

MISSOULA COUNTY COURTHOUSE ANNEX NORTH ENTRY REMODEL

200 WEST BROADWAY STREET
MISSOULA, MONTANA 59802

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NORTH ENTRY REMODEL
MISSOULA COUNTY, 200 WEST BROADWAY STREET, MISSOULA, MT 59802

project # 24169.10
revision date
phase
CONSTRUCTION
DOCUMENTS



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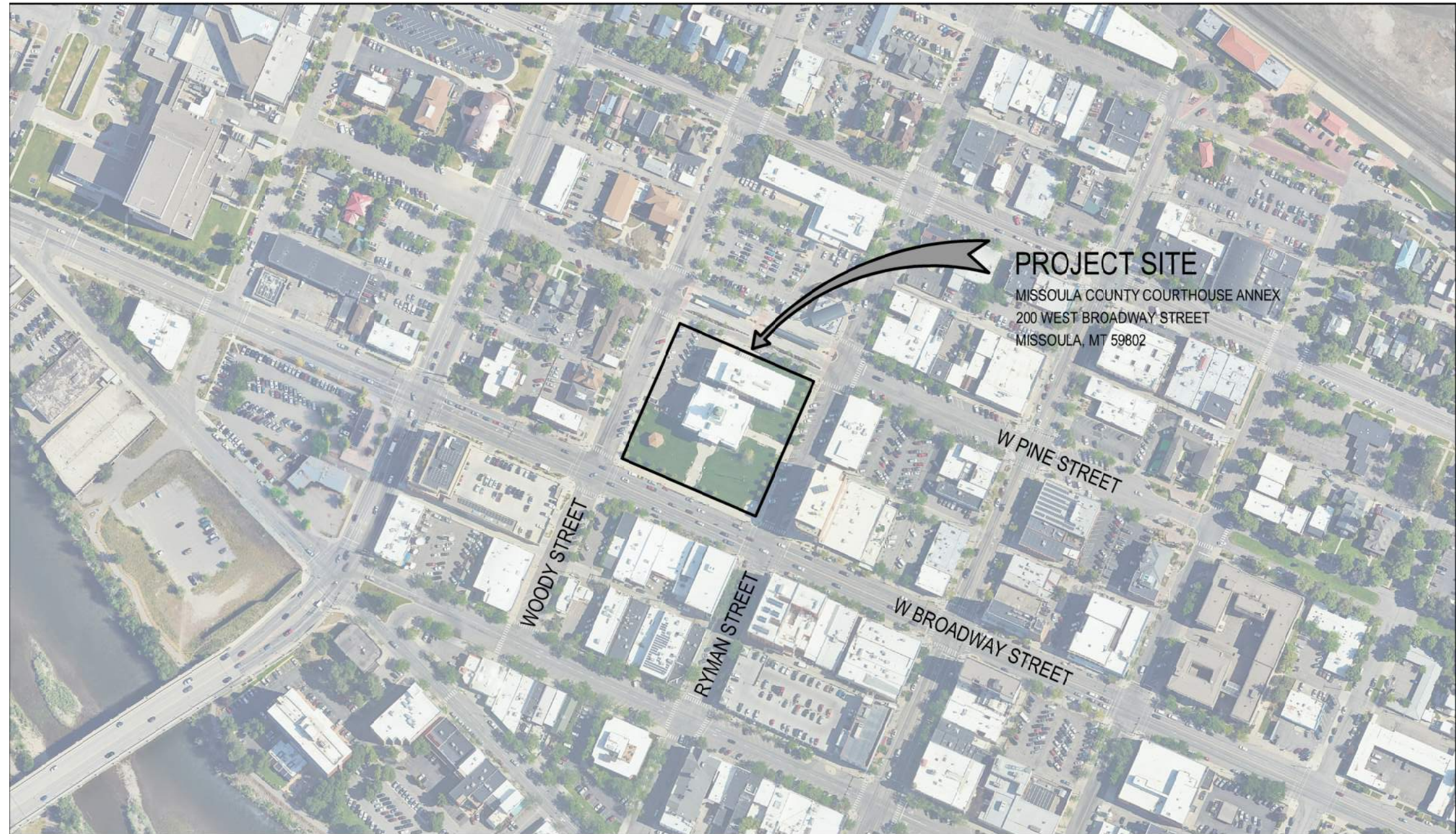
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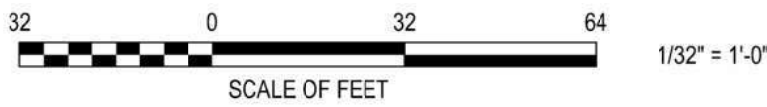
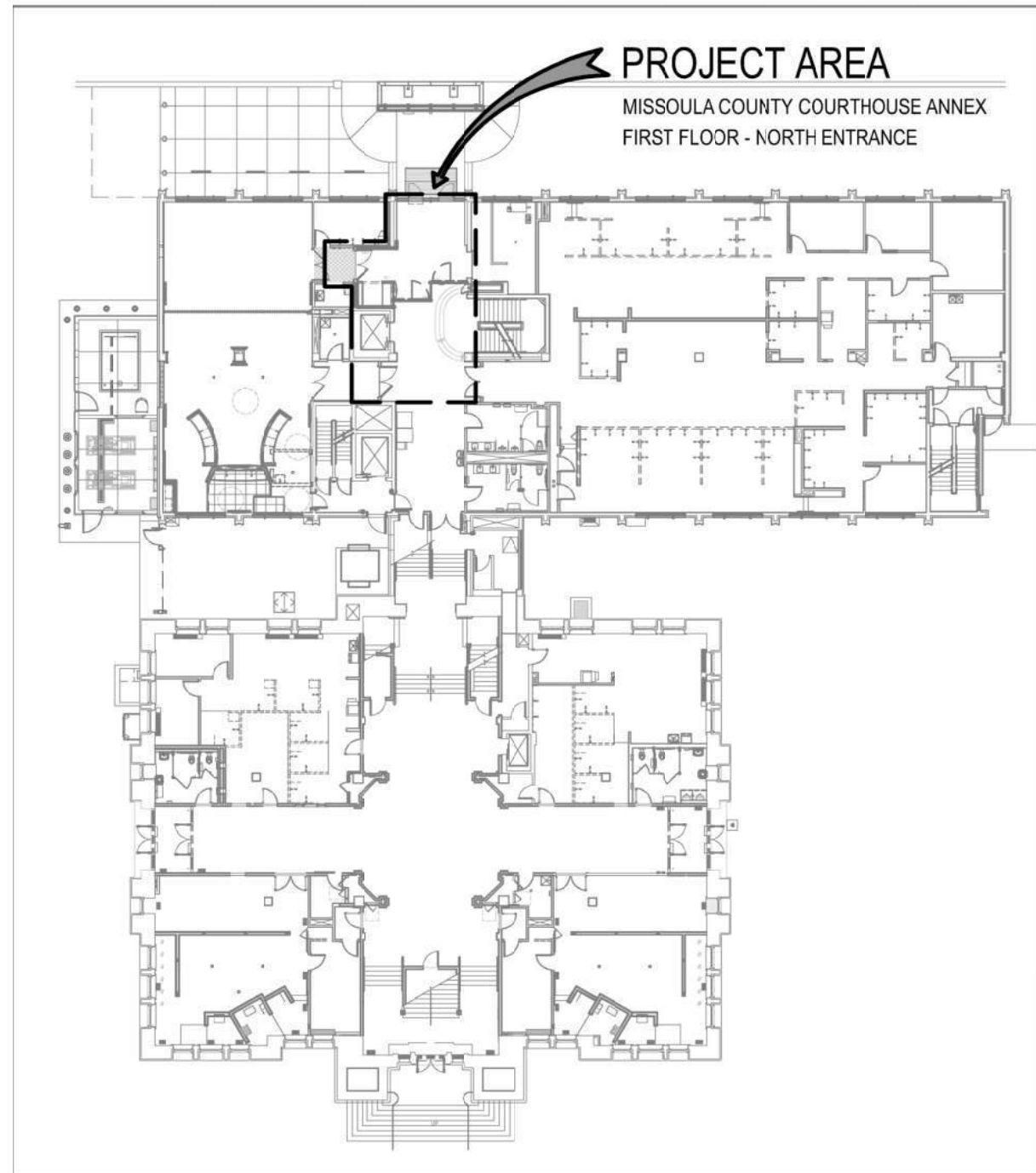
VICINITY PLAN



GOOGLE EARTH, 2024, NTS



KEY PLAN



ALTERNATE SCOPE OF WORK

MECHANICAL - ALTERNATE SCOPE OF WORK:

1. REMOVE GRILLES AND DUCTWORK PER M2.0. PROVIDE E-1 HEATER IN SECURITY. PROVIDE NEW VAV BOX, HYDRONIC PIPING, CONTROLS, DUCTWORK AND GRILLES PER M2.1.
2. REMOVE (E) GYP. BOARD CEILING FROM LOBBY 140 IN EXTENTS REQUIRED TO ACCESS AND MODIFY (E) MECHANICAL INCLUDING INSTALLATION OF (N) HYDRONICS - REFERENCE MECHANICAL DRAWINGS FOR EXTENT OF ALTERNATE MECHANICAL WORK.
3. PATCH AND REPAIR (E) GYP. BOARD CEILING AS NEEDED DUE TO INSTALLATION OF (N) ALTERNATE MECHANICAL SYSTEM. FINISH GYP. BOARD TO MATCH (E) CEILING, PRIME AND PAINT FINISH - REFERENCE ARCHITECTURAL DRAWINGS FOR EXTENTS.
4. INSTALL (N) ACCESS HATCH IN GYP. BOARD CEILING PER MECHANICAL DRAWINGS.

DOORS & HARDWARE - ALTERNATE SCOPE OF WORK:

1. REMOVE & SALVAGE DOOR, DOOR FRAME, AND HARDWARE AT DOOR 152.1. MAINTAIN (E) KEY SWITCH OVERRIDE TO ADA OPERATOR, COORDINATE WITH (N) WORK. REMOVE & SALVAGE DOOR, DOOR FRAME, AND HARDWARE AT DOOR 149.1 TO OWNER. INSTALL SALVAGE DOOR, DOOR FRAME AND HARDWARE FROM DOOR 152.1 TO DOOR 149.1 LOCATION.

ARCHITECTURAL ABBREVIATIONS

AB	ANCHOR BOLT	MEZZ	MEZZANINE
ABA	ARCHITECTURAL BARRIERS ACT	MFR	MANUFACTURER
ABV	ABOVE	MH	MANHOLE
AC	AIR CONDITIONING	MIN	MINIMUM
ACT	ACOUSTIC CEILING TILE	MISC	MISCELLANEOUS
ADJ	ADDITIONAL	MO	MASONRY OPENING
ADJ	ADJUSTABLE	MTL	METAL
AFF	ABOVE FINISH FLOOR	N	NORTH
ALT	ALTERNATE	(N)	NEW
ALUM	ALUMINUM	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
ARCH	ARCHITECT(URAL)	NIC	NOT IN CONTRACT
AWN	AWNING	NOM	NOMINAL
B	BOTTOM OF	NTS	NOT TO SCALE
BD	BOARD	OC	ON CENTER
BLDG	BUILDING	OD	OUTSIDE DIAMETER OR OVERFLOW DRAIN
BLKG	BLOCKING	OPNG	OPENING
BM	BEAM OR BENCHMARK	OPP	OPPOSITE
BRG	BEARING	OSB	ORIENTED STRAND BOARD
BTWN	BETWEEN	OVHD	OVERHEAD
BUR	BUILT-UP ROOF	PL	PLATE
CAB	CABINET	PLAM	PLASTIC LAMINATE
CJ	CONTROL JOINT	PLUMB	PLUMBING
C	CENTERLINE	PLYWD	PLYWOOD
CLG	CEILING	PNL	PANEL
CMU	CONCRETE MASONRY UNIT	PNT	PAINT
CO	CLEAN OUT	POLY	POLYESTER OR POLYOLEFIN
COL	COLUMN	PSF	POUNDS PER SQUARE FOOT
CONC	CONCRETE	PSI	POUND PER SQUARE INCH
CONT	CONTINUOUS	PT	PRESSURE TREATED OR POINT
CONST	CONSTRUCTION	PVMT	PAVEMENT
CG	CORNERGUARD	PVT	PRIVATE
CPT	CARPET	QT	QUARTY TILE
CSMT	CASEMENT	QTR	QUARTER
CT	CERAMIC TILE	QTY	QUANTITY
CTOP	COUNTERTOP	R	RADIUS
DEE	DECK	RA	RETURN AIR
DF	DRINKING FOUNTAIN	RB	RUBBER BASE
DH	DOUBLE HUNG	RD	ROOF DRAIN
DM(S)	DIMENSIONS	RECY	RECYCLED
DSF	DISPENSER	REF	REFERENCE
DN	DOWN	REFRIG	REFRIGERATOR
DR	DOOR	REINF	REINFORCED
DS	DOWNPOUT	REQD	REQUIRED
DTL	DETAIL	RM	ROOM
DWG	DRAWING	RO	ROUGH OPENING
E	EAST	ROW	RIGHT OF WAY
(E)	EXISTING	RR	RESTROOM
EA	EACH	S	SOUTH
EC	EXISTING COLUMN	SC	SOLID CORE
EJ	EXPANSION JOINT	SCHD	SCHEDULE
ELEC	ELECTRICAL	SECT	SECTION
ELEV	ELEVATION	SF	SQUARE FEET
ELEV	ELEVATION	SFRM	SPRAY-APPLIED FIRE RESISTANT MATERIAL
EQ	EQUAL	SGL	SINGLE
EQUIP	EQUIPMENT	SHT	SHEET
EW	ELECTRIC WATER COOLER	SHTG	SHEATHING
EXH	EXHAUST	SIM	SIMILAR
EXIST	EXISTING	SPECS	SPECIFICATIONS
EXT	EXTERIOR	SCD	SLAB ON DECK
EXT	EXTERIOR	SCG	SLAB ON GRADE
FACP	FIRE ALARM CONTROL PANEL	SOH	SAME OPPOSITE HAND
FD	FLOOR DRAIN	SS	STAINLESS STEEL
FE	FIRE EXTINGUISHER	ST	STONE TILE
FEC	FIRE EXTINGUISHER CABINET	STND	STANDARD
FL	FINISH FLOOR LEVEL	STL	STEEL
FIN	FINISH	STRUCT	STRUCTURAL
FIXT	FIXTURE	TEL	TELEPHONE
FLR	FLOOR	TEMP	TEMPERED
FR	FRAME	THK	THICK
FRMG	FRAMING	THRESH	THRESHOLD
FT	FEET/FOOT OR FIRE TREATED	T.A.	TOP OF
FTNG	FOOTING	TOBM	TOP OF BEAM
FRP	FIBERGLASS REINFORCED PANEL	T.A.P.	TOP OF PLATE
GA	GAUGE OR GAGE	T.O.S	TOP OF STEEL
GALV	GALVANIZED	T	TOP OF
GB	GYPSON BOARD	T&G	TONGUE AND GROOVE
GC	GENERAL CONTRACTOR	TRANS	TRANSOM
GL	GLASS, GLAZING	TV	TELEVISION
GWB	GYPSON WALL BOARD	TYP	TYPICAL
GYP	GYPSON	UL	UNDERWRITERS LABORATORY
HC	HANDICAP	UNO	UNLESS NOTED OTHERWISE
HDR	HEADER	VB	VINYL BASE
HDW	HARDWARE	VCT	VINYL COMPOSITION TILE
HM	HOLLOW METAL	VERT	VERTICAL
HORIZ	HORIZONTAL	VEST	VESTIBULE
HR	HOUR	VIF	VERIFY IN FIELD
HT	HEIGHT	VP	VENEER PLASTER
HTD	HEATED	VR	VAPOR RETARDER
HVAC	HEATING/VENTILATION & AIR CONDITIONING	VRF	VARIABLE REFRIGERANT FLOW
ID	INSIDE DIAMETER	VT	VINYL TILE
INFO	INFORMATION	WVC	VINYL WALL TILE
ISO	INSOCYANURATE	W	WIDE OR WEST
INSUL	INSULATE/ INSULATION	WC	WATER CLOSET
INT	INTERIOR	WD	WOOD
INV	INVERT	WDW	WINDOW
JT	JOINT	WG	WALL GUARD
J-BOX	JUNCTION BOX	WH	WATER HEATER
KT	KITCHEN	WIN	WITHIN
L	LONG/ LENGTH	WO	WITHOUT
LAM	LAMINATED	WP	WATERPROOF
LAV	LAVATORY	WR	WATER RESISTANT
LF	LINEAR FEET	WT	WEIGHT
L	LIGHT	WWF	WELDED WIRE FABRIC
MAS	MASONRY	#	NUMBER OR POUND
MATL	MATERIAL	@	AT
MAX	MAXIMUM		
MECH	MECHANICAL		

SHEET LIST

CVR	COVER	MECHANICAL	ELECTRICAL
D2.1	FIRST FLOOR DEMOLITION PLANS	M0.1	MECHANICAL COVER SHEET
D9.1	DEMOLITION PHOTOGRAPHS	M1.0	MECHANICAL SPECIFICATIONS SHEET
		M2.0	FIRST FLOOR MECHANICAL DEMO PLANS - NORTH ENTRY
A2.1	FIRST FLOOR PLANS	M2.1	FIRST FLOOR MECHANICAL PLANS - NORTH ENTRY
A6.1	INTERIOR ELEVATIONS AND DETAILS	M7.1	MECHANICAL SCHEDULES & DETAILS
A9.1	DETAILS		
A9.2	SCHEDULES AND WALL TYPES		

HISTORICAL NOTE

THE CONTRACTOR SHALL PROTECT HISTORIC AND EXISTING FABRIC THROUGHOUT THE CONSTRUCTION, TYPICAL OF BUILDINGS AND SITE. THE MISSOULA COUNTY COURTHOUSE IS RECOGNIZED ON THE NATIONAL REGISTER OF HISTORIC PLACES. THE GROUNDS AND STRUCTURES WITHIN THE SITE NOT SPECIFICALLY CALLED OUT FOR WORK IN THESE DOCUMENTS SHALL BE PROTECTED FROM DAMAGE. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE CAUSED BY THE EXECUTION OF THIS CONTRACT, TO THE SATISFACTION OF THE OWNER WITHOUT ADDITIONAL COMPENSATION. EACH EMPLOYEE OF THE CONTRACTOR AND THEIR SUBCONTRACTORS SHALL BE INFORMED OF THE HISTORIC NATURE OF THE BUILDING AND MADE RESPONSIBLE FOR THE PROTECTION OF BUILDINGS ARTIFACTS, FOUND OBJECTS, AND OTHER "COLLECTABLE" ITEMS UNCOVERED DURING THE WORK. THESE ITEMS ARE THE PROPERTY OF THE OWNER, AND AS SUCH, ARE VALUABLE. NO SUCH PROPERTY SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR, CONTRACTOR'S EMPLOYEES, OR SUBCONTRACTORS.

GENERAL PROJECT NOTES

1. EVERY ATTEMPT HAS BEEN MADE TO ENSURE THE ACCURACY OF THE DRAWINGS THROUGH FIELD VERIFICATION. THE CONTRACTOR IS RESPONSIBLE TO VERIFY EXISTING CONDITIONS BEFORE CONSTRUCTION / ORDERING / INSTALLATION & NOTIFY THE ARCHITECT IMMEDIATELY FOR WRITTEN CLARIFICATION IF ANY DISCREPANCY EXISTS.
2. DRAWINGS CONTAINED WITHIN THESE DOCUMENTS ARE ABBREVIATED IN NATURE. THE CONTRACTOR SHALL USE QUALITY, ACCEPTABLE STANDARD CONSTRUCTION PRACTICES & TECHNIQUES COMPATIBLE WITH THE HISTORIC CHARACTER OF THE BUILDING.
3. ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT VERSIONS OF ALL APPLICABLE STANDARDS & REGULATIONS AS PRESCRIBED BY THE STATE OF MONTANA, INCLUDING BUT NOT LIMITED TO 2021 INTERNATIONAL BUILDING CODE, 2021 INTERNATIONAL EXISTING BUILDING CODE, 2017 ICC A117.1 - ACCESSIBILITY, 2021 UNIFORM PLUMBING CODE, 2021 INTERNATIONAL MECHANICAL CODE, 2021 INTERNATIONAL FUEL GAS CODE, 2020 NATIONAL ELECTRICAL CODE, 2021 INTERNATIONAL ENERGY CONSERVATION CODE, CURRENT ARCHITECTURAL BARRIERS ACT & STANDARDS FOR ACCESSIBILITY, CURRENT NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) STANDARDS FOR LIFE SAFETY SYSTEMS, CURRENT NFPA 101 STANDARDS, CURRENT AMERICAN NATIONAL STANDARDS INDICATED OR APPLICABLE TO THE WORK, & ANY APPLICABLE LOCAL CODES OR REGULATIONS.
5. DO NOT SCALE FROM DRAWINGS. IF A DIMENSION DOES NOT EXIST OR IS IN ERROR, CONTACT THE ARCHITECT IMMEDIATELY FOR WRITTEN CLARIFICATION.

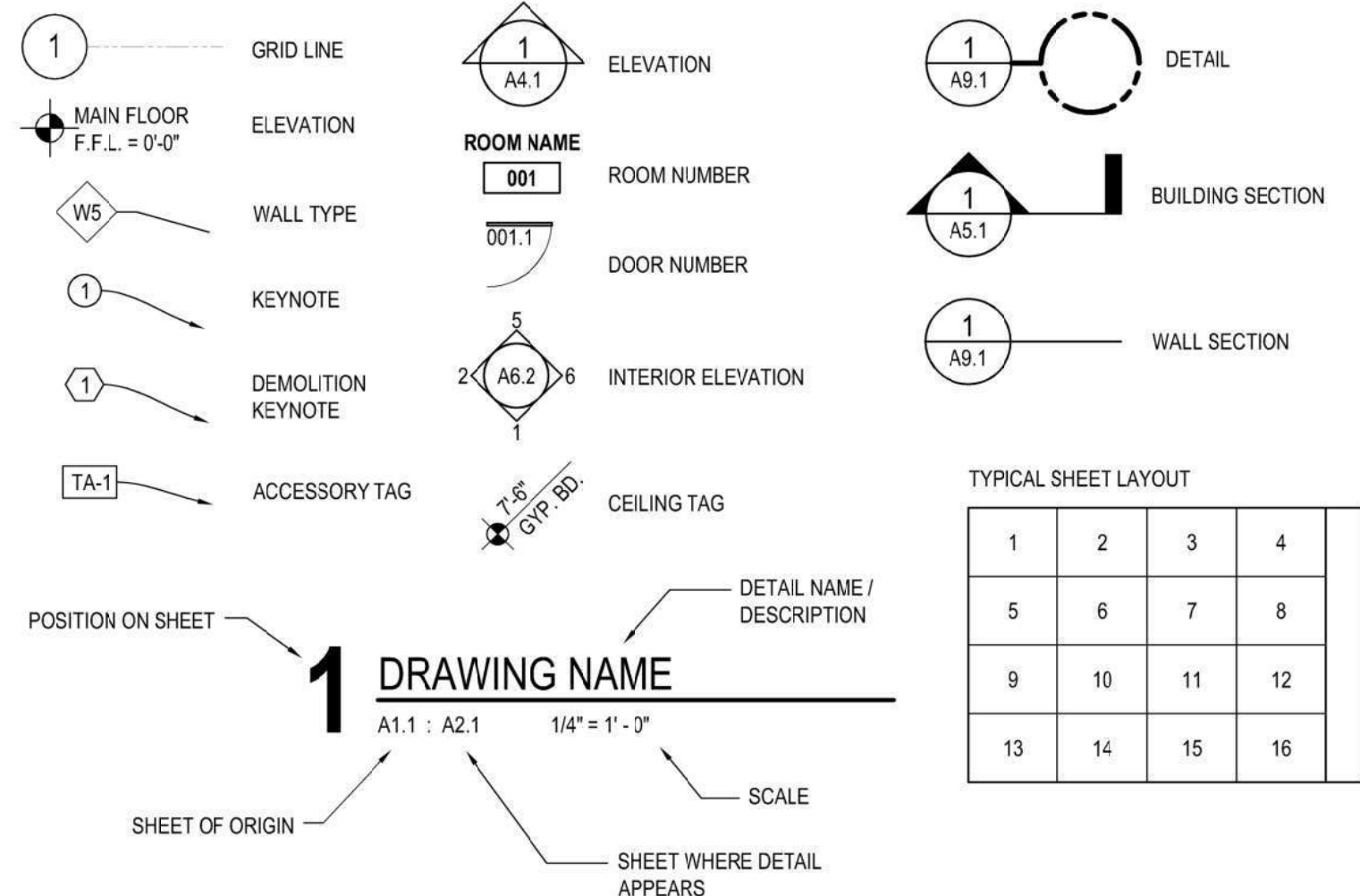
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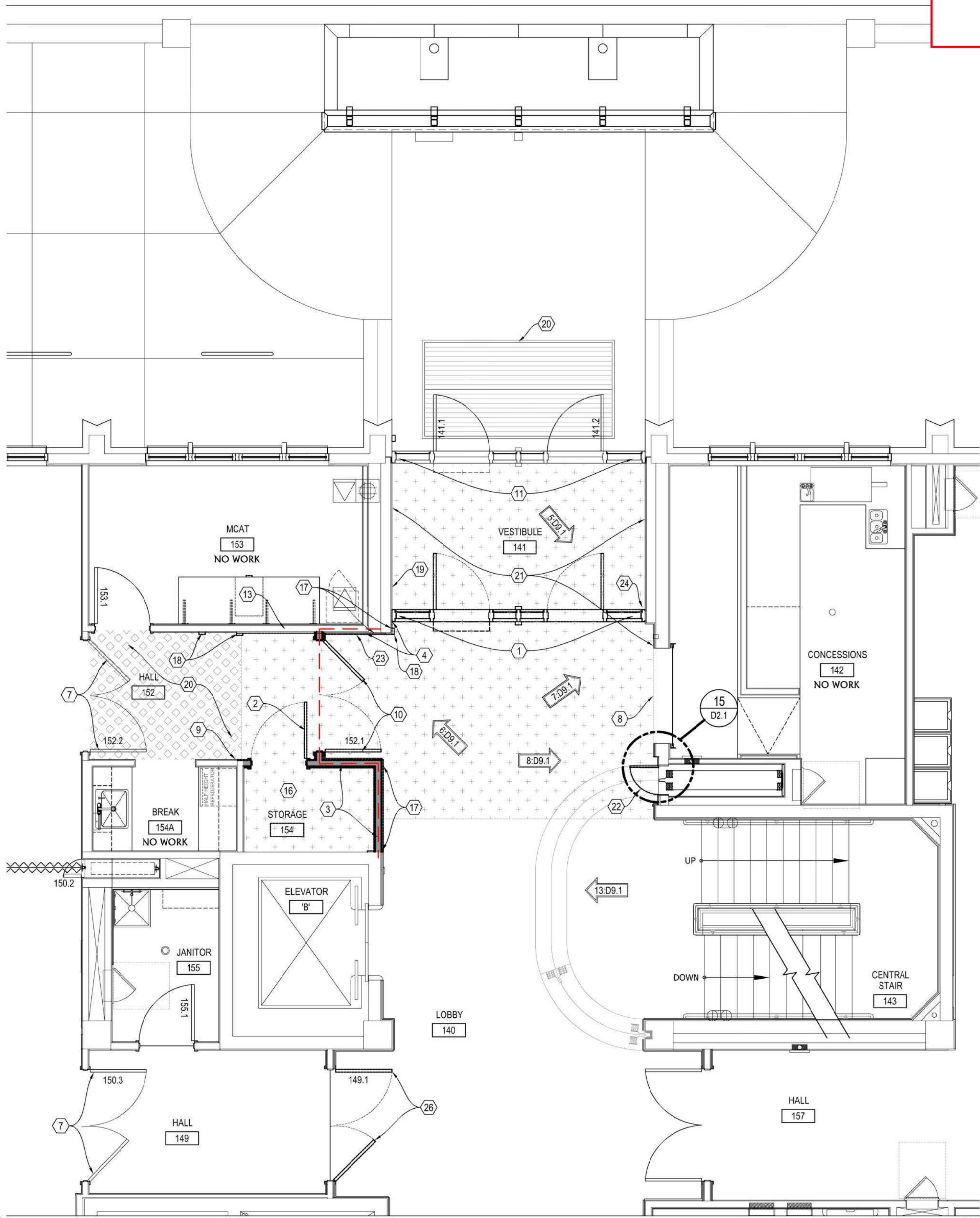
IN-KIND: NEW MATERIALS INDICATED TO MATCH IN-KIND SHALL REPLICATE EXACTLY, IN EVERY REGARD, THE ORIGINAL DETAIL, MATERIAL, TYPE, & FINISH OF ELEMENT TO BE REPLACED AS DETERMINED BY THE CONTRACTING OFFICER.
TYPICAL (TYP.): AS USED IN THESE DOCUMENTS SHALL MEAN THE CONDITION IS THE SAME OR REPRESENTATIVE FOR ALL SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
ALIGN: SHALL MEAN TO ACCURATELY LOCATE FINISHED FACES IN THE SAME PLANE. CONTRACTOR SHALL COORDINATE ALL WORK NECESSARY TO ACHIEVE SAME.

PROJECT TEAM

OWNER	ARCHITECT	MECH/ELEC/FP
MISSOULA COUNTY 200 WEST BROADWAY STREET MISSOULA, MT 59802	A&E DESIGN 222 NORTH HIGGINS AVENUE MISSOULA, MT 59802 406.721.5643	AXIOM ENGINEERING GROUP 910 BROOKS STREET #203 MISSOULA, MT 59801 406.542.2849

EXPLANATION OF SYMBOLS





9 FIRST FLOOR DEMOLITION PLAN - NORTH ENTRY

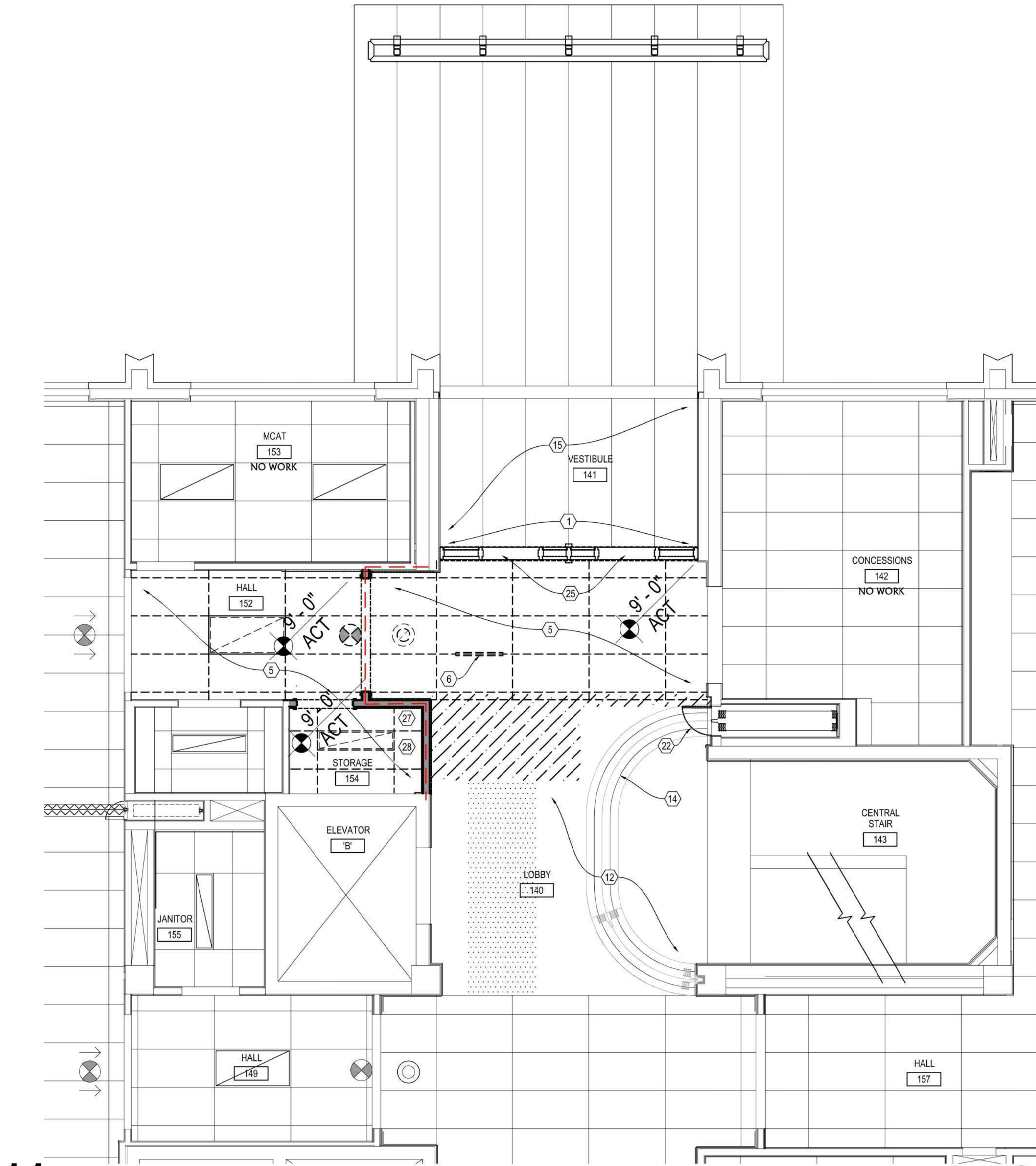
D2.1 : D2.1 1/4" = 1'-0"

KEYNOTES

- REMOVE (E) STOREFRONT SYSTEM IN ITS ENTIRETY INCLUDING ASSOCIATED DOOR CONTROLS, OPERATORS, AND ELECTRICAL, PROTECT (E) WALL BASE, WALL FINISH, AND CEILING FINISH DURING DEMOLITION WORK.
- REMOVE AND SALVAGE (E) DOOR, FRAME, HARDWARE, AND ROOM NAMENUMBER SIGNAGE TO OWNER.
- REMOVE (E) WALL IN ITS ENTIRETY. SALVAGE (E) TRAVERTINE WALL PANELS AND MARBLE WALL BASE IN WHOLE PIECES WITHOUT DAMAGE. SALVAGE SIGNAGE FOR REINSTALLATION IN (N) LOCATION, RETURN UNUSED SALVAGED MATERIALS TO OWNER.
- COORDINATE EXTENT OF REMOVAL OF (E) WALL FINISHES, INCLUDING TRAVERTINE WALL PANELS AND MARBLE WALL BASE, TO FACILITATE INSTALLATION OF (N) FIRE RATED WALL AND FINISHES IN NEW WORK.
- REMOVE (E) ACOUSTIC CEILING TILE SYSTEM IN ITS ENTIRETY, COORDINATE SALVAGE AND RELOCATION OF LIGHTING AND EQUIPMENT WITH OTHER DISCIPLINES.
- REMOVE AND SALVAGE (E) WAYFINDING SIGNAGE FOR REINSTALLATION IN (N) LOCATION IN NEW WORK.
- EXISTING DOORS TO REMAIN IN-PLACE. NO WORK.
- REMOVE (E) BANNER ABOVE. RETURN TO OWNER.
- REMOVE (E) DOOR/ROOM NUMBER. RETURN TO OWNER.
- REMOVE (E) DOOR FRAME AND ASSOCIATED COMPONENTS INCLUDING POWER SUPPLY, IN THEIR ENTIRETY. SALVAGE TO OWNER, REFERENCE ALTERNATES.
- (E) STOREFRONT, DCORS, AND CONTROLS TO REMAIN, PREP DOORS AND FRAMES FOR RE-PAINTING.
- (E) GYP. BD. CEILING TO REMAIN IN-PLACE, COORDINATE REMOVAL AS REQUIRED FOR INSTALLATION OF (N) MECHANICAL SYSTEM.
- REMOVE LOBBY SIDE WALL FINISHES TO FACILITATE INSTALLATION OF 2-HOUR RATED WALL ASSEMBLY AND (N) WALL FINISHES IN NEW WORK. COORDINATE (N) WALL TYPE WITH EXISTING CONDITIONS.
- PROTECT (E) WON-DOOR TRACK AND CONCEALED STRUCTURE ABOVE FINISHED CEILING IN-PLACE.

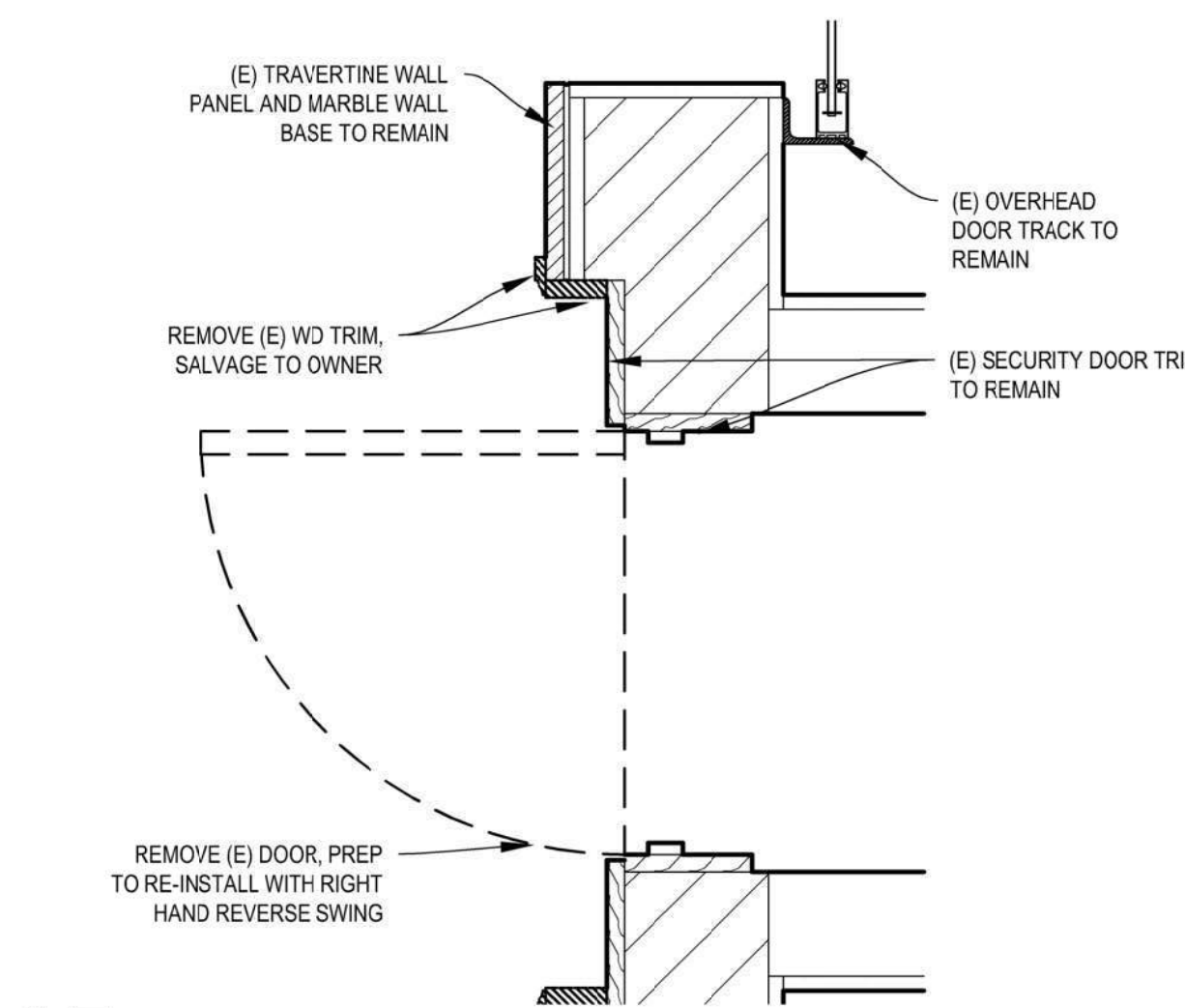
KEYNOTES

- (E) PLASTER CHEVRON CEILING AND (E) LIGHT FIXTURES TO REMAIN, PROTECT IN PLACE.
- REMOVE (E) RUBBER WALL BASE IN THIS ROOM, PREP WALLS FOR (N) WALL BASE IN NEW WORK, TYP.
- REMOVE (E) WALL-MOUNTED SIGNS AND SALVAGE FOR RE-INSTALLATION.
- REMOVE AND SALVAGE (E) DOOR ACTUATORS FOR RELOCATION IN NEW WORK, COORDINATE WITH REMOVAL OF (E) ELECTRICAL, WALL KEY SWITCH, AND MAG HOLD OPEN.
- (E) FIRE ALARM PANEL TO REMAIN, NO WORK.
- (E) WALK OFF MAT, NO WORK.
- (E) TRAVERTINE WALL AND MARBLE WALL BASE TO REMAN, PROTECT IN PLACE.
- REMOVE AND SALVAGE (E) DOOR AND HARDWARE AND PREP TO RE-SWING RIGHT HAND REVERSE.
- (E) WALL KEY SWITCH OVERRIDE TO ADA OPERATOR, COORDINATE WITH (N) WORK.
- PROTECT (E) TRAVERTINE BELOW (E) STEEL. STOREFRONT SYSTEM SCHEDULED TO BE REMOVED.
- BULKHEAD ABOVE REMOVED DOOR SYSTEMS TO REMAIN, PROTECT IN PLACE.
- ALTERNATE: REMOVE (E) DOORS AND HARDWARE, COORDINATE INSTALL OF SALVAGED DOOR 152.1 TO THIS LOCATION.
- REMOVE (E) DOORS POWER SUPPLY ABOVE CEILING SALVAGE TO COUNTY.
- (E) LIGHT FIXTURE - COORDINATE W/ ELECTRICAL DWGS.



11 FIRST FLOOR DEMOLITION REFLECTED CEILING PLAN - NORTH ENTRY

D2.1 : D2.1 1/4" = 1'-0"



15 SLIDING DOOR AT CONCESSIONS

D2.1 : D2.1 1 1/2" = 1'-0"

LEGEND

- | | |
|--|--|
| | HATCH INDICATES REMOVAL OF (E) WALK-OFF MAT OR CARPET FINISH, PREP FOR INSTALLATION OF (N) WALK-OFF MAT. |
| | HATCH INDICATES (E) WALK-OFF MAT. |
| | HATCH INDICATES APPROXIMATE AREA OF REMOVAL OF (E) GYPSUM BOARD CEILING AS REQUIRED FOR (N) WALL CONSTRUCTION AND SECUREMENT TO STRUCTURE ABOVE, COORDINATE EXTENTS WITH NEW WORK. |
| | INDICATES REMOVAL OF (E) WALL IN ITS ENTIRETY, PREPARE FOR NEW WORK. |
| | INDICATES REMOVAL OF (E) ELEMENT OR WALL FINISH TO SOUND STRUCTURE, PREPARE FOR NEW WORK. |
| | DASH LINE INDICATES (E) 2-HOUR FIRE RATED WALL CONSTRUCTION. |
| | ALTERNATE - HATCH INDICATES EXTENTS OF SCOPE OF WORK OF (E) GYP. BOARD CEILING DEMOLITION FOR INSTALLATION OF (N) ALTERNATE MECHANICAL SYSTEM. |

DEMOLITION GEN. NOTES

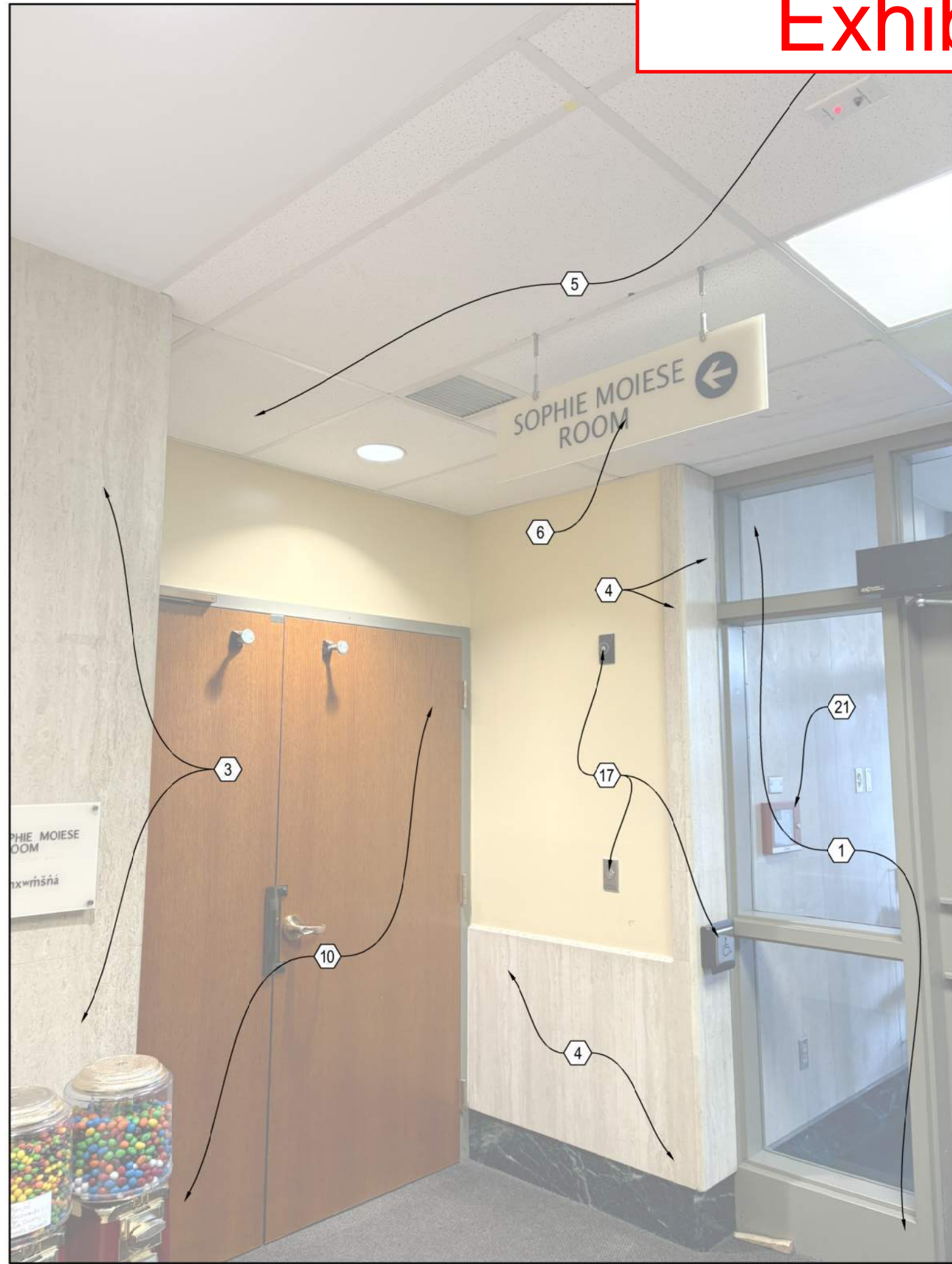
- FIELD VERIFY ALL DIMENSIONS. DO NOT SCALE DRAWINGS. VERIFY EXISTING CONDITIONS AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK.
- COORDINATE ALL DEMOLITION WORK WITH EXISTING CONDITIONS AND NEW WORK INDICATED.
- REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL DEMOLITION WORK, TYP.
- ANY ITEM SHOWN OR REFERENCED IN ONE INSTANCE SHALL BE AS IF SHOWN IN ALL INSTANCES.
- REFERENCE TO DEMOLITION PHOTOGRAPH.
- SALVAGE ALL EXISTING SIGNAGE TO OWNER WITHIN AREAS OF WORK, TYP. CLEAN SURFACE AT ALL FORMER SIGNAGE LOCATIONS TO REMOVE ADHESIVE AND/OR TAPE(S) IN ENTIRETY.
- PROTECT ALL EXISTING SURFACES AND FINISHES TO REMAIN, TYP.
- SALVAGE ALL EXISTING MARBLE AND TRAVERTINE, INCLUDING, BUT NOT LIMITED TO, WAINSCOT, WAINSCOT CAPS, AND WALL BASE. CLEAN AND PREP FOR RE-INSTALLATION.
- PROTECT EXISTING TRAVERTINE, TERRAZZO, AND MARBLE WAINSCOTING. REMOVE, SALVAGE, AND RE-INSTALL AS REQUIRED TO COMPLETE WORK INDICATED.

4 0 4 8
SCALE OF FEET
1/4" = 1'-0"

Exhibit A



5 WEST VESTIBULE ELEVATION
D2.1 : D9.1 PHOTOGRAPH



6 WEST VESTIBULE ELEVATION
D2.1 : D9.1 PHOTOGRAPH



7 WEST VESTIBULE ELEVATION
D2.1 : D9.1 PHOTOGRAPH



8 WEST VESTIBULE ELEVATION
D2.1 : D9.1 PHOTOGRAPH



13 WEST VESTIBULE ELEVATION
D2.1 : D9.1 PHOTOGRAPH

KEYNOTES

- (1) REMOVE (E) STOREFRONT SYSTEM IN ITS ENTIRETY INCLUDING ASSOCIATED DOOR CONTROLS, OPERATORS, AND ELECTRICAL. PROTECT (E) WALL BASE, WALL FINISH, AND CEILING FINISH DURING DEMOLITION WORK.
- (2) REMOVE AND SALVAGE (E) DOOR, FRAME, HARDWARE, AND ROOM NAMENUMBER SIGNAGE TO OWNER.
- (3) REMOVE (E) WALL IN ITS ENTIRETY, SALVAGE (E) TRAVERTINE WALL PANELS AND MARBLE WALL BASE IN WHOLE PIECES WITHOUT DAMAGE, SALVAGE SIGNAGE FOR REINSTALLATION IN (N) LOCATION, RETURN UNUSED SALVAGED MATERIALS TO OWNER.
- (4) COORDINATE EXTENT OF REMOVAL OF (E) WALL FINISHES, INCLUDING TRAVERTINE WALL PANELS AND MARBLE WALL BASE, TO FACILITATE INSTALLATION OF (N) FIRE RATED WALL AND FINISHES IN NEW WORK.
- (5) REMOVE (E) ACOUSTIC CEILING TILE SYSTEM IN ITS ENTIRETY, COORDINATE SALVAGE AND RELOCATION OF LIGHTING AND EQUIPMENT WITH OTHER DISCIPLINES.
- (6) REMOVE AND SALVAGE (E) WAYFINDING SIGNAGE FOR REINSTALLATION IN (N) LOCATION IN NEW WORK.
- (7) EXISTING DOORS TO REMAIN IN-PLACE.
- (8) REMOVE (E) BANNER ABOVE, RETURN TO OWNER.
- (9) REMOVE (E) DOOR/ROOM NUMBER, RETURN TO OWNER.
- (10) REMOVE (E) DOOR FRAME AND HARDWARE - COORDINATE WITH (N) WORK, SALVAGE UNUSED COMPONENTS TO OWNER.
- (11) (E) STOREFRONT, DOORS AND CONTROLS TO REMAIN, PREP DOORS AND FRAMES FOR RE-PAINTING.
- (12) ALTERNATE HATCH INDICATES SCOPE: GYP. BOARD CEILING TO BE REMOVED FOR (N) MECH. SYSTEMS.
- (13) NOT USED.
- (14) PROTECT (E) WON-DOOR TRACK AND CONCEALED STRUCTURE ABOVE FINISHED CEILING IN-PLACE.
- (15) (E) PLASTER CHEVRON CEILING AND (E) LIGHT FIXTURES TO REMAIN, PROTECT IN PLACE.
- (16) NOT USED.
- (17) REMOVE (E) DOOR ACCESS CONTROLS, SALVAGE AND RE-LOCATE, COORDINATE WITH (E) WALL KEY SWITCH OVERRIDE TO ADA OPERATOR.
- (18) ORIGINAL DRAWINGS INDICATE TRAVERTINE WALL FINISH CONTINUES BELOW (E) HM STOREFRONT SYSTEM AT THIS LOCATION. VIF. CLEAN, PATCH, AND REPAIR (E) TRAVERTINE DUE TO REMOVAL OF STOREFRONT SYSTEM.
- (19) REMOVE (E) WALK-OFF MAT. SEE PLANS FOR EXTENTS.
- (20) BULKHEAD TO REMAIN IN-PLACE. PATCH AND REPAIR (E) PLASTER FINISHES AS REQ. DUE TO REMOVAL OF STOREFRONT SYSTEM.
- (21) FIRE PANEL TO REMAIN. NO WORK.
- (22) SEE DETAIL 15/D2.1 FOR WOOD TRIMS TO BE REMOVED.
- (23) REMOVE DOOR HARDWARE. RE-SWING RIGHT HAND REVERSE, DUTCHMAN PATCH DOOR AND JAMB.
- (24) REMOVE ELEVATOR CALL BUTTON WITH REMOVAL OF TRAVERTINE WALL PANEL AT SEAM. COORDINATE RE-INSTALLATION WITH RE-SIZED TRAVERTINE WALL PANELS.
- (25) ALTERNATE: REMOVE (E) DOORS AND HARDWARE, COORDINATE INSTALL OF SALVAGED DOOR # TO THIS LOCATION.



sheet DEMOLITION PHOTOS - NORTH ENTRY

project MISSOULA COUNTY COURTHOUSE ANNEX
NORTH ENTRY REMODEL

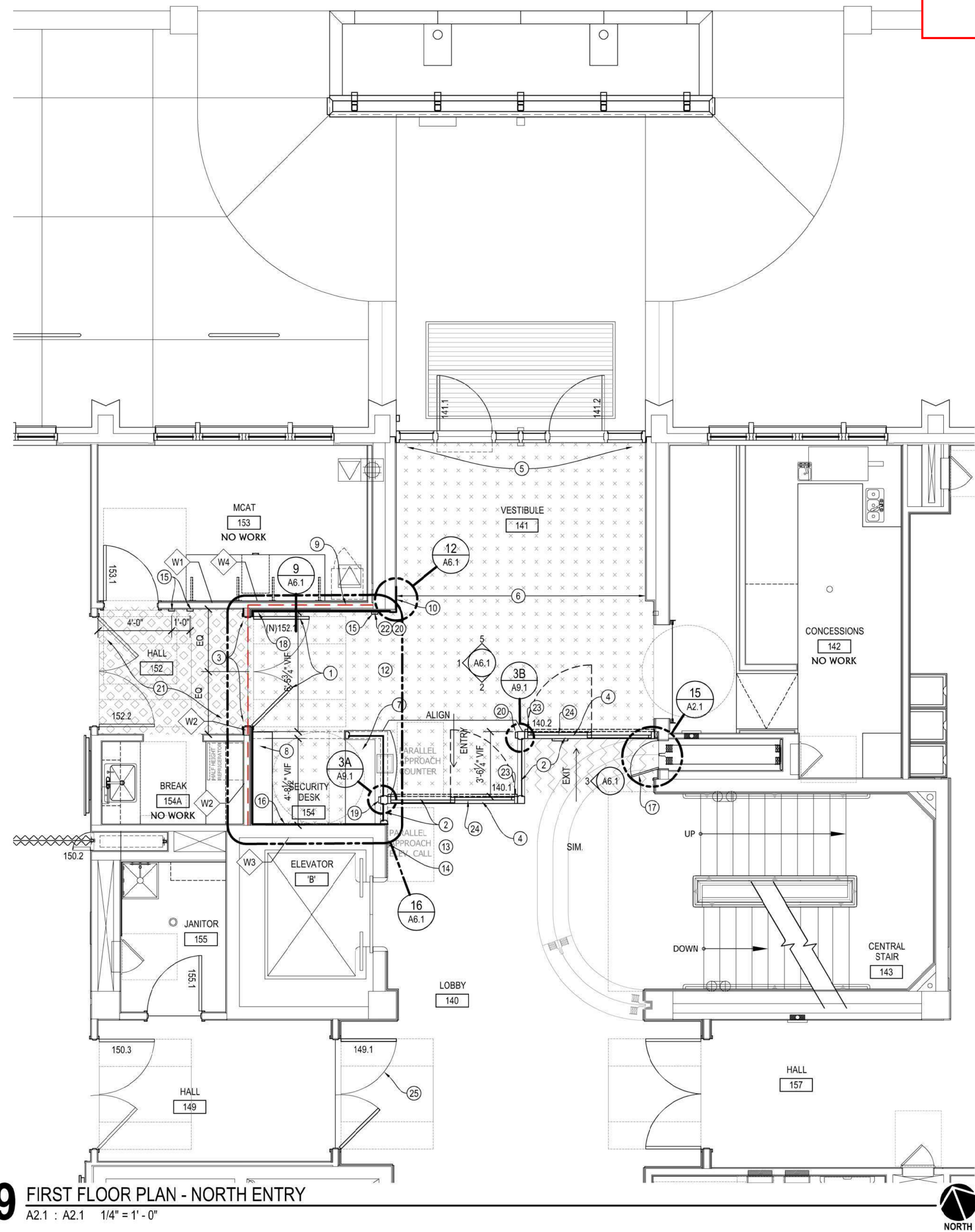
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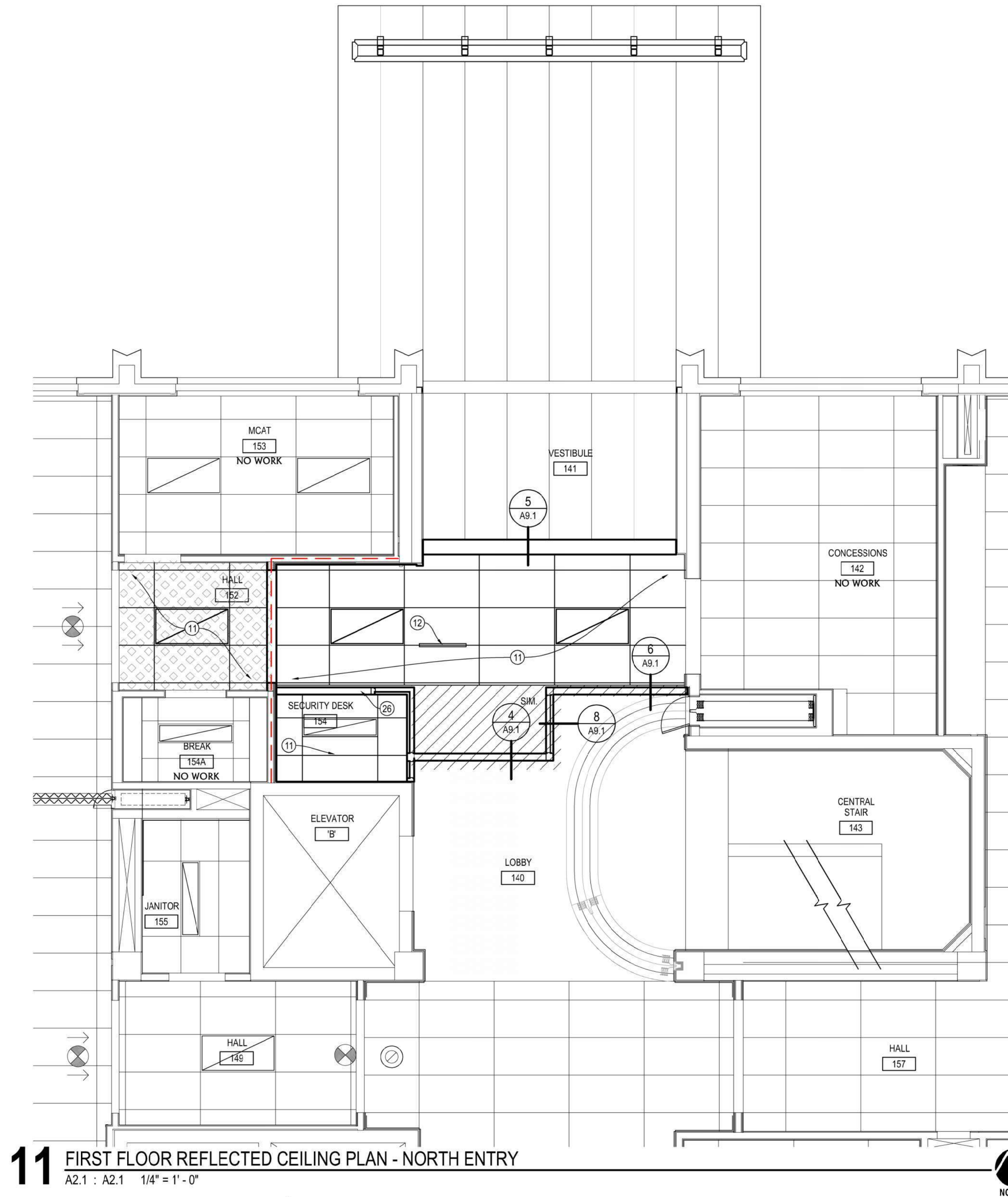
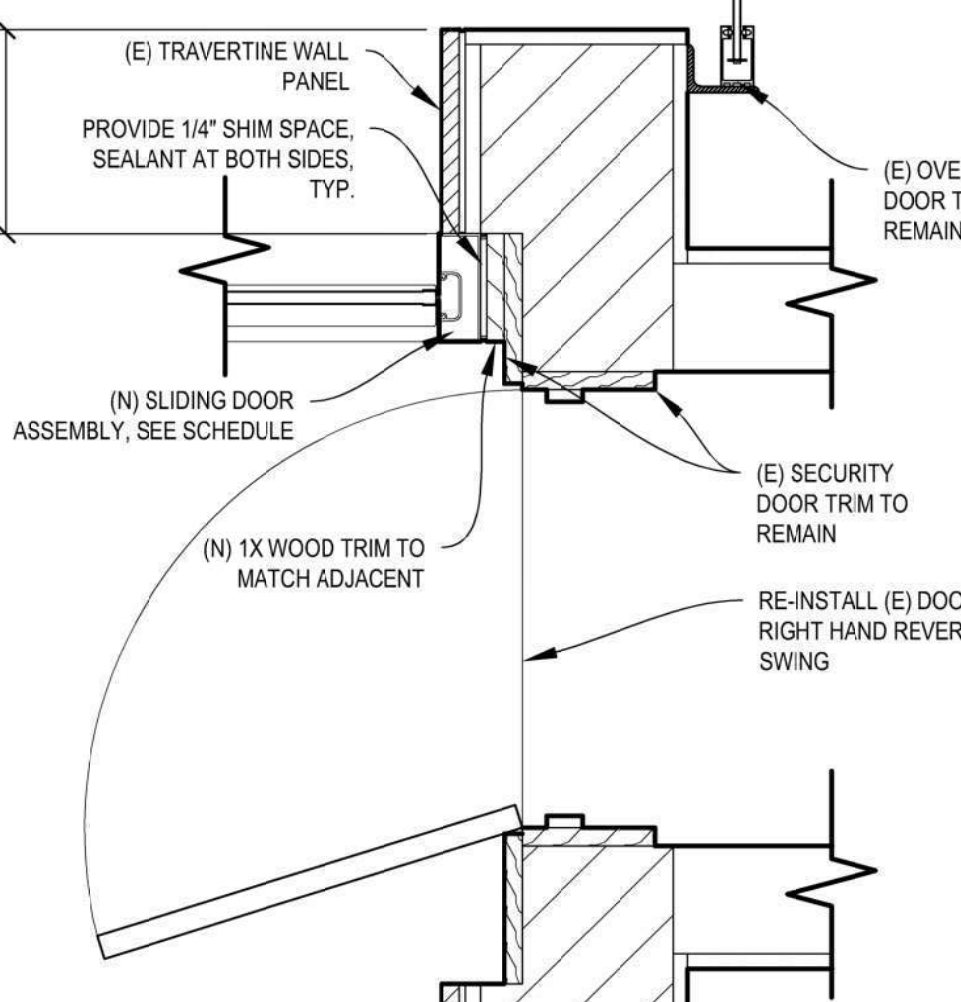
9 FIRST FLOOR PLAN - NORTH ENTRY
A2.1 : A2.1 1/4" = 1' - 0"

KEYNOTES




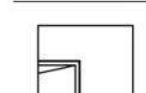
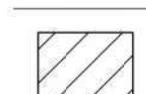


- (N) 90-MINUTE FIRE RATED DOOR AND FRAME. SEE DOOR SCHEDULE FOR ADDITIONAL WORK.
- (N) HM STOREFRONT ASSEMBLY TO MATCH (E) ANNEX ENTRY SYSTEM WITH INTEGRATED SLIDING DOORS. EXTEND (N) WALL ASSEMBLY ABOVE CEILING. COORDINATE (N) WALL CONSTRUCTION WITH (E) BUILDING SYSTEMS INCLUDING FIRE SUPPRESSION.
- (N) 2-HOUR FIRE RATED WALL ASSEMBLY. EXTEND TO STRUCTURE ABOVE. ENSURE 2-HOUR FIRE RATING IS CONTINUOUS WITH (E) ASSEMBLY.
- (N) DURA-Glide ALL GLASS - 2020 SERIES POWER-OPERATED SLIDING DOOR. 34" WIDE. SINGLE SLIDE. 1/2" MONOLITHIC GLAZING. FULL BREAKOUT. EGRESS DOOR TO OPEN BASED ON MOTION DETECTION. INGRESS DOORS OPERATE WITH CONTROL BY SECURITY OFFICE. SEE DOOR SCHEDULE.
- SCRAPE, SAND, PRIME, AND REPAINT (E) STEEL DOORS, DOOR FRAMES, SIDE LITES, AND TRANSOM FRAMES - INTERIOR AND EXTERIOR - COLOR TO MATCH (E).
- PATCH, REPAIR, AND CLEAN WALL, CEILING, AND FLOOR FINISHES AS REQUIRED FROM REMOVAL OF (E) STOREFRONT SYSTEM. CUT SALVAGED TRAVERTINE WALL PANELS AND MARBLE WALL BASE TO FIT OPENING AT DEMOLISHED DOOR FRAME. ALIGN (N) AND (E) SURFACES FLUSH.
- (N) ADA COMPLIANT SECURITY DESK WITH PLASTIC LAMINATE TOP, PENCIL DRAWER, AND BUILT IN DEAL TRAY.
- (N) PLASTIC LAMINATE STORAGE LOCKERS, COORDINATE WITH (N) ELECTRICAL, KEY EACH CABINET SEPARATELY. SEE ELEVATIONS.
- (N) CONTINUOUS 2-HOUR FIRE RATED WALL ASSEMBLY. COORDINATE (N) WALL ASSEMBLY WITH (E) CONDITIONS TO ACHIEVE FLUSH FINISH WITH MINIMUM (1) AND (3) LAYERS STAGGERED GYP. BD. AS SHOWN IN WALL TYPE 2. FIELD FIT SALVAGED TRAVERTINE WAINSCOT AND MARBLE WALL BASE.
- REINSTALL TRAVERTINE WALL PANEL AND MARBLE WALL BASE FINISHES TO BLEND SEAMLESSLY WITH ADJACENT WALL FINISHES.
- (N) ACOUSTIC CEILING TILE SYSTEM. SEE 16/A9.1. COORDINATE INSTALLATION OF LIGHTING AND EQUIPMENT WITH OTHER DISCIPLINES.
- REINSTALL SALVAGED WAYFINDING SIGNAGE IN (N) LOCATION. FIELD COORDINATE WITH OWNER.
- REINSTALL SALVAGED COMMEMORATIVE PLAQUE IN (N) LOCATION. FIELD COORDINATE WITH OWNER.

KEYNOTES

- (E) ELEVATOR CALL BUTTON. MAINTAIN 30" X 48" CLEAR FLOOR AREA.
- REINSTALL SALVAGED DOOR ACTUATORS IN NEW LOCATIONS. SEE ELECTRICAL.
- PATCH AND REPAIR WALL DUE TO DEMOLITION.
- RE-SWING (E) DOOR TO RIGHT HAND REVERSE. REPAIR DOOR AND DOOR FRAME. REFINISH IN ITS ENTIRETY TO MATCH ORIGINAL FINISH.
- (N) SALVAGED TRAVERTINE WAINSCOT & MARBLE WALL BASE.
- (N) ELECTRICAL FOR (N) SECURITY DOORS AND COUNTY'S CONTROLS TO BOTH DOORS 140.1 & 140.2. SEE ELECTRICAL DRAWINGS.
- LOCATE (N) CARD READER TO REMOVED KEY SWITCH LOCATION. SEE ELECTRICAL DRAWINGS.
- PROTECT, MAINTAIN, AND COORDINATE (E) WALK-OFF MAT WITH (N) WORK.
- REMOVED KEY SWITCH LOCATION.
- (N) KEY SWITCHES MOUNTED ON JAMB PER DOOR MANUFACTURER TO OPERATE (N) DOORS 140.1 AND 140.2.
- APPLY REQUIRED DECALS PER MANUFACTURER TO BOTH (N) ENTRY AND EXIT DOORS.
- ALTERNATE: INSTALL SALVAGED 152.1 DOOR TO (N) LOCATION. SEE DOOR AND HARDWARE SCHEDULES.
- (N) GYP BOARD SOFFIT. SEE ELEVATIONS AND DETAILS.

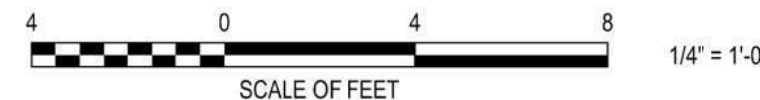
11 FIRST FLOOR REFLECTED CEILING PLAN - NORTH ENTRY
A2.1 : A2.1 1/4" = 1' - 0"15 SLIDING DOOR AT CONCESSIONS
A2.1 : A2.1 1 1/2" = 1' - 0"

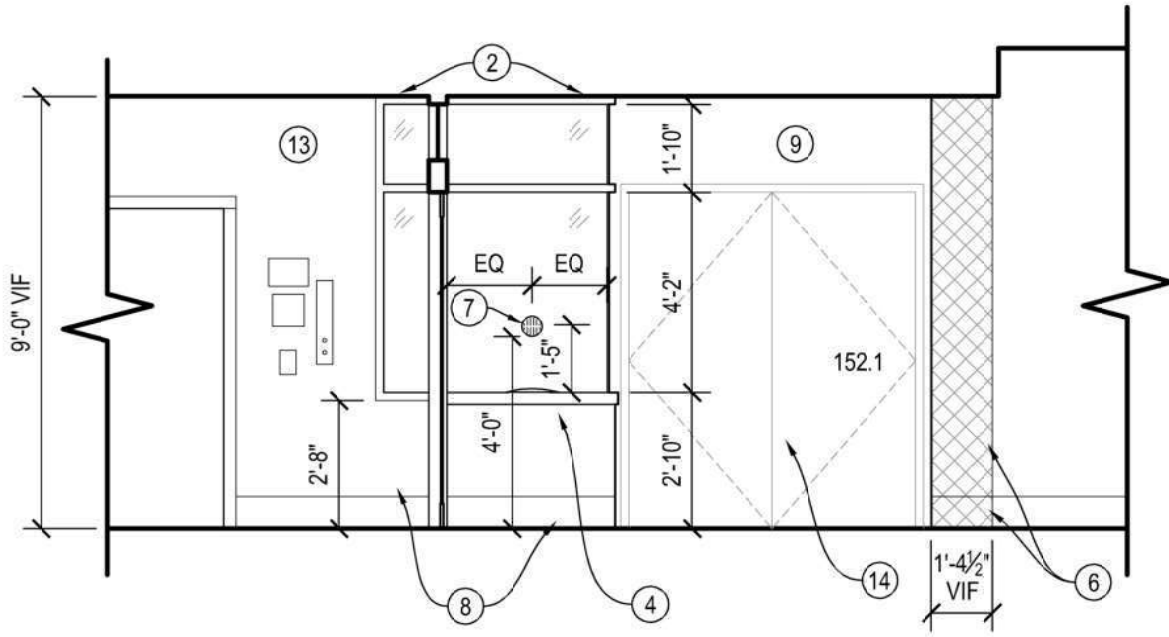
LEGEND

- | | |
|---|--|
|  | HATCH INDICATES (N) SUPER NOP TILE WALK-OFF MAT BY MATS INC. TO MATCH (E), REMOVE AND REPLACE TRANSITION/REDUCER STRIPS TO COORDINATE WITH FLOOR CONDITIONS. PROTECT (E) TERRAZZO FLOOR UNDERNEATH, TYP. |
|  | HATCH INDICATES (E) WALK-OFF MAT. |
|  | HATCH INDICATES AREA TO CLEAN AND POLISH EXPOSED TERRAZZO FLOOR FINISH TO MATCH ADJACENT. |
|  | HATCH INDICATES (N) GYPSUM BOARD CEILING FINISH. LEVEL 4 FINISH TO MATCH SEAMLESSLY WITH (E) CONDITIONS, PRIME AND PAINT (2 FINISH COATS), COLOR MATCH TO (E) CEILING. |
|  | HATCH INDICATES APPROXIMATE AREA TO PATCH (E) GYPSUM BOARD CEILING FINISH. LEVEL 4 FINISH TO MATCH SEAMLESSLY WITH (E) CONDITIONS, PRIME AND PAINT (2 FINISH COATS), COLOR MATCH TO (E) CEILING. |
|  | INDICATES 2-HOUR RATED ASSEMBLY CONTINUOUS WITH (E) 2-HOUR RATED ASSEMBLY. |
|  | ALTERNATE - PATCH AND REPAIR (E) GYPSUM BOARD CEILING FINISH AS REQUIRED BY INSTALLATION OF (N) MECHANICAL SYSTEM. LEVEL 4 FINISH TO MATCH SEAMLESSLY WITH (E) CONDITIONS, PRIME AND PAINT (2 FINISH COATS), COLOR MATCH TO (E) CEILING. |

GENERAL NOTES

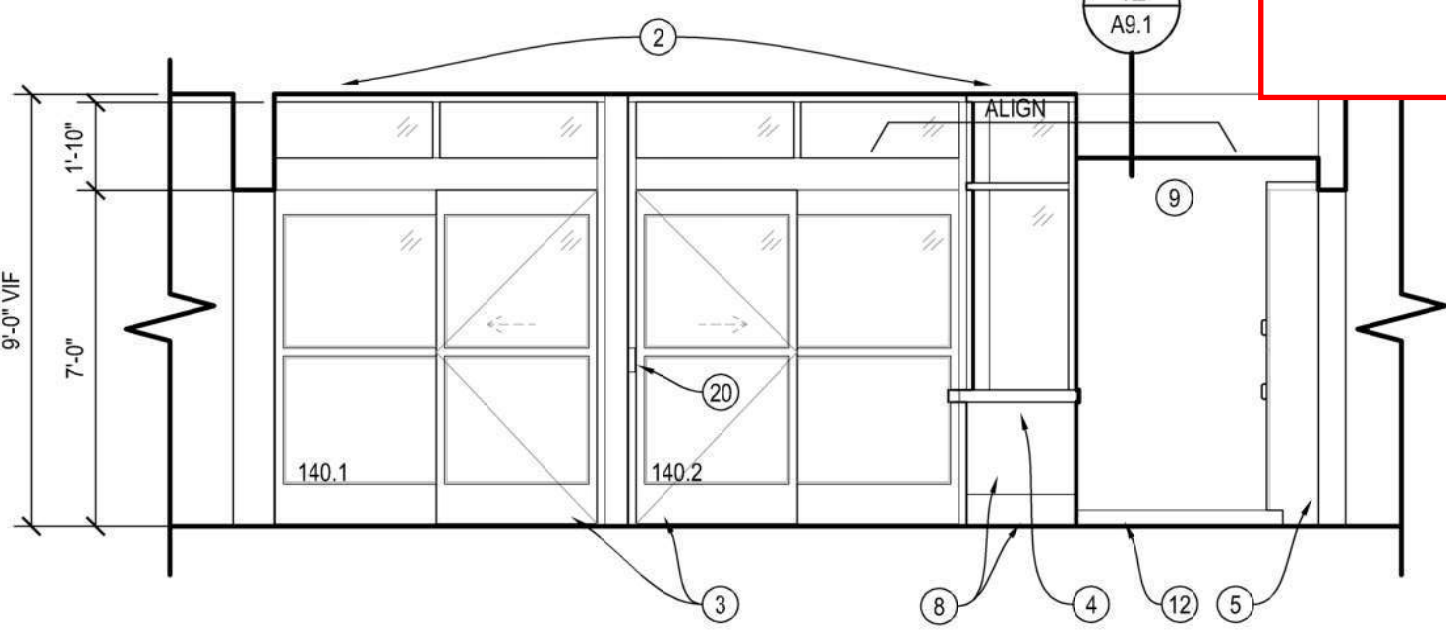
- FIELD VERIFY ALL DIMENSIONS. DO NOT SCALE DRAWINGS. VERIFY EXISTING CONDITIONS AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK.
- REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- ADJOIN (E) AND (N) MATERIALS FOR A SEAMLESS TRANSITION. PROVIDE AND INSTALL BLOCKING AS REQUIRED TO COMPLETE THE WORK INDICATED.
- PATCH AND REPAIR ANY / ALL EXISTING WALL SURFACES AS REQUIRED TO PROVIDE SUITABLE SUBSTRATE FOR NEW FINISHES.
- REPAIR EXISTING PLASTER WALL AND CEILING FINISHES.
- RE-INSTALL SALVAGED TRAVERTINE & MARBLE WAINSCOTING AND WAINSCOT CAP TO ALIGN WITH (E). SALVAGE ALL UNUSED MATERIAL TO OWNER. TYPICALLY.
- PROTECT ALL EXISTING SURFACES AND FINISHES TO REMAIN. TYPICALLY.





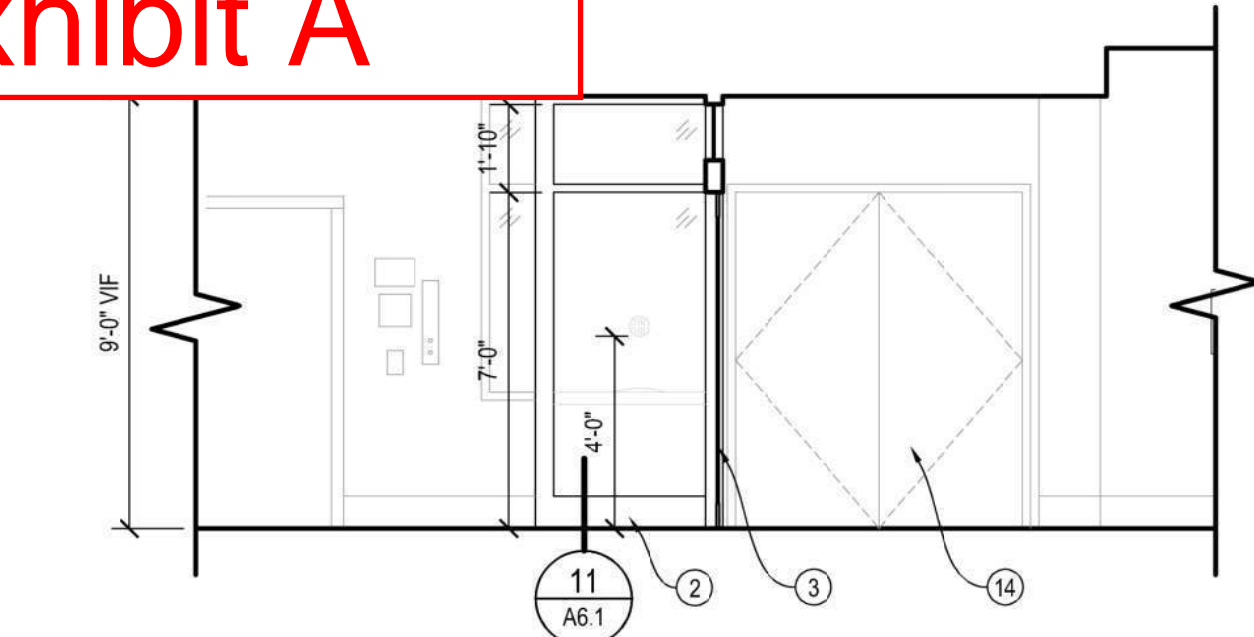
1 WEST VESTIBULE ELEVATION

A2.1 : A6.1 1/4" = 1' - 0"



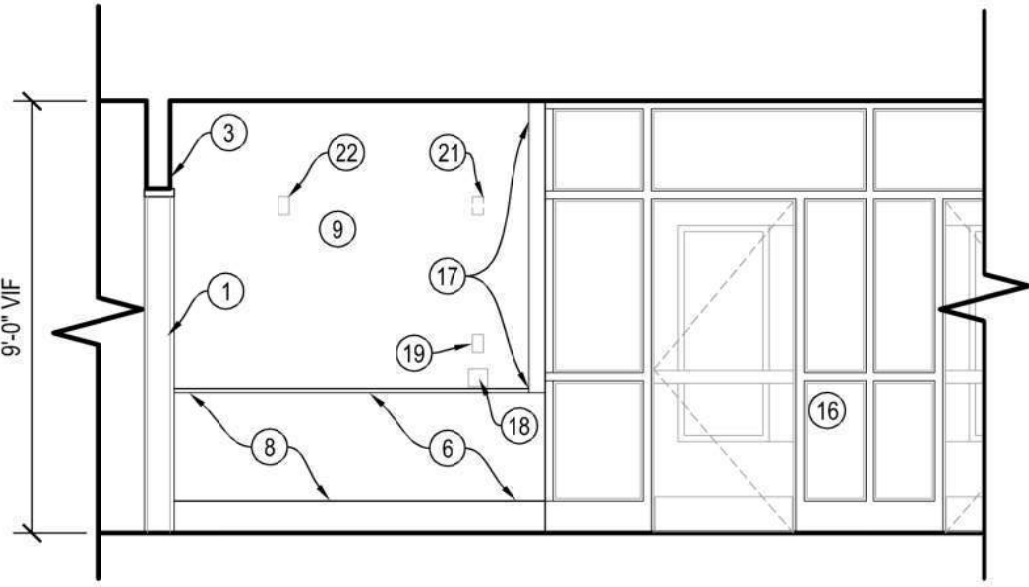
2 SOUTH VESTIBULE ELEVATION

A2.1 : A6.1 1/4" = 1' - 0"



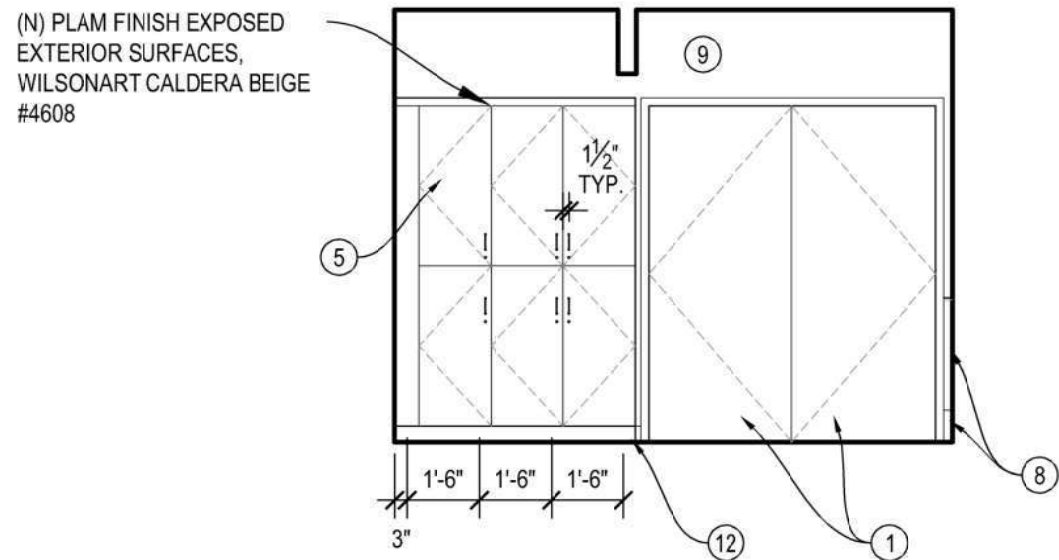
3 WEST STOREFRONT AT DOORS ELEVATION

A2.1 : A6.1 1/4" = 1' - 0"



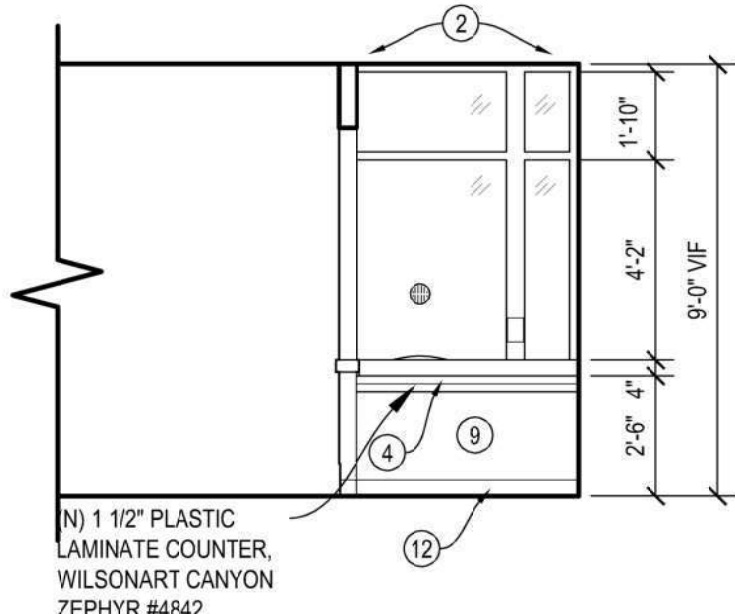
5 NORTH VESTIBULE ELEVATION

A2.1 : A6.1 1/4" = 1' - 0"



6 SECURITY DESK WEST ELEVATION

A6.1 : A6.1 1/4" = 1' - 0"



7 SECURITY DESK EAST ELEVATION

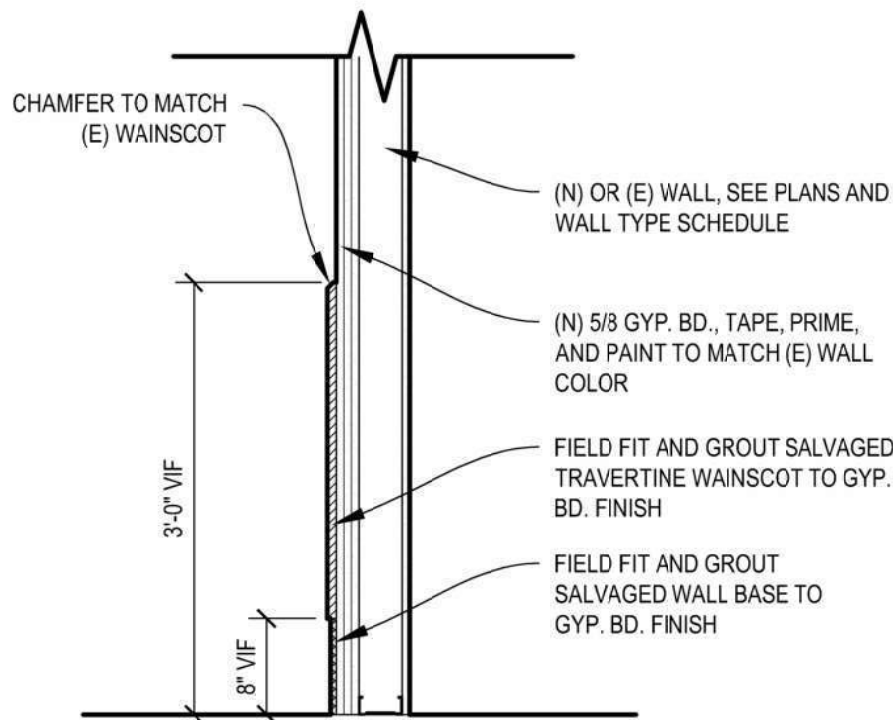
A6.1 : A6.1 1/4" = 1' - 0"

GENERAL NOTES

- MILLWORK BASIS OF DESIGN SHALL MEET ARCHITECTURAL WOODWORK INSTITUTE (AWI) STANDARDS, CUSTOM GRADE, MINIMUM REQUIREMENTS.
- DOOR FRAMES SHALL BE "HEAVY DUTY" WELDED FRAMES MATCHING (E) CONDITIONS, TYPICALLY, PRIME AND PAINT TO MATCH (E) CONDITIONS.
- (N) STEEL STOREFRONT SYSTEM SHALL MATCH WELDED FRAMED CONDITIONS OF DEMOLISHED STOREFRONT SYSTEM, TYP. PRIME AND PAINT, COLOR TO MATCH ENTRANCE DOORS.

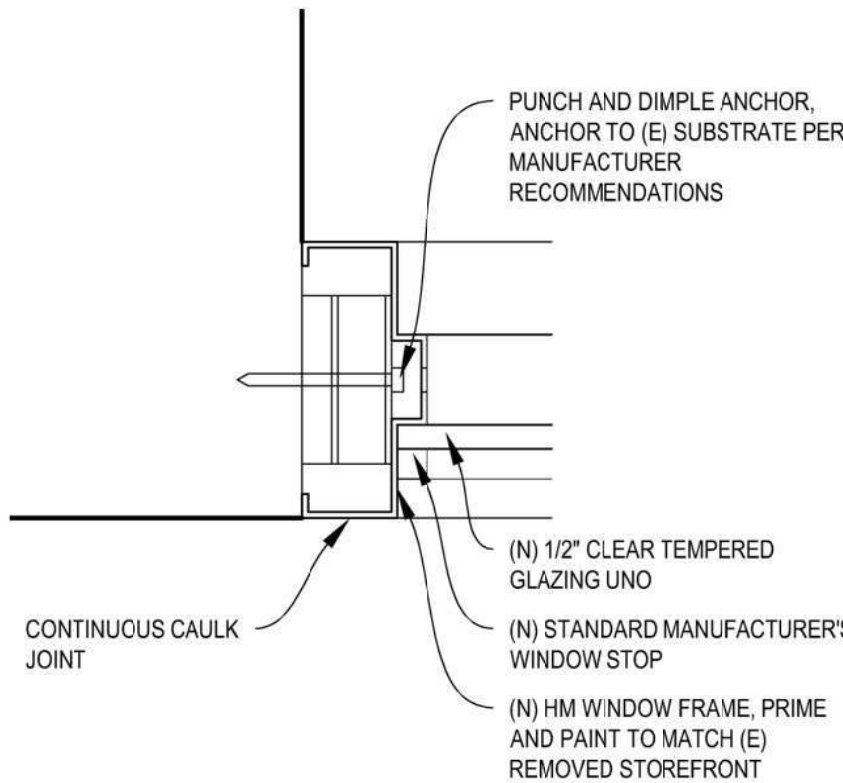
KEYNOTES

- (N) 90-MINUTE FIRE RATED DOOR AND FRAME. SEE DOOR HARDWARE SCHEDULE.
- (N) HM STOREFRONT ASSEMBLY TO MATCH (E) ANNEX ENTRY SYSTEM WITH INTEGRATED SLIDING DOORS. EXTEND (N) WALL ASSEMBLY ABOVE CEILING. COORDINATE (N) WALL CONSTRUCTION WITH (E) BUILDING SYSTEMS INCLUDING FIRE SUPPRESSION.
- (N) DURA-GLIDE ALL GLASS - 2000 SERIES POWER-OPERATED SLIDING DOOR, EGRESS DOOR TO OPEN BASED ON MOTION DETECTION, INGRESS DOORS OPERATE WITH CONTROL BY SECURITY OFFICE.
- (N) ADA COMPLIANT SECURITY DESK WITH PLASTIC LAMINATE TOP, PENCIL DRAWER, AND BUILT IN DEAL TRAY, PLAM FINISH WILSONART CANYON ZEPHYR #4842. PROVIDE 2 GROMMETS AND BLACK COVERS, FIELD COORDINATE LOCATIONS WITH OWNER.
- (N) PLASTIC LAMINATE STORAGE LOCKERS, PLAM FINISH WILSONART CALDERA BEIGE #4608. COORDINATE WITH (N) ELECTRICAL, KEY EACH CABINET SEPARATELY, EACH CABINET TO HAVE ONE ADJUSTABLE SHELF AND ONE HAFELE 845.12.809 COAT HOOK. SEE ELEVATIONS.
- REINSTALL TRAVERTINE WALL PANEL AND MARBLE WALL BASE FINISHES TO BLEND SEAMLESSLY WITH ADJACENT WALL FINISHES.
- (N) SPEAK-THRU, CRL SST5. COORDINATE FINAL INSTALLATION HEIGHT AND LOCATION WITH OWNER.
- FIELD FIT SALVAGED TRAVERTINE WAINSCOT AND MARBLE WALL BASE.
- (N) PAINTED GYPSUM BOARD WALL FINISH, COLOR AND TEXTURE TO MATCH LOBBY 140.
- 1/2" TEMPERED GLASS, BUTT JOINT AT CORNER.
- QUICKSERV QS-1110 DEAL TRAY, COORDINATE ROUGH OPENING WITH COUNTER. COORDINATE FINAL INSTALLATION LOCATION WITH OWNER.
- (N) 4" JOHNSONITE DURACOVE THERMOPLASTIC RUBBER WALL BASE, STRAIGHT, BLACK 40
- (E) TRAVERTINE TO REMAIN.
- (N) FR DOORS AND FRAME BEYOND.
- ALIGN FACE OF STOREFRONT & TRAVERTINE WALL FINISH & CONTINUOUS CAULK JOINT COLOR TO MATCH TRAVERTINE.
- (E) NORTH ENTRY DOORS AND STOREFRONT BEYOND TO REMAIN.
- RE-INSTALL (E) TRAVERTINE EXTENDING FROM TOP OF MARBLE BASE TO CEILING IN COORDINATION WITH (N) WALL FINISH.
- CENTER SALVAGED ADA OPERATOR BELOW CARD READER ABOVE.
- LOCATE (N) CARD READER TO (E) WALL KEY SWITCH LOCATION.
- (N) CARD READER, COORDINATE WITH OWNER.
- PATCH WALL AT REMOVED MAG DOOR HOLD OPEN.
- (N) LOCATION FOR SALVAGED MAG DOOR HOLD OPEN, COORDINATE WITH (N) DOORS.



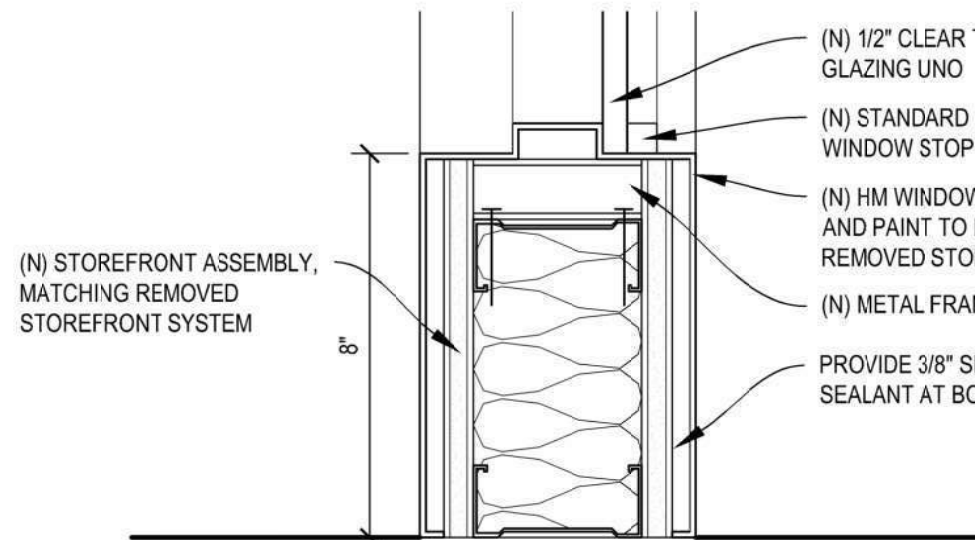
9 TYPICAL TRAVERTINE WAINSCOT

A2.1 : A6.1 3/4" = 1' - 0"



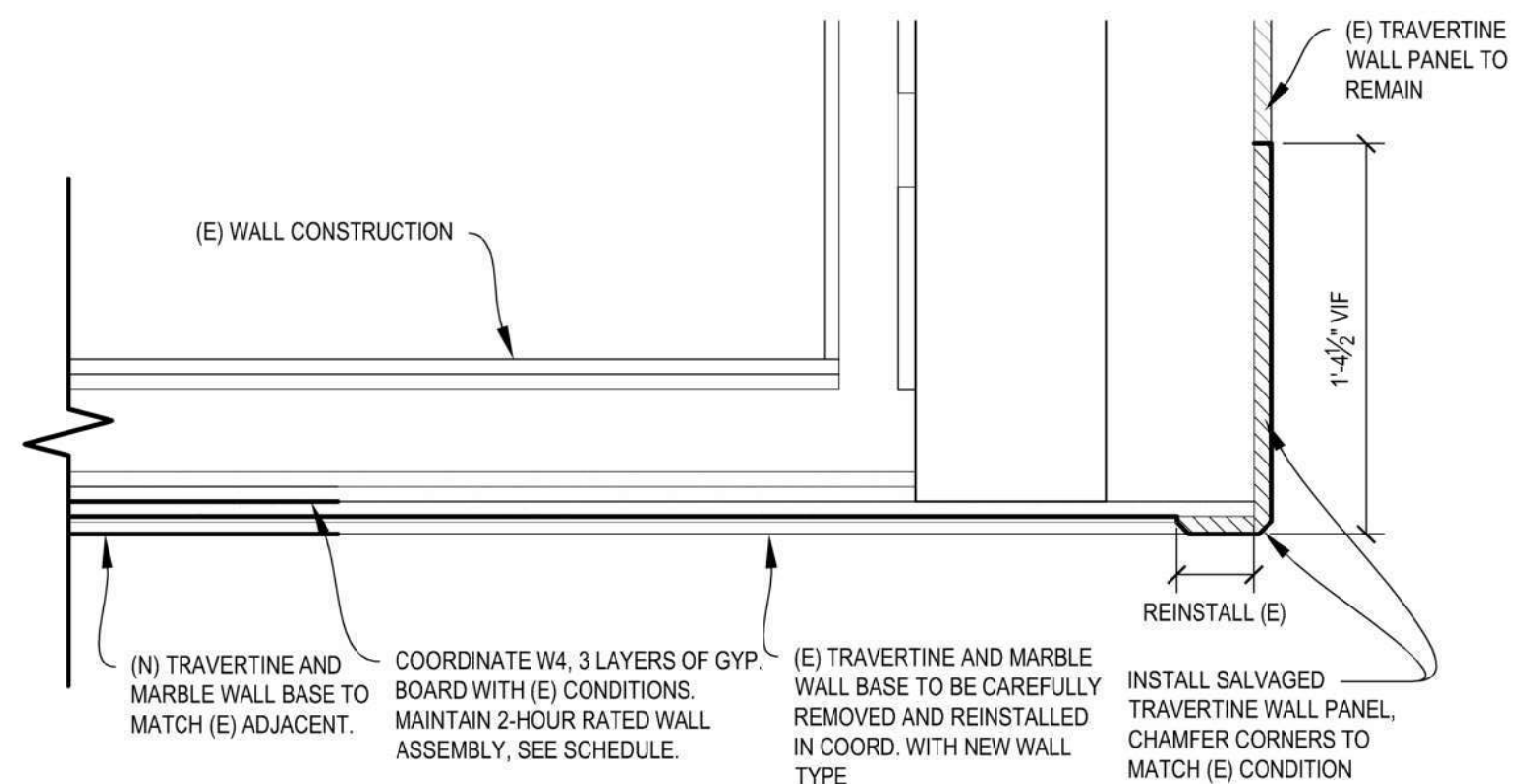
10 TYPICAL STOREFRONT JAMB

A6.1 : A6.1 3" = 1' - 0"



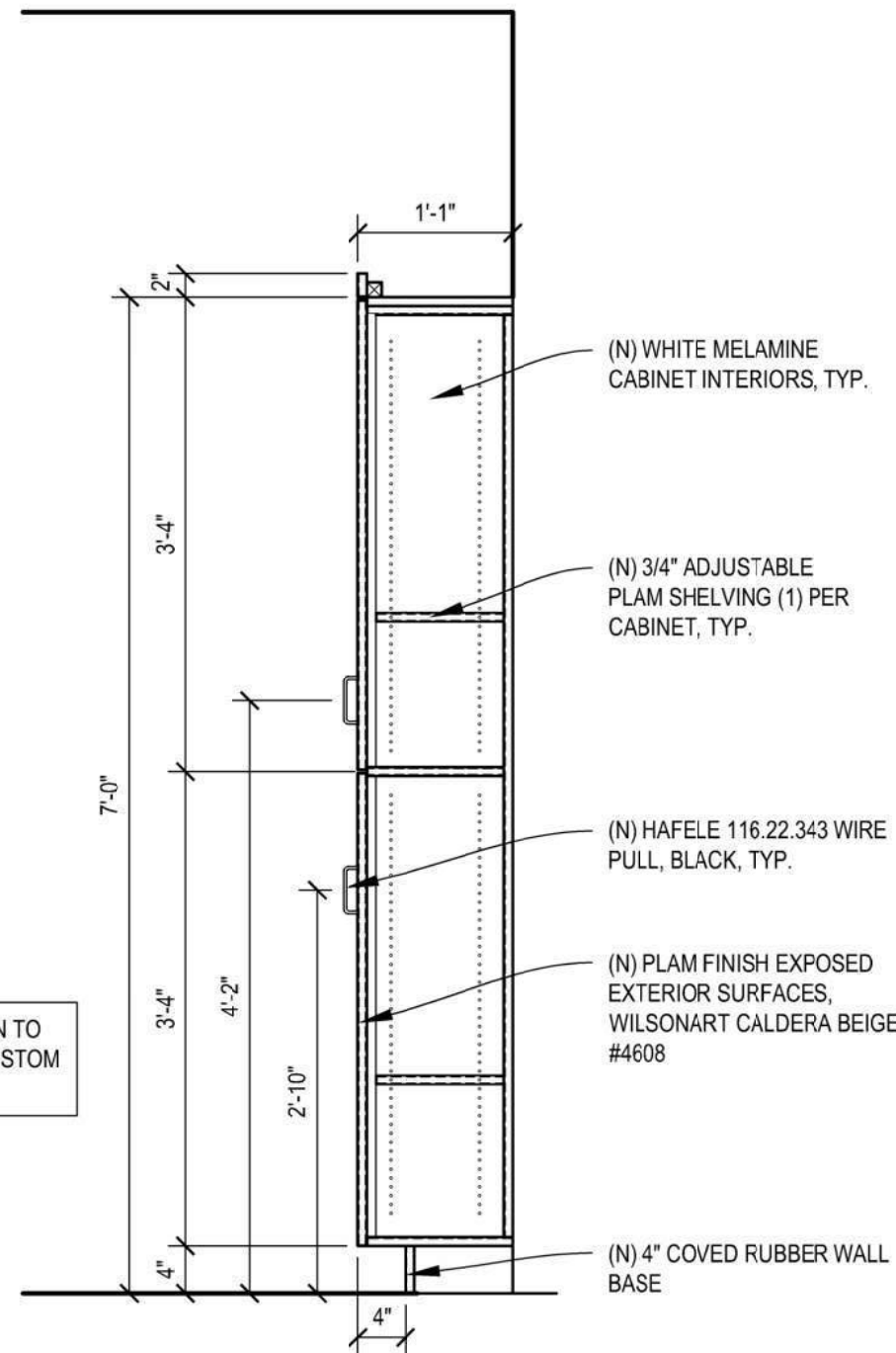
11 TYPICAL STOREFRONT SILL

A6.1 : A6.1 3" = 1' - 0"



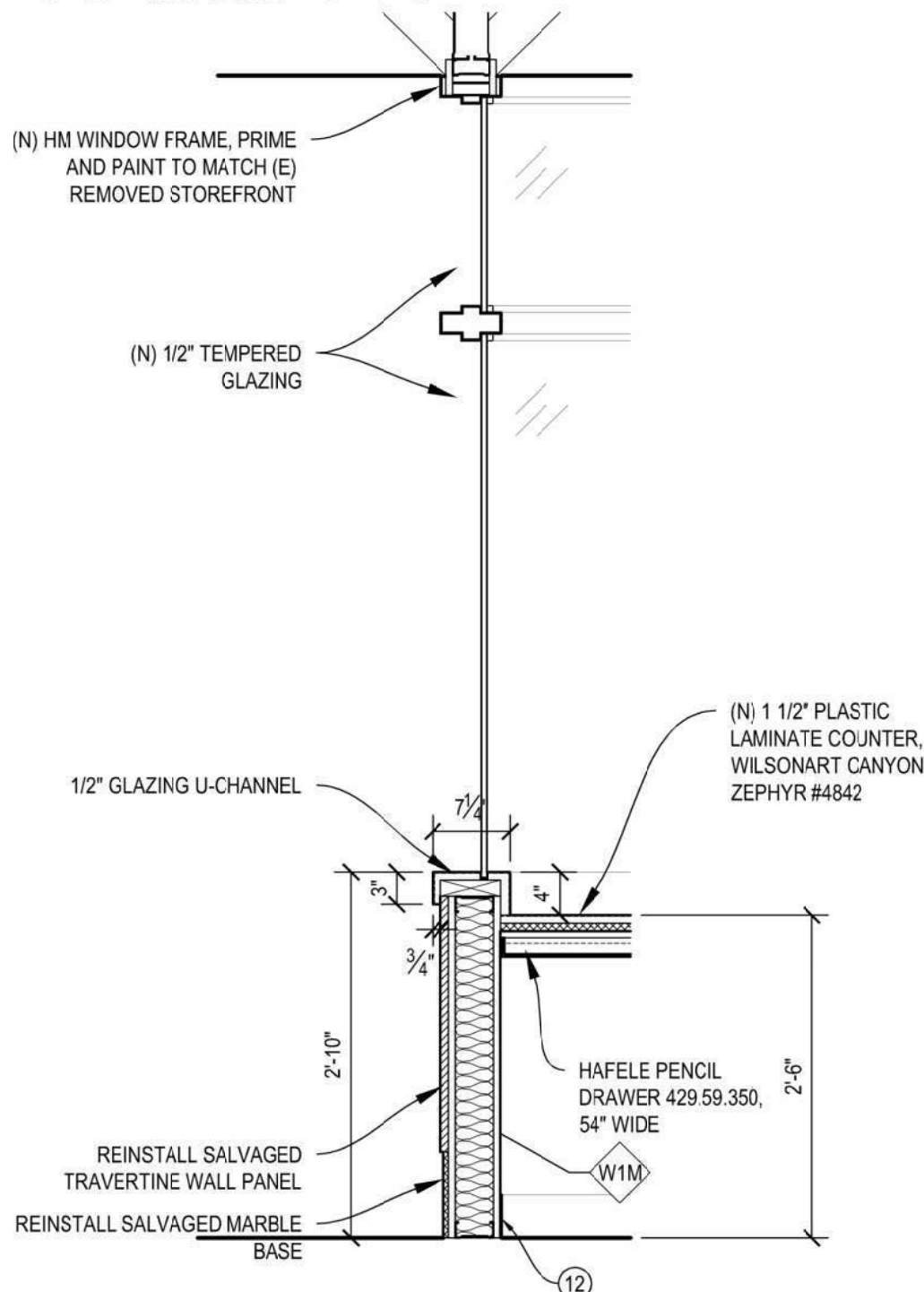
12 PATCH AT REMOVED STOREFRONT

A2.1 : A6.1 1 1/2" = 1' - 0"



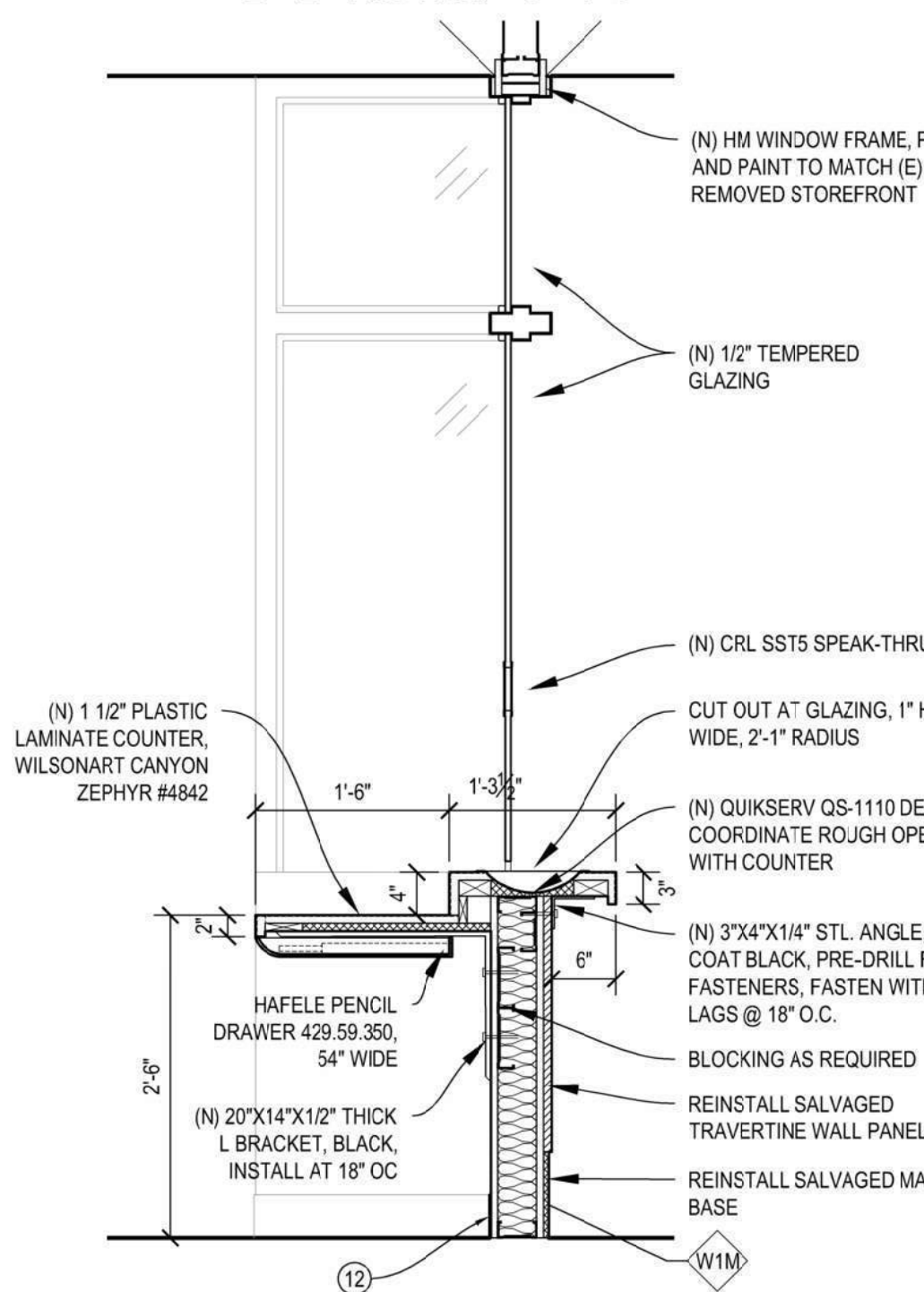
13 WEST SECURITY DESK CASEWORK

A6.1 : A6.1 3/4" = 1' - 0"



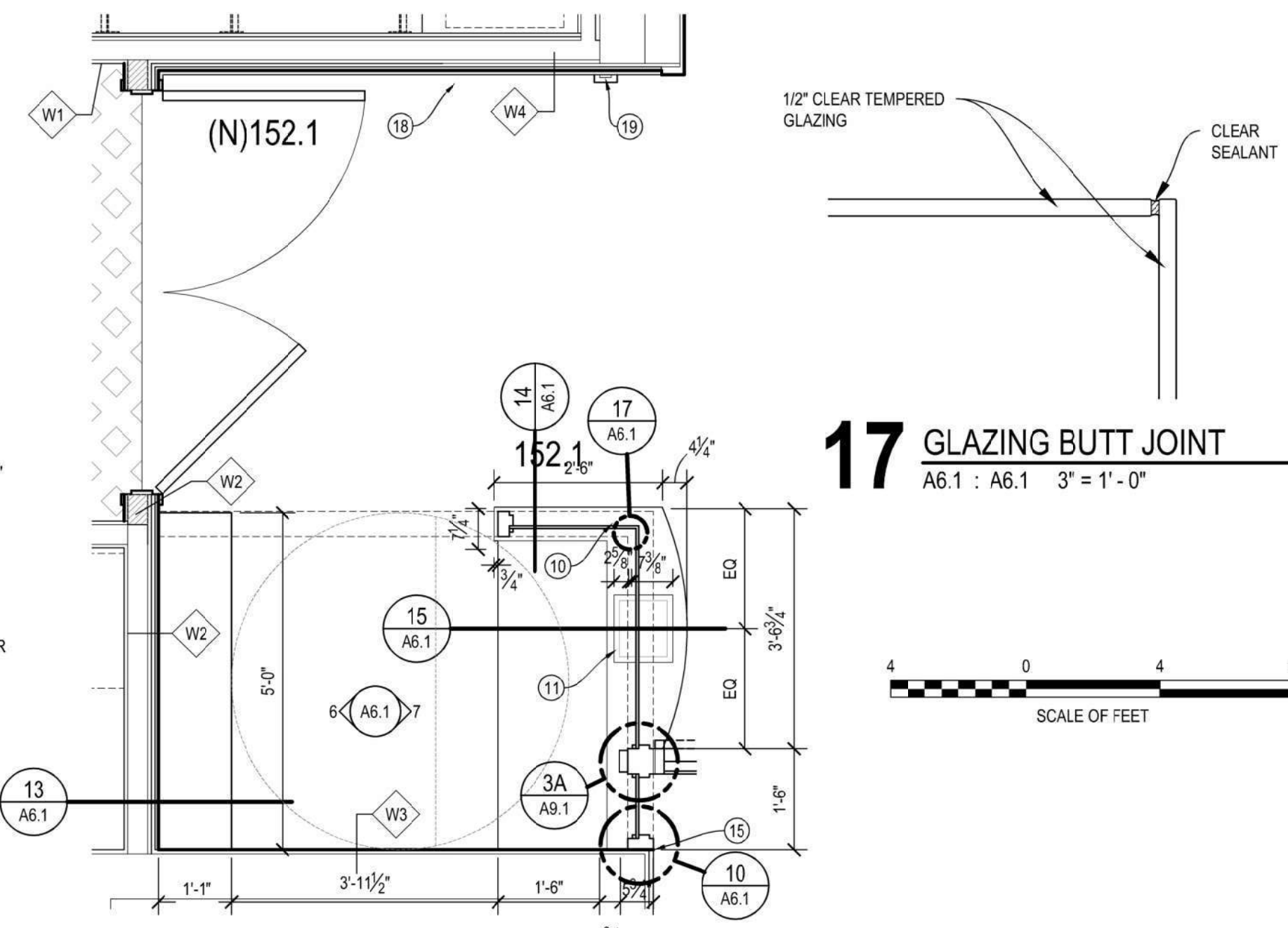
14 NORTH SECURITY DESK COUNTER

A6.1 : A6.1 3/4" = 1' - 0"



15 EAST SECURITY DESK COUNTER

A6.1 : A6.1 3/4" = 1' - 0"



16 SECURITY DESK ENLARGED PLAN

A2.1 : A6.1 1/2" = 1' - 0"

17 GLAZING BUTT JOINT

A6.1 : A6.1 3" = 1' - 0"



INTERIOR ELEVATIONS AND DETAILS
MISSOULA COUNTY COURTHOUSE ANNEX
NORTH ENTRY REMODEL
MISSOULA COUNTY, 200 WEST BROADWAY STREET, MISSOULA, MT 59802

sheet project owner

project # 24169.10

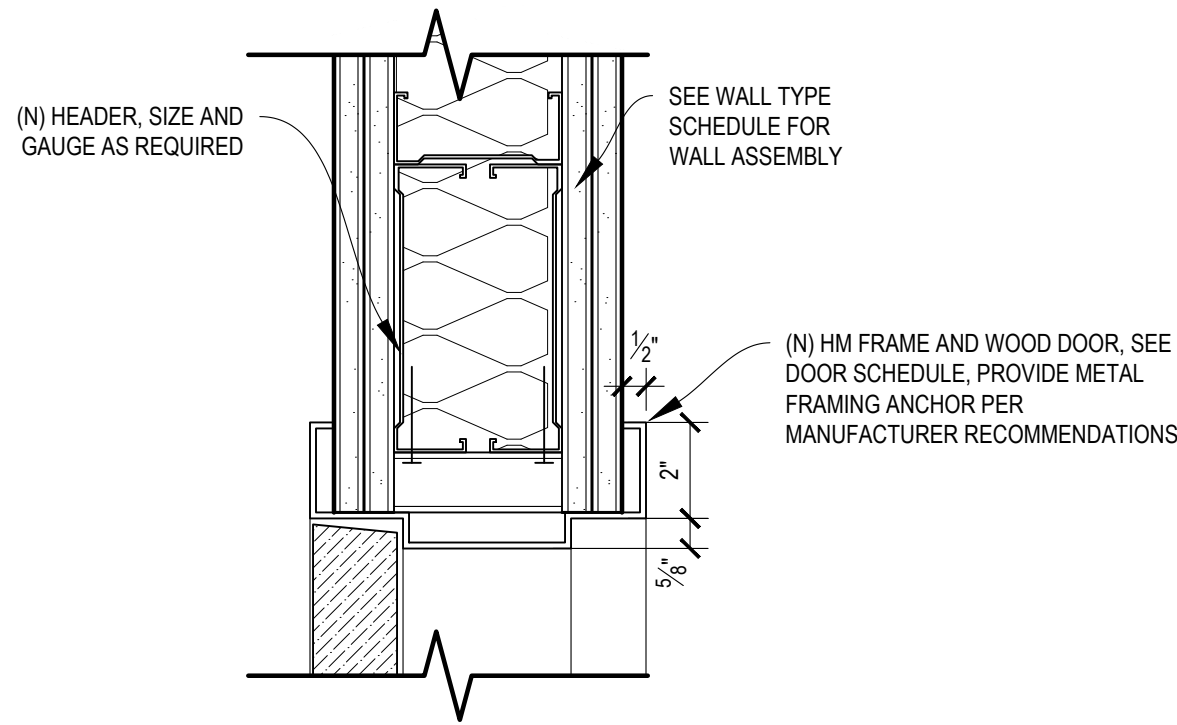
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phase
CONSTRUCTION DOCUMENTS

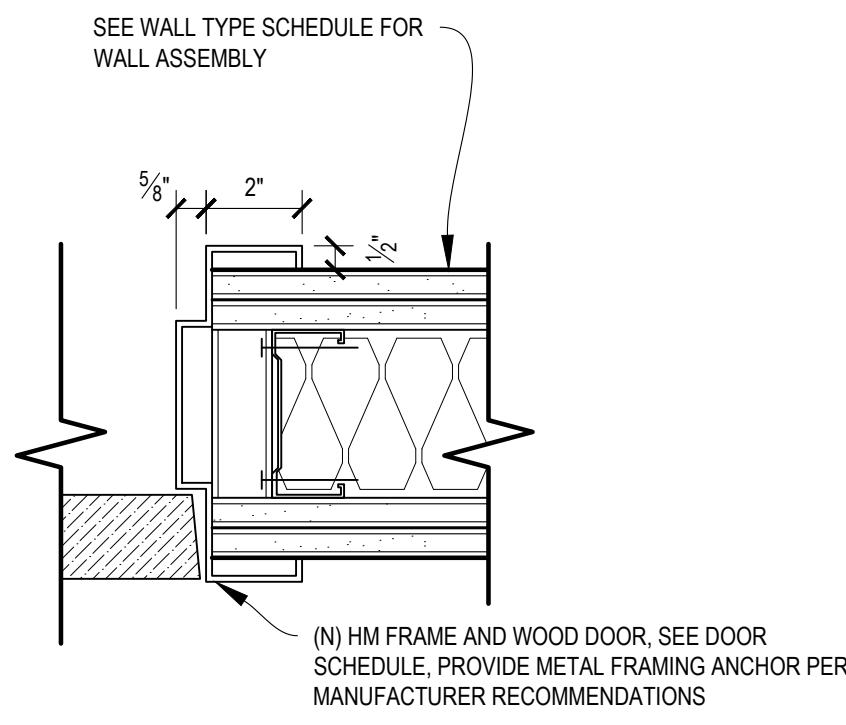


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06.30.2025

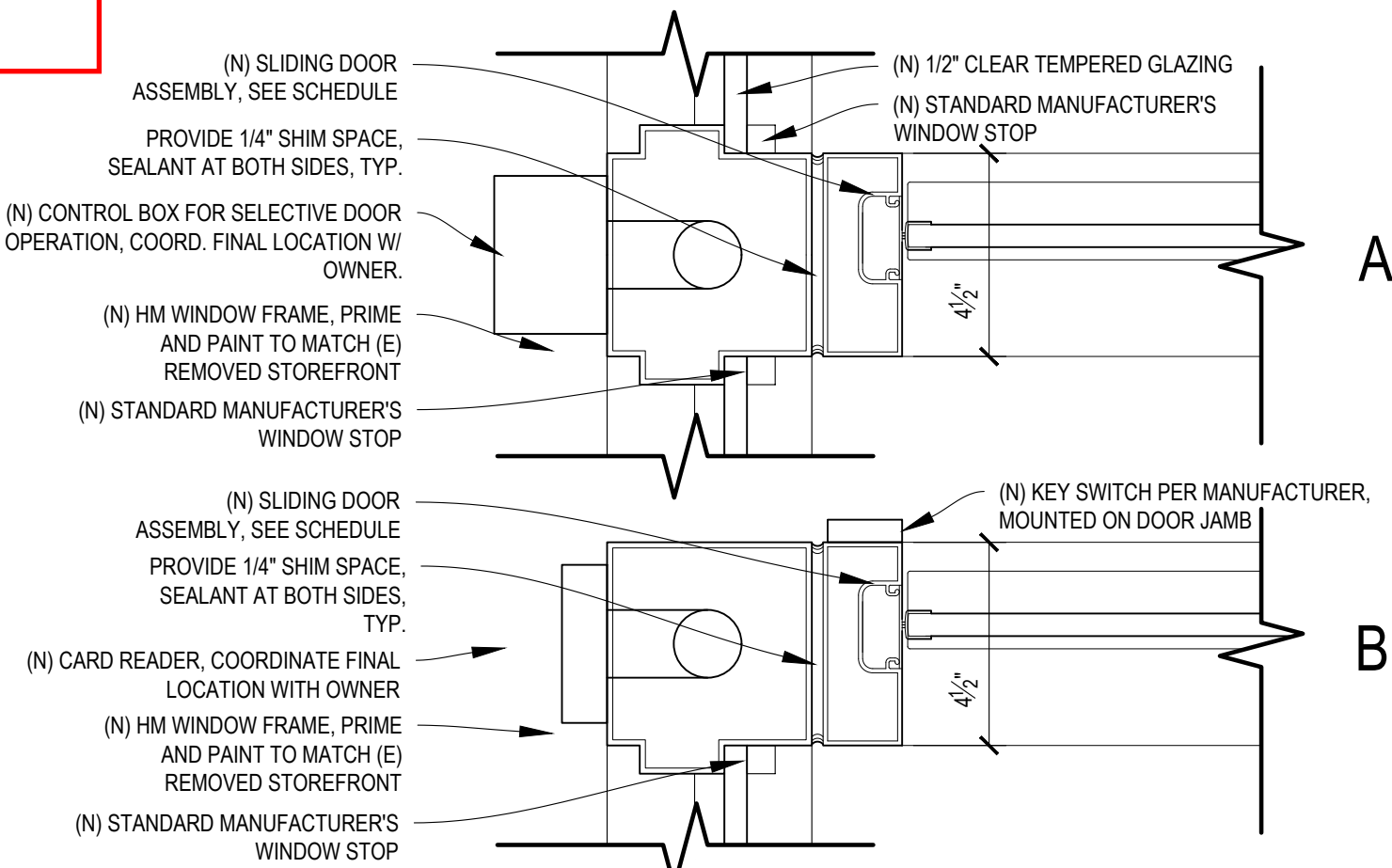
A6.1



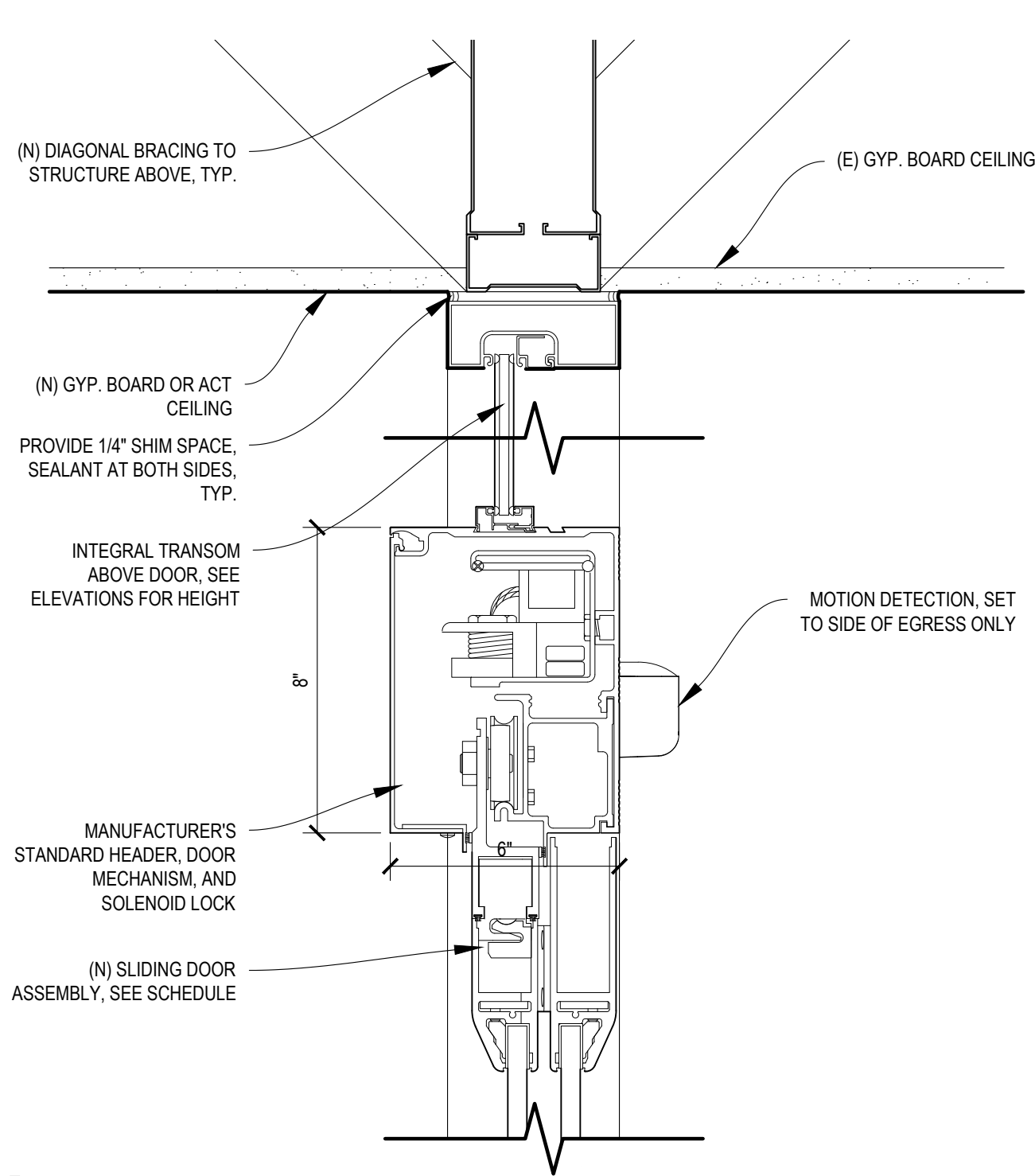
1 HOLLOW METAL DOOR HEAD
A9.1 : A9.1 3" = 1' - 0"



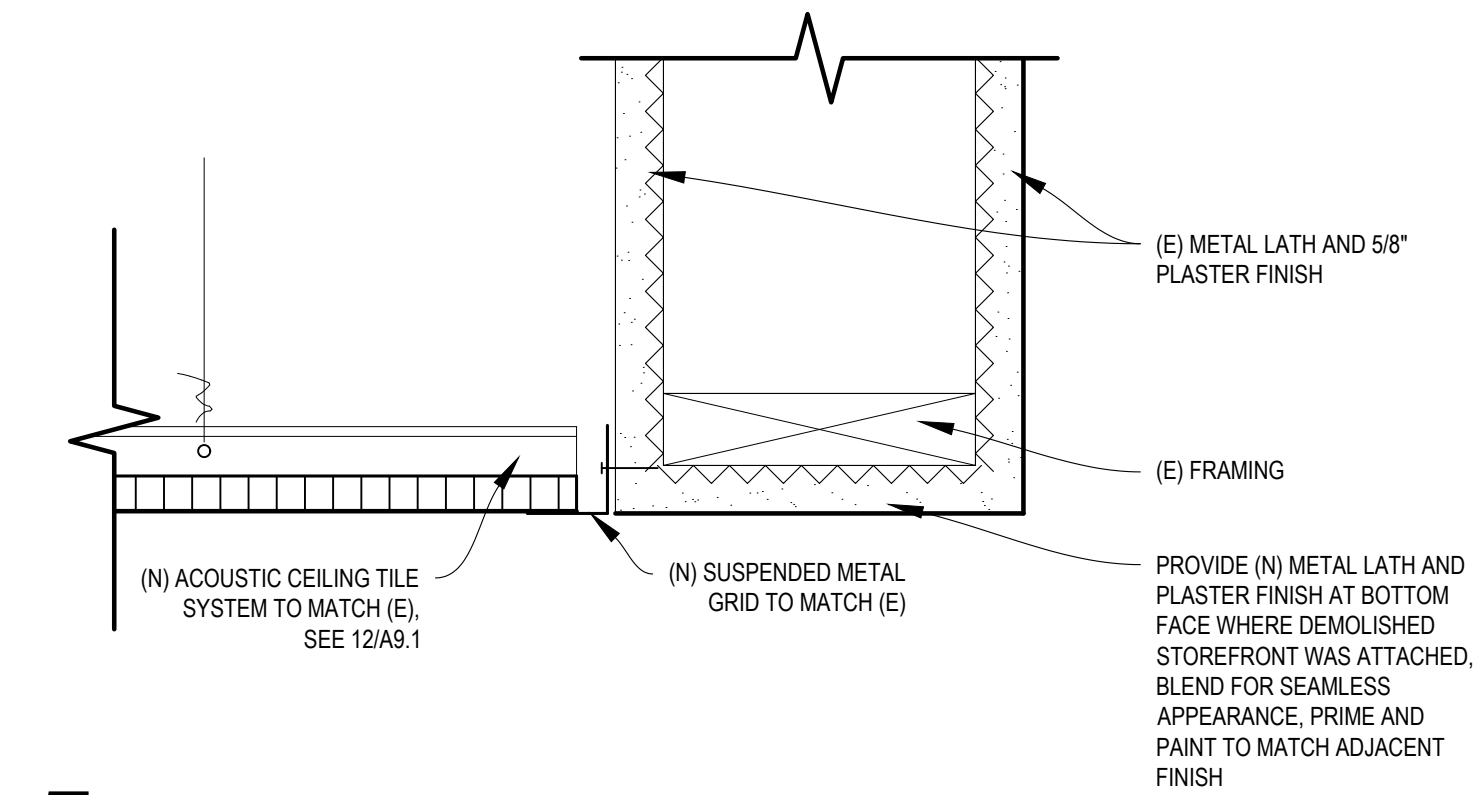
2 HOLLOW METAL DOOR JAMB
A9.1 : A9.1 3" = 1' - 0"



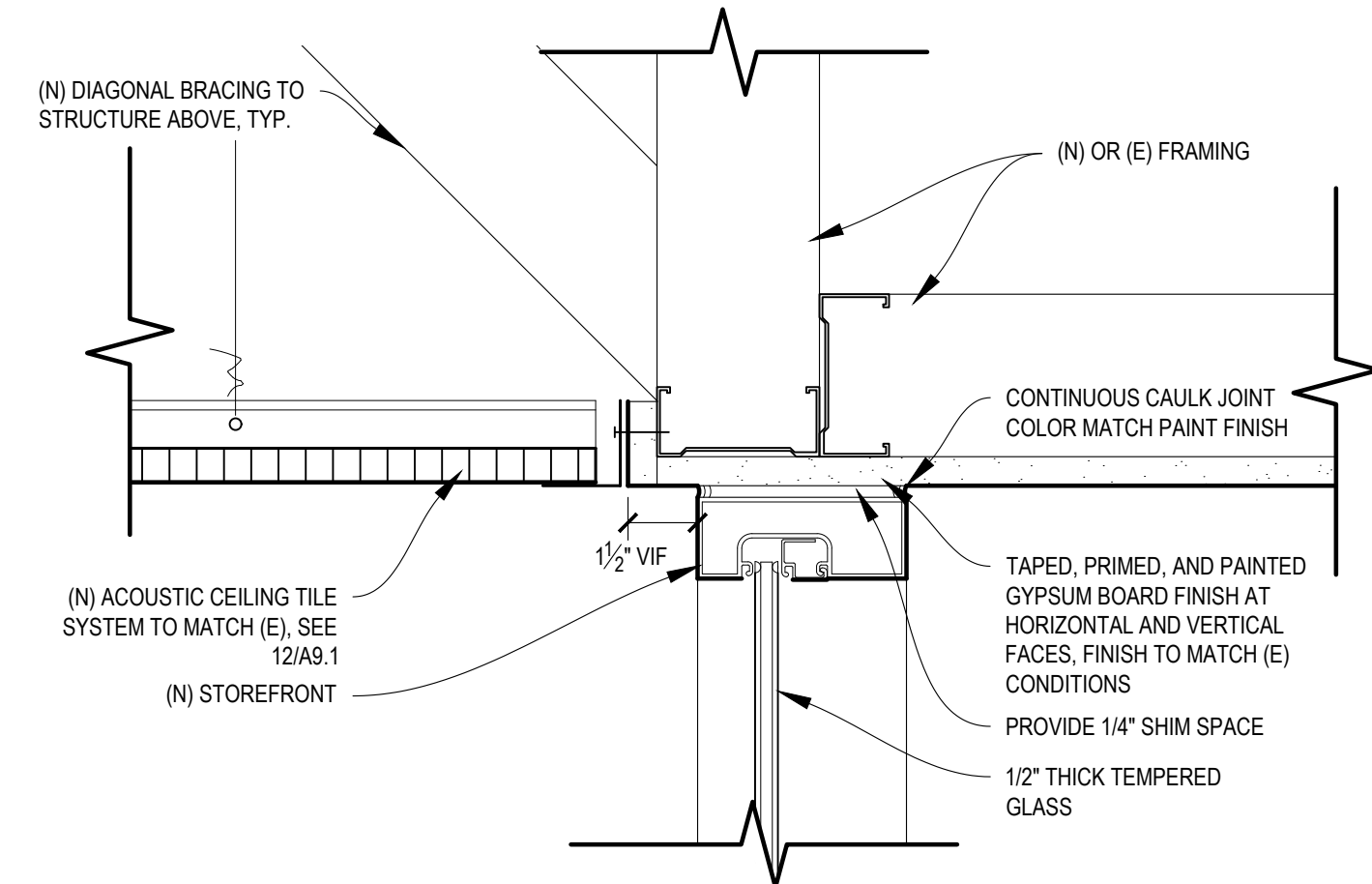
3 SLIDING DOOR JAMB DETAILS
A9.1 : A9.1 3" = 1' - 0"



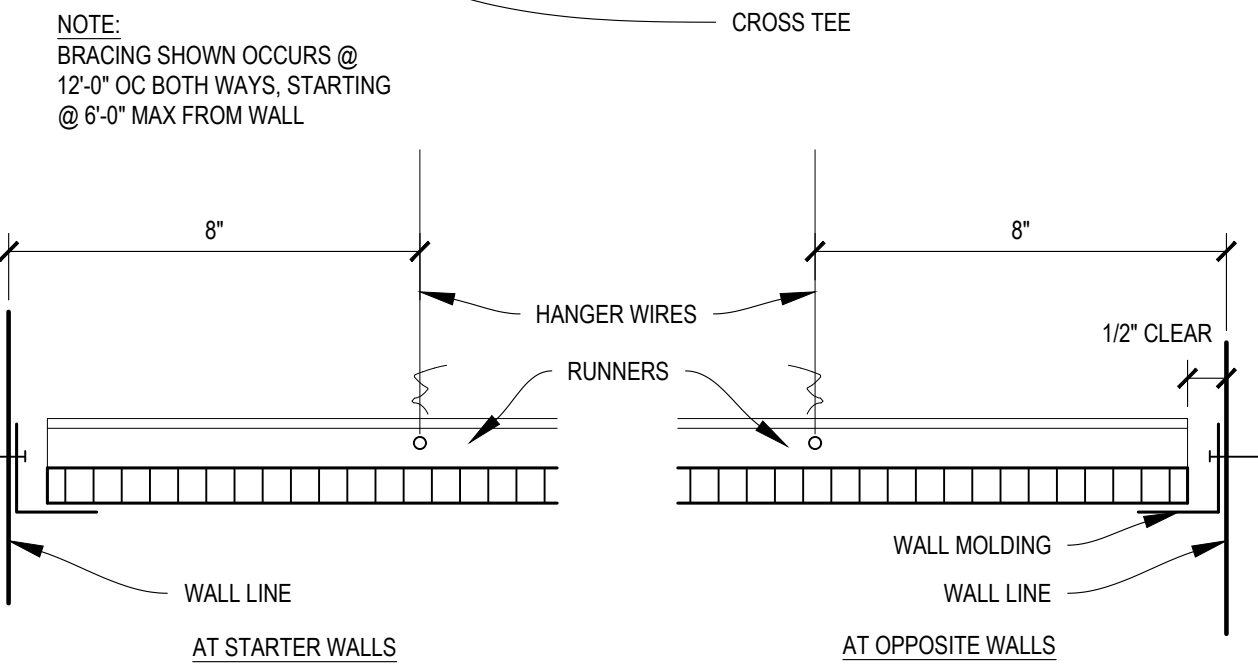
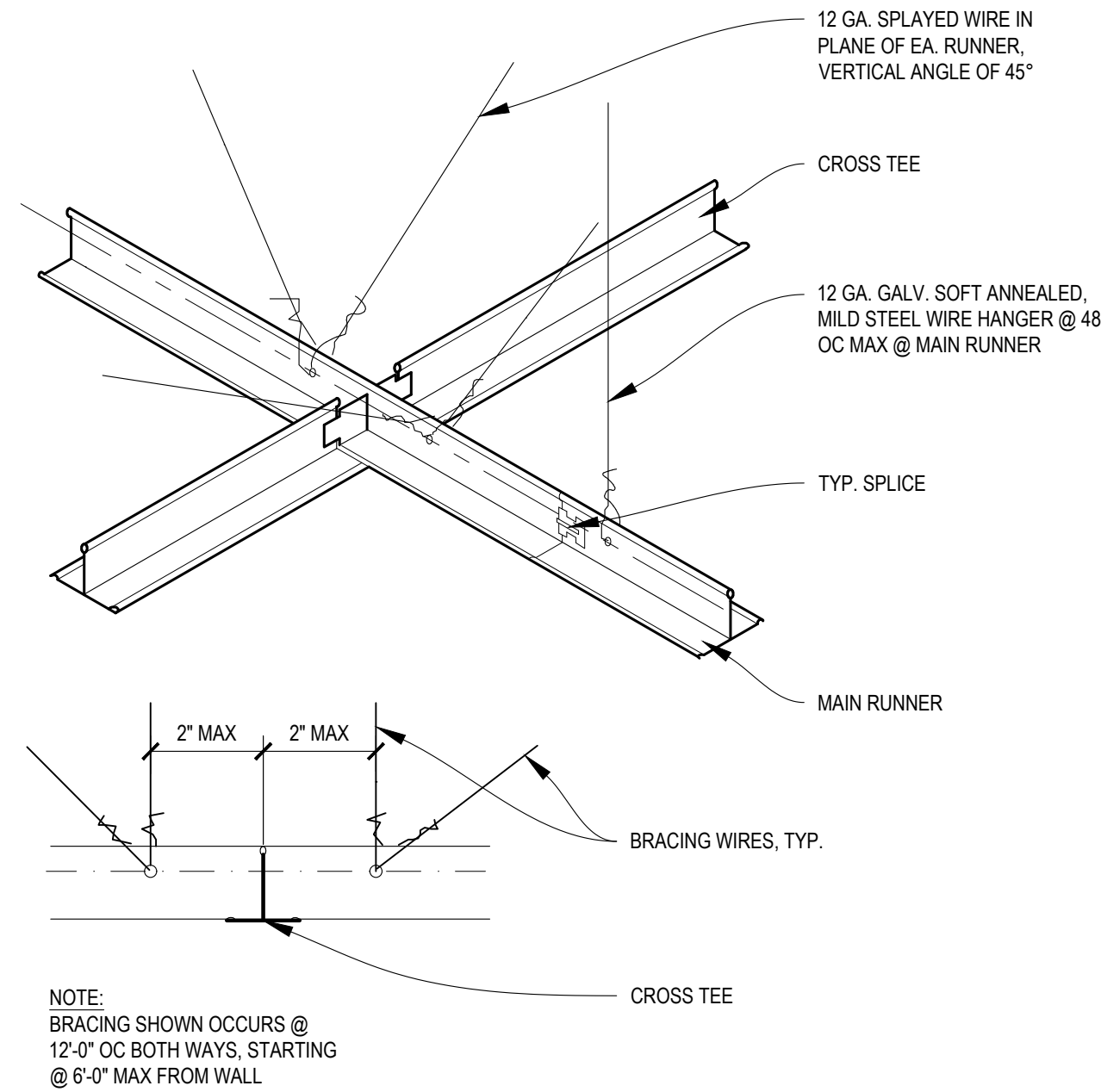
4 SLIDING DOOR HEAD
A2.1 : A9.1 3" = 1' - 0"



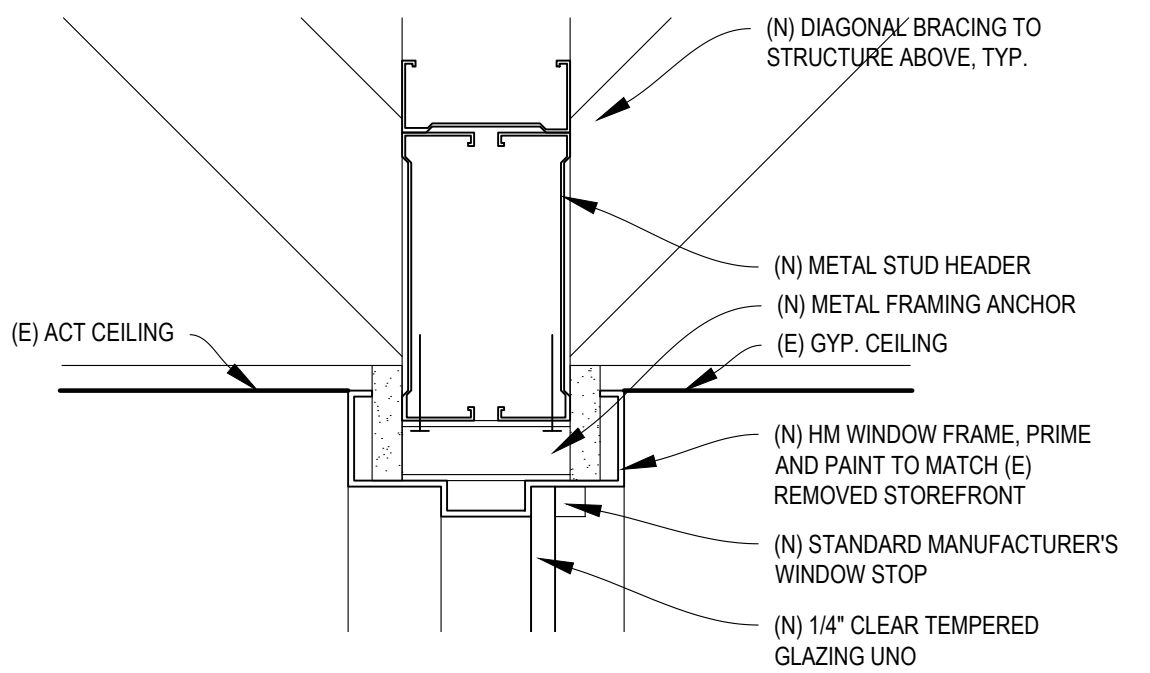
5 VESTIBULE CEILING TRANSITION
A2.1 : A9.1 3" = 1' - 0"



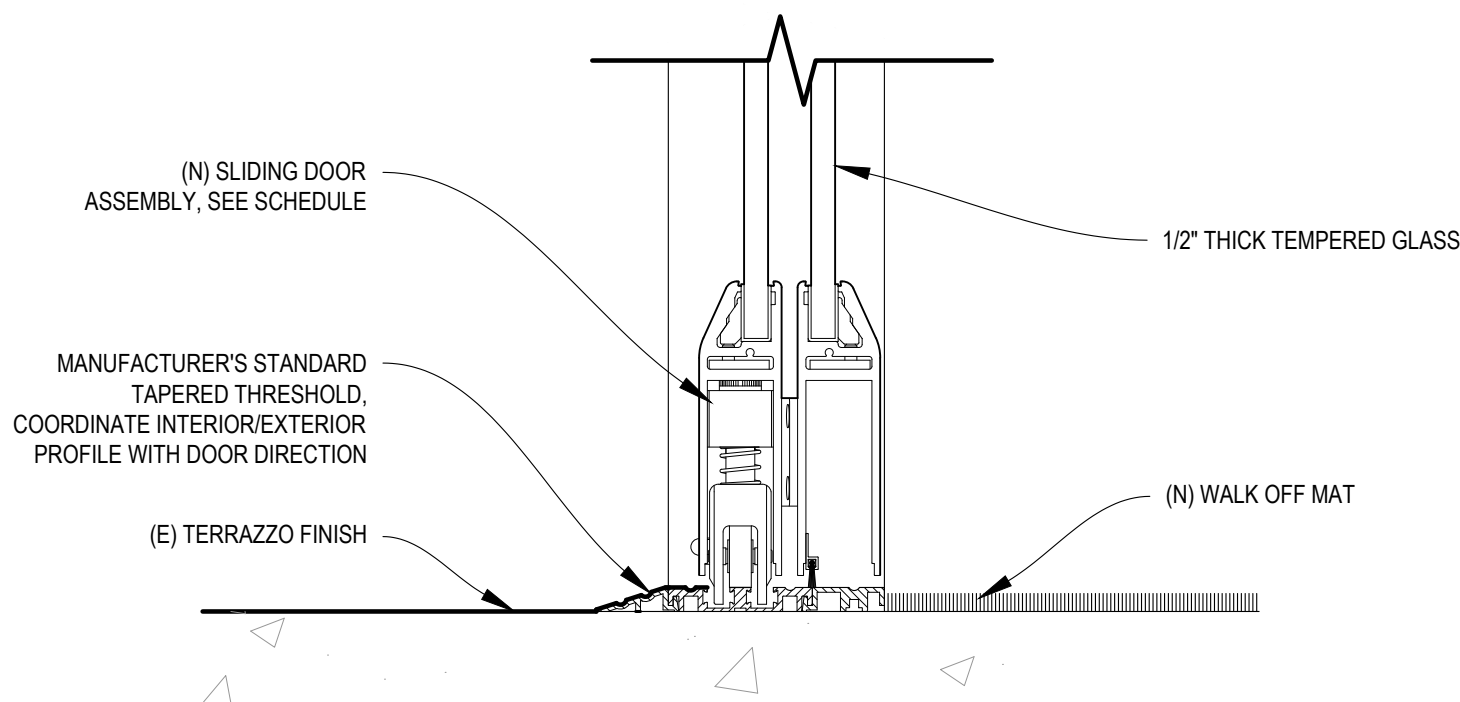
6 GYPSUM TO ACOUSTIC CEILING TILE TRANSITION
A2.1 : A9.1 3" = 1' - 0"



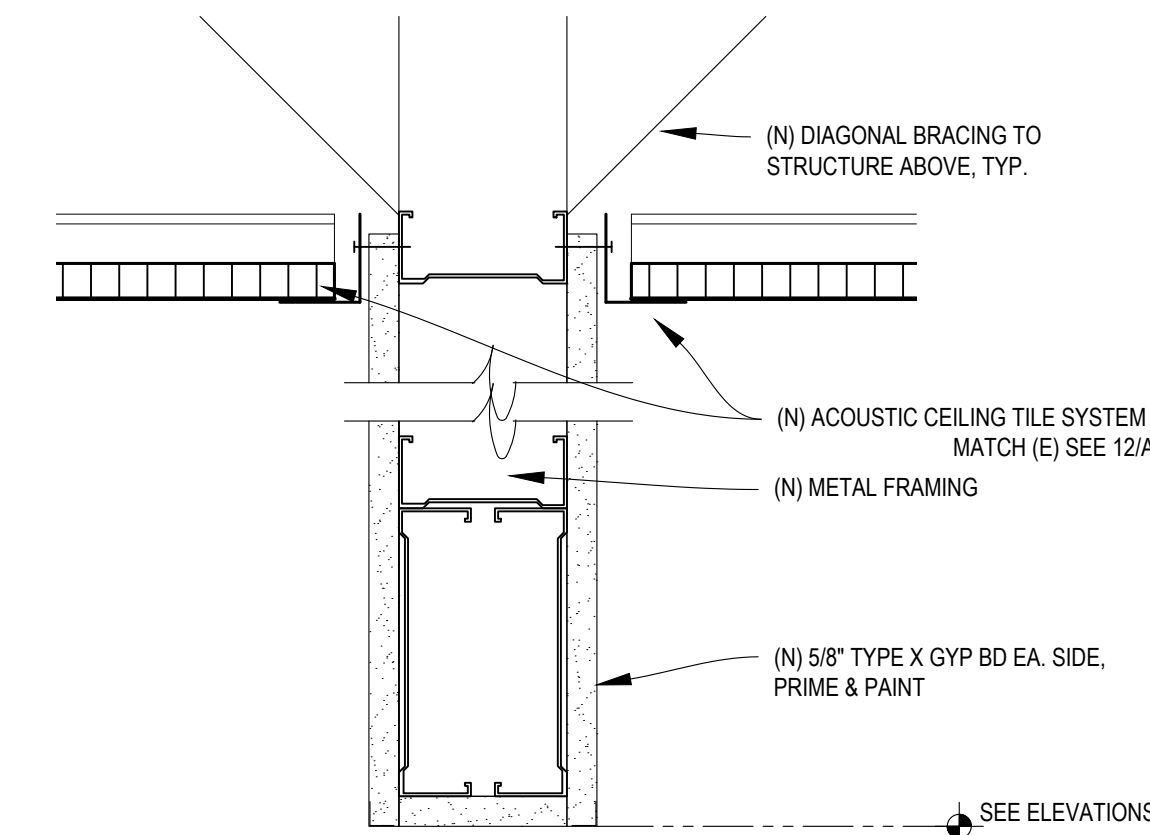
11 TYPICAL ACOUSTIC CEILING TILE SYSTEM DETAILS
A2.1 : A9.1 3" = 1' - 0"



8 TYPICAL STOREFRONT HEAD
A2.1 : A9.1 3" = 1' - 0"

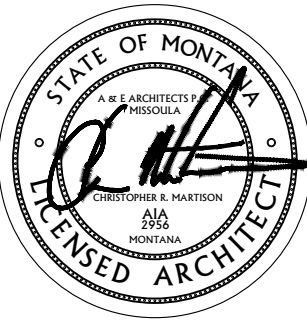


9 SLIDING DOOR SILL
A9.1 : A9.1 3" = 1' - 0"



12 BULK-HEAD SOFFIT
A2.1 : A9.1 3" = 1' - 0"

SUSPENDED CEILING NOTES:
1. PRIOR TO INSTALLATION, SUSPENDED CEILING SYSTEMS SHALL COMPLY W/ ASTM C 635 AND ASTM 636 PARTIAL LIST OF ITEMS ARE AS FOLLOWS: MIN. DESIGN LOADS, VERTICAL HANGERS, VERTICAL COMPRESSION STRUTS, PERIMETER MEMBERS, LIGHT FIXTURE HANGERS, AND MECHANICAL SERVICE BRACES.
2. CEILING SYSTEM SHALL MEET ALL REQUIREMENTS FOR SEISMIC DESIGN CATEGORY D.
3. FIXTURES AND CEILING DEVICES SHALL BE INDEPENDENTLY SUPPORTED TO STRUCTURE AND INSTALLED IN A MANNER THAT WILL NOT COMPROMISE CEILING PERFORMANCE.
4. CEILING SYSTEM WEIGHT TO BE LESS THAN 4 LBS./S.F. NOT INCLUDING FIXTURES AND OTHER CEILING DEVICES.



sheet
project
owner

**MISSOULA COUNTY COURTHOUSE ANNEX
NORTH ENTRY REMODEL**

MISSOULA COUNTY, 200 WEST BROADWAY STREET, MISSOULA, MT 59802

project # **24169.10**

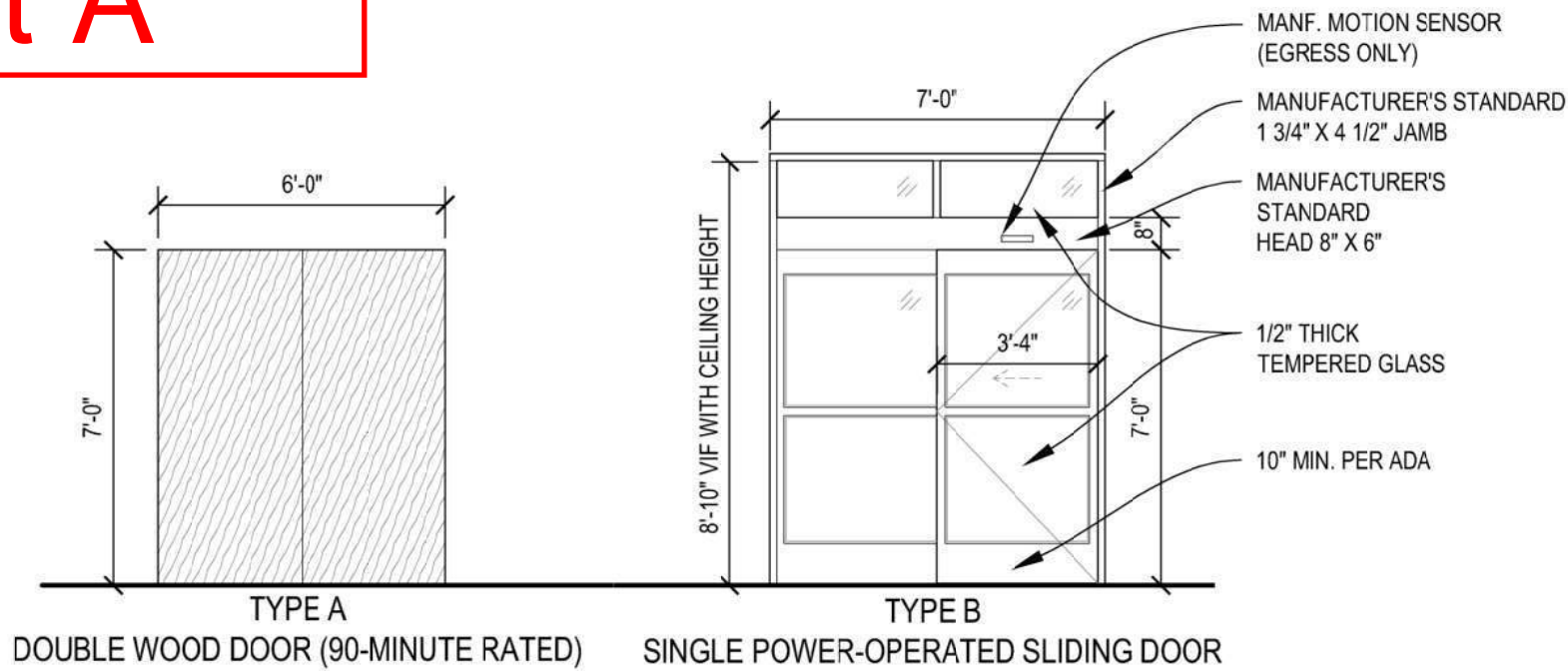
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phase
CONSTRUCTION DOCUMENTS



DOOR SCHEDULE											
DOOR #	NEW/ EXISTING	NOMINAL SIZE (WIDTH x HT x THICK)	DOOR			FRAME			HARDWARE GROUP	GLAZING	REMARKS
			TYPE	MATERIAL	FINISH	TYPE	MATERIAL	FINISH			
NEW 152.1	(N)	PAIR 3'-0" X 7'-0" X 1 3/4"	A	WOOD	WOOD	-	HM, FULL WELDED	PAINT	H1	N/A	(N) H.M. DOOR FRAME, PRIME & PAINT, (N) MASONITE MINERAL CORE DOOR TO MATCH (E) SELECT SLICED RED OAK, 90 MINUTE RATED, STAIN DOOR TO MATCH (E) FINISH IN-KIND, PAINT (N) DW14 HM DOOR FRAME BY STEELCRAFT TO MATCH (E)
140.1	(N)	3'-4" X 7'-0" X 4 1/2"	B	GLASS	N/A	-	ALUM	FAC	N/A	T	STANLEY DURA-GLIDE 2000 SINGLE SLIDE RIGHT HAND WITH TRANSOM AND AUTOMATIC LOCKING, INGRESS DOOR OPERATES WITH CONTROL BY SECURITY OFFICE
140.2	(N)	3'-4" X 7'-0" X 4 1/2"	B	GLASS	N/A	-	ALUM	FAC	N/A	T	STANLEY DURA-GLIDE 2000 SINGLE SLIDE LEFT HAND WITH TRANSOM AND AUTOMATIC LOCKING, EGRESS DOOR TO OPEN BASED ON MOTION DETECTION
149.1	(E)	PAIR 3'-0" X 7'-0" X 1 3/4"	A	WOOD	WOOD	-	HM, FULL WELDED	PAINT	(E)	N/A	(E) DOOR, NO CHANGE
149.1	ALTERNATE	PAIR 3'-0" X 7'-0" X 1 3/4"	A	WOOD	WOOD	-	HM, FULL WELDED	PAINT	H2	N/A	(E) 152.1 DOOR MOVED TO 149.1 AS ALTERNATE

Exhibit A



WALL TYPES LEGEND

	(N) (N) (N)	5/8" TYPE X GYP. BD. UNFINISHED O/ 3 5/8" METAL FRAMING @ 16" OC W/ MINERAL WOOL BATT INSULATION O/ 5/8" TYPE X GYP. BD. UNFINISHED
	(N) (N) (N)	5/8" TYPE X GYP. BD. UNFINISHED O/ 3 5/8" METAL FRAMING @ 16" OC W/ MINERAL WOOL BATT INSULATION O/ 5/8" TYPE X GYP. BD. UNFINISHED SALVAGED TRAVERTINE & MARBLE WALL BASE
		2-HOUR RATED WALL ASSEMBLY- MODIFICATION OF (E) W1 WALL TYPE TO 90 MIN RATED (N) OR (E) 1 LAYER 5/8" TYPE X GYP. BD., TAPED AND PAINTED O/ (N) 3 5/8" METAL FRAMING @ 16" OC W/ MINERAL WOOL BATT INSULATION O/ (N) 3 LAYERS 5/8" TYPE X GYP. BD., STAGGER JOINTS 24" OC, TAPED AND PAINTED
	(N) (E) (E)	5/8" TYPE X GYP. BD., TAPED AND PAINTED O/ FURRING STRIPS O/ CAST-IN-PLACE CONCRETE
	(E) (N) (N)	2-HOUR RATED WALL ASSEMBLY WALL CONSTRUCTION (ASSUMED DOUBLE LAYER OF GYP. BOARD). 3 5/8" METAL FRAMING @ 16" OC W/ MINERAL WOOL BATT INSULATION O/ 3 LAYERS OF 5/8" TYPE X GYP. BD., EACH SIDE, STAGGERED JOINTS 24" O.C. EACH LAYER; TAPE, FINISH, & PAINT, PER FINISH SCHEDULE. COORDINATE WITH (E) CONDITIONS.

DOOR AND HARDWARE SCHEDULE

DOOR AND HARDWARE BASE BID

DEMOLISHED DOOR 152.1

- REMOVE (E) DOORS, DOOR FRAME AND HARDWARE, SALVAGE COMPONENTS FOR REUSE TO (N) DOOR 152.1 HARDWARE GROUP H1, RETURN UNUSED HARDWARE TO OWNER

NEW DOOR 152.1 HARDWARE GROUP H1

- 90-MIN FIRE RATED DOOR, FRAME & HARDWARE
- NEW DOOR HARDWARE FINISH TO MATCH (E)
- HINGES: SALVAGE AND REUSE HINGES 2/DOOR 4 1/2" X 4 1/2", PROVIDE (N) HOT HINGE 1/DOOR IVES 5-KNUCKLE HINGE 198Z TW4
- EXIT DEVICE: VON DUPRIN 9827-F/9927-F-LBR SURFACE MOUNTED VERTICAL ROD FIRE DEVICE, EA DOOR, QUIET ELECTRIC LATCH RETRACTION DEL-LX, ACTIVE DOOR OUTSIDE TRIM 9900T EACH DOOR
- CLOSER: REUSE SALVAGED (E) CLOSER TO SOUTH DOOR, ENSURE NO HOLD OPEN TO THIS DOOR, DOOR ALWAYS CLOSED; REUSE SALVAGED ADA DOOR OPERATOR, AND POWER SUPPLY TO NORTH DOOR
- ADA OPERATOR: REUSE SALVAGE ADA DOOR OPERATOR AND WIRELESS WALL MOUNTED ACTUATORS (EACH SIDE OF DOOR PAIR); SALVAGE (E) WALL-MOUNTED OVERRIDE SWITCH (LOCATED ON NORTH WALL OF NORTH DOOR) TO COUNTY
- MAG HOLD OPEN: REUSE SALVAGE (E) MAG HOLD OPEN AND POWER SUPPLY, NORTH DOOR ONLY
- FLOOR STOPS: REUSE SALVAGED IVES FLOOR STOPS DOME & RISER NORTH DOOR ONLY
- SMOKE SEAL: PEMKO 988D
- CONTACTS: DPIS EACH DOOR
- CARD READER: (N) CARD READER, COORDINATE WITH OWNER
- LATCH COL: 12VDC

DOOR AND HARDWARE ALTERNATE

DOOR 149.1 HARDWARE GROUP

- REMOVE (E) DOORS, DOOR FRAME AND HARDWARE, SALVAGE COMPONENTS TO OWNER; SALVAGE MAG HOLD OPENS FOR REUSE
- CARD READER: (N) CARD READER, COORDINATE W/ OWNER

DEMOLISHED DOOR 152.1 / NEW DOOR 149.1 HARDWARE GROUP H2

- REMOVE (E) DOORS, DOOR FRAME AND HARDWARE; RELOCATE DOORS, DOOR FRAME AND COMPONENTS IN THEIR ENTIRETY TO REPLACE DOOR 149.1 DOORS, DOOR FRAME AND HARDWARE

NEW DOOR 152.1 HARDWARE GROUP H1

- NEW 90-MIN FIRE RATED DOOR, FRAME AND HARDWARE
- NEW DOOR HARDWARE FINISH TO MATCH (E)
- HINGES: NEW STANLEY 179 HINGES 2/DOOR 4 1/2x4 1/2, NEW HOT HINGE NORTH DOOR IVES 5-KNUCKLE HINGE 198Z TW4
- EXIT DEVICE: VON DUPRIN 9827-F/9927-F-LBR SURFACE MOUNTED VERTICAL ROD FIRE DEVICE, EA DOOR, QUIET ELECTRIC LATCH RETRACTION DEL-LX TO NORTH DOOR, DOOR OUTSIDE TRIM 9900T EACH DOOR
- CLOSER: NEW LCN CLOSER, PUSH SIDE MOUNTED LCN 4040T SERIES TO SOUTH DOOR WITH DOOR STOP; NEW ADA DOOR OPERATOR AND POWER SUPPLY TO NORTH DOOR TO MATCH (E)
- ADA OPERATOR: NEW ADA DOOR OPERATOR AND WIRELESS WALL MOUNTED ACTUATORS EACH SIDE OF NORTH DOOR
- MAG HOLD OPEN: REUSE SALVAGED (E) MAG HOLD OPEN AND POWER SUPPLY ON NORTH DOOR, NO MAG HOLD OPEN ON SOUTH DOOR
- FLOOR STOP: REUSE SALVAGED IVES FLOOR STOP DOME & RISER NORTH DOOR, ENSURE LCN CLOSER INCLUDES DOOR STOP ON SOUTH DOOR
- SMOKE SEAL: PEMKO 988D
- CONTACTS: DPIS EACH DOOR
- CARD READER: (N) CARD READER TO ACTIVATE NORTH, DOOR COORDINATE W/ OWNER
- LATCH COL: 12VDC

DOORS 140.1 AND 140.2

- 140.1 AND 140.2 SLIDING DOOR SYSTEM TO BE INSTALLED TO COMPLY WITH CURRENT ANSI / BHMA 156.10.
- DESIGN: EACH DOOR SINGLE SLIDE
- BREAKOUT: SERIES 2000 BI-PARTING DOOR (EA DOOR) WITH FULL BREAKOUT
- FINISH: CLEAR ANODIZED ALUMINUM
- CLEAR DOOR HEIGHT: 84"
- HEADER HEIGHT: 8-INCH HIGH X 6-INCH DEEP
- CLEAR DOOR OPENING WIDTH: 3' - 8 7/8"
- JAMB DIMENSIONS: 1-3/4" X 4-1/2"

- CARD READER: DOOR 140.1, (N) CARD READER, COORDINATE W/ OWNER
- POWER REQUIRED AT HEADER: 120VAC, 50/60 Hz, 5A CIRCUIT RATING
- DRIVE SYSTEM: MANUFACTURERS STANDARD

- CONTROLS / DOOR ACTIVATION: EACH DOOR IS DESIGNED TO ACCEPT ONE-WAY TRAFFIC ONLY IN DIRECTION INDICATED ON FLOOR PLANS, EACH DOOR NORMALLY CLOSED; DOOR ACTIVATION DEVICES BY REMOTE FUNCTION SWITCHES AT SECURITY DESK (REFERENCE DETAIL 3A/9.1) AND DOOR POSITION SWITCHES: SECURITY DESK MANUAL OPERATION OR OWNER'S CARD READER SYSTEM REQUIRED FOR INGRESS OTHERWISE DOOR CLOSED AND INACTIVE. AUTOMATIC (SU-100 MOTION SENSOR) TO ALLOW ONE WAY EGRESS WITH OVERRIDE CONTROL AT SECURITY DESK TO PREVENT AUTOMATIC OPERATION ON EGRESS; FIRE ALARM OVERRIDE BOTH DOORS, DOORS TO FAIL SAFE
- CONTROLLER: MANUFACTURER'S STANDARD ROCKER SWITCH FOR EACH DOOR
- ACTIVATION / SAFETY SENSORS: WIRELESS ACTIVATION SYSTEMS
- LOCKING: ELECTRONIC SOLENOID LOCK (FAIL SAFE)
- GLASS: 1/2" THICK CLEAR TEMPERED
- THRESHOLD: ADA COMPLIANT TAPERED BETWEEN (N) WALK OFF MAT TO (E) TERRAZZO (SEE DETAIL 9/49.1)
- TRANSOM: 1/2" THICK CLEAR TEMPERED
- 10-INCH BOTTOM RAIL



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SCHEDULES AND WALL TYPES

MISSOULA COUNTY COURTHOUSE ANNEX
NORTH ENTRY REMODEL

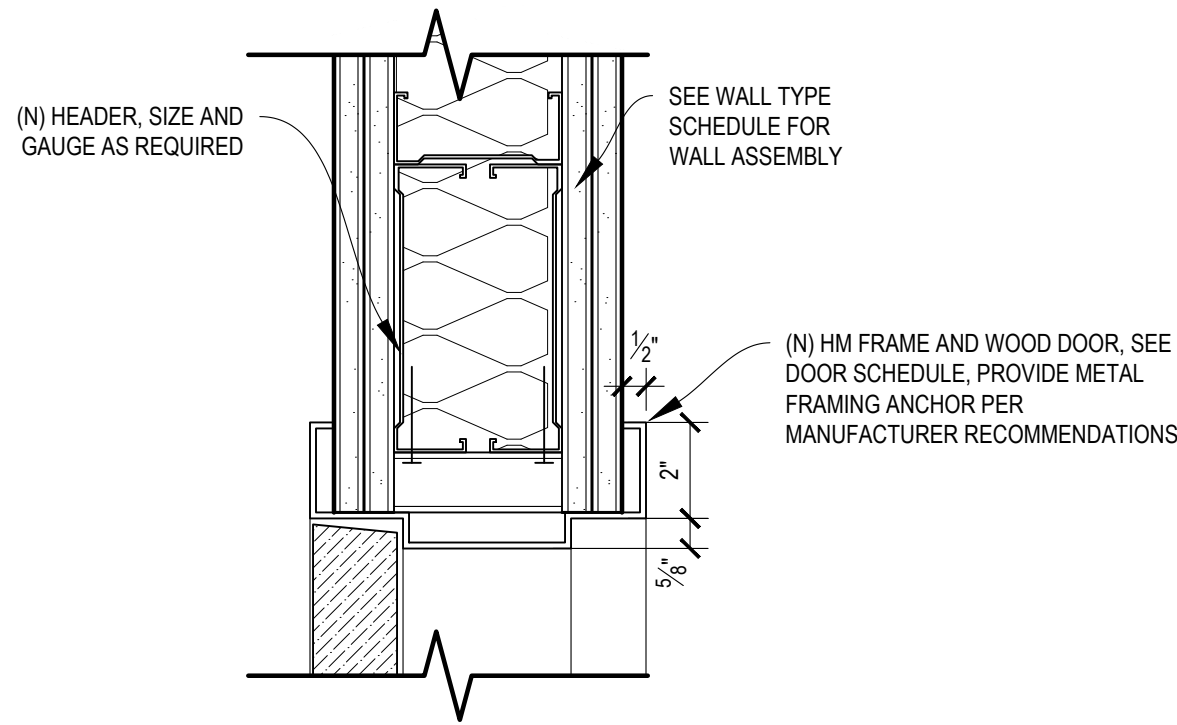
MISSOULA COUNTY, 200 WEST BROADWAY STREET, MISSOULA, MT 59802

project # 24169.10

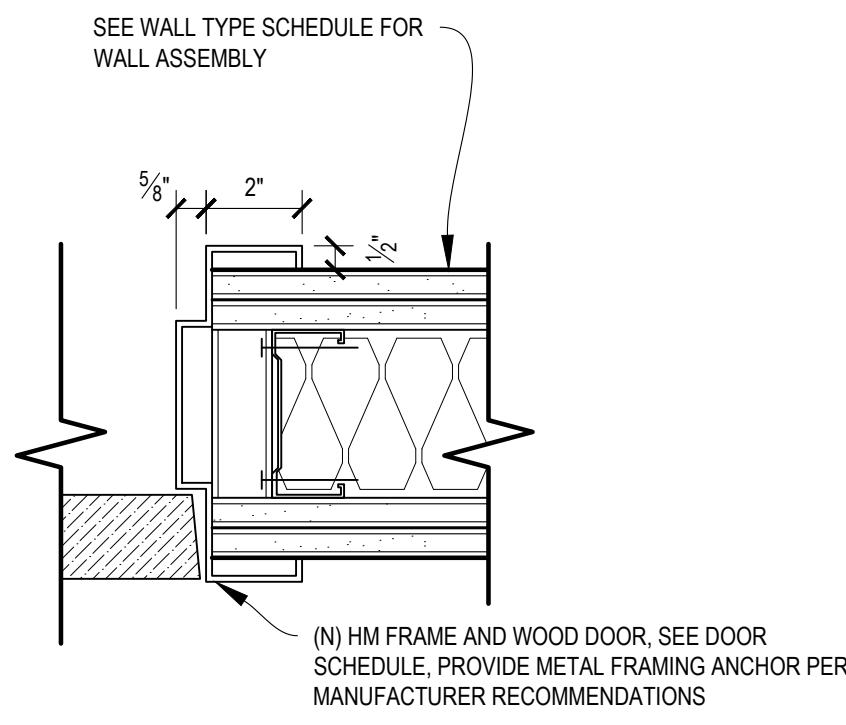
revision date

phase
CONSTRUCTION DOCUMENTS

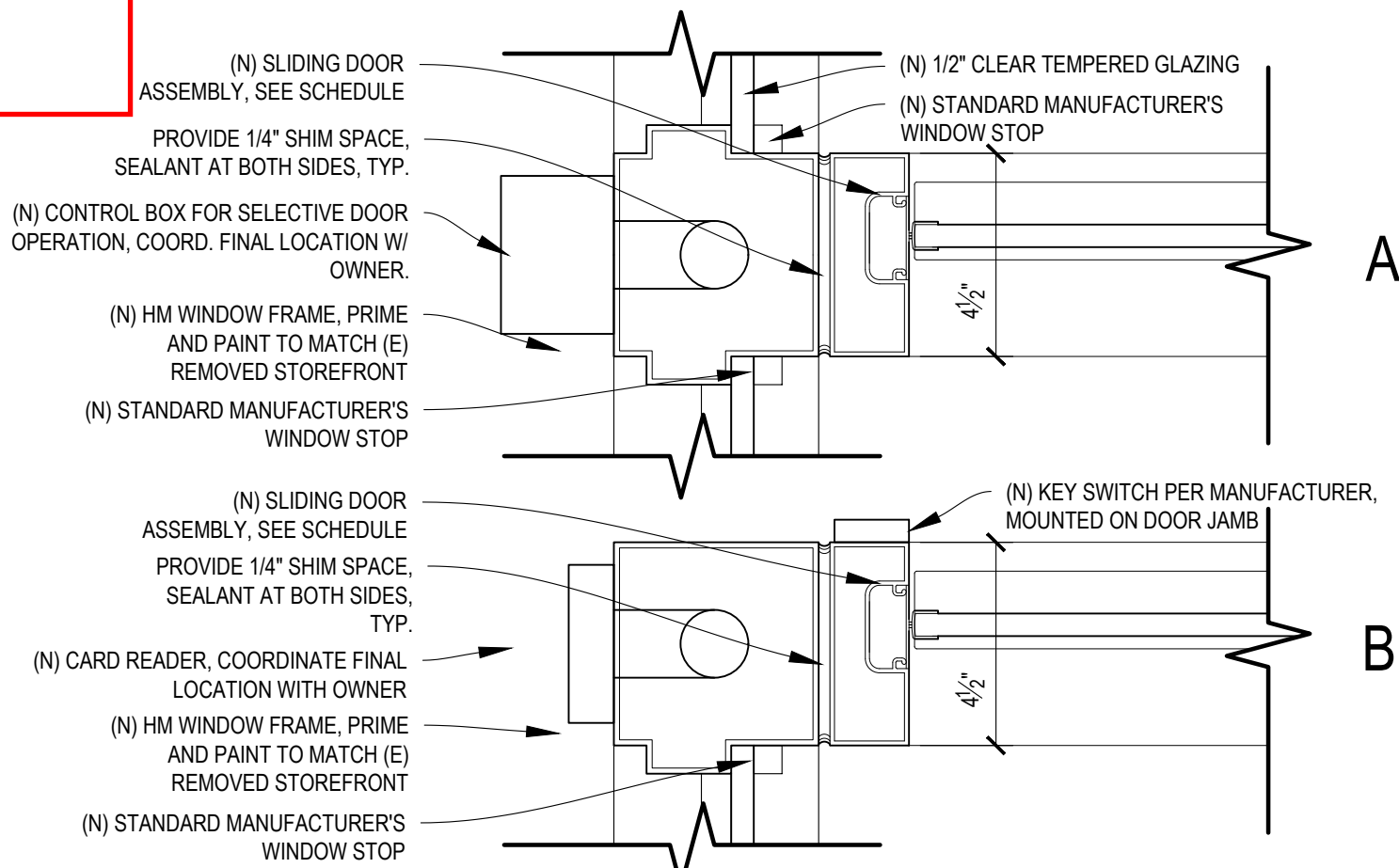




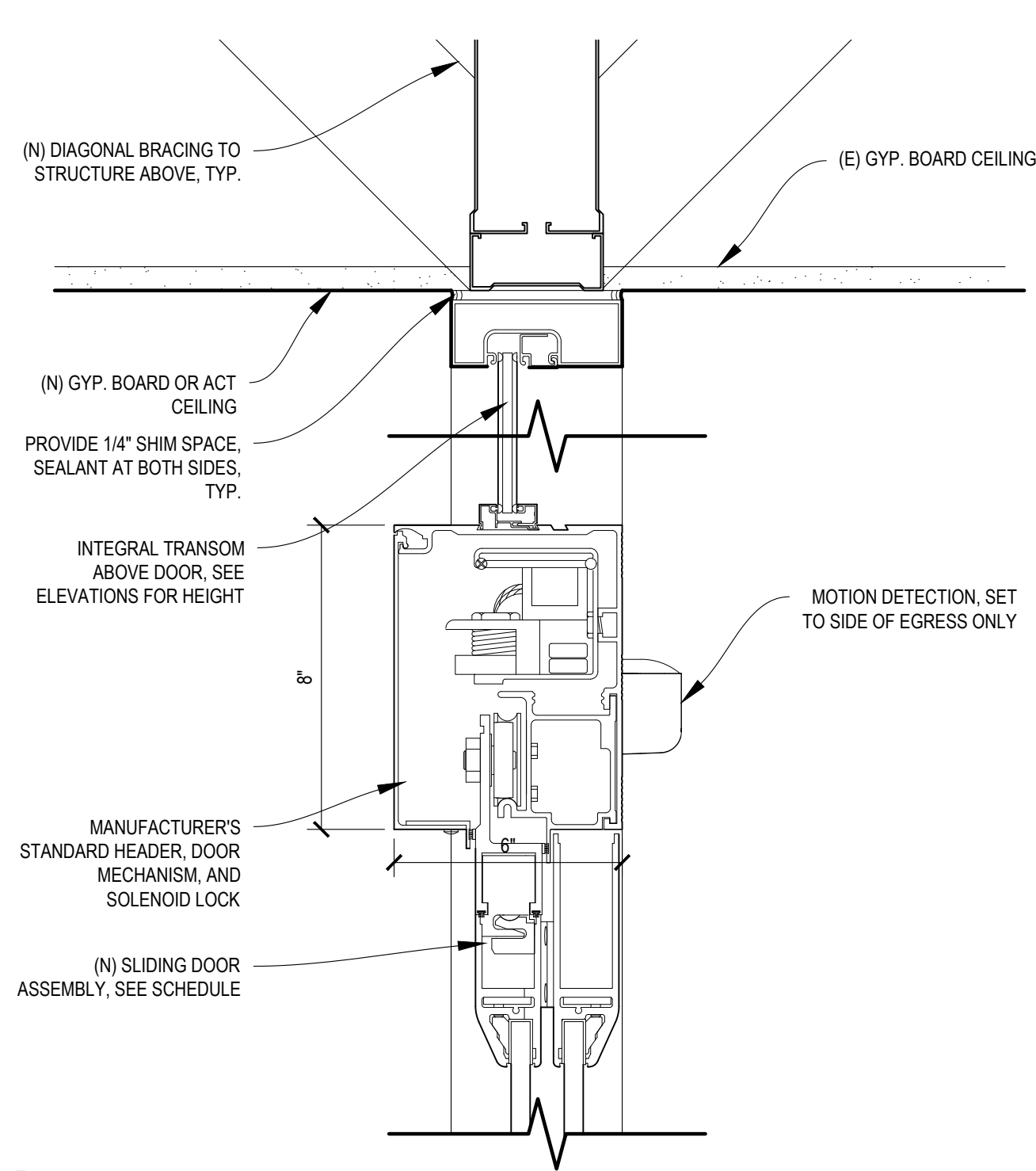
1 HOLLOW METAL DOOR HEAD
A9.1 : A9.1 3" = 1' - 0"



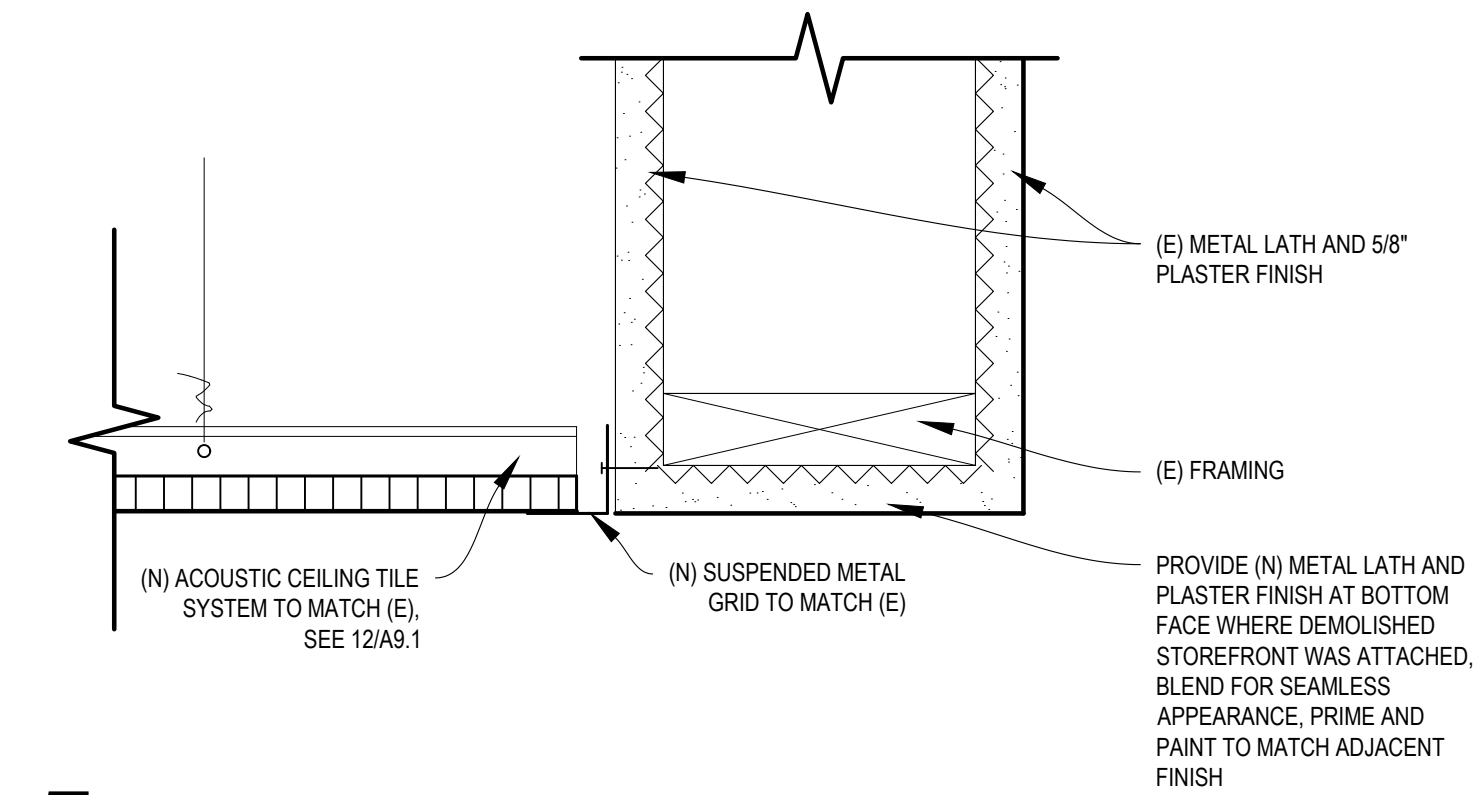
2 HOLLOW METAL DOOR JAMB
A9.1 : A9.1 3" = 1' - 0"



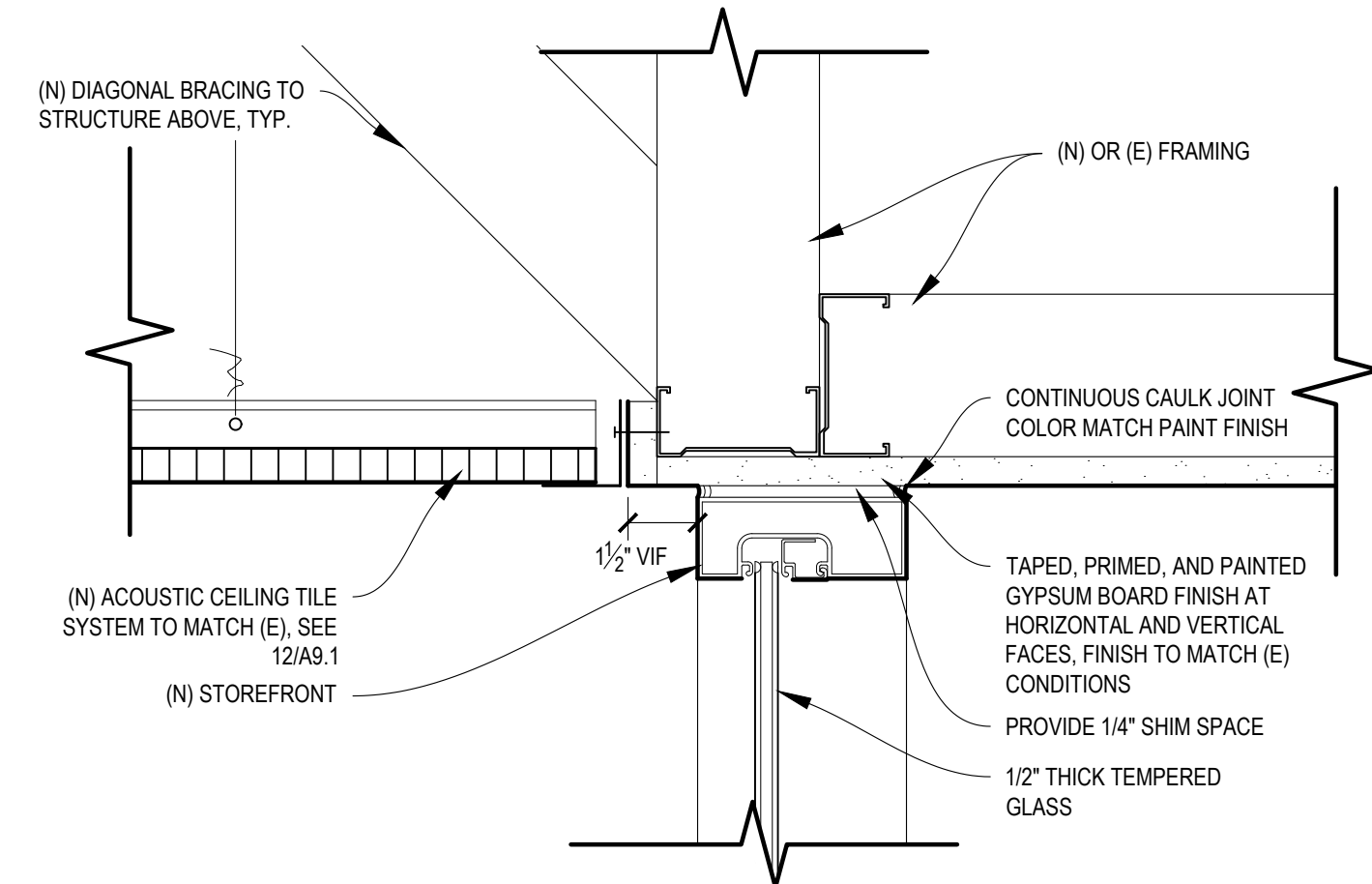
3 SLIDING DOOR JAMB DETAILS
A9.1 : A9.1 3" = 1' - 0"



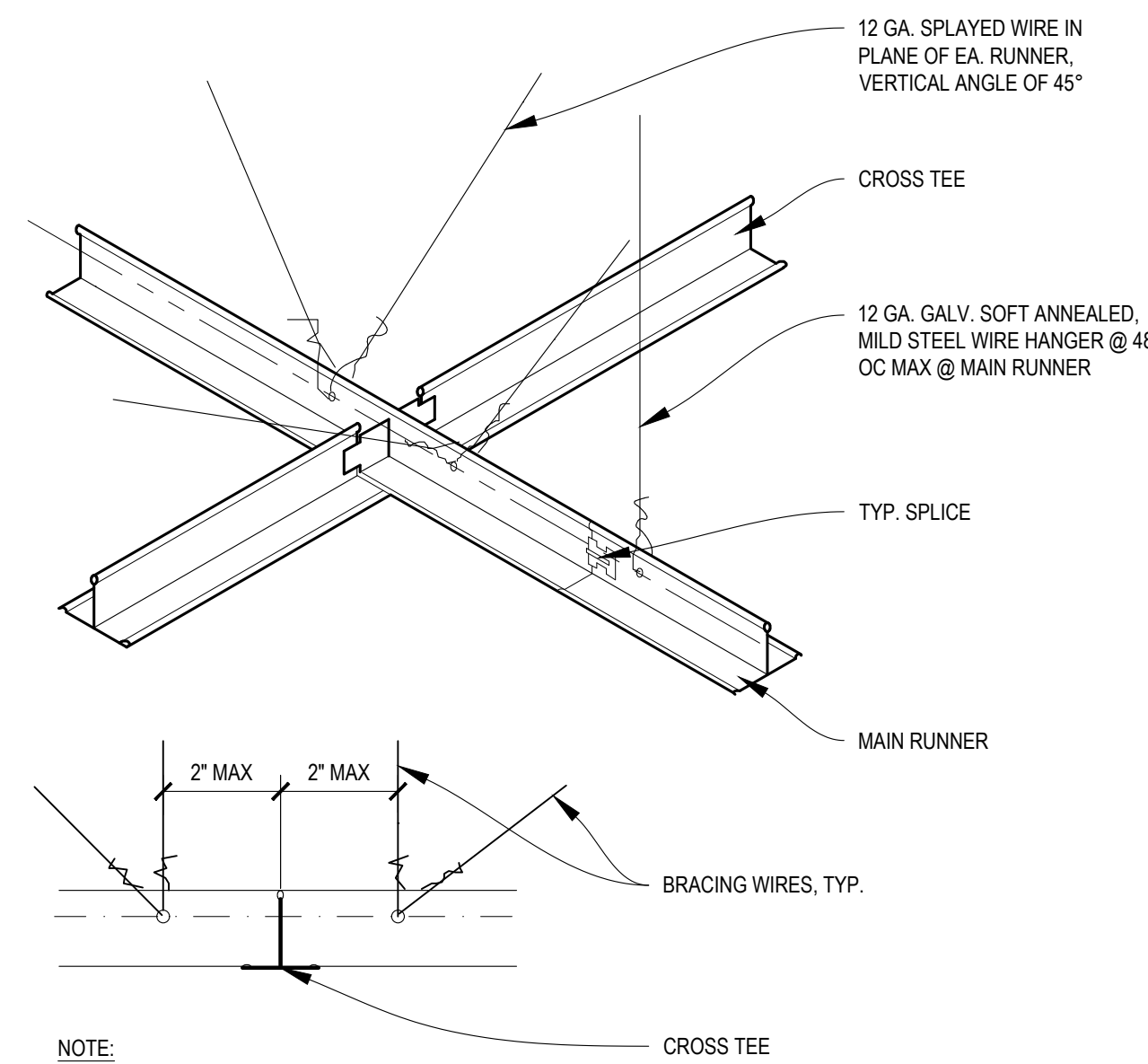
4 SLIDING DOOR HEAD
A2.1 : A9.1 3" = 1' - 0"



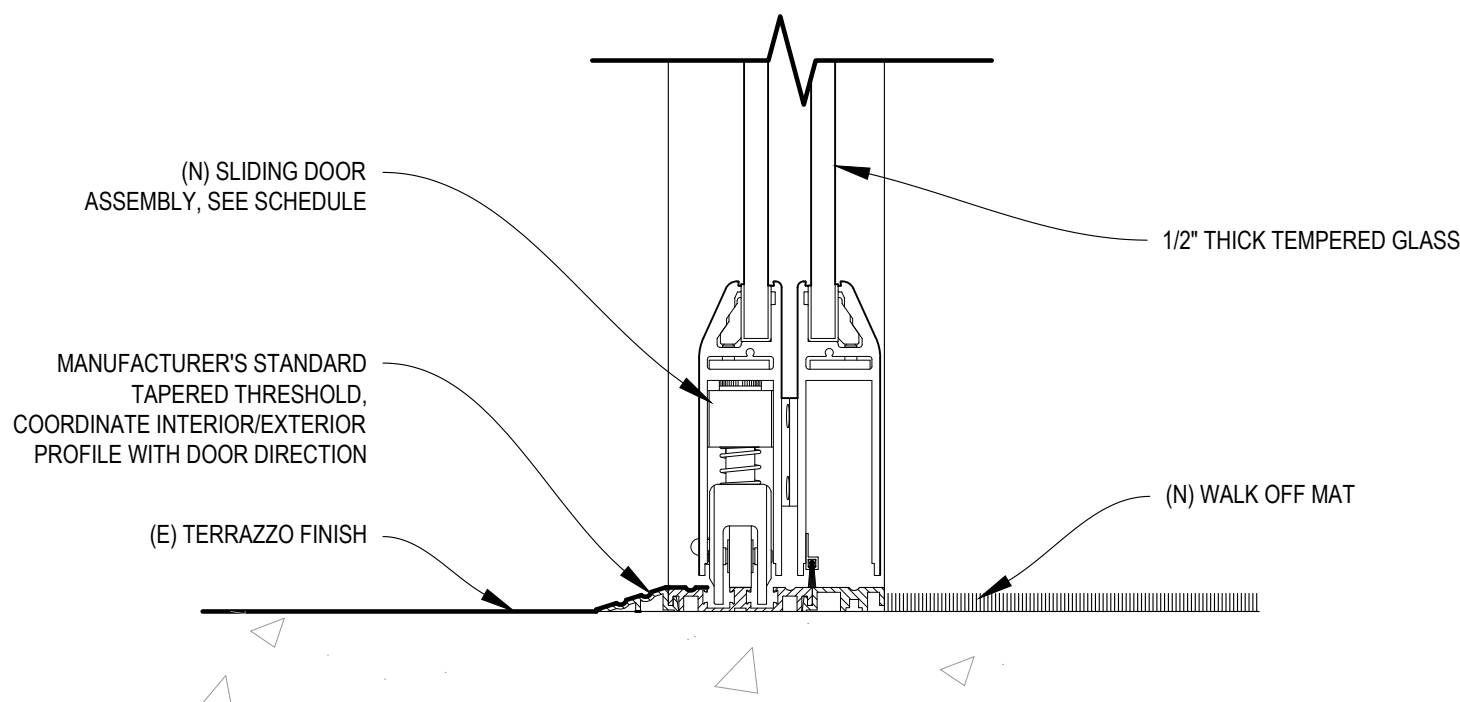
5 VESTIBULE CEILING TRANSITION
A2.1 : A9.1 3" = 1' - 0"



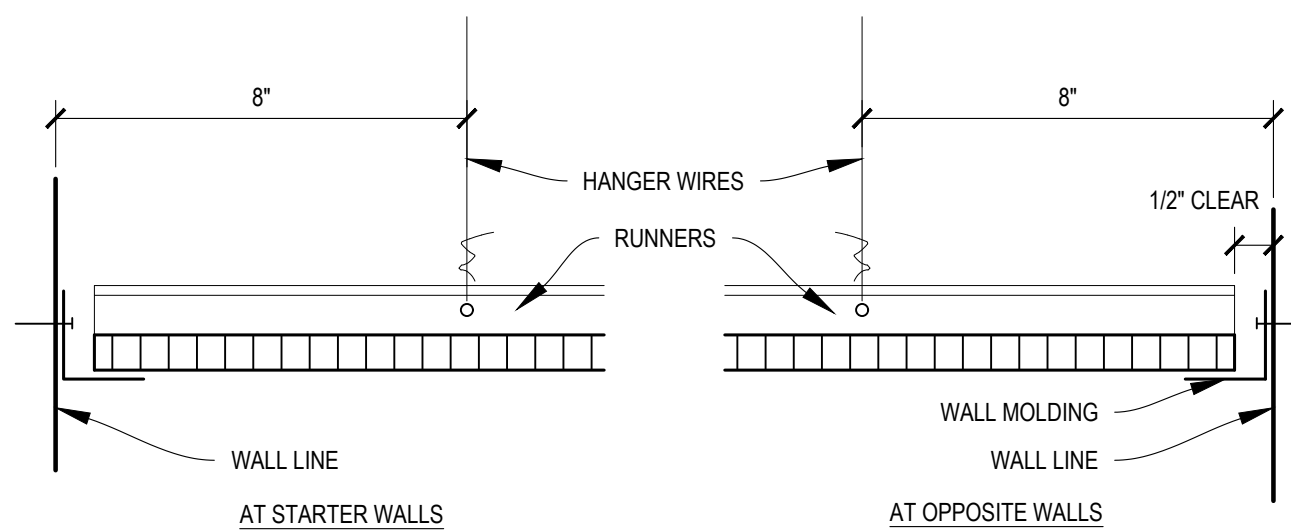
6 GYPSUM TO ACOUSTIC CEILING TILE TRANSITION
A2.1 : A9.1 3" = 1' - 0"



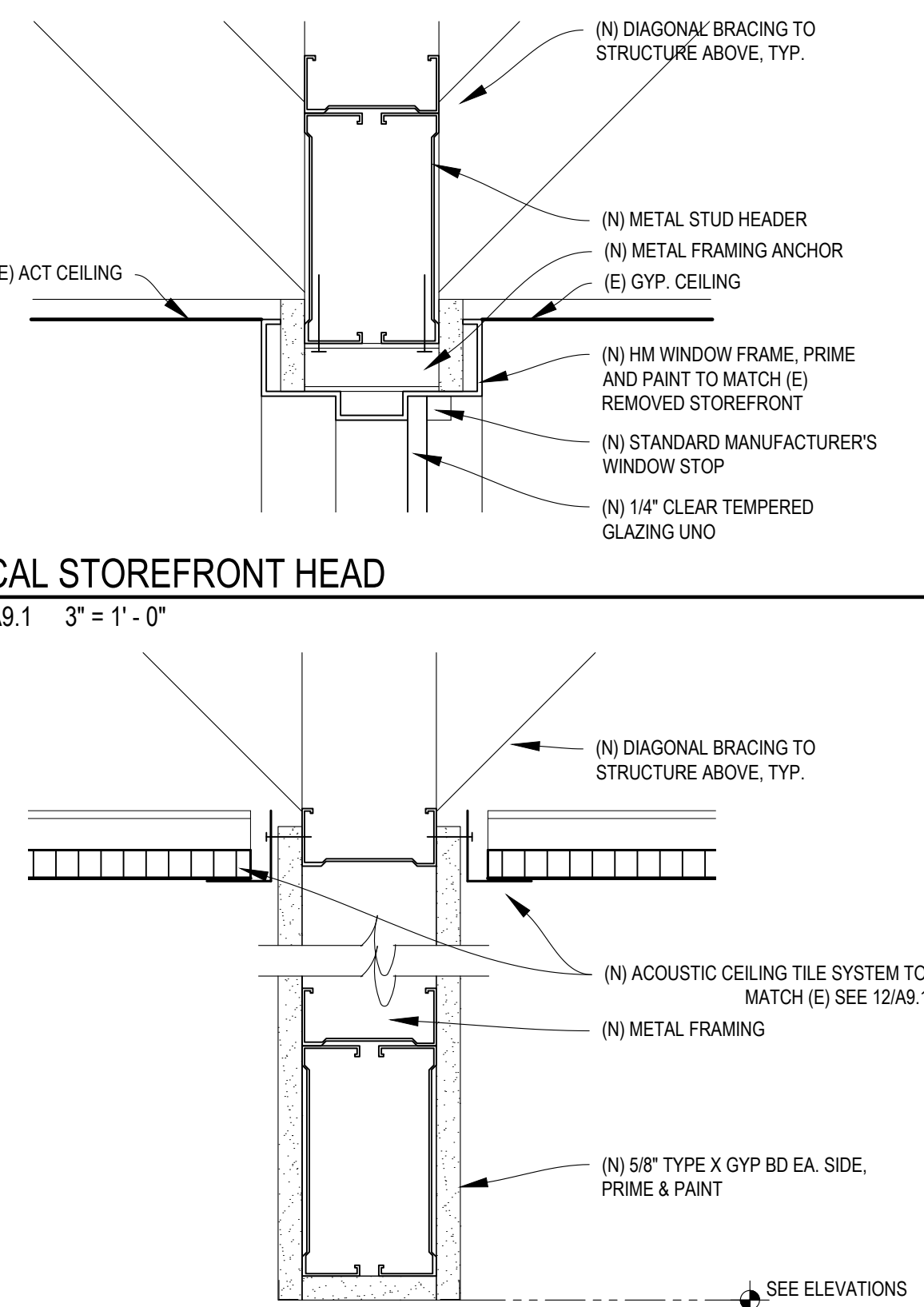
8 TYPICAL STOREFRONT HEAD
A2.1 : A9.1 3" = 1' - 0"



9 SLIDING DOOR SILL
A9.1 : A9.1 3" = 1' - 0"

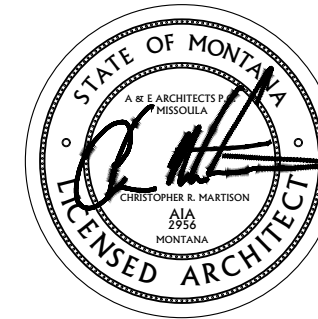


11 TYPICAL ACOUSTIC CEILING TILE SYSTEM DETAILS
A2.1 : A9.1 3" = 1' - 0"



12 BULK-HEAD SOFFIT
A2.1 : A9.1 3" = 1' - 0"

SUSPENDED CEILING NOTES:
1. PRIOR TO INSTALLATION, SUSPENDED CEILING SYSTEMS SHALL COMPLY W/ ASTM C 635 AND ASTM 636 PARTIAL LIST OF ITEMS ARE AS FOLLOWS: MIN. DESIGN LOADS, VERTICAL HANGERS, VERTICAL COMPRESSION STRUTS, PERIMETER MEMBERS, LIGHT FIXTURE HANGERS, AND MECHANICAL SERVICE BRACES.
2. CEILING SYSTEM SHALL MEET ALL REQUIREMENTS FOR SEISMIC DESIGN CATEGORY D.
3. FIXTURES AND CEILING DEVICES SHALL BE INDEPENDENTLY SUPPORTED TO STRUCTURE AND INSTALLED IN A MANNER THAT WILL NOT COMPROMISE CEILING PERFORMANCE.
4. CEILING SYSTEM WEIGHT TO BE LESS THAN 4 LBS./S.F. NOT INCLUDING FIXTURES AND OTHER CEILING DEVICES.



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MISSOULA COUNTY COURTHOUSE ANNEX
NORTH ENTRY REMODEL
MISSOULA COUNTY, 200 WEST BROADWAY STREET, MISSOULA, MT 59802

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revision date

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GENERAL LEGEND			
NOTE: THESE ARE STANDARDIZED SYMBOLS LEGENDS. AS SUCH, ALL SYMBOLS SHOWN MAY NOT APPEAR ON OR WITHIN THIS SET OF CONTRACT DOCUMENTS.			
SYMBOL	NAME	SYMBOL	NAME
	SPECIFIC SHEET NOTE		SECTION REFERENCE NUMBER SECTION REFERENCE SHEET
	PLUMBING FIXTURE IDENTIFICATION		ON DEMOLITION PLANS: INDICATES ITEMS TO BE REMOVED
	EQUIPMENT MARK "X" INDICATES TYPE "XX" INDICATES NUMBER		POINT OF NEW CONNECTION
	G-R-D IDENTIFICATION CFM AIR FLOW		

MECHANICAL AND PLUMBING LEGEND			
DUCTWORK - DRYSIDE		PIPING / PLUMBING - WETSIDE	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	NOTE: DUCT DIMENSIONS INDICATE CLEAR INSIDE DIMENSIONS. EXTERIOR INSULATION OR ACOUSTICAL LINER THICKNESS IS NOT INCLUDED IN DIMENSIONS INDICATED.		HEATING WATER SUPPLY
	RECTANGULAR DUCT (VIEW WIDTH x VIEW DEPTH)		HEATING WATER RETURN
	ROUND DUCT		CHILLED WATER SUPPLY
	OVAl DUCT (VIEW WIDTH x VIEW DEPTH)		CHILLED WATER RETURN
	ACOUSTICALLY LINED DUCT		COOLING TOWER WATER SUPPLY
	EXTERIOR INSULATED DUCT		COOLING TOWER WATER RETURN
	EXTERIOR INSULATED AND ACOUSTICALLY LINED DUCT		HEAT PUMP SOURCE SUPPLY
	FLEXIBLE ROUND DUCT		HEAT PUMP SOURCE RETURN
	VERTICAL SUPPLY AIR OR POSITIVE PRESSURE DUCTS		HEAT PUMP LOAD SUPPLY
	VERTICAL RETURN AIR OR NEGATIVE PRESSURE DUCTS		HEAT PUMP LOAD RETURN
	VERTICAL EXHAUST AIR DUCTS		HIGH PRESSURE STEAM
	MANUAL BALANCING / VOLUME DAMPER		HIGH PRESSURE STEAM CONDENSATE
	PARALLEL BLADE DAMPER		MEDIUM PRESSURE STEAM
	OPPOSED BLADE DUCT		MEDIUM PRESSURE STEAM CONDENSATE
	MOTOR ACTUATED DAMPER		LOW PRESSURE STEAM
	DUCT MOUNTED VERTICAL FIRE DAMPER		LOW PRESSURE STEAM CONDENSATE
	DUCT MOUNTED VERTICAL FIRE / SMOKE DAMPER		REFRIGERANT SUCTION
	DUCT MOUNTED HORIZONTAL FIRE OR FIRE / SMOKE DAMPER		REFRIGERANT LIQUID
	STRAIGHT TAKE-OFF		CONDENSATE
	CONICAL TAKE-OFF		NATURAL GAS
	HIGH EFFICIENCY TAKE-OFF (HETO)		LIQUEFIED PETROLEUM GAS (PROPANE)
	MITERED RECTANGULAR DUCT ELBOW WITH TURNING VANES		DOMESTIC COLD WATER (DCW)
	SHARP-THROAT RADIUS-HEEL RECTANGULAR DUCT ELBOW		DOMESTIC HOT WATER (DHW)
	1.0 RADIUS AND 1.5 RADIUS SMOOTH ROUND OR OVAL ELBOW		DOMESTIC HOT CIRCULATION (DHC)
	1.0 RADIUS AND 1.5 RADIUS 3-GORE ROUND OR OVAL ELBOW		VENT - SANITARY
	1.0 RADIUS AND 1.5 RADIUS 5-GORE ROUND OR OVAL ELBOW		SANITARY WASTE - ABOVE GRADE
			SANITARY WASTE - BELOW GRADE
			ROOF DRAIN LEADER
			ROOF DRAIN OVERFLOW
			PIPE UP
			PIPE DOWN
			PIPE REDUCER / INCREASER
			BALL VALVE
			GATE VALVE
			GLOBE VALVE
			PLUG VALVE
			BUTTERFLY VALVE
			CHECK VALVE
			BALANCING VALVE / CIRCUIT SETTER
			CIRCUIT SETTER
			COMBINATION AUTO BALANCE AND SHUT-OFF WITH TEST PORTS AND UNION
			STRAINER
			COMBINATION STRAINER AND SHUT-OFF WITH TEST PORTS AND UNION
			BACKFLOW PREVENTER
			PRESSURE REDUCING / REGULATING VALVE
			MOTORIZED CONTROL VALVE
			SOLENOID VALVE
			PRESSURE GAUGE
			THERMOMETER
			PRESSURE RELIEF VALVE
			FLEXIBLE PIPE CONNECTOR
			3-WAY VALVE
			STEAM TRAP
			PUMP / CIRCULATOR
			HOSE BIBB
			ROUND FLOOR DRAIN
			SQUARE FLOOR DRAIN
			WALL CLEANOUT (WCO)
			FLOOR CLEANOUT (FCO)
			CLEANOUT-TO-GRADE (COTG)
TEMPERATURE CONTROLS			
SYMBOL	DESCRIPTION		
	THERMOSTAT - LABEL INDICATES ASSOCIATED SYSTEM		
	SENSOR - LABEL INDICATES ASSOCIATED SYSTEM		
	HUMIDISTAT - LABEL INDICATES ASSOCIATED SYSTEM		
	CARBON DIOXIDE SENSOR - LABEL INDICATES ASSOCIATED SYSTEM		
	PRESSURE SENSOR		
	DIFFERENTIAL PRESSURE SENSOR		
	FLOW SWITCH		
	CURRENT SENSOR		
NOTE: THESE ARE STANDARDIZED SYMBOLS LEGENDS. AS SUCH, ALL SYMBOLS SHOWN MAY NOT APPEAR ON OR WITHIN THIS SET OF CONTRACT DOCUMENTS.			

Exhibit A

MISSOULA COUNTY COURTHOUSE ANNEX NORTH ENTRY REMODEL

200 WEST BROADWAY
MISSOULA, MT 59802

Axiom Engineering Group #: 24045

Project Manager JM

BASE BID / ALTERNATE NOTES
<ul style="list-style-type: none">BASE BID MECHANICAL SCOPE - EXISTING AIR SIDE SYSTEM TO REMAIN AS IS (REFERENCE M2.0 - DUCTWORK AND GRILLES INDICATED AS 'DEMO' TO REMAIN). PROVIDE NEW ELECTRIC HEATERS E-1 IN SECURITY AND E-2 IN ENTRY CEILING (REFERENCE M2.1). COORDINATE FINAL LOCATIONS TO AVOID EXISTING LIGHTING, SIGNAGE, AND FIRE SPRINKLERS (BASE BID INTENTION IS MINIMAL DISRUPTION TO SYSTEMS).ALTERNATE MECHANICAL SCOPE - REMOVE GRILLES AND DUCTWORK, PER M2.0. PROVIDE E-1 HEATER IN SECURITY. PROVIDE NEW VAV BOX, HYDRONIC PIPING, CONTROLS, DUCTWORK AND GRILLES PER M2.1.

ALL MECHANICAL, DUCTWORK AND HYDRONIC PIPING IS AN **ALTERNATE!**
REFERENCE BASE BID / ALTERNATE NOTES ABOVE.

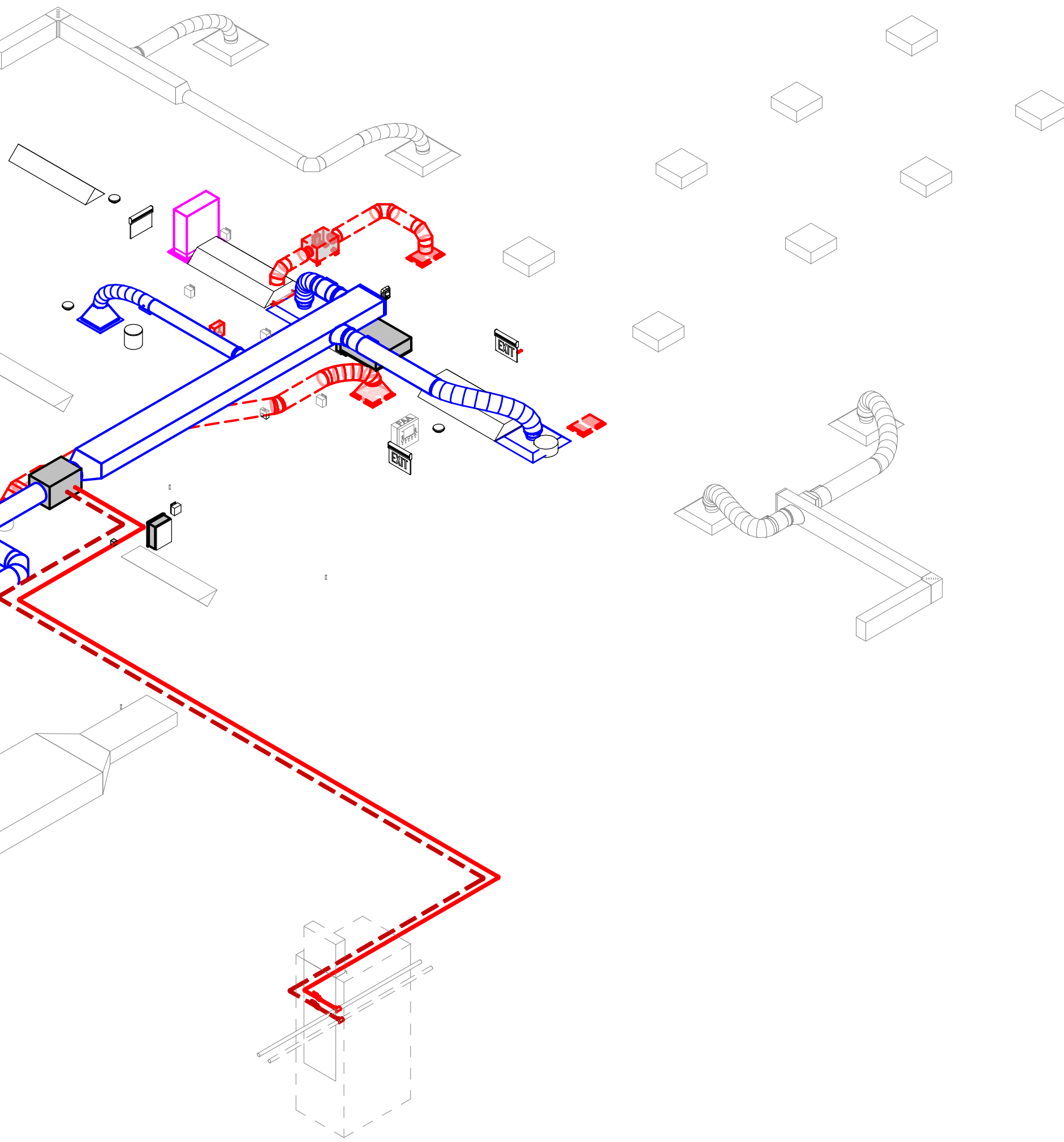
PROVIDE SUBMITTALS FOR ALL COMPONENTS OF THE MECHANICAL AND PLUMBING SYSTEMS AS NOTED BELOW. ANY MATERIALS NOT SUBMITTED ON MAY BE REJECTED IN THE FIELD AND REQUIRE THE INSTALLER TO REMOVE AND REPLACE, AT THEIR COST, AS DEEMED NECESSARY BY THE ENGINEER. **FOR RESIDENTIAL PROJECTS: NO EQUIPMENT SHALL BE 3-PHASE.**

REFER TO SPECIFICATIONS FOR ALL MECHANICAL AND PLUMBING RELATED WORK. ALL WORK SHALL BE IN STRICT ACCORDANCE WITH THE PLANS, SPECIFICATIONS, AND MANUFACTURER'S WRITTEN INSTRUCTIONS. ALL DEVIATIONS FROM THE PLANS AND/OR SPECIFICATIONS SHALL REQUIRE WRITTEN PRIOR APPROVAL FROM THE ENGINEER.

SUBMITTALS SHALL BE IN PDF FORMAT ONLY. PARTIAL OR INCOMPLETE SUBMITTALS AND PAPER COPIES WILL NOT BE REVIEWED. SUBMITTALS SHALL BE COMBINED INTO ONE FILE, WITH EACH SECTION LABELED ACCORDING TO IT'S RESPECTIVE SPECIFICATION SECTION.

ABBREVIATIONS

(E)	EXISTING	HHW	HEATING HOT WATER
(US) or I.J.S.	IN JOIST SPACE	HWR	HEATING WATER RETURN
(N)	NEW	HWS	HEATING WATER SUPPLY
(NL)	NEW LOCATION	LAV	LAVATORY
(REL)	RELOCATE or RELOCATED	LCUV	LARGE CAPACITY UNIT VENTILATOR
A.D.	ACCESS DOOR	MA	MIXED AIR
A.F.F.	ABOVE FINISH FLOOR	MAX.	MAXIMUM
A.F.G.	ABOVE FINISH GRADE	MC	MECHANICAL CONTRACTOR
AHU	AIR HANDLING UNIT	MECH.	MECHANICAL
ARCH	ARCHITECT or ARCHITECTURAL	MFR.	MANUFACTURER
CA	COMPRESSED AIR	MIN.	MINIMUM
CC	COOLING COIL	N.C.	NORMALLY CLOSED
CFM	CUBIC FEET PER MINUTE	N.O.	NORMALLY OPEN
CH	CABINET HEATER	O.C.	ON CENTER
CHWR / CWR	CHILLED WATER RETURN	OA	OUTSIDE AIR
CHWS / CWS	CHILLED WATER SUPPLY	PG	PROPYLENE GLYCOL
CO or C.O.	CLEANOUT	PCV	PRESSURE INDEPENDENT CONTROL VALVE
CONT.	CONTINUATION	RA	RETURN AIR
COTG	CLEANOUT TO GRADE	RDL	ROOF DRAIN LEADER
CUH	CABINET UNIT HEATER	RDO	ROOF DRAIN OVERFLOW
DCW	DOMESTIC COLD WATER	REQD	REQUIRED
DHW	DOMESTIC HOT WATER	RHC	REHEAT COIL
DHC	DOMESTIC HOT WATER RECIRCULATION	S.M.	SHEET METAL
DF	DRINKING FOUNTAIN	S.S.	STAINLESS STEEL
EA	EXHAUST AIR	SA	SUPPLY AIR
EC	ELECTRICAL CONTRACTOR	SAN	SANITARY SEWER
EF	EXHAUST FAN	SIM.	SIMILAR
FA	FRESH AIR	SPEC.	SPECIFICATION or SPECIFIED
FC	FAN COIL	TA	TRANSFER AIR
FD	FLOOR DRAIN	TYP.	TYPICAL
FE	FIRE EXTINGUISHER	U.N.O.	UNLESS NOTED OTHERWISE
FEC	FIRE EXTINGUISHER CABINET	UH	UNIT HEATER
FF / FIN.FLR.	FLOOR FINISH	UR	URINAL
FS	FLOOR SINK	UV	UNIT VENTILATOR
FT	FIN TUBE	VFD	VARIABLE FREQUENCY DRIVE
G.C.	GENERAL CONTRACTOR	V	VENT
HB	HOSE BIBB	VTR	VENT THROUGH ROOF
HC	HEATING COIL	WC	WATER CLOSET
		WS / WF	WASH SINK/FOUNTAIN (LAVATORY)

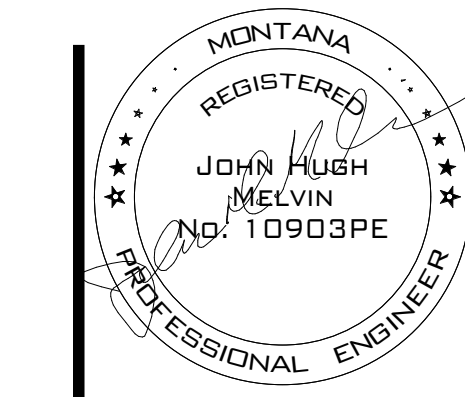


NOTE:
HYDRONIC SYSTEM AS WELL AS AIR BALANCE OF SYSTEMS **IS REQUIRED**. DELIVER TESTING AND BALANCE REPORTS TO ENGINEER FOR REVIEW PRIOR TO PROJECT COMPLETION.

THIS PROJECT WILL REQUIRE COMMISSIONING TO ENSURE THE DESIGNED SYSTEMS ARE OPERATING THE WAY THE ENGINEERS, DESIGNERS AND OWNER INTEND.

DRAWING INDEX

COVER SHEET / GENERAL	
M0.1	MECHANICAL COVER SHEET
MECHANICAL	
M1.0	MECHANICAL SPECIFICATIONS SHEET
M2.0	FIRST FLOOR MECHANICAL DEMO PLANS - NORTH ENTRY
M2.1	FIRST FLOOR MECHANICAL PLANS - NORTH ENTRY
M7.1	MECHANICAL SCHEDULES & DETAILS



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Ph. 406.542.2849
www.aeg.design
AEG #24045

CONSTRUCTION DOCUMENTS

MECHANICAL COVER SHEET

MISSOULA COUNTY COURTHOUSE ANNEX
NORTH ENTRY REMODEL

MISSOULA COUNTY, 200 WEST BROADWAY STREET, MISSOULA, MT 59802

project # **24169.10**

revision date

phase
CONSTRUCTION DOCUMENTS



Page 10/17

issue date
06.30.2025

M0.1

Exhibit A

MECHANICAL SPECIFICATIONS

PART 1 - GENERAL

1.1 GENERAL INENT

- A. THE INTENTION OF THE CONTRACT DOCUMENTS IS TO INCLUDE ALL LABOR AND MATERIALS, AND EQUIPMENT, NECESSARY, OR REASONABLY INFERRABLE AS BEING NECESSARY, FOR FURNISHING, INSTALLATION AND TESTING, COMPLETE AND READY FOR SAFE OPERATION OF THE SYSTEMS DESCRIBED HEREIN
- B. SUBMISSION OF A PROPOSAL SHALL BE CONSTRUED AS EVIDENCE THAT THE CONTRACTOR HAS MADE A THOROUGH EXAMINATION OF THE SITE, AND ALL EXISTING CONDITIONS AND LIMITATIONS WHICH AFFECT THIS WORK. LATER CLAIMS SHALL NOT BE MADE FOR LABOR, EQUIPMENT OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED, WHICH COULD HAVE BEEN FORESEEN DURING SUCH AN EXAMINATION.
- C. THE DRAWINGS INDICATE DIAGRAMMATICALLY THE EXTENT, GENERAL CHARACTER, AND LOCATION OF THE WORK TO BE PERFORMED. WHERE MINOR ADJUSTMENTS OF THE WORK ARE NECESSARY FOR PURPOSES OF FABRICATION OR INSTALLATION OF ITEMS, THE CONTRACTOR SHALL MAKE SUCH ADJUSTMENTS WITH NO ADDED COMPENSATION. WHERE SUCH ADJUSTMENTS AFFECT FUNCTIONAL OR AESTHETIC DESIGN OF THE WORK, THEY SHALL FIRST BE SUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL.
- D. SITE UTILITIES: THE MECHANICAL DOCUMENTS INDICATE CONNECTION LOCATION OF VARIOUS BUILDING SERVICES. COORDINATE WORK WITH THE SITE UTILITIES CONTRACTOR TO ENSURE PROPER INVERT ELEVATION, PIPE SLOPE GRADIENT, PIPE SIZE AND SEPARATION WITHIN TRENCH WORK. NOTIFY ARCHITECT OR ENGINEER OF ANY DISCREPANCY BETWEEN DRAWINGS AND FIELD CONDITIONS.
- E. COMPLY WITH ALL LOCAL AND STATE CODES REGARDING SEISMIC SUPPORT AND ISOLATION. NOT ALL SEISMIC REQUIREMENTS ARE SHOWN ON THESE DRAWINGS. CONTRACTOR SHALL MEET THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION FOR SEISMIC SUPPORT/ISOLATION OF HIS WORK.

1.2 GENERAL COORDINATION

- A. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF A SATISFACTORY, COMPLETE, AND FULLY OPERATIONAL PIECE OF WORK IN ACCORDANCE WITH TRUE INTENT OF THE DRAWINGS AND SPECIFICATIONS.
- B. CONTRACTOR SHALL CONSULT ALL DRAWINGS FOR THE PROJECT TO DETERMINE THAT THE WORK AND EQUIPMENT WILL FIT AS PLANNED.
- C. THE LOCATION OF PIPING, DUCTS, EQUIPMENT, ETC., SHALL BE CHECKED TO ENSURE CLEARANCE FROM OPENINGS, STRUCTURAL MEMBERS, CABINETS, LIGHTS, OUTLETS AND EQUIPMENT HAVING FIXED LOCATIONS. THIS SHALL BE ACCOMPLISHED PRIOR TO FABRICATION OF PIPE OR DUCTS.
- D. IF, AT ANY TIME, AND IN ANY CASE, CHANGES IN LOCATION OF PIPING, DUCTS, EQUIPMENT, ETC., BECOMES NECESSARY DUE TO EXISTING OBSTACLES OR INSTALLATION OF OTHER TRADES SHOWN ON ANY OF THE PROJECT DRAWINGS AND SUCH CONFLICT COULD HAVE BEEN AVOIDED BY PROPER COORDINATION BETWEEN TRADES OR PROPER PRE-PLANNING OF WORK, SUCH REQUIRED CHANGES SHALL BE MADE BY THE CONTRACTOR AT NO EXTRA COST. THESE CHANGES ARE TO BE RECORDED ON THE RECORD DRAWINGS.
- E. THIS CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL INCIDENTAL ELECTRICAL INTERCONNECTIONS, CONTROL WIRING, ETC., WHICH ARE NECESSARY FOR SYSTEM COMPLETION AND WHICH ARE NOT SPECIFICALLY SHOWN OR OTHERWISE INDICATED ON THE ELECTRICAL DRAWINGS OR SPECIFIED IN DIVISION 26.
- F. ALL ELECTRICAL WORK INCIDENTAL TO OR ACCOMPLISHED UNDER THIS DIVISION SHALL COMPLY WITH ALL REQUIREMENTS OF DIVISION 26.
- G. PLANS ARE DIAGRAMMATIC IN NATURE. CONTRACTOR IS RESPONSIBLE FOR REFERRING TO THE DESIGN DOCUMENTS FOR ALL OTHER DISCIPLINES FOR PROJECT CONSTRUCTION AND OTHER DETAILS WHICH AFFECT THE MECHANICAL INSTALLATION. CONTRACTOR SHALL CONFER WITH ALL OTHER TRADES FOR FINISH ADJACENT TO ITS WORK AND ARRANGE TO HAVE VISIBLE PORTIONS OF THIS WORK (SUCH AS ACCESS DOORS, VALVES, SPRINKLER HEADS, ESCUTCHEONS, ETC.) MERGE WITH THE FINISH IN A MANNER SATISFACTORY TO THE ARCHITECT.
- H. CONTRACTOR SHALL IDENTIFY ALL SERVICEABLE ITEMS (VALVES, DAMPERS, COILS, ETC.) SO THAT THE CEILING SUBCONTRACTOR MAY KNOW WHERE TO INSTALL ACCESS-TYPE PANELS SHOULD A LIFT-UP TYPE CEILING NOT BE INSTALLED. THIS CONTRACTOR SHALL PROVIDE ACCESS PANELS FOR HIS WORK UNLESS SPECIFICALLY NOTED ON THE DRAWINGS. ARCHITECT SHALL APPROVE LOCATIONS OF ACCESS PANELS PRIOR TO INSTALLATION.
- I. CEILING HEIGHTS AND FINISH DRAWINGS SHALL BE CHECKED FOR CEILING HEIGHTS, WALLS, AND CABINETS THAT ARE INTENDED TO CONCEAL WORK OF THIS SECTION. WHERE CONFLICTS OCCUR, THE ARCHITECT SHALL BE NOTIFIED PRIOR TO INSTALLATION OF THE WORK. LOCATION OF EXPOSED WORK SUCH AS LIGHTS, DIFFUSERS, SPEAKERS, SPRINKLER HEADS TAKE PRECEDENCE OVER CONCEALED WORK.
- J. CONTRACTOR SHALL EXERCISE CARE TO MINIMIZE ANY DISTURBANCE TO ADJACENT AREAS OF THE BUILDING WHICH ARE TO REMAIN IN OPERATION. ISOLATE WORK AREAS BY TEMPORARY PARTITIONS, TARPS, ETC., TO KEEP DUST AND DIRT IN THE CONSTRUCTION AREA.
- K. PROVIDE ALL NECESSARY FLASHING, SEALING, ETC., TO MAINTAIN THE WATER-ROOF INTEGRITY OF THE BUILDING AS REQUIRED BY THE INSTALLATION OR REMOVAL OF ITEMS AS REQUIRED BY THIS SCOPE OF WORK.
- L. INSTALL ALL WORK OF THIS SCOPE TO BE READILY ACCESSIBLE FOR OPERATION, MAINTENANCE, AND REPAIR. MINOR DEVIATIONS FROM THE DRAWINGS MAY BE MADE TO ACCOMPLISH THIS, BUT CHANGES INVOLVING OTHER TRADES MAY NOT BE MADE WITHOUT PRIOR APPROVAL.
- M. ALL PENETRATIONS MADE THROUGH RATED ASSEMBLIES TO ACCOMMODATE WORK OF THIS SECTION, MUST BE SEALED TO MAINTAIN THE RATING OF SUCH ASSEMBLY BY A U.L. RECOGNIZED SEALING METHOD.
- N. PROVIDE ALL CUTTING AND PATCHING REQUIRED FOR INSTALLATION OF THIS WORK. COORDINATE ALL BLOCKING, SUPPORT, ETC., NECESSARY FOR THE INSTALLATION OF THIS WORK WITH THE GENERAL CONTRACTOR.

1.3 CODES, STANDARDS, PERMITS, AND FEES

- A. ALL APPLICABLE CODE LAWS AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS. THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR, WHO SHALL INFORM THE ARCHITECT IN WRITING PRIOR TO SUBMITTING A BID, OF ANY WORK OR MATERIALS WHICH VIOLATE ANY OF THE ENFORCED LAWS, CODES, OR REGULATIONS. IF THE CONTRACTOR PERFORMS ANY WORK CONTRARY TO SUCH LAWS, ORDINANCES, RULES AND REGULATIONS, HE SHALL ASSUME FULL RESPONSIBILITY, AND SHALL BEAR ALL COSTS ASSOCIATED WITH BRINGING WORK INTO COMPLIANCE.
- B. WHERE DRAWINGS OR SPECIFICATIONS CALL FOR MATERIAL OR CONSTRUCTION OF A BETTER QUALITY OR HIGHER CAPACITY THAN REQUIRED BY THE ABOVE-MENTIONED CODES AND STANDARDS, THE PROVISIONS OF THE DRAWINGS OR SPECIFICATIONS SHALL TAKE PRECEDENCE OVER THE REQUIREMENTS OF THE CODES AND STANDARDS.
- C. THE RESPECTIVE SUB-CONTRACTOR, AT HIS EXPENSE, SHALL OBTAIN ALL PERMITS AND FEES REQUIRED FOR THIS SCOPE OF WORK ON THIS PROJECT. THE SUB-CONTRACTORS SHALL ALSO SCHEDULE ALL REQUIRED INSPECTIONS AND OBTAIN CERTIFICATES FOR HIS WORK, AT HIS EXPENSE.
- D. THE FOLLOWING SPECIFIC STANDARDS SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS FOR WORK OF THIS SECTION:
 - 1. DUCTWORK: ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED PER THE PUBLISHED STANDARDS OF THE AMERICAN SOCIETY OF HEATING, REFRIGERATION, AND AIR CONDITIONING ENGINEERS (ASHRAE) AND THE SHEET METAL AND AIR CONDITIONING NATIONAL ASSOCIATION (SMACNA), AND MEET THE REQUIREMENTS OF NFPA 90 AND NFPA 91A.
 - 2. FILTERS: ALL FILTER MEDIA SHALL BE UL CLASS 2.
 - 3. FIRE DAMPERS: ALL FIRE DAMPERS SHALL BE LISTED AND INSTALLED PER UL FOR THE ASSEMBLY THEY ARE INSTALLED IN, AND MEET THE REQUIREMENTS OF THE LOCAL BUILDING CODE.

1.4 SUBMITTALS AND SUBSTITUTIONS

- A. SUBMITTAL MATERIALS SHALL BE COMPLETE IN EVERY RESPECT AND SHALL CLEARLY INDICATE EQUIPMENT FEATURES, DIMENSIONS, WEIGHTS, PERFORMANCE CHARACTERISTICS, AND CAPACITIES. CAPACITY AND PERFORMANCE CALCULATIONS SHALL BE ADJUSTED TO INDICATE ACTUAL EQUIPMENT PERFORMANCE AT THE PROJECT ELEVATION. LITERATURE OR DRAWINGS THAT DESCRIBE MORE THAN ONE MODEL OR SIZE OF EQUIPMENT SHALL BE MARKED WITH ARROWS OR OTHERWISE CLEARLY INSCRIBED TO IDENTIFY THE ACTUAL EQUIPMENT THAT WILL BE FURNISHED. ALL OPTIONS AND SPECIAL PARTS OF FEATURES SHALL ALSO BE CLEARLY IDENTIFIED. ALL SUBMITTED MATERIALS MUST BE CLEAR, COMPLETE, AND LEGIBLE. ALL SUBMITTALS OF THIS SCOPE MUST BE SUBMITTED AT ONE TIME; MULTIPLE AND VARIED SUBMITTALS WILL BE REJECTED.
- B. SUBMITTALS FOR ALL EQUIPMENT SHALL BE ROUTED THROUGH AND REVIEWED BY THE CONTRACTOR. THE CONTRACTOR SHALL CHECK ALL SUBMITTALS FOR ADEQUATE IDENTIFICATION, CORRECTNESS, AND COMPLIANCE WITH CONTRACT DRAWINGS AND SPECIFICATIONS AND APPLY A STAMP OF APPROVAL. FOR SUBMITTALS THAT ARE REQUIRED TO BE REVIEWED BY THE ENGINEER, A DIGITAL COPY SHALL BE FORWARDED FOR REVIEW AFTER REVIEW AND APPROVAL BY THE CONTRACTOR. THESE SHALL BE RETURNED AND SHALL BE REVISED AND RESUBMITTED UNTIL ACCEPTED BY THE ENGINEER. PROVIDE PRODUCT DATA FOR EACH PIECE OF EQUIPMENT/COMPONENT LISTED BELOW.
 - 1. LAIR MOVING EQUIPMENT.
 - 2. GRILLES, REGISTERS, AND DIFFUSERS.
 - 3. EXHAUST HOODS.
 - 4. WHERE SEISMIC SUPPORT IS REQUIRED BY CODES, PROVIDE SHOP DRAWINGS AND SUPPORTING CALCULATIONS IN ACCORDANCE WITH THE ASCE 7 CHAPTER 13. CALCULATIONS AND SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A LICENSED ENGINEER IN THE STATE IN WHICH THE PROJECT SITE OCCURS.
- C. APPROVED MANUFACTURERS, WHICH MAY SUBMIT EQUAL PRODUCT TO THOSE SPECIFIED, ARE LISTED IN THE EQUIPMENT SCHEDULES. ANY SUBMITTAL FOR CONSIDERATION AS AN EQUAL TO THAT SCHEDULED MUST CONTAIN ALL INFORMATION REQUIRED TO EVALUATE THIS CLAIM. MANUFACTURERS NOT LISTED AS EQUAL MUST SUBMIT IN WRITING FIVE DAYS PRIOR TO BID CLOSING. CONTRACTOR IS RESPONSIBLE TO ASSURE ANY SUBSTITUTED ITEM MEETS ALL PHYSICAL AND PERFORMANCE REQUIREMENTS AS INTENDED IN THE DESIGN DOCUMENTS.
- D. APPROVAL OF SUBMITTALS BY THE ENGINEER SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR DEVIATIONS FROM DRAWINGS OR SPECIFICATIONS, NOR SHALL IT RELIEVE HIM FROM RESPONSIBILITY FOR ERRORS IN SHOP DRAWINGS OR OTHER SUBMITTAL LITERATURE.
- E. CONTRACTOR HAS SOLE RESPONSIBILITY TO COORDINATE ANY SUBSTITUTIONS WITH ALL OTHER DISCIPLINES. EQUIPMENT OF GREATER POWER, DIMENSIONS, CAPACITIES, AND RATINGS MAY BE FURNISHED PROVIDED SUCH PROPOSED EQUIPMENT IS APPROVED IN WRITING AND CONNECTING MECHANICAL AND ELECTRICAL SERVICES. CIRCUIT BREAKERS, CONDUIT, MOTORS, BASES, AND EQUIPMENT SPACES ARE INCREASED. NO ADDITIONAL COSTS WILL BE ACCEPTED FOR THESE INCREASES, IF LARGER EQUIPMENT IS PROVIDED. IF MINIMUM ENERGY RATINGS OR EFFICIENCIES OF THE EQUIPMENT ARE SPECIFIED, THE EQUIPMENT MUST MEET THE DESIGN REQUIREMENTS AND COMMISSIONING REQUIREMENTS. DESIGN OF ELECTRICAL REQUIREMENTS IS BASED ON MECHANICAL EQUIPMENT SPECIFIED. MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR IF EQUIPMENT PURCHASED IS DIFFERENT FROM THAT SPECIFIED. STILL MEETS DESIGN INTENT, INCLUDING BUT NOT LIMITED TO OVERCURRENT PROTECTION, LOCAL DISCONNECTION MEANS, WIRE SIZING, AND DESIGN COSTS.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. DELIVER PRODUCTS TO THE PROJECT PROPERLY IDENTIFIED WITH NAMES, MODEL NUMBERS, TYPES, GRADES, COMPLIANCE LABELS, AND OTHER INFORMATION NEEDED FOR IDENTIFICATION.
- B. ALL MECHANICAL EQUIPMENT AND MATERIAL ITEMS SHALL BE PROTECTED FROM WEATHER AND VANDALISM PRIOR TO ACTUAL INSTALLATION. FAN WHEELS, PUMPS AND OTHER ROTATING MACHINERY SHALL BE PERIODICALLY ROTATED DURING STORAGE. ANY FACTORY PAINTED EQUIPMENT SCRATCHED OR MARKED DURING SHIPMENT OR CONSTRUCTION SHALL BE RESTORED TO ORIGINAL, "NEW" CONDITION. THIS INCLUDES COMPLETE REPAINTING OF THE EQUIPMENT IF NECESSARY TO PROVIDE EXACT PAINT MATCH.
- C. CONTRACTOR IS RESPONSIBLE FOR RECEIVING AND OFFLOADING EQUIPMENT OF HIS SCOPE. IMMEDIATELY UPON RECEIPT, CONTRACTOR SHALL INSPECT ALL EQUIPMENT AND MATERIAL FOR SHIPPING DAMAGE AND REPLACE ANY DEFECTIVE ITEMS AT NO INCREASE TO CONTRACT AMOUNT.

1.6 SEQUENCING AND SCHEDULING

- A. COORDINATE MECHANICAL EQUIPMENT INSTALLATION WITH OTHER BUILDING COMPONENTS PRIOR TO ORDERING OR FABRICATION OF ADJOINING WORK.
- B. COORDINATE THE INSTALLATION OF REQUIRED SUPPORTING DEVICES AND SET SLEEVES IN POURED-IN-PLACE CONCRETE AND OTHER STRUCTURAL COMPONENTS AS THEY ARE CONSTRUCTED. ARRANGE FOR CHASES, SLOTS, AND OPENINGS IN BUILDING STRUCTURE DURING PROGRESS OF CONSTRUCTION TO ALLOW FOR MECHANICAL INSTALLATIONS.
- C. SEQUENCE, COORDINATE, AND INTEGRATE INSTALLATIONS OF MECHANICAL MATERIALS AND EQUIPMENT FOR EFFICIENT FLOW OF THE WORK. COORDINATE INSTALLATION OF LARGE EQUIPMENT REQUIRING POSITIONING PRIOR TO CLOSING IN THE BUILDING.
- D. COORDINATE CONNECTION OF MECHANICAL SYSTEMS WITH EXTERIOR UNDERGROUND AND OVERHEAD UTILITIES AND SERVICES. COMPLY WITH REQUIREMENTS OF GOVERNING REGULATIONS, FRANCHISED SERVICE COMPANIES, AND CONTROLLING AGENCIES. COORDINATE CONNECTION OF ELECTRICAL SERVICES.
- E. PROVIDE IDENTIFICATION OF ALL EQUIPMENT. COORDINATE INSTALLATION OF IDENTIFYING DEVICES AFTER COMPLETING COVERING AND PAINTING WHERE DEVICES ARE APPLIED TO SURFACES. INSTALL IDENTIFYING DEVICES PRIOR TO INSTALLING ACoustICAL CEILINGS AND SIMILAR CONCEALMENT.

1.7 PROJECT CLOSE-OUT

- A. CONTRACTOR SHALL FURNISH A WRITTEN GUARANTEE TO REPLACE OR REPAIR ANY DEFECTS IN WORKMANSHIP OR EQUIPMENT, WHICH DEVELOP WITHIN ONE YEAR FROM ACCEPTANCE BY THE OWNER. CONTRACTOR MUST ASSUME RESPONSIBILITY FOR ALL EXPENSES INCURRED TO REPAIR OR REPLACE HIS WORK AS WELL AS WORK OF OTHER TRADES THAT MAY BE AFFECTED BY THIS REPLACEMENT.
- B. CONTRACTOR SHALL MAINTAIN A REDEFINED SET OF CONSTRUCTION DRAWINGS SHOWING DEVIATIONS BETWEEN THE DRAWINGS AND INSTALLED CONDITIONS. THESE SHALL BE TURNED OVER TO THE OWNER AT ACCEPTANCE OF THE WORK.
- C. PROVIDE THREE (3) COMPLETE SETS OF OPERATION AND MAINTENANCE MANUALS. THESE ARE TO INCLUDE ALL EQUIPMENT CUT-SHEETS, MANUFACTURERS RECOMMENDED MAINTENANCE PROCEDURES, MANUFACTURERS WARRANTEE INFORMATION, AND CONTRACTORS WARRANTEE LETTER AND CONTACT INFORMATION.
- D. PROVIDE THREE (3) REVIEWED BALANCE REPORTS OF WATER AND AIR SYSTEMS AS APPLICABLE.
- E. CONTRACTOR SHALL INSTRUCT THE OWNER ON THE OPERATION AND MAINTENANCE OF ALL SYSTEMS PROVIDED UNDER THIS CONTRACT.

PART 2 - PRODUCTS

2.1 GENERAL

- A. DUCT DIMENSIONS SHOWN ON PLANS ARE NET FREE AREA.
- B. ROUND ELBOWS MUST HAVE A CENTERLINE RADIUS OF NO LESS THAN 1.5 TIMES THE DIAMETER OF THE ELBOW. SQUARE ELBOWS SHALL HAVE TURNING VANES.
- C. ALL DUCTWORK EXPOSED TO VIEW SHALL BE ROUND OR OVAL SPIRAL.

2.2 DUCTWORK MATERIALS

- A. COMPLY WITH SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS--METAL AND FLEXIBLE" FOR ACCEPTABLE MATERIALS, MATERIAL THICKNESS, AND DUCT CONSTRUCTION METHODS, UNLESS OTHERWISE INDICATED. SHEET METAL MATERIALS SHALL BE FREE OF PITTING, SEAM MARKS, ROLLER MARKS, STAINS, DISCOLORATIONS, AND OTHER IMPERFECTIONS. UNLESS STATED OTHERWISE, ALL DUCTWORK TO BE 26 GAUGE MINIMUM.
- B. GALVANIZED SHEET STEEL: LOCK-FORMING QUALITY; COMPLYING WITH ASTM A 653/A 653M AND HAVING G90 (Z275) COATING DESIGNATION. USE FULL-LENGTH, 0.034-INCH-THICK, GALVANIZED STEEL BLADE CONNECTORS.
- C. CARBON-STEEL SHEETS: ASTM A 36/A 36M, COLD-ROLLED SHEETS; COMMERCIAL QUALITY; WITH OILED, MATTE FINISH FOR EXPOSED DUCTS.
- D. STAINLESS STEEL: ASTM A 480/A 480M, TYPE 316 OR 304, AND HAVING A NO. 2D FINISH FOR CONCEALED DUCTS AND SUITABLE FINISH FOR EXPOSED DUCTS.

2.3 INSULATION AND LINER

- A. GENERAL.
 - 1. FIRE-HAZARD CLASSIFICATION: MAXIMUM FLAME-SPREAD INDEX OF 25 AND SMOKE-DEVELOPED INDEX OF 50 WHEN TESTED ACCORDING TO ASTM E 84.
 - 2. INSULATION SCHEDULE:
 - a. INSIDE THE BUILDING THERMAL ENVELOPE
 - 1. INSULATE ALL SUPPLY AND RETURN DUCTS TO R-8 INSIDE THE BUILDING THERMAL ENVELOPE
 - b. INSIDE THE BUILDING THERMAL ENVELOPE
 - 1. INSULATE SUPPLY AIR DUCTS TO R-6
 - 2. INSULATE RETURN AIR DUCTS LOCATED IN UNCONDITIONED SPACES TO R-6
 - 3. INSULATE OUTSIDE AIR DUCTS TO R-8 WITH CLOSED CELL INSULATION TO PREVENT CONDENSATION.
 - c. INSIDE THE BUILDING THERMAL ENVELOPE AND EXPOSED WITHIN THE SPACE DUCTWORK IS SERVING
 - 1. SUPPLY AND RETURN DUCTS INSULATION NOT REQUIRED.
- B. DUCT INSULATION: MINERAL OR GLASS FIBERS BONDED WITH A THERMOSETTING RESIN. COMPLY WITH ASTM C 563, TYPE II AND ASTM C 1290, TYPE III WITH FACTORY-APPLIED FSK JACKET.
- C. FIBROUS-GLASS LINER: COMPLY WITH NFPA 90A OR NFPA 90B AND WITH NAIMA AH124.
 - 1. MATERIALS: ASTM C 1071; SURFACES EXPOSED TO AIRSTREAM SHALL BE COATED TO PREVENT EROSION OF GLASS FIBERS.
 - a. THICKNESS: 1"
 - b. LINER ADHESIVE: COMPLY WITH NFPA 90A OR NFPA 90B AND WITH ASTM C 916.
 - c. MECHANICAL FASTENERS: GALVANIZED STEEL SUITABLE FOR ADHESIVE ATTACHMENT, MECHANICAL ATTACHMENT, OR WELDING ATTACHMENT TO DUCT WITHOUT DAMAGING LINER WHEN APPLIED AS RECOMMENDED BY MANUFACTURER AND WITHOUT CAUSING LEAKAGE IN DUCT.
- D. FIRE-RATED INSULATION SYSTEMS: HIGH-TEMPERATURE, FLEXIBLE, BLANKET INSULATION WITH FSK JACKET THAT IS UL TESTED AND CERTIFIED TO PROVIDE REQUIRED FIRE RATING.
- E. REFRIGERANT PIPING INSULATION: SUCTION PIPING - FLEXIBLE ELASTOMERIC, 1" THICK.

2.4 DUCT ACCESSORIES

- A. STANDARD VOLUME DAMPERS: SINGLE OR OPPOSED-BLADE DESIGN, STANDARD LEAKAGE RATING, AND SUITABLE FOR HORIZONTAL OR VERTICAL APPLICATIONS. SHAFTS TO BE FULL LENGTH, GALVANIZED STEEL, WITH ZINC-PLATED, DIE-CAST CORE WITH DIAL AND HANDLE MADE OF 3/32-INCH-THICK ZINC-PLATED STEEL, AND A 3/4-INCH HEXAGON LOCKING NUT. INCLUDE CENTER HOLE TO SUIT DAMPER OPERATING-ROD SIZE. INCLUDE ELEVATED PLATFORM FOR INSULATED DUCT MOUNTING.
- B. FIRE DAMPERS: CURTAIN TYPE: FIRE DAMPERS SHALL BE LABELED ACCORDING TO UL 555.
 - 1. FRAME: FABRICATED WITH ROLL-FORMED, 0.034-INCH-THICK GALVANIZED STEEL; WITH MITERED AND INTERLOCKING CORNERS.
 - 2. BLADES: ROLL-FORMED, INTERLOCKING, 0.034-INCH-THICK, GALVANIZED SHEET STEEL. IN PLACE OF INTERLOCKING BLADES, USE FULL-LENGTH, 0.034-INCH-THICK, GALVANIZED-STEEL BLADE CONNECTORS.
 - 3. FUSIBLE LINK: REPLACEMENTABLE, 165 DEGREE F RATED.
- C. CEILING FIRE DAMPERS: LABELED ACCORDING TO UL 555G. COMPLY WITH CONSTRUCTION DETAILS FOR TESTED FLOOR- AND ROOF-CEILING ASSEMBLIES AS INDICATED IN UL'S "FIRE RESISTANCE DIRECTORY".
 - 1. FRAME: GALVANIZED SHEET STEEL, ROUND OR RECTANGULAR, STYLE TO SUIT CEILING CONSTRUCTION.
 - 2. BLADES: GALVANIZED SHEET STEEL WITH REFRACTOR Y INSULATION.
 - 3. FUSIBLE LINK: REPLACEMENTABLE, 165 DEGREE F RATED.
- D. Labeled according to UL 555 FOR 1-1/2-HOUR RATING.
 - 1. FRAME AND BLADES: 0.064-INCH THICK, GALVANIZED SHEET STEEL.
 - 2. MOUNTING SLEEVE: FACTORY-INSTALLED, 0.052-INCH THICK, GALVANIZED SHEET STEEL; LENGTH TO SUIT WALL OR FLOOR APPLICATION.
 - 3. FUSIBLE LINK: REPLACEMENTABLE, 165 DEGREE F RATED.
 - 4. DAMPER MOTORS: MODULATING AND TWO-POSITION ACTION. EQUIP WITH AN INTEGRAL SPIRAL-SPRING MECHANISM WHERE INDICATED. ENCLOSE ENTIRE SPRING MECHANISM IN A REMOVABLE HOUSING DESIGNED FOR SERVICE OR ADJUSTMENTS.
 - 5. ELECTRICAL CONNECTION: 115 V, SINGLE PHASE, 60 HZ.
 - 6. SMOKE DETECTOR: INTEGRAL, FACTORY WIRED FOR SINGLE-POINT CONNECTION. COORDINATE WITH ELECTRICAL CONTRACTOR AND FIRE ALARM CONTRACTOR.
- E. FLEXIBLE CONNECTORS: FLAME-RETARDANT OR NONCOMBUSTIBLE FABRICS, COATINGS, AND ADHESIVES COMPLYING WITH UL 181, CLASS 1. PROVIDE HEAVY METAL EDGE BANDS, SEALED TO PREVENT LEAKAGE.
 - 1. INDOOR SYSTEM, FLEXIBLE CONNECTOR FABRIC: GLASS FABRIC DOUBLE COATED WITH NEOPRENE.
 - 2. OUTDOOR SYSTEM, FLEXIBLE CONNECTOR FABRIC: GLASS FABRIC DOUBLE COATED WITH WEATHERPROOF, SYNTHETIC RUBBER RESISTANT TO UV RAYS AND OZONE.
- F. FLEXIBLE DUCTS: UL 181, CLASS 1, UL, CLASS 1, BLACK POLYMER FILM SUPPORTED BY HELICALLY WOUND, SPRING-STEEL WIRE; 1-1/2" FIBROUS-GLASS INSULATION; POLYETHYLENE VAPOR BARRIER FILM. FLEX DUCT SHALL BE EQUAL TO CERTAINTED "CERTAFLEX" G25.

2.5 ACCESS DOORS AND PANELS

- A. DUCT MOUNTED ACCESS DOORS: DOUBLE WALL, DUCT MOUNTING, AND RECTANGULAR; FABRICATED OF GALVANIZED SHEET METAL WITH INSULATION FILL AND THICKNESS AS INDICATED FOR DUCT PRESSURE CLASS.
 - 1. FRAME: GALVANIZED SHEET STEEL, WITH BEND-OVER TABS AND FOAM GASKETS.
 - 2. PROVIDE NUMBER OF HINGES AND LOOKS AS FOLLOWS:
 - a. LESS THAN 12 INCHES SQUARE: SECURE WITH TWO SASH LOCKS.
 - b. UP TO 18 INCHES SQUARE: TWO HINGES AND TWO SASH LOCKS.
 - c. UP TO 24 BY 48 INCHES: THREE HINGES AND TWO COMPRESSION LATCHES.
- B. EQUIPMENT CURBS AND SUPPORT
- C. ROOF MOUNTED EQUIPMENT: PROVIDE FACTORY CURB TO MATCH EQUIPMENT PROVIDED. CURB TO MATCH ROOF SLOPE, TYPE, AND INSULATION DEPTHS FOR PROPER EQUIPMENT MOUNTING (ACCOUNT FOR APPLICABLE ACCESSORIES SUCH AS ECONOMIZERS AND ERVS).
- D. GROUND/FLOOR MOUNTED EQUIPMENT: PROVIDE CONCRETE HOUSE-KEEPING PAD AT LEAST 4" THICK AND AT LEAST 6" LARGER THAN THE EQUIPMENT BEING SUPPORTED.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. VERIFY FINAL LOCATIONS FOR ROUGH-INS WITH FIELD MEASUREMENTS AND WITH THE REQUIREMENTS OF THE ACTUAL EQUIPMENT TO BE CONNECTED.
- B. LOCATIONS OF EQUIPMENT AND DEVICES, AS SHOWN ON THE DRAWINGS, ARE APPROXIMATE UNLESS DIMENSIONED; DO NOT SCALE DRAWINGS. EXACT LOCATIONS OF SUCH ITEMS SHALL BE DETERMINED BY THE ARCHITECT'S REPRESENTATIVE AND/OR DETERMINED FROM SPECIAL DETAILS AND DRAWINGS. VERIFY THE PHYSICAL DIMENSIONS OF EACH ITEM OF MECHANICAL EQUIPMENT TO FIT THE AVAILABLE SPACE AND PROMPTLY NOTIFY THE ARCHITECT PRIOR TO ROUGHING-IN IF CONFLICTS APPEAR. COORDINATION OF DIVISION 15 EQUIPMENT AND SYSTEMS TO THE AVAILABLE WIRING, EQUIPMENT, DUCTWORK, PIPING, ETC. SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE INSTALLATION SHALL BE CONCEALED WITHIN BUILDING CONSTRUCTION, OR EXPOSED IN MECHANICAL ROOMS, UNLESS OTHERWISE NOTED.

3.2 GENERAL INSTALLATION

- A. PROVIDE ALL VALVES, DAMPERS AND CONTROL DEVICES REQUIRED TO COMPLETE BALANCING OF SYSTEMS AS DESCRIBED IN THESE DOCUMENTS OR AS NORMALLY ASSOCIATED WITH THE SYSTEMS TO BE INSTALLED WHETHER SPECIFICALLY CALLED FOR ON THE DRAWINGS, DETAILS OR SPECIFICATIONS OR NOT. IT SHALL BE UNDERSTOOD UNLESS SPECIFICALLY STATED OTHERWISE, THAT ALL SYSTEMS INSTALLED SHALL COMPLY WITH INDUSTRY RECOGNIZED STANDARDS AND FEATURES.
- B. COORDINATE MECHANICAL SYSTEMS, EQUIPMENT, AND MATERIALS INSTALLATION WITH OTHER BUILDING COMPONENTS. SEQUENCE, COORDINATE, AND INTEGRATE INSTALLATIONS OF MECHANICAL MATERIALS AND EQUIPMENT FOR EFFICIENT FLOW OF THE WORK. GIVE PARTICULAR ATTENTION TO LARGE EQUIPMENT REQUIRING POSITIONING PRIOR TO CLOSING IN THE BUILDING. GIVE RIGHT-OF-WAY PRIORITY TO SYSTEMS REQUIRED TO BE INSTALLED AT A SPECIFIED SLOPE.
- C. WHERE MOUNTING HEIGHTS ARE NOT DETAILED OR DIMENSIONED, INSTALL SYSTEMS, MATERIALS, AND EQUIPMENT TO PROVIDE THE MAXIMUM HEADROOM POSSIBLE.
- D. INSTALL SYSTEMS, MATERIALS, AND EQUIPMENT LEVEL AND PLUMB, PARALLEL AND PERPENDICULAR TO OTHER BUILDING SYSTEMS AND COMPONENTS, WHERE INSTALLED EXPOSED IN FINISHED SPACES.
- E. INSTALL MECHANICAL EQUIPMENT TO FACILITATE SERVICING, MAINTENANCE, AND REPAIR OR REPLACEMENT OF EQUIPMENT COMPONENTS. AS MUCH AS PRACTICAL, CONNECT EQUIPMENT FOR EASE OF DISCONNECTING, WITH MINIMUM OF INTERFERENCE WITH OTHER INSTALLATIONS. EXTEND GREASE FITTINGS TO AN ACCESSIBLE LOCATION.
- F. DRAWINGS ARE NOT DETAILED TO THE EXTENT THAT ALL DUCTWORK AND PIPING OFFSETS, BENDS, AND SPECIAL FITTINGS ARE SHOWN AND EXACT LOCATION INDICATED; HOWEVER, THEY ARE TO BE PROVIDED WHETHER SHOWN OR NOT. REFER TO SCHEDULES FOR ACCESSORIES.
- G. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY PROTECTING ANY PENETRATION OF A FIRE RATED ASSEMBLY. FIRE SEAL, CAULKING, AND APPURTENANCES SHALL BE UL LISTED FOR THE ASSEMBLY RATING IT IS APPLIED TO AND SHALL BE INSTALLED PER THE MANUFACTURERS WRITTEN INSTRUCTIONS. ALL SUCH MATERIALS SHALL MEET STATE, LOCAL, AND AUTHORITIES CODES AND STANDARDS.
- H. PENETRATIONS ARE PROHIBITED IN ANY STRUCTURAL MEMBERS (EXCEPT WHERE NOTED IN DRAWINGS) WITHOUT THE WRITTEN CONSENT OF THE ARCHITECT. OBTAIN APPROVAL FOR OTHER FRAMED OPENINGS WHICH MAY BE REQUIRED IN ADDITION TO THOSE SHOWN ON DRAWINGS. PAY ALL COSTS FOR ADDITIONAL CUTTING OF HOLES AS THE RESULT OF INCORRECT LOCATION OF SLEEVES OR FURNISHING INCORRECT INFORMATION AS TO THE REQUIREMENTS OF FRAMED OPENINGS.
- I. FIRE-RATED ASSEMBLY PENETRATIONS.
 - 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY PROTECTING ANY PENETRATION OF A FIRE RATED ASSEMBLY. FIRE SEAL, CAULKING, AND APPURTENANCES SHALL BE UL LISTED FOR THE ASSEMBLY RATING IT IS APPLIED TO AND SHALL BE INSTALLED PER THE MANUFACTURERS WRITTEN INSTRUCTIONS. ALL SUCH MATERIALS SHALL MEET STATE, LOCAL, AND AUTHORITIES CODES AND STANDARDS.
 - 2. REFER TO ARCHITECTURAL DRAWINGS FOR ALL FIRE RATED ASSEMBLY LOCATIONS AND RATINGS.
- J. SEISMIC RESTRAINT:
 - 1. THE CONTRACTOR SHALL PROVIDE PROPER MECHANICAL SEISMIC RESTRAINTS FOR ALL INSTALLED ITEMS INCLUDING, BUT NOT LIMITED TO, DUCTS, PIPING, EQUIPMENT AND ACCESSORIES. THE CONTRACTOR SHALL PROVIDE SEISMIC RESTRAINTS AS LISTED BY THE CODES USED BY THE A/HJ OR AS SHOWN ON THE DRAWINGS (WHICHEVER IS MORE STRINGENT).

3.3 DUCT INSTALLATION

- A. CONSTRUCT AND INSTALL DUCTS ACCORDING TO SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS--METAL AND FLEXIBLE."
- B. INSTALL DUCTS WITH FEWEST POSSIBLE JOINTS. INSTALL FABRICATED FITTINGS FOR CHANGES IN DIRECTIONS, SIZE, AND SHAPE AND FOR CONNECTIONS.
- C. COORDINATE LAYOUT WITH SUSPENDED CEILING, FIRE- AND SMOKE-CONTROL DAMPERS, LIGHTING LAYOUTS, AND SIMILAR FINISHED WORK.
- D. SEAL ALL JOINTS WITH UNITED DUCT SEALANT. APPLY SEALANT TO MALE END CONNECTORS BEFORE INSERTION, AND AFTERWARD TO COVER ENTIRE JOINT AND SHEET METAL SCREWS.
- E. NON-FIRE-RATED PARTITION PENETRATIONS: WHERE DUCTS PASS THROUGH INTERIOR PARTITIONS AND EXTERIOR WALLS AND ARE EXPOSED TO VIEW, CONCEAL SPACES BETWEEN CONSTRUCTION OPENINGS AND DUCTS OR DUCT INSULATION WITH SHEET METAL FLANGES OF SAME METAL THICKNESS AS DUCTS, OVERLAP OPENINGS ON 4 SIDES BY AT LEAST 1-1/2 INCHES.
- F. FIRE-RATED PARTITION PENETRATIONS: WHERE DUCTS PASS THROUGH INTERIOR PARTITIONS AND EXTERIOR WALLS, INSTALL APPROPRIATELY RATED FIRE DAMPERS, SLEEVES, AND FIRESTOPPING SEALANT.
- G. PAINT INTERIORS OF METAL DUCTS, THAT DO NOT HAVE DUCT LINER, FOR 24 INCHES UPSTREAM OF REGISTERS AND GRILLES. APPLY ONE COAT OF FLAT, BLACK, LATEX FINISH COAT OVER A COMPATIBLE GALVANIZED-STEEL PRIMER.
- H. PROVIDE BALANCING DAMPERS AT POINTS ON SUPPLY, RETURN, AND EXHAUST SYSTEMS WHERE BRANCHES LEAD FROM LARGER DUCTS AS REQUIRED FOR AIR BALANCING. INSTALL AT A MINIMUM OF TWO DUCT WIDTHS FROM BRANCH TAKEOFF.
- I. INSTALL FLEXIBLE CONNECTORS IMMEDIATELY ADJACENT TO EQUIPMENT IN DUCTS ASSOCIATED WITH FANS AND MOTORIZED EQUIPMENT SUPPORTED BY VIBRATION ISOLATORS.
- J. CONNECT DIFFUSERS TO LOW PRESSURE DUCTS WITH MAXIMUM 72-INCH LENGTHS OF FLEXIBLE DUCT CLAMPED OR STRAPPED IN PLACE. CONNECT FLEXIBLE DUCTS TO METAL DUCTS WITH DRAW BANDS.
- K. INSTALL BACKDRAFT DAMPERS ON EXHAUST FANS OR EXHAUST DUCTS NEAREST TO OUTSIDE AND WHERE INDICATED.
- L. TYPE I HOOD EXHAUST DUCTS: COMPLY WITH NFPA 96.
 - 1. CONCEALED: CARBON-STEEL SHEET.
 - 2. EXPOSED: TYPE 304, STAINLESS STEEL WITH FINISH TO MATCH KITCHEN EQUIPMENT AND RANGE HOOD.
 - 3. WELD SEAMS AND JOINTS.
 - 4. PROVIDE RATED ACCESS DOORS FOR DUCT CLEANING AS REQUIRED BY CODE.
 - 5. INSTALL DUCTS TO ALLOW FOR THERMAL EXPANSION THROUGH 2000 DEG F (1110 DEG C) TEMPERATURE RANGE.
- M. DISHWASHER HOOD EXHAUST DUCTS:
 - 1. TYPE 304, STAINLESS STEEL WITH FINISH TO MATCH KITCHEN EQUIPMENT AND RANGE HOOD.
 - 2. WELD SEAMS AND JOINTS.

3.4 HANGING AND SUPPORTING

- A. SUPPORT HORIZONTAL DUCTS WITHIN 24 INCHES OF EACH ELBOW AND WITHIN 48 INCHES OF EACH BRANCH INTERSECTION.
- B. SUPPORT VERTICAL DUCTS AT MAXIMUM INTERVALS OF 16 FEET AND AT EACH FLOOR.
- C. SUPPORT ALL DUCTWORK, PIPING, AND EQUIPMENT AS REQUIRED BY THE LOCAL CODES, MANUFACTURERS RECOMMENDATIONS, AND STANDARD INDUSTRY PRACTICE.
- D. USE MATERIALS COMPATIBLE WITH ITEMS BEING SUPPORTED TO AVOID ELECTROLYTIC ACTION, AND CONFORM TO SMACNA, ANSI/ASME B31, NFPA, MSS SP-58, 69, 89.

3.5 ACCESS DOORS AND PANELS

- A. DUCT ACCESS DOORS: INSTALL DUCT ACCESS DOORS TO ALLOW FOR INSPECTING, ADJUSTING, AND MAINTAINING ACCESSORIES AND TERMINAL UNITS AS FOLLOWS:
 - 1. ADJACENT TO FIRE OR SMOKE DAMPERS, PROVIDING ACCESS TO RESET OR REINSTALL FUSIBLE LINKS.
- B. ARCHITECTURAL ACCESS DOORS OR PANELS: COORDINATE REQUIREMENTS FOR ACCESS PANELS AND DOORS WHERE MECHANICAL ITEMS REQUIRING ACCESS ARE CONCEALED BEHIND FINISHED SURFACES. THIS CONTRACTOR SHALL PROVIDE ACCESS PANELS OR DOORS OF SUFFICIENT SIZE TO ALLOW ACCESS TO HIS WORK THAT REQUIRES ACCESS FOR MAINTENANCE OR INSPECTION.

3.6 TESTING AND BALANCING

- A. PERFORM TESTING AND BALANCING PROCEDURES ON EACH SYSTEM ACCORDING TO THE PROCEDURES CONTAINED IN NEBB'S "PROCEDURAL STANDARDS FOR TESTING, ADJUSTING, AND BALANCING OF ENVIRONMENTAL SYSTEMS" OR SMACNA'S "HVAC SYSTEMS - TESTING, ADJUSTING, AND BALANCING".
- B. PREPARE TEST REPORTS FOR BOTH FANS AND OUTLETS. OBTAIN MANUFACTURER'S OUTLET FACTORS AND RECOMMENDED TESTING PROCEDURES. CROSSCHECK THE SUMMATION OF REQUIRED OUTLET VOLUMES WITH REQUIRED FAN VOLUMES.
- C. ADJUST TERMINAL OUTLETS AND INLETS FOR EACH SPACE TO INDICATED AIRFLOWS WITHIN SPECIFIED TOLERANCES OF INDICATED VALUES. MAKE ADJUSTMENTS USING VOLUME DAMPERS RATHER THAN EXTRACTORS AND THE DAMPERS AT AIR TERMINALS.
- D. PREPARE TEST REPORTS WITH PERTINENT DESIGN DATA AND NUMBER IN SEQUENCE STARTING AT PUMP TO END OF SYSTEM. CHECK THE SUM OF BRANCH-CIRCUIT FLOWS AGAINST APPROVED PUMP FLOW RATE. CORRECT VARIATIONS THAT EXCEED PLUS OR MINUS 5 PERCENT.

3.7 CONTROLS AND ELECTRICAL COMPONENTS

- A. WHERE REQUIRED, CONTRACTOR SHALL FURNISH A COMBINATION STARTER SIZED IN ACCORDANCE WITH THE MOTOR RATING. STARTER SHALL BE SUPPLIED WITH FUSES OR CIRCUIT BREAKERS, CONTROL TRANSFORMER, OVERLOADS, ONE N.O. AND ONE N.C. AUXILIARY CONTACTS, AND AN HOA SWITCH IN THE CABINET COVER. STARTER ENCLOSURE SHALL BE NEMA RATED FOR ITS LOCATION. STARTER SHALL BE WIRED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
- B. CONTRACTOR SHALL PROVIDE A COMPLETE CONTROL SYSTEM TO OPERATE THE EQUIPMENT AS DESCRIBED IN THESE DOCUMENTS. SYSTEM SHALL INCLUDE THERMOSTATS, LOW VOLTAGE WIRING, REQUIRED CONDUIT, TRANSFORMERS, AND ASSOCIATED APPURTENANCES REQUIRED TO MEET THE INTENT OF THESE DOCUMENTS.
- C. CONTRACTOR SHALL PROVIDE AND INSTALL UL LISTED DUCT SMOKE DETECTORS AS SHOWN ON THE DRAWINGS. DETECTORS SHALL HAVE AUXILIARY CONTACTS FOR CONNECTION TO THE FIRE ALARM SYSTEM IF REQUIRED. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR LOW VOLTAGE WIRING TO SHUT DOWN HIS EQUIPMENT BASED ON THE STATUS OF THIS DEVICE. POWER WIRING AND WIRING TO FIRE ALARM SYSTEM TO BE BY OTHERS.

BASE BID / ALTERNATE NOTES

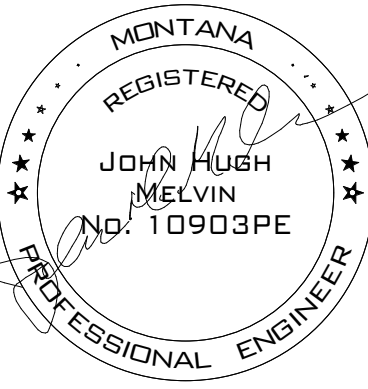
- **BASE BID MECHANICAL SCOPE:** EXISTING AIR SIDE SYSTEM TO REMAIN AS IS (REFERENCE M2.0- DUCTWORK AND GRILLES INDICATED AS 'DEMO' TO REMAIN). PROVIDE NEW ELECTRIC HEATERS 'E-1' IN SECURITY AND 'E-2' IN ENTRY CEILING (REFERENCE M2.1). COORDINATE FINAL LOCATIONS TO AVOID EXISTING LIGHTING, SIGNAGE, AND FIRE SPRINKLERS (BASE BID INTENTION IS MINIMAL DISRUPTION TO SYSTEMS).
- **ALTERNATE MECHANICAL SCOPE:** REMOVE GRILLES AND DUCTWORK, PER M2.0. PROVIDE 'E-1' HEATER IN SECURITY. PROVIDE NEW VAV BOX, HYDRONIC PIPING, CONTROLS, DUCTWORK AND GRILLES PER M2.1.

ALL MECHANICAL, DUCTWORK AND HYDRONIC PIPING IS AN **ALTERNATE!**
REFERENCE BASE BID / ALTERNATE NOTES ABOVE.

GENERAL MECHANICAL NOTES

(TYPICAL FOR ALL MECHANICAL SHEETS)

- A. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL UTILITIES, PIPING, UNDERGROUND WIRING, TELEPHONE, TV AND/OR SATELLITE DISH CABLES, ETC. BEFORE WORK BEGINS.
- B. EQUIPMENT, MECHANICAL PIPING AND DUCTWORK INDICATED IS PARTIALLY DIAGRAMMATIC. CONTRACTOR SHALL DETERMINE IN FIELD EXACT LOCATION OF ALL DUCTWORK, PIPING AND EQUIPMENT. CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES PRIOR TO INSTALLATION OF HISHER EQUIPMENT.
- C. UPON COMPLETION OF WORK THE CONTRACTOR SHALL CLEAN ALL DEBRIS FROM THE WORK AREA AND OTHER AREAS USED BY THE CONTRACTOR, AND LEAVE PREMISES IN A NEAT AND CLEAN CONDITION. CLEAN, PATCH AND REPAIR ALL WALLS, FLOORS, CEILINGS, AND OTHER SURFACES DAMAGED OR MARKED DURING CONSTRUCTION.
- D. ALL WORK SHALL COMPLY WITH THE MOST STRINGENT OF APPLICABLE CODES, ORDINANCES, AND REQUIREMENTS BY THE OWNER AND MANUFACTURER.
- E. COORDINATE DIFFUSER/GRILLE LOCATIONS WITH ARCHITECT.
- F. INSULATE ALL PIPING & DUCTWORK COMPLETE IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND APPLICABLE ENERGY CODE. INSULATION WORK SHALL BE PERFORMED BY A COMPANY WHO'S PRIMARY FUNCTION IS MECHANICAL INSULATION INSTALLATION, AND SHALL HAVE A MINIMUM OF THREE YEARS DOCUMENTED EXPERIENCE.
- G. CONTRACTOR SHALL THOROUGHLY CLEAN ALL DUCTWORK AND EQUIPMENT COMPLETE AND INSTALL NEW FILTERS PRIOR TO AIR BALANCE. ALL DUCTWORK OPENINGS INCLUDING GRILLES AND DIFFUSERS SHALL BE SEALED AIR TIGHT UNTIL CONSTRUCTION IS 100% COMPLETE AND FINAL CLEANING HAS BEEN COMPLETED.
- H. INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS.
- I. COORDINATE ALL MECHANICAL PIPING & DUCTWORK PENETRATIONS WITH STRUCTURAL PLANS AND SCHEDULES. CRITICAL INSTALLATION AREAS ARE INDICATED WITH DIMENSIONS.
- J. INSTALL FLEXIBLE DUCT CONNECTIONS AT ALL UNIT CONNECTIONS. ALL SUSPENDED EQUIPMENT SHALL BE ISOLATED FROM THE STRUCTURE WITH SPRING VIBRATION ISOLATORS AND KELLET PADS.
- K. INSTALL ALL SLAB MOUNTED EQUIPMENT EXCEPT FOR TANKS ON KELLET ISOLATOR PADS - NO EXCEPTIONS.
- L. INSULATE ALL HYDRONIC PIPING COMPLETE.
- M. FOR HYDRONIC/HVAC PIPING SYSTEMS, BRASS VALVES SHALL BE USED EXCLUSIVELY IN ALL AREAS OUTSIDE OF MECHANICAL ROOMS. THIS VALVE REQUIREMENT SHALL SUPERSEDE DIVISION 22 AND 23 SPECIFICATIONS.



CONSTRUCTION DOCUMENTS

MECHANICAL SPECIFICATIONS SHEET

sheet

MISSOULA COUNTY COURTHOUSE ANNEX
NORTH ENTRY REMODEL

project

owner

project # 24169.10

revision date

phase
CONSTRUCTION
DOCUMENTS



Exhibit A

- BASE BID / ALTERNATE NOTES
- **BASE BID MECHANICAL SCOPE** - EXISTING AIR SIDE SYSTEM TO REMAIN AS IS (REFERENCE M2.0 - DUCTWORK AND GRILLES INDICATED AS 'DEMO' TO REMAIN). PROVIDE NEW ELECTRIC HEATERS 'E-1' IN SECURITY AND 'E-2' IN ENTRY CEILING (REFERENCE M2.1). COORDINATE FINAL LOCATIONS TO AVOID EXISTING LIGHTING, SIGNAGE, AND FIRE SPRINKLERS (BASE BID INTENTION IS MINIMAL DISRUPTION TO SYSTEMS).
 - **ALTERNATE MECHANICAL SCOPE** - REMOVE GRILLES AND DUCTWORK, PER M2.0. PROVIDE 'E-1' HEATER IN SECURITY. PROVIDE NEW VAV BOX, HYDRONIC PIPING, CONTROLS, DUCTWORK AND GRILLES PER M2.1.

ALL MECHANICAL, DUCTWORK AND HYDRONIC PIPING IS AN **ALTERNATE!**
REFERENCE BASE BID / ALTERNATE NOTES ABOVE.

- SPECIFIC SHEET NOTES
1. DEMOLISH RED DASHED DUCT, EQUIPMENT, OR DIFFUSER IN ITS ENTIRETY.
 2. EXISTING TO REMAIN.
 3. DEMOLISH DUCT BACK TO THIS POINT. CAP EXISTING SECTION OF DUCT.
 4. RETAIN EXISTING FIRE SPRINKLER HEADS AND RE-LOCATE AS NECESSARY WITH NEW LAYOUT.
 5. REMOVE FIRE SPRINKLERS IN EXISTING VESTIBULE. REMOVE PIPING BACK TO TEE AND CAP WATER TIGHT.
 6. RETAIN EXISTING FIRE ALARM. RE-LOCATE TO NEW VESTIBULE LAYOUT. REFER TO M2.1 FOR NEW LOCATION.
 7. RETAIN EXISTING THERMOSTAT. RE-LOCATE TO NEW VESTIBULE LAYOUT. REFER TO M2.1 FOR NEW LOCATION.

- GENERAL DEMOLITION NOTES
- A. SPECIFIC NOTES AND HEAVY DASHED LINES INDICATE ITEMS TO BE REMOVED.
 - B. WHEN DUCTWORK, HYDRONIC PIPING, PLUMBING, EQUIPMENT, ETC. IS REMOVED, DEMOLITION SHALL ALSO INCLUDE COMPLETE REMOVAL OF ALL RELATED HANGERS, SUPPORTS, STRAPS, CONTROLS, AND CONTROL WIRING OR TUBING. EXCEPTIONS ARE ITEMS THAT WILL BE REUSED OR OTHERWISE NOTED.
 - C. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL UTILITIES, PIPING SYSTEMS, POWER SYSTEMS, COMMUNICATION SYSTEMS, ETC. REGARDLESS OF ABOVE OR BELOW GRADE THAT MAY BE AFFECTED BEFORE WORK BEGINS.
 - D. ALL PATCHING, REPAIRING, PAINTING OF WALLS DUE TO UNIT OR ITEM DEMOLITION ONLY WILL BE PROVIDED BY THE GENERAL CONTRACTOR.
 - E. ANY DAMAGE TO EXISTING UTILITIES, FACILITIES, LANDSCAPING, ETC. SHALL BE REPAIRED OR REPLACED (OWNER'S CHOICE) AT THE CONTRACTOR'S EXPENSE.
 - F. PIPING AND DUCTWORK INDICATED IS PARTIALLY DIAGRAMMATIC. CONTRACTOR SHALL DETERMINE IN FIELD EXACT LOCATION OF ALL DUCTWORK, PIPING AND EQUIPMENT. CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES PRIOR TO INSTALLATION OF EQUIPMENT.
 - G. UPON COMPLETION OF WORK THE CONTRACTOR SHALL CLEAN ALL DEBRIS FROM THE WORK AREA AND OTHER AREAS USED BY THE CONTRACTOR, AND LEAVE PREMISES IN A NEAT AND CLEAN CONDITION. CLEAN, PATCH AND REPAIR ALL WALLS, FLOORS, CEILINGS, AND OTHER SURFACES DAMAGED OR MARKED DURING CONSTRUCTION.
 - H. ALL WORK SHALL COMPLY WITH THE MOST STRINGENT OF APPLICABLE CODES, ORDINANCES, AND REQUIREMENTS BY THE ENGINEER.



CONSTRUCTION DOCUMENTS

FIRST FLOOR MECHANICAL DEMO PLANS - NORTH ENTRY

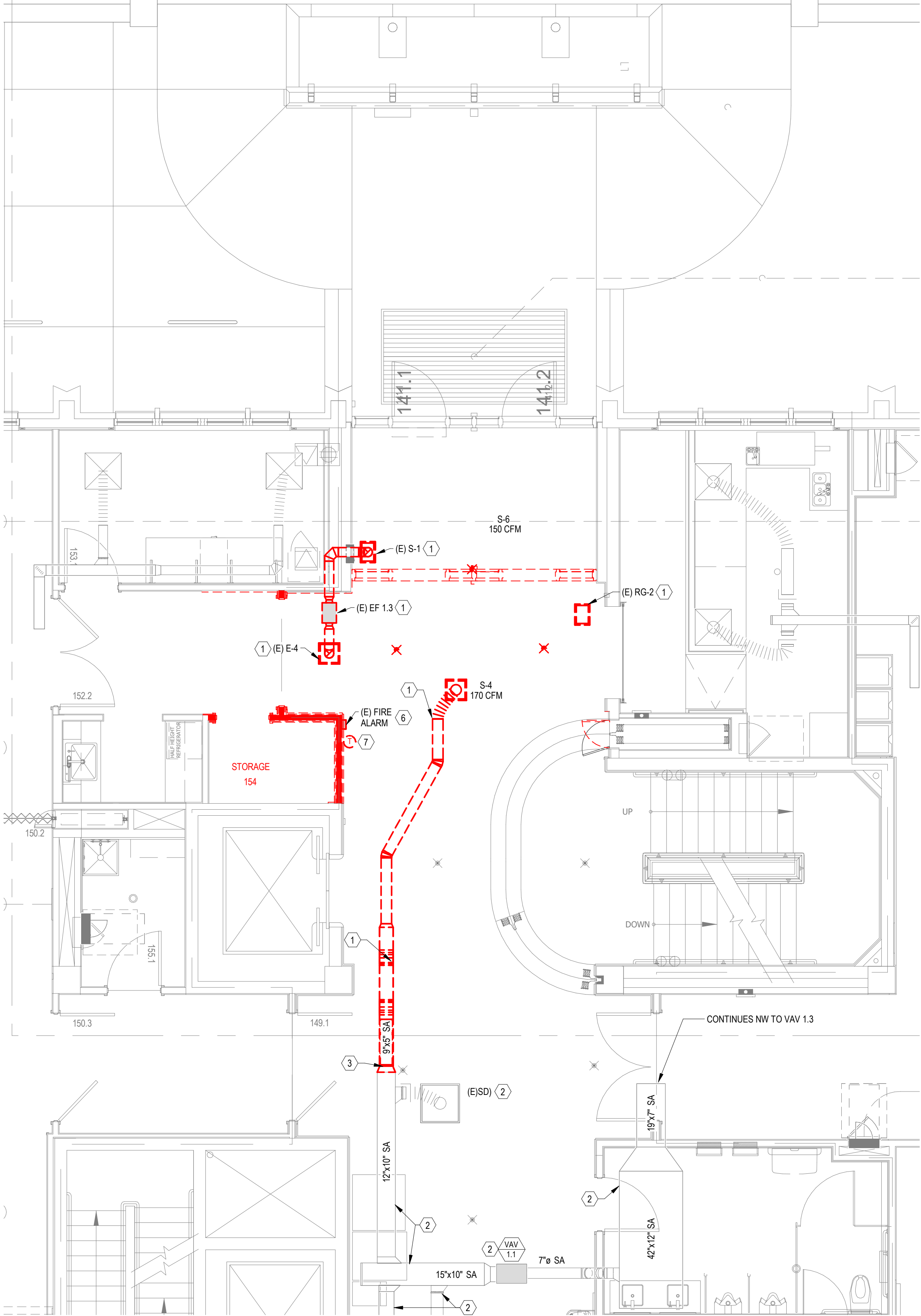
MISSOULA COUNTY COURTHOUSE ANNEX
NORTH ENTRY REMODEL

project owner

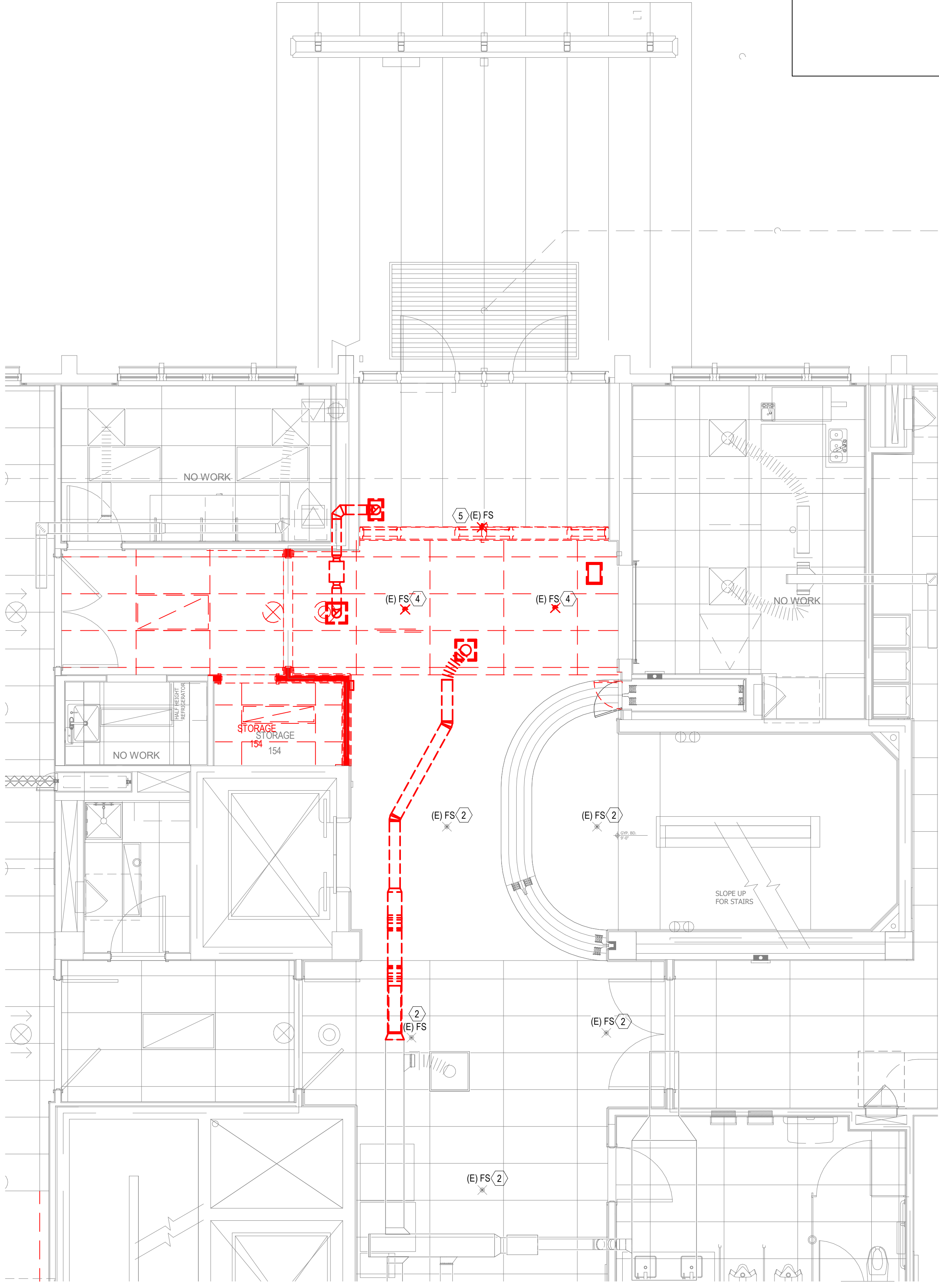
project # 24169.10

revision date

phase
CONSTRUCTION
DOCUMENTS



9 FIRST FLOOR DEMOLITION MECHANICAL PLAN - NORTH ENTRY
SCALE: 1/4" = 1'-0"



11 FIRST FLOOR DEMOLITION REFLECTED CEILING PLAN - NORTH ENTRY
SCALE: 1/4" = 1'-0"

Exhibit A

BASE BID / ALTERNATE NOTES

- BASE BID MECHANICAL SCOPE** - EXISTING AIR SIDE SYSTEM TO REMAIN AS IS (REFERENCE M2.0 - DUCTWORK AND GRILLES INDICATED AS 'DEMO' TO REMAIN). PROVIDE NEW ELECTRIC HEATERS 'E-1' IN SECURITY AND 'E-2' IN ENTRY CEILING (REFERENCE M2.1). COORDINATE FINAL LOCATIONS TO AVOID EXISTING LIGHTING, SIGNAGE, AND FIRE SPRINKLERS (BASE BID INTENTION IS MINIMAL DISRUPTION TO SYSTEMS).
- ALTERNATE MECHANICAL SCOPE** - REMOVE GRILLES AND DUCTWORK, PER M2.0. PROVIDE 'E-1' HEATER IN SECURITY. PROVIDE NEW VAV BOX, HYDRONIC PIPING, CONTROLS, DUCTWORK AND GRILLES PER M2.1.

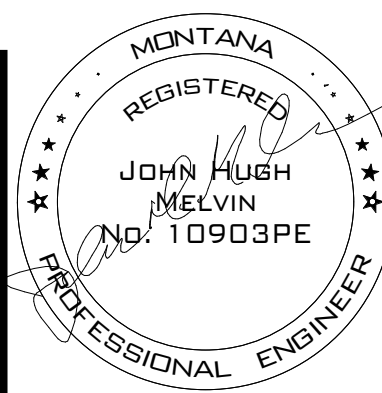
ALL MECHANICAL, DUCTWORK AND HYDRONIC PIPING IS AN **ALTERNATE**.
REFERENCE BASE BID / ALTERNATE NOTES ABOVE.

SPECIFIC SHEET NOTES

- CONNECTION POINT OF NEW 9" ROUND DUCT INTO EXISTING 42"x12" SUPPLY DUCT.
- CAP EXISTING DUCT AT THIS LOCATION.
- EXISTING TO REMAIN.
- RETAIN EXISTING FIRE SPRINKLER HEADS AND RE-LOCATE AS NECESSARY WITH NEW LAYOUT.
- CONNECT NEW 3/4" HYDRONIC SUPPLY AND RETURN PIPING TO EXISTING MAIN LINES. INSTALL SHUT-OFF VALVES AT CONNECTION.
- PROVIDE ACCESS PANEL IN CEILING FOR EQUIPMENT ACCESS.
- INSTALL RETURN DIFFUSERS WITH TRANSFER DUCT TERMINATED ABOVE LAY-IN CEILING.
- RELOCATE EXISTING FIRE ALARM TO THIS LOCATION.
- RELOCATE EXISTING THERMOSTAT TO THIS LOCATION.

GENERAL MECHANICAL NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL UTILITIES, PIPING, UNDERGROUND WIRING, TELEPHONE, TV AND/OR SATELLITE DISH CABLES, ETC. BEFORE WORK BEGINS.
- EQUIPMENT, MECHANICAL PIPING AND DUCTWORK INDICATED IS PARTIALLY DIAGRAMMATIC. CONTRACTOR SHALL DETERMINE IN FIELD EXACT LOCATION OF ALL DUCTWORK, PIPING AND EQUIPMENT. CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES PRIOR TO INSTALLATION OF HIS/HER EQUIPMENT.
- UPON COMPLETION OF WORK THE CONTRACTOR SHALL CLEAN ALL DEBRIS FROM THE WORK AREA AND OTHER AREAS USED BY THE CONTRACTOR, AND LEAVE PREMISES IN A NEAT AND CLEAN CONDITION. CLEAN, PATCH AND REPAIR ALL WALLS, FLOORS, CEILINGS, AND OTHER SURFACES DAMAGED OR MARKED DURING CONSTRUCTION.
- ALL WORK SHALL COMPLY WITH THE MOST STRINGENT OF APPLICABLE CODES, ORDINANCES, AND REQUIREMENTS BY THE OWNER AND MANUFACTURER.
- COORDINATE DIFFUSER/GRILLE LOCATIONS WITH ARCHITECT.
- INSULATE ALL PIPING & DUCTWORK COMPLETE IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND APPLICABLE ENERGY CODE. INSULATION WORK SHALL BE PERFORMED BY A COMPANY WHO'S PRIMARY FUNCTION IS MECHANICAL INSULATION INSTALLATION, AND SHALL HAVE A MINIMUM OF THREE YEARS DOCUMENTED EXPERIENCE.
- CONTRACTOR SHALL THOROUGHLY CLEAN ALL DUCTWORK AND EQUIPMENT COMPLETE AND INSTALL NEW FILTERS PRIOR TO AIR BALANCE. ALL DUCTWORK OPENINGS INCLUDING GRILLES AND DIFFUSERS SHALL BE SEALED AIR TIGHT UNTIL CONSTRUCTION IS 100% COMPLETE AND FINAL CLEANING HAS BEEN COMPLETED.
- INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS.
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- INSTALL ALL SLAB MOUNTED EQUIPMENT EXCEPT FOR TANKS ON KELLET ISOLATOR PADS - NO EXCEPTIONS.
- INSULATE ALL HYDRONIC PIPING COMPLETE.
- FOR HYDRONIC/HVAC PIPING SYSTEMS, BRASS VALVES SHALL BE USED EXCLUSIVELY IN ALL AREAS OUTSIDE OF MECHANICAL ROOMS. THIS VALVE REQUIREMENT SHALL SUPERSEDE DIVISION 22 AND 23 SPECIFICATIONS.



AXIOM
ENGINEERING GROUP
910 Brooks St., #203
Missoula, MT 59801
Ph. 406.542.2849
www.aeg.design
AEG #24045

CONSTRUCTION DOCUMENTS

FIRST FLOOR MECHANICAL PLANS - NORTH ENTRY

MISSOULA COUNTY COURTHOUSE ANNEX
NORTH ENTRY REMODEL

owner MISSOULA COUNTY, 200 WEST BROADWAY STREET, MISSOULA, MT 59802

sheet

project # **24169.10**

revision date

phase

CONSTRUCTION
DOCUMENTS

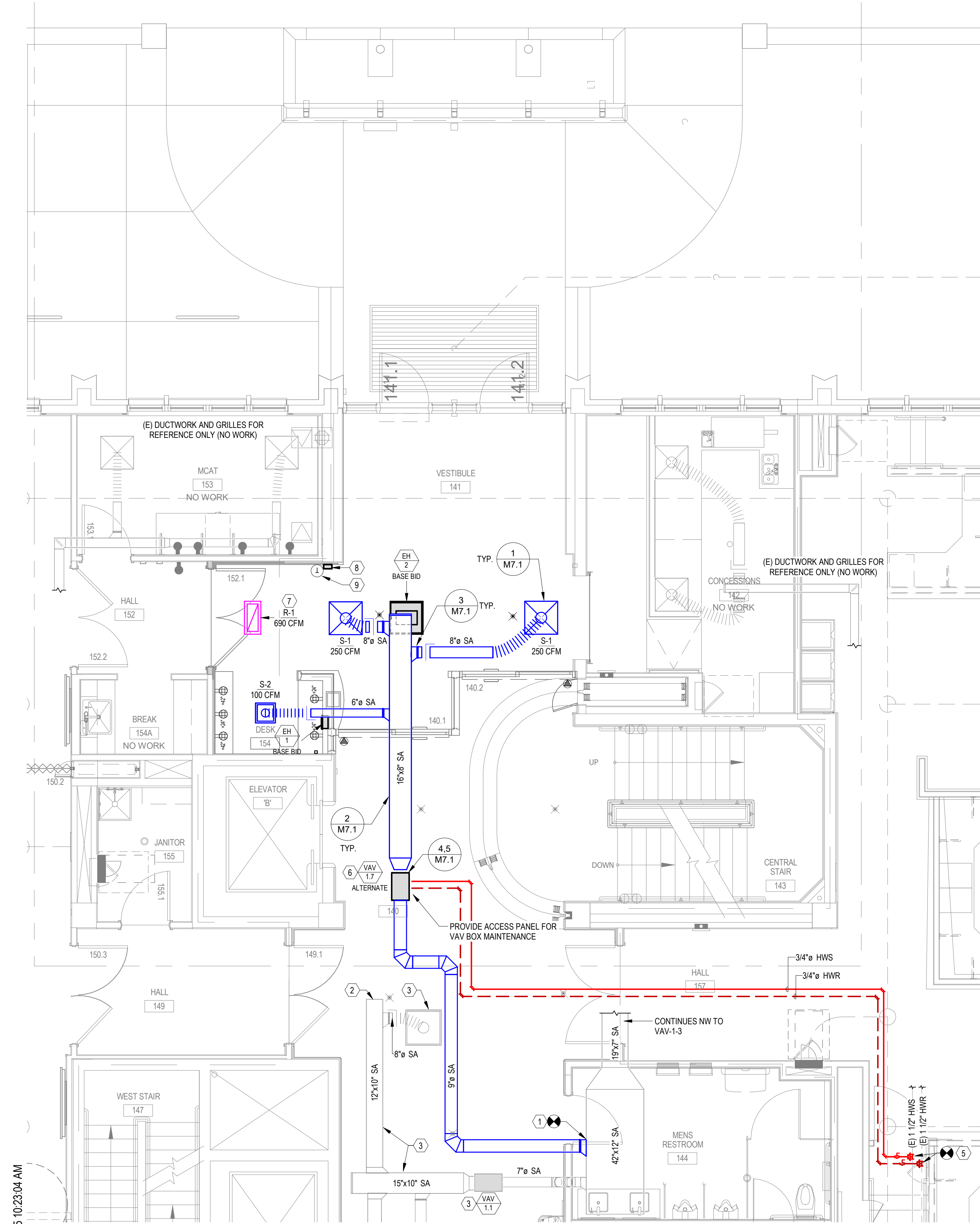


Page 13/17

issue date

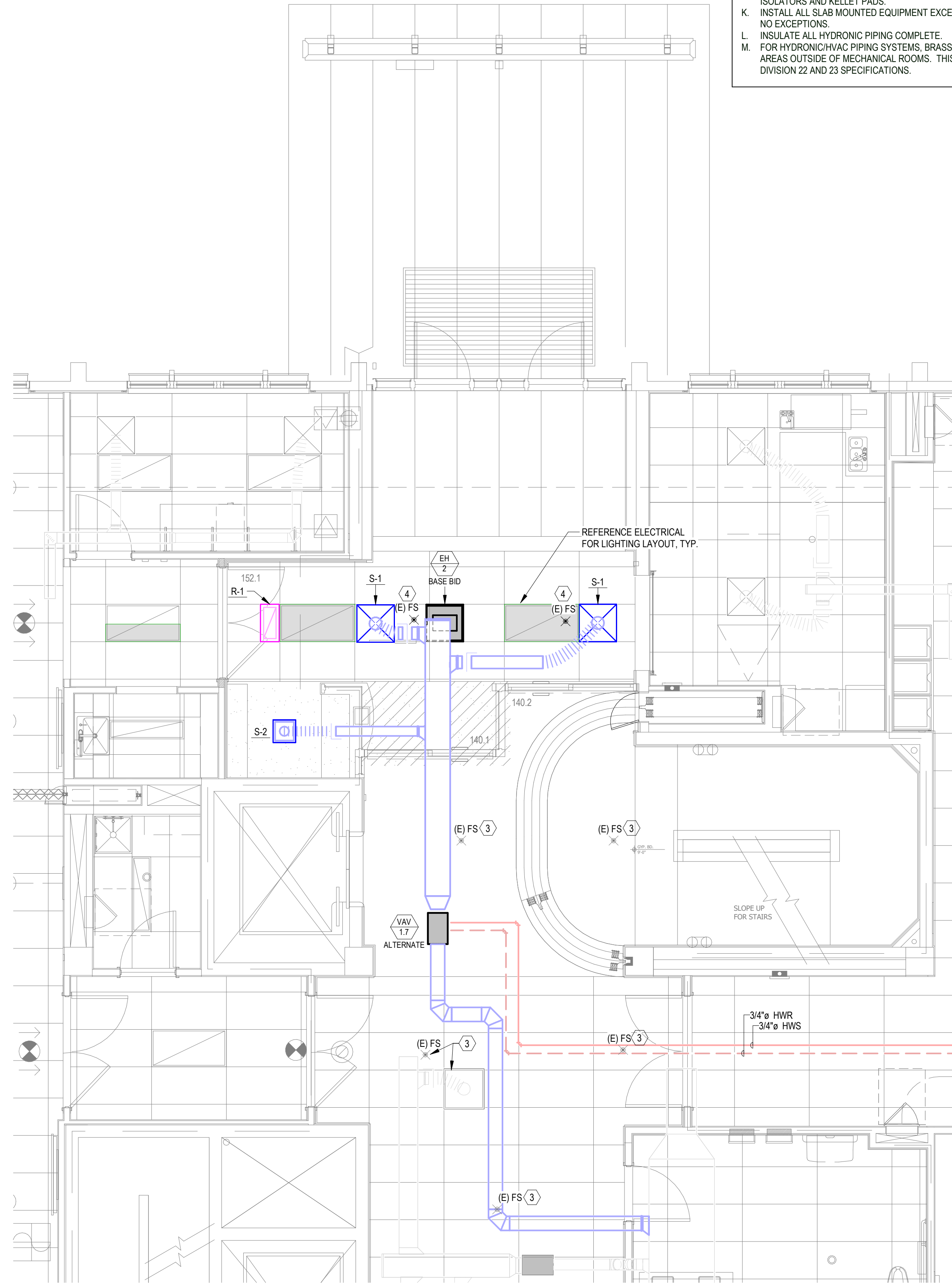
06.30.2025

M2.1



9 FIRST FLOOR MECHANICAL PLAN - NORTH ENTRY

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



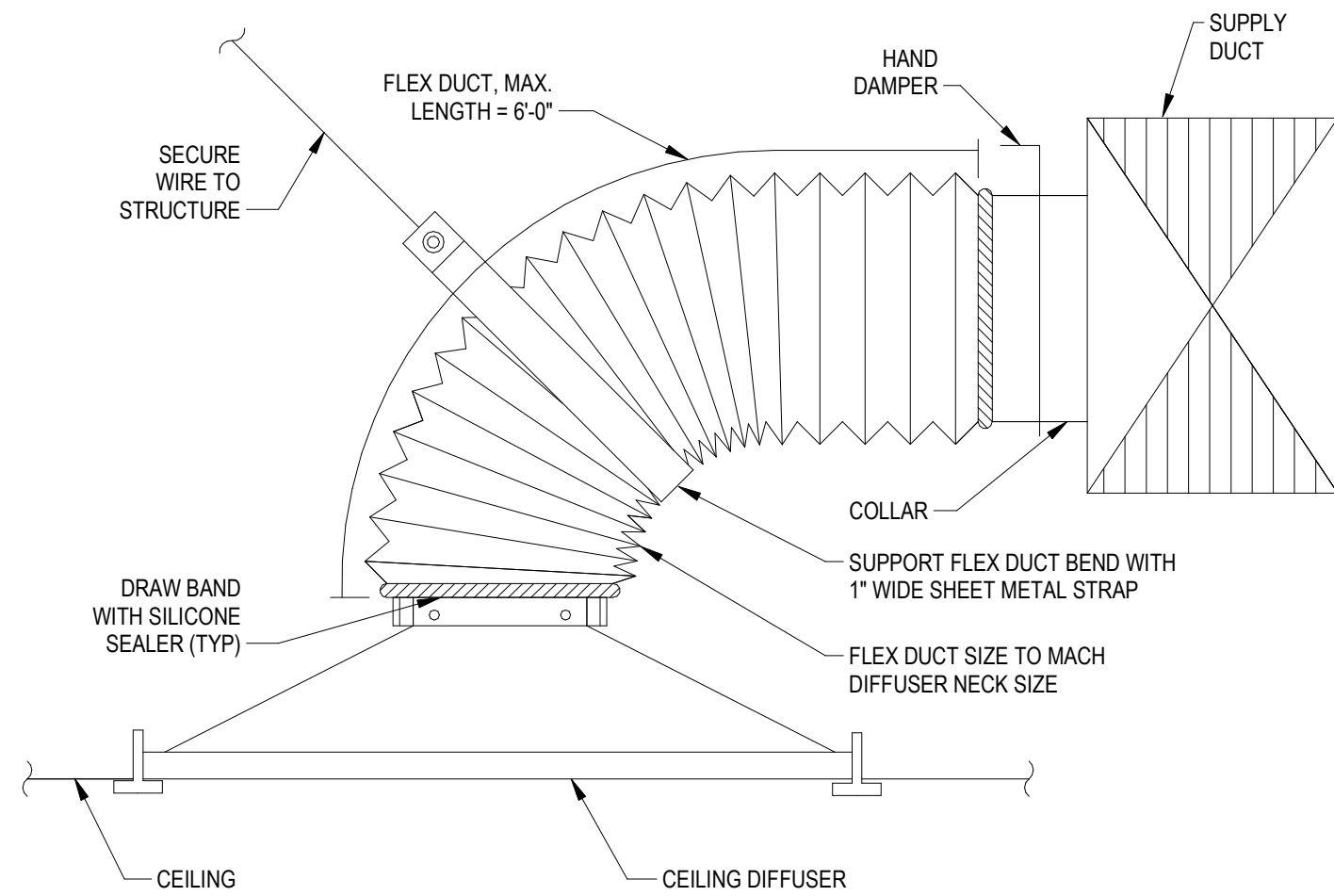
11 FIRST FLOOR MECHANICAL REFLECTED CEILING PLAN - NORTH ENTRY

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

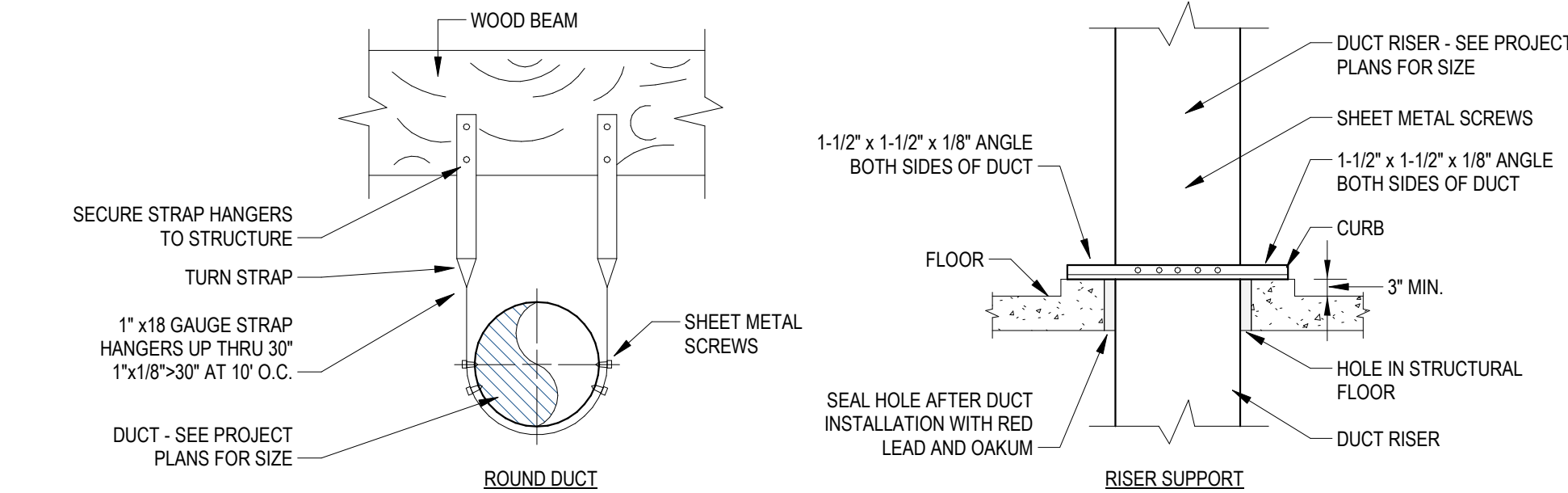
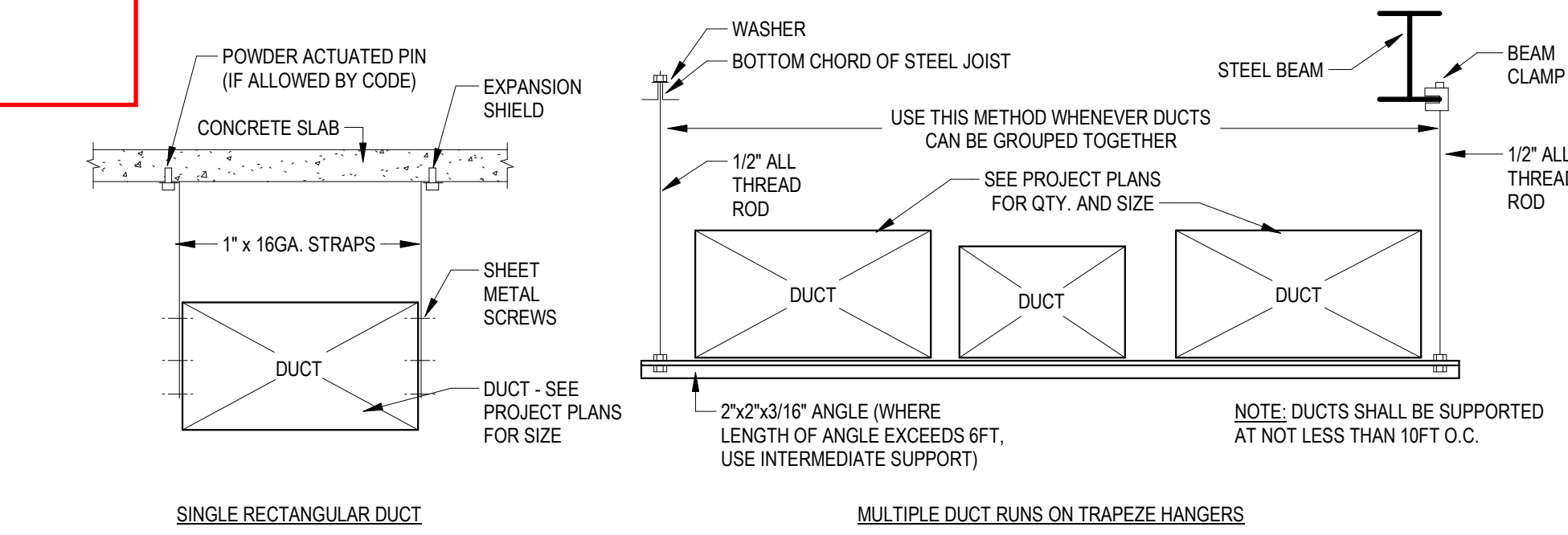


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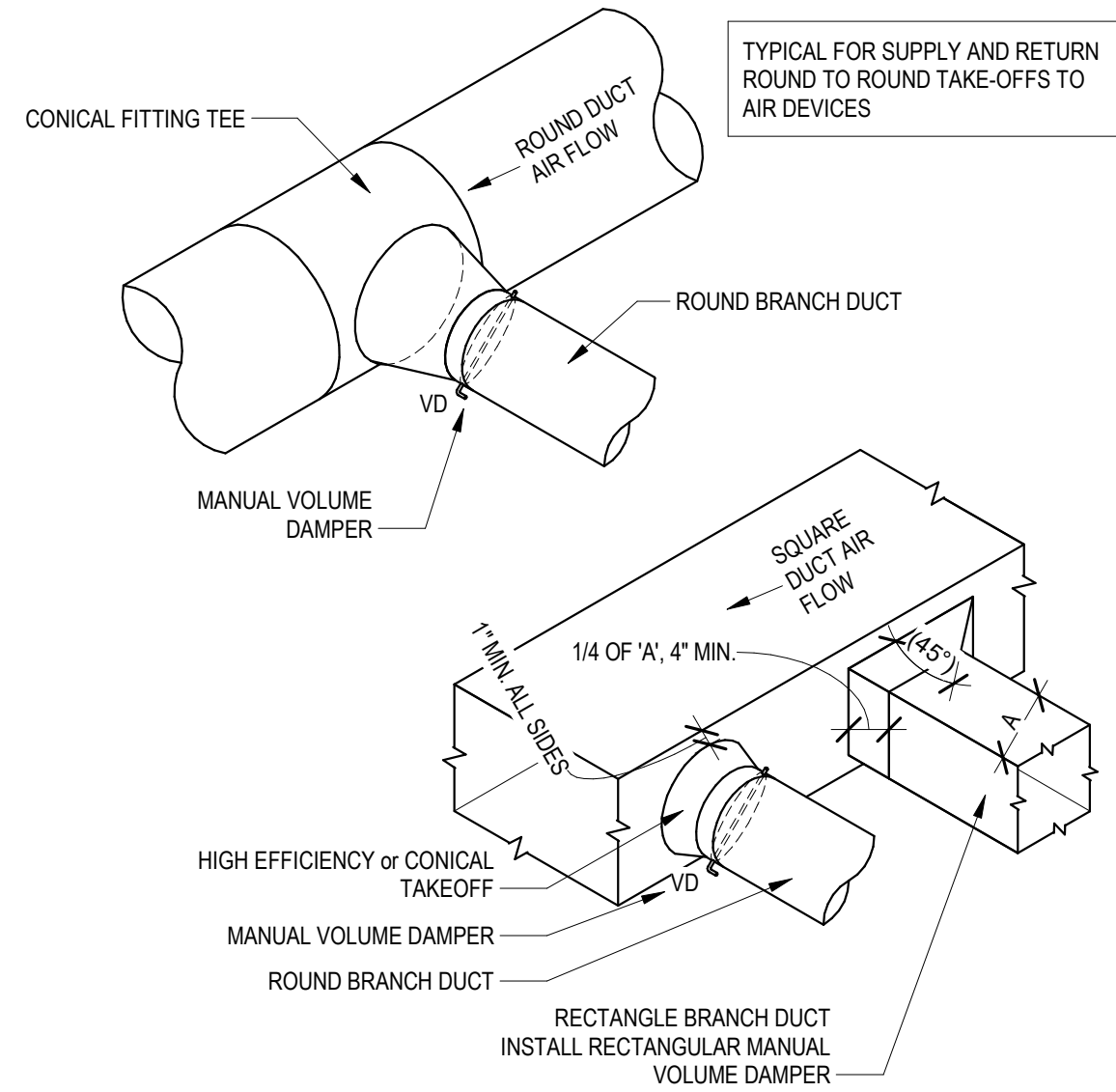
Exhibit A



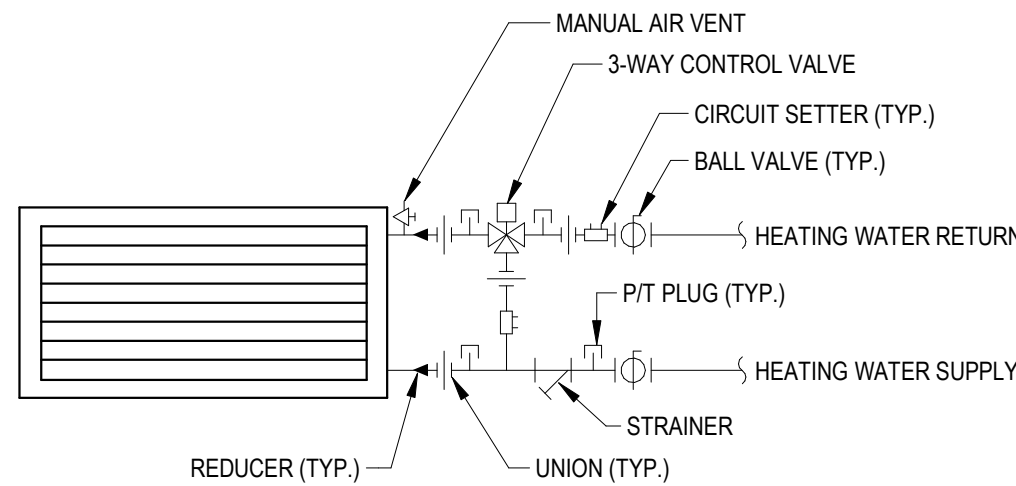
1 [ALTERNATE]: DIFFUSER - FLEX CONNECTION
SCALE: NO SCALE



2 [ALTERNATE]: DUCT HANGER
SCALE: NO SCALE



4 [ALTERNATE]: VAV BOX INSTALLATION DETAIL
SCALE: NO SCALE



5 [ALTERNATE]: VAV PIPING INSTALLATION
SCALE: 1/2" = 1'-0"

BASE BID / ALTERNATE NOTES	
• BASE BID MECHANICAL SCOPE - EXISTING AIR SIDE SYSTEM TO REMAIN AS IS (REFERENCE M2.0 - DUCTWORK AND GRILLES INDICATED AS 'DEMO' TO REMAIN). PROVIDE NEW ELECTRIC HEATERS 'E-1' IN SECURITY AND 'E-2' IN ENTRY CEILING (REFERENCE M2.1). COORDINATE FINAL LOCATIONS TO AVOID EXISTING LIGHTING, SIGNAGE, AND FIRE SPRINKLERS (BASE BID INTENTION IS MINIMAL DISRUPTION TO SYSTEMS).	
• ALTERNATE MECHANICAL SCOPE - REMOVE GRILLES AND DUCTWORK, PER M2.0. PROVIDE 'E-1' HEATER IN SECURITY. PROVIDE NEW VAV BOX, HYDRONIC PIPING, CONTROLS, DUCTWORK AND GRILLES PER M2.1.	

ALL MECHANICAL, DUCTWORK AND HYDRONIC PIPING IS AN **ALTERNATE!**
REFERENCE BASE BID / ALTERNATE NOTES ABOVE.

[BASE BID] ELECTRIC HEATER SCHEDULE

MARK	MFR	MODEL	TYPE	CFM	MBH	KW	ELEC	AMP	RPM	MOUNTING	NOTES
EH-1	MARLEY	SRA1012DSAF	ELECTRICAL	65	3.4	1.0	120/1	8.4	-	WALL	1
EH-2	MARLEY/QMARK	CDF558	ELECTRICAL	300	17.1	5.0	208/3	24	-	CEILING	2

NOTES:
1 CONFIRM MOUNTING STYLE, HEIGHT AND FINAL LOCATION WITH ARCHITECT.
2 CEILING RECESS MOUNTED. PROVIDE OPTIONAL 'CDFDS_R' RECESSED MOUNT POWER DISCONNECT SWITCH (3-POLE) 30 AMPS, 600 VOLTS, 3PH, 60Hz.

[ALTERNATE] VAV TERMINAL UNIT SCHEDULE

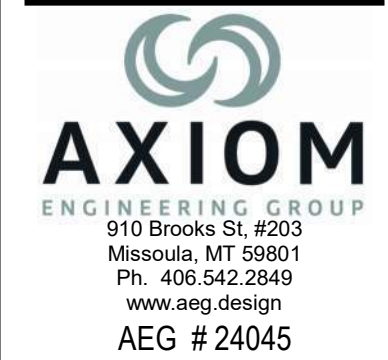
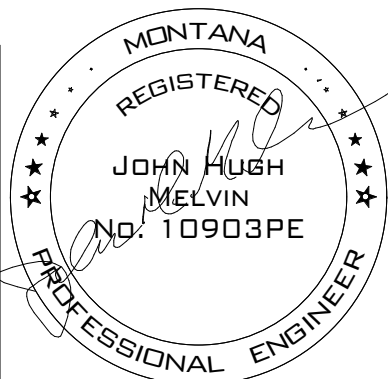
MARK	MFR	MODEL	INLET SIZE	COOLING AIR		HEATING CFM	EWT	LWT	GPM	NOTES
				MIN CFM	MAX CFM					
1.7	KRUEGER	LMHS	9"	460	600	460	140	110	1.75	1

NOTES:
1 PROVIDE ACCESS PANEL IN CEILING FOR MAINTENANCE OF NEW VAV BOX.

[ALTERNATE] GRILLES, REGISTERS, DIFFUSERS SCHEDULE

MARK	TYPE OR LOCATION	MFR	MODEL	DIFFUSER SIZE	DIFFUSER NECK SIZE	MATERIAL	NOTES
S-1	SUPPLY	KREUGER	PRISM	24" X 24"	8"	STEEL	1
S-2	SUPPLY	KREUGER	1400	12" X 12"	6"	STEEL	1
R-1	RETURN	KREUGER	S580	24" X 10"	24" X 10"	ALUMINUM	1,2

NOTES:
1. COLOR WHITE, TO MATCH ACOUST. CEILING TILE (COORDINATE WITH ARCHITECT PRIOR TO ORDERING).
2. 35 DEG DEFLECTION



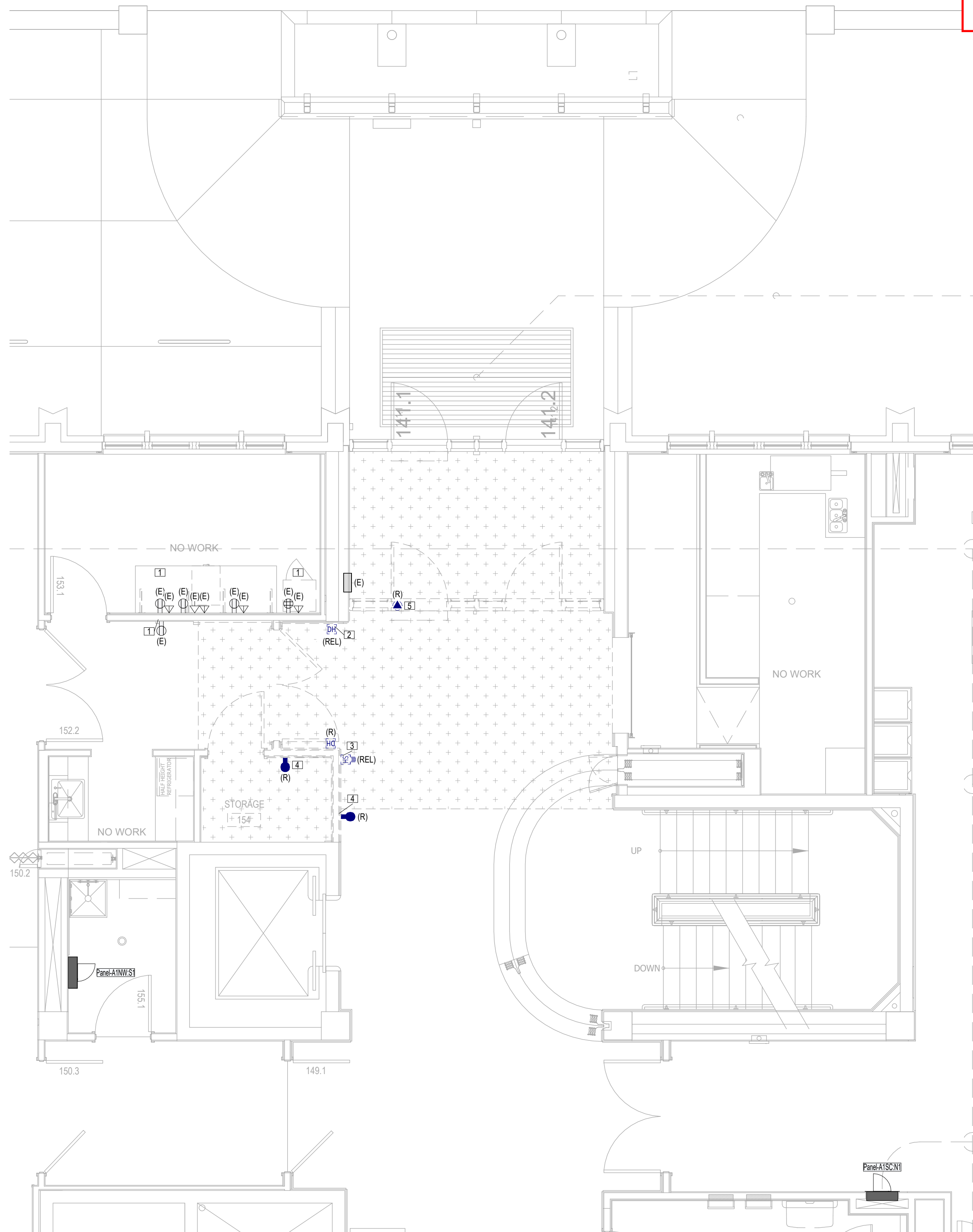
CONSTRUCTION DOCUMENTS
MECHANICAL SCHEDULES & DETAILS
MISSOULA COUNTY COURTHOUSE ANNEX
NORTH ENTRY REMODEL
MISSOULA COUNTY, 200 WEST BROADWAY STREET, MISSOULA, MT 59802

project # 24169.10
revision date

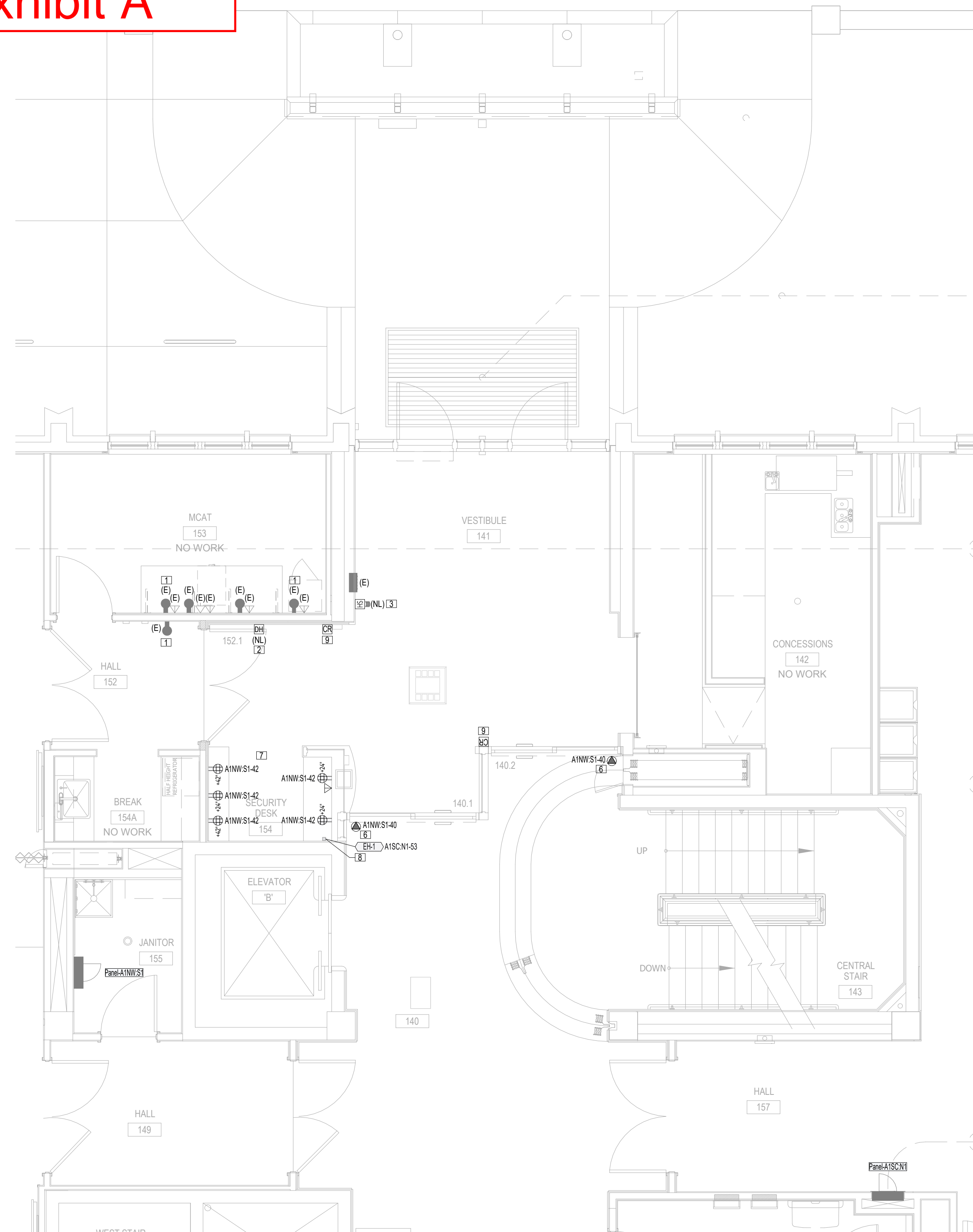
phase
CONSTRUCTION DOCUMENTS



Exhibit A

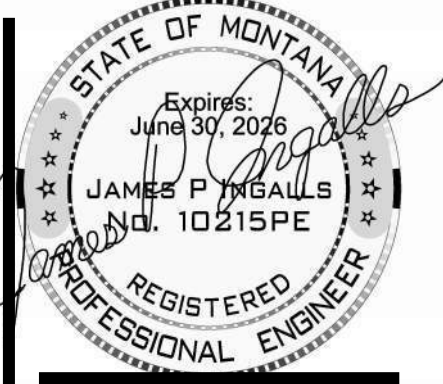


1 Demolition Electrical Floor Plan
1/4" = 1'-0"



② New Electrical Floor Plan
1/4" = 1'-0"

Floor Plan Sheet Notes	
1	E.C. shall reinstall all existing devices on this wall to previous location to accommodate new fire rating on wall (HIE and MCAT 155).
2	E.C. shall relocate magnetic door holder to new door location.
3	E.C. shall relocate existing fire Alarm Annunciation Device and cabling to new location.
4	E.C. shall remove receptacle from existing branch circuit while maintaining proper operation of remaining device on this branch circuit.
5	E.C. shall remove door receptacle from existing branch circuit while maintaining proper operation of remaining devices on this branch circuit.
6	E.C. shall furnish and install one 20A-1P circuit breaker in Standby Power Panel "ANW51"; and connect one new branch circuit (three #12 CU THWN) to two new Dura-Gide 3000 Door Operators (Three #12 CU THWN). E.C. provide 34" EMT raceways from each door controller to junction box below security desk assembly. See Architectural drawings for specific raceway and conduit details.
7	E.C. shall verify Security Desk Standby Power connections with Architectural drawings prior to rough-in. E.C. shall furnish and install one 20A-1P circuit breaker in Standby Power Panel "ANW51"; and connect one new branch circuit (three #12 CU THWN) to two new Dura-Gide 3000 Door Operators (Three #12 CU THWN).
8	Wall-mounted Electric Heater E.H. 1; E.C. shall furnish and install one 20A-1P circuit breaker in Normal Power Panel "AS1CN"; and connect one new branch circuit (three #12 CU THWN) to heater. Heater is furnished with integral disconnect. E.C. shall update panel directory. E.C. shall coordinate location of heater and branch circuit impacting but not obstructing the fire rating of existing wall.
9	E.C. shall furnish and install new cast reader at location indicated.



CONSTRUCTION DOCUMENTS

Electrical Floor Plans - Demolition and New

MISSOULA COUNTY COURTHOUSE ANNEX NORTH ENTRY

REMODEL

sheet

project

owner

MISSOULA COUNTY, 200 WEST BROADWAY STREET, MISSOULA, MT 59802

project # 25032

revision _____ date _____

CONSTRUCTION DOCUMENTS

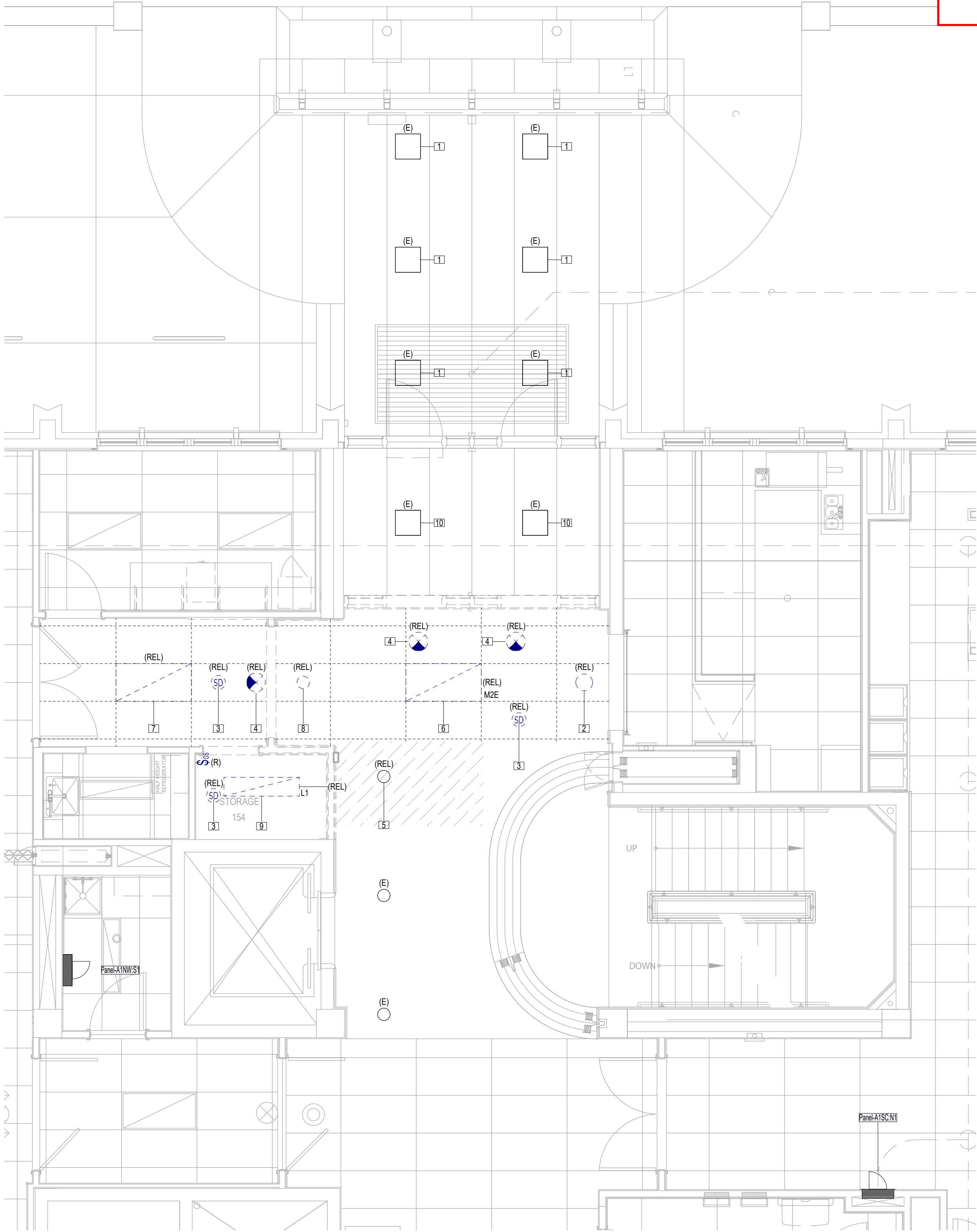


Page 16/17

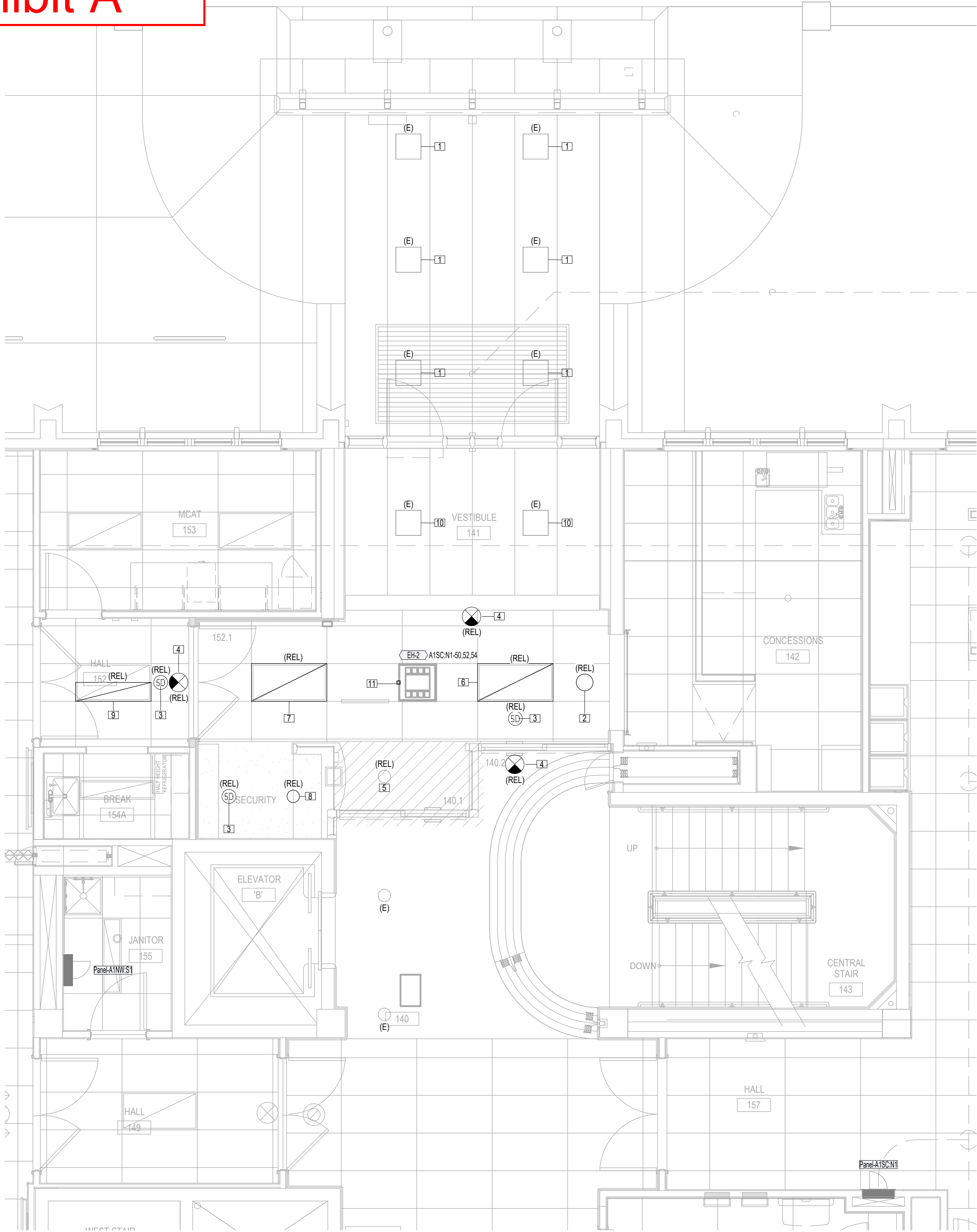
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E1.1

Exhibit A

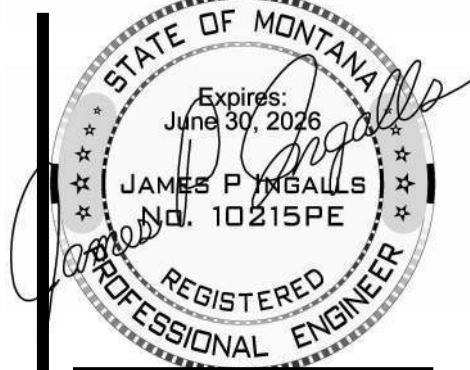


1 Demolition Electrical Ceiling Plan
1/4" = 1'-0"



2 New Electrical Ceiling Plan
1/4" = 1'-0"

Ceiling Plan Sheet Notes	
1	(E) Luminaire to remain as is (Connected to circuit A1NWS1-29 via Relay 21 in Lighting Control Panel 'LCP A1NW' located in Room 155).
2	E.C. shall relocate existing speaker and circuit to new location.
3	E.C. shall relocate existing fire alarm smoke detector and circuit to new location.
4	E.C. shall relocate existing exit sign and circuit to new location.
5	E.C. shall relocate existing luminaire and controlled circuit to new ceiling. Align with similar existing luminaires.
6	E.C. shall relocate existing luminaire and controlled circuit (A1NWS1-29 via Relay 20 in Lighting Control Panel 'LCP A1NW' located in Room 155) to new location in expanded vestibule ACT ceiling.
7	E.C. shall relocate this luminaire to the expanded vestibule ACT ceiling and change the lighting control circuit to connect to circuit A1NWS1-29 via Relay 20 in Lighting Control Panel 'LCP A1NW' located in Room 155. This luminaire shall share the same lighting control as the other luminaires in the expanded vestibule.
8	E.C. shall relocate existing luminaire and controlled circuit to new ceiling above security desk.
9	E.C. shall relocate this luminaire to the Hall 152 ACT ceiling and change the lighting control circuit to connect to circuit A1NWS1-27 via Relay 9 in Lighting Control Panel 'LCP A1NW' located in Room 155.
10	(E) Luminaire to remain. E.C. shall change the lighting control circuit to connect to circuit A1NWS1-29 via Relay 20 in Lighting Control Panel 'LCP A1NW' located in Room 155. These two luminaires shall share the same lighting control as the other luminaires in the expanded vestibule.
11	Base Bid only Ceiling Electric Heater EH-2 (not installed under Alternate Bid). E.C. shall furnish and install one 30A-3P circuit breaker in Normal Power Panel 'A1SCN1' and connect one new branch circuit (four #10 CU THWN) to heater's furnished disconnect. E.C. shall update panel directory.



CONSTRUCTION DOCUMENTS

Electrical Ceiling Plans - Demolition and New

MISSOULA COUNTY COURTHOUSE ANNEX NORTH ENTRY

REMODEL

owner MISSOULA COUNTY, 200 WEST BROADWAY STREET, MISSOULA, MT 59802

sheet project

project # 25032

revision date

phase CONSTRUCTION DOCUMENTS

