturer's name or catalog number shall be provided as specified.

5. Cooperation With Other Trades

The Subcontractor shall give full cooperation to other trades and shall furnish in writing to the contractor, with copies to the Engineer, any information necessary to permit the work of all trades to be installed satisfactorily and with the least possible interference or delay. Coordinate all conduit runs and equipment with other trades. Verify nameplate electrical data of actual equipment furnished by others before beginning installation.

6. Cutting, Patching, And Finishing

The Electrical Contractor shall do all cutting, drilling, etc. required for work under this section of the specifications, inside the building.

7. Excavation And Backfilling

The Subcontractor shall do all trench and pit excavating and backfilling required for work under this section of the specifications, inside and outside the building, all required shoring, bracing, pumping and all protection for safety of persons and property.

8. Material And Workmanship

All materials and apparatus required for the work shall be new unless indicated otherwise on the plans.

Electrical Contractor shall provide and install all electrical as shown, verifying all mounting heights and exact locations of all wall-mounted electrical devices with architect prior to rough-in.

Connections and junction boxes to equipment are diagrammatic. Verify exact location of connection to specific equipment and devices.

9. Panelboards

Panels shall be as manufactured by Square-D, G.E., Siemens or equivalent of sizes, ratings, and requirements shown on the plans. Panels shall be of dead front construction. All bussing shall be as specified on panel schedules.

Multi-pole breakers shall have a single handle to trip all poles at once.

A laminated black plastic with white lettering plastic nameplates with the identification number as shown on the panel schedule shall be mounted on the outside of the door with sheet metal screws. Nameplate size shall be 3" wide X 1-1/2" high with 1/2" high engraving. Provide a completed circuit directory, typed and mounted in a clear plastic sleeve, on the interior of the panel door.

10. Grounding

Provide a complete grounding network for the entire electrical system to comply with NEC requirements.

All conduits shall have a ground wire installed. A conduit ground shall not be used.

Bond service entrance ground to building steel, metal water mains, made electrodes, etc.

11. Disconnect Switches

Equipment disconnect switches shall be Square-D, G.E., Siemens or equivalent general duty, or heavy duty of the type and rating shown on the plans. Fuses shall be provided of the appropriate type and rating for the equipment to be served.

12. Miscellaneous Equipment

Switches - All general use lighting (SPST toggle with or without pilot) switches to be rated 20A, 120-277V, as manufactured by Leviton, Lutron, P & S, or equivalent. Coordinate color with Owner/Architect.

Receptacles - All general use duplex receptacles to be rated 20A, 120V as manufactured by Leviton, Lutron, P & S, or equivalent. Coordinate color with Owner/Architect.

Conductors - All conductors shall be rated 600V, copper, type THWN, XHHW/THHN. Where indicated aluminum conductors may be used and shall be type THHW/XHHW. Conductors of #8 AWG and larger shall be stranded. Type NM cable is permitted where permissible by code.

Lighting fixtures - Lighting fixtures shall be as indicated on the fixture schedule or approved equals.

13. Conduit

Conduit shall be EMT, GRC, SCH. 40 PVC, SCH. 80 PVC, liquid tight metal flexible, or metal flexible.

GRC shall be used at exposed exterior locations. Flex shall be used for connection to all fixed equipment, except in damp or wet locations, where liquid tight metal flexible shall be used. EMT shall be used at all exposed interior locations. All remaining locations may use PVC.

Insulating bushings with double lock-nuts shall be used for entrance of 1-1/4" or larger into enclosures.

Sizes indicated are minimums, larger sizes may be used to facilitate wire pulls, etc.

14. Telephone System

Provide a 4' x 8' x 3/4" plywood backboard for telephone distribution. A driven ground rod shall be installed adjacent to the backboard. Install empty conduit(s) as indicated on the plans with pullwire installed for the telephone service entrance.

A 3/4" conduit shall be routed from all the telephone outlets to the ceiling space. Terminate conduit in ceiling space with a 90 degree bend and bushing at end of conduit. Extend conduit to nearest accessible ceiling space if no access to the ceiling space above the outlet is present. Provide a conduit path through all obstructions to the backboard.

15. Equipment Furnished By Others

Electrical Contractor shall provide conduit, wire and disconnect switches indicated on drawings, to connect electrical equipment supplied by others which shall include both new and relocation of existing equipment. All final electrical connections are to be by electrical contractor.

16. Record Drawings

The Contractor shall keep accurate records of actual construction including device locations and conduit runs if different from the plans.

The Contractor shall provide the owner with a reproducible set of plans of the complete electrical and fire alarm systems as installed. The scale on these drawings shall be no smaller than the scale used on the original plans.

17. Testing

Final tests shall be made only after the Engineer is satisfied that all work has been completed.

18. Final Acceptance

After testing, a final inspection shall be made by the Engineer and other authorized persons with the Electrical Contractor.

Final acceptance of the project shall not prejudice the Owner's right to require replacement and/or repair any defective work or materials.

LEGEND

OUTLETS
DUPLEX RECEPTACLE (120 V)
DEDICATED DUPLEX RECEPTACLE (120V)
WEATHERPROOF RECEPTACLE
GROUND FAULT RECEPTACLE
EMERGENCY POWER RECEPTACLE
SWITCHED RECEPTACLE
HALF SWITCHED RECEPTACLE
DOUBLE DUPLEX RECEPTACLE
FLUSH FLOOR RECEPTACLE, DUPLEX
SPECIAL EQUIPMENT RECEPTACLE
LOCKING RECEPTACLE
FLUSH FLOOR TELEPHONE OUTLET
DATA, TELEPHONE, OR FAX OUTLET
TELEPHONE POLE (T=telephone, P=power, C=computer)
JUNCTION BOX

CIRCUITRY and RACEWAYS
CIRCUIT UP
CIRCUIT DOWN
HOME RUN (with circuit numbers)
END OF RUN, CAP AND STAKE
"RUN CONTINUES" INDICATION
WIREMOLD (2=Channel)
PLUGMOLD

SWITCHES

SINGLE-POLE SWITCH
DOUBLE-POLE SWITCH
THREE-WAY SWITCH
FOUR-WAY SWITCH
SWITCH WITH PILOT LIGHT
KEY SWITCH
WEATHERPROOF SWITCH
TIME SWITCH
DIMMER SWITCH
DAY-LIGHT SENSOR
OCCUPANCY SENSOR
OCCUPANCY SENSOR/DIMMER

SWITCHES

EXIT SIGN
EXIT/EMERGENCY LIGHTING UNIT
EMERGENCY LIGHTING UNIT
EXTERIOR EMERGENCY LIGHT

SOUND and SIGNAL

SPEAKER
VOLUME CONTROL
BUZZER
CHIME
TELEVISION ANTENNA OUTLET
MICROPHONE OUTLET
INTERCOM OUTLET
NURSE CALL

CONTROL

THERMOSTAT (line voltage U.O.N. furnished by DIV. 15 U.O.N.)
HUMIDISTAT (line voltage U.O.N. furnished by DIV. 15 U.O.N.)
PHOTOCELL (voltage as required)
TIME CLOCK (24 hour U.O.N.)
PUSHBUTTON STATION (number of buttons indicated)
LIGHTING CONTACTOR
IRRIGATION CONTROLLER
DUCT SMOKE DETECTOR
FIRE/SMOKE DAMPER

DESIGNATIONS

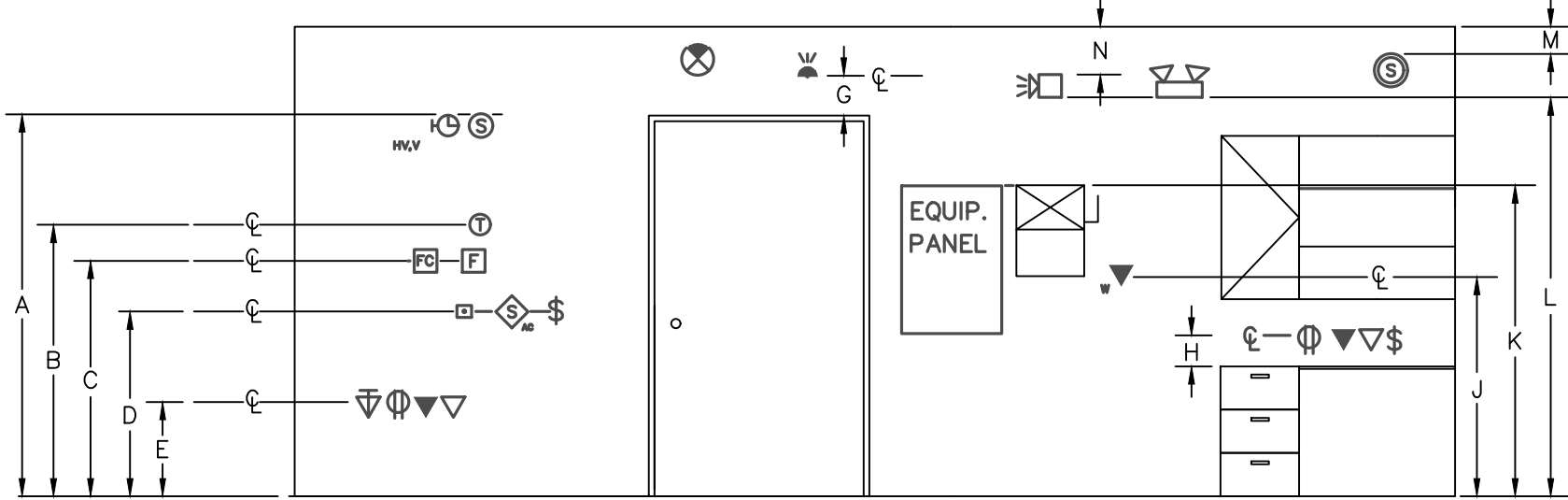
REVISION NOTE
FLAG NOTE
KEY NOTE
FEEDER NUMBER
UNLESS OTHERWISE NOTED
DEVICE DESIGNATED WEATHER PROOF
AC DEVICE ABOVE CEILING
CLG DEVICE IN CEILING
FLR DEVICE IN FLOOR
AFF ABOVE FINISHED FLOOR
(E) EXISTING TO REMAIN
(R) EXISTING TO BE RELOCATED
(D) EXISTING TO BE DEMOLISHED

MOUNTING HEIGHTS

KEY	HEIGHT	KEY	HEIGHT
A	80"	G	3"
B	46" MAX	H	8"A.C.
C	46" MAX	J	46" MAX
D	46" MAX	K	78" MAX
E	18" MIN	L	80"-92"
F	3" MIN	M	4" MIN
		N	6" MIN

NOTES:

- CENTERLINE DIMENSIONS ARE TO CENTER OF DEVICE WITH TRIM. ADJUST BACKBOX LOCATION AS REQUIRED.
- ALL MOUNTING HEIGHTS SHALL CONFORM TO THE LATEST EDITION OF THE AMERICANS WITH DISABILITIES ACT, (ADA).
- DIMENSIONS APPLY UNLESS OTHERWISE NOTED ON DRAWING.
- ELECTRICAL PANELS IN ACCESSIBLE UNITS SHALL BE MOUNTED SO THAT TOP BREAKER IS MOUNTED AT 48" AFF MAX.



DEVICE MOUNTING HEIGHT DETAIL

NO SCALE

KEY NOTES

(THIS SHEET ONLY)

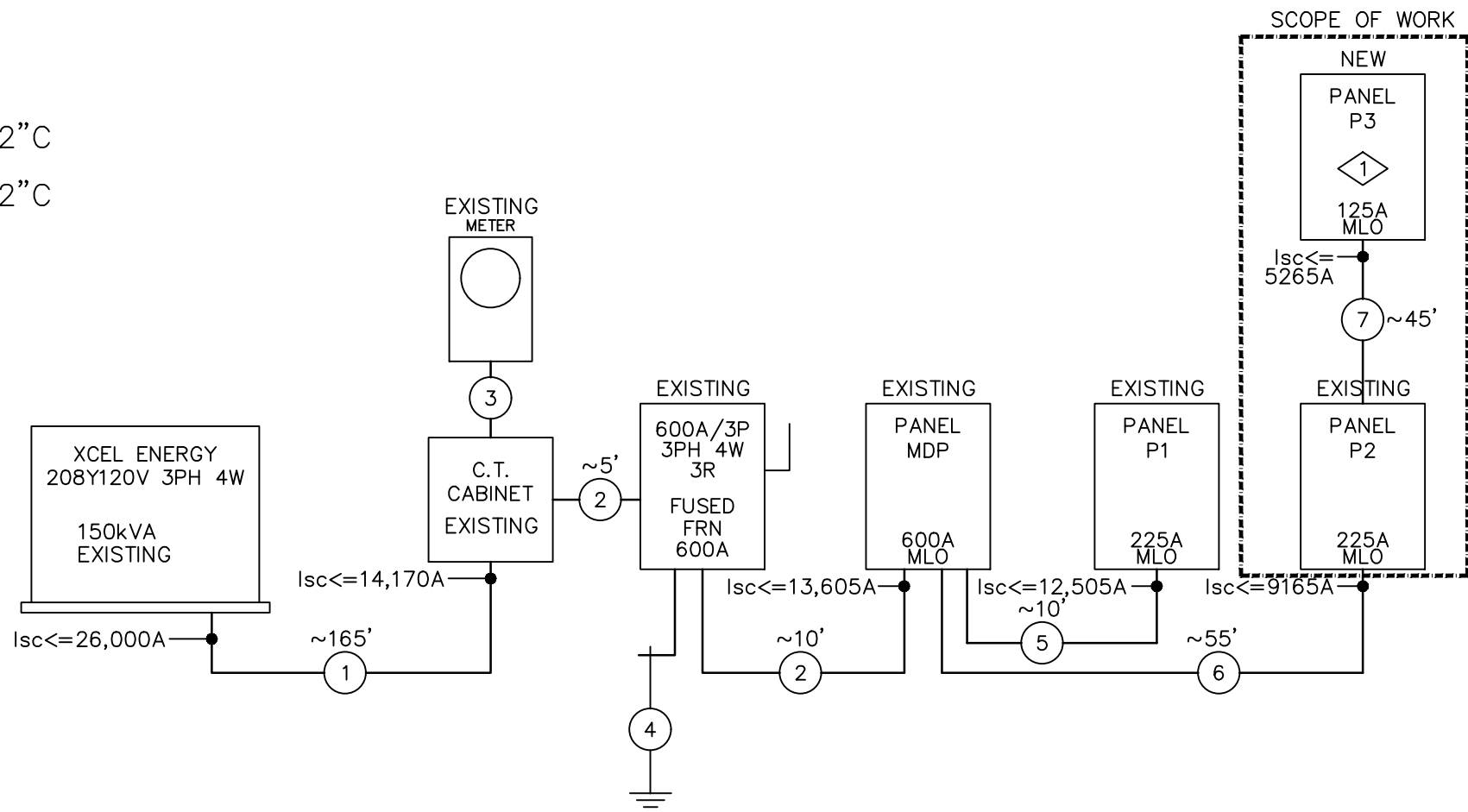
- 1 NEW PANEL 'P3' TO BE FED FROM NEW 100A/3P BREAKER IN EXISTING PANEL 'P2'.

FEEDER SCHEDULE - EXISTING

- 2 SETS (4-500kCML AL) DIRECT BURY
- 2 SETS (4-500kCML AL, #1G CU) 3-1/2"C
- EMPTY 1" CONDUIT
- #2/0G CU TO BLDG STL & CWP
#4G CU TO UFER GROUND
- (4-250kCML AL, #6G CU) 2-1/2"C
- (4-250kCML AL, #6G CU) 2-1/2"C

FEEDER SCHEDULE - NEW

- (4-#3 CU, #8G CU) 1-1/4"C



ONE-LINE DIAGRAM

SCALE: NONE

LUMINAIRE SCHEDULE

Tag	Lamps	Description	Manufacturer	Part No.	Voltage	Notes
A1	38W	2x4, LED Flat Panel, 4000 Lumens	Lithonia	EPANL 2X4 4000LM 80CRI 35K MIN1 ZT MVOLT PWS1856LV	UNV	
A2	45W	2x4, LED Flat Panel, 4800 Lumens	Lithonia	EPANL 2X4 4800LM 80CRI 35K MIN1 ZT MVOLT PWS1856LV	UNV	
B	30W	2x2, LED Flat Panel, 3400 Lumens	Lithonia	EPANL 2X2 3400LM 80CRI 35K MIN1 ZT MVOLT PWS1856LV	UNV	
C	42W	4' LED Strip Light, 5000 Lumens	Lithonia	ZL1N L48 5000LM FST MVOLT 35K 80CRI WH	UNV	
D	21W	2' LED Wall Mount, 2200 Lumens	Lithonia	WL2 22L EZ1 LP835	UNV	
E	16W	6" LED Surface Dome, 1050 Lumens	WAC	FM-661G2-930-WT	120	
EM	LED	Dual Head Emergency Lighting Unit, Self Diagnostics	Lithonia	ELM2L UVOLT SDRT	UNV	1
X3	LED	Combination Exit/Egress Lighting Unit, Self Diagnostics	Lithonia	LHQM LED R SD M6	UNV	1

- Notes:
1 Provide fixture with emergency battery back-up.
2

MECHANICAL EQUIPMENT & MOTOR SCHEDULE

KEY	EQUIPMENT	CHARACTERISTICS	CIRCUIT	PROTECTION	NOTES
		HP RLA/FLA EFFC.	Watts Ph Volts MCA MOCP	Breaker Switch Fuse Disconnect at unit	
EF-1	Exhaust Fan	0.1	9 1 120 0.1 20	20	1
FUR-1	Furnace	9.8	1 120 12.3 20	20	
CU-1	Condensing Unit	20.9	1 208 26.1 40	40	
NOTES					
1	Exhaust fan controlled by room occupancy sensor.				
2	Integral Disconnect.				
3					

PANEL	P2 (Existing)	Job # 14205/22214	Affected Circuits Shown in Italics
VOLTAGE	120/208	AIC AMPS	10,000
RATED AMPS	225	MAIN LUG ONLY	225
PHASE / HERTZ	3/60	FEED	BOTTOM
# OF CIRCUITS	42	MOUNTING	SURFACE
MANUFACTURER	SQ D	COVER TYPE	STANDARD
PANEL TYPE	LC	ISOLATED GND	NO

CIR#	BKR	CIRCUIT DESCRIPTION	Cat.	WATTS	BKR TYPE	PH	BKR TYPE	WATTS	Cat.	BKR	CIR#
1	20A-1P	Lights - Bath, Packaging, Storage	L	1,343		A		1,620	R	Receps - South Offices	20A-1P 2
3	20A-1P	Lights - Offices, Conference	L	1,154		B		1,620	R	Receps - Southwest Offices	20A-1P 4
5	20A-1P	Lights - Upper Level	L	252		C		1,080	R	Receps - South Center Offices	20A-1P 6
7	20A-1P	Receps - Break Room Counter	R	360		A		360	R	Receps - IT Closet	20A-1P 8
9	20A-1P	Microwave - Break Room	E	750		B		1,260	R	Receps - Conference Room	20A-1P 10
11	20A-1P	Refrigerator - Break Room	E	750		C		900	R	Receps - Reception, Corridor	20A-1P 12
13	20A-1P	Receps - Packaging & Assembly N & W	R	720		A		720	R	Receps - North Center Office	20A-1P 14
15	20A-1P	Receps - Packaging & Assembly S & E	R	720		B		540	R	Receps - Work Room	20A-1P 16
17	20A-1P	Receps - Upper Level	R	360		C		540	R	Receps - Work Room	20A-1P 18
19	30A-2P	DWH-1 Water Heater	E	2,250		A		900	R	Receps - Break Room	20A-1P 20
21	"	"	E	2,250		B		1,080	R	Receps - North Offices	20A-1P 22
23	50A-2P	DWH-2 Water Heater	E	4,150		C		1,440	R	Receps - Northwest Offices	20A-1P 24
25	"	"	E	4,150		A		900	R	Receps - Bathrooms, Mech, Cust	20A-1P 26
27	20A-1P	Spare				B		900	R	Receps - Shop Office, Storage	20A-1P 28
29	20A-1P	Spare				C				Spare	20A-1P 30
31	"	"				A				Spare	20A-1P 32
33	"	"				B		1,176	E	Overhead Door Storage	20A-1P 34
35	"	"				C		1,620	C	EF-1, 2, 3, 4, 6 & 7, L-2, L-3,UH-1,	20A-1P 36
37	"	"				A		1,680	C	AHU-1	20A-1P 38
39	"	"				B		1,680	C	AHU-2	20A-1P 40
41	"	"				C		1,680	C	AHU-3	20A-1P 42

Category	Connected	Demand Factor	Demand	Connected	Demand
R- Recept.	24,352	N.E.C. 220-13	17,176	LINE L1	20,718 17,187
L- Lighting	3,980	1.25	4,975	LINE L2	18,845 17,187
H- Heating	0	1	0	LINE L3	18,487 17,187
C- Cooling	12,183	1	12,183	LINE TOTAL	58,049 51,560
E- Equip.	17,226	1	17,226	DEMAND AMPERAGE:	
M- Misc.	0	1	0		
Total:	57,741		51,560		

51,560 / 1.732 / 208 143 Amps

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Dockside Investments
TENANT IMPROVEMENT

SHEET TITLE:
NOTES, SCHEDULES
&
ONE-LINE DIAGRAM

DATE:
1.17.23

REVISION BLOCK:
REVISION SET

PROJECT NO: 22214

SHEET:

E1

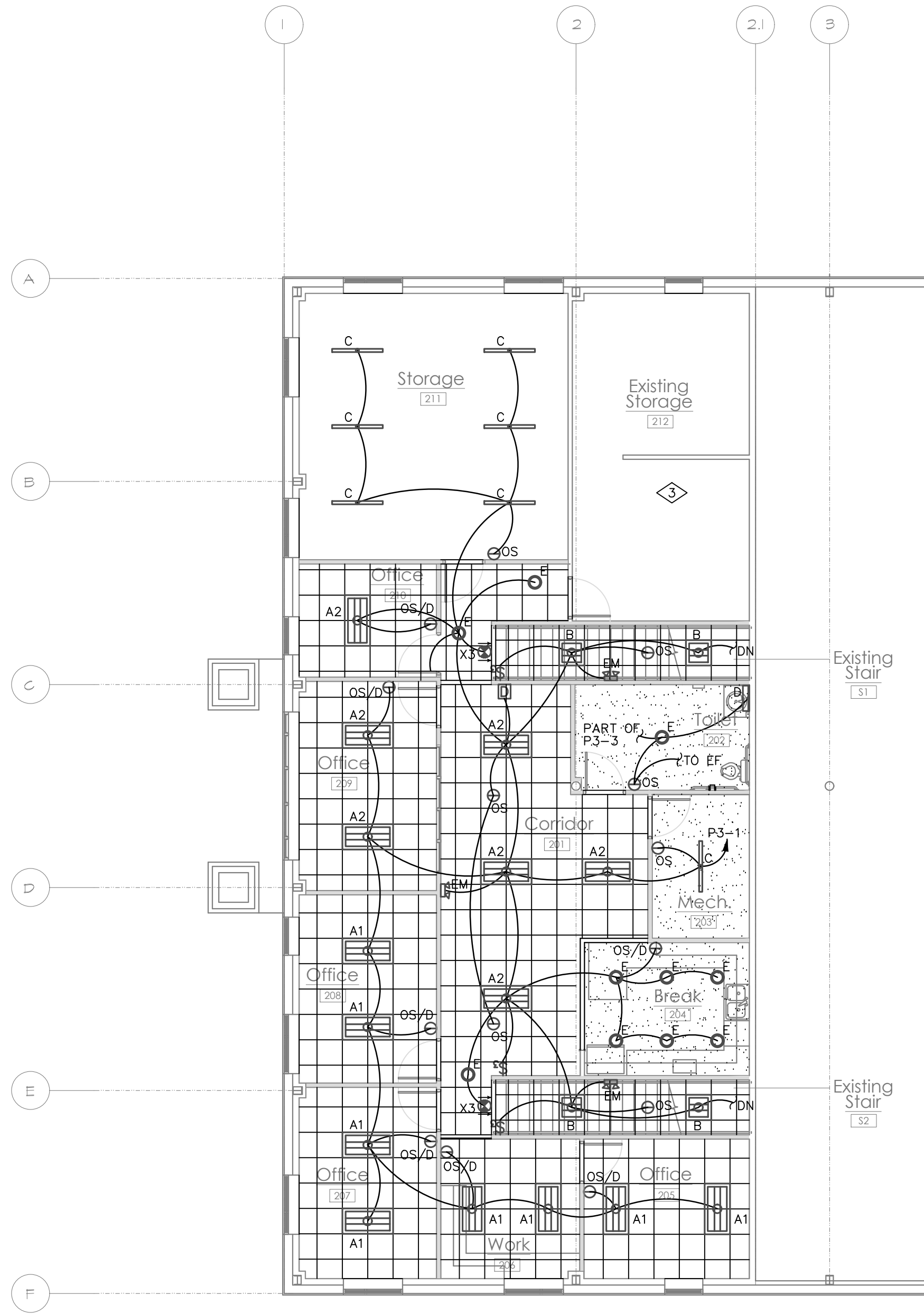
GENERAL NOTES:

1. CONNECT ALL EXIT AND EM LIGHTS TO CIRCUITS SHOWN AHEAD OF LOCAL SWITCHING.
2. LUMINAIRES DENOTED "NL" SHALL BE CONNECTED AHEAD OF LOCAL SWITCHING.
3. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LIGHTING FIXTURE LOCATIONS.
4. REFER TO MECHANICAL PLANS FOR EXACT LOCATIONS OF ALL MECHANICAL EQUIPMENT.
5. ALL CONDUCTORS SHALL BE COPPER AND #12 UNLESS OTHERWISE NOTED.
6. ALL SWITCHES, CONVENIENCE RECEPTACLES, AND PLATES SHALL BE WHITE NONMETALLIC UNLESS NOTED. CONFIRM COLOR WITH ARCHITECT PRIOR TO ORDERING DEVICES.
7. INSTALL, WHERE REQUIRED BY JURISDICTION, MANUFACTURE APPROVED SEALING KITS ON ALL RECESSED CANS INSTALLED IN INSULATED CAVITIES.
8. LABEL ALL JUNCTION BOXES WITH CIRCUIT NUMBERING DURING ROUGH-IN OF CONDUIT SYSTEM.
9. PROVIDE POWER FOR VVT'S AS REQUIRED BY M.C.. (REFER TO MECHANICAL PLANS)
10. COPIES OF ALL INSTALLATION, OPERATIONAL AND MAINTENANCE MATERIALS ARE TO BE SAVED AND PROVIDED TO THE PROJECT MANAGER FOR ASSEMBLY AND DELIVERY TO THE CONTRACTOR AND OWNER.
11. THE ELECTRICAL CONTRACTOR JOB FORMAN SHALL DOCUMENT ALL UNDERGROUND FEEDERS AS WELL AS ANY DEVIATIONS TO THE CONSTRUCTION DOCUMENTS ON THE RECORD DRAWINGS. SHOW DIMENSIONS ONLY WHEN ACCURACY CAN BE ASSURED.
12. FIRE ALARM DEVICES ARE NOT SHOWN ON DRAWINGS AT THIS TIME. FIRE ALARM SHOP DRAWINGS SHALL BE PROVIDED BY A LICENSED FIRE ALARM CONTRACTOR AND SIGNED AND SEALED BY A PROFESSIONAL ENGINEER.

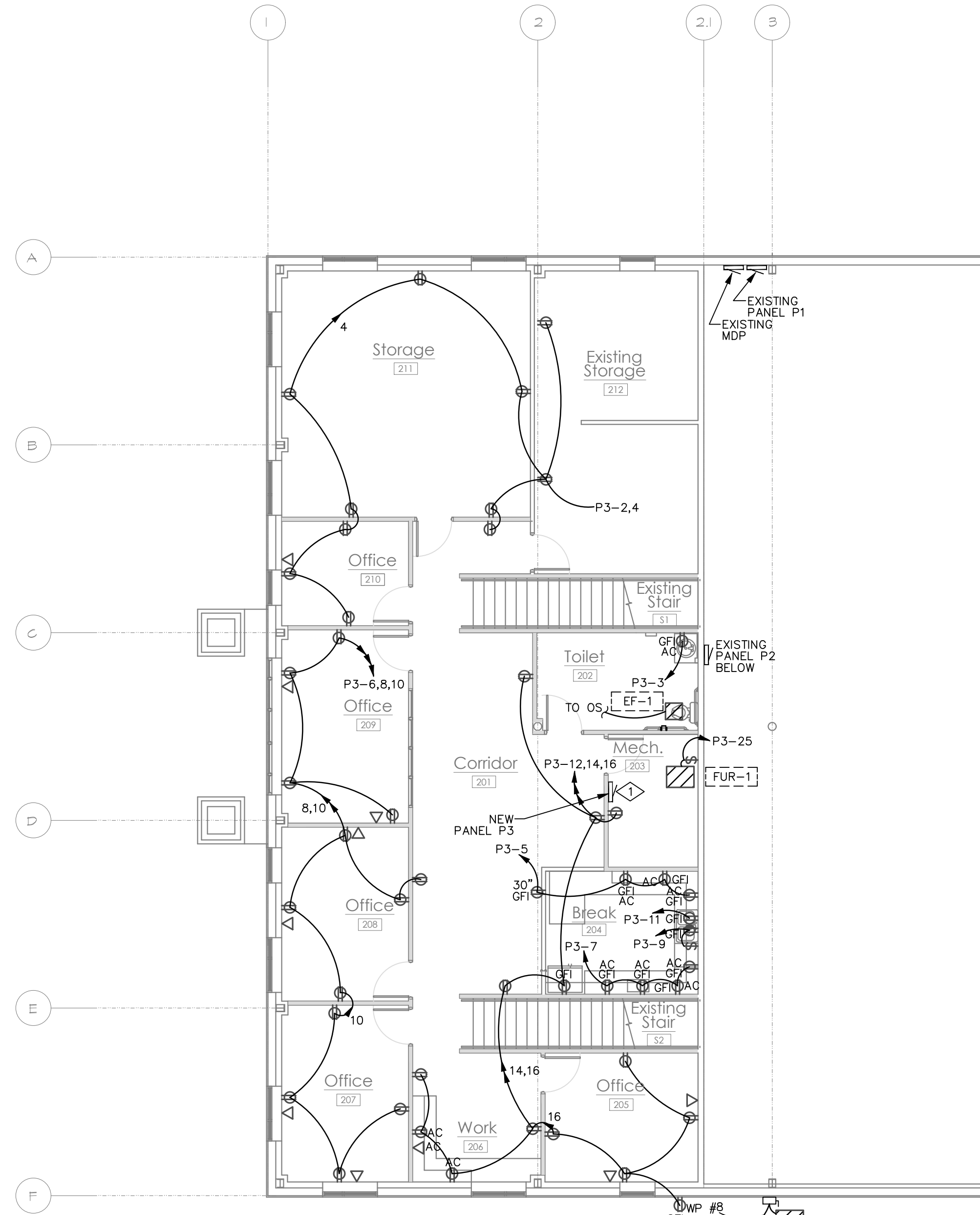
KEY NOTES

(THIS SHEET ONLY)

1. NEW PANEL 'P3' TO BE FED FROM EXISTING PANEL 'P2' IN SHOP BELOW.
2. PROVIDE 2-GANG FLOOR-BOX WITH METAL COVER-PLATE. PROVIDE 1-1/2" C FROM FLOOR-BOX TO ACCESSIBLE CEILING SPACE FOR TELE/DATA CABLING BY OTHERS.
3. EXISTING LIGHTING IN STORAGE ROOM TO REMAIN.



LIGHTING PLAN
SCALE: 1/8" = 1'-0"



POWER PLAN
SCALE: 1/8" = 1'-0"

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HAZEL
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Dockside Investments

TENANT IMPROVEMENT

841 AUTOMATION DRIVE WINDSOR, CO 80550

SHEET TITLE:
LIGHTING & POWER
PLANS

REVISION BLOCK:	DATE:	BY:	CHKD:
1	1.17.23		
2			
3			
4			
5			
6			
7			
8			
9			
10			

PROJECT NO: 22214

SHEET:
E2