

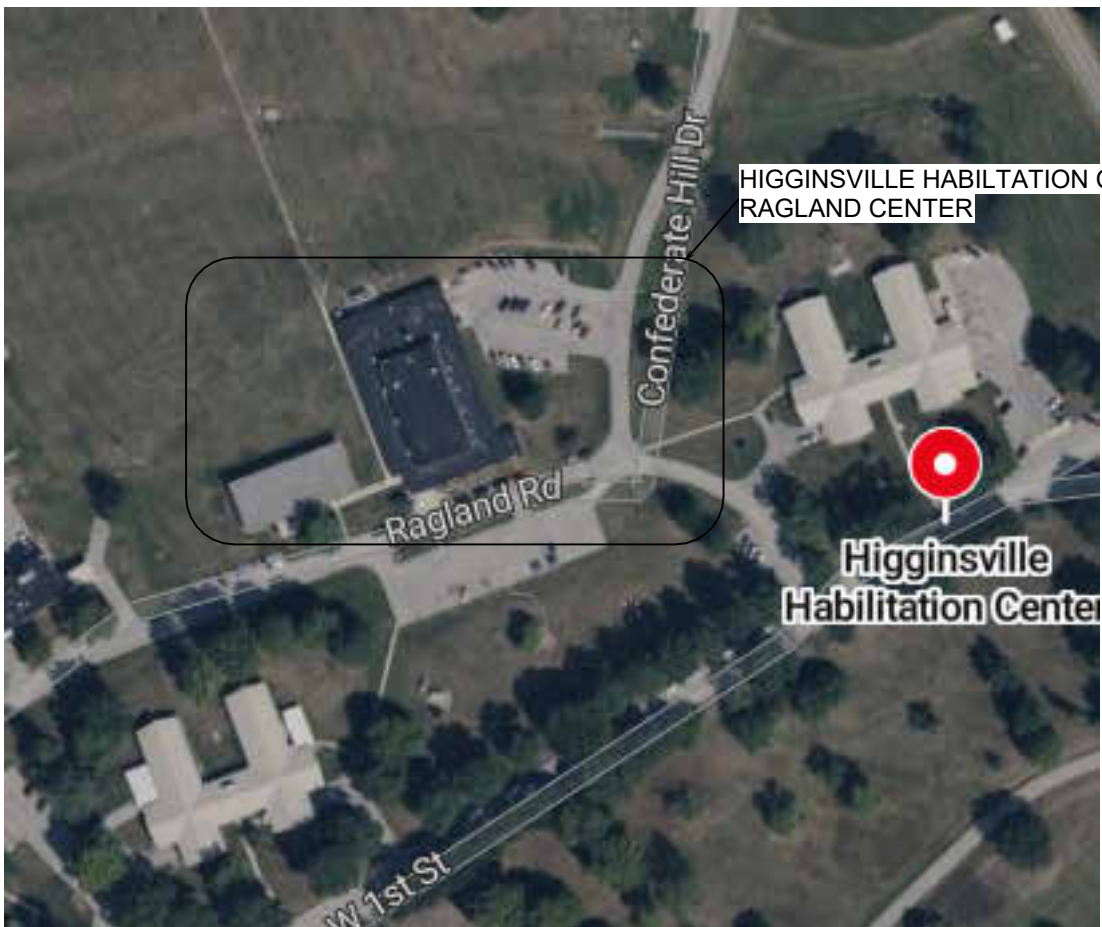
RENOVATE 4 CLIENT BATHROOMS, RAGLAN EDUCATION BUILDING HIGGINSVILLE HABILITATION CENTER HIGGINSVILLE, MISSOURI

SHEET LIST

G000	COVER SHEET
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AD100	ARCHITECTURAL DEMOLITION PLAN
AD150	REFLECTED CEILING DEMOLITION PLAN
AD500	ENLARGED ARCHITECTURAL DEMOLITION PLANS
A010	ACCESSIBILITY GUIDELINES
A040	PARTITION, DOOR AND FINISH SCHEDULES
A100	FLOOR PLAN
A150	REFLECTED CEILING PLAN
A500	ENLARGED PLANS AT RESTROOMS
A550	INTERIOR ELEVATIONS
A560	INTERIOR DETAILS
A600	ENLARGED FINISH PLANS AT RESTROOMS
M000	MECHANICAL GENERAL NOTES AND LEGEND
M101	HVAC LEVEL 1 PLAN - OVERALL
M102	HVAC LEVEL 1 PLAN - ENLARGED VIEWS
M400	MECHANICAL SCHEDULES AND DETAILS
E000	ELECTRICAL LEGEND AND GENERAL NOTES
E100	ELECTRICAL LEVEL 1 PLAN - OVERALL
E101	ELECTRICAL LEVEL 1 PLAN - ENLARGED VIEWS
E500	ELECTRICAL DETAILS AND SCHEDULES
P000	PLUMBING GENERAL NOTES AND LEGEND
P101	PLUMBING LEVEL 1 PLAN - OVERALL
P102	PLUMBING LEVEL 1 PLAN - ENLARGED VIEWS
P400	PLUMBING DETAILS AND SCHEDULES
FA000	FIRE ALARM GENERAL NOTES AND LEGEND
FA101	FIRE ALARM PLAN - OVERALL
FA102	FIRE ALARM PLAN - ENLARGED VIEWS
H-101	ASBESTOS ABATEMENT EDUCATION BUILDING FIRST FLOOR

OWNER: STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

PROJECT
MANAGEMENT: OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT,
DESIGN AND CONSTRUCTION



DESIGNER: HENDERSON ENGINEERS

PROJECT NUMBER: M2406-01

SITE NUMBER: 7357
FACILITY NUMBER: 6517357027

SHEET NUMBER:

G000

1 OF 29 SHEETS
09/16/2025

ADOPTED BUILDING CODE FOR STATE OF MISSOURI PROJECTS:

2018 INTERNATIONAL BUILDING CODE
2015 INTERNATIONAL PLUMBING CODE
2015 INTERNATIONAL MECHANICAL CODE
2015 INTERNATIONAL EXISTING BUILDING CODE
2015 INTERNATIONAL FIRE CODE
2009 INTERNATIONAL ENERGY CONSERVATION CODE

NOTE: THE MEFP DOCUMENTS IN THIS PROJECT HAVE BEEN DESIGNED AROUND 2018 ICC CODES.

EXISTING BUILDING IS A 23,100 SF BUILDING OF TYPE V CONSTRUCTION CONSISTING OF A NON-FIRE-RATED STEEL STRUCTURE WITH INFILL MASONRY EXTERIOR WALLS, EXTERIOR GLAZING, INTERIOR NON-FIRE-RATED PLASTER WALLS ON EXPANDED METAL LATH, EXISTING BUILDING IS NON-CONFORMING TO CURRENT CODE DUE TO NO RATING PROVIDED AT CORRIDOR WALLS WHEN NOT FULLY SPRINKLERED AND EXCEEDING MAXIMUM SQUARE FOOTAGE FOR BUILDING TYPE, OCCUPANCY TYPE, AND NON-SPRINKLERED COMBINATION.

OCCUPANCY TYPE: I-4

CORRIDOR RATING:
ONE-HOUR RATING REQUIRED IF BUILDING IS NOT PROVIDED WITH SPRINKLER FIRE PROTECTION THROUGHOUT. (RE: TABLE 1020.1, 2018 IBC)

EXISTING CORRIDOR CONDITION IS NOT FIRE RATED.

NUMBER OF OCCUPANTS (NON-SIMULTANEOUS USE - GYM ASSEMBLY ONLY SCENARIO)*

ASSEMBLY (GYM ONLY): 562 OCCUPANTS
STAGE: 53 OCCUPANTS
BUSINESS: 63 OCCUPANTS
ACCESSORY: 9 OCCUPANTS
KITCHEN: 1 OCCUPANTS
TOTAL: 688 OCCUPANTS

MIN NUMBER OF EXITS REQUIRED: 3 MINIMUM DUE TO GREATER THAN 500 OCCUPANT LOAD

NUMBER OF EXITS PROVIDED: 5

MINIMUM EGRESS WIDTH: (0.2 INCH PER OCCUPANT X 688 OCCUPANTS) 138"

TOTAL EGRESS WIDTH PROVIDED AT DOORS:
3 DOORS @ 32" EACH = 96"
6 DOORS @ 26" EACH (THESE ARE DRAWN AS 2'-6" DOORS) = 156"
(NOTE: CODE REQUIRES THAT A MINIMUM OF 32" CLEAR OPENING IS PROVIDED AT ALL EGRESS DOORS. IN ADDITION DOORS WITH LESS THAN 32" CLEAR WHEN OPEN ARE NOT ADA OR ANSI A117.1 COMPLIANT.)

PLUMBING FIXTURE REQUIREMENTS:

TOILET FIXTURES REQUIRED:

MEN
GYM & STAGE ONLY: (562/2)/125 = 2.25
BUSINESS: (64/2)/25 = 1.28
STORAGE: (9/2)/100 = .045
TOTAL: 4 TOILETS (OR URINAL) REQUIRED

WOMEN
GYM & STAGE: (562/2)/65 = 4.33
BUSINESS: (64/2)/25 = 1.28
STORAGE: (9/2)/100 = .045
TOTAL: 6 TOILETS REQUIRED

LAVATORY FIXTURES REQUIRED:

MEN
GYM & STAGE ONLY: (562/2)/200 = 1.41
BUSINESS: (64/2)/40 = 0.8
STORAGE: (9/2)/100 = 0.045
TOTAL: 3 LAVATORIES REQUIRED

WOMEN
GYM & STAGE ONLY: (562/2)/200 = 1.41
BUSINESS: (64/2)/40 = 0.8
STORAGE: (9/2)/100 = 0.045
TOTAL: 3 LAVATORIES REQUIRED

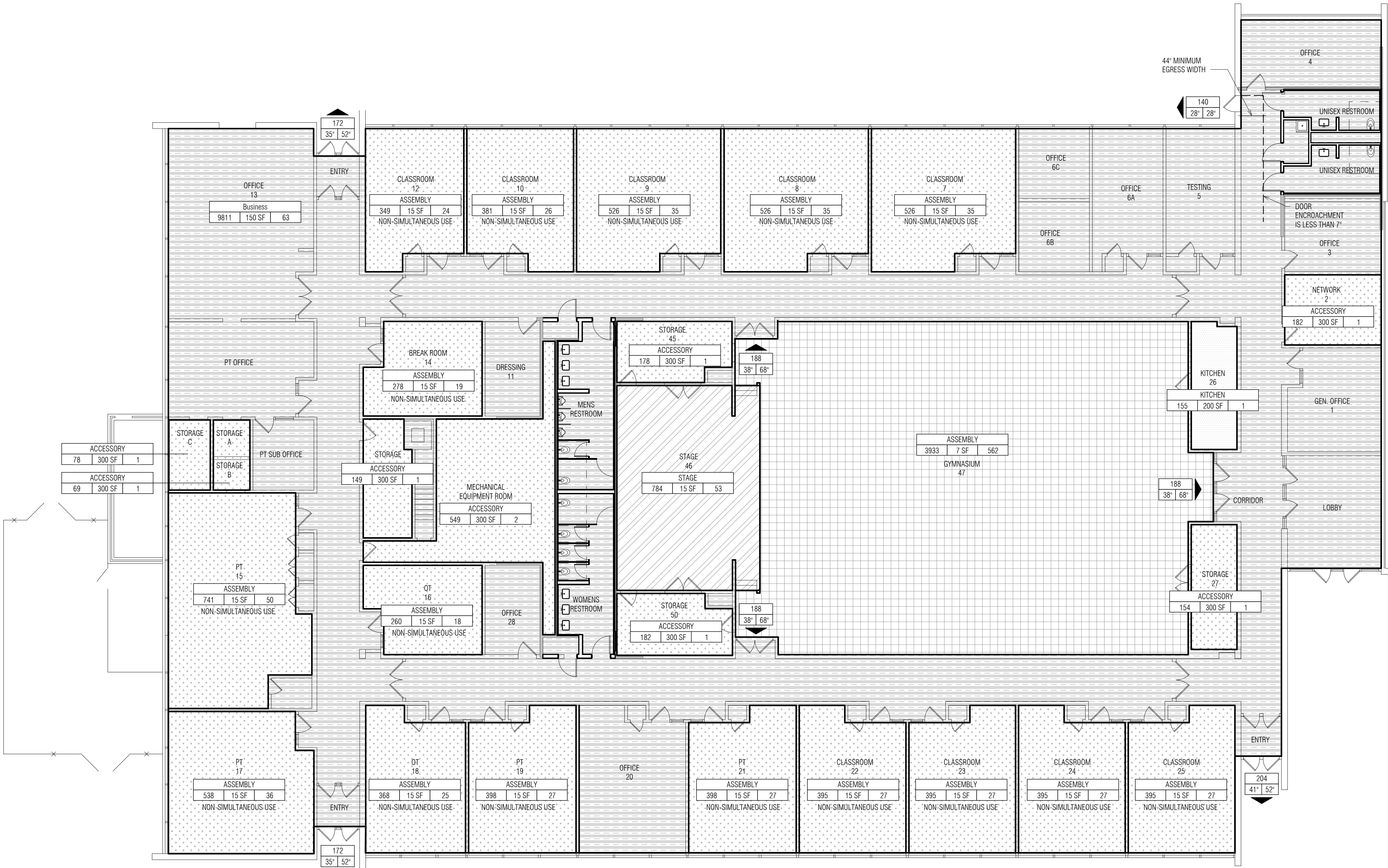
DRINKING FOUNTAINS REQUIRED:

GYM & STAGE ONLY: 562/500 = 0.124
BUSINESS: 64/100 = 0.64
STORAGE: 9/1000 = 0.009
TOTAL: 1 DRINKING FOUNTAIN REQUIRED

*OCCUPANTS OF ALL CLASSROOM AREAS ARE CONSIDERED NON-SIMULTANEOUS USE AND DO NOT CONTRIBUTE TO PLUMBING FIXTURE COUNTS

NOTE: THIS SCENARIO (GYM ONLY) RESULTS IN A GREATER PLUMBING FIXTURE REQUIREMENT THAN THE ALTERNATE NON-SIMULTANEOUS USE SCENARIO OF CLASSROOM ASSEMBLY AREAS ONLY.

NOTE: THIS CODE ANALYSIS WAS CONDUCTED FOR THE PURPOSES OF ESTABLISHING A CODE REQUIRED PLUMBING COUNT ONLY.



1 OCCUPANT LOAD AND TOILET FIXTURE REQUIREMENTS

1" = 10'-0"

RE: /

GRAPHIC SCALE

0 3 5 10 20



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RENOVATE 4 CLIENT
BATHROOMS - RAGLAND
EDUCATION BUILDING,
HIGGINSVILLE HABILITATION
CENTER

100 W 1st Street
Higginsville, Missouri 64037

PROJECT # M2406-01

SITE # 7357

FACILITY # 6517357027

REVISION: _____
DATE: _____
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DATE: _____
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DATE: _____

ISSUE DATE: 09/16/2025

CAD DWG FILE:
DRAWN BY: JC
CHECKED BY: JC
DESIGNED BY: JC

SHEET TITLE:

OCCUPANT LOAD
REVIEW

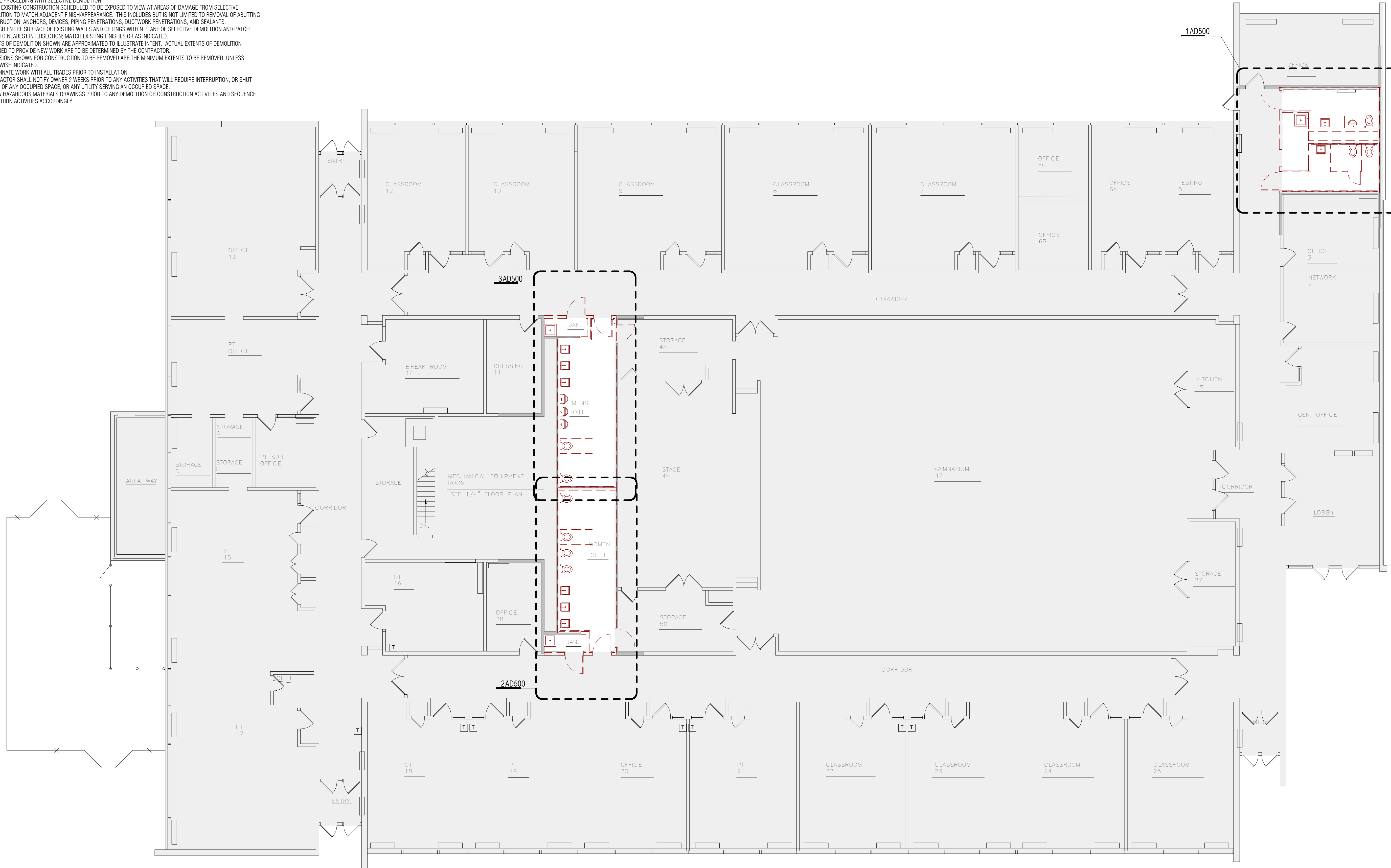
SHEET NUMBER:

A001

2 OF 29 SHEETS
09/16/2025

General Notes - Demolition Plans

1. MAINTAIN LIFE SAFETY SYSTEMS AND EGRESS PATHWAYS AND EXITS. WHERE WORK OCCURS ADJACENT TO OCCUPIED SPACES/AREAS PROVIDE APPROPRIATE SAFETY MEASURES TO PROVIDE COMPLIANT EGRESS PATHS. BUILDING WILL BE OCCUPIED THROUGHOUT THE CONSTRUCTION SCHEDULE. CONTRACTOR SHALL COORDINATE ALL ACTIVITIES WITH THE OWNERS REPRESENTATIVE TO ALLOW TEMPORARY RELOCATION OF OCCUPANTS.
2. CONTRACTOR SHALL VISIT THE SITE AND VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING FINAL BIDS OR COMMENCEMENT OF WORK. FAILURE TO OBSERVE EXISTING CONDITIONS SHALL NOT BE AN ACCEPTABLE REASON FOR INCREASE IN CONTRACT AMOUNT.
3. ARCHITECT SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES DETRIMENTAL TO THE PROPER EXECUTION OF NEW CONSTRUCTION. NOTIFY ARCHITECT IMMEDIATELY OF DISCREPANCIES BETWEEN EXISTING CONDITIONS AND DRAWINGS BEFORE PROCEEDING WITH SELECTIVE DEMOLITION.
4. PATCH EXISTING CONSTRUCTION SCHEDULED TO BE EXPOSED TO VIEW AT AREAS OF DAMAGE FROM SELECTIVE DEMOLITION TO MATCH ADJACENT FINISH/APPEARANCE. THIS INCLUDES BUT IS NOT LIMITED TO REMOVAL OF ABUTTING CONSTRUCTION, ANCHORS, DEVICES, PIPING PENETRATIONS, DUCTWORK PENETRATIONS, AND SEALANTS.
5. REFINISH ENTIRE SURFACE OF EXISTING WALLS AND CEILINGS WITHIN PLANE OF SELECTIVE DEMOLITION AND PATCH WORK TO NEAREST INTERSECTION. MATCH EXISTING FINISHES OR AS INDICATED.
6. EXTENTS OF DEMOLITION SHOWN ARE APPROXIMATED TO ILLUSTRATE INTENT. ACTUAL EXTENTS OF DEMOLITION REQUIRED TO PROVIDE NEW WORK ARE TO BE DETERMINED BY THE CONTRACTOR.
7. DIMENSIONS SHOWN FOR CONSTRUCTION TO BE REMOVED ARE THE MINIMUM EXTENTS TO BE REMOVED, UNLESS OTHERWISE INDICATED.
8. COORDINATE WORK WITH ALL TRADES PRIOR TO INSTALLATION.
9. CONTRACTOR SHALL NOTIFY OWNER 2 WEEKS PRIOR TO ANY ACTIVITIES THAT WILL REQUIRE INTERRUPTION, OR SHUT-DOWN, OF ANY OCCUPIED SPACE, OR ANY UTILITY SERVING AN OCCUPIED SPACE.
10. REVIEW HAZARDOUS MATERIALS DRAWINGS PRIOR TO ANY DEMOLITION OR CONSTRUCTION ACTIVITIES AND SEQUENCE DEMOLITION ACTIVITIES ACCORDINGLY.



1 First Floor Demolition Plan

1/8" = 1'-0"

RE: /

GRAPHIC SCALE



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ISSUE DATE: 09/16/2025

CAD DWG FILE:
DRAWN BY: JC
CHECKED BY: JC
DESIGNED BY: JC

SHEET TITLE:
ARCHITECTURAL
DEMOLITION PLAN

SHEET NUMBER:

AD100

3 OF 29 SHEETS
09/16/2025



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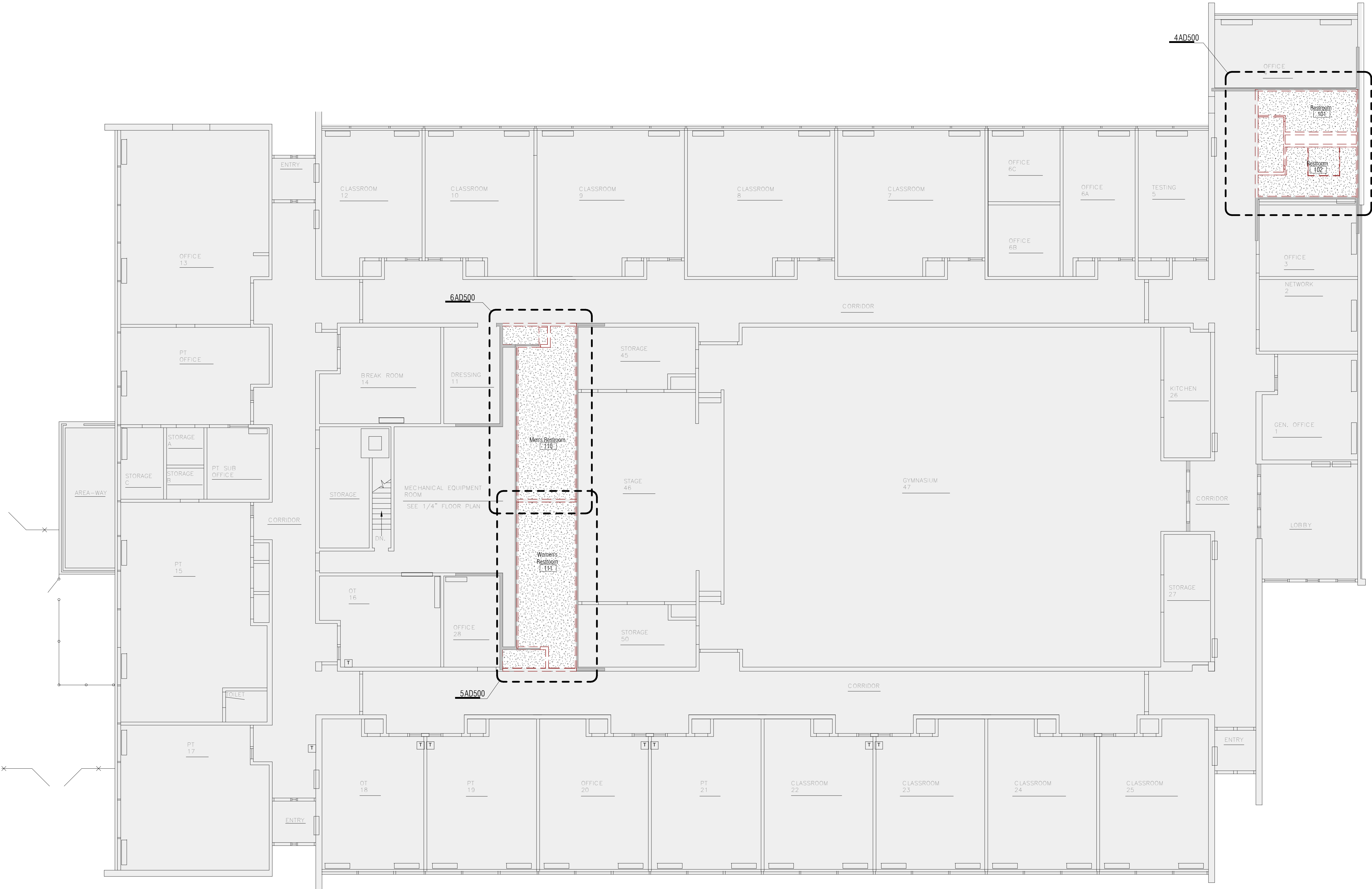
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DRAWN BY: JC
CHECKED BY: JC
DESIGNED BY: JC

SHEET TITLE:
REFLECTED CEILING
DEMOLITION PLAN

SHEET NUMBER:

AD150

4 OF 29 SHEETS
09/16/2025



Legend - Demolition Reflected Ceiling Plan

- EXISTING WALL / ITEM TO BE REMOVED
- EXISTING WALL TO REMAIN
- NEW WALL

1 First Floor Reflected Ceiling Demolition Plan

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

GRAPHIC SCALE

0 2 4 8 16



Plan Notes - Demolition Reflected Ceiling Plan

- (A) REMOVE WALL AS REQUIRED TO FACILITATE NEW CONSTRUCTION
- (B) REMOVE THICK-SET WALL TILE AND RESTROOM-FACING PLASTER AND LATH FROM EXISTING WALL ASSEMBLY
- (C) REMOVE EXISTING PLASTER CEILING, LATH, SUPPORTS AND INSULATION AS REQUIRED TO MAKE WAY FOR INSTALLATION OF NEW CEILING AND WALLS
- (D) EXISTING CEILING TO REMAIN
- (E) EXISTING PLASTER AND LATH ON STEEL CHANNEL STRUCTURE TO REMAIN

Legend - Demolition Reflected Ceiling Plan

- EXISTING WALL / ITEM TO BE REMOVED
- EXISTING WALL TO REMAIN
- NEW WALL

General Notes - Demolition Reflected Ceiling Plans

1. IN AREAS INDICATED FOR CEILING SYSTEM DEMOLITION, REMOVE ALL WIRE HANGERS, TIES, AND ANCHORS TO ADJACENT CONSTRUCTION IN THEIR ENTIRETY.
2. IN AREAS INDICATED FOR CEILING SYSTEM DEMOLITION, REMOVE CONDUITS, WIRES AND ACCESSORIES ASSOCIATED WITH CEILING MOUNTED DEVICES AND EQUIPMENT IN THEIR ENTIRETY BACK TO WALLS, FLOORS, AND OVERHEAD DECKS TO REMAIN AT PERIMETER OF CEILING REMOVAL AREA.

Plan Notes - Demolition Plan

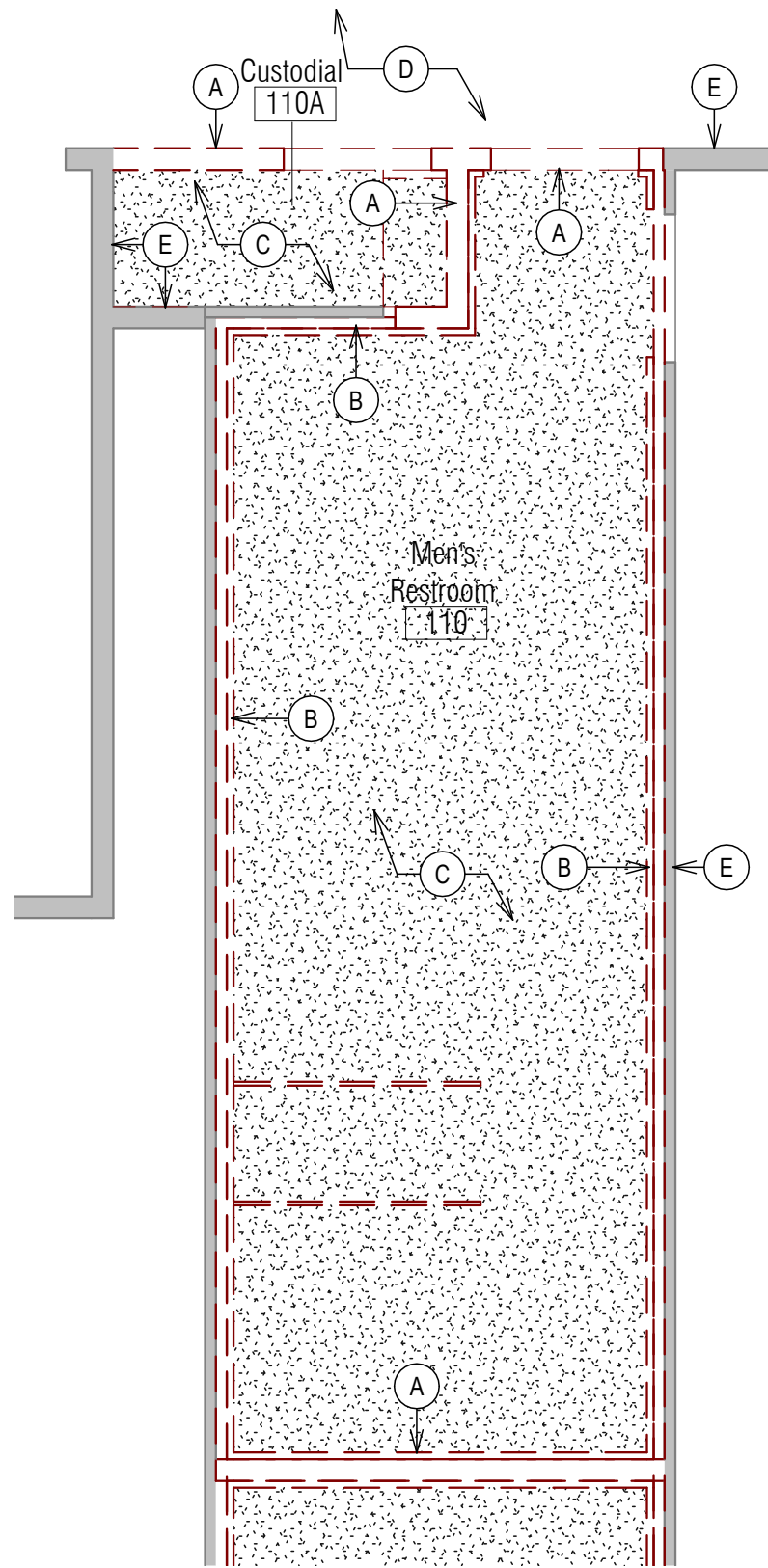
- (A) REMOVE WALL AS REQUIRED TO FACILITATE NEW CONSTRUCTION.
- (B) REMOVE THICK-SET WALL TILE AND RESTROOM-FACING PLASTER AND LATH FROM EXISTING WALL ASSEMBLY.
- (C) REMOVE THICK-SET FLOOR TILE AND PREP FLOOR SUBSTRATE FOR NEW THIN-SET CERAMIC FLOOR TILE.
- (D) REMOVE PLUMBING FIXTURE AND ACCOMPANYING FIXTURES, INCLUDING GRAB BARS, TOILET TISSUE DISPENSERS, SOAP DISPENSERS AND PAPER TOWEL DISPENSERS.
- (E) REMOVE DOOR AND FRAME.
- (F) REMOVE TOILET PARTITION AND ALL ASSOCIATED HARDWARE.
- (G) REMOVE DRAPERY, HANGING ROD AND HARDWARE.
- (H) MOP SINK TO BE REMOVED. TRENCH EXISTING CONCRETE SLAB AS NEEDED TO ACCESS AND MAKE NEW CONNECTION TO EXISTING DRAIN.
- (J) EXISTING PLASTER AND LATH ON STEEL CHANNEL STRUCTURE TO REMAIN
- (K) REMOVE EXISTING MECHANICAL UNIT. RE: MECHANICAL
- (L) REMOVE AREA OF VAT FLOOR TILE. REFER TO HAZARDOUS MATERIALS DRAWINGS PRIOR TO REMOVAL.
- (M) REMOVE EXISTING SHELVES, BRACKETS, AND MOUNTING COMPONENTS AND RETAIN FOR REUSE
- (P) REMOVE EXISTING PLASTER AND LATH FROM FLOOR TO 4' AFF IN THIS AREA AS REQUIRED TO ALLOW ACCESS TO PLUMBING CARRIERS.

Legend - Demolition Plan

- EXISTING WALL / ITEM TO BE REMOVED
- EXISTING WALL TO REMAIN
- NEW WALL
- EXISTING FLOOR TILE TO BE REMOVED
- EXISTING DOOR TO BE REMOVED
- EXISTING DOOR TO REMAIN

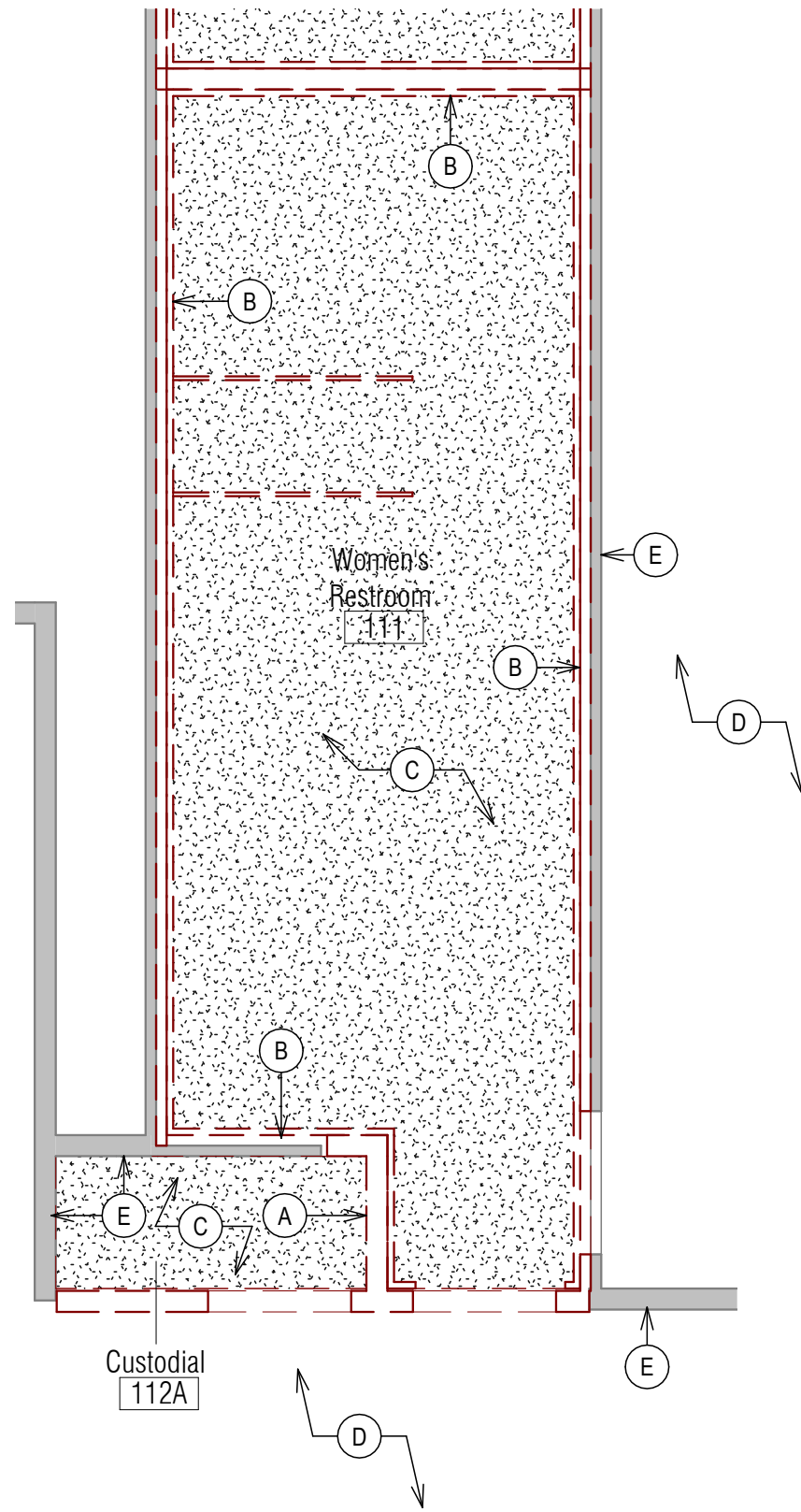
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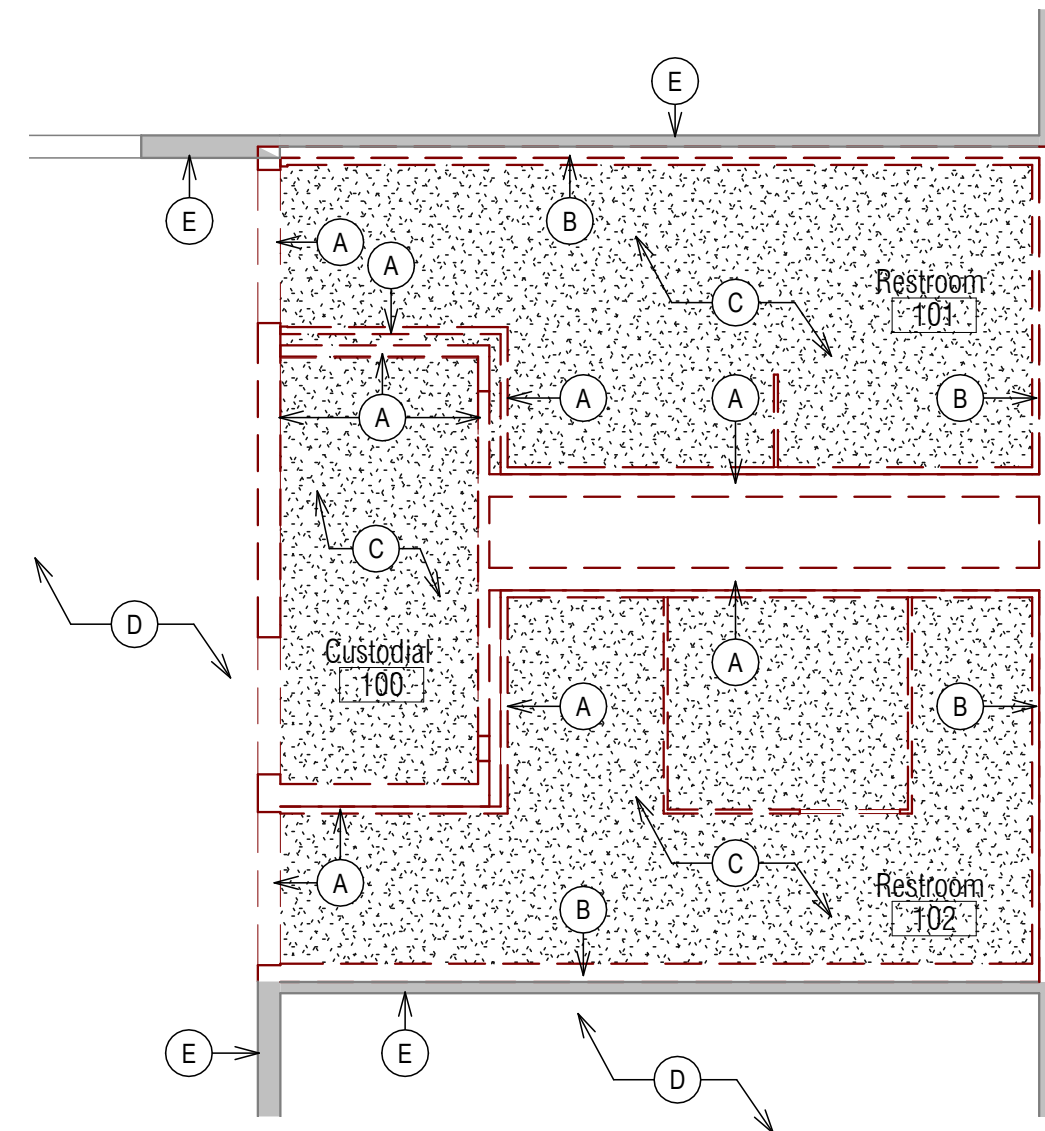
6 Enlarged Demo Ref Clg Plan @ Men's RR

1/4" = 1'-0" RE: 1/AD150



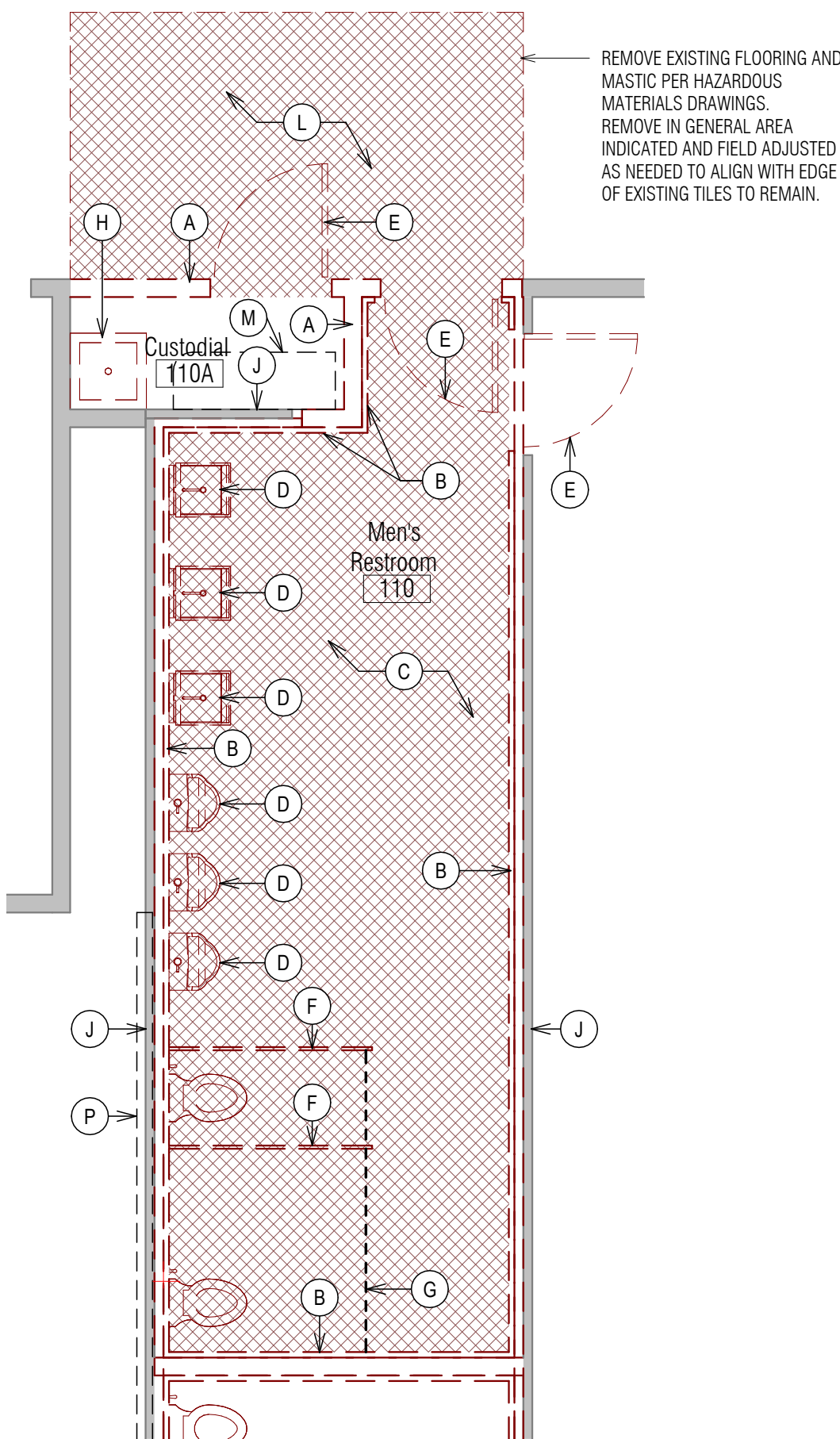
5 Enlarged Demo Ref Clg Plan @ Women's RR

1/4" = 1'-0" RE: 1/AD150



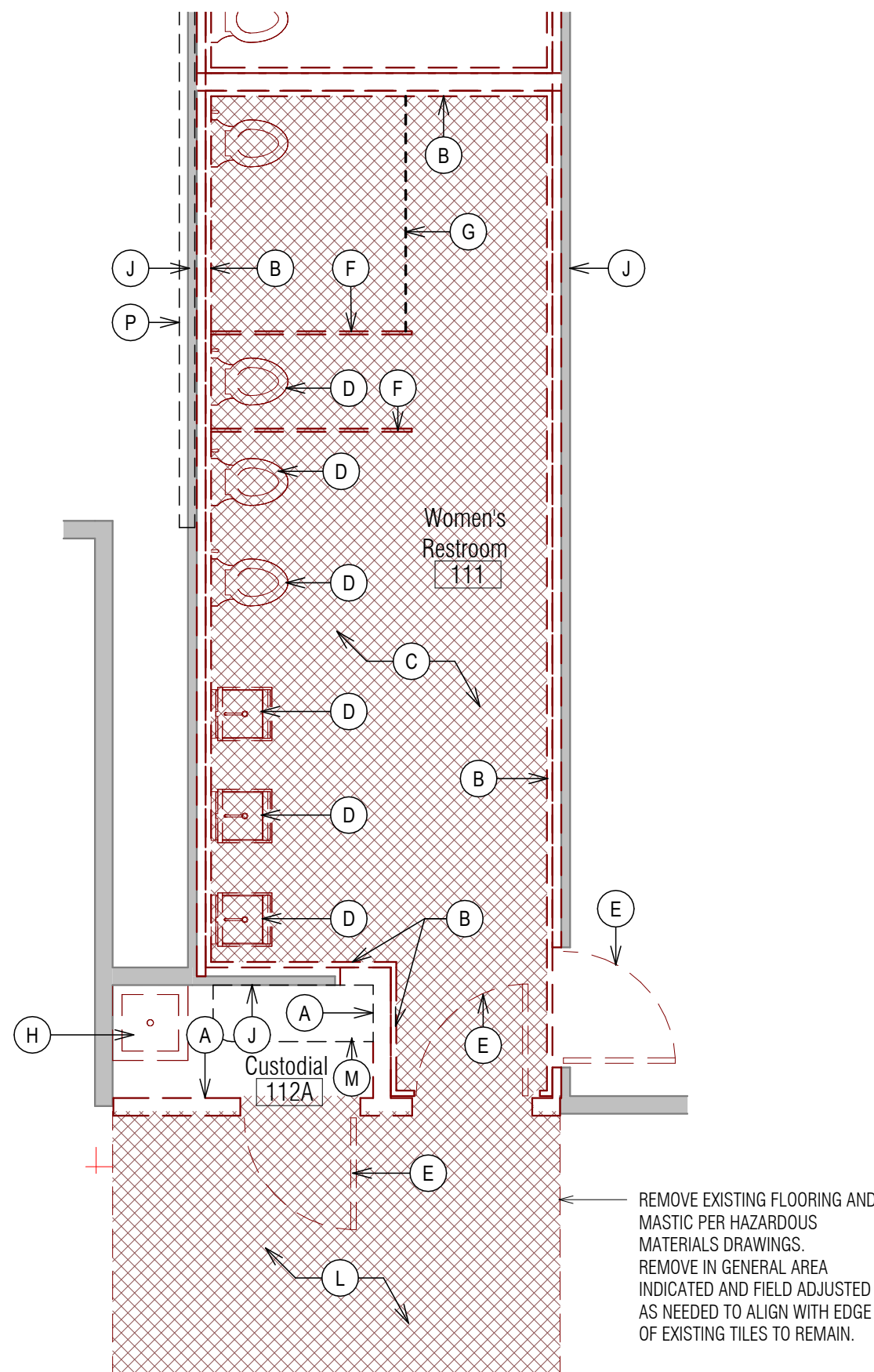
4 Enlarged Demo Ref Clg Plan @ Staff RR

1/4" = 1'-0" RE: 1/AD150



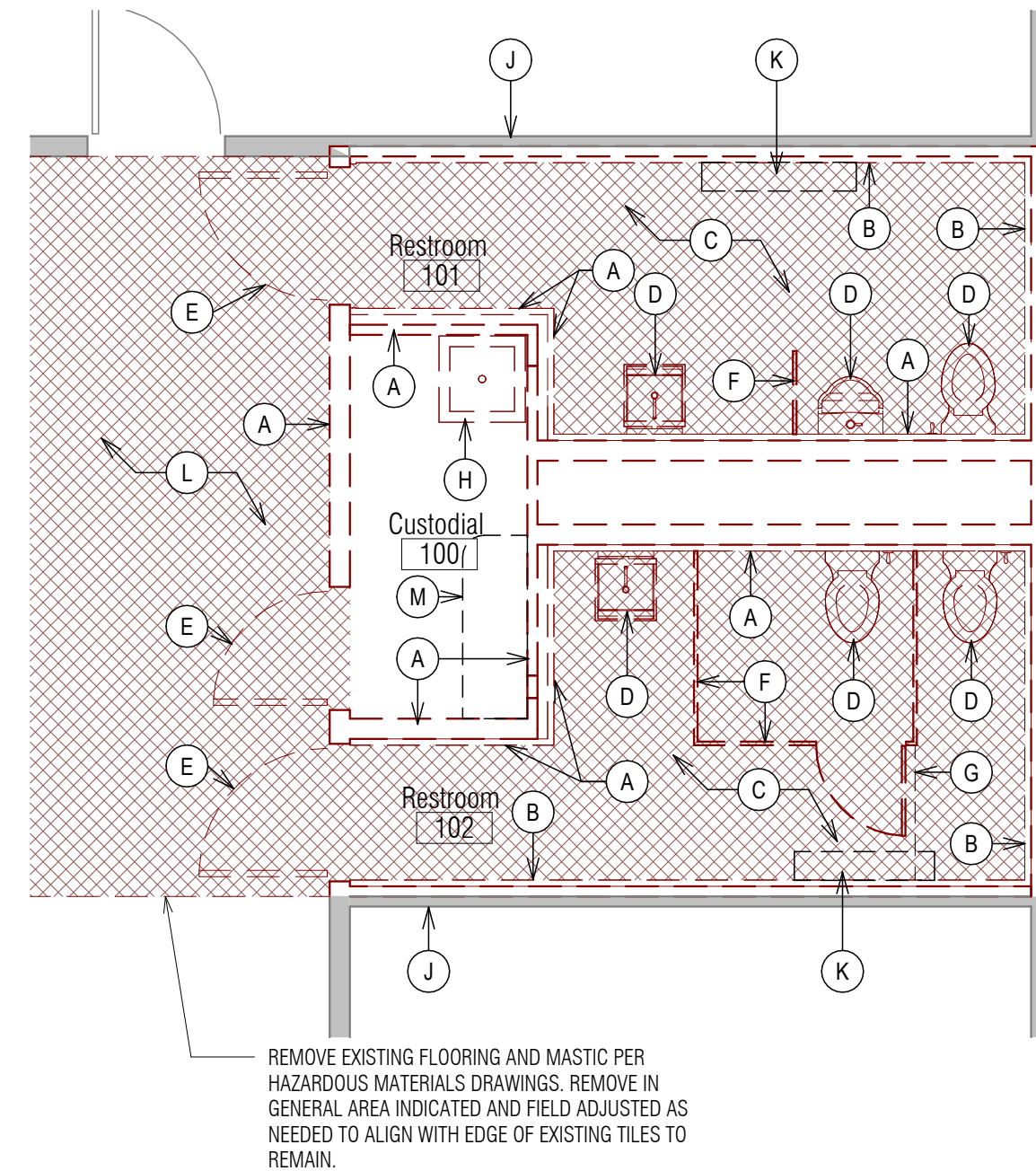
3 Enlarged Demo Plan @ Men's Restroom

1/4" = 1'-0" RE: 1/AD100



2 Enlarged Demo Plan @ Women's Restroom

1/4" = 1'-0" RE: 1/AD100



1 Enlarged Demo Plan @ Staff Restrooms

1/4" = 1'-0" RE: 1/AD100

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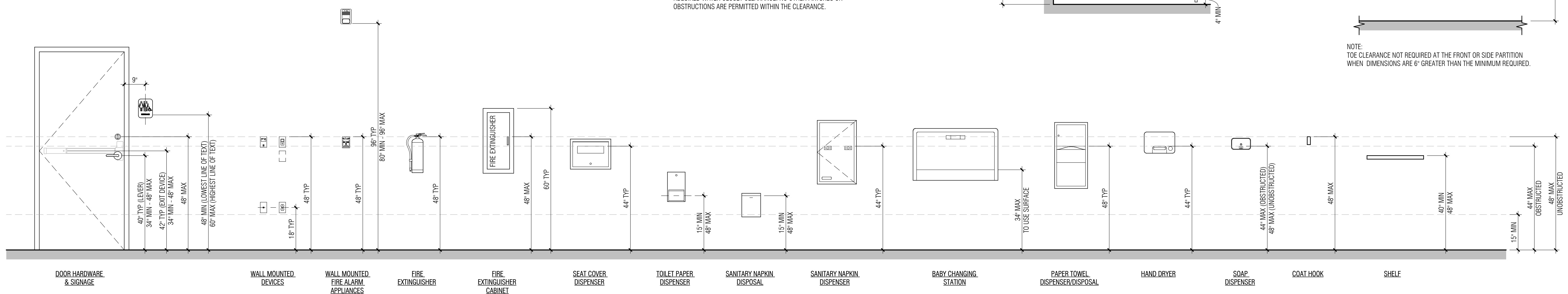
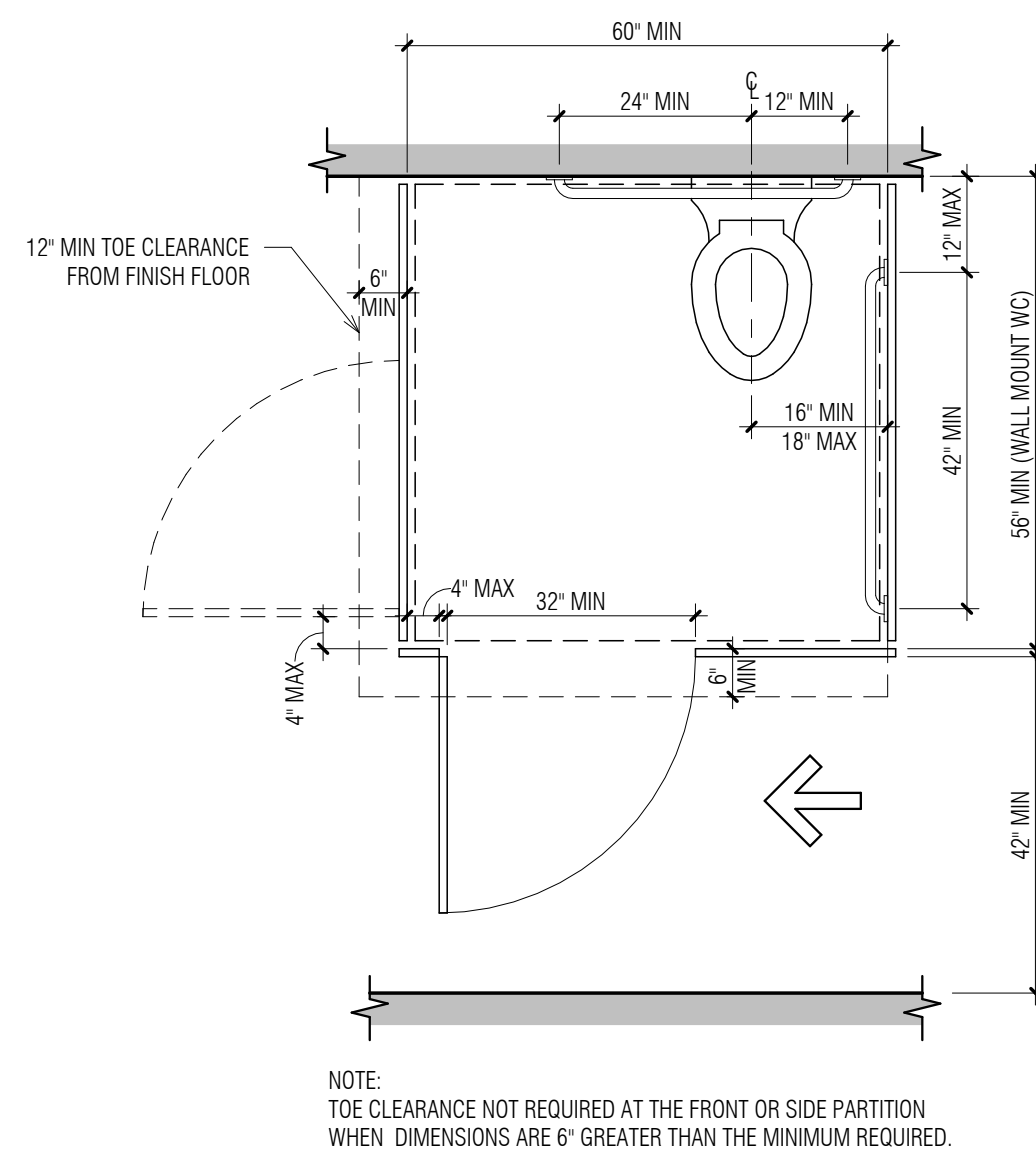
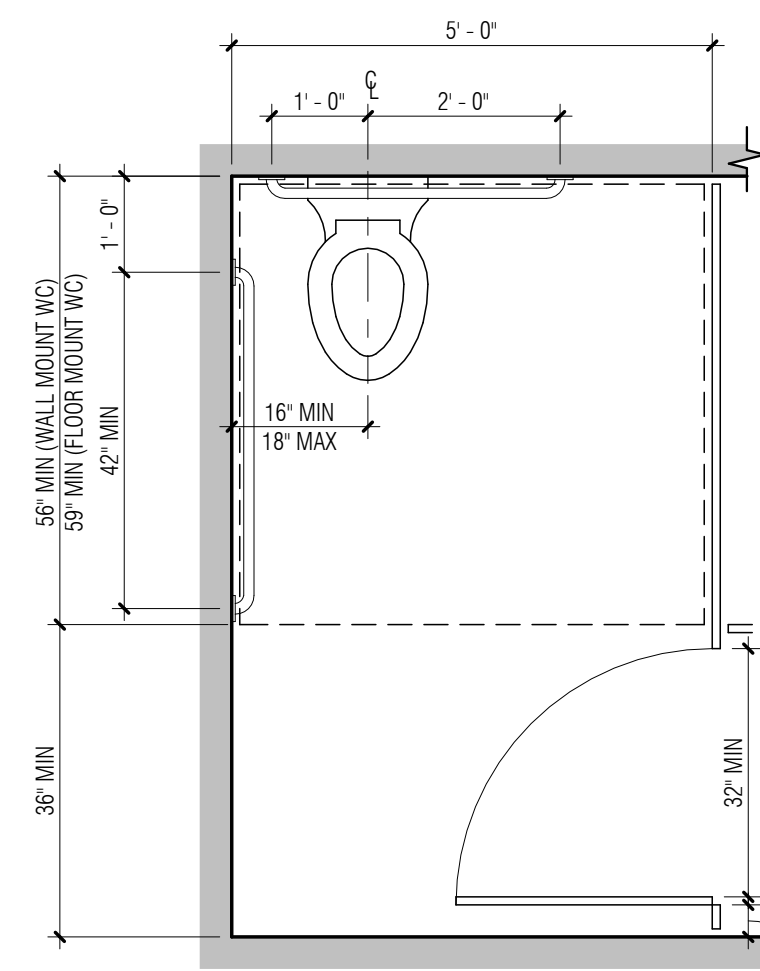
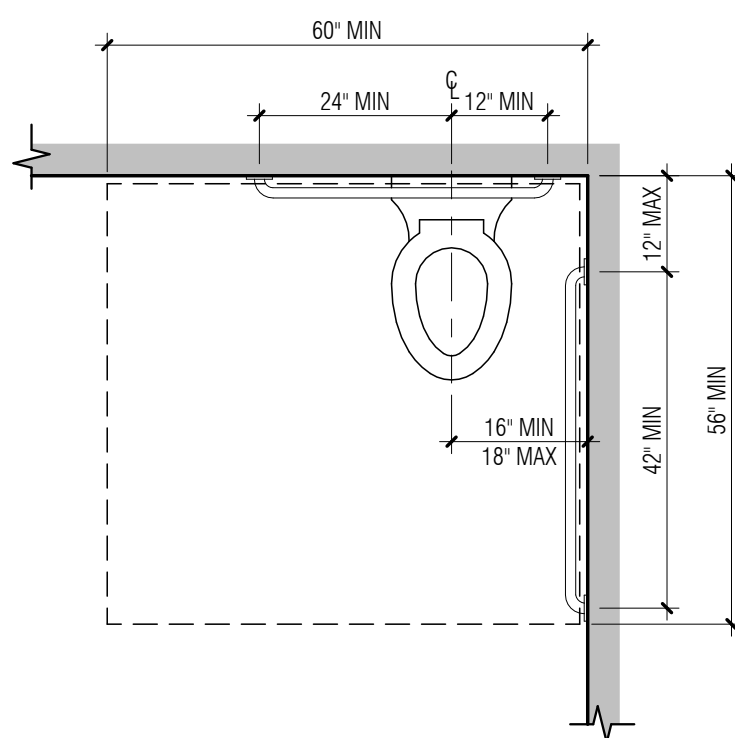
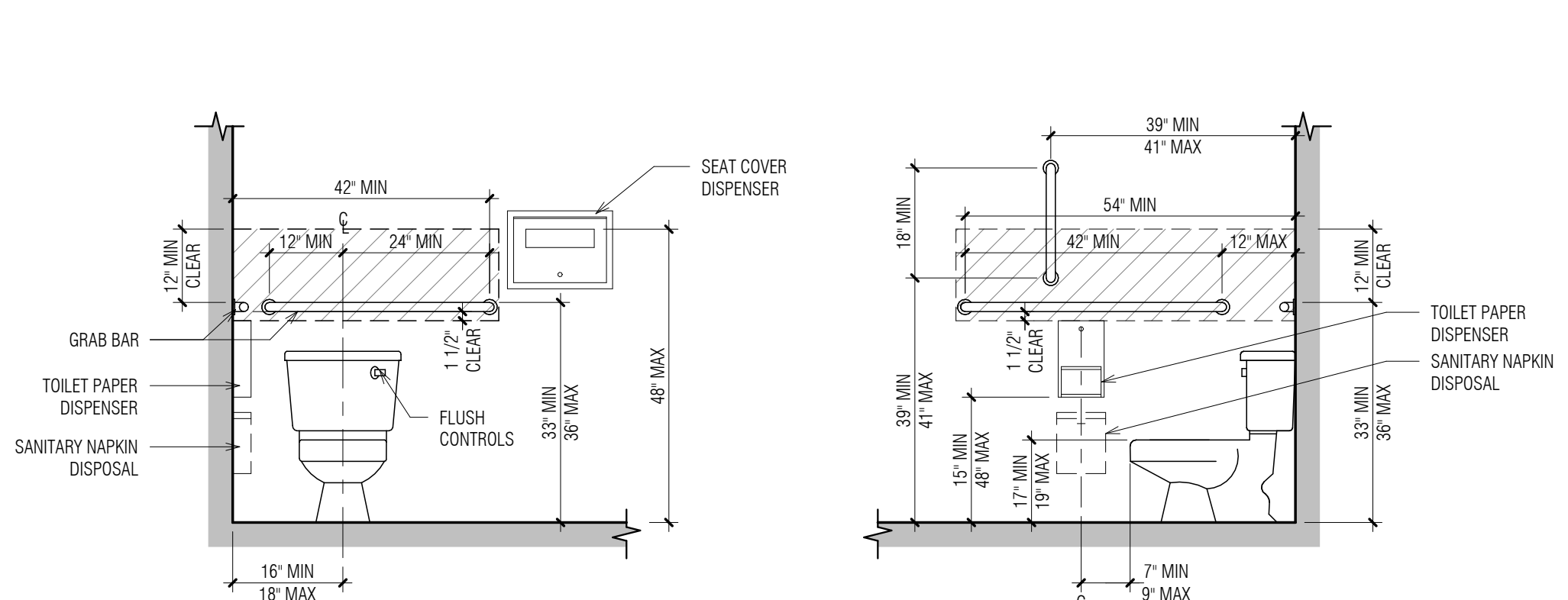
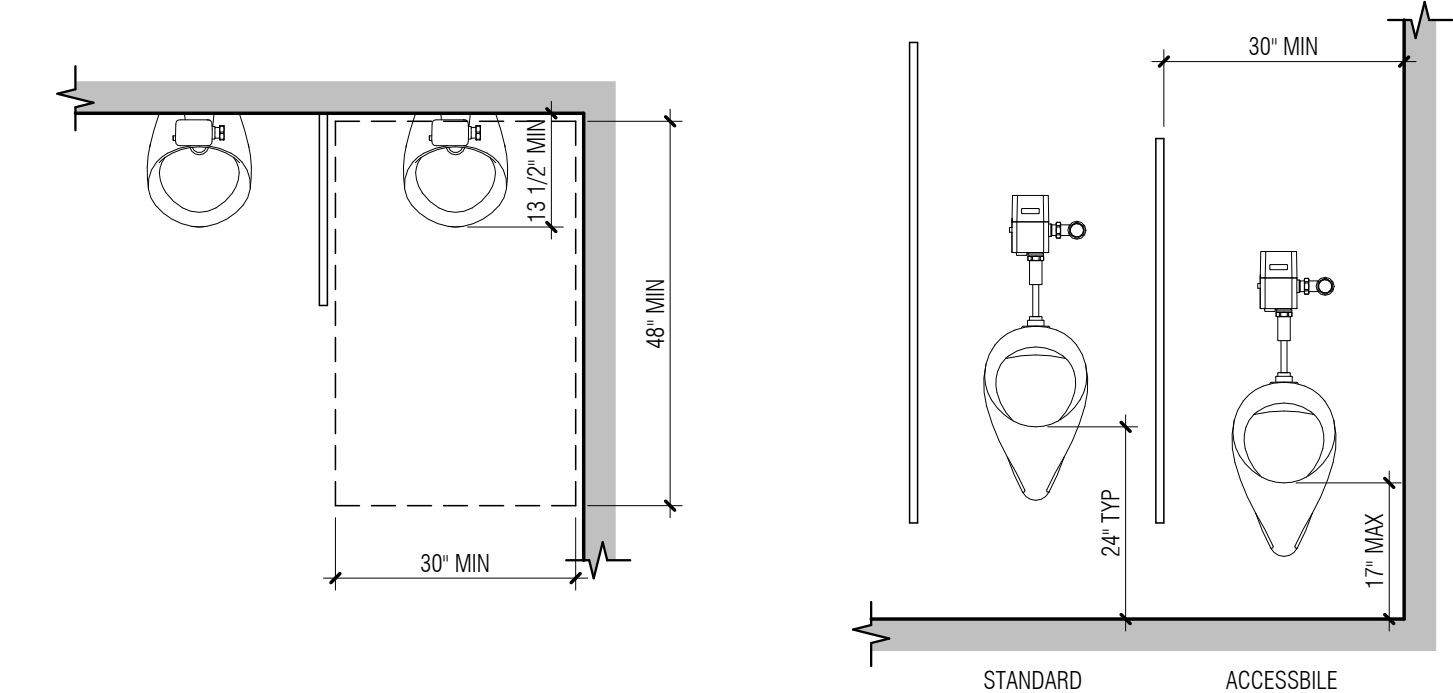
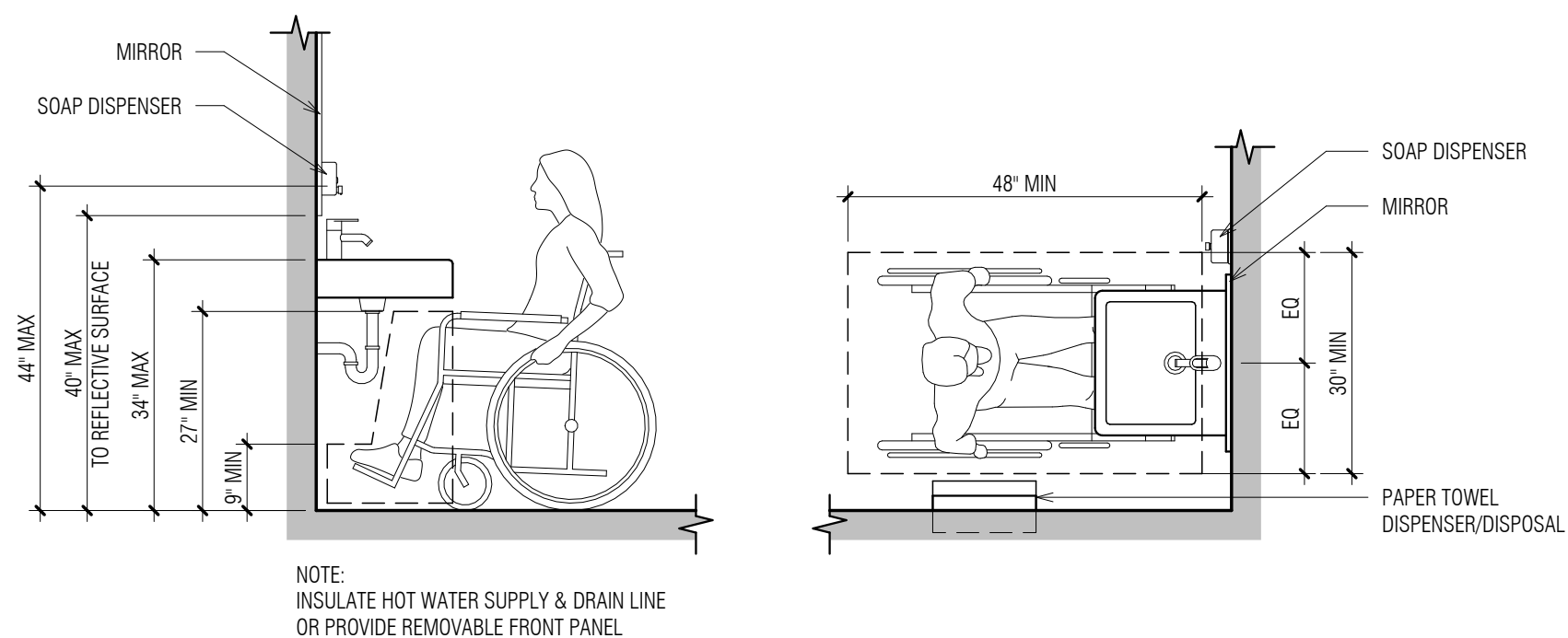
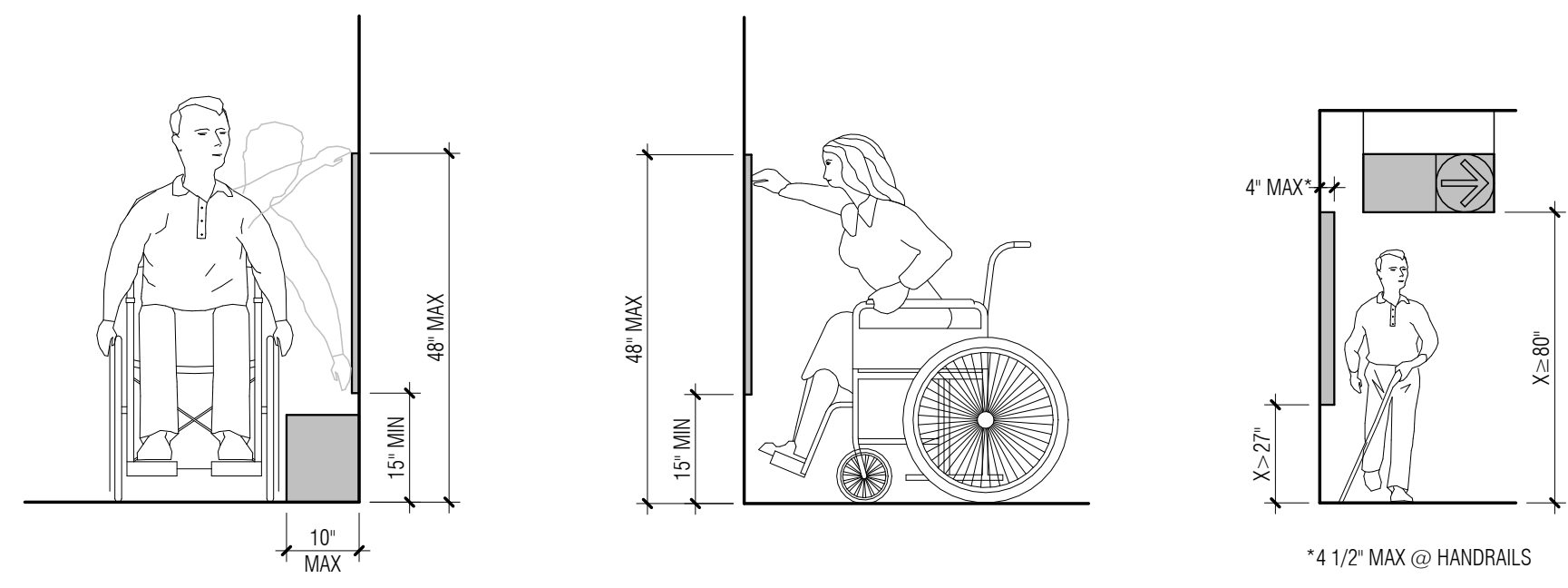
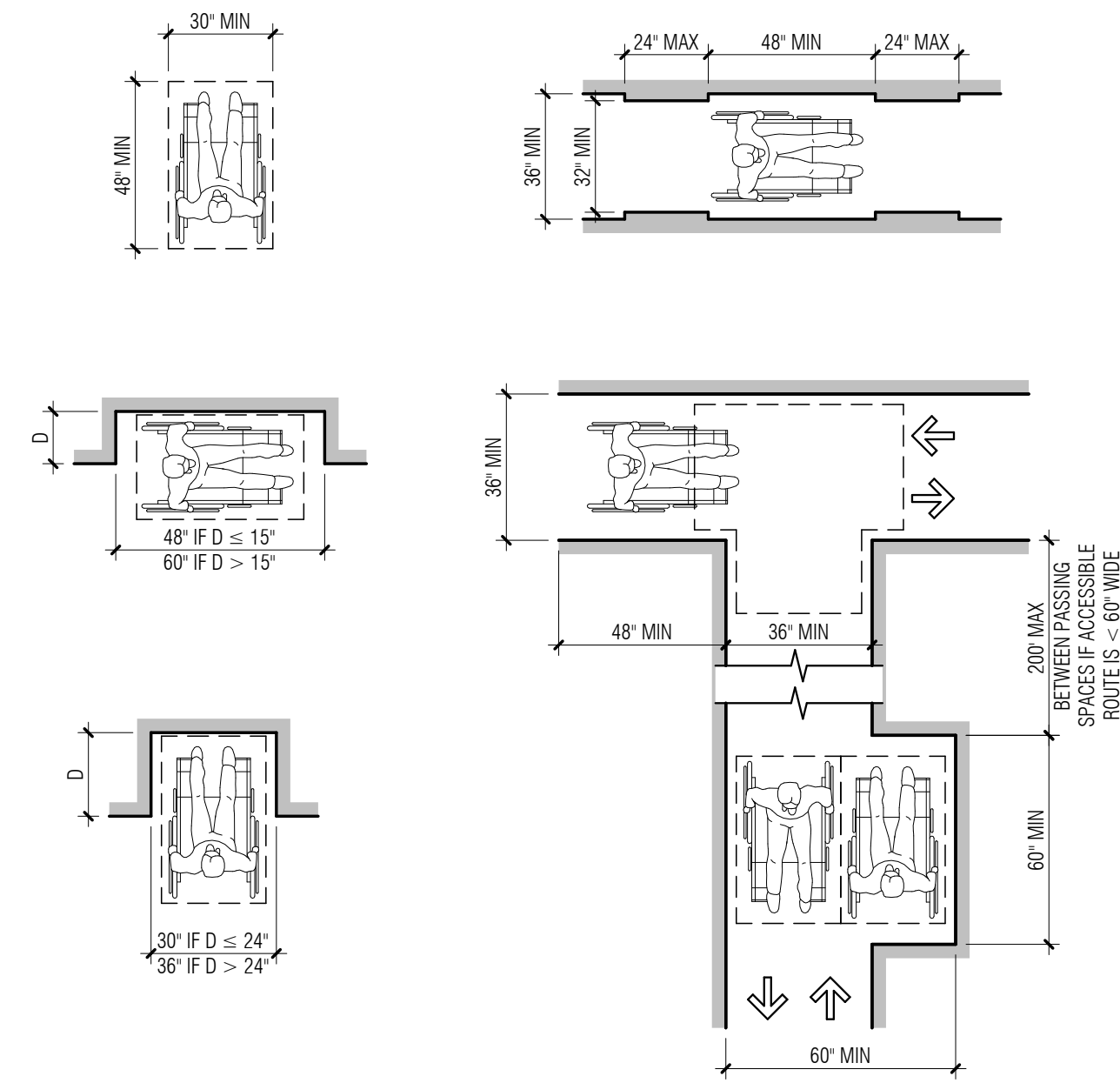
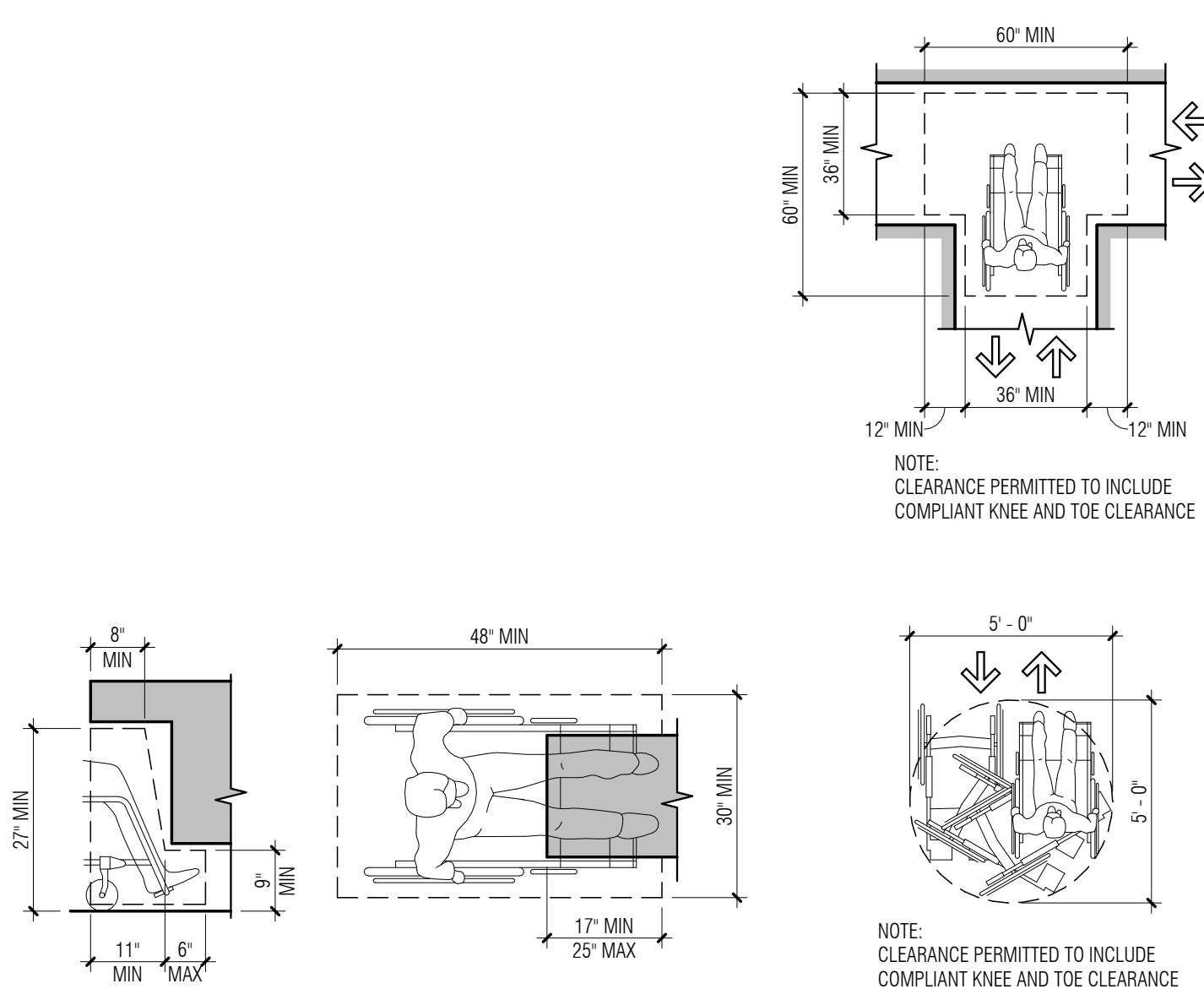
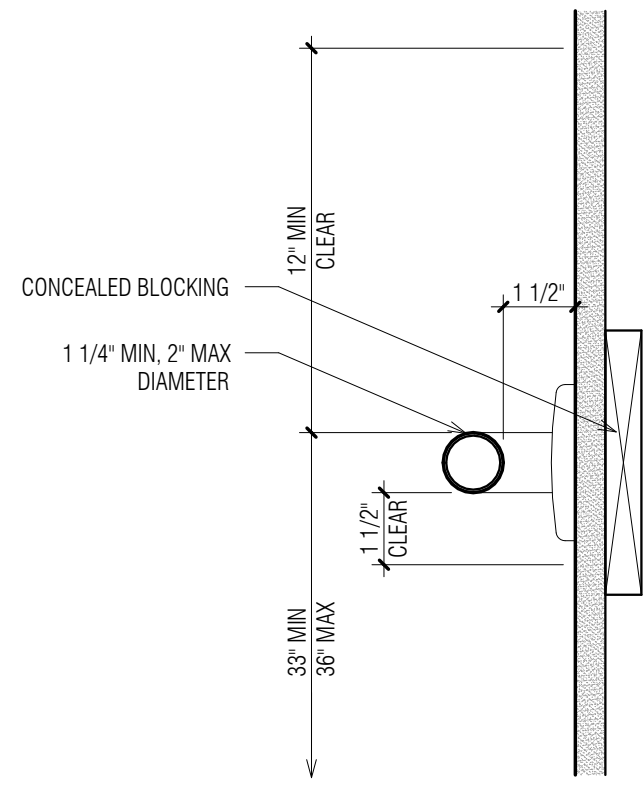
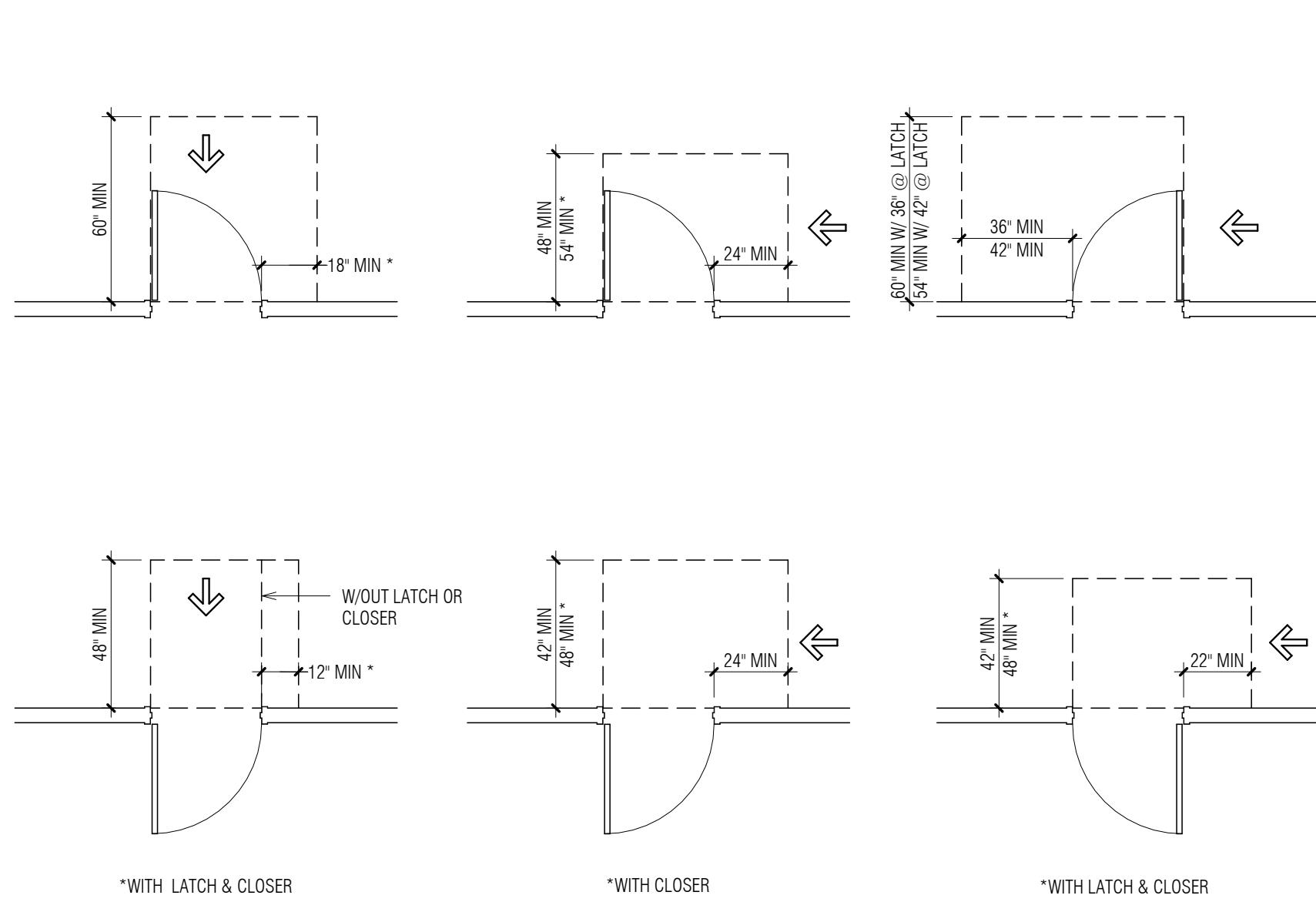
CAD DWG FILE:
DRAWN BY: JC
CHECKED BY: JC
DESIGNED BY: JC

SHEET TITLE:
ENLARGED
ARCHITECTURAL
DEMOLITION PLANS

SHEET NUMBER:

AD500

5 OF 29 SHEETS
09/16/2025



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CAD DWG FILE:
DRAWN BY: JC
CHECKED BY: JC
DESIGNED BY: JC

SHEET TITLE:
**ACCESSIBILITY
GUIDELINES**

SHEET NUMBER:
A010

6 OF 29 SHEETS
09/16/2025



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OFFICE OF ADMINISTRATION
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MANAGEMENT,
DESIGN AND CONSTRUCTION

RENOVATE 4 CLIENT
BATHROOMS - RAGLAND
EDUCATION BUILDING,
HIGGINSVILLE HABILITATION
CENTER

100 W 1st Street
Higginsville, Missouri 64037

PROJECT # M2406-01
SITE # 7357
FACILITY # 6517357027

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 09/16/2025

CAD DWG FILE:
DRAWN BY: JC
CHECKED BY: JC
DESIGNED BY: JC

SHEET TITLE:
**PARTITION, DOOR
AND FINISH
SCHEDULES**

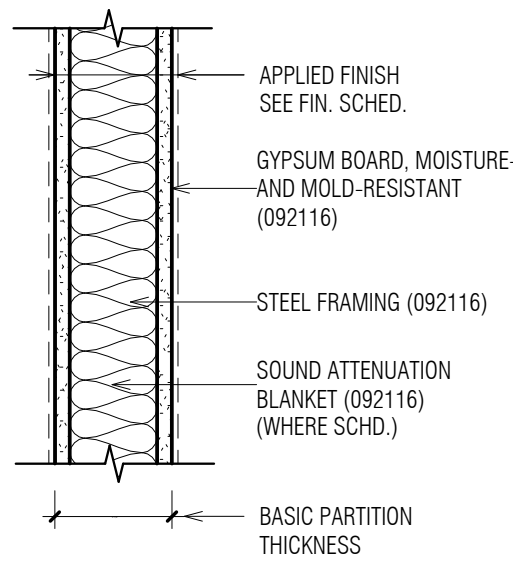
SHEET NUMBER:

A040

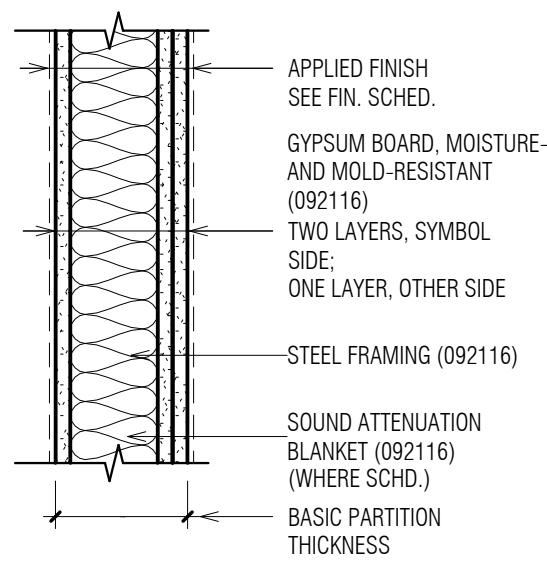
7 OF 29 SHEETS
09/16/2025

FINISH / MATERIAL INDEX									
CODE	FUNCTION	SECTION	MATERIAL	BASIS OF DESIGN MANUFACTURER	MATERIAL / COLOR	FINISH / INSTALL	REMARKS	LOCATION. UON	NOTES/ MFR DATA
DIVISION 06: WOODS, PLASTICS AND COMPOSITES									
SS01	SOLID SURFACE	06 40 23	SOLID SURFACE	CORIAN	WHITE JASMINE	1/2" THICKNESS	RE: INTERIOR DETAILS	RESTROOM COUNTERTOP	KRISTY RINNE <KRINNE@HLLMARK.COM>
SS02	SOLID SURFACE	06 40 23	SOLID SURFACE	CORIAN	GLACIER WHITE		RE: INTERIOR DETAILS	RESTROOM INTEGRAL SINKS	KRISTY RINNE <KRINNE@HLLMARK.COM>
DIVISION 09: FINISHES									
TS01	TRIM, ACCESSORIES	09 21 16	TRANSITION STRIPS	SCHLUTER	FINEC, STAINLESS STEEL	H= 7/16", ITEM NO. F110E		RESTROOM TILE OUTSIDE CORNERS, TYP.	
TS02	TRIM, ACCESSORIES	09 21 16	TRANSITION STRIPS	SCHLUTER	SCHIENE, STAINLESS STEEL	H= 3/8", ITEM NO. E100		RESTROOM TILE WAINSCOT TOP TRIM	
TS03	TRIM, ACCESSORIES	09 21 16	TRANSITION STRIPS	TARKETT	FLEXIBLE STOP PROFILES, SILVER	COMPACT, FT2.5MM	RE: TRANSITION DETAILS	RESILIENT FLOORING TO CONCRETE TRIM	
TL01	TILE	09 30 00	PORCELAIN FLOOR TILE	DALTILE	SYNCHRONIC, CHARCOAL SY34, MATTE	12"x24" STACKED BOND		RESTROOM FLOOR TILE	JAIME RUFFING <JAIME.RUFFING@DALTILE.COM>
TL02	TILE	09 30 00	PORCELAIN FLOOR TILE	DALTILE	SYNCHRONIC, CHARCOAL SY34, MATTE	6"x12" COVE BASE		RESTROOM COVE BASE	JAIME RUFFING <JAIME.RUFFING@DALTILE.COM>
TL03	TILE	09 30 00	CERAMIC WALL TILE	DALTILE	COVE CREEK, OFF WHITE CC08	4"x16" VERTICAL STACKED BOND	RE: INTERIOR ELEVATIONS	RESTROOM WALL TILE	JAIME RUFFING <JAIME.RUFFING@DALTILE.COM>
FR01	FLOORING, RESILIENT	09 65 00	RESILIENT FLOORING	WINEO PURLINE	1500 FUSION XL, COLOR TO BE SELECTED	ROLL, 2.5MM THICKNESS		RE: FINISH PLANS	
BR01	RESILIENT BASE	09 65 13	RUBBER COVE BASE	TARKETT CONTINUOUS ROLL STOCK	TO BE SELECTED FROM MFR'S FULL RANGE	4" COVE		HALLWAY BASE REPLACEMENT	TAYLOR GROSSENKEMPER <TAYLOR.GROSSENKEMPER@TARKETT.COM>
PA01	PAINT	09 91 00	INTERIOR PAINT	SHERWIN WILLIAMS	SW 7102 WHITE FLOUR			TYPICAL WALL PAINT	
DIVISION 10: SPECIALTIES									
TC01	TOILET COMPARTMENTS	10 21 13	TOILET PARTITIONS	ASI COLOR THRU PHENOLIC, ULTIMATE PRIVACY	CHARCOAL 3077	FLOOR TO CEILING ANCHORED		RESTROOM	

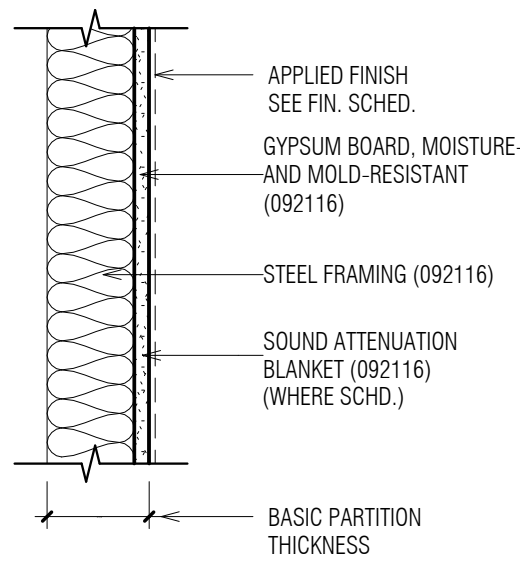
PARTITION SYSTEM																
PARTITION IDENTIFICATION PLAN SYMBOL	BASIC PARTITION THICKNESS	FIRE RATING (HRS)	FIRE TEST NUMBER	ACOUSTICAL RATING (STC)	ACOUSTICAL TEST NUMBER	SOUND ATTENUATION BLANKET THICKNESS	GWB THICKNESS	ACOUSTICAL CAULKING	FIRE CAULKING	PARTITION CORE				FINISH HEIGHT		REMARKS
										STUD/FURRING SIZE	FURRING TYPE	METAL THICKNESS	STUD SPACING	GWB TO STRUCT ABV	W/ GWB TO 6" ABV CLG	
Partition System A																
A3a	4 7/8"			49	SA-870717	3"	5/8"	Y		3 5/8"	-		16"	-	Y	SEE 7/A560
A6	7 1/4"					-	5/8"	Y		6"	-		16"	-	Y	SEE 7/A560
A6a	7 1/4"			49	SA-870717	5"	5/8"	Y		6"	-		16"	-	Y	SEE 7/A560
Partition System B																
B3f	5 1/2"	1 HR	U419	49	SA-870717	3"	5/8"		Y	3 5/8"	-		16"	Y		SEE 2.3.5/A560
B6f	7 7/8"	1 HR	U419	49	SA-870717	6"	5/8"		Y	3 5/8"	-		16"	Y		SEE 2.3.5/A560
Partition System D																
D3a	<varies >					3"	5/8"	Y		3 5/8"	-		16"	-	Y	SEE 4/A560
Partition System M																
M1	1 1/2"					3"	5/8"			7/8"	HAT		16"	-		



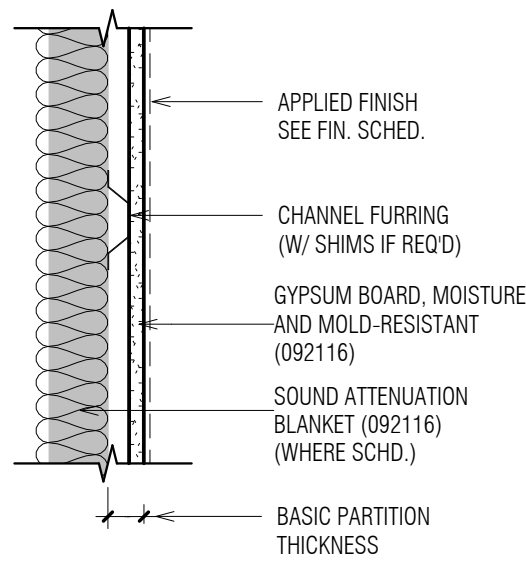
PARTITION SYSTEM A



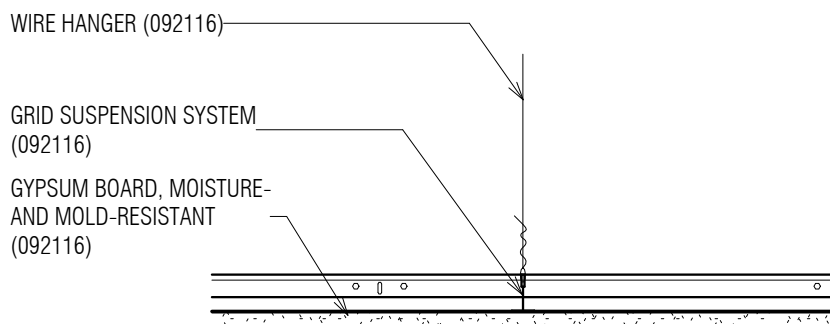
PARTITION SYSTEM B



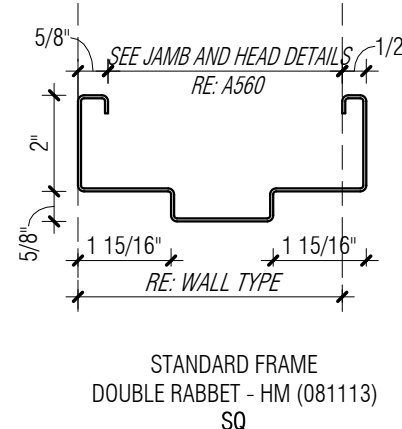
PARTITION SYSTEM D



PARTITION SYSTEM M

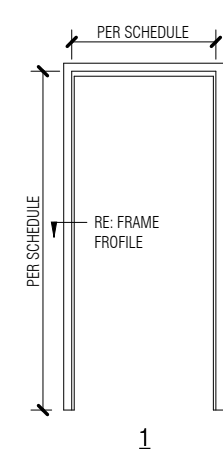


GYPSUM BOARD CEILING ASSEMBLY



Frame Profiles

3" = 1'-0" RE: /



Frame Types

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



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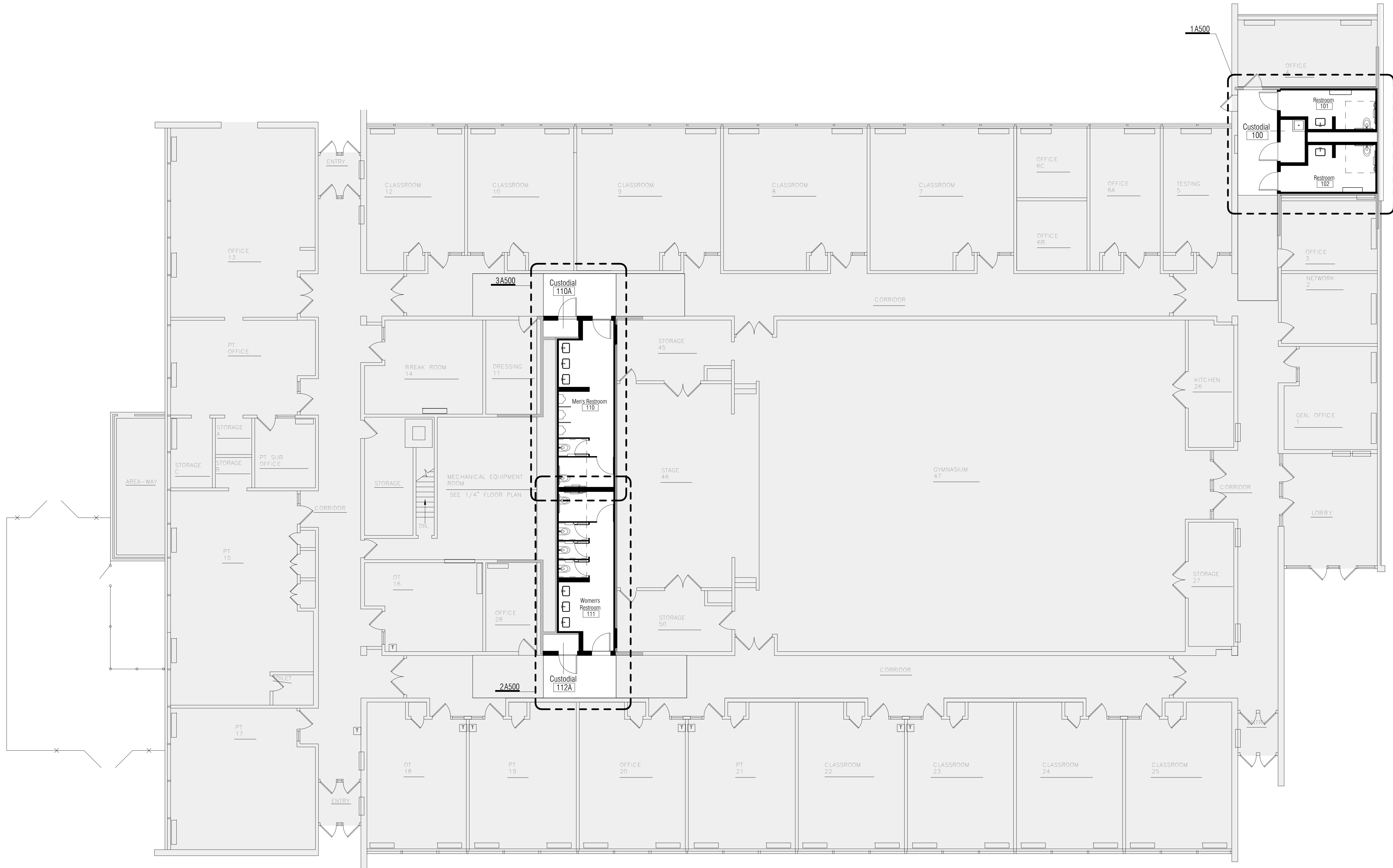
CAD DWG FILE:
DRAWN BY: JC
CHECKED BY: JC
DESIGNED BY: JC

SHEET TITLE:
FLOOR PLAN

SHEET NUMBER:

A100

8 OF 29 SHEETS
09/16/2025



Legend - Floor Plan

- EXISTING WALL TO REMAIN
- NEW WALL
- EXISTING DOOR TO REMAIN

1 First Floor Plan
1/8" = 1'-0" RE: /

GRAPHIC SCALE
0 2 4 8 16





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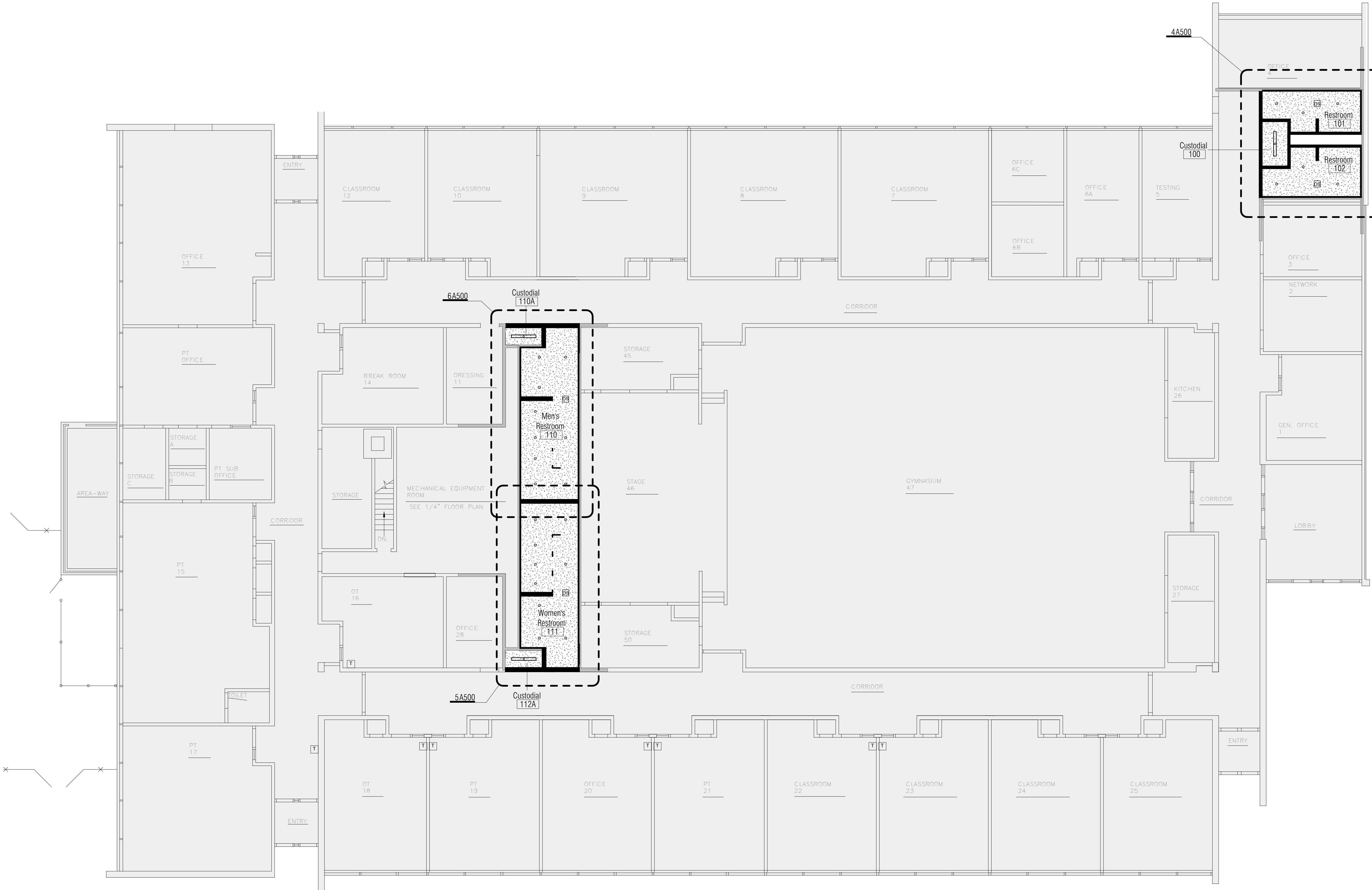
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DRAWN BY: JC
CHECKED BY: JC
DESIGNED BY: JC

SHEET TITLE:
**REFLECTED CEILING
PLAN**

SHEET NUMBER:

A150

9 OF 29 SHEETS
09/16/2025



Legend - Reflected Ceiling Plan

- EXISTING WALL / ITEM TO BE REMOVED
- EXISTING WALL TO REMAIN
- NEW WALL

1 First Floor Reflected Ceiling Plan

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

GRAPHIC SCALE

0 2 4 8 16



Plan Notes - Reflected Ceiling Plan

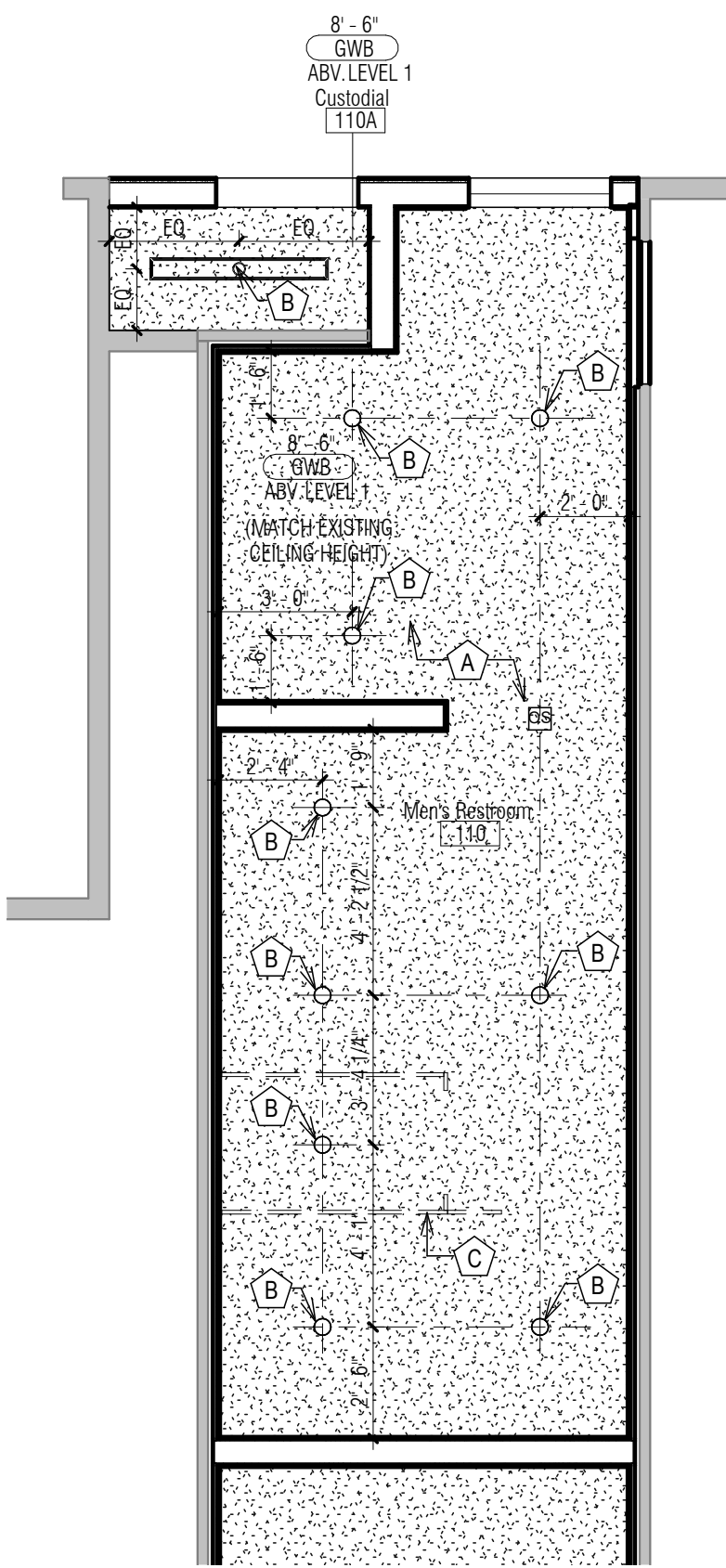
- (A) GYPSUM BOARD CEILING WITH PAINT FINISH (092116)
- (B) LIGHT FIXTURE, TYP. RE: ELECTRICAL
- (C) SUPPORT AND BACKING FOR TOILET PARTITION ATTACHMENT ABOVE CEILING. PROVIDE RIGID SUPPORTS AS INDICATED BY TOILET PARTITION MANUFACTURERS INSTALLATION INSTRUCTIONS USING COLD-FORMED METAL FRAMING HUNG AND BRACED FROM STRUCTURE ABOVE AND ADJACENT WALLS.

Legend - Reflected Ceiling Plan

- EXISTING WALL / ITEM TO BE REMOVED
- EXISTING WALL TO REMAIN
- NEW WALL

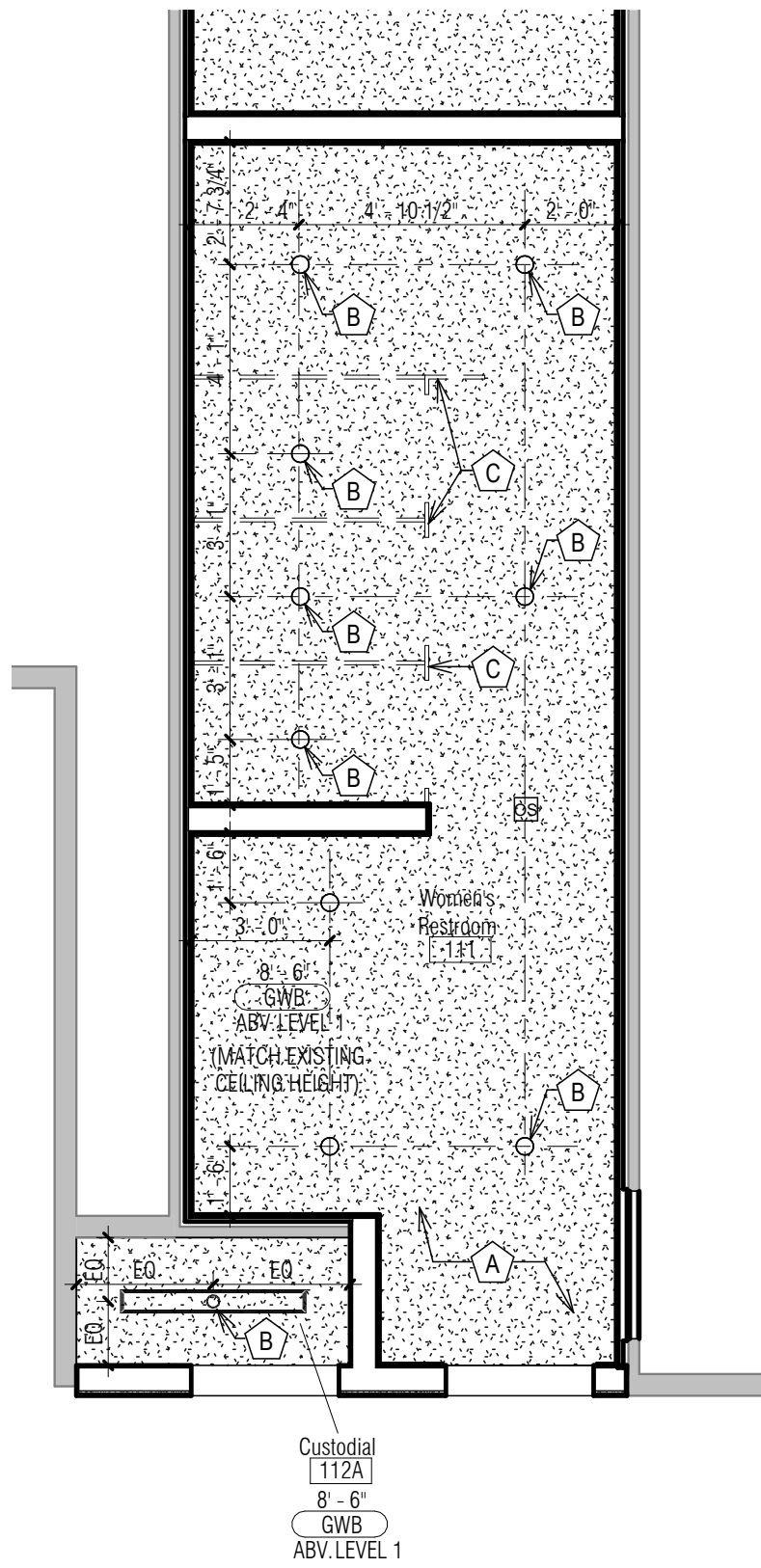
General Notes - Reflected Ceiling Plan

- ALL DIMENSIONS TO FINISHED FACE OF MATERIAL UNLESS NOTED OTHERWISE.
- LIGHT FIXTURES ARE DIMENSIONED THE CENTERLINE OF FIXTURE. UNLESS NOTED OTHERWISE.
- LOCATE CEILING MOUNTED DEVICES INCLUDING BUT NOT LIMITED TO: SPRINKLER HEADS, LIGHT FIXTURES, ELECTRICAL, AV, IT COMMUNICATIONS, AUDIO VISUAL, TECHNOLOGY AND LIFE SAFETY DEVICES IN CENTER OF ACOUSTICAL PANELS UNLESS NOTED OTHERWISE.
- SUPPORTED DEVICES BY WITH METAL SUSPENSION SYSTEMS ATTACHED TO CEILING GRID, CEILING STRUCTURE AND OR BUILDING STRUCTURE FOR SUPPORT. DO NOT RELY ON CEILING PANELS FOR SUPPORT. UNLESS NOTED OTHERWISE.
- PROVIDE ACCESS FOR INSTALLATION AND MAINTENANCE OF ABOVE CEILING BUILDING SYSTEMS AND ELEMENTS. COORDINATE ACCESS WITH ALL APPLICABLE TRADES, REVIEW AND CONFIRM ACCESS, DOOR SIZE AND LOCATIONS WITH ARCHITECT PRIOR TO INSTALLATION.
- LOCATE LIGHT FIXTURES PER ARCHITECTURAL REFLECTED CEILING PLANS. REFER TO ELECTRICAL LIGHTING PLANS FOR FIXTURE TYPES AND QUANTITIES.
- REFER TO MECHANICAL, ELECTRICAL, FIRE PROTECTION, COMMUNICATIONS, AUDIO VISUAL, TECHNOLOGY, SECURITY AND FIRE SAFETY DRAWINGS FOR ALL CEILING MOUNTED DEVICES AND OVERHEAD DEVICES. LOCATE PER ARCHITECTURAL DRAWINGS.
- SEAL PENETRATIONS OF FIRE-RATED WALLS WITH A FIRE RESISTIVE JOINT SYSTEM. SEAL PENETRATIONS OF ACOUSTICAL-RATED WALLS WITH ACOUSTIC SEALANT.
- PAIN



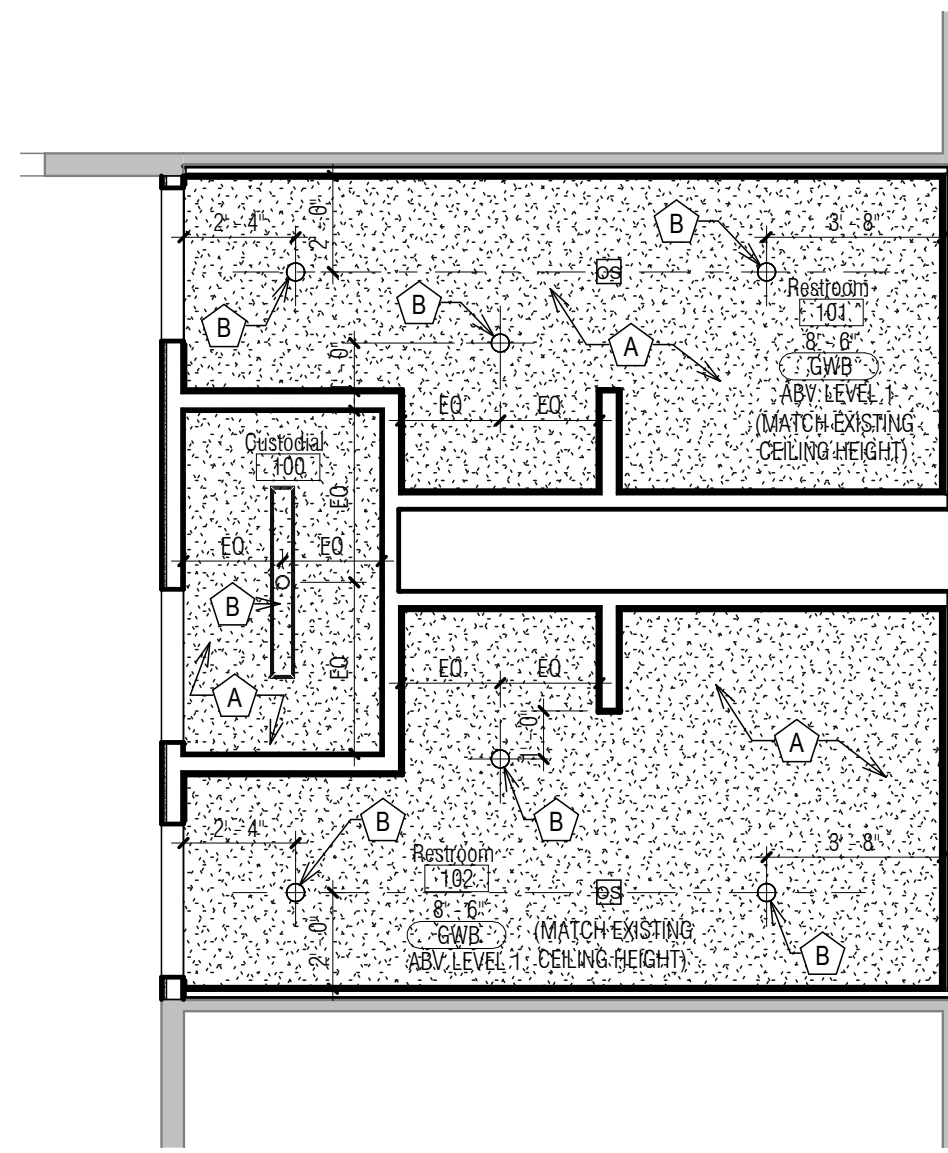
6 Enlarged Ref Clg Plan @ Men's RR

1/4" = 1'-0" RE: 1/A150



5 Enlarged Ref Clg Plan @ Women's RR

1/4" = 1'-0" RE: 1/A150



4 Enlarged Ref Clg Plan @ Staff RR

1/4" = 1'-0" RE: 1/A150

Plan Notes - Floor Plan

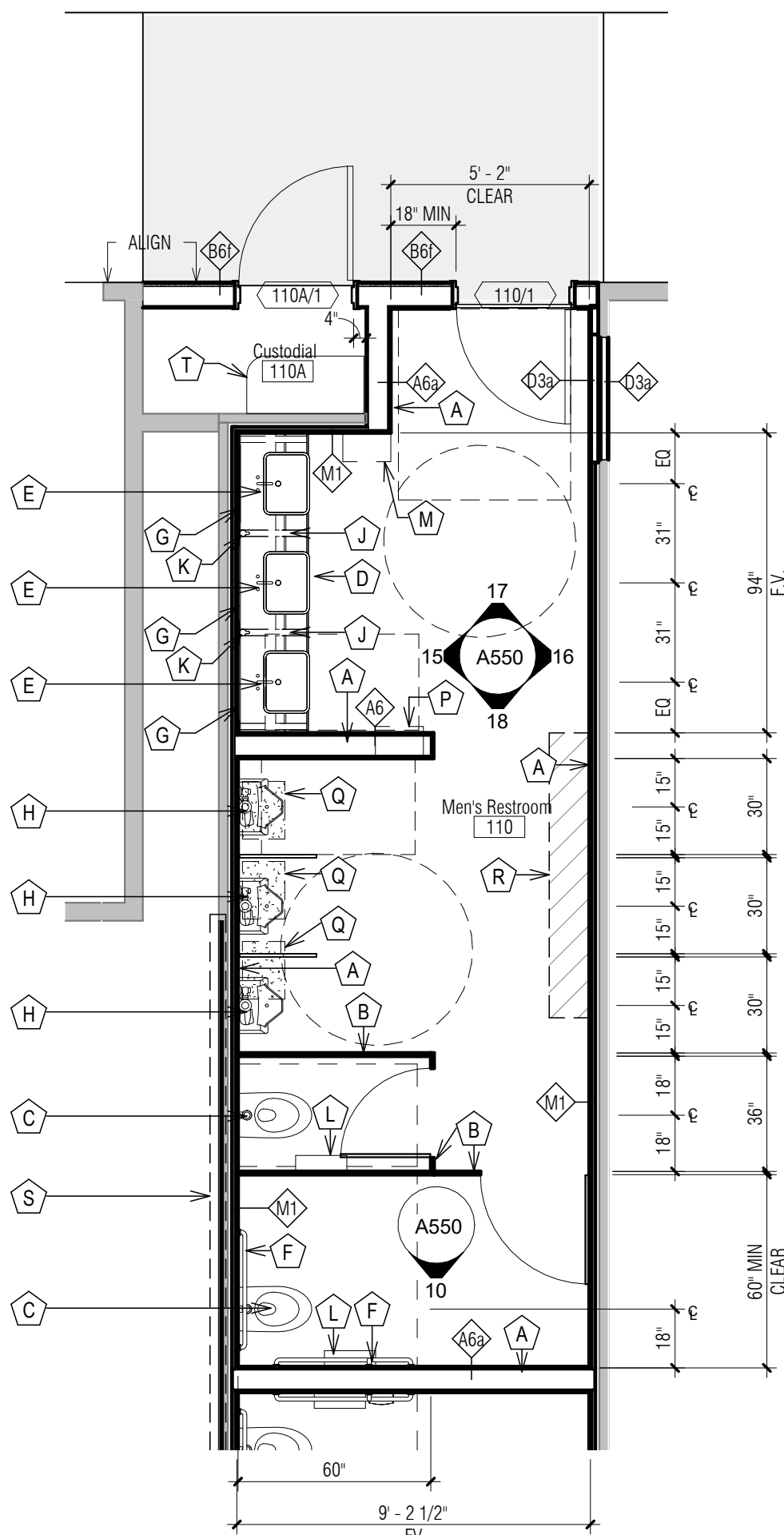
- (A) TILE OVER NEW GYPSUM BOARD WALL (093000, 092116)
- (B) TOILET ENCLOSURE (102113)
- (C) TOILET, RE: PLUMBING
- (D) SOLID SURFACE COUNTERTOP WITH INTEGRAL SINKS, SOLID SURFACE APRON, AND SOLID SURFACE PROTECTION PANEL (064023)
- (E) FAUCET, RE: PLUMBING
- (F) GRAB BARS, RE: A010 (102800)
- (G) MIRROR UNIT (102800)
- (H) URINAL, RE: PLUMBING
- (J) COUNTERTOP BRACKET (064023)
- (K) SOAP DISPENSER, OWNER FURNISHED, CONTRACTOR INSTALLED
- (L) TOILET TISSUE DISPENSER, OWNER FURNISHED, CONTRACTOR INSTALLED
- (M) TRASH RECEPTACLE, OWNER FURNISHED, OWNER INSTALLED
- (N) SANITARY NAPKIN DISPOSAL UNIT, OWNER FURNISHED, CONTRACTOR INSTALLED
- (P) TOWEL DISPENSER, OWNER FURNISHED, CONTRACTOR INSTALLED
- (Q) PIT REMAINING AFTER REMOVAL OF EXISTING FLOOR MOUNTED URINALS TO BE INFILLED WITH MORTAR. COORDINATE WITH FINISH FLOOR.
- (R) AREA ACCEPTABLE TO PLACE FUTURE OFOI STORAGE CABINET TO MEET ADA COMPLIANCE.
- (S) PATCH WALL WITH HAT CHANNEL AND GYP BD PER WALL TYPE M1 (RE: A040) AND PAINT TO MATCH EXISTING.
- (T) RELOCATED EXISTING WALL-MOUNTED SHELVING

Legend - Floor Plan

- EXISTING WALL TO REMAIN
- NEW WALL
- EXISTING DOOR TO REMAIN

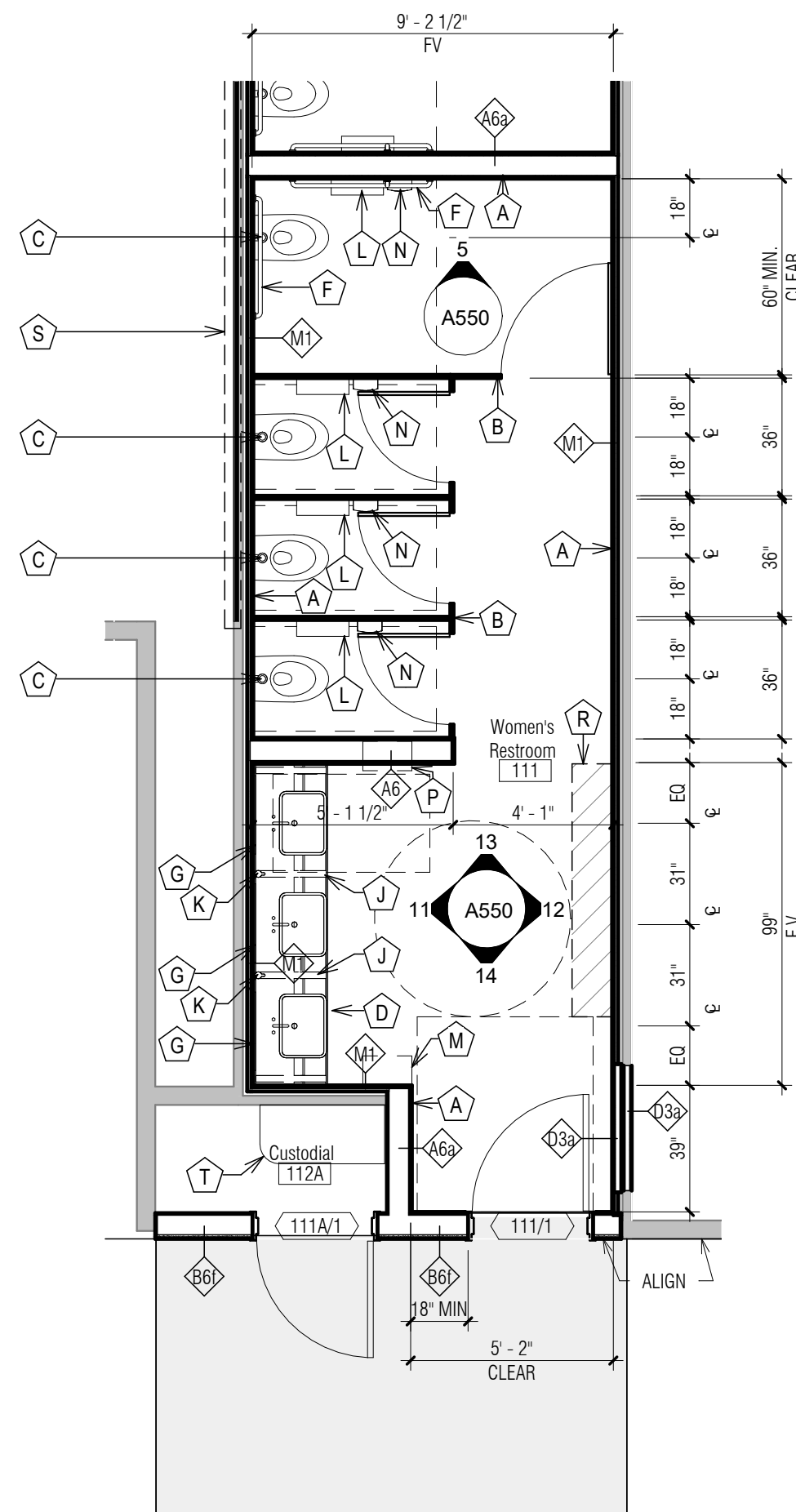
General Notes - Floor Plan

- ALL DIMENSIONS TO FINISHED FACE OF MATERIAL UNLESS NOTED OTHERWISE.
- INSTALL DOORS NOT LOCATED BY DIMENSION SUCH THAT EDGE OF DOOR FRAME TO FACE OF ADJACENT WALL IS 0'-4".
- CONCEALED BLOCKING TO BE FIRE RETARDANT TREATED (FRT), MOISTURE RESISTANT WOOD.
- INFILL CONSTRUCTION TO BE FLUSH WITH FINISHED FACE OF EXISTING SURROUNDING CONSTRUCTION.
- PATCH AND PAINT ALL WALL SURFACES THAT ARE EXISTING TO REMAIN IN THE PROJECT AREA.



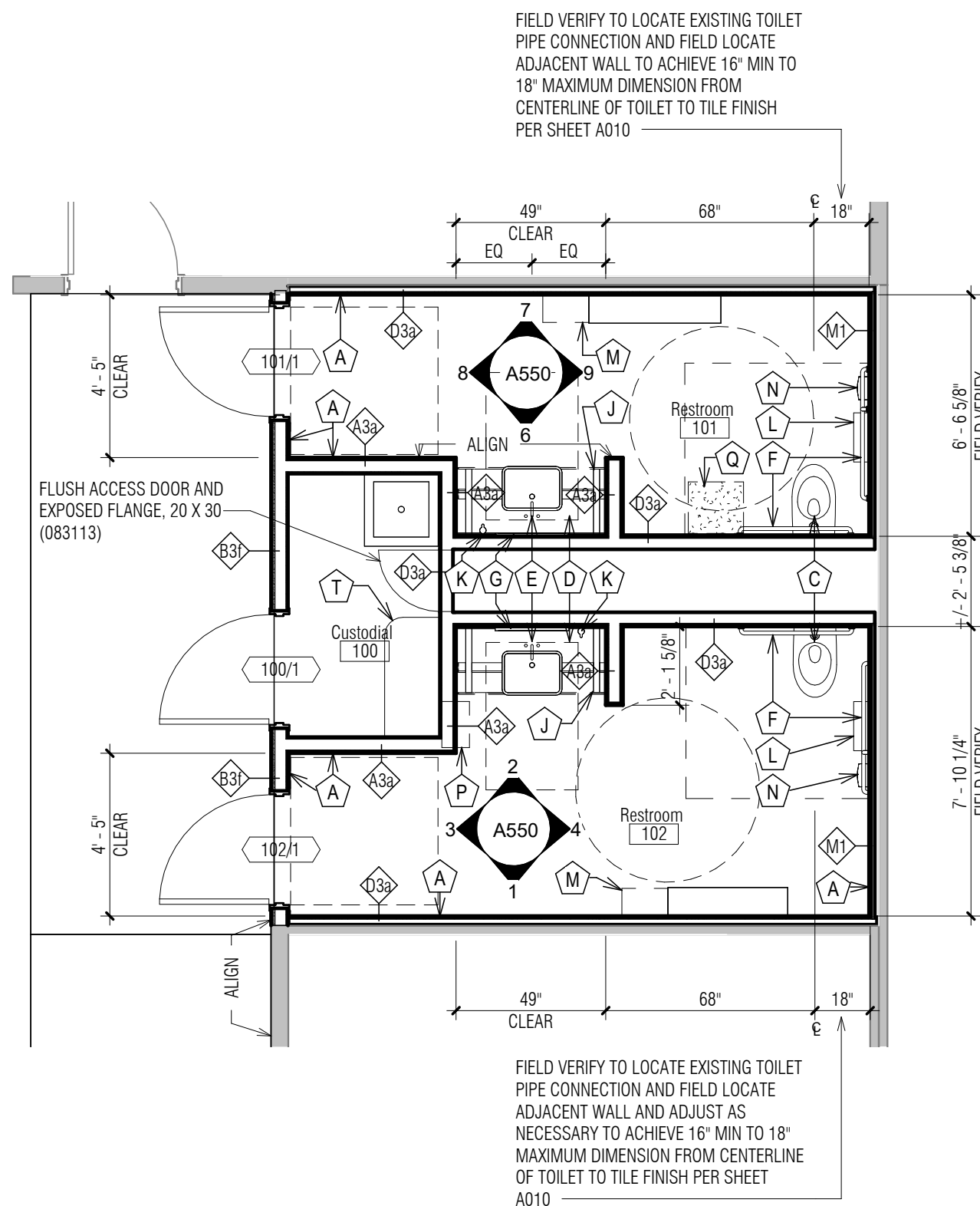
3 Enlarged Plan @ Men's Restroom

1/4" = 1'-0" RE: 1/A100



2 Enlarged Plan @ Women's Restroom

1/4" = 1'-0" RE: 1/A100



1 Enlarged Plan @ Staff Restrooms

1/4" = 1'-0" RE: 1/A100

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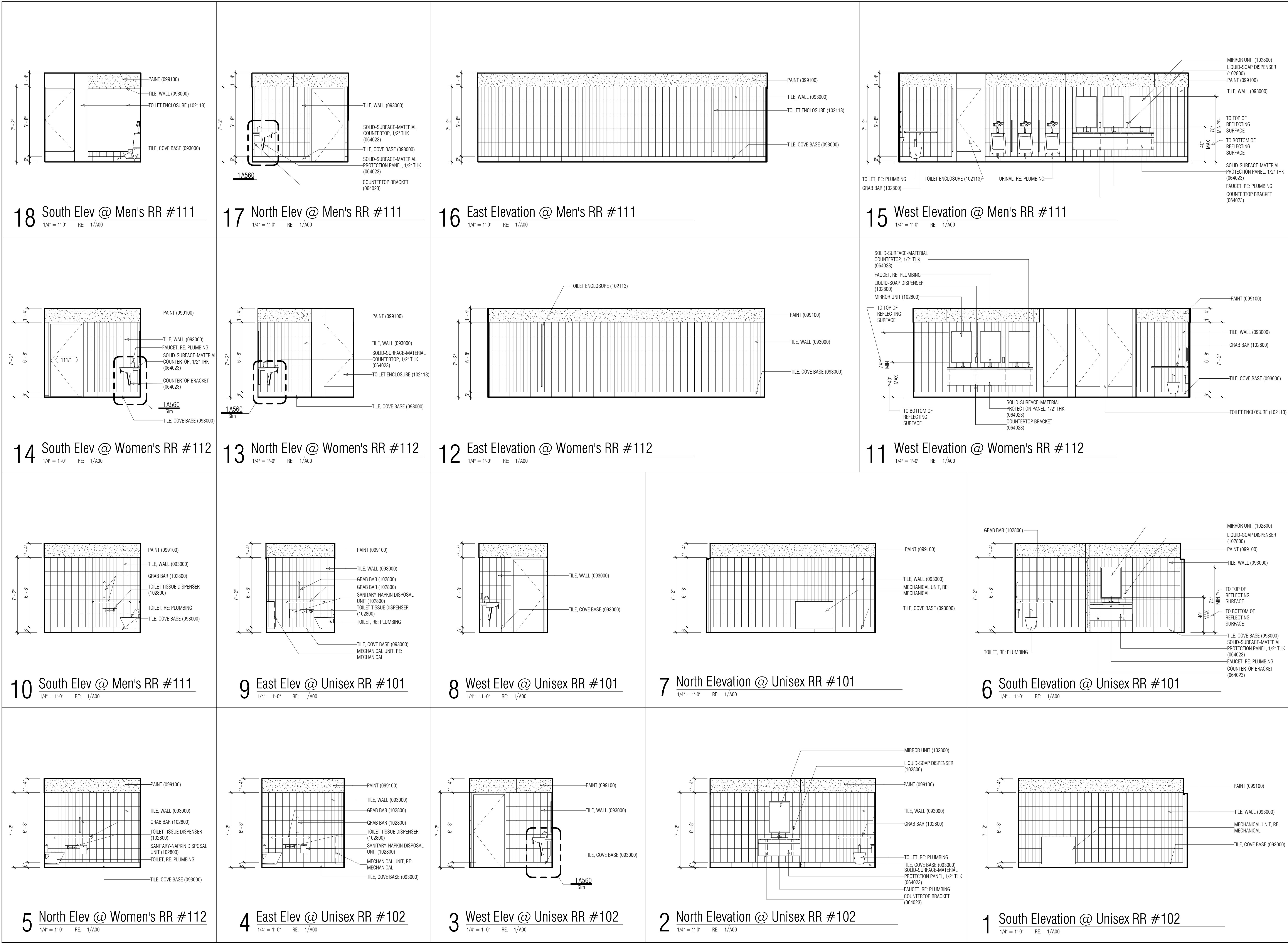
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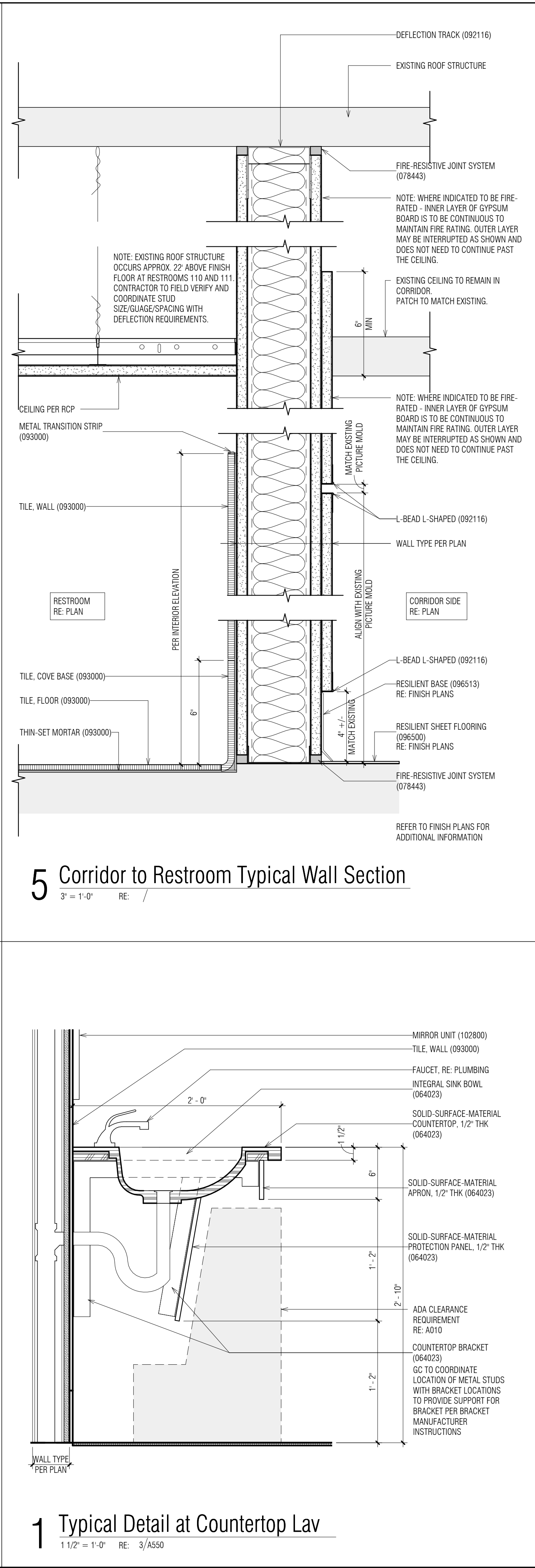
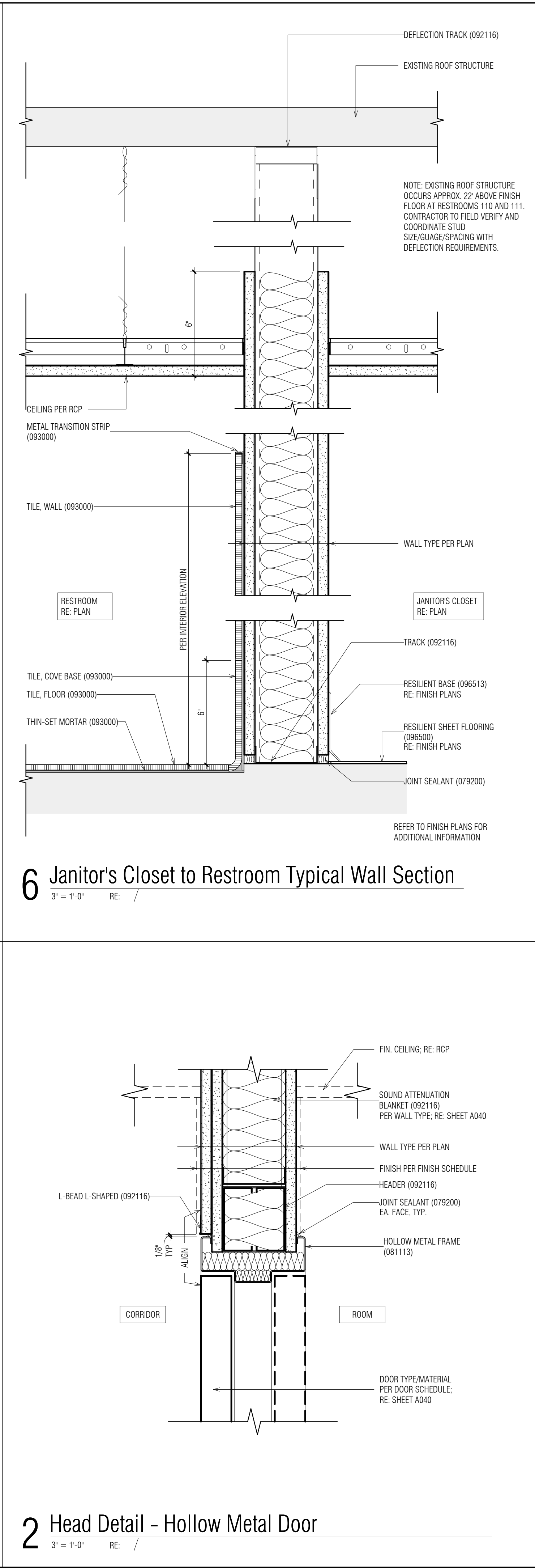
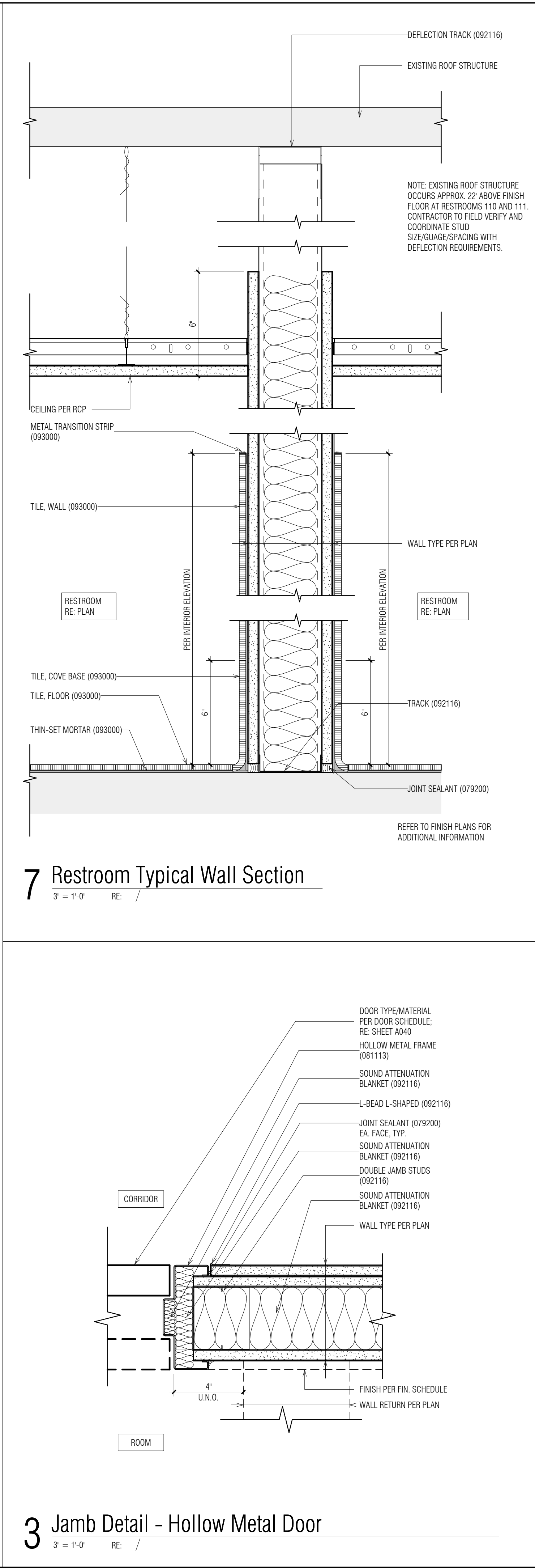
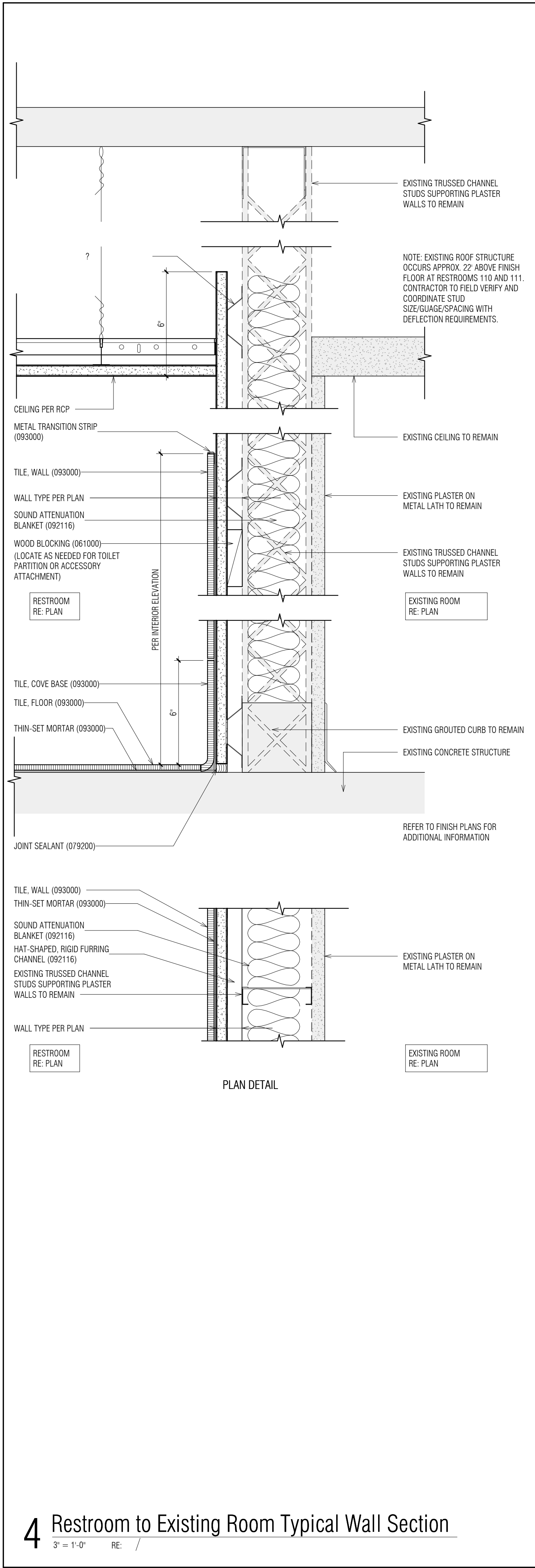
SHEET TITLE:
ENLARGED PLANS AT
RESTROOMS

SHEET NUMBER:

A500

10 OF 29 SHEETS
09/16/2025





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CAD DWG FILE:
DRAWN BY: JC
CHECKED BY: JC
DESIGNED BY: JC

SHEET TITLE:
INTERIOR DETAILS

SHEET NUMBER:
A560

12 OF 29 SHEETS
09/16/2025

THIN-SET MORTAR (093000)

TILE, WALL (093000)

METAL TRANSITION STRIP (093000)

TILE, WALL (093000)

THIN-SET MORTAR (093000)

WALL TYPE PER PLAN

7 Wall Transition - Typical Tile Outside Corner Plan
6" = 1'-0" RE: /

RESILIENT SHEET FLOORING (096500)

METAL TRANSITION STRIP, BOB SCHLUTER-VINPRO-T

EXISTING VAT TO REMAIN

8 Floor Transition - VAT to Resilient Sheet
3" = 1'-0" RE: 1/A600

HOLLOW METAL FRAME (081113), BEYOND

HOLLOW METAL DOOR (081113)

RESILIENT SHEET FLOORING (096500)

METAL TRANSITION STRIP (093000)

TILE, FLOOR (093000)

THIN-SET MORTAR (093000)

CEMENTUOUS TOPPING AS NEEDED TO ACHIEVE A FLUSH CONDITION BETWEEN THE TILE AND RESILIENT TILE FLOORS.

6 Floor Transition - Tile to Resilient Sheet 1
3" = 1'-0" RE: 2/A600

HOLLOW METAL FRAME (081113), BEYOND

HOLLOW METAL DOOR (081113)

RESILIENT SHEET FLOORING (096500)

METAL TRANSITION STRIP (093000)

TILE, FLOOR (093000)

THIN-SET MORTAR (093000)

CEMENTUOUS TOPPING AS NEEDED TO ACHIEVE A FLUSH CONDITION BETWEEN THE TILE AND RESILIENT TILE FLOORS.

5 Floor Transition - Tile to Resilient Sheet 2
3" = 1'-0" RE: 1/A600

HOLLOW METAL FRAME (081113), BEYOND

HOLLOW METAL DOOR (081113)

RESILIENT SHEET FLOORING (096500)

FLEXIBLE STOP TRANSITION (096513)

EXISTING SEALED CONCRETE FLOOR

4 Floor Transition - Resilient Sheet to Concrete
3" = 1'-0" RE: 1/A600

FIELD LOCATE JOINT BETWEEN NEW AND EXISTING FLOORING TO ALIGN WITH EXISTING FLOOR MODULE/Joint TO AVOID CUTTING EXISTING FLOOR TILE.

RESILIENT SHEET FLOORING (096500)

FIELD LOCATE JOINT BETWEEN NEW AND EXISTING FLOORING TO ALIGN WITH EXISTING FLOOR MODULE/Joint TO AVOID CUTTING EXISTING FLOOR TILE.

EXISTING VAT TO REMAIN

Custodial
110A
EXIST
BR01
PA01

Corridor
112
FR01
BR01
PA01

Men's Restroom
110
TL01
TL02
TL03, PA01
REMARKS

3 Finish Plan @ Men's Restroom
1/4" = 1'-0" RE: /

FIELD LOCATE JOINT BETWEEN NEW AND EXISTING FLOORING TO ALIGN WITH EXISTING FLOOR MODULE/Joint TO AVOID CUTTING EXISTING FLOOR TILE.

RESILIENT SHEET FLOORING (096500)

FIELD LOCATE JOINT BETWEEN NEW AND EXISTING FLOORING TO ALIGN WITH EXISTING FLOOR MODULE/Joint TO AVOID CUTTING EXISTING FLOOR TILE.

EXISTING VAT TO REMAIN

Custodial
112A
EXIST
BR01
PA01

Corridor
114
FR01
BR01
PA01

Women's Restroom
111
TL01
TL02
TL03, PA01
REMARKS

2 Finish Plan @ Women's Restroom
1/4" = 1'-0" RE: /

FIELD LOCATE JOINT BETWEEN NEW AND EXISTING FLOORING TO ALIGN WITH EXISTING FLOOR MODULE/Joint TO AVOID CUTTING EXISTING FLOOR TILE.

RESILIENT SHEET FLOORING (096500)

FIELD LOCATE JOINT BETWEEN NEW AND EXISTING FLOORING TO ALIGN WITH EXISTING FLOOR MODULE/Joint TO AVOID CUTTING EXISTING FLOOR TILE.

EXISTING VAT TO REMAIN

Corridor
113
FR01
BR01
PA01

Custodial
100
EXIST
BR01
PA01

Restroom
101
TL01
TL02
TL03, PA01
REMARKS

Restroom
102
TL01
TL02
TL03, PA01
REMARKS

1 Finish Plan @ Staff Restrooms
1/4" = 1'-0" RE: /

Finish Symbol Legend

ROOM		
RM #		
FLOOR		INTERIOR FINISH MATERIALS
BASE		RE: A040 FOR FINISH/MATERIAL INDEX CODES
WALL		
COMMENTS		FINISH REMARKS

General Notes - Finish Plans

1. PAINT CEILING (PA01) UNLESS NOTED OTHERWISE.
2. SEE A040 PARTITION TYPES FOR SUBSTRATE MATERIAL.
3. SEE REFLECTED CEILING PLANS FOR CEILING HEIGHTS, MATERIALS, AND FINISHES UNLESS OTHERWISE NOTED.
4. SEE INTERIOR ELEVATIONS FOR ADDITIONAL FINISH LOCATIONS, EXTENTS, AND INFORMATION.
5. PAINT FINISH AT CEILINGS: FLAT. PAINT FINISH AT WALLS: EGGSHELL. PAINT FINISH ON HOLLOW METAL DOORS AND FRAMES: SATIN.
6. PA DESIGNATIONS IN FINISH AND MATERIAL INDEX REFER TO COLOR ONLY. REFER TO SPECIFICATIONS FOR PAINT OR HIGH PERFORMANCE COATING TYPE FOR EACH SUBSTRATE.
7. HOLLOW METAL DOORS AND FRAMES (081113) COLOR TO MATCH ADJACENT WALL UNLESS NOTED OTHERWISE.
8. REPAIR, PATCH, AND FINISH EXISTING CONSTRUCTION SCHEDULE TO REMAIN IMPACTED BY DEMOLITION WORK. PROVIDE NEW FINISH AS SCHEDULE TO ENTER EXISTING SURFACE IN PLANE WITH NEW CONSTRUCTION.
9. COORDINATE FLOOR TILE, COVE BASE, AND WALL TILE JOINT LINES TO ALIGN WITH ONE ANOTHER.

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR



HENDERSON
ENGINEERS

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bnim

BNIM Architects
2460 Pershing Road Suite 100, Kansas City MO 64108
p.816.783.1500 f.816.783.1501

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES
MANAGEMENT,
DESIGN AND CONSTRUCTION

RENOVATE 4 CLIENT
BATHROOMS - RAGLAND
EDUCATION BUILDING,
HIGGINSVILLE HABILITATION
CENTER

100 W 1st Street
Higginsville, Missouri 64037

PROJECT # M2406-01
SITE # 7357
FACILITY # 6517357027

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 09/16/2025

CAD DWG FILE:
DRAWN BY: JC
CHECKED BY: JC
DESIGNED BY: JC

SHEET TITLE:
**ENLARGED FINISH
PLANS AT
RESTROOMS**

SHEET NUMBER:

A600

13 OF 29 SHEETS
09/16/2025

MECHANICAL SYMBOLS											
THIS IS A MASTER LEGEND AND NOT ALL SYMBOLS OR ABBREVIATIONS ARE USED.											
V3.02											
STANDARD MOUNTING HEIGHT			HVAC DUCTWORK AND ACCESSORIES			PIPING SYMBOLS			PIPING LINETYPES		
THERMOSTATS (USER ADJUSTABLE) (TOP OF DEVICE) CONTROLS (TOP OF DEVICE)			48"	48"							
INSTALL DEVICES AT THE MOUNTING HEIGHTS SHOWN ABOVE UNO IN THE CONSTRUCTION DOCUMENTS. MOUNTING HEIGHTS LISTED ABOVE OR ELSEWHERE IN THE CONSTRUCTION DOCUMENTS ARE AFF OR AFG TO TOP OF THE DEVICE UNO. ALL DEVICES SHALL BE INSTALLED IN COMPLIANCE WITH CURRENT ADA AND LOCAL REQUIREMENTS.											
ANNOTATION											
 MECHANICAL PLAN NOTE CALLOUT											
 MECHANICAL EQUIPMENT DESIGNATION (CONTRACTOR FURNISHED AND INSTALLED UNLESS NOTED OTHERWISE)											
 CONNECTION POINT OF NEW WORK TO EXISTING											
 DETAIL REFERENCE. UPPER NUMBER INDICATES DETAIL NUMBER LOWER NUMBER INDICATES SHEET NUMBER											
 SECTION CUT DESIGNATION											
 DEDICATED EQUIPMENT ACCESS TILE											
 ACCESS PANEL											
ABBREVIATIONS											
A/C	AIR CONDITIONING	HWP	HEATING WATER PUMP								
ACC	AIR COOLED CHILLER	IN WC	INCHES OF WATER								
ACCU	AIR COOLED CONDENSING UNIT	L	LOUVER								
AFC	ABOVE FINISHED CEILING	LAT	LEAVING AIR TEMPERATURE								
AFF	ABOVE FINISHED FLOOR	LDB	LEAVING DRY BULB								
AFG	ABOVE FINISHED GRADE	LP	LOW PRESSURE								
AHJ	AUTHORITY HAVING JURISDICTION	LWB	LEAVING WET BULB								
AHU	AIR HANDLING UNIT	LWT	LEAVING WATER TEMPERATURE								
AI	ANALOG INPUT	MAU	MAKE-UP AIR UNIT								
AO	ANALOG OUTPUT	MAX	MAXIMUM								
AP	ACCESS PANEL	MBH	1000 BTU PER HOUR								
APD	AIR PRESSURE DROP	MD	MOTORIZED DAMPER								
AWG	AMERICAN WIRE GAUGE	MFR	MANUFACTURER								
B	BOILER	MIN	MINIMUM								
BAS	BUILDING AUTOMATION SYSTEM	N/A	NOT APPLICABLE								
BB	BACKBONE	N/C	NORMALLY CLOSED								
BD	BACKDRAFT DAMPER	N/O	NORMALLY OPEN								
BD	BLOWDOWN	NOM	NOMINAL								
BFC	BELOW FINISHED CEILING	NC	NOISE CRITERIA								
BFF	BELOW FINISHED FLOOR	NF	NON-FUSED								
BFG	BELOW FINISHED GRADE	NIC	NOT IN CONTRACT								
BFP	BOILER FEED PUMP	OA	OUTSIDE AIR								
BHP	BRAKE HORSEPOWER	PICV	PRESSURE INDEP. CONTROL VALVE								
BI	BINARY INPUT	PROVIDE FURNISH AND INSTALL									
BO	BINARY OUTPUT	QTY	QUANTITY								
BOD	BOTTOM OF DUCT	RA	RETURN AIR								
BOS	BOTTOM OF STRUCTURE	RC	ROOM CRITERIA								
BTU	BRITISH THERMAL UNIT	RD	RETURN DUCT								
CFM	CUBIC FEET PER MINUTE	REA	RELIEF AIR								
CH	CHILLER	RF	RETURN FAN								
CLG	COOLING	RFR	REFRIGERANT								
CP	CONDENSATE PUMP	RH	RELATIVE HUMIDITY								
CPT	CONTROL POWER TRANSFORMER	RH	ROOF HOOD								
CRAC	COMPUTER ROOM AIR CONDITIONING UNIT	RPM	REVOLUTIONS PER MINUTE								
CRU	COMPUTER ROOM UNIT	RTU	ROOFTOP UNIT								
CT	COOLING TOWER	SA	SUPPLY AIR								
CV	CONTROL VALVE	SCP	STEAM CONDENSATE PUMP								
CWP	CONDENSER	SD	SMOKE DUCT DETECTOR								
CU	CONDENSING UNIT	SD	SUPPLY DUCT								
CHWP	CHILLED WATER PUMP	SF	SUPPLY FAN								
DB	DECIBELS	SH	SENSIBLE HEAT CAPACITY								
DBA	DECIBEL AVERAGE	SOW	SCOPE OF WORK								
DDC	DIRECT DIGITAL CONTROL	SP	STATIC PRESSURE								
DJ	DIGITAL INPUT	ST	STEAM TRAP								
DISC	DISCONNECT	STM	STEAM								
DN	DOWN	TBD	TO BE DETERMINED								
DS	DUCT SILENCER	T/C	TEMPERATURE CONTROLS								
DX	DIRECT EXPANSION	TCP	TEMPERATURE CONTROL PANEL								
(E)	EXISTING	TF	TRANSFER FAN								
EA	EXHAUST AIR	TFA	TO FLOOR ABOVE								
EAT	ENTERING AIR TEMPERATURE	TFB	TO FLOOR BELOW								
ED	EXHAUST DUCT	TH	TOTAL HEAT CAPACITY								
EDB	ENTERING DRY BULB	TSP	TOTAL STATIC PRESSURE								
EF	EXHAUST FAN	TT	TEMPERATURE TRANSMITTAL								
EFF	EFFICIENCY	TYP	TYPICAL								
EMS	ENERGY MANAGEMENT SYSTEM	U/F	UNDERFLOOR								
ESP	EXTERNAL STATIC PRESSURE	U/G	UNDERGROUND								
ETR	EXISTING TO REMAIN	U/S	UNDERSLAB								
EWB	ENTERING WET BULB	UH	UNIT HEATER								
EWT	ENTERING WATER TEMPERATURE	UNO	UNLESS NOTED OTHERWISE								
FCU	FAN COIL UNIT	VAV	VARIABLE AIR VOLUME								
FFA	FROM FLOOR ABOVE	VEL	VELOCITY								
FFB	FROM FLOOR BELOW	VFD	VARIABLE FREQUENCY DRIVE								
FF	FINISHED FLOOR	VRF	VARIABLE REFRIGERANT FLOW								
FPI	FINIS PER INCH	VRV	VARIABLE REFRIGERANT VOLUME								
FPM	FEET PER MINUTE	W/	WITH								
GC	GENERAL CONTRACTOR	W/O	WITHOUT								
GPM	GALLONS PER MINUTE	WB	WET BULB								
HOA	HAND-OFF-AUTOMATIC	WC	WATER COLUMN								
HP	HORSEPOWER	WPD	WATER PRESSURE DROP								
HTG	HEATING	XP	EXPLOSION PROOF								



9/16/2025
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MO. CORPORATE NO. E-556D
EXPIRES 10/31/2025

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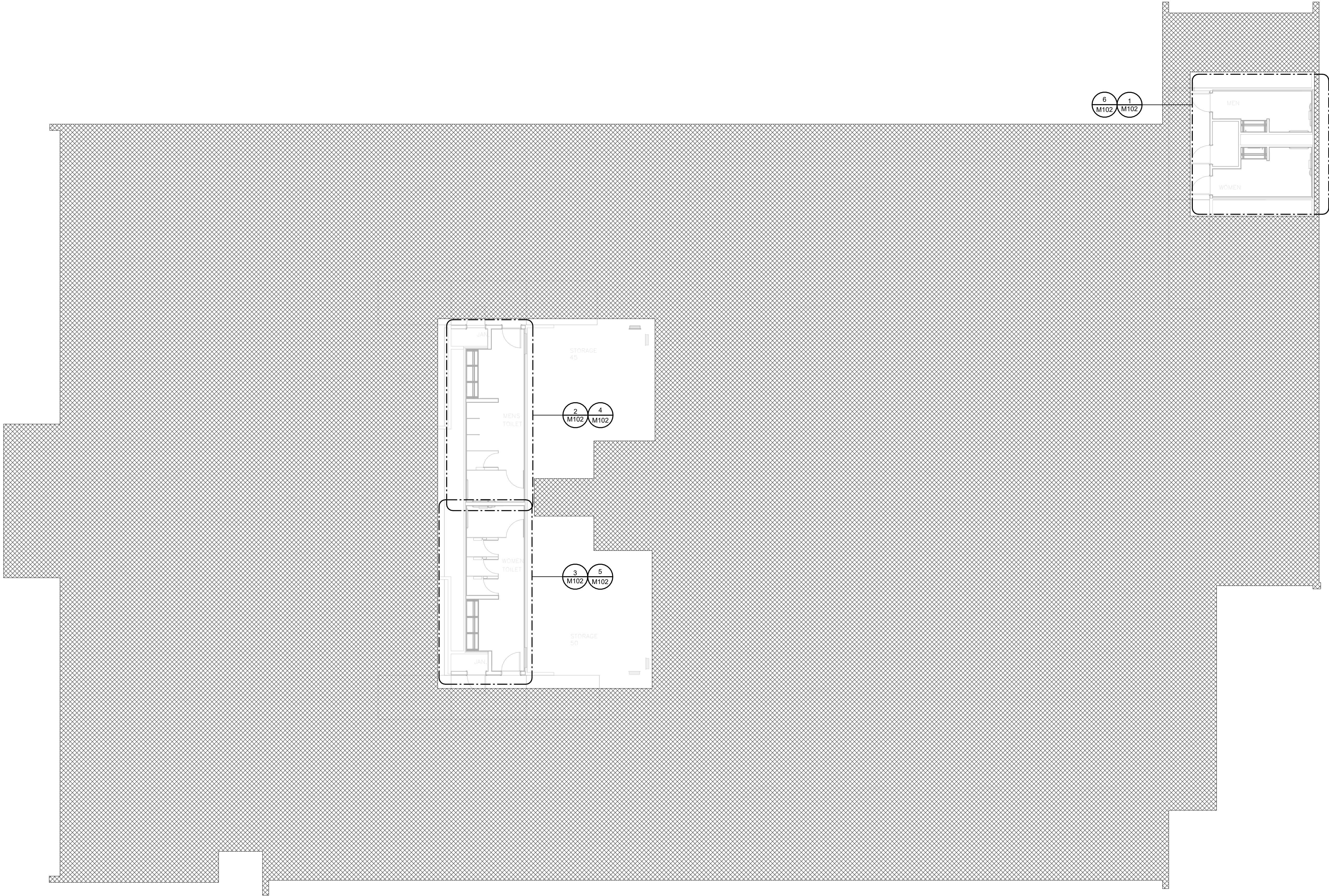
CAD DWG FILE:
DRAWN BY: KTL
CHECKED BY: JP
DESIGNED BY: KTL

SHEET TITLE:
HVAC LEVEL 1 PLAN
- OVERALL

SHEET NUMBER:

M101

15 OF 29 SHEETS
09/16/2025





9/16/2025
KELLEY P. CRAMM
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CAD DWG FILE:
DRAWN BY: KTL
CHECKED BY: JP
DESIGNED BY: KTL

SHEET TITLE:
**HVAC LEVEL 1 PLAN -
- ENLARGED VIEWS**

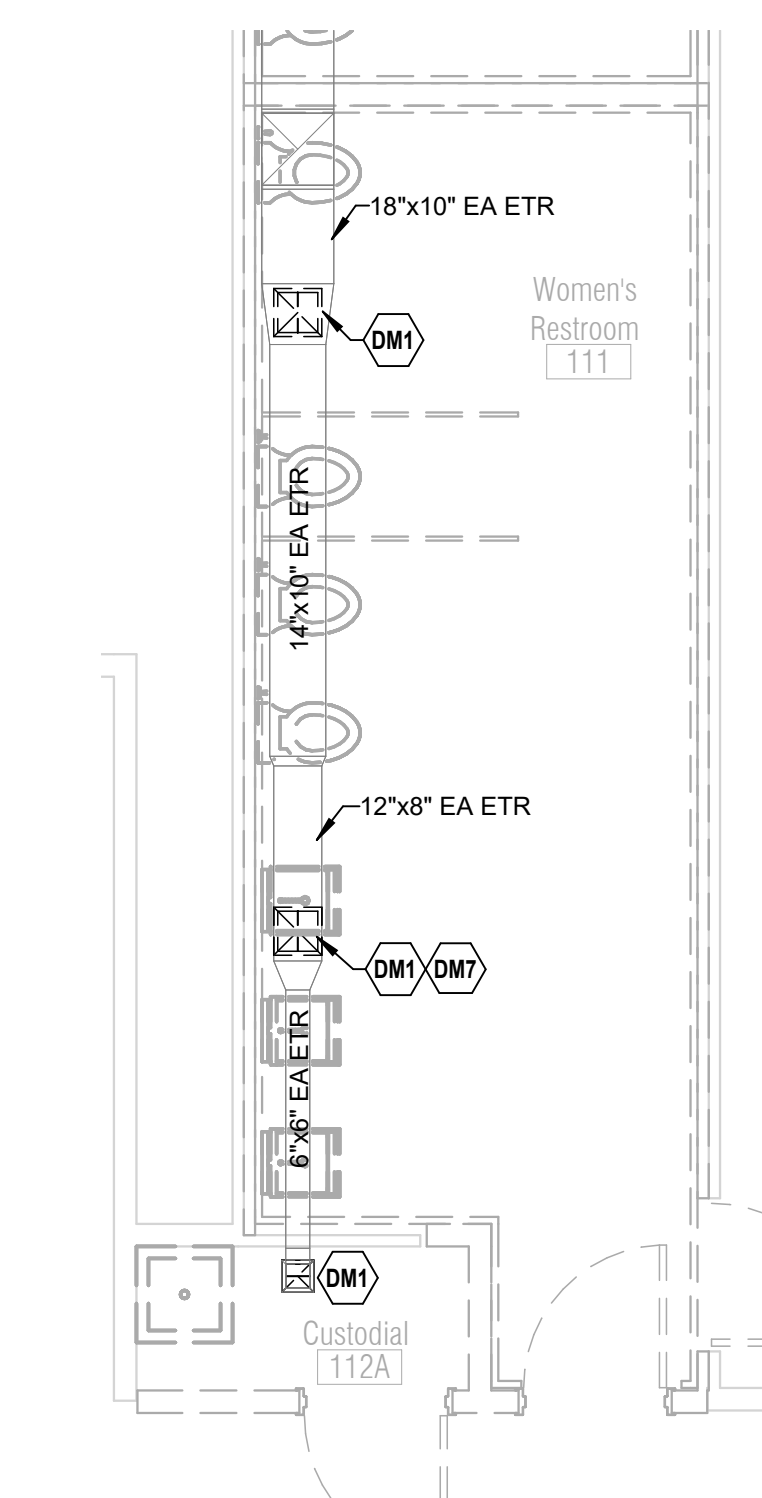
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M102

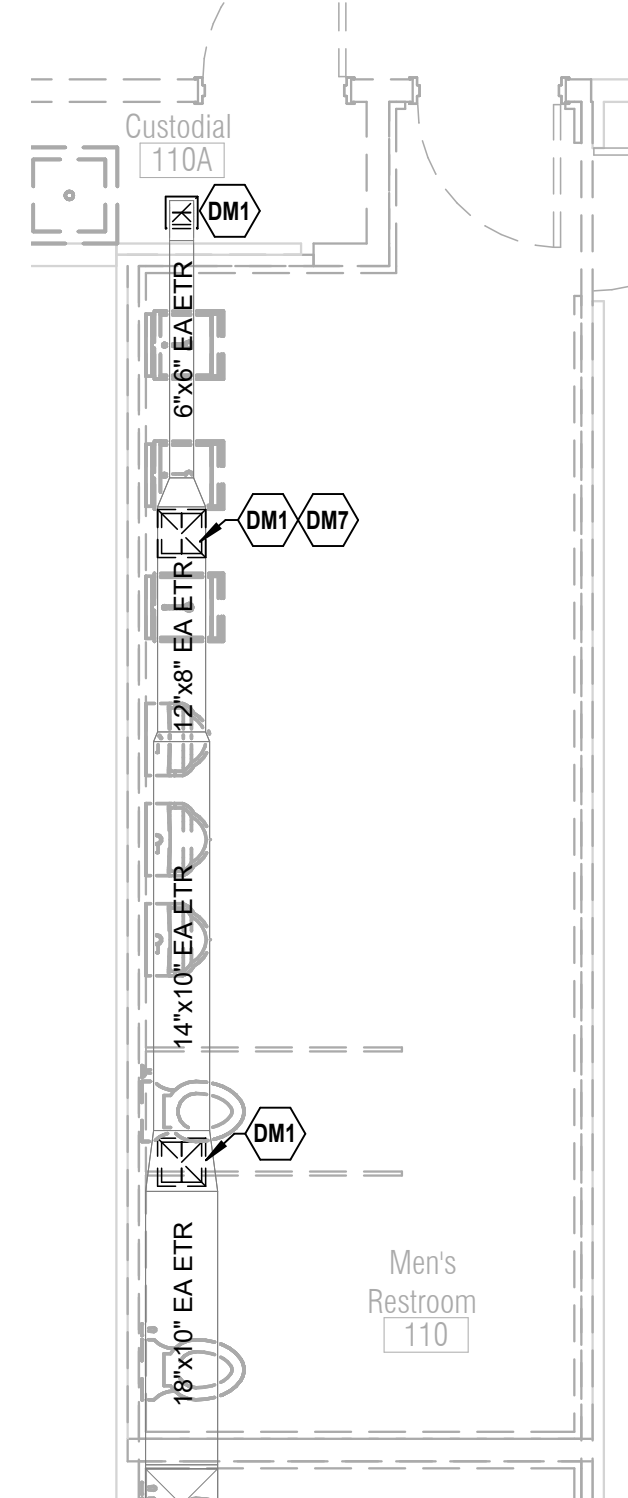
16 OF 29 SHEETS
09/16/2025

MECHANICAL PLAN NOTES:

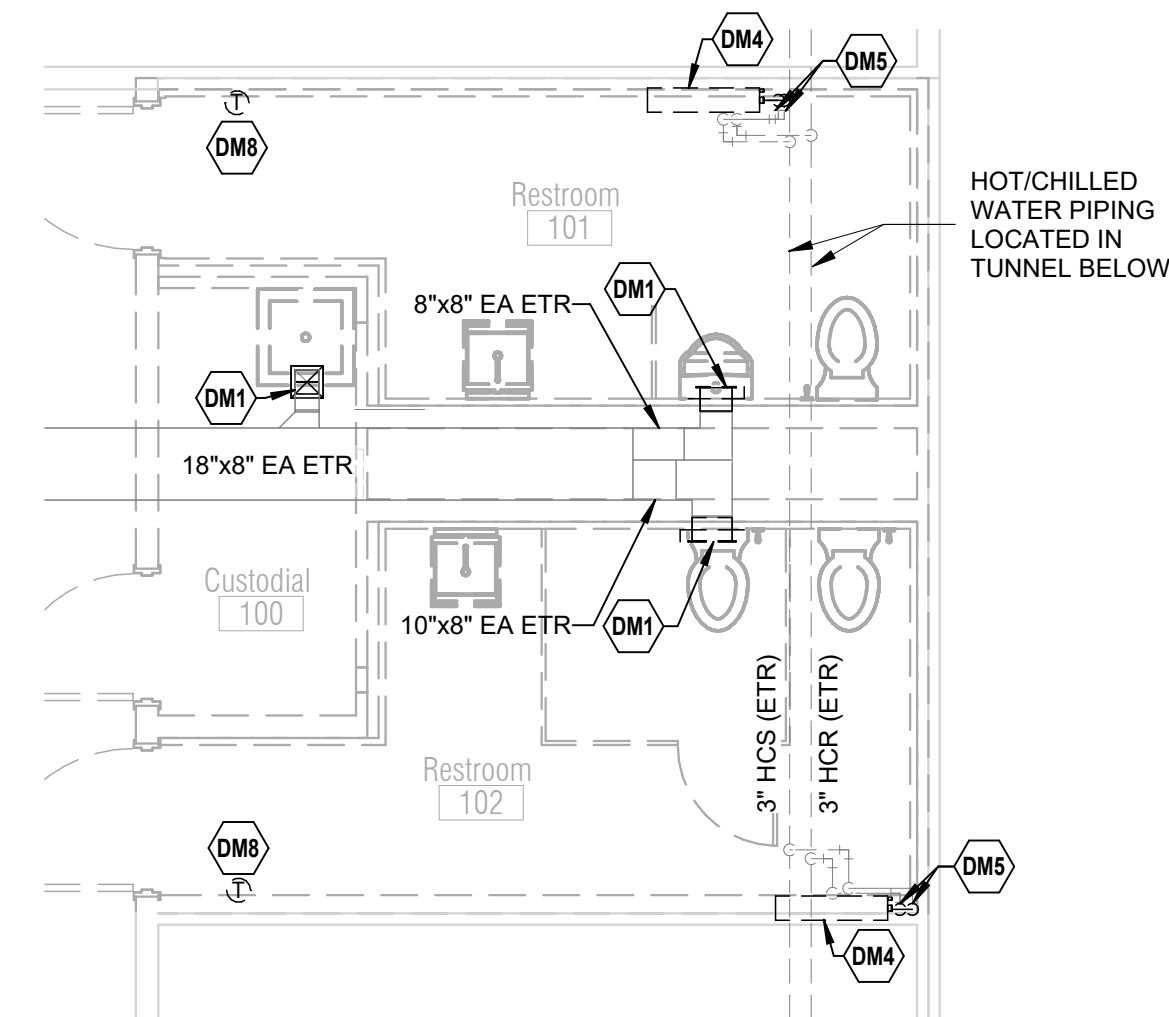
- DM1 REMOVE EXISTING EXHAUST GRILLE. PROTECT EXISTING DUCT PENETRATION FOR REUSE WITH NEW GRILLE.
DM4 REMOVE EXISTING FAN COIL UNIT AND SURROUNDING ENCLOSURE. RETAIN EXISTING OPENING FOR NEW FAN COIL UNIT REPLACEMENT. MODIFY OPENING AS REQUIRED FOR NEW UNIT.
DM5 REMOVE 3/4" HOT/CHILLED WATER PIPING BACK TO NEAREST SHUTOFF VALVE.
DM7 REMOVE DUCTWORK BACK TO MAIN AND CAP. SEAL AIRTIGHT.
DM8 REMOVE EXISTING THERMOSTAT AND ALL ASSOCIATED CONTROL WIRING.
M12 LOCATE NEW EXHAUST GRILLES IN THE SAME LOCATION AS PREVIOUS AND CONNECT TO EXISTING DUCTWORK.
M13 LOCATE NEW FAN COIL UNIT IN THE SAME LOCATION AT THE PREVIOUS AND REUSE THE SAME WALL PENETRATION.
M14 CONNECT NEW 3/4" HCS/HCR PIPING FROM EXISTING SHUTOFF VALVE WITHIN WALL CAVITY TO NEW FCU. ROUTE PIPING UP FROM UTILITY TUNNEL BELOW.
M16 PROVIDE NEW TEMPERATURE SENSOR AND NEW CONTROL WIRING BACK TO NEAREST BAS CONTROL PANEL.
M17 CONNECT NEW FAN COIL UNIT CONDENSATE TO EXISTING CONDENSATE DRAINAGE.
M18 PROVIDE LOCKING COVER FOR TEMPERATURE SENSOR.



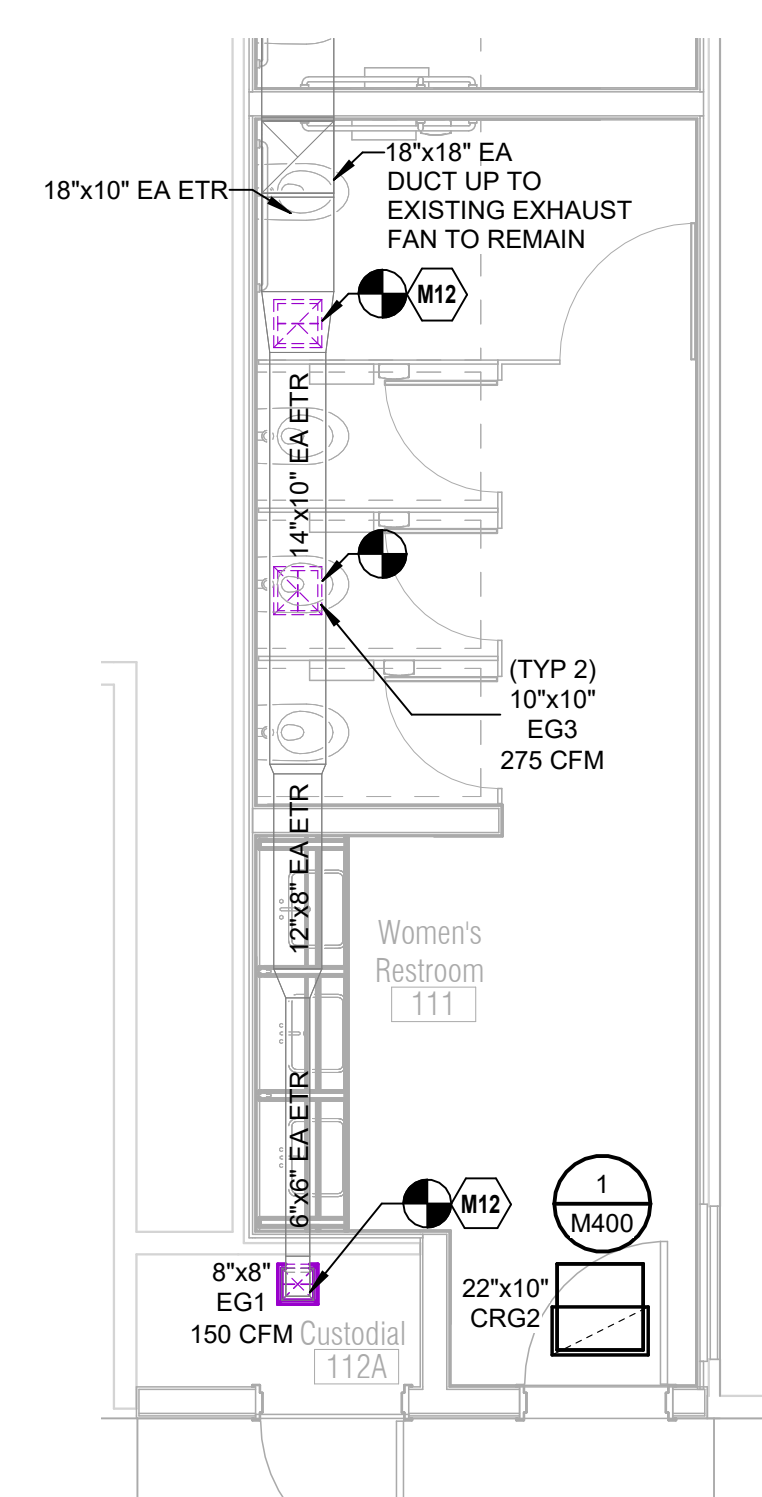
⑤ HVAC LEVEL 1 DEMO PLAN - CLIENT WOMEN
1/4" = 1'-0"



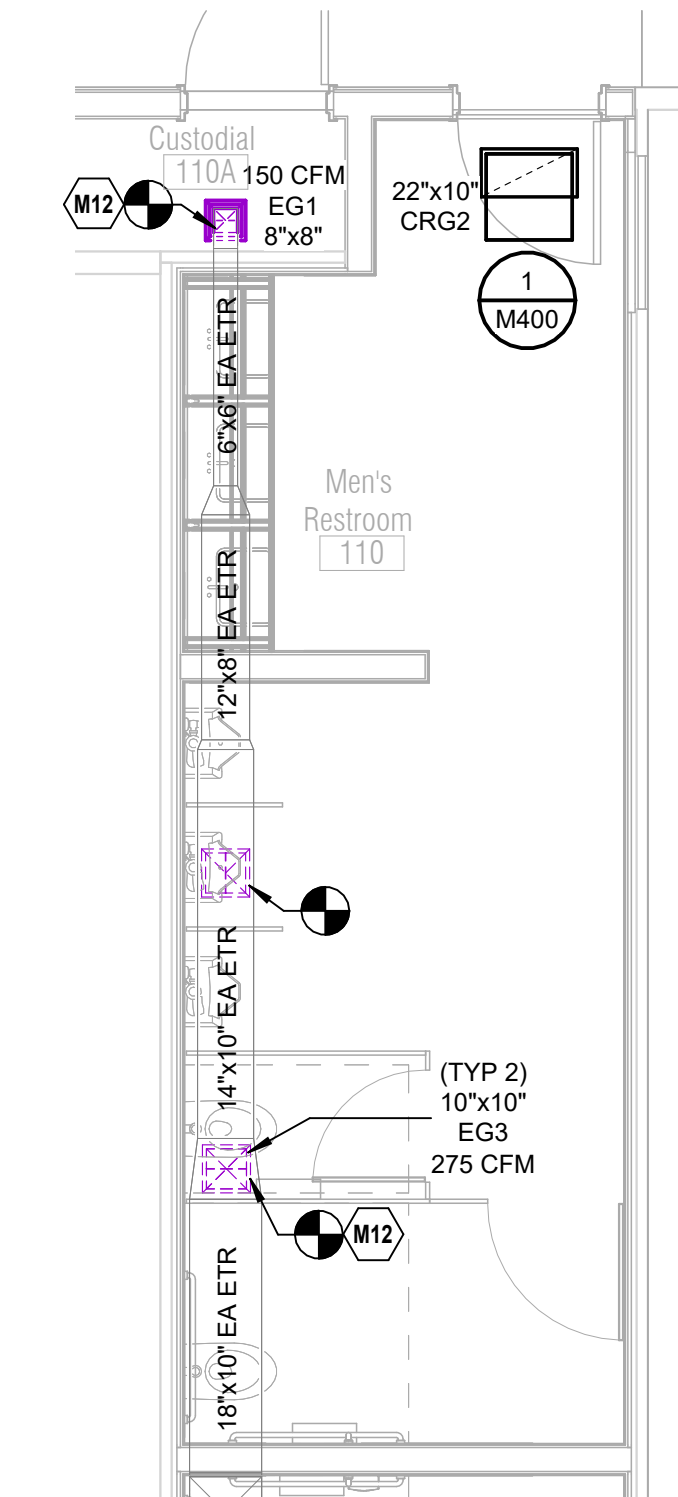
④ HVAC LEVEL 1 DEMO PLAN - CLIENT MEN
1/4" = 1'-0"



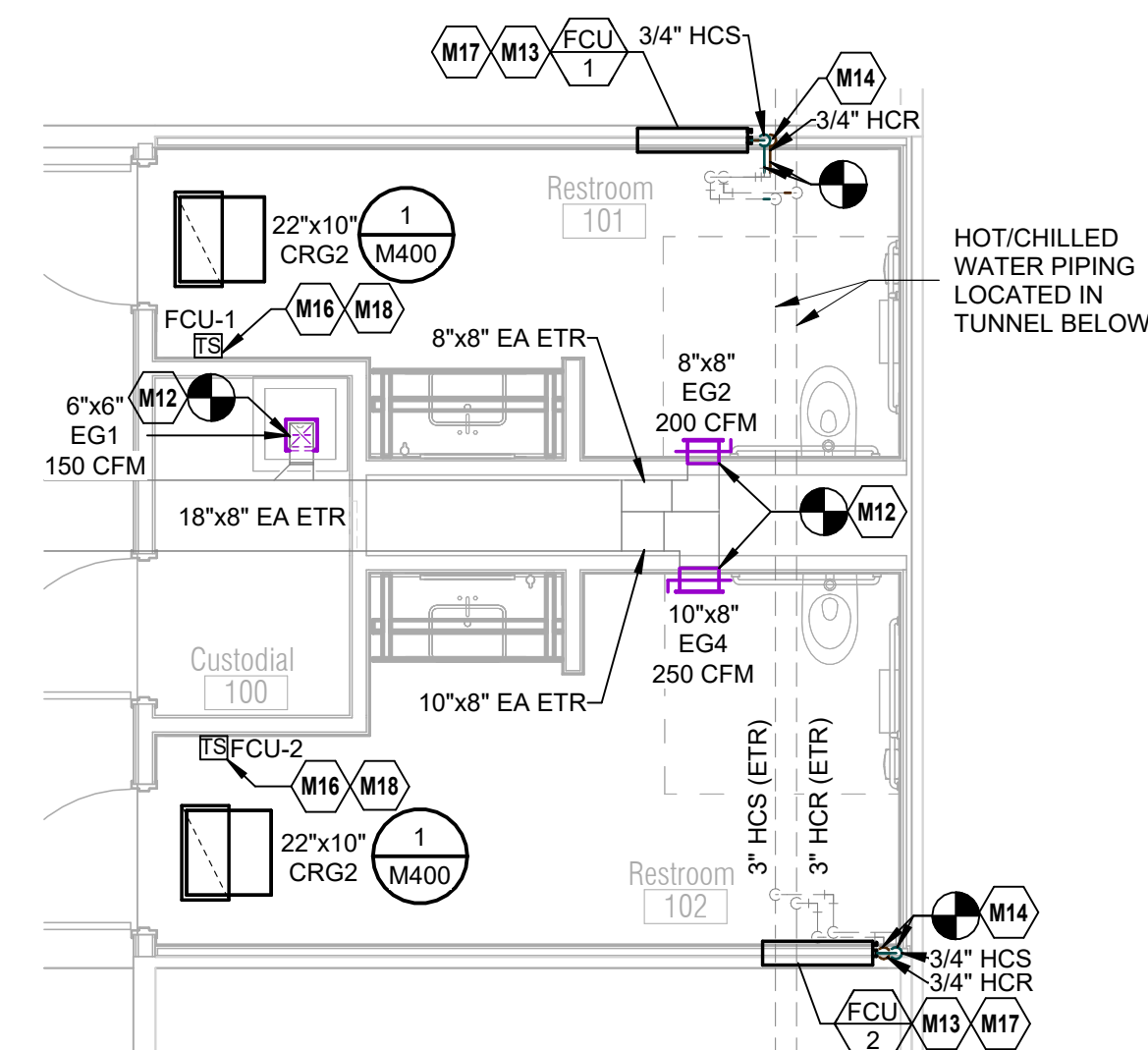
⑥ HVAC LEVEL 1 DEMO PLAN - STAFF
1/4" = 1'-0"



③ HVAC LEVEL 1 PLAN - CLIENT WOMEN
1/4" = 1'-0"



② HVAC LEVEL 1 PLAN - CLIENT MEN
1/4" = 1'-0"



① HVAC LEVEL 1 PLAN - STAFF
1/4" = 1'-0"



9/16/2025
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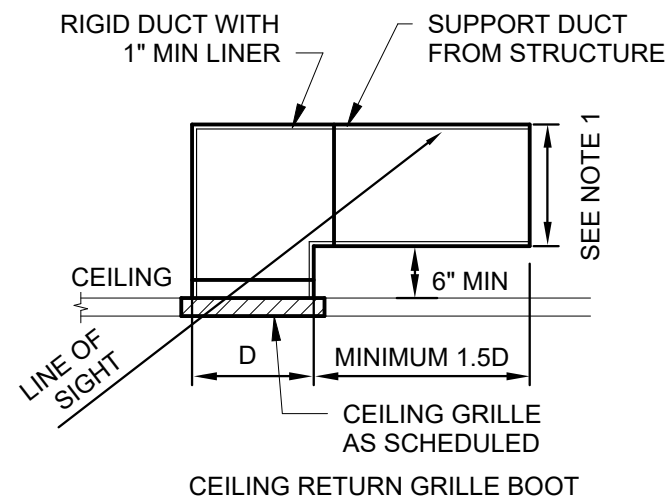
FAN COIL UNIT SCHEDULE (HYDRONIC COILS)

MARK	MANUFACTURER	MODEL	SUPPLY FAN		COOLING COIL												HEATING COIL												ELECTRICAL		WEIGHT (LBS)	NOTES
					CFM	NOM HP	TH (MBH)	SH (MBH)	EAT		LAT		FLOW (GPM)	EWT (°F)	LWT (°F)	MAX WPD (FT)	MAX VEL (FPM)	ROWS / FPI	CAP (MBH)	EAT		LAT (°F DB)	FLOW (GPM)	EWT (°F)	LWT (°F)	MAX WPD (FT)	MAX VEL (FPM)	ROWS / FPI				
			(°F DB)	(°F WB)					(°F DB)	(°F WB)	(°F DB)	(°F WB)								(°F DB)	(°F WB)											
FCU 2	CARRIER	42VGA03ALCY7AKYA	275	0.05	6.1	4.7	80.0	67.0	61.0	60.0	0.61	45	55	5.0	140	3/10	6.1	68.0	98.0	0.6	140	120	5.0	140	2/10	120 V / 1PH	74	ALL				

MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODEL NUMBERS ONLY. REVIEW THE COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED. THE MANUFACTURERS LISTED ARE THE BASIS FOR THE DESIGN.

NOTES:

- UTILIZE THE UNIT INTEGRAL FILTER RACK. PROVIDE MERV 8, PLEATED THROWAWAY AIR FILTERS.
- PROVIDE WITH FRONT INLET CONNECTION.
- PROVIDE WITH FRONT OUTLET CONNECTION.
- CONTROLS CONTRACTOR SHALL PROVIDE A NON-ADJUSTABLE TEMPERATURE SENSOR WITH STAGED HEATING AND COOLING CAPABILITY AS REQUIRED FOR OPERATION OF HEATING AND COOLING CONTROLS.
- PROVIDE FACTORY MOUNTED DISCONNECT INSTALLED ON SERVICE SIDE OF UNIT.
- PROVIDE STARTER INTEGRAL WITH EQUIPMENT.
- PROVIDE UNIT WITH CONDENSATE DRAIN PAN.



NOTES:

- REFER TO FLOOR PLAN FOR OUTLET DEPTH. WHEN NO DEPTH IS SHOWN, MINIMUM DEPTH SHALL BE AS REQUIRED TO LIMIT AIR VELOCITY TO 500 FPM WITH A MINIMUM SIZE OF 0.5D.

① RETURN TRANSFER AIR DUCT DETAILS NTS

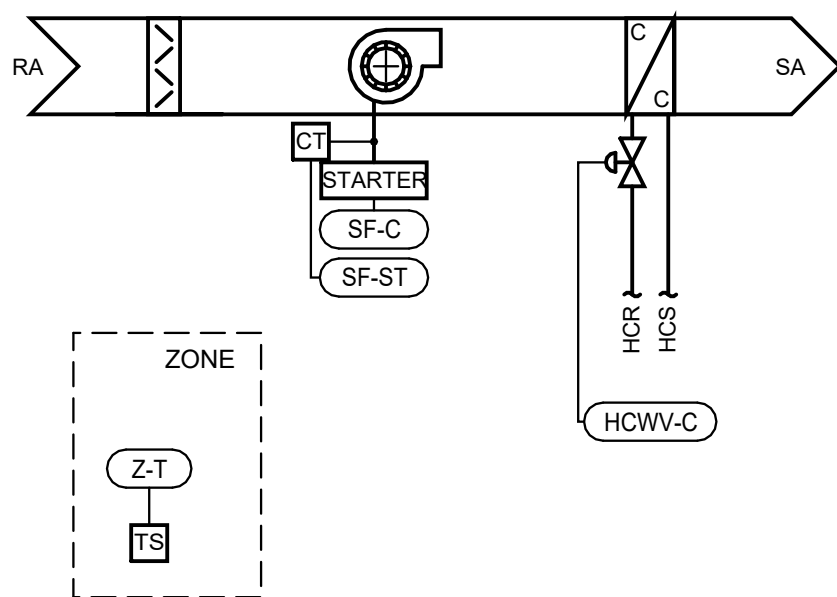
GRILLE, REGISTER AND DIFFUSER SCHEDULE

MARK	MANUFACTURER	SERVICE	MODEL	CONSTRUCTION TYPE	FACE TYPE	MOUNTING LOCATION	FACE SIZE (IN)	MAX NC	MAX PRESS DROP (IN W.C.)	NOTES
GRG2	PRICE	RETURN	635	ALUMINUM	LOUVERED	CEILING	REFER TO PLANS	25	0.05	A-D
EG1	PRICE	EXHAUST	635	ALUMINUM	LOUVERED	DUCT	REFER TO PLANS	25	0.18	ALL
EG2	PRICE	EXHAUST	635	ALUMINUM	LOUVERED	SIDE WALL	REFER TO PLANS	25	0.07	ALL
EG3	PRICE	EXHAUST	635	ALUMINUM	LOUVERED	CEILING	REFER TO PLANS	25	0.09	ALL
EG4	PRICE	EXHAUST	635	ALUMINUM	LOUVERED	SIDE WALL	REFER TO PLANS	25	0.09	ALL

MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODEL NUMBERS ONLY. REVIEW THE COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED. THE MANUFACTURERS LISTED ARE THE BASIS FOR THE DESIGN.

NOTES:

- NECK SIZE SHOWN ON DRAWINGS. PROVIDE BRANCH DUCT TO MATCH NECK SIZE UNLESS OTHERWISE SHOWN ON DRAWINGS.
- BAKED ENAMEL FINISH, WHITE TO MATCH CEILING COLOR.
- FRONT BLADES PARALLEL TO LONG DIMENSION.
- FRAME TYPE TO MATCH CEILING/WALL CONSTRUCTION. COORDINATE WITH ARCHITECTURAL REFLECTED CEILING/WALL PLAN.
- PROVIDE OPPOSED BLADE DAMPER ADJUSTABLE FROM FACE OF DEVICE.



② FCU CONTROLS NTS

SEQUENCE OF OPERATIONS FAN COIL UNITS

GENERAL DESCRIPTION

The fan coil unit(s) described by this sequence of operations consist(s) of constant volume fan coil units that are served by a 2-pipe heating hot/chilled water central plant. Units are either in cooling or heating mode. They provide space conditioning to restrooms and do not have any connection for outside air.

OPERATING MODES

OCCUPIED MODE:

The unit shall be in occupied mode per the Project Design Conditions Schedule shown on the control drawings.

COOLING MODE:

The unit shall be in cooling mode when the zone temperature (Z-T) rises above the dead band (Z-T-DB).

HEATING MODE:

The unit shall be in heating mode when the zone temperature (Z-T) falls below the dead band (Z-T-DB).

UNOCCUPIED MODE:

The unit shall be in unoccupied mode for all periods not included in the occupied hours of operation. Overrides of unoccupied schedule are defined at the zone level control.

SAFETIES, OVERRIDES AND INTERLOCKS

FIRE ALARM CONTROL PANEL INTERLOCK:

The unit shall be disabled via hard wired interlock at the fan start circuit upon receipt of signal from the fire alarm control panel.

COMPONENT CONTROL LOOPS

SUPPLY FAN CONTROL - ON/OFF OPERATION

When in Occupied or Unoccupied Mode:

The fan shall cycle on a call for heating or cooling from the zone level or on an override signal.

COIL HOT WATER/CHILLED WATER VALVE - ON/OFF

When in Occupied or Unoccupied Mode:

When Plant is in Cooling and FCU is in Cooling Mode:

The valve shall open to maintain the zone temperature setpoint (Z-T).

When Plant is in Heating and FCU is in Heating Mode:

The valve shall open to maintain the zone temperature setpoint (Z-T).

When in all other Modes:

The valve shall be closed.

POINTS LIST - FAN COIL UNIT

POINT ID	DESCRIPTION	POINT TYPE	DEFAULT SET POINT	FAIL POSITION	STATUS ALARM	ALARM RANGE	NOTES
ZONE LEVEL SENSORS							
Z-T	ZONE TEMPERATURE	AI	75F CLG; 70F HTG				A
SUPPLY FAN							
SF-C	SUPPLY FAN COMMAND (START/STOP)	BO					
SF-ST	SUPPLY FAN STATUS	BI			X	SF-ST <=> SF-C	
COOLING COIL - CHILLED WATER MODULATING							
HCWV-C	CHILLED WATER VALVE COMMAND	BO					

NOTES:

- A. POINT SHALL BE ADJUSTABLE.

BAS CONTROLS CONTACT INFORMATION:

CONTROL SERVICE COMPANY (AUTOMATED LOGIC)
816-600-5800

ALL BAS CONTROLS WORK SHALL BE COMPLETED BY CSC LEE'S SUMMIT.
CONTACT THE NUMBER ABOVE FOR BID PRICING AND EXISTIGN SYSTEM INFORMATION.

OFFICE OF ADMINISTRATION DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

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CAD DWG FILE:
DRAWN BY: KTL
CHECKED BY: JP
DESIGNED BY: KTL

SHEET TITLE:

MECHANICAL SCHEDULES AND DETAILS

SHEET NUMBER:

M400

17 OF 29 SHEETS
09/16/2025

ELECTRICAL SYMBOLS

THIS IS A MASTER LEGEND AND NOT ALL SYMBOLS OR ABBREVIATIONS ARE USED.

STANDARD MOUNTING HEIGHTS	
AUDIBLE APPLIANCE (CENTERLINE)	84"
ALARM (TOP OF DEVICE)	48"
ANNUNCIATOR PANEL (TOP OF DISPLAY)	60"
CONTROLS (TOP OF DEVICE)	48"
DATA WALL OUTLET	SAME AS ADJACENT DEVICE, UNO
EXIT SIGN (WALL MOUNTED)	92"
FIRE ALARM ANNUNCIATOR PANEL (TOP OF DISPLAY)	60"
FIRE ALARM BELL (EXTERIOR) (CENTERLINE)	120"
FIRE ALARM CONTROL PANEL/UNIT (TOP OF DISPLAY)	60"
INTERCOM (TOP OF DEVICE)	48"
PULL STATION (TOP OF DEVICE)	48"
RECEPTACLE (BOTTOM OF DEVICE)	16"
RECEPTACLE (ABOVE COUNTER) +6" ABOVE BACKSPASH/COUNTER, 40" MAX	
RECEPTACLE (CLOCK) (CENTERLINE)	84"
RECEPTACLE (EQUIPMENT ROOMS) (TOP OF DEVICE)	48"
RECEPTACLE (EXTERIOR)	24"
RECEPTACLE (GARAGES)	24"
REMOTE INDICATING LIGHT (EQUIPMENT ROOMS) (TOP OF DEVICE)	48"
REMOTE INDICATING LIGHT (FINISHED AREAS)	CEILING
SAFETY SWITCH (TOP OF DEVICE)	48"
STARTER (TOP OF DEVICE)	48"
SWITCH (TOP OF DEVICE)	48"
TELEPHONE WALL OUTLET (TOP OF DEVICE)	48"
TELECOMMUNICATIONS BACKBOARD	REFER TO DRAWINGS
TELEVISION OUTLET	
VISIBLE APPLIANCE (CENTERLINE)	84"

INSTALL DEVICES/OUTLET BOXES AT THE MOUNTING HEIGHTS SHOWN ABOVE UNO IN THE CONSTRUCTION DOCUMENTS. MOUNTING HEIGHTS LISTED ABOVE, OR ELSEWHERE IN THE CONSTRUCTION DOCUMENTS, ARE AFF OR AFG TO BOTTOM OF DEVICE, UNO. ALL DEVICES SHALL BE INSTALLED IN COMPLIANCE WITH CURRENT ADA AND LOCAL REQUIREMENTS.

ABBREVIATIONS

AF	AMPERE FUSE SIZE	MCB	MAIN CIRCUIT BREAKER
AFC	ABOVE FINISHED CEILING	MCC	MOTOR CONTROL CENTER
AFF	ABOVE FINISHED FLOOR	MFR	MANUFACTURER
AFG	ABOVE FINISHED GRADE	MIN	MINIMUM
AHJ	AUTHORITY HAVING JURISDICTION	MLD	MAIN LUGS ONLY
AHU	AIR HANDLING UNIT	MLV	MAGNETIC LOW-VOLTAGE
AIC	AMPERE INTERRUPTING CAPACITY	MOC	MAXIMUM OVERCURRENT PROTECTION
AS	AMPERE SWITCH SIZE	MTD	MOUNTED
AT	AMPERE TRIP SETTING	N/A	NOT APPLICABLE
ATS	AUTOMATIC TRANSFER SWITCH	NIC	NOT IN CONTRACT
AV	AUDIO VISUAL	NIS	NOT IN SCOPE
BAS	BUILDING AUTOMATION SYSTEM	NF	NON-FUSED
BESS	BATTERY ENERGY STORAGE SYSTEM	NL	NIGHT LIGHT (24HR ON)
BKR	BREAKER	NRTL	NATIONALLY RECOGNIZED TESTING LABORATORY
C	CONDUIT	NTS	NOT TO SCALE
CAT	CATEGORY	OS	OCCUPANCY SENSOR
CATV	CABLE TELEVISION SYSTEM	P	POLE
CCTV	CLOSED CIRCUIT TELEVISION	PART	PARTIAL CIRCUIT
CD	CANDELA	PHØ	PHASE
CKT	CIRCUIT	PNL	PANEL
CODE	APPLICABLE CODE	PNLBD	PANELBOARD
	ADOPTED BY JURISDICTION	PT	POTENTIAL TRANSFORMER
CT	CURRENT TRANSFORMER	PV	PHOTOVOLTAIC
CTR	CENTER	QTY	QUANTITY
CTRL	CONTROL/CONTROLLED	R/RCL	RELOCATE
CVD	CUMULATIVE VOLTAGE DROP	RCPT	RECEPTACLE
DDMO	DEMOLITION	R/LA	RUNNING LOAD AMPS
DPDT	DOUBLE-POLE, DOUBLE-THROW	RTU	ROOFTOP UNIT
DPST	DOUBLE-POLE, SINGLE-THROW	SCCR	SHORT-CIRCUIT CURRENT RATING
E/ET/REX	EXISTING TO REMAIN	SD	SMOKE DUCT DETECTOR
EC	ELECTRICAL CONTRACTOR	SF	SINGLE-POLE
EF	EXHAUST FAN	SPDT	SINGLE-THROW
EM	EMERGENCY	SPST	SINGLE-POLE, SINGLE-THROW
EMS	ENERGY MANAGEMENT SYSTEM	SSBJ	SINGLE-THROW SUPPLY-SIDE BONDING JUMPER
ELV	ELECTRONIC LOW-VOLTAGE	ST	SHUNT TRIP
ERMS	ENERGY-REDUCING	SWBD	SWITCHBOARD
EV	MAINTENANCE SWITCH	SWGR	SWITCHGEAR
EWC	ELECTRIC VEHICLE	TBB	TELECOMMUNICATIONS
FAAP	ELECTRIC WATER COOLER	TBD	BONDING BACKBONE
FACP	FIRE ALARM ANNUNCIATOR PANEL	TGB	TO BE DETERMINED
FCA	FIRE ALARM CONTROL PANEL	TG	TELECOMMUNICATIONS
	FAULT CURRENT AMPS AVAILABLE	TL	TELECOMMUNICATIONS
FCU	FAN COIL UNIT	TMGB	GROUND BUS BAR
FF	FINISHED FLOOR	TX/XFMR	TRANSFORMER
FLA	FULL LOAD AMPS	TYP	TYPICAL
FLR	FLOOR	UF	UNDERFLOOR
GC	GENERAL CONTRACTOR	UG	UNDERGROUND
GEC	GROUNDING ELECTRODE CONDUCTOR	U/S	UNDERSLAB
GES	GROUNDING ELECTRODE SYSTEM	UH	UNIT HEATER
GFR	GROUND FAULT RELAY	UNO	UNLESS NOTED OTHERWISE
G	GROUND	UPS	UNINTERRUPTIBLE POWER SUPPLY
IG	ISOLATED GROUND	VD	VOLTAGE DROP
ISC	SHORT CIRCUIT CURRENT	VFD	VARIABLE FREQUENCY DRIVE
JB/J-BOX	JUNCTION BOX	VS	VACANCY SENSOR
LF	LINEAR FEET	W	WIRE
LRA	LOCKED ROTOR AMPS	WI	WITH
LTG/LTS	LIGHTING/LIGHTS	WP	WEATHER PROOF
MAU	MAKE-UP AIR UNIT	WR	WEATHER RESISTANT
MAX	MAXIMUM	WT	WATERTIGHT
MCA	MINIMUM CIRCUIT AMPACITY	XP	EXPLOSION PROOF

LINETYPE LEGEND

THROUGHOUT THE DRAWINGS DIFFERENT LINETYPES ARE USED IN COMBINATION WITH THE SYMBOLS TO INDICATE THE STATUS OF ITEMS AS EXISTING, TO BE DEMOLISHED, TO BE INCLUDED AS PART OF NEW WORK AND/OR ITEMS WHICH ARE ANTICIPATED TO BE PROVIDED IN THE FUTURE. THE STATUS OF ITEMS USING THESE LINETYPES ARE RELATIVE TO THE VIEW IN WHICH THEY APPEAR. PHASING SHOWN IN DRAWINGS IS NOT INTENDED TO FULLY DESCRIBE ALL NECESSARY CONSTRUCTION PHASING, WHICH IS DETERMINED BY THE CONTRACTOR AS PART OF THEIR RESPONSIBILITIES. ANY SUCH PHASES DESCRIBED IN THE CONSTRUCTION DOCUMENTS ARE GENERAL AND ONLY INTENDED TO INDICATE A BROAD ORDER FOR THE SAKE OF DESCRIBING THE PROJECT. THE FOLLOWING LINETYPES MAY BE USED ON ANY DEVICE, EQUIPMENT, NOTE, LINE, SHAPE, ETC.

EXISTING	—
DEMOLISH	— — — —
NEW	—
FUTURE	-----
* APPLIES TO COLOR PLOTS ONLY	

ANNOTATION	
XX###	PLAN NOTE CALLOUT
①	MECHANICAL OR FIRE PROTECTION PLAN NOTE CALLOUT
①	PLUMBING PLAN NOTE CALLOUT
1	ELECTRICAL OR FIRE ALARM PLAN NOTE CALLOUT
①	TECHNOLOGY PLAN NOTE CALLOUT
1	PLUMBING EQUIPMENT DESIGNATION, (CONTRACTOR FURNISHED AND INSTALLED, UNO). REFER TO PLUMBING FIXTURE OR EQUIPMENT SCHEDULES
1	EQUIPMENT DESIGNATION (OWNER FURNISHED, CONTRACTOR INSTALLED, UNO)
CU 1	MECHANICAL EQUIPMENT DESIGNATION (CONTRACTOR FURNISHED AND INSTALLED, UNO)
	CONNECTION POINT OF NEW WORK TO EXISTING
1 E1	DETAIL REFERENCE UPPER NUMBER INDICATES DETAIL NUMBER LOWER NUMBER INDICATES SHEET NUMBER
1 E1	SECTION CUT DESIGNATION
	DEDICATED EQUIPMENT ACCESS TILE
	ACCESS PANEL

CIRCUITING & WIRING

OR P1-3,5,7	5 3	HOMERUN TO PANELBOARD. INFORMATION AT ARROWS ARE CIRCUIT NUMBERS AND PANELBOARD FOR TERMINATION. REFER TO PANELBOARD SCHEDULES FOR BRANCH CIRCUIT CONDUCTOR SIZES.
		INDICATES RELAY NUMBER
		CIRCUIT CONTINUATION OR PARTIAL CIRCUIT
		CONDUIT CONCEALED
EM		CONDUIT CONCEALED (EMERGENCY)
		CONDUIT IN/UNDER FLOOR/GROUND CONSTRUCTION
		EXPOSED CONDUIT
EM		EXPOSED CONDUIT (EMERGENCY)
		FLEXIBLE CONDUIT
		LOW VOLTAGE CABLE (NOT ROUTED IN CONDUIT)
		CONDUIT TURNING DOWN
		CONDUIT TURNING UP
		CONNECTION POINT OR EQUIPMENT TERMINATION
		EQUIPMENT TERMINATION

BRANCH CIRCUIT CONDUCTOR TABLE

WHERE TICK MARKS ARE NOT SHOWN, THE FOLLOWING SHALL GOVERN:				
NEUTRAL (GROUNDED)**				
# OF POLES	HOT (PHASE)	(1) UNO	(1)	
1P	(1)	(1) UNO	(1)	
2P	(2)	(1) UNO	(1)	
3P	(3)	(1) UNO	(1)	

- * PROVIDE ADDITIONAL CONDUCTORS THROUGH ENTIRE CIRCUIT (SWITCHED, UNSWITCHED/EM, ETC.) AS INDICATED THROUGHOUT CONSTRUCTION DOCUMENTS AND AS REQUIRED FOR A COMPLETE AND WORKING SYSTEM.
 - ** REFER TO SPECIFICATIONS FOR LIMITATIONS ON SHARING NEUTRAL (GROUNDED) CONDUCTORS. DO NOT CIRCUIT AS A MULTI-WIRE BRANCH CIRCUIT, UNO.
 - *** PROVIDE ADDITIONAL ISOLATED GROUNDING CONDUCTORS WHERE INDICATED.
- REFER TO SPECIFICATIONS, PLANS, NOTES, WIRING AND CONTROL DIAGRAMS FOR ADDITIONAL CIRCUITING REQUIREMENTS.

HATCHING LEGEND

NOT IN SCOPE (NIS)	
--------------------	--

LIGHTING	
LIGHT FIXTURE	
A	a = LOWER CASE LETTER IS SWITCH IDENTIFIER
[OS]	A = UPPER CASE LETTER INDICATES LIGHT FIXTURE TYPE
[OS]	= INTEGRAL OCCUPANCY SENSOR
⊥	= WALL MOUNT
>	= ARROW INDICATED AIMING DIRECTION
	LIGHT FIXTURE CIRCUITED AS A NIGHT LIGHT (NL)
	EMERGENCY LIGHT FIXTURE WITH EMERGENCY LIGHTING BATTERY PACK OR CONNECTED TO EMERGENCY SOURCE
	NIGHT LIGHT/EMERGENCY LIGHT FIXTURE WITH EMERGENCY BATTERY PACK OR CONNECTED TO EMERGENCY SOURCE
	LIGHT FIXTURE WITH DUAL BALLASTS CIRCUITED SEPARATELY (SHADING IMPLIES EMERGENCY LIGHT FIXTURE)
	LIGHTING TRACK (# INDICATES RELAY NUMBER)
	MIRROR LIGHTS
	EXTERIOR PARKING LOT LIGHT FIXTURE
	EXTERIOR PEDESTRIAN POST TOP LIGHT FIXTURE
	EXTERIOR LIT BOLLARD LIGHT
	EXIT SIGN - CEILING / WALL MOUNTED, ARROWS AS INDICATED, FACE HATCHED
	EMERGENCY LIGHTING UNIT EQUIPMENT WITH BATTERY PACK - CEILING/WALL MOUNTED
	AFEA (AREA FOR EVACUATION ASSISTANCE) SIGN - CEILING/WALL MOUNTED, ARROWS AS INDICATED

REFER TO LIGHT FIXTURE SCHEDULE FOR MORE INFORMATION
POWER EQUIPMENT

	ELECTRICAL PANELBOARD (SURFACE OR FLUSH MOUNT)
	ELECTRICAL CABINET (SURFACE OR FLUSH MOUNT), TYPE AS NOTED
	PLYWOOD TERMINAL BOARD FOR TELEPHONE SYSTEM, UNO. SIZE AS NOTED
	ELECTRICAL EQUIPMENT ON HOUSEKEEPING PAD
	TRANSFORMER
200/3/150/3R	DISCONNECT SWITCH, 200/3/150/3R = AMPERES/POLE/FUSE/NEMA ENCLOSURE RATING CB = CIRCUIT BREAKER (200/3/CB) FM = FACTORY FURNISHED AND MOUNTED NF = NON-FUSED OL = SIZE INDICATED ON ONE-LINE DIAGRAM NO VALUE FOR NEMA ENCLOSURE = NEMA 1
30/3/15/1/3R	COMBINATION DISCONNECT (SAFETY) SWITCH AND MOTOR STARTER, 30/3/15/1/3R = AMPERES/POLE/FUSE/NEMA STARTER SIZE/NEMA ENCLOSURE RATING CB= CIRCUIT BREAKER (30/3/CB/1) FM = FACTORY FURNISHED AND MOUNTED NF= NON-FUSED NO VALUE FOR NEMA ENCLOSURE = NEMA 1
	MAGNETIC MOTOR STARTER, NEMA SIZE AS NOTED. 3-POLE, UNO
VFD	VARIABLE FREQUENCY DRIVE
	INDICATING LIGHT
	EMERGENCY POWER OFF BUTTON
	STOP-START PUSH BUTTON CONTROL STATION
	HAND-OFF-AUTO PUSH BUTTON CONTROL STATION
	MUSHROOM-TYPE PUSH BUTTON
	OVERHEAD PADDLE FAN

BOXES, LIGHTING CONTROL & WIRING DEVICES

SWITCH LETTER DESIGNATIONS AS FOLLOWS: BLANK = SINGLE POLE 2 = TWO POLE 3 = THREE-WAY 4 = FOUR-WAY D = DIMMER F = FAN SPEED CONTROL FH = FRACTIONAL HORSEPOWER MANUAL CONTROLLER FM = FACTORY FURNISHED AND MOUNTED IH = INTEGRAL HORSEPOWER MANUAL CONTROLLER K = KEYED LV# = LOW VOLTAGE / DIGITAL M = MANUAL MOTOR STARTER DISCONNECT OS# = OCCUPANCY SENSOR P = SPST PILOT LIGHT WP = WEATHER PROOF 30/3/3R = AMPERES/POLES/NEMA ENCLOSURE RATING # = REFER TO LIGHTING CONTROL DEVICE SCHEDULE	
\$#	CEILING / WALL MOUNTED OCCUPANCY SENSOR (# INDICATES TYPE PER SCHEDULE)
\$ 30/3/3R	CORNER 90 DEGREE SENSING ONE-DIRECTION SENSING, CEILING/WALL MOUNT CEILING MOUNT, TWO-DIRECTION SENSING CEILING MOUNT, FOUR-DIRECTION SENSING
Ⓢ	POWER PACK (# INDICATES TYPE PER SCHEDULE)
Ⓢ	DUPLEX RECEPTACLE - NEMA 5-20R, UNO
Ⓢ	GFCI TYPE RECEPTACLE*

LIGHTING SUPPLEMENTAL SPECIFICATIONS:

- PROVIDE A NEUTRAL CONDUCTOR TO ALL WALL MOUNTED LINE VOLTAGE LIGHT SWITCHES, UNLESS NOTED OTHERWISE. IF NEUTRAL TERMINATION IS NOT REQUIRED FOR THE DEVICE THEN CAP CONDUCTOR AND TAG AS "NEUTRAL FOR FUTURE USE".
- COORDINATE ALL OCCUPANCY/VACANCY SENSOR SETTINGS WITH OWNER AND ADJUST AS NECESSARY FOR PROPER OPERATION. SETTINGS MUST COMPLY WITH AHJ AND LOCAL ENERGY CODE REQUIREMENTS.
- DO NOT INSTALL OCCUPANCY/VACANCY SENSORS WITHIN 48" OF AIR DIFFUSER OR SIMILAR OBSTRUCTION THAT MAY ADVERSELY AFFECT THE SENSOR PERFORMANCE. COORDINATE FINAL SENSOR LOCATIONS WITH OTHER TRADES AND INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

Sheet List - ELECTRICAL	
Sheet Number	Sheet Name
E000	ELECTRICAL LEGEND AND GENERAL NOTES
E100	ELECTRICAL LEVEL 1 PLAN - OVERALL
E101	ELECTRICAL LEVEL 1 PLAN - ENLARGED VIEWS
E500	ELECTRICAL DETAILS AND SCHEDULES

APPLICABLE ELECTRICAL CODES:

NOTE: PROJECT IS DESIGNED IN COMPLIANCE WITH THE FOLLOWING CODES. THIS IS NOT AN EXHAUSTIVE LIST. PROJECT SHALL COMPLY WITH ALL APPLICABLE CODES, STANDARDS AND LOCAL REQUIREMENTS. REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

ELECTRICAL CODE: 2020 NATIONAL ELECTRICAL CODE, (NFPA 70)
BUILDING CODE: 2018 INTERNATIONAL BUILDING CODE, AMENDED
ENERGY CODE: 2009 INTERNATIONAL ENERGY CONSERVATION CODE, AMENDED

ELECTRICAL GENERAL NOTES:

- EXISTING CONDITIONS WERE TAKEN FROM ORIGINAL DRAWINGS AND SITE VISITS AND MAY NOT REFLECT ACTUAL "AS-BUILT" CONDITIONS. VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING FINAL BID. COORDINATE NEW AND DEMOLITION WORK WITH ALL OTHER TRADES AND EXISTING CONDITIONS.
- NOTIFY ARCHITECT, ENGINEER AND OWNER, AS APPLICABLE. IF ANY DANGEROUS CONDITIONS EXIST ON JOB SITE BEFORE ANY DEMOLITION OR REMODEL WORK BEGINS.
- COORDINATE ANY NECESSARY POWER OUTAGES WITH THE OWNER AND MAKE EVERY ATTEMPT TO SCHEDULE DURING OR OFF-PEAK HOURS TO MINIMIZE DISRUPTION TO OPERATIONS. REQUESTS FOR ELECTRICAL SHUTDOWNS OF THE OWNER'S EQUIPMENT SHALL BE BROUGHT IN WRITING TO THE ATTENTION OF THE OWNER AT LEAST 7 DAYS IN ADVANCE. SHUTDOWNS SHALL NOT BE PERFORMED WITHOUT WRITTEN APPROVAL FROM THE OWNER.
- FOR AREAS AND EQUIPMENT WITHIN THE SCOPE OF THIS REMODEL: EXISTING ELECTRICAL EQUIPMENT AND CIRCUITRY MAY BE REUSED IF IN GOOD CONDITION AND NEW DESIGN REQUIREMENTS CAN BE MET; OTHERWISE REPLACE.
- FOR AREAS AND EQUIPMENT WITHIN THE SCOPE OF THIS REMODEL: REPAIR OR REPLACE ANY EXISTING DAMAGED OR RECALLED ELECTRICAL EQUIPMENT, LIGHT FIXTURES, WIRING DEVICES AND RELATED CIRCUITRY AND RESTORE ALL ELECTRICAL SYSTEMS TO PROPER WORKING ORDER. THE FINAL ELECTRICAL INSTALLATION SHALL BE FREE FROM ELECTRICAL DEFECTS TO THE SATISFACTION OF THE AHJ, OWNER, ARCHITECT AND ENGINEER.

ELECTRICAL SUPPLEMENTAL SPECIFICATIONS:

- PRIOR TO SUBMITTING BID, VISIT THE JOB SITE AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS. AS APPLICABLE, REVIEW THE OWNER CRITERIA, GENERAL NOTES, OTHER TRADE DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO SUBMITTING BID.
- ALL WORK SHALL CONFORM TO ALL LOCAL CODES AND ORDINANCES AS WELL AS APPLICABLE INDUSTRY STANDARDS. ALL EQUIPMENT SHALL BEAR LABELS FOR THE USE INTENDED BY AN AHJ ACCEPTED NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL), SUCH AS UL OR ETL. THE FINAL ELECTRICAL INSTALLATION OF THE FACILITY OCCUPIED BY OWNER SHALL BE FREE FROM ELECTRICAL DEFECTS TO THE SATISFACTION OF THE AHJ, OWNER, ARCHITECT AND ENGINEER.
- COORDINATE FINAL LOCATION AND INSTALLATION REQUIREMENTS OF ALL LIGHT FIXTURES, AND ELECTRICAL DEVICES WITH ARCHITECTURAL DRAWINGS, EXISTING CONDITIONS AND OTHER TRADES PRIOR TO ROUGH-IN.
- ELECTRICAL DRAWINGS ARE DIAGRAMMATIC/SCHEMATIC IN NATURE AND REPRESENT THE GENERAL SCOPE OF WORK. IT IS NOT WITHIN THE SCOPE OF THE ELECTRICAL DRAWINGS TO SHOW ALL NECESSARY RACEWAY ROUTING, BENDS, OFFSETS, PULL BOXES AND OBSTRUCTIONS. CONTRACTOR SHALL COORDINATE THE FINAL LOCATION OF EQUIPMENT AND WIRING DEVICES WITH OTHER TRADES PRIOR TO INSTALLATION AND INSTALL ALL WORK TO CONFORM TO THE OWNER REQUIREMENTS.
- ALL CONDUCTOR AND CONDUIT LENGTHS SHOWN IN THESE DESIGN DOCUMENTS ARE INTENDED SOLELY FOR USE IN THE DESIGN CALCULATIONS BY THE DESIGN PROFESSIONAL, UNLESS NOTED OTHERWISE. LENGTHS SHOWN SHALL NOT BE USED TO ASSIST IN THE BIDDING TAKEOFF PROCESS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MATERIAL QUANTITIES REQUIRED TO BID AND CONSTRUCT THE COMPLETE PROJECT.
- ALL APPLICABLE SWITCHES, RECEPTACLES, OUTLETS, AND CONTROLS SHALL BE PLACED AT HEIGHTS THAT ARE IN ACCORDANCE WITH ADA ACCESSIBILITY GUIDELINES.
- WIRING DEVICES SHOWN BACK-TO-BACK ON A COMMON WALL SHALL BE OFFSET A MINIMUM OF 12" HORIZONTALLY TO REDUCE SOUND TRANSMISSION BETWEEN ROOMS, UNO.
- ALL 120V RECEPTACLES 50A OR LESS, 208V AND 240V RECEPTACLES 100A OR LESS, SHALL BE GFCI PROTECTED IN LOCATIONS REQUIRED BY CODE. THIS INCLUDES BATHROOMS, KITCHENS/FOOD PREP AREAS, EXTERIOR LOCATIONS AND RECEPTACLES WITHIN 6 FEET OF A SINK. GFCI RECEPTACLES SHALL BE READILY ACCESSIBLE AND SHALL NOT BE LOCATED BEHIND STATIONARY EQUIPMENT. GFCI PROTECTION MAY BE VIA A GFCI CIRCUIT BREAKER OR GFCI RECEPTACLE, UNLESS NOTED OTHERWISE. WHERE NECESSARY, GFCI PROTECTION MAY BE ACHIEVED VIA A BLANK FACE GFCI DEVICE LOCATED IN A READILY ACCESSIBLE LOCATION NEAR RECEPTACLE BEING PROTECTED. FOR DOWNSTREAM WIRING DEVICES LOCATED ON THE SAME BRANCH CIRCUIT, THE GFCI PROTECTION MAY BE PROVIDED FOR BY A SINGLE UPSTREAM DEVICE IF ALL PROTECTED DEVICES ARE LABELED PER CODE.
- FLEXIBLE CONDUIT IS ONLY PERMITTED WHERE SPECIFICALLY ALLOWED IN THE CONSTRUCTION DOCUMENTS, WHERE CONCEALED FROM VIEW OR EXPOSED FINAL CONNECTIONS TO LIGHT FIXTURES AND EQUIPMENT IN LENGTHS OF 6'-0" OR LESS.
- ALL EMPTY CONDUIT/RACEWAY SHALL BE INSTALLED WITH PULL STRINGS. TERMINATE CONDUIT STUB-UP WITH A NYLON BUSHING.
- EXPOSED CONDUIT/RACEWAY SHALL BE PAINTED TO MATCH ADJACENT SURFACE, UNLESS NOTED OTHERWISE. COORDINATE REQUIREMENTS WITH ARCHITECT AND OWNER PRIOR TO INSTALLATION.
- CONDUITS/RACEWAYS SHALL BE CONCEALED FROM VIEW WHEREVER PRACTICABLE, UNLESS NOTED OTHERWISE. SUPPORT RACEWAY FROM STRUCTURE, NOT ROOF DECK. MAINTAIN 2" MIN SPACING FROM BOTTOM OF ROOF DECK TO PREVENT ROOFING SCREWS FROM PENETRATING RACEWAY. DO NOT ROUTE CONDUITS ACROSS SKYLIGHTS, ACCESS PANELS, HATCHED TILES, HVAC DIFFUSERS, OR EQUIPMENT WORKING CLEARANCE SPACE. ROUTE ALL EXPOSED NON-FLEXIBLE CONDUITS TIGHT TO STRUCTURE, PARALLEL TO BUILDING LINES AND IN STRUT OR CABLE/PIPE TRAY WHERE PRACTICABLE. INSTALL CONDUITS PLUMB/ LEVEL WHERE EXPOSED TO VIEW. COORDINATE RACEWAY ROUTING AND INSTALLATION WITH OTHER TRADES PRIOR TO ROUGH-IN.
- PROVIDE LABEL AT EACH RECEPTACLE COVER PLATE WITH THE RESPECTIVE "PNLBD-CKT#" DESIGNATION. COORDINATE LABEL REQUIREMENTS WITH THE OWNER PRIOR TO INSTALLATION. REFER TO THE SPECIFICATIONS FOR MORE INFORMATION.
- MULTIWIRE BRANCH CIRCUITS ARE NOT ALLOWED, UNLESS NOTED OTHERWISE.
- PROVIDE INSULATED EQUIPMENT GROUNDING CONDUCTOR FOR ALL CIRCUITS, UNLESS NOTED OTHERWISE.

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

STATE OF MISSOURI
NATHAN W. STOSS
LICENSE # PE-2023044638

09/16/25

PROFESSIONAL ENGINEER
NUMBER
PE-2023044638

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MO. CORPORATE NO. E-5560
EXPIRES 10/31/2025

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES
MANAGEMENT,
DESIGN AND CONSTRUCTION

RENOVATE 4 CLIENT
BATHROOMS - RAGLAND
EDUCATION BUILDING,
HIGGINSVILLE HABILITATION
CENTER

100 W 1st Street
Higginsville, Missouri 64037

PROJECT # M2406-01
SITE # 7357
FACILITY # 6517357027

REVISION:	
DATE:	
REVISION:	
DATE:	
REVISION:	
DATE:	
ISSUE DATE: 09/16/2025	

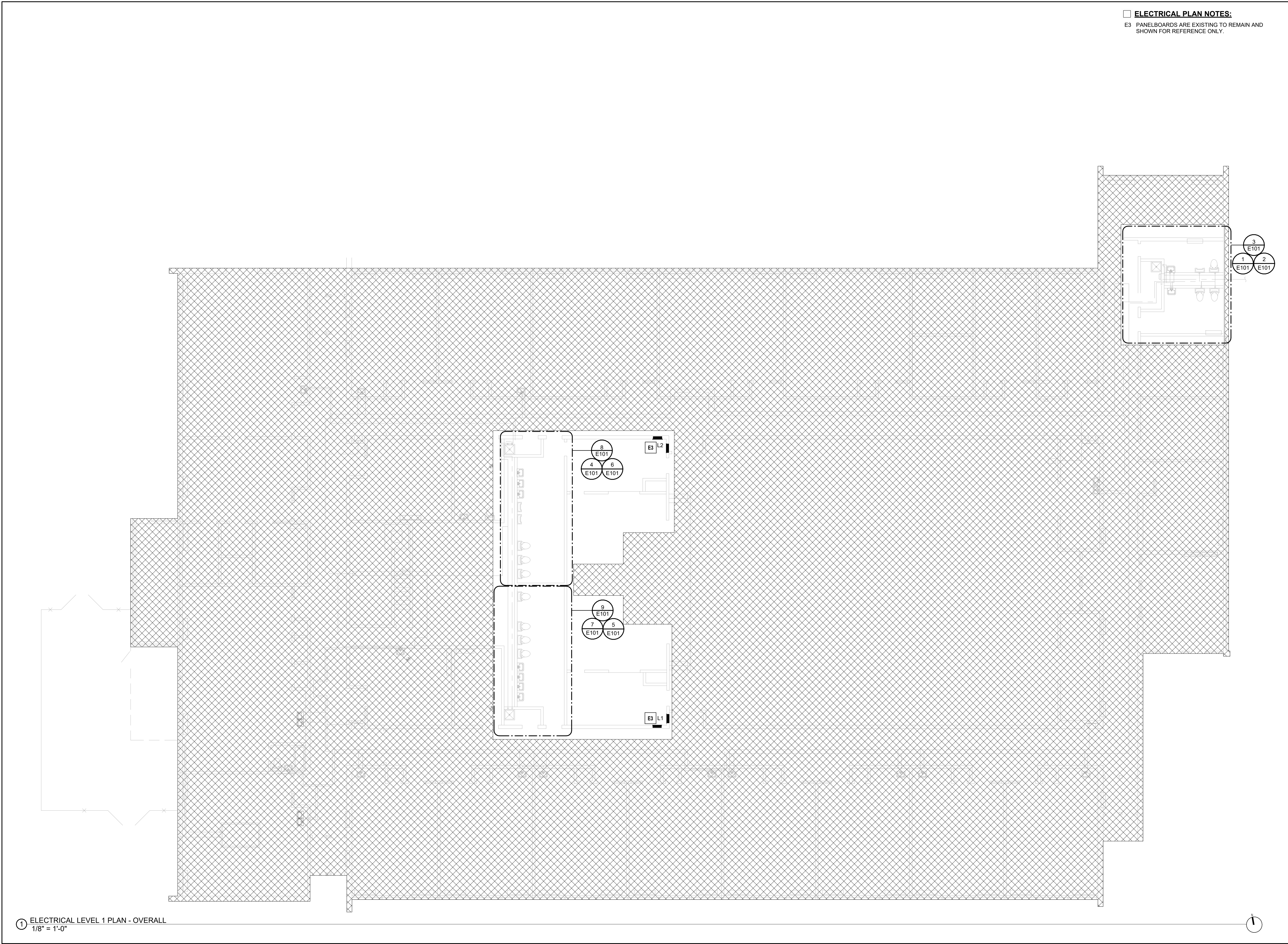
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DRAWN BY: KRS
CHECKED BY: OD
DESIGNED BY: KRS

SHEET TITLE:
ELECTRICAL LEGEND
AND GENERAL
NOTES

SHEET NUMBER:

E000

NATHAN W. STOSS



☐ **ELECTRICAL PLAN NOTES:**
E3 PANELBOARDS ARE EXISTING TO REMAIN AND SHOWN FOR REFERENCE ONLY.

STATE OF MISSOURI
MIKE KEHOE,
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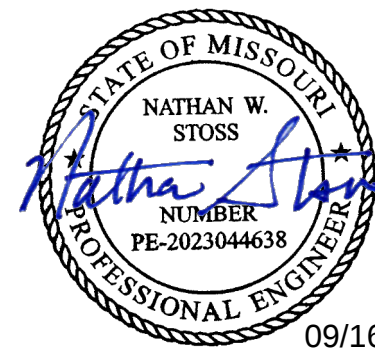
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SITE # 7357
FACILITY # 6517357027

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DATE: _____
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REVISION: _____
DATE: _____
ISSUE DATE: 09/16/2025

CAD DWG FILE:
DRAWN BY: KRS
CHECKED BY: OD
DESIGNED BY: KRS

SHEET TITLE:
**ELECTRICAL LEVEL 1
PLAN - OVERALL**

SHEET NUMBER:
E100
19 OF 29 SHEETS
09/16/2025



NATHAN W. STOSS
LICENSE # PE-2023044638

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REVISION: _____
DATE: _____
ISSUE DATE: 09/16/2025

CAD DWG FILE:
DRAWN BY: KRS
CHECKED BY: OD
DESIGNED BY: KRS

SHEET TITLE:
**ELECTRICAL LEVEL 1
PLAN - ENLARGED
VIEWS**

SHEET NUMBER:

E101

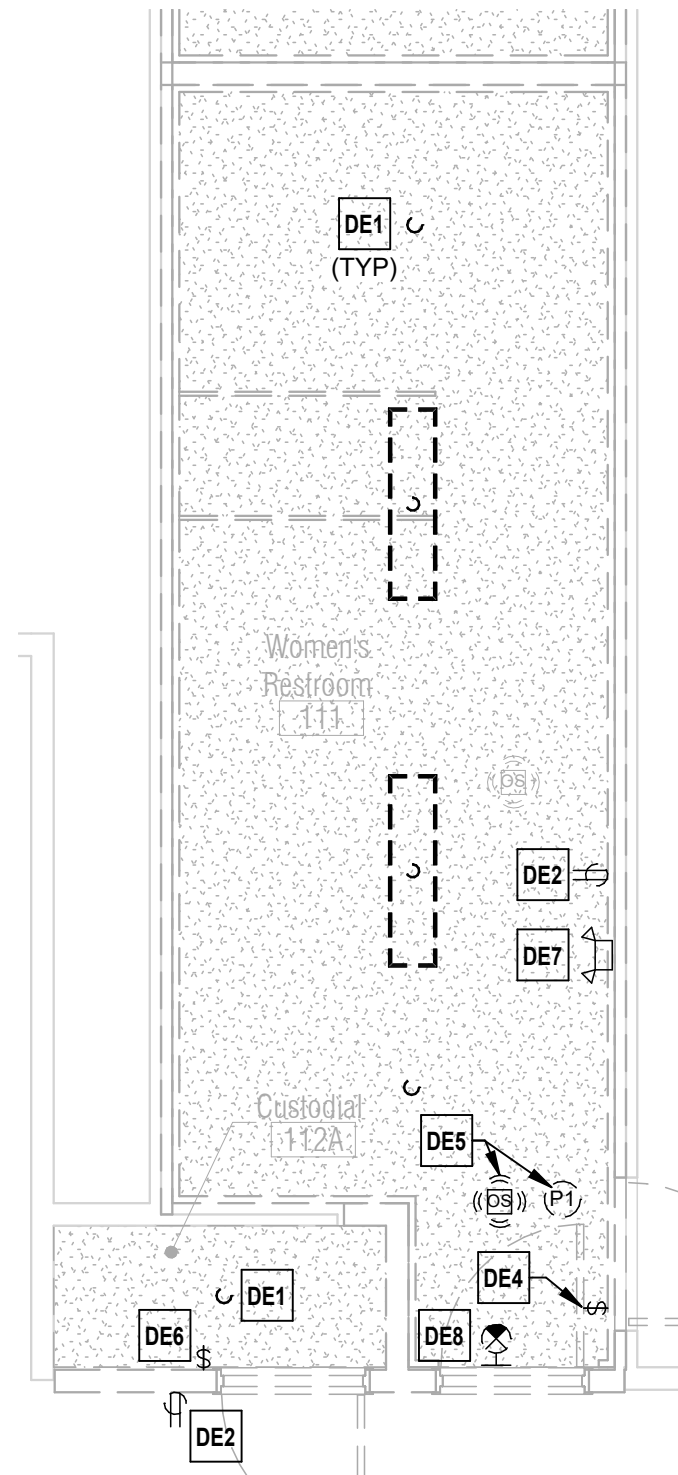
20 OF 29 SHEETS
09/16/2025

ELECTRICAL DEMOLITION PLAN NOTES:

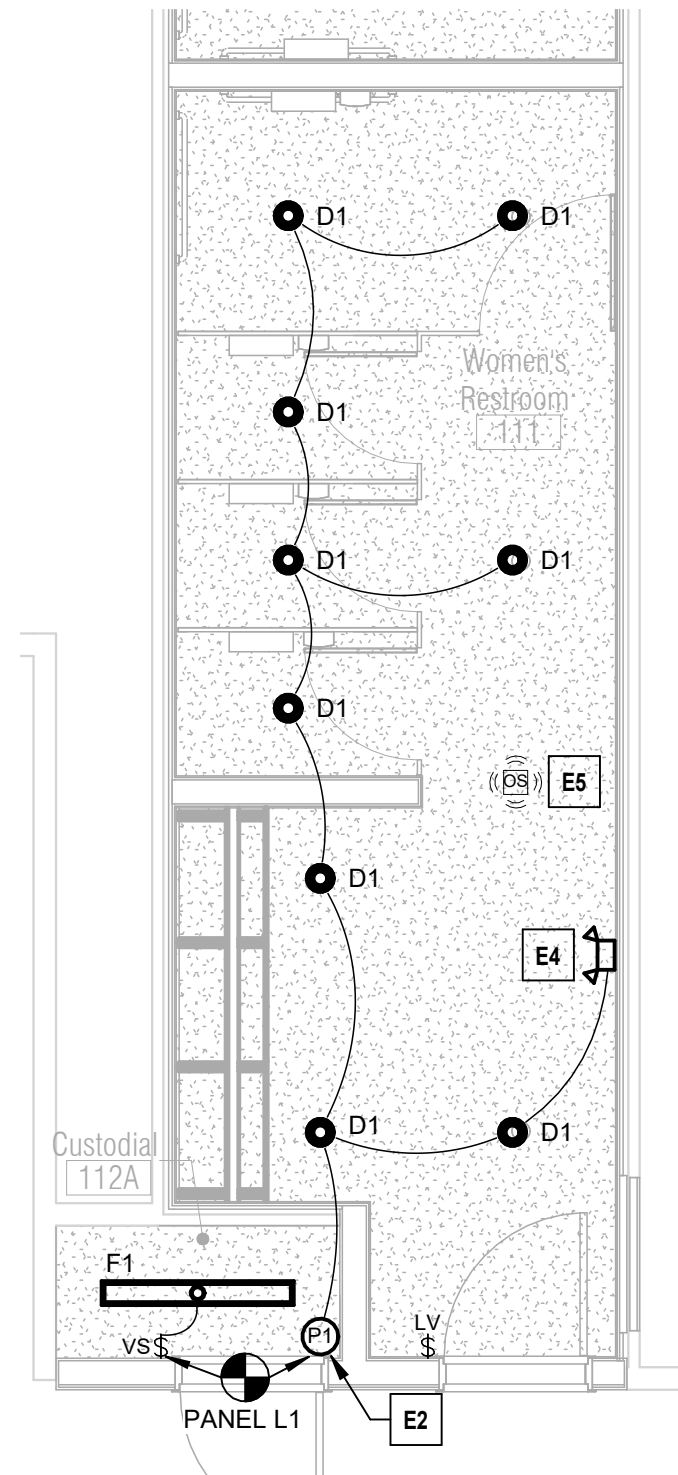
- DE1 REMOVE LIGHT FIXTURE. REMOVE CIRCUITRY BACK TO NEAREST JUNCTION BOX. MAINTAIN FOR RE-CONNECTION TO NEW LIGHTING.
- DE2 REMOVE RECEPTACLE AND BACK BOX. REMOVE CIRCUITRY BACK TO NEAREST JUNCTION BOX. MAINTAIN FOR RE-CONNECTION TO NEW RECEPTACLE.
- DE3 REMOVE POWER AND CONTROL WIRING FOR HVAC UNIT BACK TO NEAREST JUNCTION BOX. MAINTAIN FOR RE-CONNECTION TO NEW HVAC UNIT IN SAME LOCATION.
- DE4 REMOVE LIGHT SWITCH AND BACK BOX. MAINTAIN CONTROL WIRING TO SOURCE FIXTURES AND ASSOCIATED POWER PACK FOR RE-USE.
- DE5 DISCONNECT AND RETAIN OCCUPANCY SENSOR AND POWER PACK FOR RE-USE AFTER NEW CEILING IS INSTALLED.
- DE6 REMOVE LIGHT SWITCH AND BACK BOX. REMOVE CIRCUITRY BACK TO NEAREST JUNCTION BOX. MAINTAIN FOR RE-CONNECTION TO NEW LIGHT SWITCH.
- DE7 REMOVE WALL MOUNTED EMERGENCY BUGEYE AND PROTECT FOR RE-USE.
- DE8 REMOVE EXIT SIGN. REMOVE CIRCUITRY BACK TO NEAREST JUNCTION BOX.

ELECTRICAL PLAN NOTES:

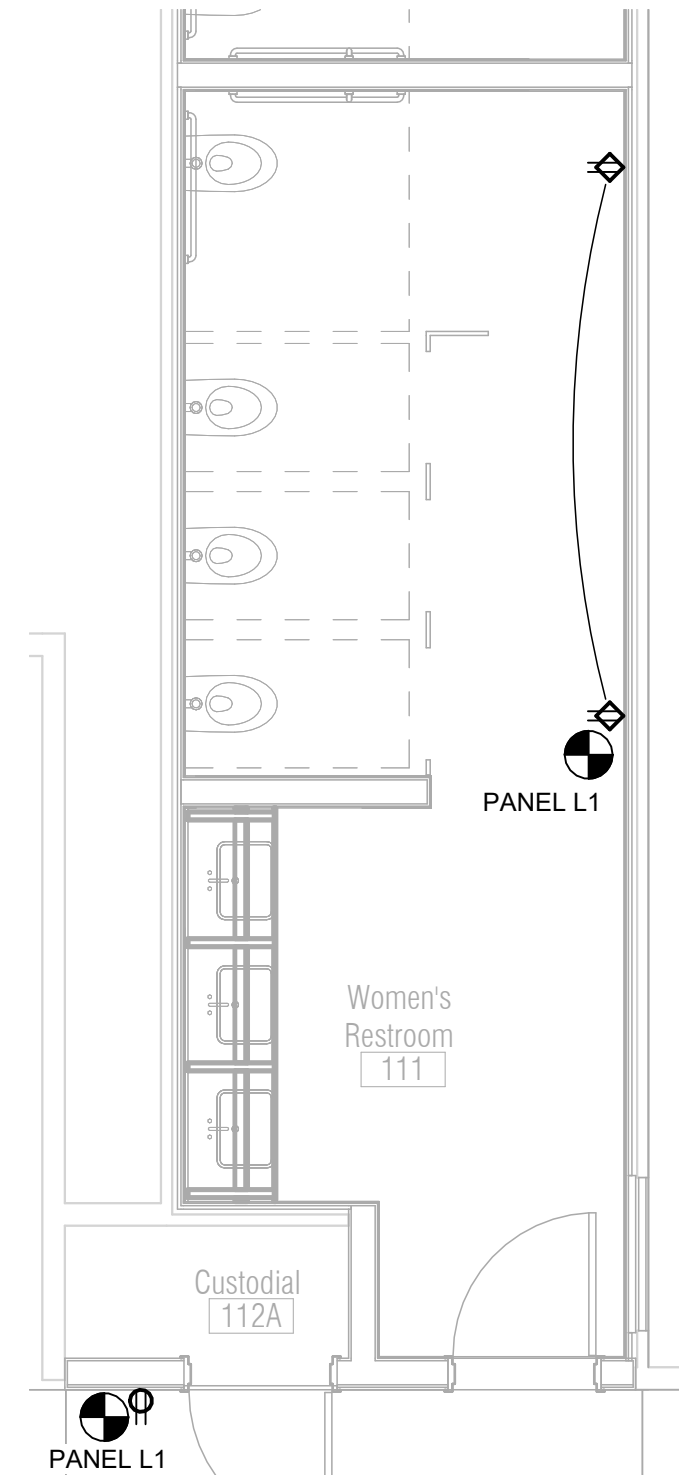
- E1 RE-USE EXISTING CIRCUIT FOR CONNECTION TO NEW FCU. COORDINATE CONTROL WIRING WITH MECHANICAL CONTRACTOR.
- E2 REUSE EXISTING POWER PACK SERVING OCCUPANCY SENSOR. PROVIDE LOW VOLTAGE WIRING PER MANUFACTURER FROM POWER PACK TO NEW LOW VOLTAGE SWITCH. MOUNT POWER PACK HIGH UP ON CUSTODIAL WALL FOR FUTURE ACCESSIBILITY.
- E4 RE-INSTALL EXISTING EMERGENCY BUGEYE. MOUNT AT 7'-0" AFF.
- E5 REINSTALL PREVIOUSLY REMOVED OCCUPANCY SENSOR.



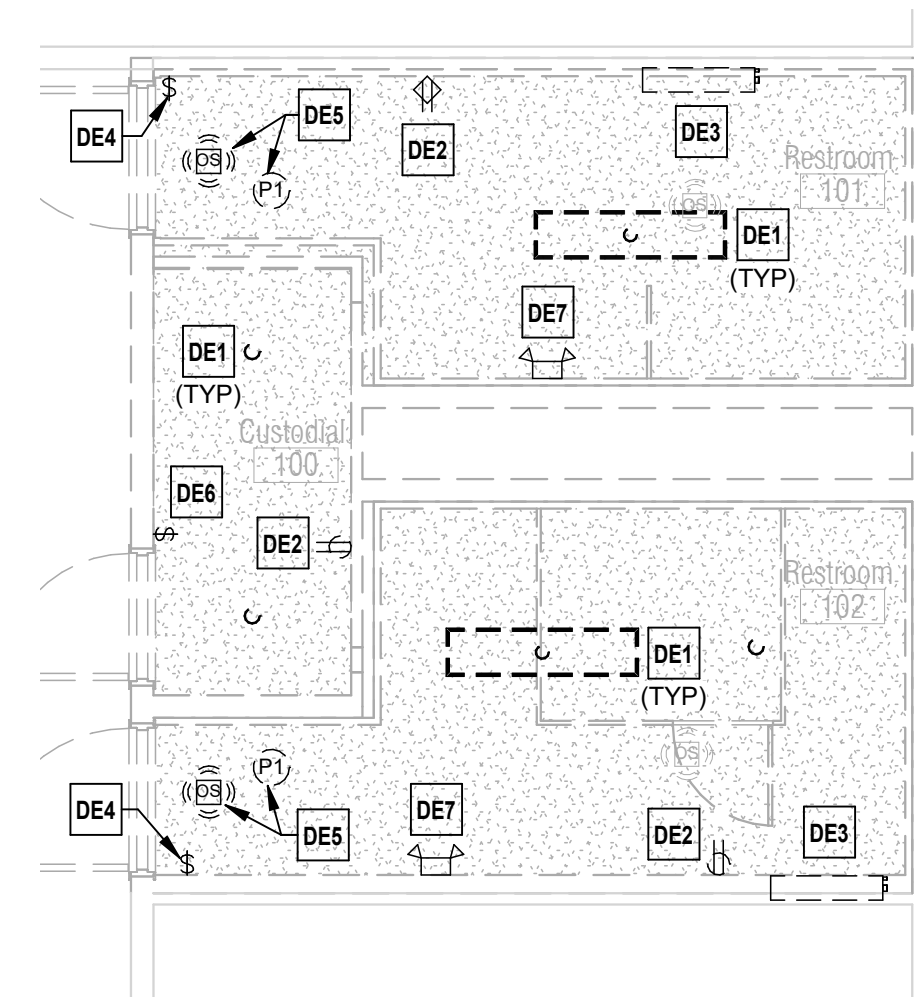
9 ELECTRICAL LEVEL 1 DEMO PLAN - CLIENT WOMEN
1/4" = 1'-0"



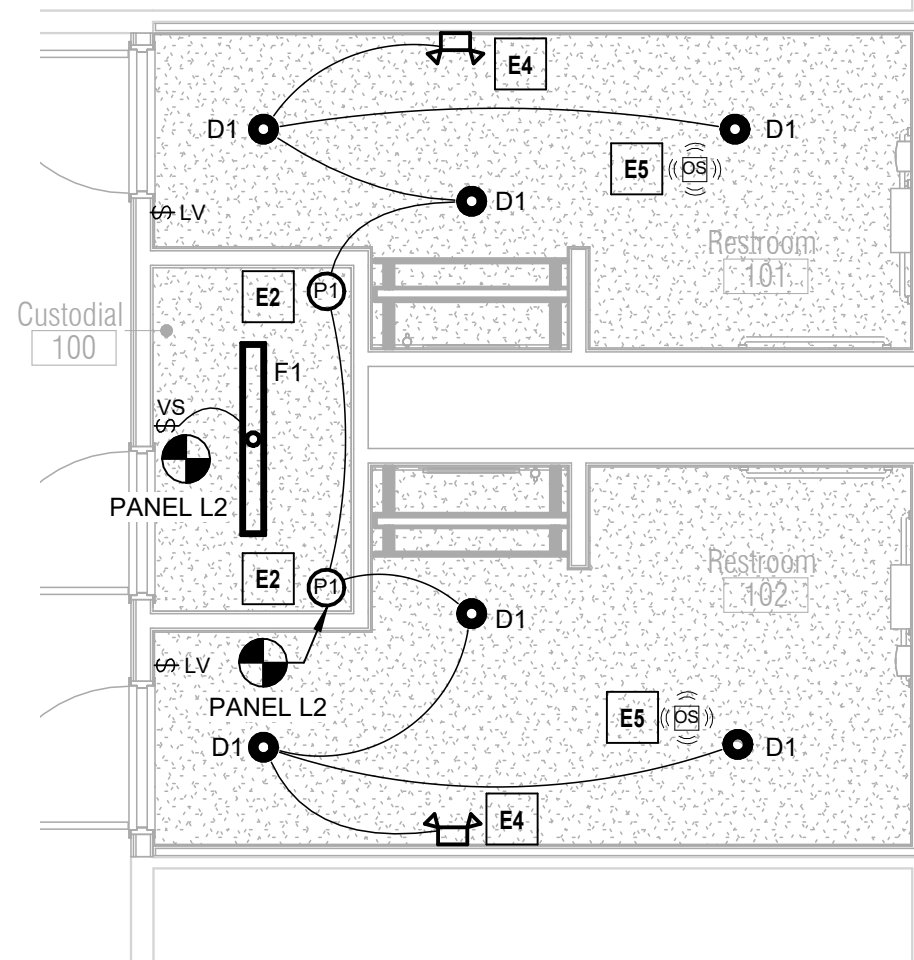
7 LIGHTING LEVEL 1 PLAN - CLIENT WOMEN
1/4" = 1'-0"



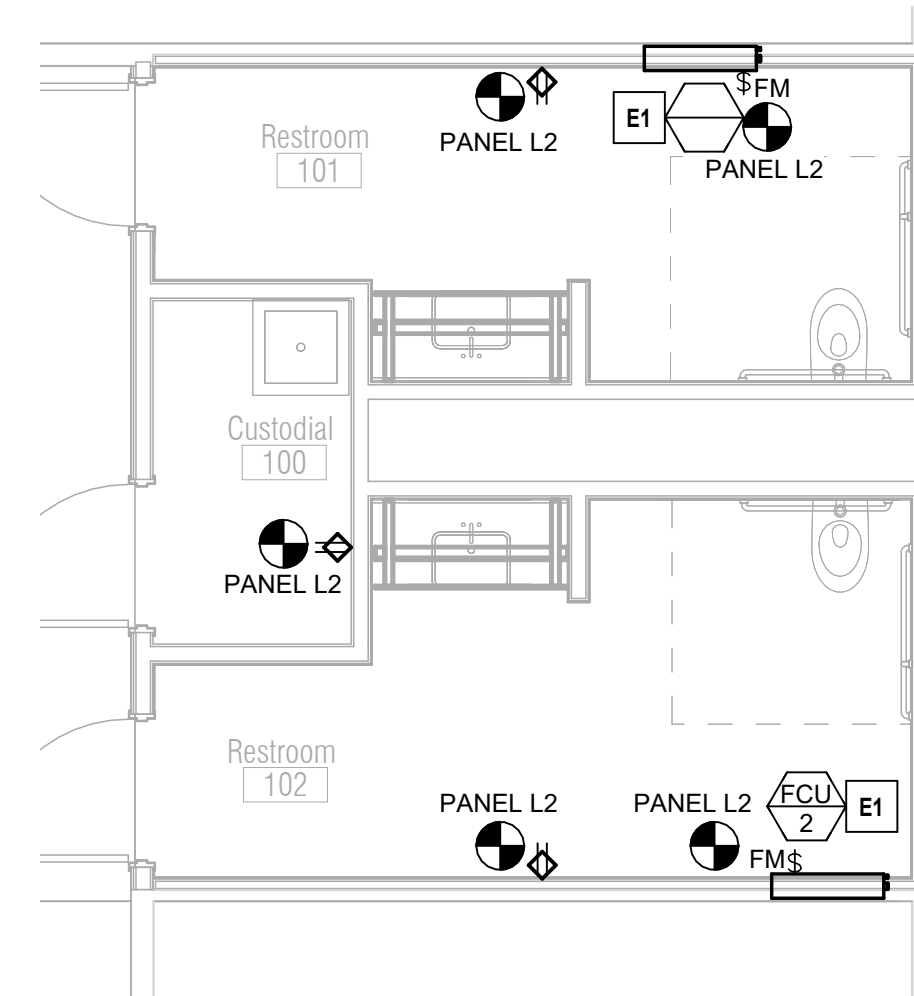
5 POWER LEVEL 1 PLAN - CLIENT WOMEN
1/4" = 1'-0"



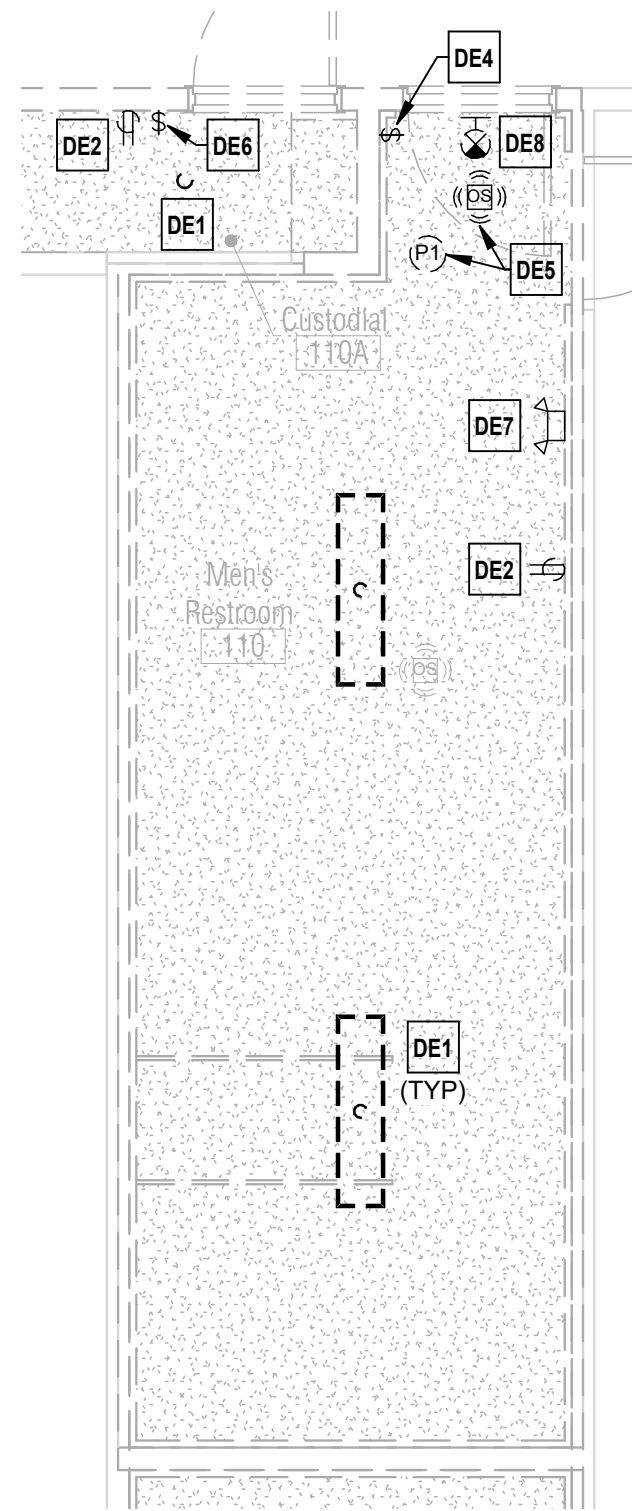
3 ELECTRICAL LEVEL 1 DEMO PLAN - STAFF
1/4" = 1'-0"



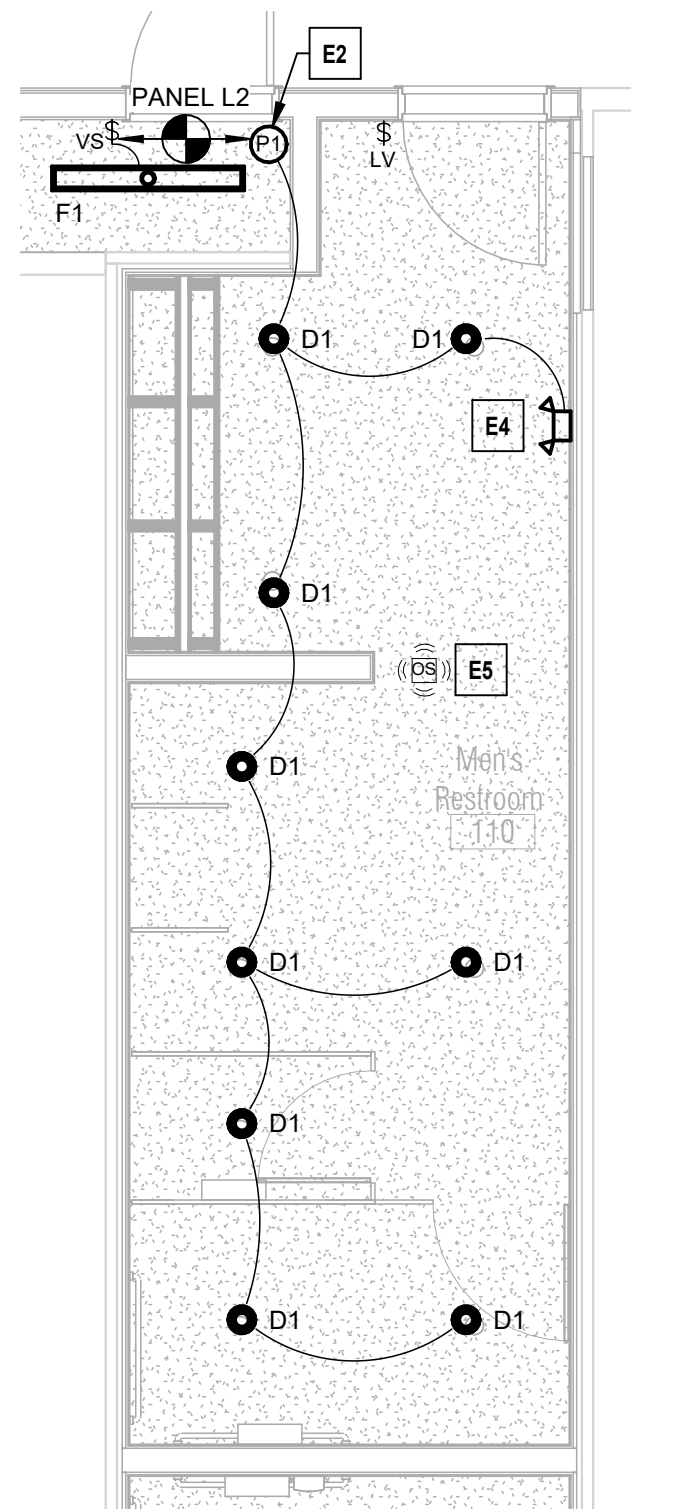
2 LIGHTING LEVEL 1 PLAN - STAFF
1/4" = 1'-0"



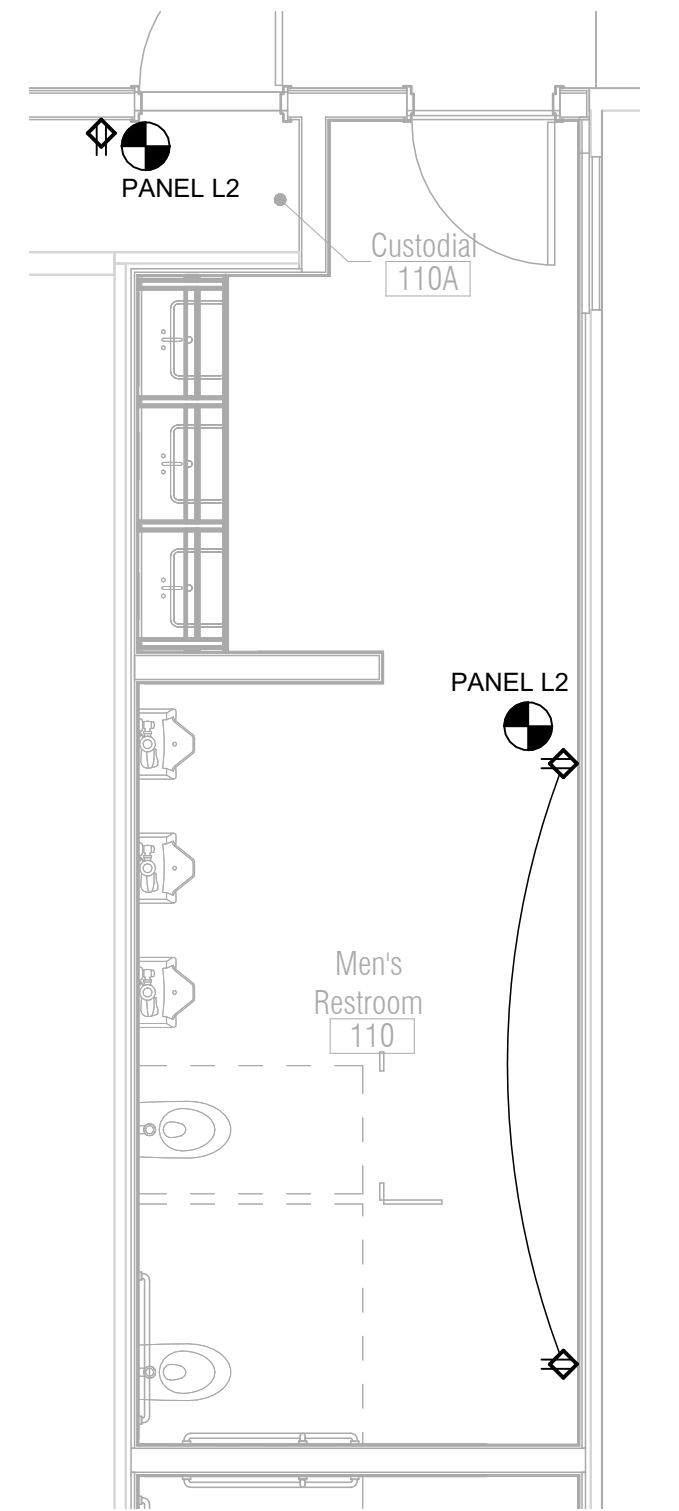
1 POWER LEVEL 1 PLAN - STAFF
1/4" = 1'-0"



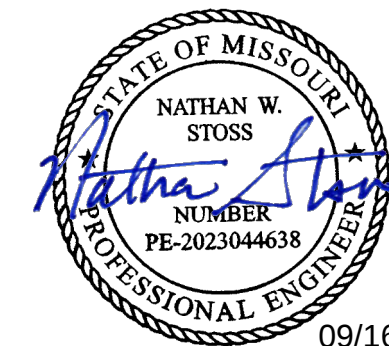
8 ELECTRICAL LEVEL 1 DEMO PLAN - CLIENT MEN
1/4" = 1'-0"



6 LIGHTING LEVEL 1 PLAN - CLIENT MEN
1/4" = 1'-0"



4 POWER LEVEL 1 PLAN - CLIENT MEN
1/4" = 1'-0"



09/16/25
NATHAN W. STOSS
LICENSE # PE-2023044638

**HENDERSON**
ENGINEERS

8345 LENEKA DRIVE, SUITE 300
LENEKA, KS 66214
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2450001062
MO. CORPORATE NO. E-556D
EXPIRES 10/31/2025

LIGHT FIXTURE SCHEDULE												
TYPE	MANUFACTURER	SERIES / MODEL	APPROVED ALTERNATES	SOURCE			DIMMING TYPE	VOLTAGE	INPUT WATTS	INPUT VA	DESCRIPTION	
				TYPE	CRI	CCT						LUMENS
D1	HE WILLIAMS	4DR-TL-L08/835-DIM-UNV-OW-OF-CS-TD-N-F1	PRESCOLITE LITEISTRY SIGNIFY CALCULITE GOTHAM EVO	LED	80	3500K	800	0-10V	120	7	8	4.5" ROUND DOWNLIGHT WITH WIDE DISTRIBUTION AND DIFFUSED LENS AT TOP OF HOUSING. SELF-FLANGED, CLEAR SEMI-SPECULAR ANODIZED FINISH.
F1	HE WILLIAMS	75R SERIES 75R-4-L50-80/35-FP-DRV-UNV	LITHONIA CLX COLUMBIA MPS DAYBRITE FLUXSTREAM	LED	80	3500K	5000LM	NON	120	33	37	4" SURFACE MOUNTED STRIP WITH ROUND FROSTED POLYCARBONATE LENS. STANDARD WHITE FINISH.

LIGHT FIXTURE SCHEDULE GENERAL NOTES:

- ALL LIGHT FIXTURES AND RELATED COMPONENTS SHALL BE PROVIDED BY THE CONTRACTOR, UNLESS NOTED OTHERWISE.
- THE PARTY SUPPLYING THE LIGHT FIXTURES IS RESPONSIBLE FOR SUPPLYING THE PROPER QUANTITY OF LIGHT FIXTURES.

LIGHT FIXTURE SCHEDULE SUPPLEMENTAL SPECIFICATIONS:

- REPRESENTATIVE AGENTS SHALL BE ALLOWED TO OFFER MINI-LOT PRICING (MLP) FOR LIGHT FIXTURES AS ALLOWED IN ELECTRICAL SPECIFICATIONS.
- LIGHTING CONTROLS PRICING, INCLUDING BUT NOT LIMITED TO THOSE REFERENCED IN ELECTRICAL SPECIFICATIONS, SHALL BE COMPLETELY SEPARATE OF ANY LIGHT FIXTURE PRICING. ANY LIGHTING CONTROLS PRICING THAT IS SUBMITTED WITH LIGHT FIXTURE PRICING (UNIT OR MINI-LOT) WILL BE IMMEDIATELY REJECTED IN ITS ENTIRETY.
- CATALOG NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND CATALOG NUMBERS ONLY. FIRST READ THE COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS IN CONJUNCTION WITH THE CATALOG NUMBER TO DETERMINE THE MATERIAL AND ACCESSORIES TO BE ORDERED. THE MANUFACTURERS LISTED ARE THE BASIS FOR THE DESIGN.

LIGHTING CONTROL DEVICE SCHEDULE

LINE-VOLTAGE WALL SWITCH OCCUPANCY SENSORS						
SYMBOL TAG	MANUFACTURER MODEL/SERIES	ALTERNATE MANUFACTURER	DEVICE DESCRIPTION	COVERAGE (W X D)	VOLTAGE	NOTES
VS	LEGRAND PW-100	ACUITY, COOPER CRESTRON, HUBBELL LEVITON, LUTRON	WALL MOUNT PASSIVE INFRARED OCCUPANCY SENSOR. INTEGRAL MANUAL OVERRIDE SWITCH. SINGLE RELAY. LINE-VOLTAGE. LOAD: 120V=800W, 277V=1200W.	MAJOR 30' x 35' MINOR 15' x 20'	120/ 277	

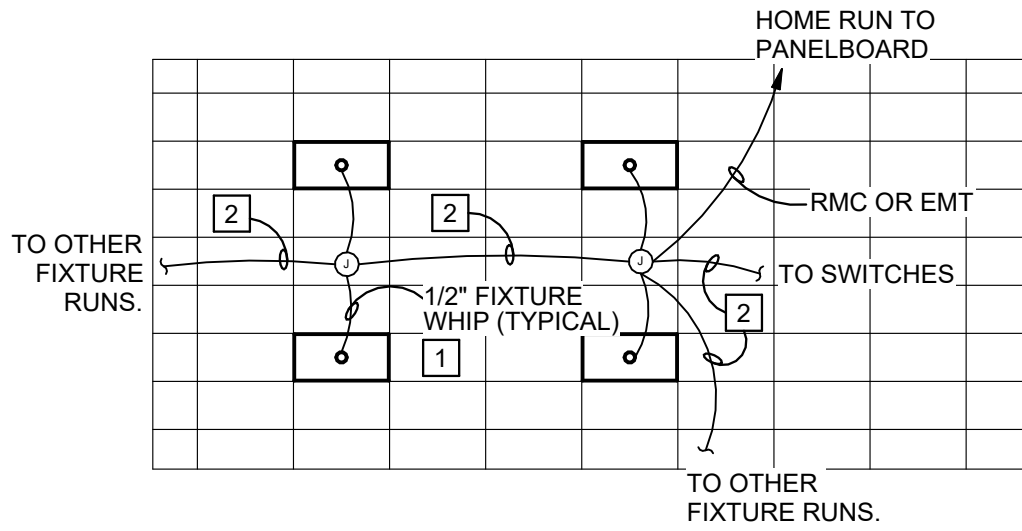
NETWORK LIGHTING SWITCHES					
SYMBOL TAG	MANUFACTURER MODEL/SERIES	ALTERNATE MANUFACTURER	DEVICE DESCRIPTION	VOLTAGE	NOTES
LV	LEGRAND LMSW-101	ACUITY, CRESTRON ETC, HUBBELL	DIGITAL SWITCH FOR MANUAL ON/OFF CONTROL. IR TRANSCEIVER FOR WIRELESS SETUP.	24	

- GENERAL NOTES:**
- LIGHTING CONTROLS PRICING SHALL BE COMPLETELY SEPARATE OF ANY LIGHT FIXTURE PRICING.
 - VERIFY COLOR(S) FOR ALL WALL AND CEILING MOUNTED DEVICES WITH THE ARCHITECT.
 - PROVIDE COPIES OF OPERATION AND MAINTENANCE INSTRUCTIONS FOR ALL DEVICES TO OWNER.
 - PROVIDE A NEUTRAL CONDUCTOR TO ALL WALL SWITCH LOCATIONS PER NEC REQUIREMENTS.

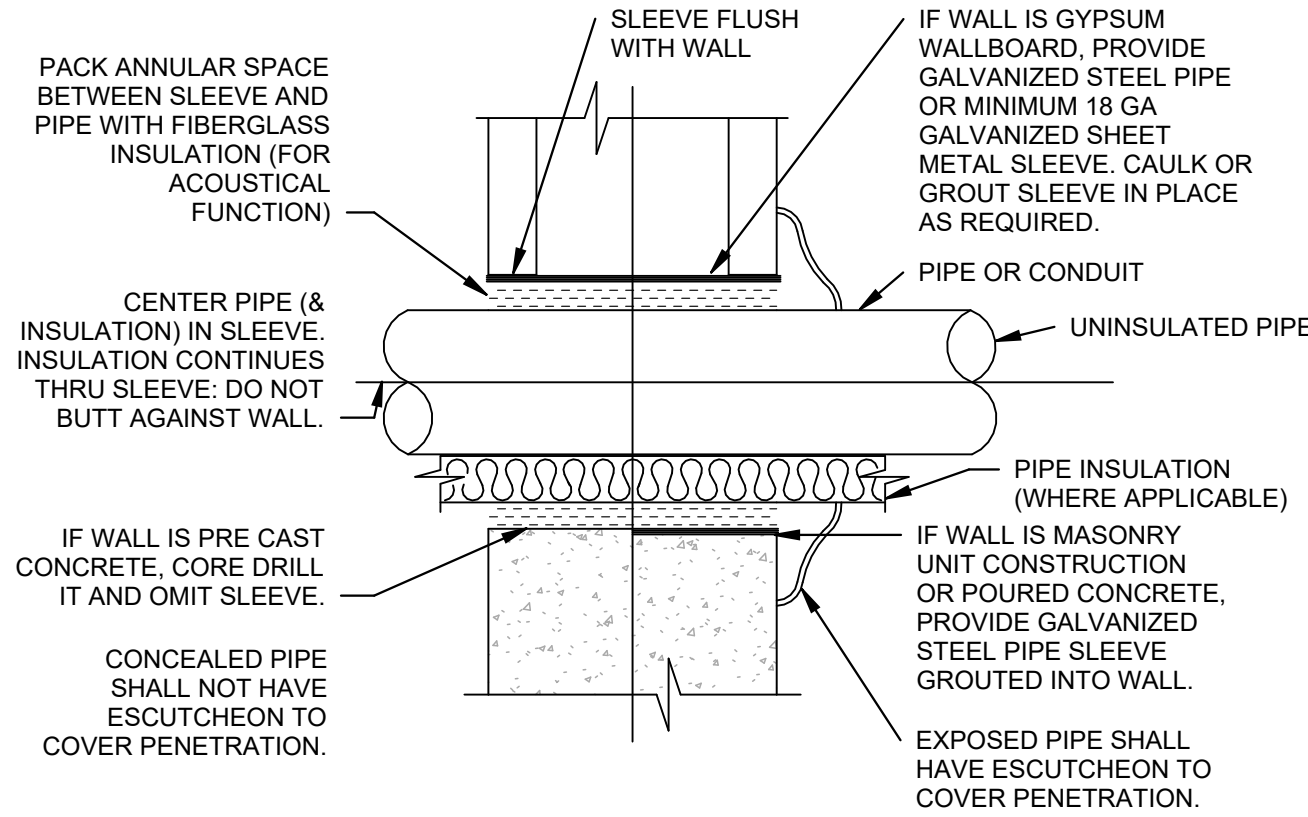
UPON OCCUPANCY, RESTROOM LIGHTS SHALL AUTOMATICALLY TURN ON.
UPON 20 MINUTES OF VACANCY, RESTROOM LIGHTS SHALL AUTOMATICALLY TURN OFF.

ELECTRICAL NOTES:

- PROVIDE SUFFICIENT LENGTH TO MOVE CENTER OF LUMINAIRE IN A 5'-0" RADIUS OF THE LOCATION SHOWN ON THE PLANS.
- RMC OR EMT (UNLESS TYPE MC CABLE IS ALLOWED BY SPECIFICATIONS. IF MORE THAN 4 CURRENT CARRYING CONDUCTORS INCLUDING NEUTRALS, MC CABLE IS NOT ALLOWED).



2 LIGHTING STANDARD LUMINAIRE WIRING
NTS



1 CONDUIT PENETRATION THRU NON-FIREWALL
NTS

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES
MANAGEMENT,
DESIGN AND CONSTRUCTION

RENOVATE 4 CLIENT
BATHROOMS - RAGLAND
EDUCATION BUILDING,
HIGGINSVILLE HABILITATION
CENTER

100 W 1st Street
Higginsville, Missouri 64037

PROJECT # M2406-01
SITE # 7357
FACILITY # 6517357027

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____

ISSUE DATE: 09/16/2025

CAD DWG FILE: _____
DRAWN BY: KRS
CHECKED BY: OD
DESIGNED BY: KRS

SHEET TITLE:
ELECTRICAL
DETAILS AND
SCHEDULES

SHEET NUMBER:

E500

21 OF 29 SHEETS
09/16/2025

GENERAL DEMOLITION NOTES:

- PRIOR TO SUBMITTING BID, VISIT THE JOB SITE AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS OF THE PROJECT. REVIEW THE GENERAL NOTES, SPECIFICATIONS AND OTHER DRAWINGS FOR ADDITIONAL REQUIREMENTS WHICH MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT, ENGINEER AND/OR OWNER OF CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID.
- EXISTING CONDITIONS WERE TAKEN FROM ORIGINAL DRAWINGS AND SITE VISITS AND MAY NOT REFLECT EXACT "AS-BUILT" CONDITIONS. FIELD VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING FINAL BIDS. COORDINATE NEW WORK AND DEMOLITION WITH OTHER DISCIPLINES AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
- OWNER RETAINS RIGHTS OF SALVAGE FOR EQUIPMENT AND FIXTURES TO BE REMOVED. COORDINATE WITH THE OWNER THE EQUIPMENT AND FIXTURES TO BE SALVAGED AND THE LOCATION FOR STORAGE. AVOID DAMAGE TO EQUIPMENT, FIXTURES AND DEVICES DURING DEMOLITION WORK AND DURING TRANSPORT TO OWNER'S DESIGNATED STORAGE LOCATION.
- REMOVE ITEMS SHOWN HEAVY LINED AND/OR CROSSHATCHED AND/OR NOTED TO BE REMOVED.
- AVOID DAMAGING EXISTING SURFACES AND EQUIPMENT TO REMAIN FOR NEW INSTALLATION. REPAIR ANY DAMAGE CAUSED DURING WORK AT NO EXTRA COST TO THE OWNER.
- SEAL ALL PENETRATIONS THROUGH FLOORS, WALLS, CEILINGS AND ROOFS WHERE PLUMBING COMPONENTS ARE REMOVED AND WHERE THE EXISTING PENETRATION IS NOT USED FOR THE NEW INSTALLATION. REPAIR SURFACES TO MATCH ADJACENT AREAS.
- INSTALL PERMANENT CAPS WHERE PIPING IS REMOVED AND THE EXISTING TAPS ARE NOT USED FOR THE NEW INSTALLATION. INSTALL TEMPORARY CAPS WHERE PIPING IS REMOVED AND THE EXISTING TAPS WILL BE USED FOR THE NEW INSTALLATION TO PROTECT THE INTERIOR SURFACES UNTIL NEW PIPING IS INSTALLED.
- REMOVE PIPE HANGERS, PIPE SUPPORTS AND EQUIPMENT SUPPORTS WHERE PIPING OR EQUIPMENT IS REMOVED AND THE EXISTING HANGERS AND SUPPORTS ARE NOT USED FOR THE NEW INSTALLATION.
- VERIFY THAT EXISTING EQUIPMENT TO REMAIN IS OPERATING PROPERLY. NOTIFY THE ARCHITECT, ENGINEER AND/OR OWNER OF ANY DAMAGED AND/OR MALFUNCTIONING COMPONENTS.
- WHERE SHUTDOWN OF EXISTING ACTIVE PIPING SYSTEMS IS REQUIRED DURING DEMOLITION PHASE OF WORK IN PREPARATION FOR NEW TIE-IN PHASE OF WORK, COORDINATE WITH THE OWNER AND MINIMIZE DOWNTIME. VERIFY EXISTING SYSTEMS, EQUIPMENT, AND COMPONENTS WILL BE PROVIDED WITH BACKUP SERVICE WHERE REQUIRED. NOTIFY OWNER A MINIMUM OF SEVEN (7) DAYS PRIOR TO INTERRUPTION OF SERVICE.

GENERAL NOTES:

- PROVIDE A CONSTRUCTION RECORD SET OF "AS-BUILT" DOCUMENTS TO THE ARCHITECT REFLECTING ANY VARIANCES OF INSTALLED PIPING LOCATIONS OR EQUIPMENT CONTRARY TO THE CONSTRUCTION DOCUMENTS, REFER TO SPECIFICATIONS.
- DRAWINGS ARE DIAGRAMMATIC ONLY AND REPRESENT THE GENERAL SCOPE OF THE WORK. REVIEW THE GENERAL NOTES, SPECIFICATIONS AND PLANS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID.
- PROVIDE TO THE OWNER A COPY OF INSPECTION REPORTS AND APPROVAL CERTIFICATES FROM LOCAL AND STATE INSPECTIONS, REFER TO SPECIFICATIONS.
- PLANS AND SPECIFICATIONS GOVERN WHERE THEY EXCEED CODE REQUIREMENTS.
- VERIFY SIZE, LOCATION AND DEPTH OF UTILITIES AT POINTS OF CONNECTION BEFORE START OF PIPING INSTALLATION.
- REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF PLUMBING FIXTURES.
- DO NOT SCALE FLOOR PLANS FOR EXACT HORIZONTAL LOCATION OF PIPE ROUTING.
- INSTALL CONCEALED PIPING TIGHT TO THE STRUCTURE AND AS HIGH AS POSSIBLE.
- VALVES SHALL BE LINE SIZE UNLESS OTHERWISE NOTED.
- INSTALL EXPOSED PIPING, WHERE NECESSARY, IN FINISHED AREAS TIGHT TO THE STRUCTURE, WALL OR CEILING AND AS HIGH AS POSSIBLE. INSTALL PIPING PARALLEL AND / OR PERPENDICULAR TO WALLS.
- INSTALL VALVES AND APPURTENANCES A MAXIMUM OF 24" ABOVE CEILING IN ACCESSIBLE LOCATION WITHIN 24" OF ACCESS DOORS OR ACCESSIBLE CEILING TILES. PROVIDE PIPE AND FITTINGS TO INSTALL VALVES AND APPURTENANCES AT REQUIRED HEIGHT AND WITHIN 24" OF ACCESS DOORS OR ACCESSIBLE CEILING TILES.
- INSTALL NO PLASTIC PIPE IN THE CEILING RETURN AIR PLENUM.
- COORDINATE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
- COORDINATE PIPING INSTALLATION WITH STRUCTURAL GRADE BEAMS, FOOTINGS, COLUMN PIERS, ETC. SLEEVE PIPING THROUGH GRADE BEAMS, FOOTING, ETC. WHERE REQUIRED AND AS NOTED ON PLANS. COORDINATE SLEEVE INSTALLATIONS WITH THE ARCHITECT, STRUCTURAL ENGINEER, STRUCTURAL CONTRACTOR AND GENERAL CONTRACTOR BEFORE CONCRETE IS INSTALLED.
- CLEAN FAUCET AERATORS AND PIPE STRAINERS PRIOR TO TURNING BUILDING OVER TO THE OWNER.
- PROVIDE TRAP PRIMERS WHERE REQUIRED BY LOCAL AUTHORITIES. OTHERWISE, TRAP SEALS SHALL BE PROVIDED IN LIEU OF TRAP PRIMERS.
- COORDINATE PIPE ROUTING AWAY FROM ELECTRICAL PANELS. DO NOT INSTALL PIPING OVER ELECTRICAL PANELS.
- COORDINATE ALL ROOF PENETRATIONS WITH OTHER TRADES. MAINTAIN 10' MINIMUM CLEARANCE FROM ALL AIR INTAKES. MAINTAIN 2' CLEARANCE FROM ALL OTHER EQUIPMENT.
- INSULATE PIPING ROUTED IN EXTERIOR BUILDING WALLS WITH MINIMUM 2" BATT INSULATION TO PREVENT FREEZING.
- PROVIDE TRANSITION ADAPTER COUPLINGS FOR CONNECTION OF PVC DWV TO CAST IRON AT SLAB ON GRADE. SEE DIVISION 22 SPECIFICATIONS FOR MORE INFORMATION.
- PROVIDE TRANSITION ADAPTER COUPLINGS FOR CONNECTION OF PVC DWV TO CAST IRON SANITARY, WASTE AND VENT PIPE AT SLAB ON GRADE. SEE DIVISION 22 SPECIFICATION SECTION "SANITARY DRAINAGE AND VENT PIPING AND SPECIALTIES" FOR MORE INFORMATION.
- FLOW CONTROL VALVES SHALL BE SIZE 1/2" AND SET AT 0.5 GPM UNLESS NOTED OTHERWISE.
- WATER HAMMER ARRESTORS SHALL BE SIZE "A" UNLESS NOTED OTHERWISE AND AS INDICATED BY THE PDI RECOMMENDATIONS.
- PROVIDE VERTICAL LIFT SPRING LOADED CHECK VALVES IN HOT AND COLD WATER SUPPLIES FOR MOP SINK FAUCETS DOWNSTREAM OF SHUTOFF VALVES.
- PROVIDE WALL PIPES AT PIPING PENETRATIONS OF ELEVATED WATERPROOF FLOOR SLABS, REFER TO SPECIFICATIONS.
- VERIFY EXISTING EQUIPMENT, INCLUDING ACCESSORIES, IS NOT DAMAGED AND IS IN GOOD WORKING ORDER. REPORT ANY DEFICIENCIES TO THE ARCHITECT.
- PROVIDE SIZE AND LENGTH OF HOT WATER FIXTURE SUPPLY PIPE FROM CIRCULATED HOT WATER BRANCH OR MAIN TO TERMINATION OF HOT WATER FIXTURE SUPPLY PIPE AT EACH FIXTURE PER 2018 INTERNATIONAL ENERGY CONSERVATION CODE, TABLE C404.5.1. FOR 1/2" HOT WATER FIXTURE SUPPLY PIPE SIZE TO INDIVIDUAL LAVATORIES, PROVIDE MAXIMUM LENGTH OF TWO FEET. FOR 1/2" HOT WATER FIXTURE SUPPLY PIPE SIZE TO INDIVIDUAL SINKS, PROVIDE MAXIMUM LENGTH OF 43 FEET. FOR 3/4" HOT WATER FIXTURE SUPPLY PIPE SIZE TO INDIVIDUAL SINKS, PROVIDE MAXIMUM LENGTH OF 21 FEET.
- PAINT EXPOSED INDOOR WATER PIPING IN FINISHED SPACES. COORDINATE PAINT AND COLOR WITH THE ARCHITECT AND / OR OWNER.
- INSTALL OVERHEAD HANGERS AND SUPPORTS FOR EQUIPMENT AND PIPING FASTENED TO BUILDING JOISTS OR BEAMS. DO NOT ATTACH HANGERS AND SUPPORTS TO THE ABOVE FLOOR SLAB OR ROOF EXCEPT WHERE CONCRETE INSERTS IN CONCRETE SLABS ARE ALLOWED BY THE SPECIFICATIONS.
- SEAL PENETRATIONS THROUGH THE BUILDING COMPONENTS IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS. FIREPROOF PENETRATIONS THROUGH FIRE RATED COMPONENTS IN ACCORDANCE WITH U.L. REQUIREMENTS.
- EXISTING CONDITIONS WERE TAKEN FROM ORIGINAL DRAWINGS AND SITE VISITS AND MAY NOT REFLECT EXACT "AS-BUILT" CONDITIONS. FIELD VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING FINAL BIDS. COORDINATE NEW WORK AND DEMOLITION WITH OTHER DISCIPLINES AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION.

PLUMBING SYMBOLS

THIS IS A MASTER LEGEND AND NOT ALL SYMBOLS OR ABBREVIATIONS ARE USED.

V2.02

STANDARD MOUNTING HEIGHTS

JANITOR'S SINK FAUCET FITTINGS (CENTERLINE)	42"
LAVATORY OR SINK	
STANDARD HEIGHT (RIM)	31"
ADA ACCESSIBLE (RIM)	34"
CHILD HEIGHT (RIM)	24"
URINAL	
STANDARD HEIGHT (RIM)	24"
ADA ACCESSIBLE (RIM)	17"
CHILD HEIGHT (RIM)	14"
WATER CLOSET	
STANDARD HEIGHT (RIM)	15"
ADA ACCESSIBLE (TOP OF SEAT)	17" TO 19"
CHILD HEIGHT (RIM)	10"

INSTALL PLUMBING FIXTURES AT THE MOUNTING HEIGHTS SHOWN ABOVE UNLESS NOTED OTHERWISE IN THE ARCHITECTURAL DRAWINGS OR ELSEWHERE IN THE CONSTRUCTION DOCUMENTS. FINAL APPROVAL OF LOCATIONS BY ARCHITECT. MOUNTING HEIGHTS LISTED ABOVE. OR ELSEWHERE IN THE CONSTRUCTION DOCUMENTS. ARE AFF. UNO. ALL DEVICES SHALL BE INSTALLED IN COMPLIANCE WITH CURRENT ADA AND LOCAL REQUIREMENTS.

ANNOTATION

	PLUMBING PLAN NOTE CALLOUT
	PLUMBING EQUIPMENT DESIGNATION. (CONTRACTOR FURNISHED AND INSTALLED). REFER TO PLUMBING FIXTURE OR EQUIPMENT SCHEDULES
	EQUIPMENT DESIGNATION (OWNER FURNISHED, CONTRACTOR INSTALLED)
	MECHANICAL EQUIPMENT DESIGNATION (CONTRACTOR FURNISHED AND INSTALLED UNLESS NOTED OTHERWISE)
	CONNECTION POINT OF NEW WORK TO EXISTING
	DETAIL REFERENCE UPPER NUMBER INDICATES DETAIL NUMBER LOWER NUMBER INDICATES SHEET NUMBER
	SECTION CUT DESIGNATION
	DEDICATED EQUIPMENT ACCESS TILE
	ACCESS PANEL

ABBREVIATIONS

ADA	AMERICANS WITH DISABILITIES ACT	MIN	MINIMUM
AFB	ABOVE FINISHED FLOOR	N/C	NORMALLY CLOSED
AFG	ABOVE FINISHED GRADE	N/O	NORMALLY OPEN
AHU	AIR HANDLING UNIT	NIC	NOT IN CONTRACT
AP	ACCESS PANEL	ORD	OVERFLOW ROOF DRAIN
BAS	BUILDING AUTOMATION SYSTEM	PDI	PLUMBING DRAINAGE INSTITUTE
BFF	BELOW FINISHED FLOOR	PHIØ	PHASE
BFG	BELOW FINISHED GRADE	PRV	PRESSURE REDUCING VALVE
BOP	BOTTOM OF PIPE	PVC	POLYVINYL CHLORIDE
BOS	BOTTOM OF STRUCTURE	RCP	REINFORCED CONCRETE PIPE
BTU	BRITISH THERMAL UNIT	RD	ROOF DRAIN
CP	CONDENSATE PUMP	RPM	REVOLUTIONS PER MINUTE
CPVC	CHLORINATED POLYVINYL CHLORIDE	RPBP	REDUCE PRESSURE BACKFLOW PREVENTER
CU	COPPER	RTU	ROOFTOP UNIT
DN	DUCTILE IRON	SF	SQUARE FEET
DFU	DRAINAGE FIXTURE UNIT	SP	SUMP
DS	DOWNSPOUT	SS	STAINLESS STEEL
(E)	EXISTING	STACK	SANITARY SEWER, SOIL STACK
EMS	ENERGY MANAGEMENT SYSTEM	TDH	TOTAL DYNAMIC HEAD
ETR	EXISTING TO REMAIN	TFA	TO FLOOR ABOVE
EWC	ELECTRIC WATER COOLER	TFB	TO FLOOR BELOW
FD	FLOOR DRAIN	TYP	TYPICAL
FFA	FROM FLOOR ABOVE	UL	UNDERWRITERS LABORATORIES, INC. UNLESS NOTED OTHERWISE
FFB	FROM FLOOR BELOW	UPS	UNINTERRUPTIBLE POWER SUPPLY
FL	FLOW LINE	VCP	VITRIFIED CLAY PIPE
FLA	FULL LOAD AMPS	VFD	VARIABLE FREQUENCY DRIVE
FLR	FLOOR	VS	VENT STACK
GPM	GALLONS PER MINUTE	VTR	VENT THROUGH ROOF
HD	HEAD, HUB DRAIN	W/	WITH
HZ	HERTZ	W/O	WITHOUT
IE	INVERT ELEVATION	WC	WATER COLUMN
IN WC	INCHES OF WATER COLUMN	WS	WASTE STACK
JB	JUNCTION BOX	WSFU	WATER SUPPLY FIXTURE UNIT
J-BOX	JUNCTION BOX	WVS	WASTE VENT STACK
KW	KILOWATT		
MAU	MAKE-UP AIR UNIT		
MAX	MAXIMUM		
MBH	1000 BTU PER HOUR		
MH	MANHOLE		

PIPING SYMBOLS

	OXYGEN OUTLET
	NITROUS OXIDE OUTLET
	MEDICAL AIR OUTLET
	NITROGEN OUTLET
	MEDICAL VACUUM INLET
	FLOOR SINK (FS), SIZE & TYPE
	FLOOR DRAIN (FD), SIZE & TYPE
	ROOF DRAIN (RD), SIZE & TYPE
	BALL VALVE
	CONTROL VALVE
	SHUTOFF VALVE
	CHECK VALVE
	BALANCING VALVE WITH PRESSURE PORTS
	WATER METER
	STRAINER
	STRAINER WITH BLOWOFF
	RELIEF/SAFETY VALVE
	SOLENOID VALVE
	PRESSURE REDUCING VALVE
	GAS PRESSURE REGULATOR
	THERMOSTATIC MIXING VALVE
	PIPE ANCHOR
	EXPANSION JOINT
	BACKFLOW PREVENTER
	PRESSURE GAUGE
	THERMOMETER
	UNION
	FLANGE CONNECTION
	HOSE BIBB (HB)
	NON-FREEZING WALL HYDRANT (NW)
	MANUAL / AUTOMATIC AIR VENT OR VACUUM RELIEF VALVE
	PRESSURE / VACUUM SWITCH
	CLEANOUT
	CAP
	WALL CLEANOUT (WCO)
	FLOOR CLEANOUT (FCO)
	EXTERIOR CLEANOUT (ECO)
	ELBOW UP
	ELBOW DOWN
	TEE UP
	TEE DOWN
	ELBOW UP WITH SHUT-OFF VALVE (SOV)
	ELBOW DOWN WITH SHUT-OFF VALVE (SOV)
	TEE UP WITH SHUT-OFF VALVE (SOV)
	TEE DOWN WITH SHUT OFF VALVE (SOV)
	WATER HAMMER ARRESTER (WHA) WITH PDI SIZES, (A, B, C, D, & E)
	RECIRCULATION PUMP
	P-TRAP
	GAS COCK
	TRAP PRIMER
	TRAP PRIMER WITH DISTRIBUTION UNIT

LINETYPE LEGEND

THROUGHOUT THE DRAWINGS DIFFERENT LINETYPES ARE USED IN COMBINATION WITH THE SYMBOLS TO INDICATE THE STATUS OF ITEMS AS EXISTING, TO BE DEMOLISHED, TO BE INCLUDED AS PART OF NEW WORK AND/OR ITEMS WHICH ARE ANTICIPATED TO BE PROVIDED IN THE FUTURE. THE STATUS OF ITEMS USING THESE LINETYPES ARE RELATIVE TO THE VIEW IN WHICH THEY APPEAR. PHASING SHOWN IN DRAWINGS IS NOT INTENDED TO FULLY DESCRIBE ALL NECESSARY CONSTRUCTION PHASING, WHICH IS DETERMINED BY THE CONTRACTOR AS PART OF THEIR RESPONSIBILITIES. ANY SUCH PHASES DESCRIBED IN THE CONSTRUCTION DOCUMENTS ARE GENERAL AND ONLY INTENDED TO INDICATE A BROAD ORDER FOR THE SAKE OF DESCRIBING THE PROJECT. THE FOLLOWING LINETYPES MAY BE USED ON ANY DEVICE, EQUIPMENT, NOTE, LINE, SHAPE, ETC.

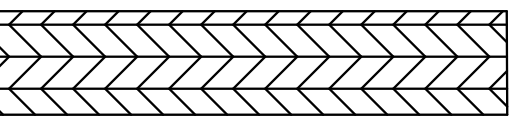
EXISTING	—————
DEMOLISH	- - - - -

NEW	—————
FUTURE	- - - - -

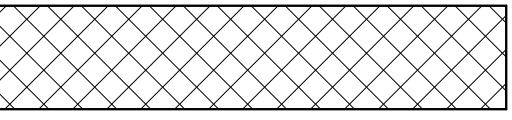
	DOMESTIC COLD WATER (CW)
	SOFTENED COLD WATER (SCW)
	DOMESTIC HOT WATER (HW)
	DOMESTIC HOT WATER RECIRC. (HWR)
	DOMESTIC HOT WATER (140°)
	TRAP PRIMER LINE (T)
	SOIL PIPING - ABOVE FLOOR (S)
	SOIL PIPING - BELOW FLOOR (S)
	WASTE PIPING - ABOVE FLOOR (W)
	WASTE PIPING - BELOW FLOOR (W)
	GREASE WASTE - ABOVE FLOOR (GW)
	GREASE WASTE - BELOW FLOOR (GW)
	COMBINATION GREASE WASTE AND VENT (CGWW)
	COMBINATION WASTE AND VENT (CWV)
	STORM DRAIN - ABOVE FLOOR (ST)
	STORM DRAIN - BELOW FLOOR (ST)
	OVERFLOW STORM DRAIN - ABOVE FLOOR (OST)
	VENT BELOW GRADE (VBG)
	VENT BELOW FLOOR (VBF)
	INDIRECT DRAIN (ID)
	CONDENSATE DRAIN - HIGH EFFICIENCY RTU (CDH)
	CONDENSATE DRAIN (CD)
	AUXILIARY CONDENSATE DRAIN (ACD)
	SUMP OR SEWAGE PUMP DISCHARGE (SPD)
	NATURAL GAS (G)
	NATURAL GAS ON ROOF (G)
	MEDIUM PRESSURE NATURAL GAS (MPG)
	MEDIUM PRESSURE NATURAL GAS ON ROOF (MPG)
	NON-POTABLE WATER (NPW)
	LIQUEFIED PETROLEUM GAS (LPG)
	WATER SERVICE (WS)
	FIRE PROTECTION SPRINKLER DRY (DFP)
	FIRE PROTECTION SPRINKLER WET (FP)
	FIRE PROTECTION STANDPIPE DRY (DSP)
	FIRE PROTECTION STANDPIPE WET (WSP)
	CONDENSATE PUMP DISCHARGE (PD)
	VENT PIPING (V)
	ACID WASTE - ABOVE FLOOR (AW)
	ACID WASTE - BELOW FLOOR (AW)
	ACID VENT (AV)
	GRAY WATER (GWS)
	COMPRESSED AIR (CA)
	MEDICAL AIR (MA)
	MEDICAL VACUUM (VE)
	HELIUM (HE)
	INSTRUMENT AIR (IA)
	INSTRUMENT VACUUM (IV)
	NITROGEN (N2)
	NITROUS OXIDE (N2O)
	OXYGEN (O2)
	EVAC/WAGD (EV)
	CARBON DIOXIDE (CO2)
	MEDICAL AIR INTAKE (AI)
	MEDICAL VACUUM EXHAUST (VE)
	DENTAL AIR (DA)
	DENTAL VACUUM (DV)
	FILTERED WATER (FW1)
	FILTERED WATER W/ SCALE INHIBITOR (FW2)
	REVERSE OSMOSIS (RO)
	REVERSE OSMOSIS REMINERALIZATION (ROR)

HATCHING LEGEND

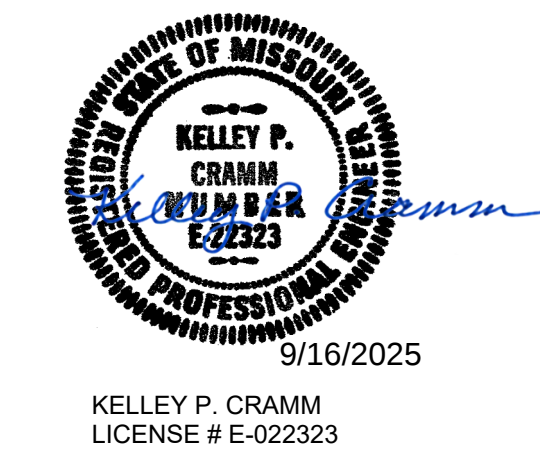
ENLARGED PLAN



NOT IN SCOPE (NIS)



STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR



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8345 LENEAX DRIVE, SUITE 300
LENEAX, KS 66214
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WWW.HENDERSONENGINEERS.COM
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MO. CORPORATE NO. E-556D
EXPIRES 10/31/2025

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES
MANAGEMENT,
DESIGN AND CONSTRUCTION

RENOVATE 4 CLIENT
BATHROOMS - RAGLAND
EDUCATION BUILDING,
HIGGINSVILLE HABILITATION
CENTER

100 W 1st Street
Higginsville, Missouri 64037

PROJECT # M2406-01
SITE # 7357
FACILITY # 6517357027

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 09/16/2025

CAD DWG FILE:
DRAWN BY: BB
CHECKED BY: FD
DESIGNED BY: BB

SHEET TITLE:
PLUMBING GENERAL
NOTES AND LEGEND

SHEET NUMBER:
P000
22 OF 29 SHEETS
09/16/2025



9/16/2025
KELLEY P. CRAMM
LICENSE # E-022323

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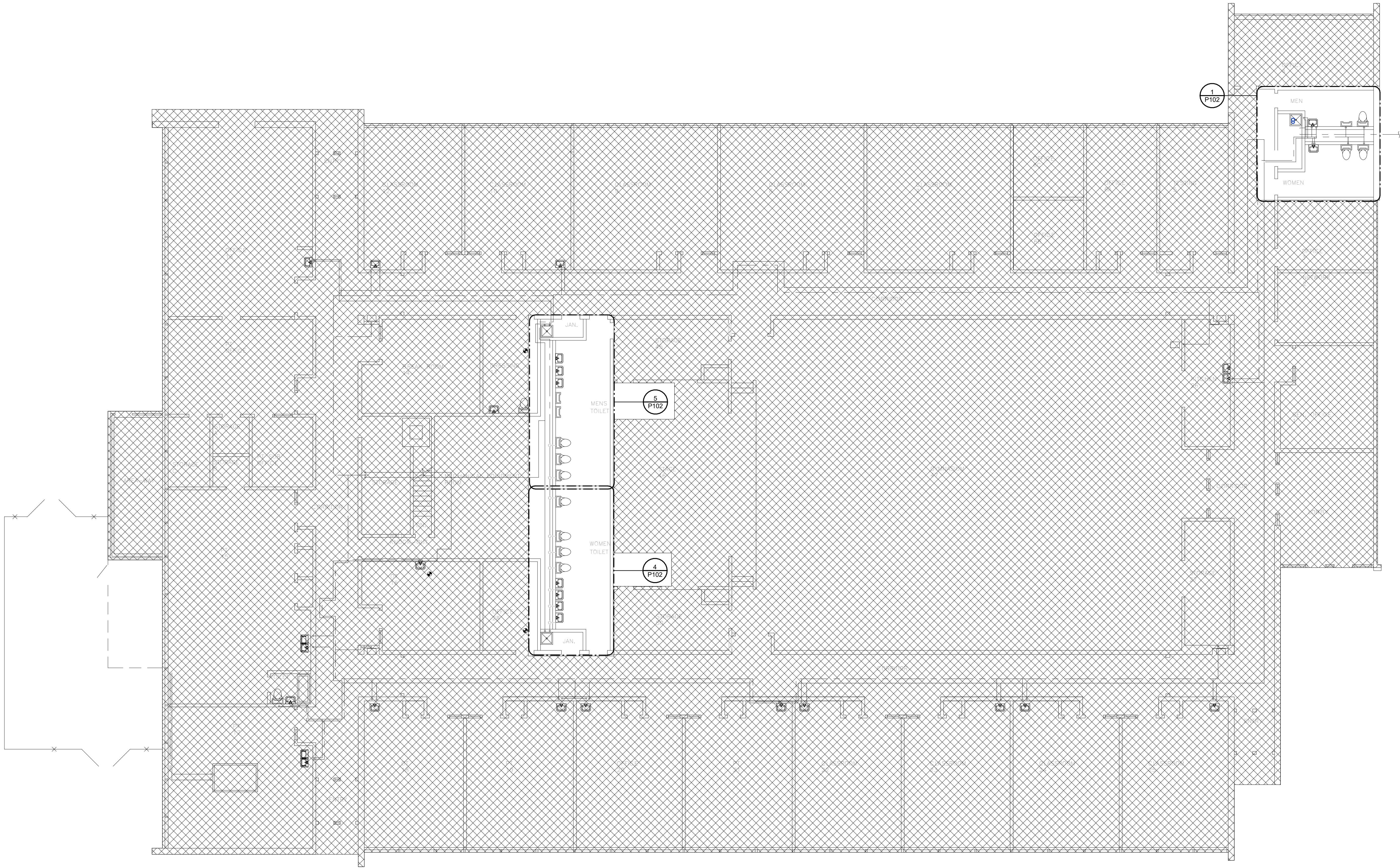
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SHEET TITLE:
**PLUMBING LEVEL 1
PLAN - OVERALL**

SHEET NUMBER:

P101

23 OF 29 SHEETS
09/16/2025



① PLUMBING LEVEL 1 PLAN - OVERALL
1/8" = 1'-0"



9/16/2025
KELLEY P. CRAMM
LICENSE # E-022323

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RENOVATE 4 CLIENT
BATHROOMS - RAGLAND
EDUCATION BUILDING,
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100 W 1st Street
Higginsville, Missouri 64037

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CAD DWG FILE:
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SHEET TITLE:
**PLUMBING LEVEL 1
PLAN - ENLARGED
VIEWS**

SHEET NUMBER:
P102
24 OF 29 SHEETS
09/16/2025

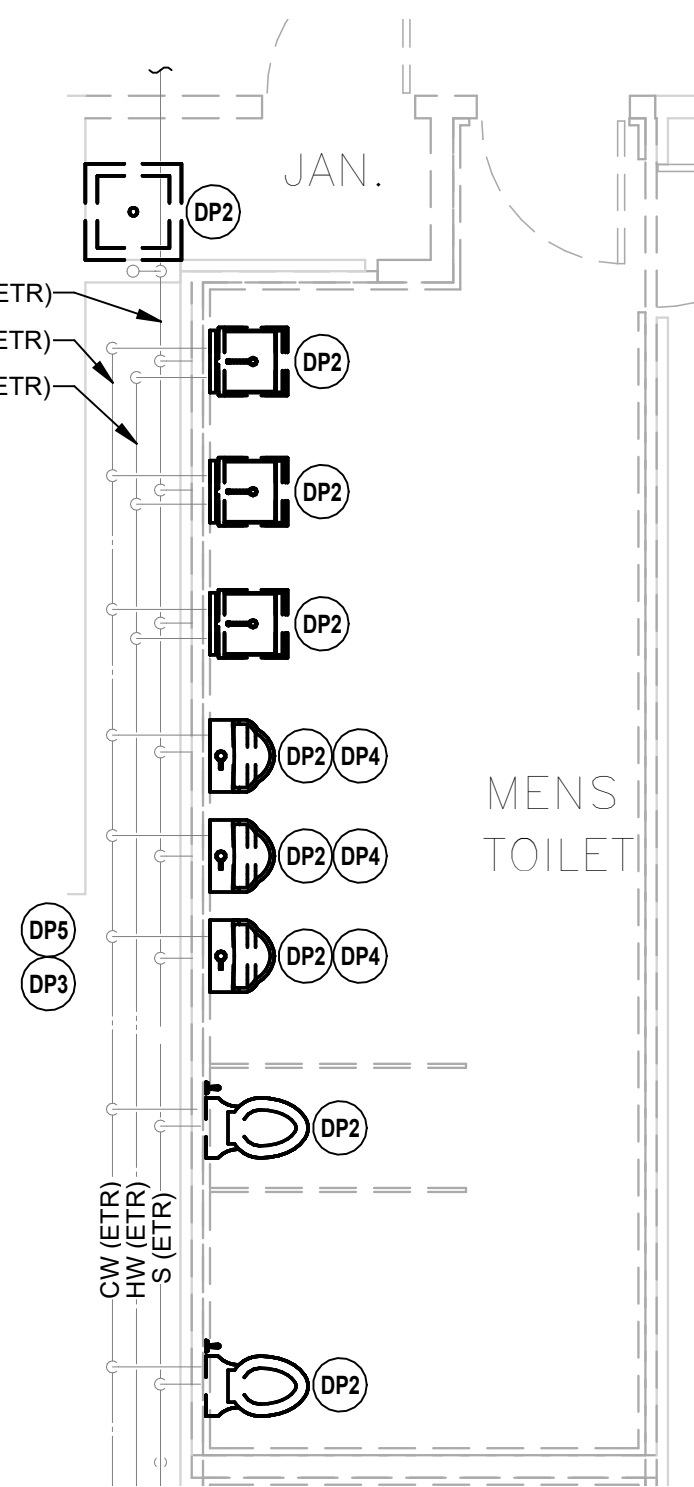
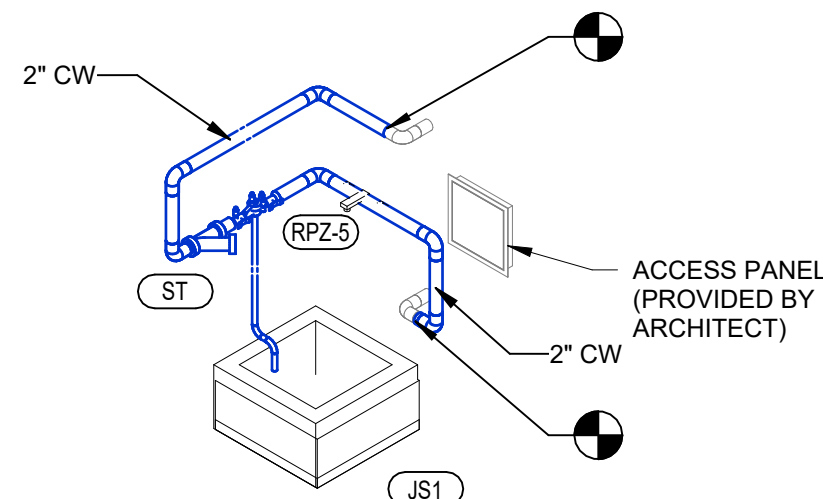
GENERAL DEMOLITION NOTE:

PRIOR TO BEGINNING WORK, CONTRACTOR SHALL VISIT SITE AND INSPECT FIXTURE LOCATIONS FOR ACCESSIBILITY TO EXISTING ROUGH-INS. CONTRACTOR TO VERIFY IF EXISTING FIXTURE CARRIERS ARE IN GOOD WORKING ORDER. ARE COMPATIBLE WITH THE NEW FIXTURES AND INSTALLED IN THE PROPER ALIGNMENT TO MEET ADA REQUIREMENTS FOR THE NEW FIXTURES. FAILURE TO OBSERVE EXISTING CONDITIONS SHALL NOT BE AN ACCEPTABLE REASON FOR AN INCREASE IN CONTRACT AMOUNT. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.

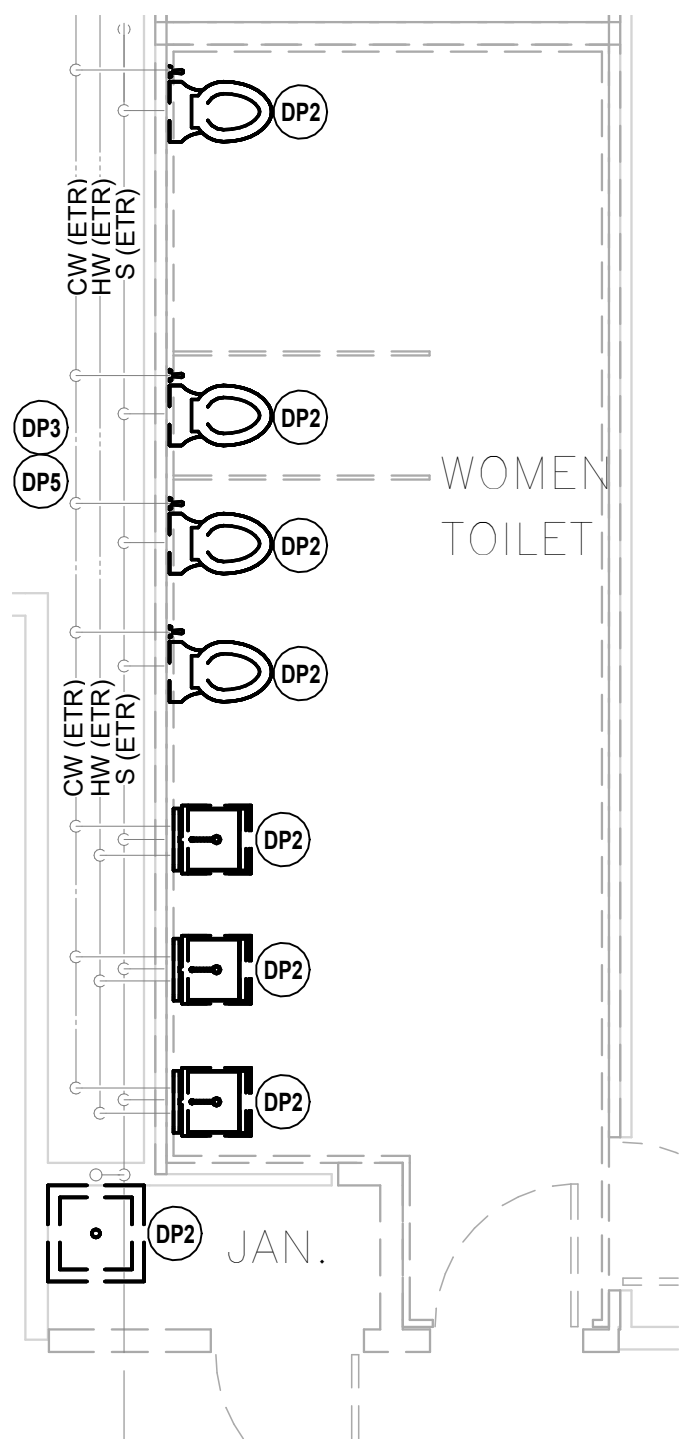
CONTRACTOR SHALL COORDINATE DOWNTIME OF EXISTING DOMESTIC WATER SERVICE TO BUILDING FOR WORK ASSOCIATED WITH THE INSTALLATION OF THE NEW RP25 AND CONNECTION OF NEW PIPING TO EXISTING MAINS. COORDINATION SHALL OCCUR NO LESS THAN FOURTEEN (14) DAYS PRIOR TO THE PROJECTED DOWNTIME DATE.

PLUMBING PLAN NOTES:

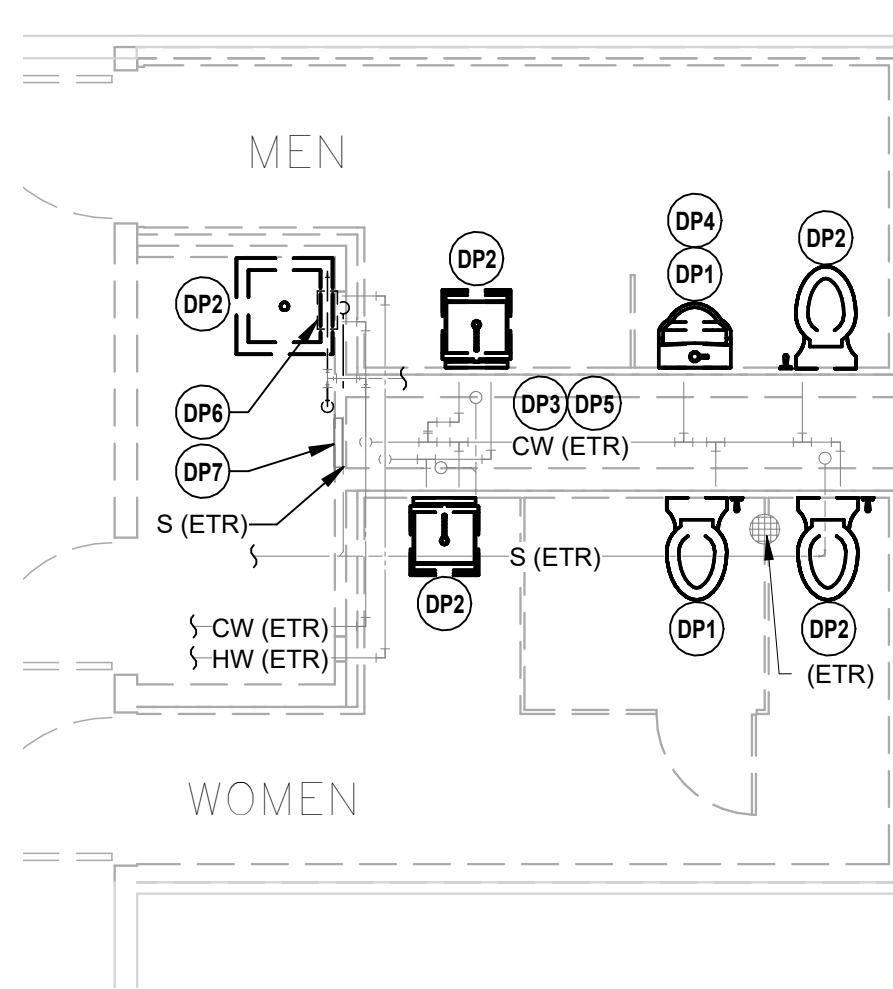
- DP1 REMOVE EXISTING PLUMBING FIXTURE AS WELL AS PIPING (WASTE, VENT, HOT AND COLD WATER) TO BELOW FINISHED FLOOR AND WITHIN EXISTING PLUMBING CHASE/WALLS.
- DP2 REMOVE EXISTING PLUMBING FIXTURE AND CAP PIPING (WASTE, VENT, HOT AND COLD WATER) AT WALL/FLOOR AND WITHIN EXISTING PLUMBING CHASE/WALLS FOR RECONNECTION UNDER NEW WORK. WHERE ACCESS TO PIPING BELOW SLAB IS REQUIRED CONTRACTOR SHALL SAWCUT EXISTING FLOOR SLAB. PATCH AND REPAIR SLAB PER ARCHITECT'S DIRECTION.
- DP3 CONTRACTOR TO REPLACE EXISTING PIPE INSULATION WITHIN CHASE IDENTIFIED AS CONTAINING MORE THAN 1% ASBESTOS PER REPORT DATED MARCH 21, 2024 WITH ACCEPTABLE INSULATION MATERIALS AS SPECIFIED IN SECTION 220700. PLUMBING CONTRACTOR RESPONSIBLE ONLY FOR THE INSTALLATION OF NEW INSULATION. ASBESTOS ABATEMENT SERVICE WILL BE RESPONSIBLE FOR THE REMOVAL OF ALL INSULATION IDENTIFIED AS HAVING ASBESTOS EXCEEDING THE ALLOWABLE AMOUNT.
- DP4 EXISTING SANITARY WASTE PIPING BELOW SLAB SERVING EXISTING URINALS SHALL BE REMOVED TO IMMEDIATELY BELOW FLOOR SLAB, CAPPED AND ABANDONED IN PLACE. WHERE ACCESS TO PIPING BELOW SLAB IS REQUIRED CONTRACTOR SHALL SAWCUT EXISTING FLOOR SLAB. PATCH AND REPAIR SLAB PER ARCHITECT'S DIRECTION.
- DP5 ANY EXISTING GALVANIZED PIPING WITHIN THE SCOPE OF WORK SHALL BE REPLACED WITH THE APPROPRIATE PIPE MATERIAL PER THE PIPE MATERIAL SCHEDULE.
- DP6 EXISTING RPBP AND STRAINER ARE TO BE REMOVED AND REPLACED WITH NEW UNITS.
- DP7 EXISTING ACCESS PANEL TO BE REPLACED. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.
- P4 CONNECT NEW PLUMBING FIXTURE TO EXISTING DOMESTIC WATER ROUGH-INS PREVIOUSLY CAPPED DURING DEMOLITION PHASE. CONTRACTOR TO PROVIDE NEW SANITARY WASTE AND VENT ROUGH-INS IN CHASE FOR NEW WALL HUNG FIXTURE AND CONNECT TO EXISTING SANITARY WASTE LINE BELOW FLOOR SLAB AND VENT LINE ABOVE CEILING. NEW FIXTURE INSTALLATION LOCATIONS MAY DIFFER SLIGHTLY FROM ORIGINAL LOCATIONS. CONTRACTOR TO MODIFY EXISTING ROUGH-INS AS NEEDED TO ACCOMMODATE NEW FIXTURE LOCATIONS.
- P5 CONNECT NEW PLUMBING FIXTURE TO EXISTING SANITARY WASTE, VENT AND DOMESTIC WATER ROUGH-INS PREVIOUSLY CAPPED DURING DEMOLITION PHASE. NEW FIXTURE INSTALLATION LOCATIONS MAY DIFFER SLIGHTLY FROM ORIGINAL LOCATIONS. CONTRACTOR TO MODIFY EXISTING ROUGH-INS AS NEEDED TO ACCOMMODATE NEW FIXTURE LOCATIONS.
- P7 NEW DRAIN GRIDS SHALL BE INSTALLED OVER EXISTING DRAIN BODIES. CLEAN AND POLISH EXISTING DRAIN BODIES BEFORE INSTALLING NEW GRID.



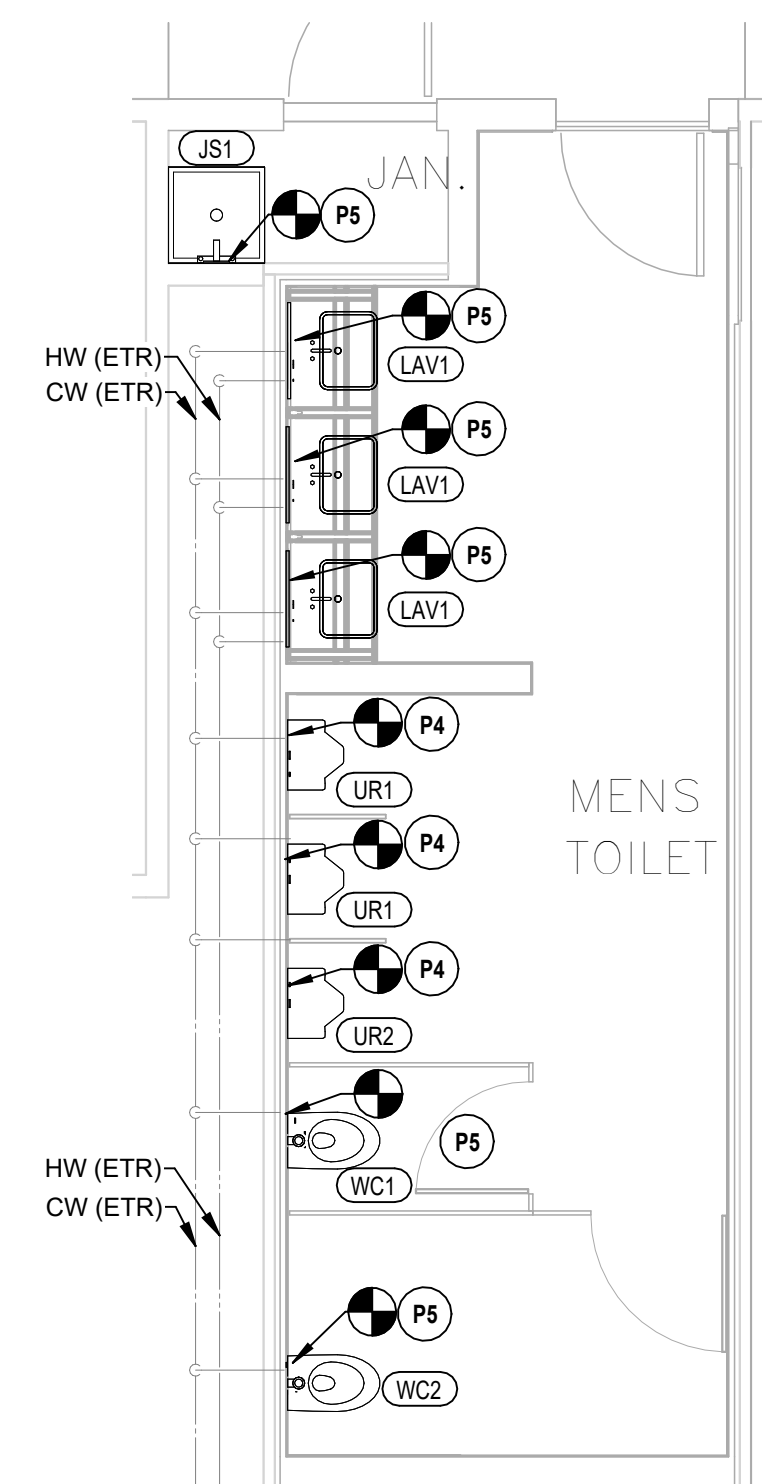
9 PLUMBING DEMO PLAN - CLIENT MEN
1/4" = 1'-0"



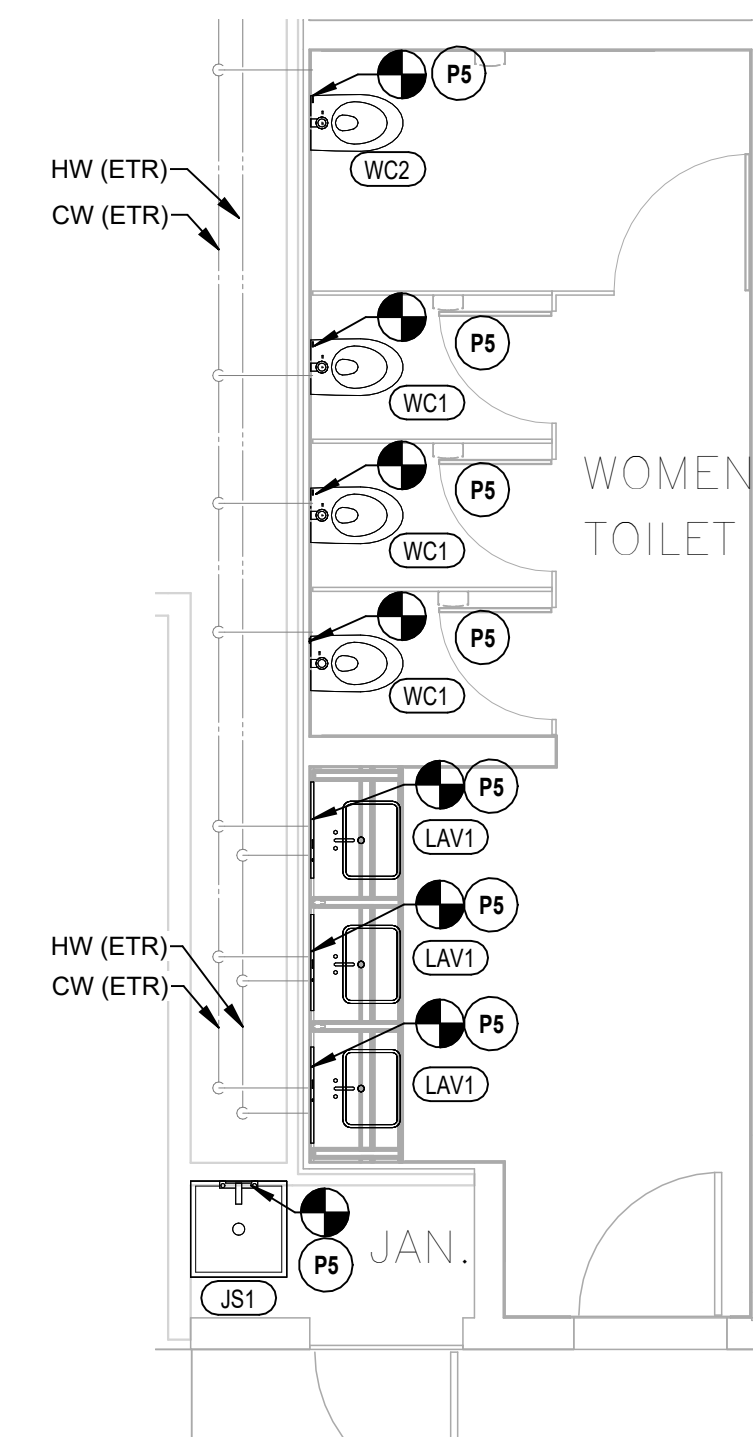
8 PLUMBING DEMO PLAN - CLIENT WOMEN
1/4" = 1'-0"



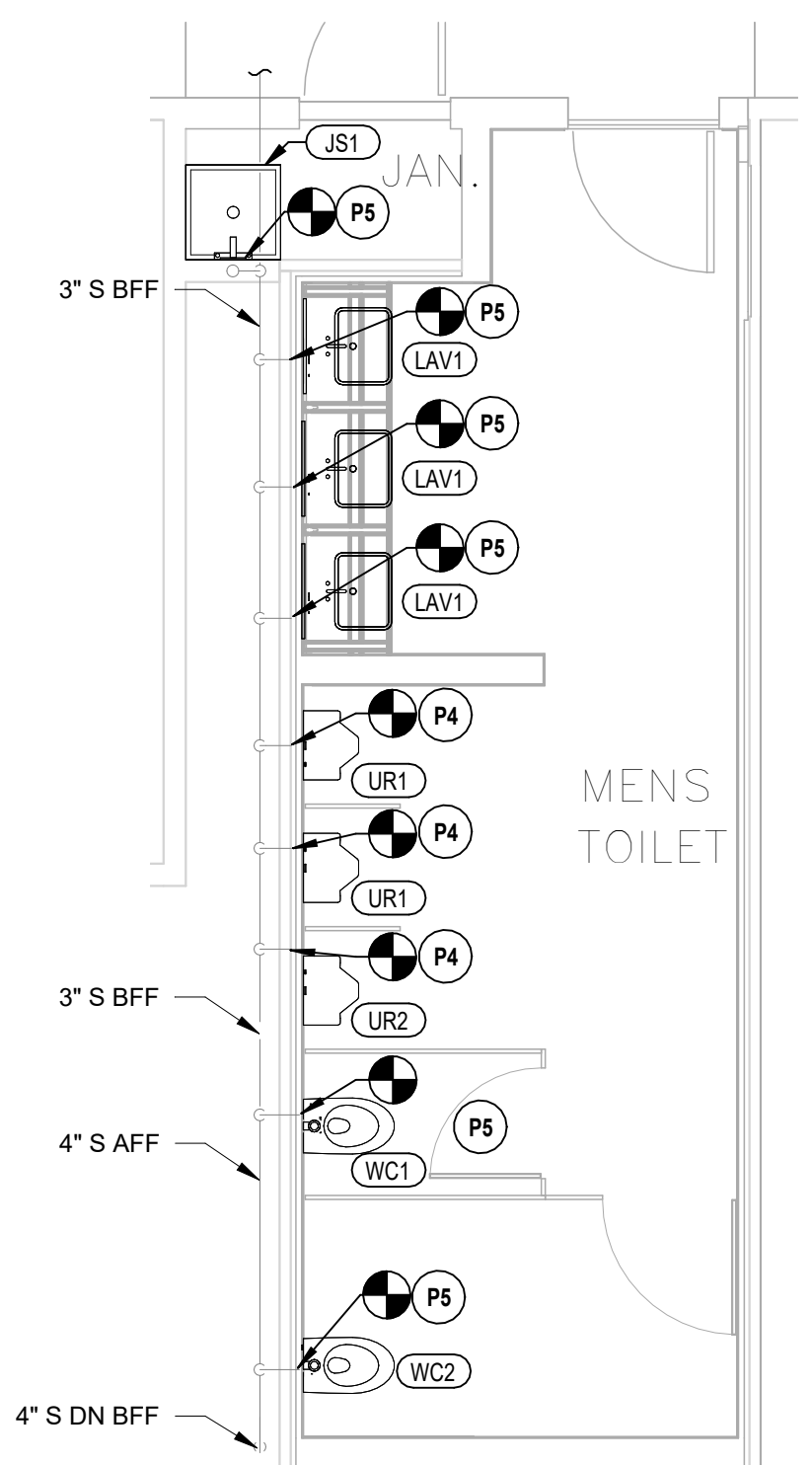
7 PLUMBING DEMO PLAN - STAFF
1/4" = 1'-0"



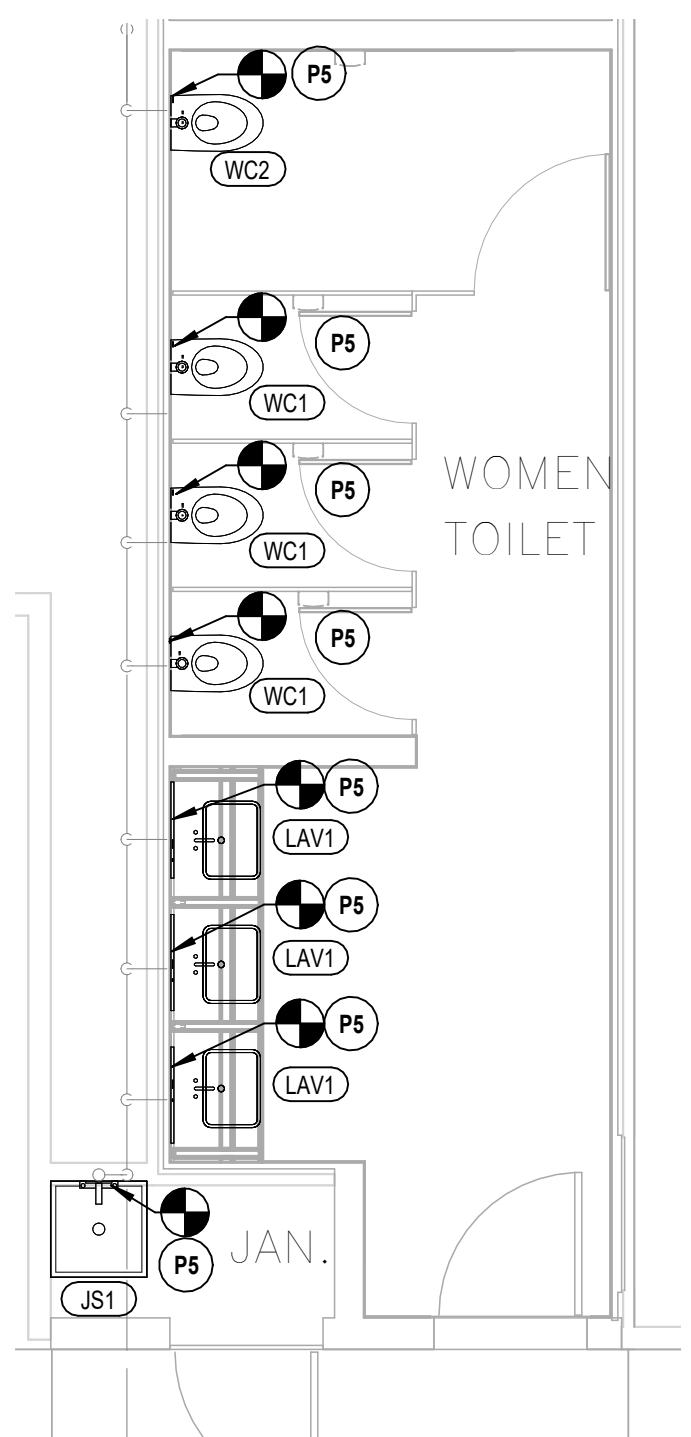
5 PLUMBING WATER PLAN - CLIENT MEN
1/4" = 1'-0"



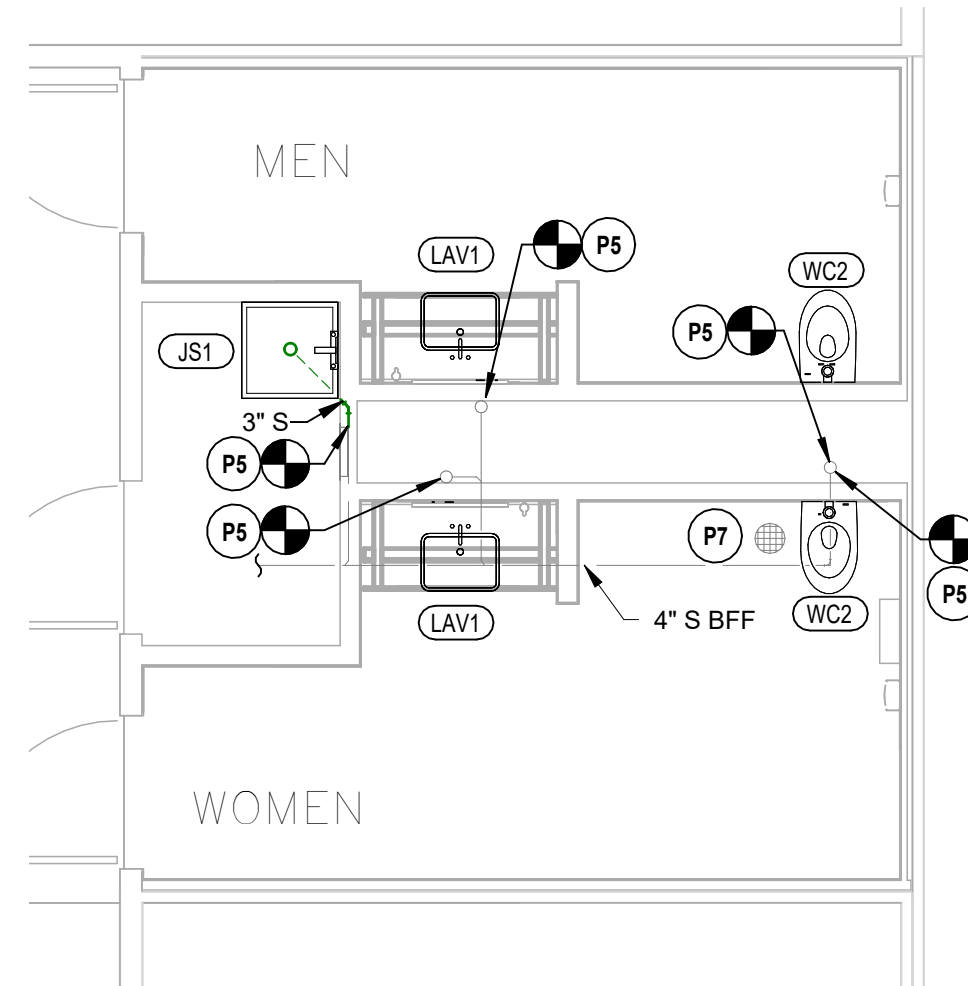
4 PLUMBING WATER PLAN - CLIENT WOMEN
1/4" = 1'-0"



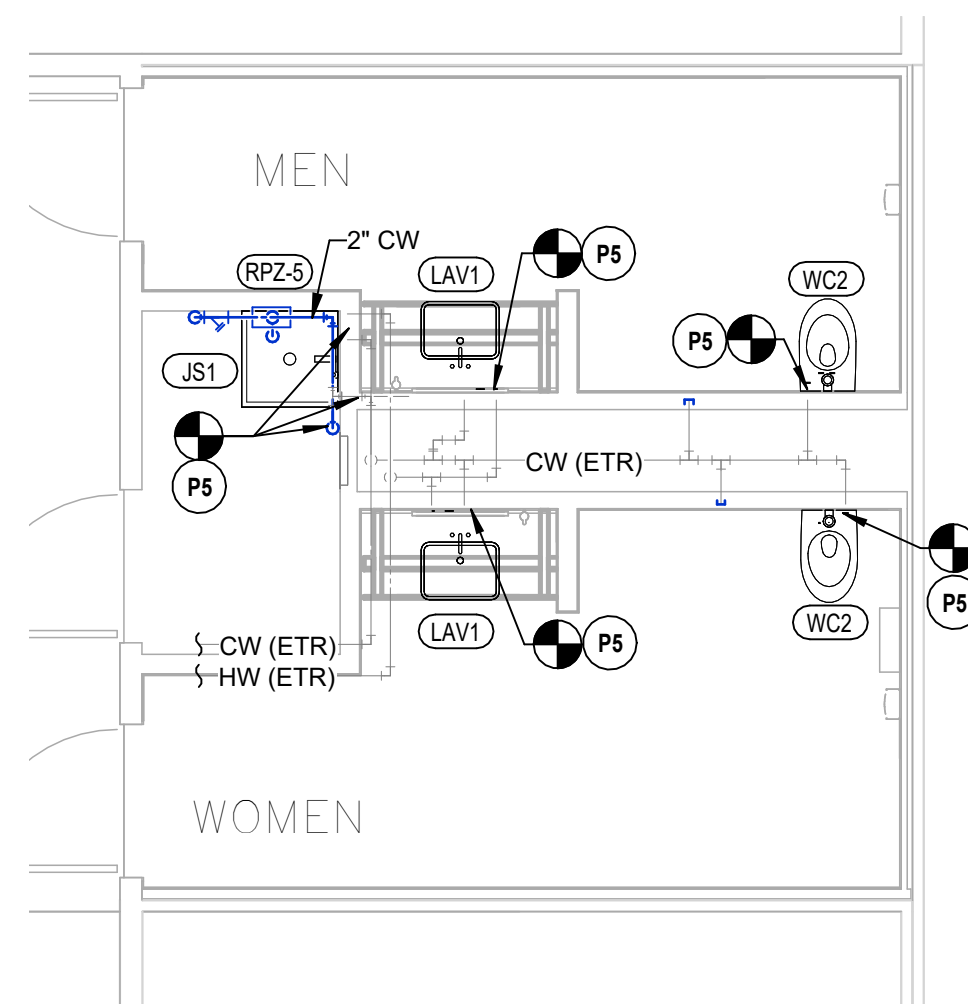
3 PLUMBING WASTE & VENT PLAN - CLIENT MEN
1/4" = 1'-0"



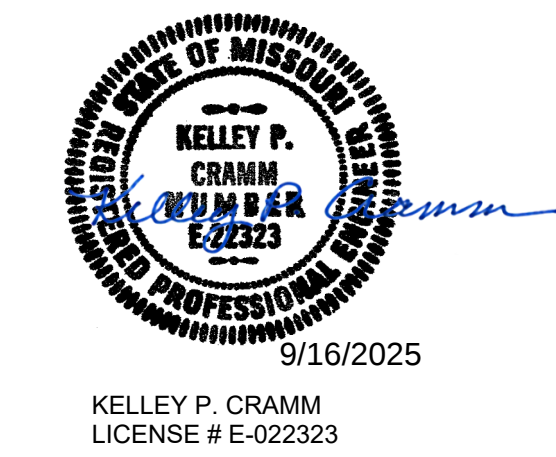
2 PLUMBING WASTE & VENT PLAN - CLIENT WOMEN
1/4" = 1'-0"



6 PLUMBING WASTE & VENT PLAN - STAFF
1/4" = 1'-0"



1 PLUMBING WATER PLAN - STAFF
1/4" = 1'-0"



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BATHROOMS - RAGLAND
EDUCATION BUILDING,
HIGGINSVILLE HABILITATION
CENTER

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PROJECT # M2406-01
SITE # 7357
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CAD DWG FILE:
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DESIGNED BY: BB

SHEET TITLE:
PLUMBING DETAILS
& SCHEDULES

SHEET NUMBER:

P400
25 OF 29 SHEETS
09/16/2025

PLUMBING PIPE MATERIAL SCHEDULE

PIPING SYSTEM	ABBREVIATION	PIPING MATERIAL
SANITARY DRAINAGE & VENT (ABOVE GRADE)	S, W OR V	HUBLESS CAST IRON
SANITARY DRAINAGE & VENT (BELOW GRADE)	S, W OR V	SERVICE WEIGHT CAST IRON (PVC DWV OPTIONAL)
STORM DRAINAGE (BELOW GRADE)	ST	SERVICE WEIGHT CAST IRON (PVC DWV OPTIONAL)
POTABLE WATER (ABOVE GRADE)	CW, HW OR HWR	TYPE L HARD DRAWN COPPER
POTABLE WATER - 2" & SMALLER (BELOW GRADE)	CW, HW OR HWR	TYPE K SOFT ANNEALED COPPER
POTABLE WATER - 3" & LARGER (BELOW GRADE)	CW, HW OR HWR	DUCTILE IRON
REFER TO SPECIFICATIONS FOR FITTINGS, INSTALLATION REQUIREMENTS AND FURTHER INFORMATION		

PLUMBING FIXTURE CONNECTION SCHEDULE

FIXTURE	COLD WATER	HOT WATER	WASTE	VENT
WATER CLOSET (FV)	1-1/4" (NOTE 1)	--	4"	2"
WATER CLOSET (TANK)	1/2"	--	4"	2"
WATER CLOSET (FV)	1-1/4" (NOTE 1)	--	3"	2"
WATER CLOSET (TANK)	1/2"	--	3"	2"
URINAL	3/4" (NOTE 2)	--	2"	2"
LAVATORY/ HAND SINK	1/2"	1/2"	2"	1-1/2"
DRINKING FOUNTAIN	1/2"	--	2"	1-1/2"
JANITOR'S SINK	1/2"	1/2"	3"	2"
WASHFOUNTAIN	1"	1"	2"	1-1/2"
FLOOR DRAIN	--	--	2"	2"
6" FLOOR DRAIN	--	--	6"	3"
SINK	1/2"	1/2"	2"	1-1/2"

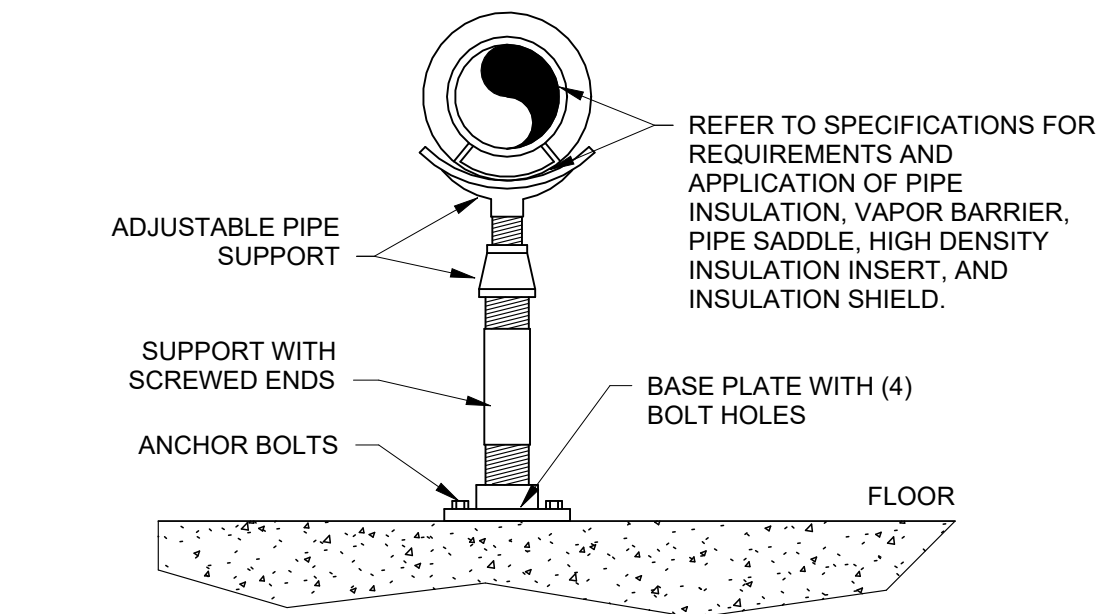
NOTES:

PIPE SIZES SHOWN ARE MINIMUM AND ARE FOR INDIVIDUAL SERVICE PIPE SIZES.

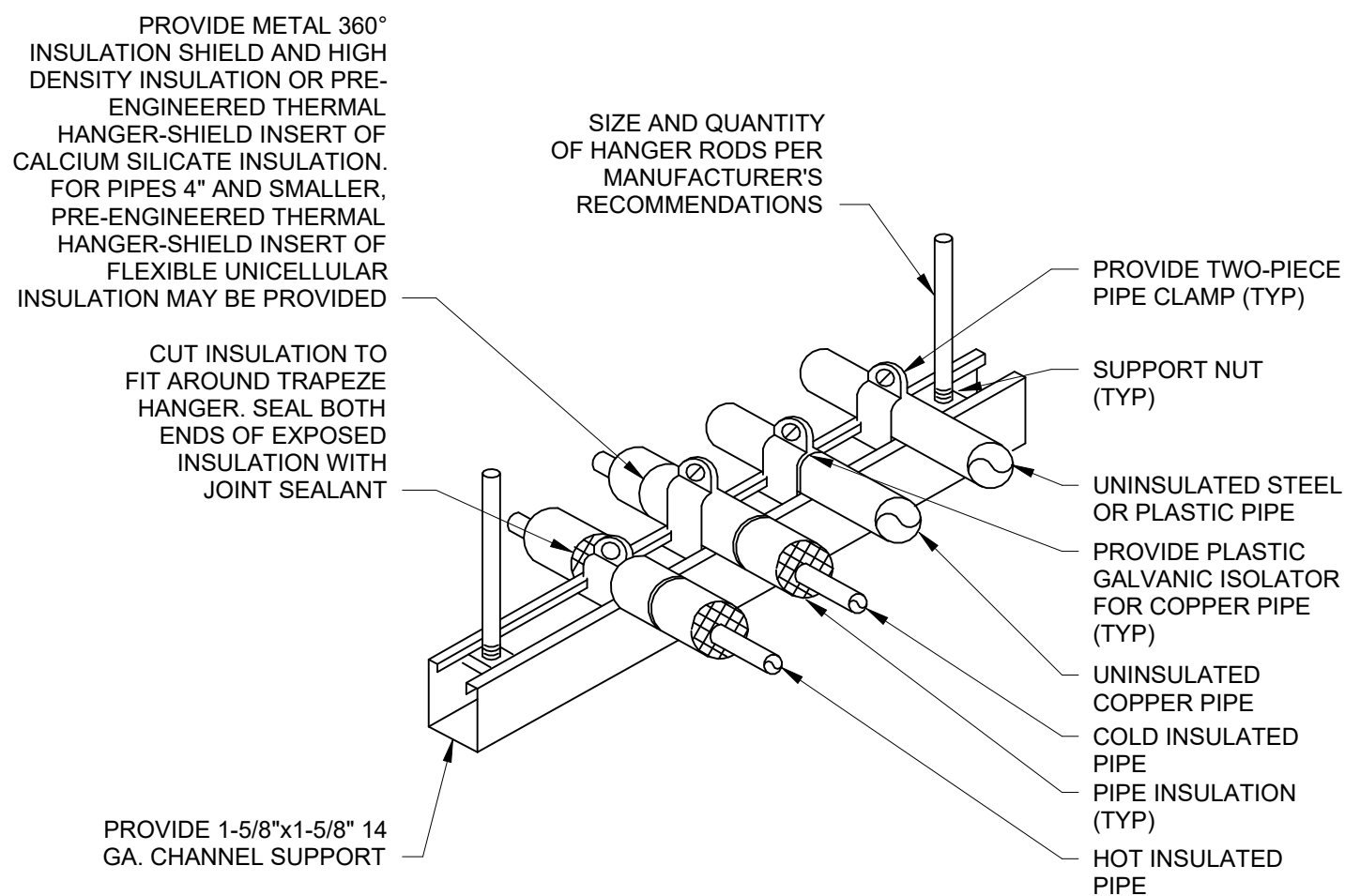
(NOTE 1) PROVIDE 1-1/4" CW TO FLUSH VALVE, REDUCE TO 1" PRIOR TO CONNECTING TO FLUSH VALVE INLET AT INSIDE OF WALL
(NOTE 2) PROVIDE 1" CW TO FLUSH VALVE, REDUCE TO 3/4" PRIOR TO CONNECTING TO FLUSH VALVE INLET AT INSIDE OF WALL

PLUMBING FIXTURE SCHEDULE

PLUMBING PLAN MARK	DESCRIPTION
JS1	JANITOR'S SINK: STERN-WILLIAMS # MTB-2424, 24" x 24" x 10" HIGH TERRAZZO BASIN WITH INTEGRAL STAINLESS STEEL DRAIN BODY. FAUCET: CHICAGO FAUCET # 897-CP FAUCET WITH WALL BRACE, INTEGRAL VACUUM BREAKER, PAIL HOOK, AND 3/4" MALE HOSE THREADED OUTLET. SECURE FAUCET IN WALL WITH BACKBOARD. TRIM: # BP TYPE 304, 20 GAUGE, STAINLESS STEEL WALL SURROUNDS, # T-35 THREE FOOT LONG REINFORCED HOSE WITH 3/4" CHROME COUPLING AND WALL HOOK, # V-70 EXTRUDED VINYL BUMPER GUARD, AND # T-40 24" STAINLESS STEEL MOP HANGER.
LAV1	COUNTERTOP LAVATORY (ADA ACCESSIBLE): SOLID SURFACE WITH INTEGRAL BOWL AS SPECIFIED BY ARCHITECT. FAUCET: CHICAGO FAUCET # 802-VE2805ABCP 4" CENTERSET, VANDAL RESISTANT, LEAD FREE FAUCET WITH # 390 LEVER HANDLES, CERAMIC QUARTER TURN CARTRIDGES AND # E2805 0.5 GPM AERATOR. TRIM: McGUIRE # 155A GRID DRAIN WITH TAILPIECE, McGUIRE # LF2165CCLK LEAD FREE BRASS LOOSE KEY COMPRESSION ANGLE STOP VALVES WITH RISERS AND ESCUTCHEONS, McGUIRE # B8872CF 1-1/4" 17 GAUGE CAST CHROME PLATED BRASS ADJUSTABLE P-TRAP AND WASTE ARM WITH CLEANOUT PLUG AND ESCUTCHEON, CONCEALED ARM CARRIER WITH STANCHIONS TO FLOOR, PLUMBEREX "PRO-EXTREME" # X-4222 INSULATION KIT FOR WATER AND WASTE PIPES. THERMOSTATIC MIXING VALVE: POWERS # LFe480, SOLID LEAD FREE BRASS BODY, THERMOSTATIC WAX ELEMENT, CORROSION RESISTANT INTERNAL PARTS, AND INTEGRAL CHECKS, ASSE 1070 COMPLIANT, CAPABLE OF 2.2 GPM WITH A 20 PSI DIFFERENTIAL AND A MINIMUM FLOW RATE OF 0.5 GPM. SET TEMPERATURE TO 110F FOR DUEL TEMPERATURE LAVATORIES AND HAND SINKS, 100F FOR SINGLE TEMPERATURE LAVATORIES AND HAND SINKS AND 120F FOR SINKS. MOUNT BELOW THE PLUMBING FIXTURE WHERE INDICATED ON PLAN(S).
RPZ-5	REDUCED PRESSURE ZONE BACKFLOW PREVENTER: WATTS # SS0090T, MEETING ASSE 1013, 316 STAINLESS STEEL BODY, QUARTER TURN TEST COCKS, QUARTER TURN, FULL PORT BALL VALVES AND # 909AG AIR GAP FITTING. EXTEND DISCHARGE PIPE TO MOP BASIN.
UR1	URINAL: AMERICAN STANDARD # 6561.017 "TRIMBROOK" WHITE VITREOUS CHINA FIXTURE WITH FLUSHING RIM, 3/4" TOP SPUD, AND SIPHON FLUSH ACTION. VALVE: SLOAN "SLOAN" # 186-1 1.0 GALLON PER FLUSH, EXPOSED CHROME-PLATED DIAPHRAGM TYPE FLUSH VALVE WITH CHLORAMINE RESISTANT DIAPHRAGM AND PROTECTED ORIFICE, OSCILLATING ADA COMPLIANT HANDLE WITH VANDAL RESISTANT CAP, ESCUTCHEON, INTEGRAL SCREWDRIIVER STOP, VACUUM BREAKER, 3/4" FLUSH TUBE, AND SWEAT ADAPTER KIT. TRIM: SUITABLE CARRIER WITH STANCHIONS TO FLOOR.
UR2	URINAL (ADA ACCESSIBLE): AMERICAN STANDARD # 6561.017 "TRIMBROOK" WHITE VITREOUS CHINA FIXTURE WITH FLUSHING RIM, 3/4" TOP SPUD, AND SIPHON FLUSH ACTION. VALVE: SLOAN "SLOAN" # 186-1 1.0 GALLON PER FLUSH, EXPOSED CHROME-PLATED DIAPHRAGM TYPE FLUSH VALVE WITH CHLORAMINE RESISTANT DIAPHRAGM AND PROTECTED ORIFICE, OSCILLATING ADA COMPLIANT HANDLE WITH VANDAL RESISTANT CAP, ESCUTCHEON, INTEGRAL SCREWDRIIVER STOP, VACUUM BREAKER, 3/4" FLUSH TUBE, AND SWEAT ADAPTER KIT. TRIM: SUITABLE CARRIER WITH STANCHIONS TO FLOOR.
WC1	WALL-MOUNTED WATER CLOSET: AMERICAN STANDARD # 2257.101 "AFWALL MILLENNIUM FLOWISE" WHITE VITREOUS CHINA FIXTURE WITH ELONGATED UNIVERSAL BOWL AND DIRECT-FED SIPHON JET ACTION. VALVE: SLOAN "SLOAN" # 111 1.28 GALLON PER FLUSH, EXPOSED CHROME-PLATED DIAPHRAGM TYPE FLUSH VALVE WITH CHLORAMINE RESISTANT DIAPHRAGM AND PROTECTED ORIFICE, OSCILLATING ADA COMPLIANT HANDLE, ESCUTCHEON, INTEGRAL SCREWDRIIVER STOP WITH VANDAL RESISTANT CAP, VACUUM BREAKER, AND SWEAT ADAPTER KIT. TRIM: CHURCH # 9500SSCT WHITE OPEN-FRONT CONTOURED, SOLID PLASTIC, HEAVY DUTY, SEAT LESS COVER WITH SELF-SUSTAINING CHECK HINGES AND STAINLESS STEEL BOLTS. PROVIDE SUITABLE FIXTURE CARRIER.
WC2	WALL-MOUNTED WATER CLOSET (ADA ACCESSIBLE): AMERICAN STANDARD # 2257. 101 "AFWALL MILLENNIUM FLOWISE" WHITE VITREOUS CHINA FIXTURE WITH ELONGATED UNIVERSAL BOWL AND DIRECT-FED SIPHON JET ACTION. VALVE: SLOAN "SLOAN" # 111 1.28 GALLON PER FLUSH, EXPOSED CHROME-PLATED DIAPHRAGM TYPE FLUSH VALVE WITH CHLORAMINE RESISTANT DIAPHRAGM AND PROTECTED ORIFICE, OSCILLATING ADA COMPLIANT HANDLE, ESCUTCHEON, INTEGRAL SCREWDRIIVER STOP WITH VANDAL RESISTANT CAP, VACUUM BREAKER, AND SWEAT ADAPTER KIT. INSTALL FLUSH VALVE HANDLE ON THE WIDE SIDE OF THE STALL. TRIM: CHURCH # 9500SSCT WHITE OPEN-FRONT CONTOURED, SOLID PLASTIC, HEAVY DUTY, SEAT LESS COVER WITH SELF-SUSTAINING CHECK HINGES AND STAINLESS STEEL BOLTS. PROVIDE SUITABLE FIXTURE CARRIER.

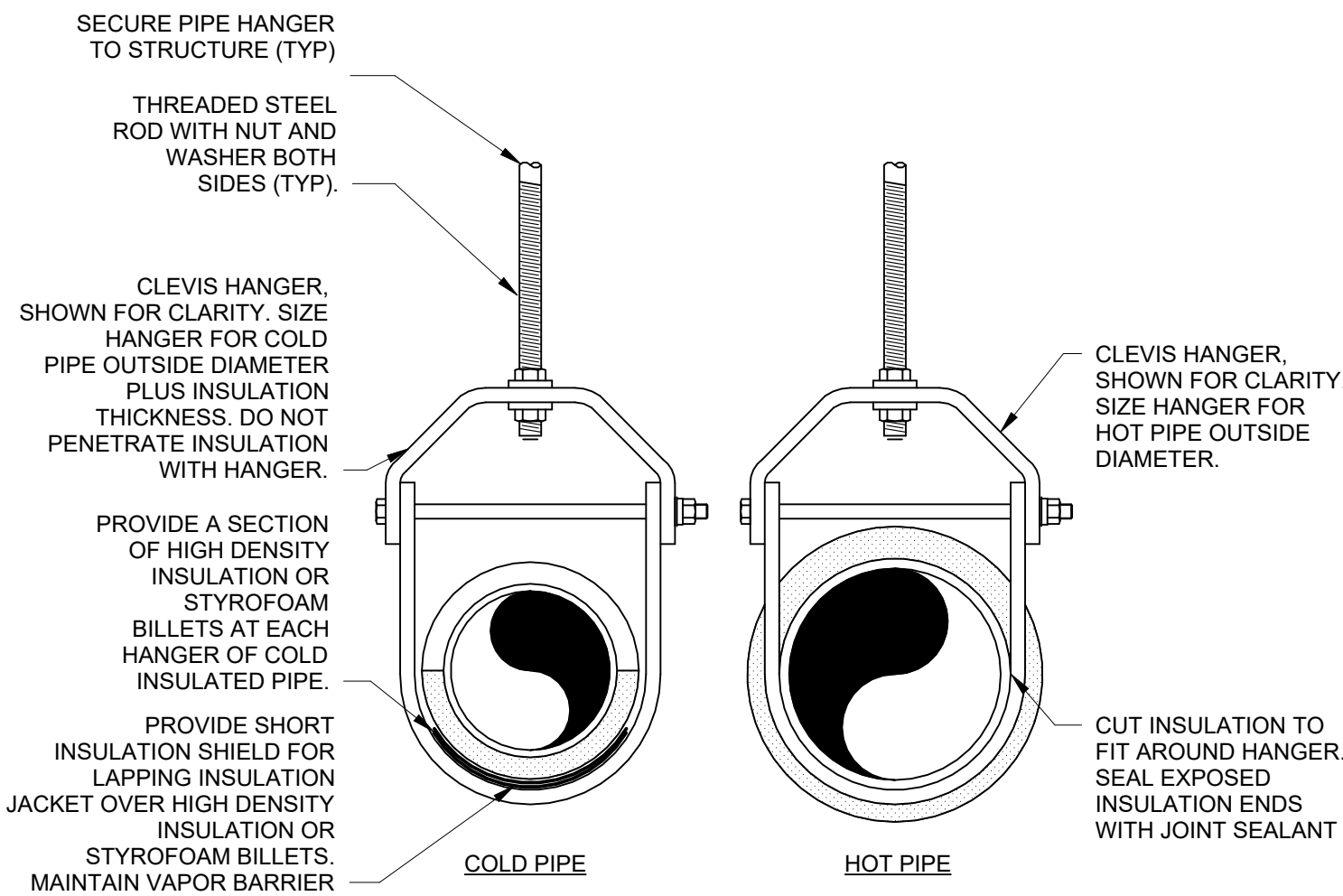


3 FLOOR PIPE SUPPORT DETAIL
NTS



PIPING ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST TO SUIT FIELD CONDITONS. REFER TO SPECIFICATIONS FOR MORE INFORMATION. PIPE AND CONDUIT OF ALL TRADES MAY BE COMBINED ON THE SAME SUPPORT CHANNEL. COORDINATE SUPPORT CHANNEL LENGTH WITH PIPING AND CONDUIT TO BE SUPPORTED. SUPPORT CHANNEL SPACING SHALL BE DETERMINED BY SMALLEST PIPE TO BE SUPPORTED. CHANNEL SUPPORT MAY BE USED AS A WALL BRACKET, ATTACH TO WALL WITH ANCHOR BOLTS PER SPECIFICATIONS. FOR HORIZONTAL INSULATED PIPING, ATTACH CLAMPS AS INDICATED ABOVE. FOR VERTICAL INSULATED PIPING, ATTACH CLAMPS TO THE PIPE AND SEAL INSULATION AT BOTH CLAMP ENDS.

2 TRAPEZE PIPE HANGER
NTS



REFER TO SPECIFICATIONS FOR INSULATION TYPES, INSULATION THICKNESSES, HANGER TYPES, HANGER ROD CONNECTIONS TO STRUCTURE AND HANGER SPACING.

1 PIPE HANGER DETAIL
NTS

FIRE ALARM SCOPE OF WORK NOTES:

1. ALL HORN/STROBE NOTIFICATION APPLIANCES MUST BE REMOVED FOR DEMOLITION OF THE RESTROOM AND REINSTALLED AND CONNECTED BACK TO THE SIMPLEX 4100U FIRE ALARM CONTROL PANEL.

FIRE ALARM GENERAL DEMOLITION NOTES:

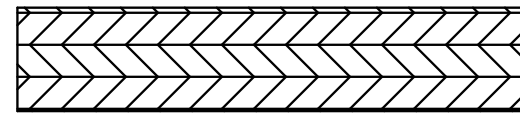
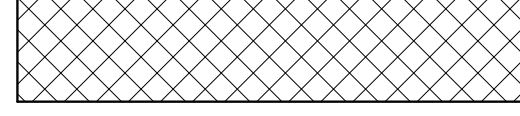
1. COORDINATE ALL DEMOLITION WITH WHAT IS SHOWN ON ARCHITECTURAL PLANS. NOTIFY ARCHITECT OF ANY DISCREPANCIES.
2. COORDINATE NEW WORK AND DEMOLITION WITH OTHER DISCIPLINES AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
3. PRIOR TO SUBMITTING BID, VISIT THE JOB SITE AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS OF THE PROJECT. REVIEW GENERAL NOTES, SPECIFICATIONS AND OTHER DRAWINGS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT, ENGINEER OR OWNER, AS DEFINED IN BID DOCUMENTS, OF CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID. ADDITIONAL COMPENSATION WILL NOT BE PAID FOR LACK OF SUCH DETERMINATION, FAMILIARIZATION, AND/OR ALLOWANCE.
4. EXISTING CONDITIONS WERE TAKEN FROM ORIGINAL DRAWINGS AND SITE VISITS AND MAY NOT REFLECT EXACT "AS-BUILT" CONDITIONS. FIELD VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING FINAL BIDS. COORDINATE NEW WORK AND DEMOLITION WITH OTHER DISCIPLINES AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
5. OWNER RETAINS RIGHTS OF SALVAGE FOR EQUIPMENT AND FIXTURES TO BE REMOVED. COORDINATE WITH THE OWNER THE EQUIPMENT AND FIXTURES TO BE SALVAGED AND THE LOCATION FOR STORAGE. AVOID DAMAGE TO EQUIPMENT DURING DEMOLITION WORK AND DURING TRANSPORT TO OWNER'S DESIGNATED STORAGE LOCATION. PROPERLY DISPOSE OF MATERIALS THAT ARE REMOVED AND ARE NOT REQUESTED TO BE SALVAGED BY THE OWNER.
6. REMOVE ITEMS SHOWN HEAVY LINED AND/OR CROSSHATCHED AND/OR NOTED TO BE REMOVED.
7. EQUIPMENT TO BE REMOVED SHALL BE KEPT FOR REINSTALLATION DURING THE CONSTRUCTION PHASE WHEN POSSIBLE AND/OR INDICATED ON THE DRAWINGS. AVOID DAMAGING EXISTING SURFACES AND EQUIPMENT TO REMAIN FOR NEW INSTALLATION. REPAIR ANY DAMAGE CAUSED DURING WORK AT NO EXTRA COST TO THE OWNER.
8. SEAL PENETRATIONS THROUGH FLOORS, WALLS, CEILINGS AND ROOFS WHERE COMPONENTS ARE REMOVED AND WHERE THE EXISTING PENETRATION IS NOT USED FOR THE NEW INSTALLATION. REPAIR DAMAGED SURFACES TO MATCH ADJACENT AREAS OR AS INDICATED ON THE ARCHITECTURAL DRAWINGS.
9. PERFORM ALL WORK ACCORDING TO THE PHASING SCHEDULE FOR THIS PROJECT. PROVIDE ALL TEMPORARY DESIGN AND/OR CONFIGURATIONS THAT MEET APPLICABLE CODE REQUIREMENTS AS NECESSARY TO CONFORM TO THE REQUIRED CONSTRUCTION PHASING OF THE PROJECT.
10. ONLY THE PORTIONS OF THE BUILDING AFFECTED BY THE SCOPE OF THE PROJECT HAVE BEEN SHOWN. INFORMATION SHOWN AS EXISTING TO REMAIN IS NOT BEING MODIFIED AS A PART OF THIS PROJECT.
11. ALL WORK SHALL BE PERFORMED SO AS TO NOT INTERRUPT SERVICE. THE CONTRACTOR SHALL PROPERLY NOTIFY THE BUILDING OWNER, LANDLORD, THE LEASER AND ADJACENT TENANTS AS APPLICABLE A MINIMUM OF 48 HOURS IN ADVANCE BEFORE PROCEEDING WITH THIS WORK.
12. REMOVE ALL UNUSED AND DEMOLISHED EQUIPMENT AND ASSOCIATED MATERIALS FROM SITE. ABANDONING UNUSED PORTIONS WILL NOT BE ACCEPTABLE.
13. SYSTEM(S) NOT ASSOCIATED WITH THE DEMOLITION SHALL BE LEFT IN SERVICE AS APPLICABLE.
14. INSPECT EXISTING EQUIPMENT TO REMAIN TO VERIFY THAT EQUIPMENT IS OPERATING PROPERLY. NOTIFY OWNER OF DAMAGED AND/OR MALFUNCTIONING COMPONENTS.
15. ALL SYSTEMS TO BE LEFT IN SERVICE PRIOR TO THE END OF EACH WORKDAY.

FIRE ALARM GENERAL NOTES:

1. PRIOR TO SUBMITTING BID, VISIT THE JOB SITE AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS OF THE PROJECT. REVIEW THE GENERAL NOTES, SPECIFICATIONS AND OTHER DRAWINGS FOR ADDITIONAL REQUIREMENTS WHICH MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT, ENGINEER AND/OR OWNER OF CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID.
2. SYSTEM DESIGN, INSTALLATION AND MATERIALS SHALL BE IN ACCORDANCE WITH APPLICABLE NFPA STANDARDS. SYSTEM SHALL ALSO MEET ALL APPLICABLE BUILDING CODES, FIRE CODES AND THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION AND INSURANCE CARRIER. VERIFY REQUIREMENTS PRIOR TO BID SUBMITTAL.
3. INFORMATION ON CONTRACT DOCUMENTS IS GENERAL INFORMATION AND FOR BID PURPOSES ONLY. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE FINAL SYSTEM DESIGN AND LAYOUT OF ALL COMPONENTS. COORDINATION WITH ALL OTHER TRADES, AND SYSTEM CALCULATIONS REQUIRED FOR APPROVAL BY THE AUTHORITY HAVING JURISDICTION, ENGINEER, AND OWNER'S INSURER.
4. THE CONTRACTOR SHALL FOLLOW THE ENGINEER OF RECORD'S SYSTEM DESIGN AND LAYOUT OF ALL COMPONENTS EXCEPT WHERE MODIFICATION TO THE DESIGN IS NECESSARY. MODIFICATIONS SHALL BE REFLECTED IN THE CONTRACTOR'S SHOP DRAWINGS AND CALCULATIONS.
5. DEVIATIONS FROM ENGINEER'S DESIGN WILL NOT BE CONSIDERED UNLESS A FORMALLY SUBMITTED RFI IS RECEIVED AND APPROVED.
6. THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT AND LABOR REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM AS INDICATED IN THE DRAWINGS AND SPECIFICATIONS.
7. WHERE EXISTING SYSTEMS ARE PRESENT, CONTRACTOR SHALL MODIFY, RELOCATE AND/OR PROVIDE ADDITIONAL EQUIPMENT AS REQUIRED FOR SCOPE OF WORK AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. COORDINATE WITH WALLS, CEILINGS, LIGHTS, DIFFUSERS, STRUCTURE, OBSTRUCTIONS, ETC. IN AREAS AFFECTED BY SCOPE OF WORK. NEW EQUIPMENT SHALL BE COMPATIBLE WITH EXISTING SYSTEMS. CONTRACTOR SHALL REMOVE ALL ABANDONED EQUIPMENT, COORDINATE SYSTEM MODIFICATIONS TO MINIMIZE SYSTEM IMPAIRMENT, AND PROVIDE FIRE WATCH AND/OR INTERIM FIRE PROTECTION MEASURES WHERE REQUIRED BY THE AUTHORITY HAVING JURISDICTION, INSURANCE CARRIER OR OWNER.
8. PROVIDE ADDITIONAL MATERIALS AND LABOR REQUIRED DUE TO LACK OF COORDINATION OR TO MEET AUTHORITY HAVING JURISDICTION AND INSURANCE CARRIER REQUIREMENTS AT NO ADDITIONAL COST TO THE OWNER.
9. FORWARD COMPLETED CERTIFICATE OF COMPLETION AND CONTRACTOR MATERIAL TEST CERTIFICATES TO THE OWNER.
10. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

FIRE ALARM SYMBOLS

THIS IS A MASTER LEGEND AND NOT ALL SYMBOLS OR ABBREVIATIONS ARE USED. V2.06

ABBREVIATIONS				FIRE ALARM	
AFF	ABOVE FINISHED FLOOR	NIC	NOT IN CONTRACT		FIRE ALARM CONTROL PANEL/UNIT
AFG	ABOVE FINISHED GRADE	OC	ON CENTER		RECESSED FIRE ALARM CONTROL PANEL/UNIT
CD	CANDELA	PIV	POST INDICATOR VALVE		FIRE ALARM ANNUNCIATOR PANEL
DI	DUCTILE IRON	PROVIDE	FURNISH AND INSTALL		RECESSED FIRE ALARM ANNUNCIATOR PANEL
ESFR	EARLY SUPPRESSION FAST RESPONSE	PRV	PRESSURE REDUCING VALVE		AMPLIFIER PANEL
ETR	EXISTING TO REMAIN	RD	RETURN DUCT		REMOTE POWER SUPPLY
FHC	FIRE HOSE CABINET	REV	REVISION		REMOTE TEST STATION WITH INDICATING LIGHT
FP	FIRE PROTECTION	SD	SUPPLY DUCT		REMOTE INDICATING LIGHT
GC	CONTRACTOR	SF	SQUARE FEET		PRESSURE SWITCH LOW/HIGH
GPM	GALLONS PER MINUTE	TYP	TYPICAL		WATERFLOW ALARM SWITCH
JB/J-BOX	JUNCTION BOX	UNO	UNLESS NOTES OTHERWISE		CONTROL VALVE TAMPER SWITCH
MAX	MAXIMUM	V	VOLT(S)		MAGNETIC DOOR HOLD OPEN DEVICE
MIN	MINIMUM	W	WATTS		CONTROL MODULE
N/A	NOT APPLICABLE	WP	WEATHERPROOF		MONITOR MODULE
					FIRE DEPARTMENT KEY BOX
					PULL STATION
					FIREFIGHTER'S PHONE JACK
					HEAT DETECTOR (E INDICATES ELEVATOR RECALL)
					SMOKE DETECTOR (E INDICATES ELEVATOR RECALL)
					SINGLE STATION SMOKE DETECTOR
					PROJECTED BEAM SMOKE DETECTOR
					DUCT MOUNTED SMOKE DETECTOR (SD=SUPPLY/RD=RETURN)
					CARBON MONOXIDE DETECTOR
					AREA OF REFUGE 2-WAY COMMUNICATION SYSTEM
					WALL MOUNTED AUDIBLE NOTIFICATION APPLIANCE #W INDICATES WATTAGE (VOICE EVACUATION SYSTEMS ONLY)
					WALL MOUNTED VISIBLE NOTIFICATION APPLIANCE ## INDICATES CANDELA
					WALL MOUNTED AUDIBLE/VISIBLE NOTIFICATION APPLIANCE ## INDICATES CANDELA #W INDICATES WATTAGE (VOICE EVACUATION SYSTEMS ONLY)
					CEILING MOUNTED AUDIBLE NOTIFICATION APPLIANCE #W INDICATES WATTAGE (VOICE EVACUATION SYSTEMS ONLY)
					CEILING MOUNTED VISIBLE NOTIFICATION APPLIANCE ## INDICATES CANDELA
					CEILING MOUNTED AUDIBLE/VISIBLE NOTIFICATION APPLIANCE ## INDICATES CANDELA #W INDICATES WATTAGE (VOICE EVACUATION SYSTEMS ONLY)
					END OF LINE RESISTOR
					ABORT SWITCH
					BELL
HATCHING LEGEND					
ENLARGED PLAN					
NOT IN SCOPE (NIS)					
LINETYPE LEGEND					
THROUGHOUT THE DRAWINGS DIFFERENT LINETYPES ARE USED IN COMBINATION WITH THE SYMBOLS TO INDICATE THE STATUS OF ITEMS AS EXISTING, TO BE DEMOLISHED, TO BE INCLUDED AS PART OF NEW WORK AND/OR ITEMS WHICH ARE ANTICIPATED TO BE PROVIDED IN THE FUTURE. THE STATUS OF ITEMS USING THESE LINETYPES ARE RELATIVE TO THE VIEW IN WHICH THEY APPEAR. PHASING SHOWN IN DRAWINGS IS NOT INTENDED TO FULLY DESCRIBE ALL NECESSARY CONSTRUCTION PHASING, WHICH IS DETERMINED BY THE CONTRACTOR AS PART OF THEIR RESPONSIBILITIES. ANY SUCH PHASES DESCRIBED IN THE CONSTRUCTION DOCUMENTS ARE GENERAL AND ONLY INTENDED TO INDICATE A BROAD ORDER FOR THE SAKE OF DESCRIBING THE PROJECT. THE FOLLOWING LINETYPES MAY BE USED ON ANY DEVICE, EQUIPMENT, NOTE, LINE, SHAPE, ETC.					
EXISTING		NEW			
DEMOLISH		FUTURE			

EXISTING SYSTEM FIRE CONTRACTOR INFORMATION:

JOHNSON CONTROLS

ROBERT JOHN GARCIA
ROBERT.JOHN.GARCIA@JCI.COM
(913)-544-8875

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR



CHRISTOPHER J. CULP
LICENSE # PE-2013037646

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2450001062
MO. CORPORATE NO. E-5560
EXPIRES 10/31/2025

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES
MANAGEMENT,
DESIGN AND CONSTRUCTION

RENOVATE 4 CLIENT
BATHROOMS - RAGLAND
EDUCATION BUILDING,
HIGGINSVILLE HABILITATION
CENTER

100 W 1st Street
Higginsville, Missouri 64037

PROJECT # M2406-01
SITE # 7357
FACILITY # 6517357027

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____

ISSUE DATE: 09/16/2025

CAD DWG FILE:
DRAWN BY: NTS
CHECKED BY: AJ
DESIGNED BY: NTS

SHEET TITLE:
FIRE ALARM
GENERAL NOTES
AND LEGEND

SHEET NUMBER:

FA000

26 OF 29 SHEETS
09/16/2025



CHRISTOPHER J. CULP
LICENSE # PE-2013037646

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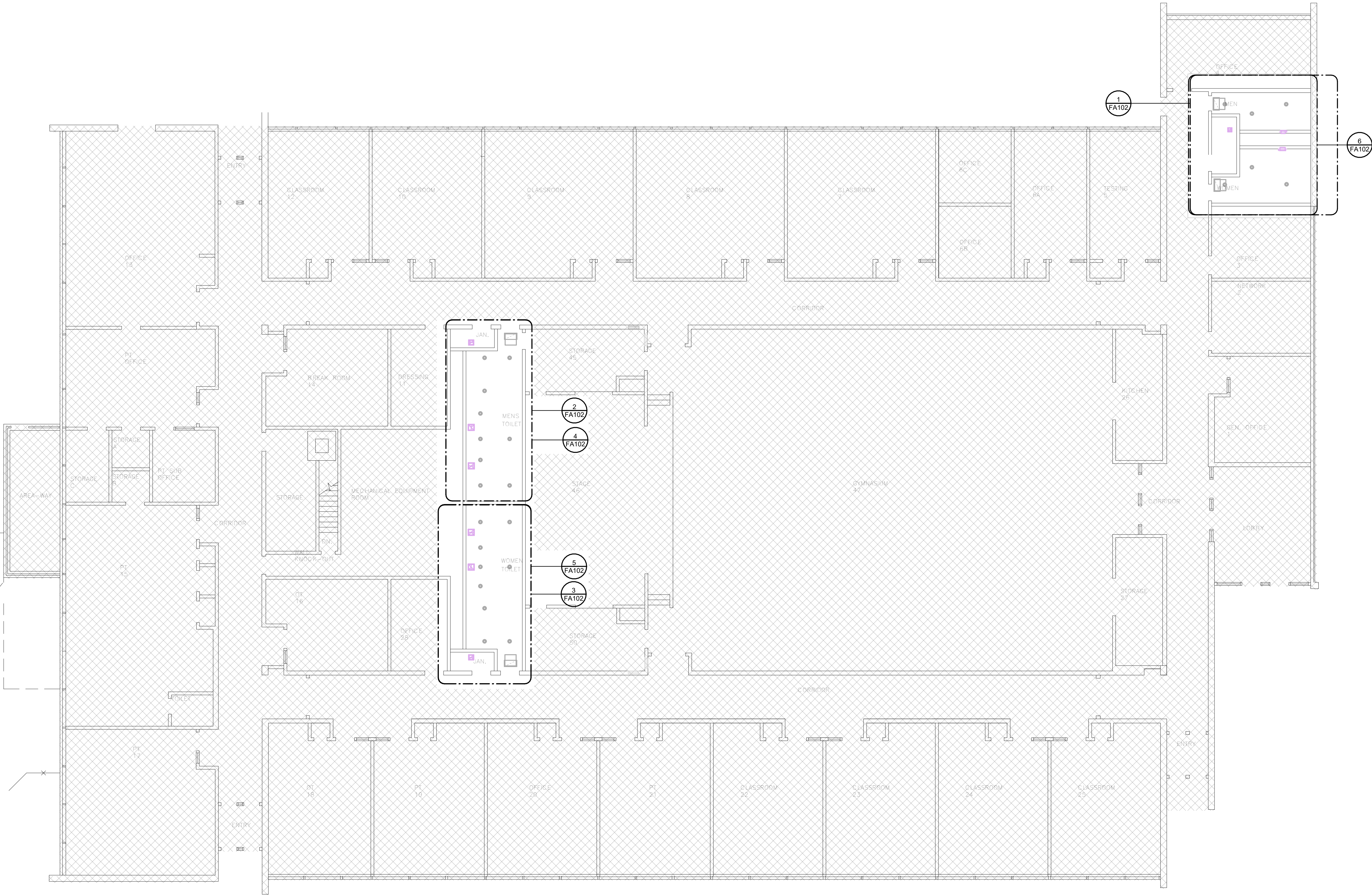
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DRAWN BY: NTS
CHECKED BY: AJ
DESIGNED BY: NTS

SHEET TITLE:
**FIRE ALARM PLAN -
OVERALL**

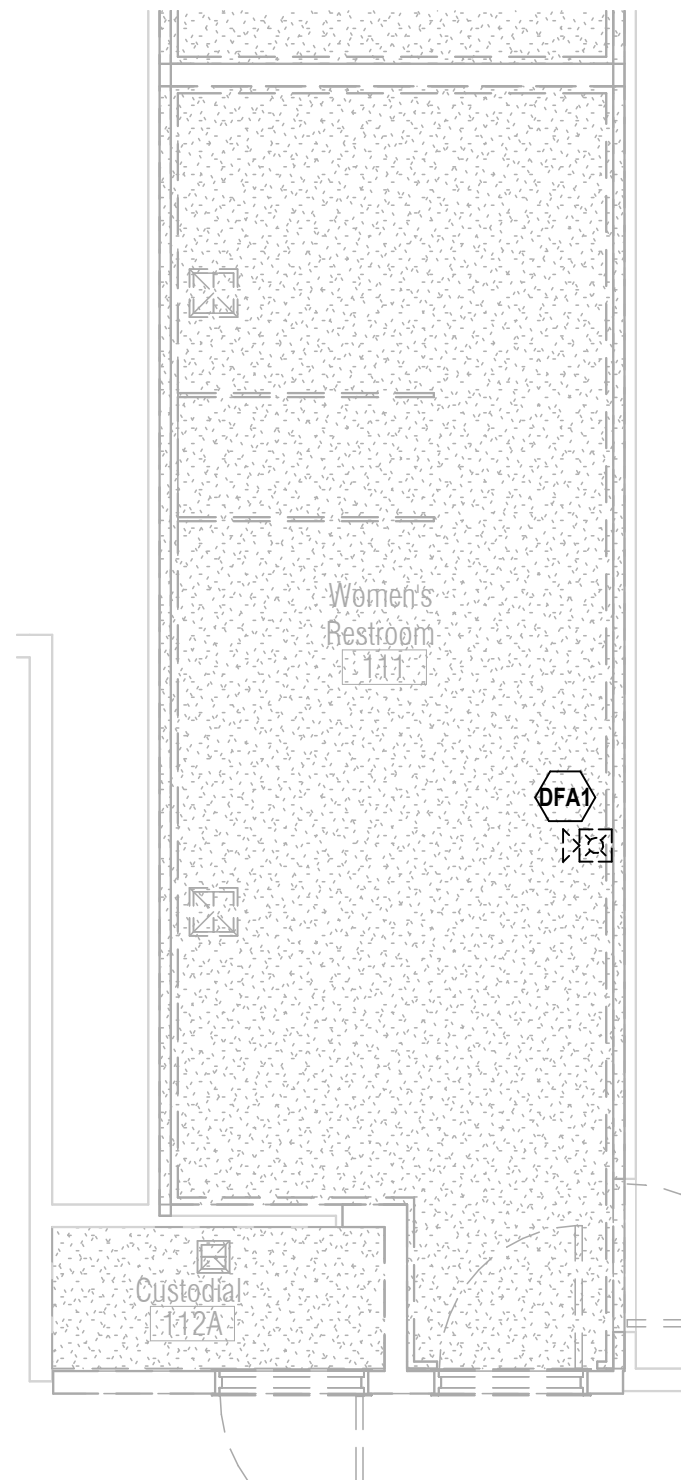
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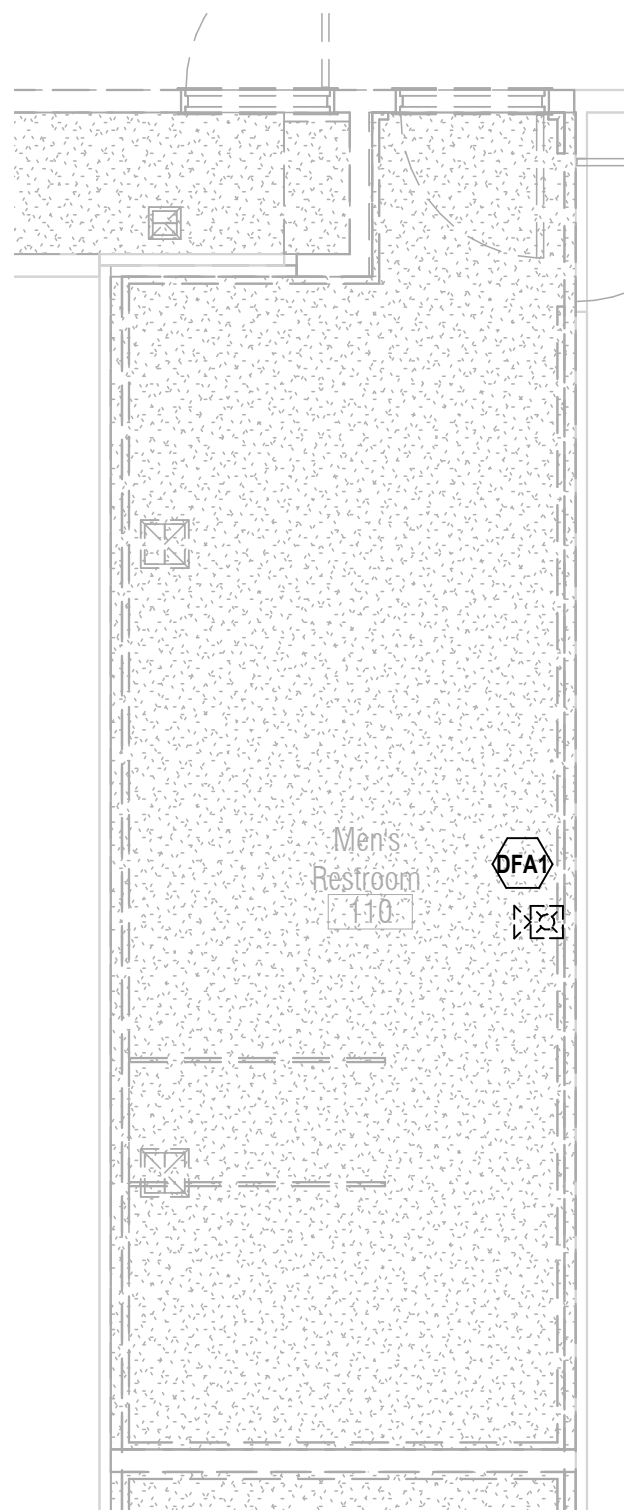
27 OF 29 SHEETS
09/16/2025



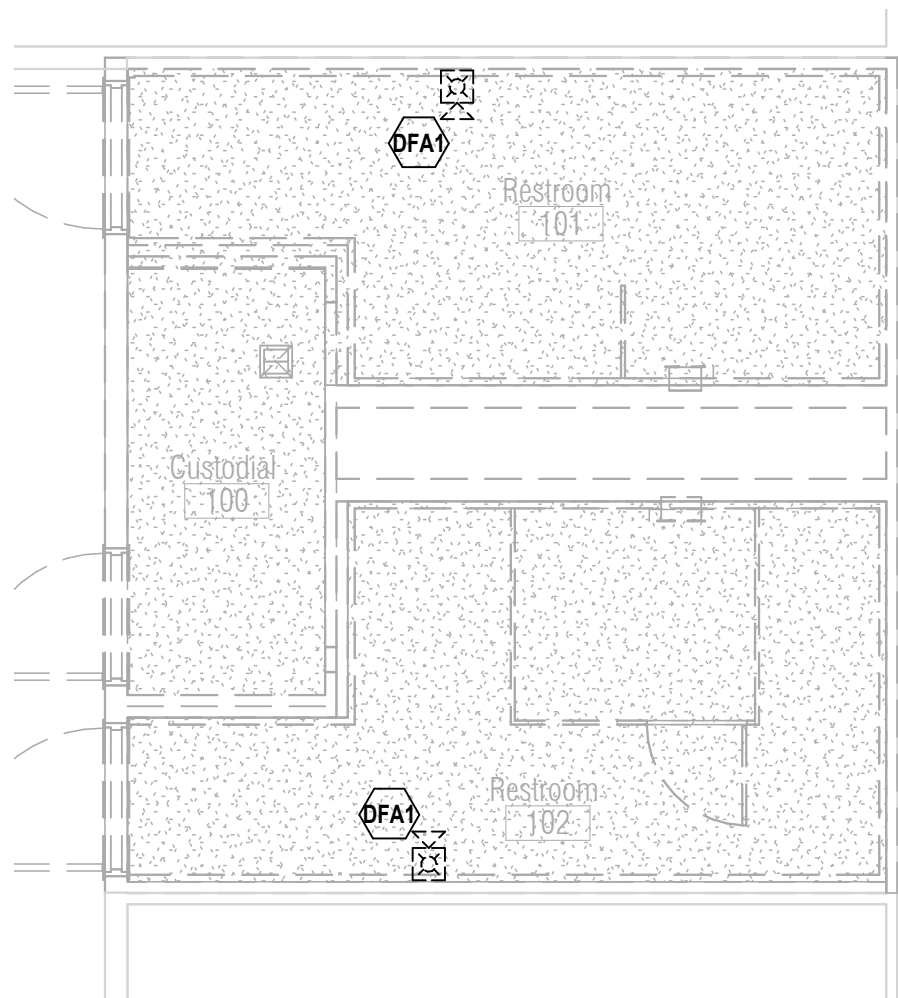
CHRISTOPHER J. CULP



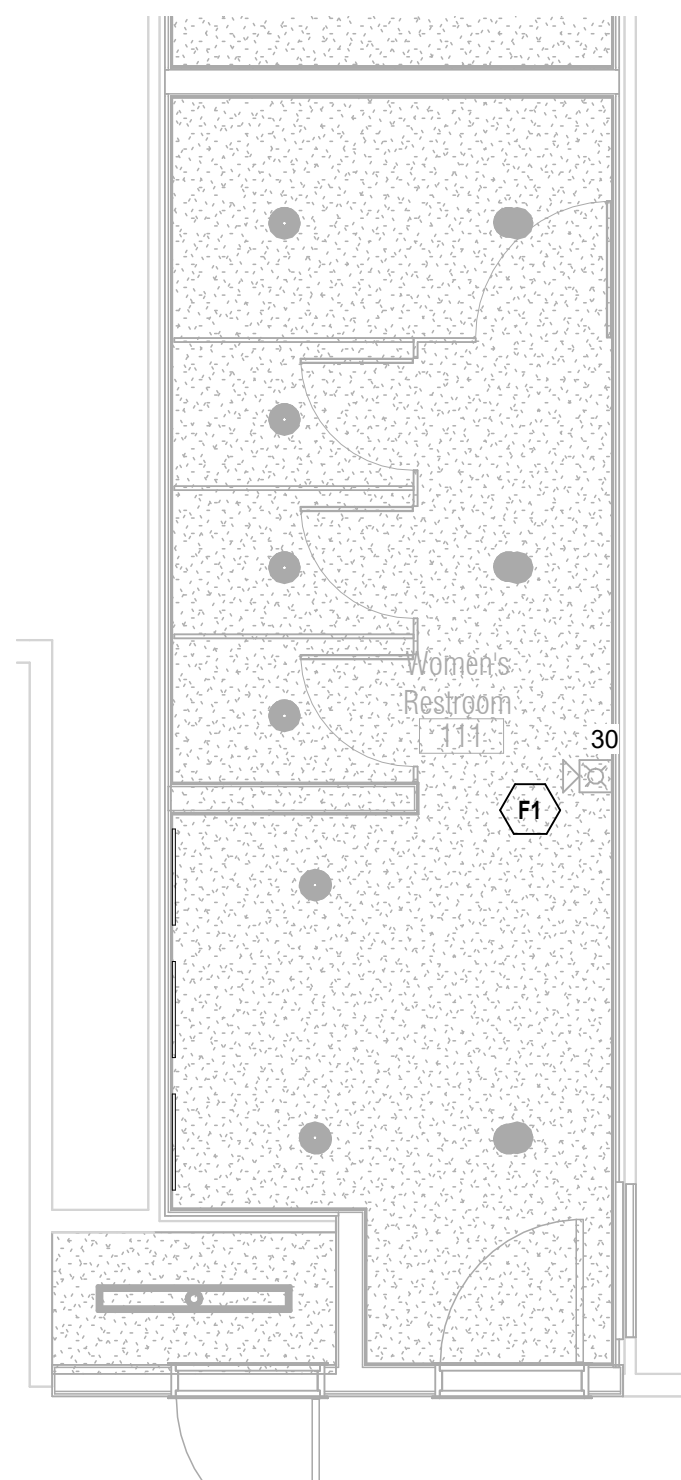
⑤ FIRE ALARM DEMOLITION PLAN - CLIENT WOMEN
1/4" = 1'-0"



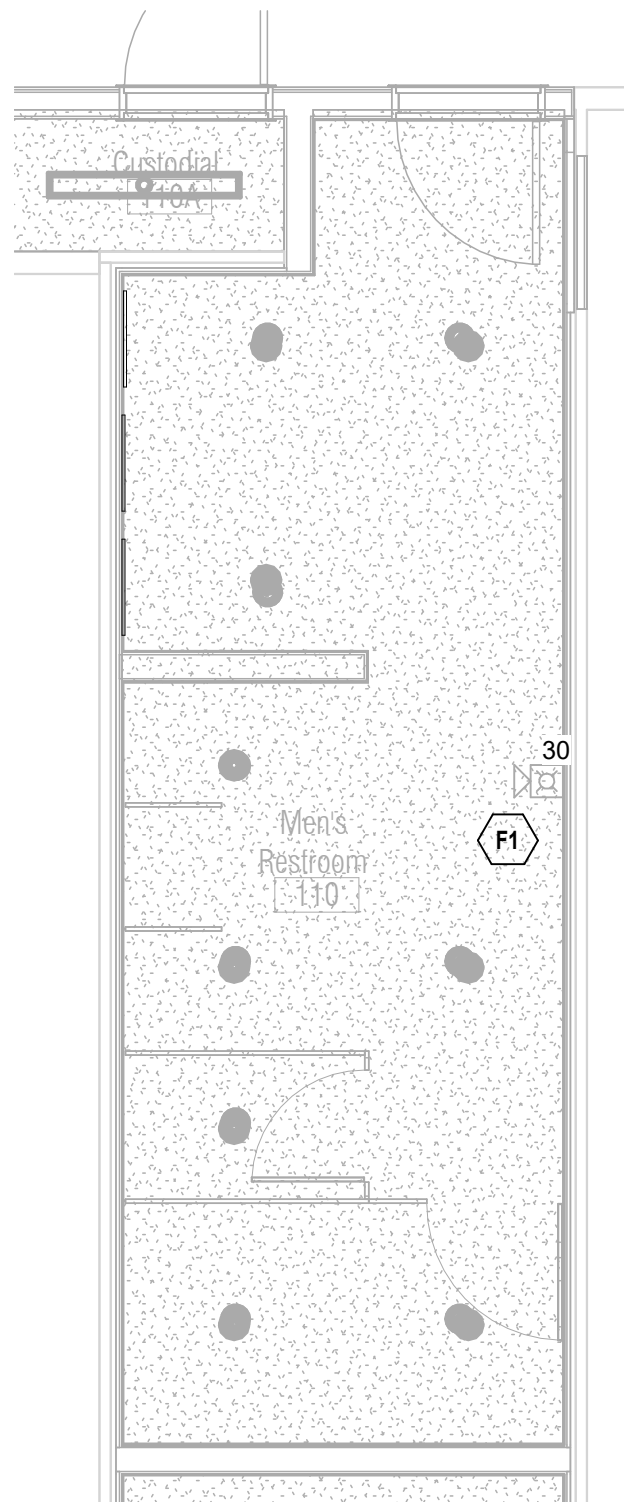
④ FIRE ALARM DEMOLITION PLAN - CLIENT MEN
1/4" = 1'-0"



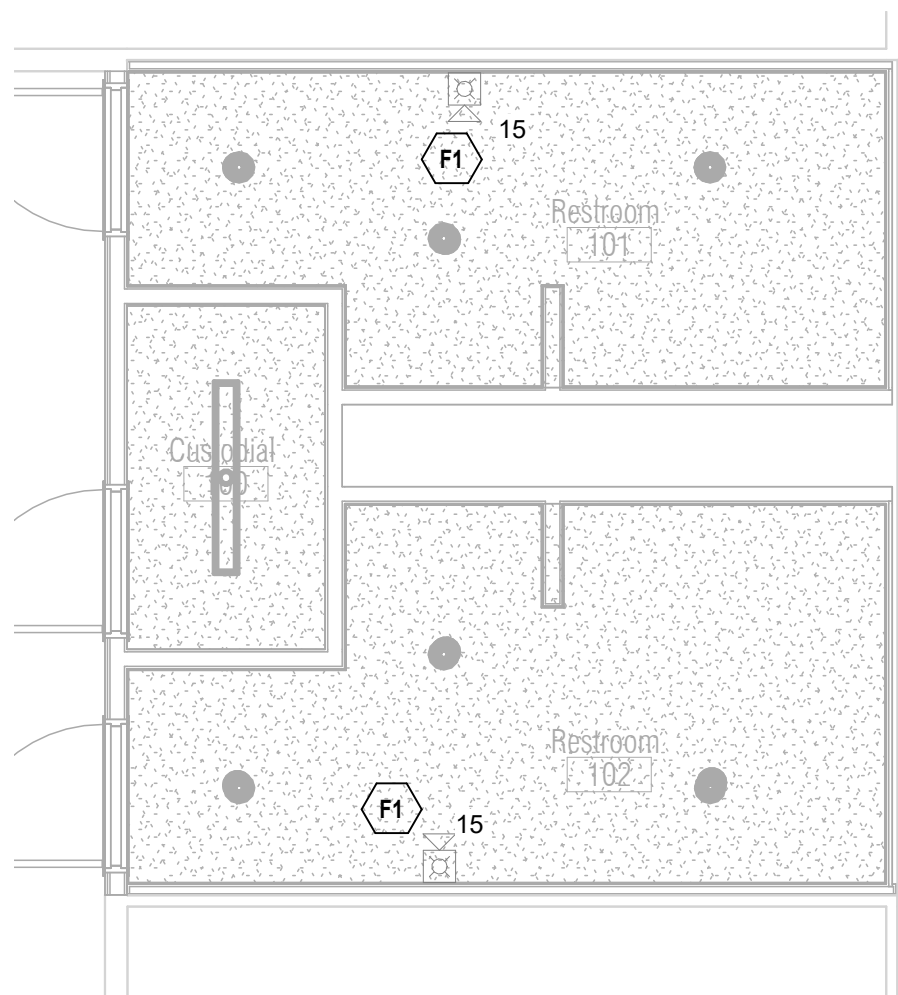
⑥ FIRE ALARM DEMOLITION PLANP - STAFF
1/4" = 1'-0"



③ FIRE ALARM PLAN - CLIENT WOMEN
1/4" = 1'-0"



② FIRE ALARM PLAN - CLIENT MEN
1/4" = 1'-0"



① FIRE ALARM PLAN - STAFF
1/4" = 1'-0"

FIRE ALARM PLAN NOTES:

- DFA1 REMOVE AND SALVAGE EXISTING FIRE ALARM APPLIANCES FOR REINSTALLATION DURING NEW WORK.
F1 REINSTALL EXISTING HORN/STROBE NOTIFICATION APPLIANCES.

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR



9/16/2025
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100 W 1st Street
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PROJECT # M2406-01
SITE # 7357
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DESIGNED BY: NTS

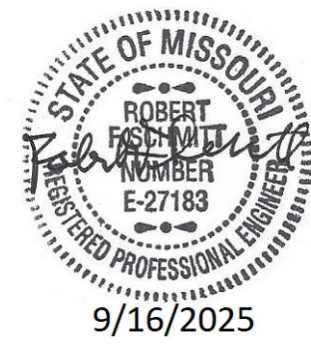
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**FIRE ALARM PLAN -
ENLARGED VIEWS**

SHEET NUMBER:

FA102

28 OF 29 SHEETS
09/16/2025





TITAN ENVIRONMENTAL
SERVICES
2418 MERRIAM LANE
KANSAS CITY, KS 66106

OFFICE OF ADMINISTRATION
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EDUCATION BUILDING,
HIGGINSVILLE HABILITATION
CENTER

100 W 1ST STREET
HIGGINSVILLE, MISSOURI 64037

PROJECT # M2406-01
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REVISION: _____
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DATE: _____
ISSUE DATE: 09/16/2025

CAD DWG FILE: H-101.DWG
DRAWN BY: RFS
CHECKED BY: PDE
DESIGNED BY: PDE

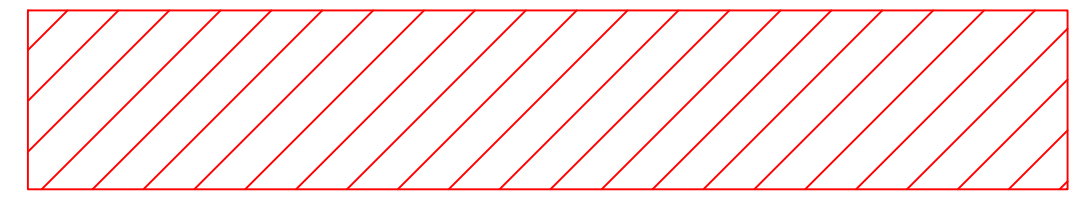
SHEET TITLE:
**ASBESTOS
ABATEMENT
EDUCATION BUILDING
FIRST FLOOR**

SHEET NUMBER:
H-101

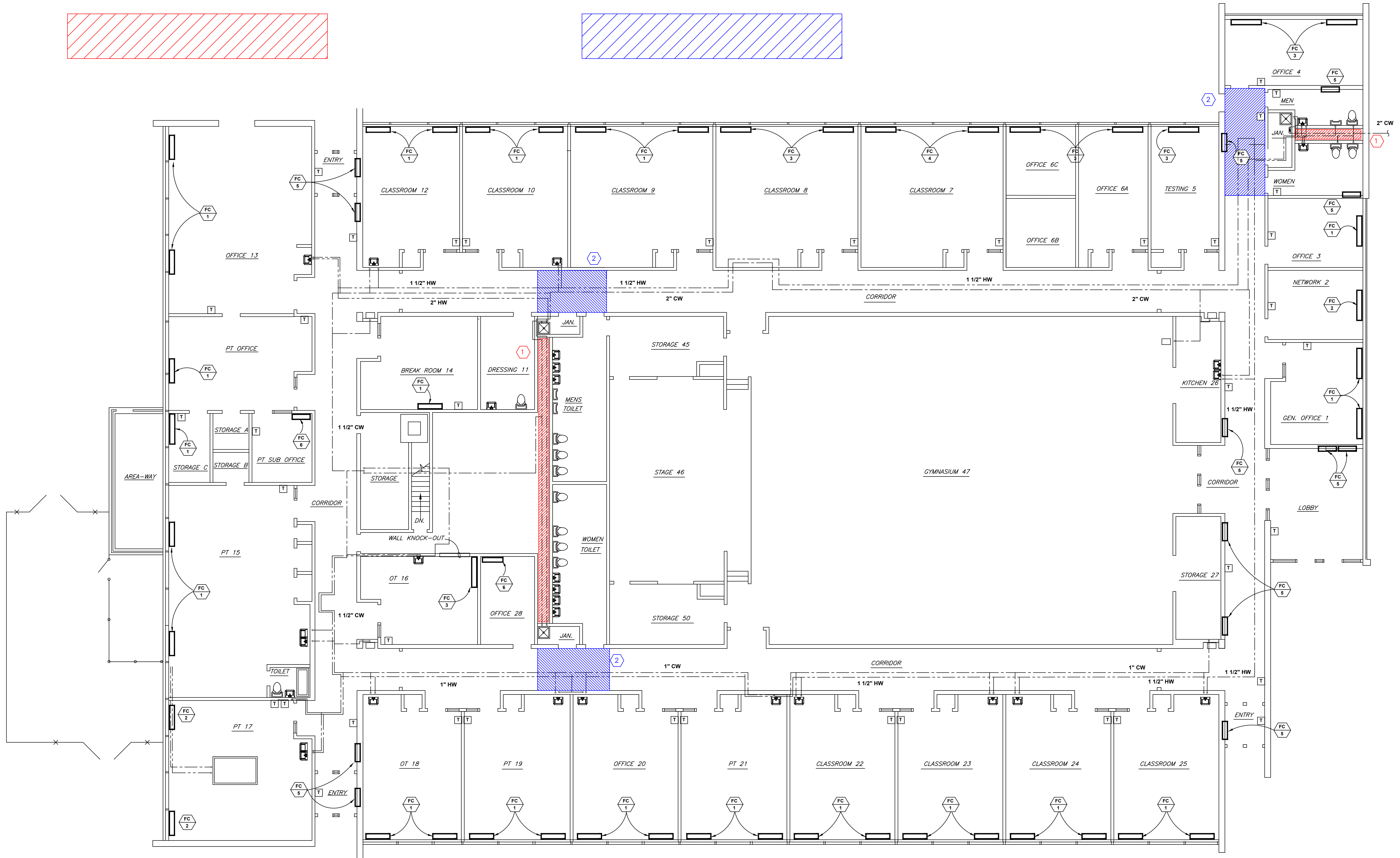
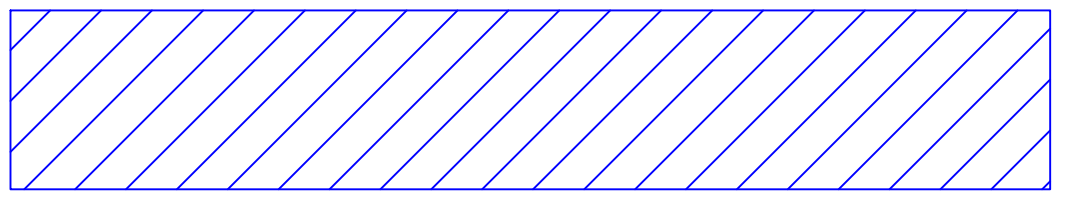
SHEET 29 OF 29
09/16/2025

PLAN NOTES

1 ASBESTOS CONTAINING HARD MUDDIED FITTINGS.
APPROXIMATELY 115 TOTAL.



2 ASBESTOS CONTAINING VINYL TILE TO BE REMOVED. REMOVE
IN GENERAL AREA INDICATED. REMOVE TILES AT EDGES, DO
NOT CUT TILES IN HALF.



 FIRST FLOOR ASBESTOS ABATEMENT PLAN
SCALE: 1/8"=1'-0"