

HARPER PERKINS ARCHITECTS, INC.

4724 Old Jacksboro Highway
Telephone 940.767.1421

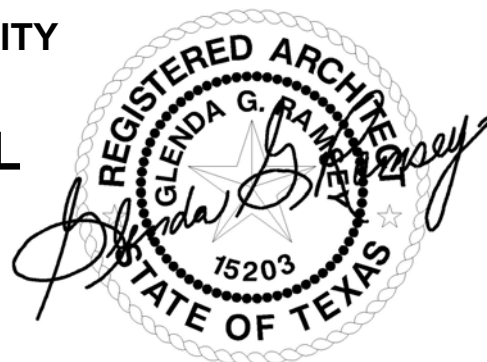
Wichita Falls, Texas 76302-3599
Facsimile Number 940.397.0273

ADDENDUM NO. 3

To the Drawings and Project Manual dated 1 April 2019
for

MIDWESTERN STATE UNIVERSITY RENOVATIONS TO J.S. BRIDWELL HALL

3410 Taft Boulevard
Wichita Falls, Texas



Addendum Date: 30 May 2019

SIGNED: 30 May 2019

NOTICE TO PROPOSERS:

This Addendum will be considered a part of the Contract Documents for the above referenced project as though it had been issued at the same time and incorporated integrally therewith. Where provisions of the following supplementary data differ from those in the original Contract Documents, this Addendum shall govern and take precedence.

Proposers are hereby notified that they shall make any necessary adjustments in their estimates on account of this Addendum. It will be construed that such Proposer's Competitive Sealed Proposal is submitted with full knowledge of all modifications and supplementary data specified herein.

ITEM 1 - AD#3: To the Project Manual, Sections **00100**, **NOTICE TO CONTRACTORS**; and **00200**, **INSTRUCTIONS FOR PROPOSERS**.

DELETE: The Bid Date of Tuesday, June 4 at 2:00 p.m.

ADD: The Bid Date shall be **Tuesday, June 11 at 2:00 p.m.**

ADD: As clarification, the Owner prefers electronic submission by email as the delivery method of the Competitive Sealed Proposals.

ITEM 2 - AD#3: To the Project Manual, Section **012100**, **ALLOWANCES**.

DELETE: On page **012100-3**, under Part **3.3(A)**, **Allowance No. 1**, the indication of a 5% Contingency Allowance.

ADD: The Contingency Allowances for the Base Bid and Alternates shall be stipulated amounts and shall be as follows: **Base Bid** - \$50,000; **Alternate #1** - \$5,000; **Alternate #2** - \$5,000; **Alternate #3A** - \$5,000; **Alternate #3B** - \$10,000; and **Alternate #3C** - \$5,000.

ITEM 3 - AD#3: To the Drawings, Sheets **"A101"**, **"First Floor Plan - New"**; **"A102"**, **"Second Floor Plan - New"**; and **"A103"**, **"Third Floor Plan - New"**; and the Project Manual, Section **101000**, **VISUAL DISPLAY BOARDS**.

ADD: An existing LCS Board is being relocated from another Building on Campus (GC to install) for use in **"Classroom 107T"**.

DELETE: The Tack Boards (TB) indicated on the Drawings. No Tackboards shall be provided in this Project.

ADD: As clarification, the LCS Marker Boards (LCS) shall be provided as follows (location, quantity, & size):

Base Bid: “**Classroom 107W**” (one Board – 16’-0” length), “**Classroom 205**” (three Boards – 8’-0” length; one Board – 10’-0” length), and “**Classroom 209**” (four Boards – 7’-0” length)

Alternate #2: “**Classroom 204**” (one Board – 12’-0” length; two Boards – 8’-0” length), and “**Classroom 208**” (one Board – 12’-0” length; two Boards – 8’-0” length)

Alternate #3A: “**Science Lab 308A**” (one Board – 16’-0” length and two Boards – 12’-0” length).

The final location of the Boards in each space shall be coordinated with the Architect and Owner prior to installation.

All Boards on the Second and Third Floors (Base Bid and Alternates) shall be Magnetic Glass Marker Boards, ¼” tempered, low-iron, extra clear, safety writing glass with polished edges; back-painted with specially formulated fade resistant, water resistant, and heat resistant paint. Provide one (1) dozen Rare Earth magnets with each Board.

ITEM 4 - AD#3: To the Drawings, Sheet “**A401**”, Interior Elevations “**A401-01**”, “**A401-02**”, and “**A401-04**”.

ADD: As clarification, the lavatories shown in the elevations are existing lavatories to be reused and either set in new countertops (“**A401-01**” and “**A401-02**”) or relocated (“**A401-04**”).

ITEM 5 - AD#3: To the Drawings, Sheets “**AD101**”, “**AD102**”, and “**AD103**”, “**Demolition Plans**”.

ADD: As clarification, the GC shall carefully coordinate all work involved on the Architectural Demolition work and the Mechanical/Electrical/Plumbing Demolition scope of work with the various trades/Sub-Contractors.

ADD: As clarification, at areas in which new carpet tiles are the scheduled floor finish (refer to Section **099900, FINISH SCHEDULE**), the existing VCT shall remain in place and not be removed. The new carpet tiles will be installed over the existing VCT.

ITEM 6 - AD#3: To the Drawings and **Addendum #2, Item #8**.

DELETE: **Mechanical** (“**M**”) Sheets “**M0.2**”, “**M1.1**”, “**M1.2**”, “**M1.3**”, “**M2.1**”, “**M2.2**”, and “**M2.3**”.

ADD: Replacement **Mechanical** (“**M**”) Sheets “**M0.2**”, “**M1.1**”, “**M1.2**”, “**M1.3**”, “**M2.1**”, “**M2.2**”, and “**M2.3**” included as a part of this Addendum. Several issues and questions have been addressed on these Drawings.

DELETE: **Electrical** (“**E**”) Sheets “**E0.1**”, “**E1.1**”, “**E1.2**”, “**E1.3**”, “**E2.1**”, “**E2.2**”, and “**E2.3**”.

ADD: Replacement **Electrical** (“**E**”) Sheets “**E0.1**”, “**E1.1**”, “**E1.2**”, “**E1.3**”, “**E2.1**”, “**E2.2**”, and “**E2.3**” included as a part of this Addendum. Several issues and questions have been addressed on these Drawings.

DELETE: **Plumbing** (“**P**”) Sheets “**P101a**”, “**P101b**”, “**P102a**”, “**P102b**”, “**P103a**”, “**P103b**”, “**P201**”, “**P202**”, “**P203**”, and “**P301**”.

ADD: Replacement **Plumbing** (“**P**”) Sheets “**P101a**”, “**P101b**”, “**P102a**”, “**P102b**”, “**P103a**”, “**P103b**”, “**P201**”, “**P202**”, “**P203**”, and “**P301**” included as a part of this Addendum. Several issues and questions have been addressed on these Drawings.

ITEM 7 - AD#3: To the Drawings and Project Manual, Section **011000, SUMMARY**, Part **1.7**, and **Addendum #2, Item #6**.

ADD: Trash Dumpsters may be placed on the west side of the Building.

ITEM 8 - AD#3: To the Drawings and Project Manual, Section **221423, FACILITY NATURAL-GAS PIPING**.

DELETE: This Section in its entirety. No new Gas Piping will be required for this Project.

ITEM 9 - AD#3: To the Drawings and Project Manual, Section **123480, WOOD LABORATORY CASWORK**, Part **3.5(D)(2)(b)**.

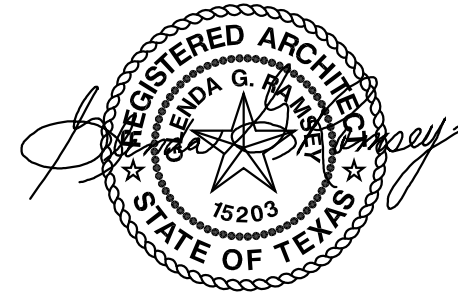
DELETE: The indication of a “gas cock”. There will be no gas service to the Fume Hood or any Science Lab Equipment.

ITEM 10 - AD#3: To the Drawings and Project Manual, Sections **220719, PLUMBING PIPING INSULATION**; and **221316, SANITARY WASTE AND VENT PIPING**.

ADD: The Contractor shall have the option to provide Schedule 40 PVC piping for Sanitary Waste and Vent Piping in ceiling spaces/return air plenums in lieu of the specified Cast Iron piping. Exposed piping in the ceiling spaces/return air plenums shall be wrapped with flexible fire-resistant wrap equal to 3M “Fire Barrier Plenum Wrap 5A+”. Provide and install with accessories (tape, banding, etc.) as per the Manufacturer requirements. Piping that

is routed through concealed wall spaces in not required to have the fire-resistant wrap, however the wrap shall extend down into the wall as required to cover the portions of the piping that is in the return air plenum.

END OF ADDENDUM NO. 3



GLEND A G. RAMSEY #15203
EXPIRES: 25 AUGUST 2019
DATE SIGNED:28 MAY 2019



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WATER HEATED VAV BOX SCHEDULE																			
MARK	PREVIOUS MARK (IF REUSED)	TYPE	AIR VALVE (NOTE 1)				VALVE MIN. SETTING (CFM)	HEATING PERFORMANCE (HW)								POWER CONN.		MANUF. AND MODEL	REMARKS
			DESIGN CFM	O/A	INLET SIZE	MAX CFM		HEAT CFM	FAN CFM	FAN AMPS	FAN HP	EXT. S.P.	HEATER MBH	GPM	LVG. WTR TEMP.	VOLTS	Ph.		
FP-24	N/A	PARALLEL FAN POWERED	390	80	8" DIA.	630	105	205	100.0	2.2	1/10	0.5	6.3	0.6	160	120	1	ENVIRO-TEC VFR	1 - 6
FRH-2	N/A	PARALLEL FAN POWERED	185	25	6" DIA.	330	60	160	100.0	0.8	1/25	0.5	5.5	0.6	160	120	1	ENVIRO-TEC VFR	1 - 6
FRH-10	N/A	PARALLEL FAN POWERED	1,410	190	12" DIA.	1,500	240	840	600.0	3.7	1/8	0.5	27.9	2.8	160	120	1	ENVIRO-TEC VFR	1 - 6
FRH-12	N/A	PARALLEL FAN POWERED	330	35	6" DIA.	330	60	160	100.0	2.2	1/10	0.5	5.5	0.6	160	120	1	ENVIRO-TEC VFR	1 - 6

- CFM RANGE REFERS TO THE RANGE OF CAPABILITY FOR THIS AIRVALVE SIZE. IT IS NOT A MINIMUM / MAXIMUM SETTING.
- PROVIDE SINGLE POINT ELECTRICAL CONNECTION (INCLUDE FACTORY -MOUNTED DISCONNECT SWITCH).
- THE TAP- OFF- MAIN (TO RUN-OUT DUCT) SHALL BE ONE-SIZE LARGER THAN THE SCHEDULED BOX SIZE, UNLESS OTHERWISE INDICATED.
TRANSITION TO BOX INLET SIZE DUCT A MINIMUM OF 4 DIAMETERS FROM THE BOX INLET, OR AS OTHERWISE RECOMMENDED BY MNFR.
PROVIDE HIGH PRESSURE FLEX. CONNX. (MAX. 2FT. LENGTH), AND APPROVED MEDIUM PRESSURE CONICAL TAPS.
- PROVIDE RECOMMENDED MAINTENANCE CLEARANCES. INCLUDE ACCESS PANELS (IN WALLS ABOVE CEILINGS, ETC.) AS REQ'D.
- PROVIDE DDC CONTROL MODULE AS REQUIRED TO INTERFACE WITH BUILDING DDC CONTROL SYSTEM.
- PROVIDE 1" FOIL-FACED INSULATION ON ALL INTERIOR SURFACES OF BOX, MINIMUM R VALUE 4.3.

DX MINI SPLIT SYSTEM HEAT PUMP SCHEDULE																													
MARK AHU- CU-	SERVES	FAN COIL UNIT										AIR COOLED CONDENSING UNIT										COOLING PERFORMANCE DATA				REMARKS			
		ARRANGEMENT	NO.	UNIT CFM	O/A CFM	EXT S.P.	POWER CONNECTION				MANUFACTURER AND MODEL	COMP. NO.	REF. TYPE	FAN NO.	POWER CONNECTION				HEATING CAPACITY		MANUFACTURER AND MODEL	CAPACITY (MBH) TOTAL	O.D. D.B. F.	ENTERING D.B. F.	MIN SEER				
							V.	Ph.	MCA	MOCP					V.	Ph.	MCA	MOCP	O.D. D.B. F.	I.D. D.B. F.							MBH		
1	TELECOMM1	WALL MOUNT	1	480	0	N/A	115	1		NOTE 5	CARRIER 40MAQ	1	R-410A	1	115	1	15.0	20.0	19	70	12.0	CARRIER 38MAQ	12.0	12.0	105	76.0	58.8	14	1-8
2	TELECOMM2	WALL MOUNT	1	480	0	N/A	115	1		NOTE 5	CARRIER 40MAQ	1	R-410A	1	115	1	15.0	20.0	19	70	12.0	CARRIER 38MAQ	12.0	12.0	105	76.0	58.8	14	1-9
3	IT ROOM2	WALL MOUNT	1	480	0	N/A	115	1		NOTE 5	CARRIER 40MAQ	1	R-410A	1	115	1	15.0	20.0	19	70	12.0	CARRIER 38MAQ	12.0	12.0	105	76.0	58.8	14	1-9
4	IT ROOM3	WALL MOUNT	1	480	0	N/A	115	1		NOTE 5	CARRIER 40MAQ	1	R-410A	1	115	1	15.0	20.0	19	70	12.0	CARRIER 38MAQ	12.0	12.0	105	76.0	58.8	14	1-9

- SIZE, ROUTE, INSULATE AND PROVIDE APPURTENANCES FOR DX PIPING SYSTEMS, PER MANUFACTURER RECOMMENDATIONS.
- LISTED CAPACITIES ARE FOR THE FAN COIL UNIT AND CONDENSER UNIT COMBINATION. UNITS SHALL PERFORM TO LISTED CAPACITIES.
- PROVIDE DISCONNECT.
- PROVIDE FILTER DRYER AND SIGHT GLASS ON THE DX LINES.
- SYSTEM IS A SINGLE POINT POWER CONNECTION. CONDENSING UNIT POWERS ASSOCIATED FAN COIL UNIT(S) FROM TERMINAL STRIP LOCATED ON CONDENSING UNIT. FOLLOW MANUFACTURER'S RECOMMENDED INSTALLATION GUIDELINES.
- PROVIDE MOTOR RATED SWITCH AT AHU.
- CARRIER IS THE BASIS FOR DESIGN. ACCEPTABLE ALTERNATE MANUFACTURERS ARE: DAIKIN, MITSUBISHI, LG, AND SAMSUNG. - NO EXCEPTIONS. CONTRACTOR IS RESPONSIBLE FOR VARIATIONS IN FIT AND ELECTRICAL SERVICE.
- PROVIDE LOW AMBIENT COOLING KIT FOR COOLING DOWN TO 32°F
- PROVIDE MANUFACTURER'S CONDENSATE PUMP AT FAN COIL UNIT.

AIR DEVICE SCHEDULE							
MARK	SERVES	FACE SIZE	MOUNTING	TYPE	MATERIAL	MANUFACTURER AND MODEL NO.	REMARKS
A	SUPPLY	24" X 24"	SURFACE LAY-IN	LOUVERED	STEEL	TITUS TDC	1-4
B	SUPPLY	12" X 6"	SURFACE LAY-IN	BLADE	ALUMINUM	TITUS S300	1-3
C	RETURN	24" X 24"	SURFACE LAY-IN	PERFORATED	STEEL	TITUS PAR	1-3
D	EXHAUST	24" X 24"	SURFACE LAY-IN	PERFORATED	STEEL	TITUS PAR	1-3

- COORDINATE FINISH WITH ARCHITECT.
- SOUND VALUES SHALL NOT EXCEED 25 NC (ROOM), UNLESS OTHERWISE NOTED.
- TRANSITION FROM BACK OF GRILLE/DIFFUSER TO DUCT SIZE SHOWN.
- PROVIDE INSULATION BLANKET ON BACK OF DIFFUSER
- PROVIDE OPTIONAL AIR SCOOP.

EXHAUST FAN SCHEDULE												
MARK	SERVES	TYPE	CFM	MOTOR DATA			DRIVE	dBA (SONES)	WEIGHT (lbs)	MANUFACTURER AND MODEL	REMARKS	
				EXT. SP. IN. WG	HP (WATTS)	VOLTS PH						
EF-10	SCIENCE LAB	ROOF	780	1.5	1/2	115	1	BELT	70.0	193	LOREN COOK GPV	1-10
EF-11	LAB PURGE EXHAUST	ROOF	1,500	0.7	1/2	115	1	DIRECT	(14.25)	43	LOREN COOK 135R150	1-6, 11
EF-12	KEY CONTROL ROOM	INLINE	500	0.7	(250)	115	1	DIRECT	4.0	34	LOREN COOK GN-740	1-4, 12

- OR APPROVED EQUAL.
- PROVIDE GRAVITY BACKDRAFT DAMPER.
- PROVIDE INTEGRAL DISCONNECT.
- PROVIDE SHADED POLE OR PERMANENT SPLIT CAPACITOR DIRECT DRIVE MOTOR AND FAN SPEED CONTROLLER.
- PROVIDE FACTORY, LINED ROOF CURB WITH DAMPER TRAY.
- PROVIDE ALUMINUM BIRDSCREEN.
- FAN TO BE CONTROLLED BY EXHAUST HOOD SWITCH LOCATED AT LABORATORY HOOD
- PROVIDE FLANGED CONNECTIONS FOR BOTH THE INLET AND OUTLET
- FUME HOOD EXHAUST FAN, EPOXY COAT ALL PARTS THAT ARE IN THE AIRSTREAM
- PROVIDE FAN WITH DRAIN
- FAN TO ACTIVATE WHEN EMERGENCY SHUTOFF IS INITIATED IN SCIENCE LAB.
- FAN TO OPERATE VIA WALL SWITCH.

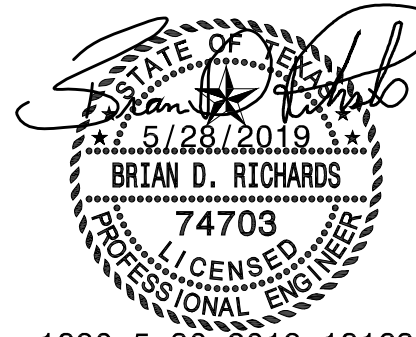
LOUVER SCHEDULE							
MARK	SERVES	EXT. S.P. IN. W.G.	WIDTH IN.	HEIGHT IN.	FREE AREA FT2	MANUFACTURER AND MODEL NO.	REMARKS
L-2	EXISTING VENTILATION	0.05	18	18	0.62	RUSKIN ELF6375DX	1-3

- VERIFY FINISH WITH ARCHITECT BEFORE ORDERING
- OR APPROVED EQUAL.
- PROVIDE ALUMINUM INSECT SCREEN.

EXISTING VAV NEW AIRFLOW SCHEDULE											
MARK	AIR VALVE (NOTE 1)			VALVE MIN. SETTING (CFM)	HEATING PERFORMANCE (HW)				POWER CONN.		REMARKS
	INLET SIZE	DESIGN CFM	O/A		HEAT CFM	FAN CFM	HEATER MBH	GPM	VOLTS	Ph.	
FP-4	6	200	50	60	160	100	4.6	0.5	120	1	1, 2
FP-5	12	1,380	285	240	940	700	25.7	2.6	120	1	1, 2
FP-6	6	305	65	60	160	100	4.6	0.5	120	1	1, 2
FP-8	6	250	70	70	270	200	7.4	0.7	120	1	1, 2
FP-9	6	390	75	60	160	100	4.6	0.5	120	1	1, 2
FP-10	6	390	75	60	160	100	4.6	0.5	120	1	1, 2
FP-11	6	530	100	60	160	100	4.6	0.5	120	1	1, 2
FP-12	6	530	100	60	160	100	4.6	0.5	120	1	1, 2
FP-13	6	340	90	60	310	250	8.2	0.8	120	1	1, 2
FP-15	8	490	50	105	405	300	11.1	1.1	120	1	1, 2
FP-20	10	1,040	265	165	465	300	13.4	1.3	120	1	1, 2
FP-25	6	50	10	60	160	100	4.6	0.5	120	1	1, 2
FP-26	6	150	30	60	160	100	5.5	0.6	120	1	1, 2
RH-8	6	280	20	60	150	0	6.5	0.6	120	1	1, 2
RH-9	8	390	25	105	200	0	8.6	0.9	120	1	1, 2
RH-10	8	560	50	105	300	0	13.0	1.3	120	1	1, 2
RH-11	5	140	25	60	100	0	4.3	0.4	120	1	1, 2
RH-12	6	215	55	60	130	0	5.6	0.6	120	1	1, 2
RH-13	5	130	25	60	100	0	4.3	0.4	120	1	1, 2
RH-14	10	670	145	165	350	0	15.1	1.5	120	1	1, 2
RH-25	6	235	30	60	140	0	6.0	0.6	120	1	1, 2
RH-26	6	235	30	60	140	0	6.0	0.6	120	1	1, 2
RH-37	5	160	15	60	90	0	3.9	0.4	120	1	1, 2
RH-38	6	175	25	60	90	0	3.9	0.4	120	1	1, 2
RH-41	6	305	45	60	150	0	6.5	0.6	120	1	1, 2
RH-47	6	290	45	60	150	0	6.5	0.6	120	1	1, 2
RH-55	5/6	105	30	60	60	0	2.6	0.3	120	1	1, 2
RH-59	5/6	170	45	60	60	0	2.6	0.3	120	1	1, 2
RH-60	5/6	160	40	60	60	0	2.6	0.3	120	1	1, 2
FRH-4	10	870	115	165	565	400	18.8	1.9	120	1	1, 2
FRH-8	10	765	100	165	565	400	18.8	1.9	120	1	1, 2
FRH-9	10	765	100	165	565	400	18.8	1.9	120	1	1, 2
FRH-13	12	1,025	135	240	640	400	22.0	2.2	120	1	1, 2

- CFM RANGE REFERS TO THE RANGE OF CAPABILITY FOR THIS AIRVALVE SIZE. IT IS NOT A MINIMUM / MAXIMUM SETTING.
- PROVIDE RECOMMENDED MAINTENANCE CLEARANCES. INCLUDE ACCESS PANELS (IN WALLS ABOVE CEILINGS, ETC.) AS REQ'D.

RENOVATION OF J.S. BRIDWELL HALL FOR
MIDWESTERN STATE UNIVERSITY
WICHITA FALLS, TEXAS
3410 TAFT BOULEVARD



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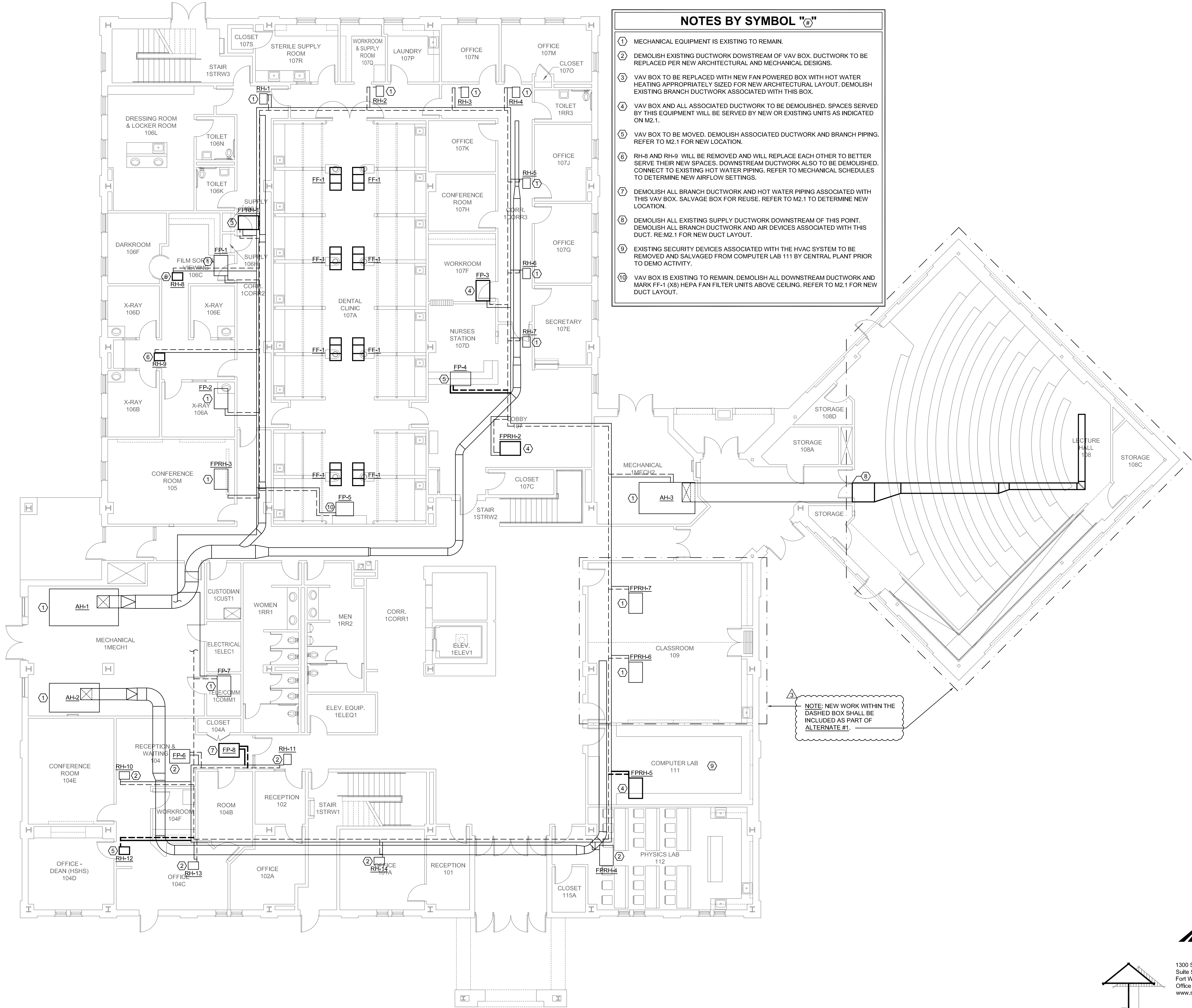
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M0.2

NOTES BY SYMBOL "E"

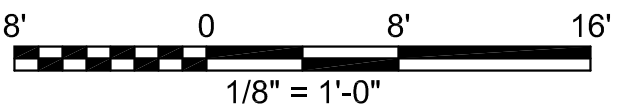
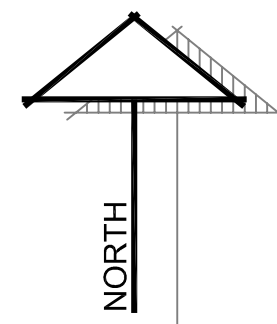
- MECHANICAL EQUIPMENT IS EXISTING TO REMAIN.
- DEMOLISH EXISTING DUCTWORK DOWNSTREAM OF VAV BOX. DUCTWORK TO BE REPLACED PER NEW ARCHITECTURAL AND MECHANICAL DESIGNS.
- VAV BOX TO BE REPLACED WITH NEW FAN POWERED BOX WITH HOT WATER HEATING APPROPRIATELY SIZED FOR NEW ARCHITECTURAL LAYOUT. DEMOLISH EXISTING BRANCH DUCTWORK ASSOCIATED WITH THIS BOX.
- VAV BOX AND ALL ASSOCIATED DUCTWORK TO BE DEMOLISHED. SPACES SERVED BY THIS EQUIPMENT WILL BE SERVED BY NEW OR EXISTING UNITS AS INDICATED ON M2.1.
- VAV BOX TO BE MOVED. DEMOLISH ASSOCIATED DUCTWORK AND BRANCH PIPING. REFER TO M2.1 FOR NEW LOCATION.
- RH-8 AND RH-9 WILL BE REMOVED AND WILL REPLACE EACH OTHER TO BETTER SERVE THEIR NEW SPACES. DOWNSTREAM DUCTWORK ALSO TO BE DEMOLISHED. CONNECT TO EXISTING HOT WATER PIPING. REFER TO MECHANICAL SCHEDULES TO DETERMINE NEW AIRFLOW SETTINGS.
- DEMOLISH ALL BRANCH DUCTWORK AND HOT WATER PIPING ASSOCIATED WITH THIS VAV BOX. SALVAGE BOX FOR REUSE. REFER TO M2.1 TO DETERMINE NEW LOCATION.
- DEMOLISH ALL EXISTING SUPPLY DUCTWORK DOWNSTREAM OF THIS POINT. DEMOLISH ALL BRANCH DUCTWORK AND AIR DEVICES ASSOCIATED WITH THIS DUCT. RE:M2.1 FOR NEW DUCT LAYOUT.
- EXISTING SECURITY DEVICES ASSOCIATED WITH THE HVAC SYSTEM TO BE REMOVED AND SALVAGED FROM COMPUTER LAB 111 BY CENTRAL PLANT PRIOR TO DEMO ACTIVITY.
- VAV BOX IS EXISTING TO REMAIN. DEMOLISH ALL DOWNSTREAM DUCTWORK AND MARK FF-1 (X8) HEPA FAN FILTER UNITS ABOVE CEILING. REFER TO M2.1 FOR NEW DUCT LAYOUT.

NOTE: NEW WORK WITHIN THE DASHED BOX SHALL BE INCLUDED AS PART OF ALTERNATE #1.



FIRST FLOOR MECHANICAL DEMOLITION PLAN

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



DRAWN BY:

DATE: 1 APRIL 2019

REVISIONS

NO.	DESCRIPTION	DATE
1.	ADDENDUM #1	05/17/19
3.	ADDENDUM #3	05/28/19

18833.00

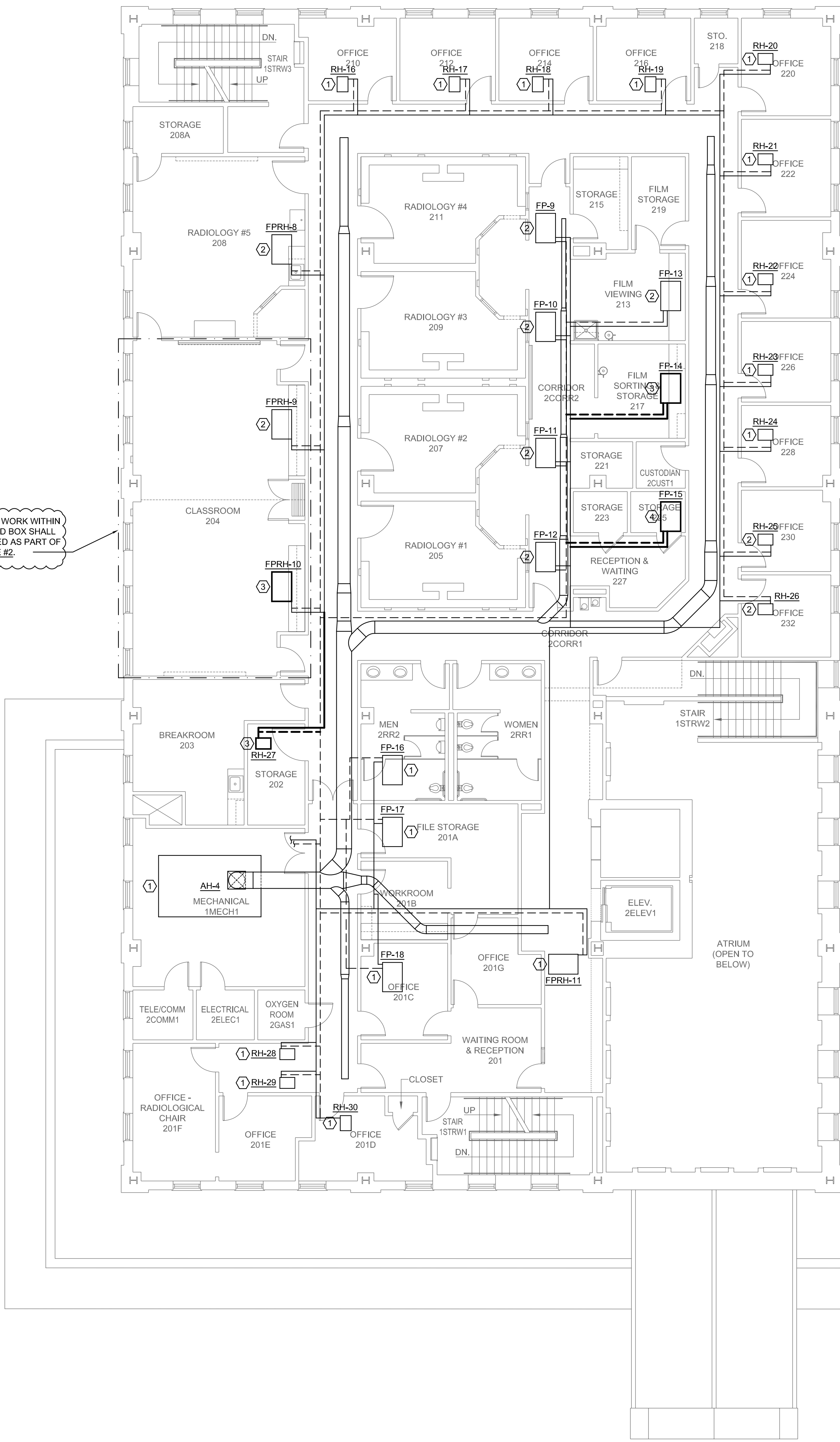
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M1.2

NOTES BY SYMBOL "#"

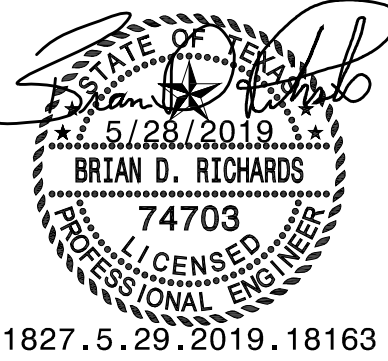
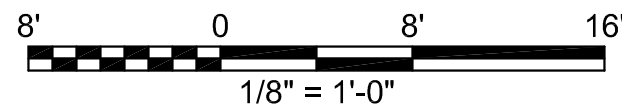
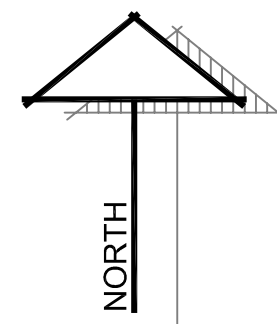
- MECHANICAL EQUIPMENT IS EXISTING TO REMAIN.
- DEMOLISH EXISTING DUCTWORK DOWSTREAM OF VAV BOX. DUCTWORK TO BE REPLACED PER NEW ARCHITECTURAL AND MECHANICAL DESIGNS.
- VAV BOX AND ALL ASSOCIATED HOT WATER BRANCH PIPING AND DUCTWORK TO BE DEMOLISHED. SPACES SERVED BY THIS EQUIPMENT WILL BE SERVED BY NEW OR EXISTING UNITS AS INDICATED ON M2.2.
- REMOVE AND SALVAGE VAV BOX FOR REUSE. DEMOLISH ASSOCIATED DUCTWORK AND BRANCH HOT WATER PIPING UP TO DUCT MAINS AND PIPE MAINS, RESPECTIVELY. REUSE VAV BOX AS INDICATED ON SCHEDULES.

NOTE: NEW WORK WITHIN THE DASHED BOX SHALL BE INCLUDED AS PART OF ALTERNATE #2.

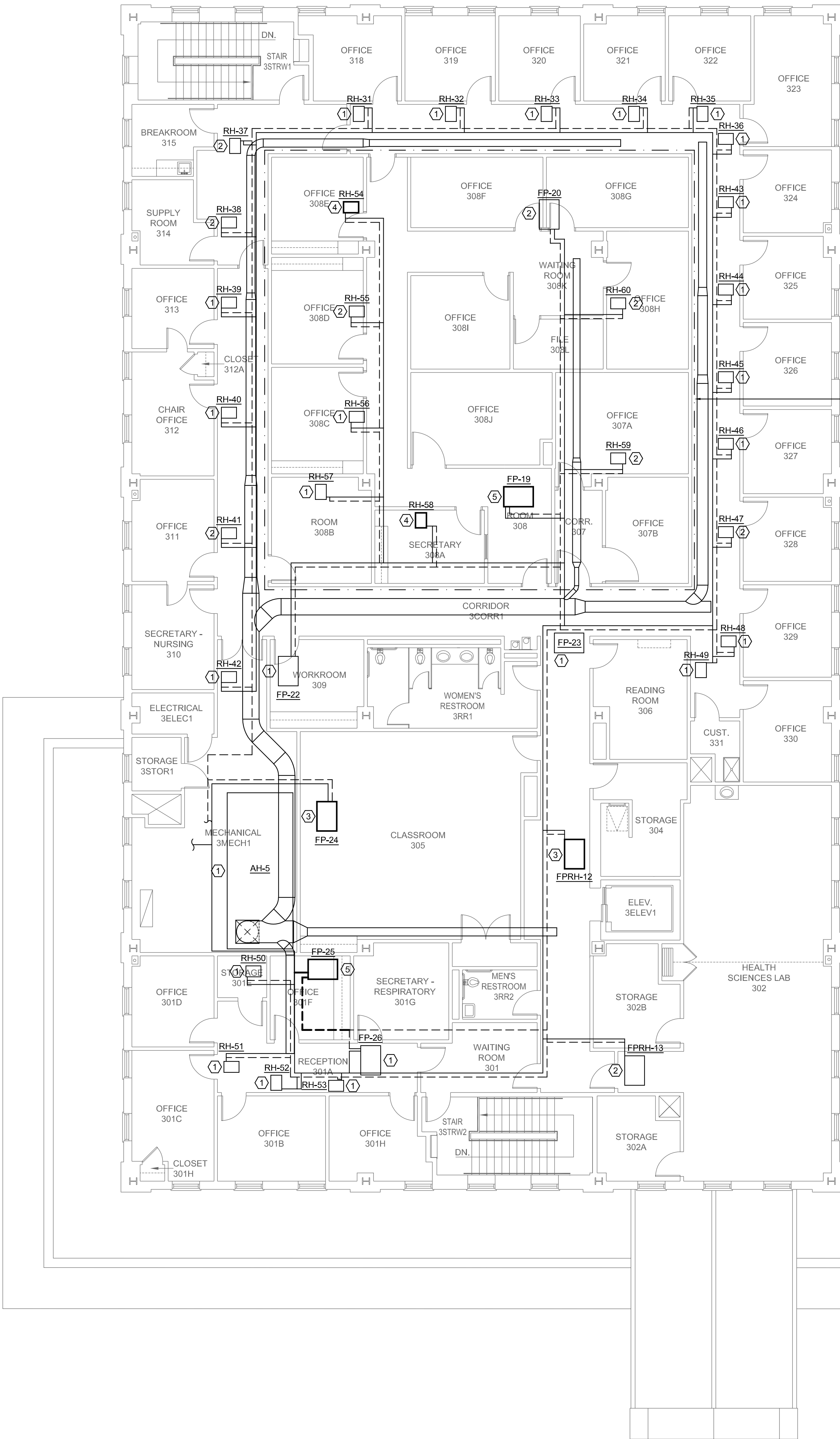


SECOND FLOOR MECHANICAL DEMOLITION PLAN

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



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- GENERAL NOTES
1. RH-54 THRU 60 ARE HOT WATER REHEAT COILS THAT WERE PREVIOUSLY REFERRED TO AS RH-1 THRU 7, RESPECTIVELY, IN THE LATEST SET OF EXISTING MECHANICAL DRAWINGS. UPDATE UNIT TAGS AS INDICATED TO AVOID DUPLICATE LABELS.
- NOTES BY SYMBOL "#"
- 1

MECHANICAL EQUIPMENT IS EXISTING TO REMAIN.
- 2

DEMOLISH EXISTING DUCTWORK DOWNSTREAM OF VAV BOX. DUCTWORK TO BE REPLACED PER NEW ARCHITECTURAL AND MECHANICAL DESIGNS.
- 3

VAV BOX TO BE REPLACED WITH NEW FAN POWERED BOX WITH HOT WATER HEATING APPROPRIATELY SIZED FOR NEW ARCHITECTURAL LAYOUT. DEMOLISH EXISTING BRANCH DUCTWORK DOWNSTREAM OF THIS BOX. RETAIN INLET DUCTWORK AND BRANCH PIPE FOR REPLACEMENT BOX.
- 4

VAV BOX AND ALL ASSOCIATED HOT WATER BRANCH PIPING AND DUCTWORK TO BE DEMOLISHED. SPACES SERVED BY THIS EQUIPMENT WILL BE SERVED BY NEW OR EXISTING UNITS AS INDICATED ON M2.3.
- 5

DEMOLISH EXISTING VAV BOX AND ALL ASSOCIATED DUCTWORK AND AIR DEVICES DOWNSTREAM OF UNIT. DEMOLISH 6"Ø INLET DUCTWORK UP TO SUPPLY DUCT MAIN.

NOTE: NEW WORK WITHIN THE DASHED BOX SHALL BE INCLUDED AS PART OF ALTERNATE #3A #3B, OR #3C.

ALTERNATE 3A NOTES:
INSTALL VAV BOXES, EXHAUST FANS, AND ALL ASSOCIATED DUCTWORK, HOT WATER PIPING, AND AIR DEVICES.

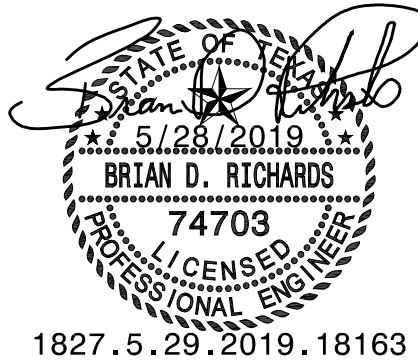
ALTERNATE 3B NOTES:
INSTALL FUME HOOD.

ALTERNATE 3C NOTES:
CONNECT FUME HOOD TO HOOD EXHAUST DUCT. CONNECT CONTROLS FOR MECHANICAL EQUIPMENT.



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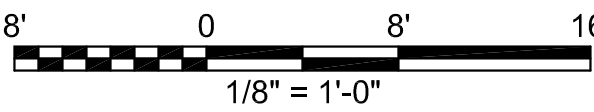
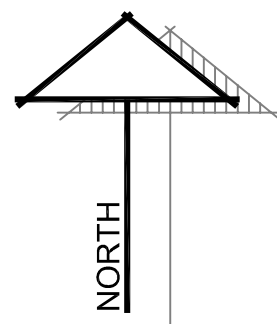
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NO.	DESCRIPTION	DATE
1.	ADDENDUM #1	05/17/19
3.	ADDENDUM #3	05/28/19

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THIRD FLOOR MECHANICAL DEMOLITION PLAN

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



M1.3



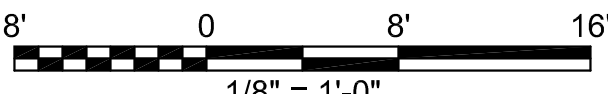
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NO.	DESCRIPTION	DATE
1.	ADDENDUM #1	05/17/19
3.	ADDENDUM #3	05/28/19

M2.1



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



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DATE: 1 APRIL 2019

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NO.	DESCRIPTION	DATE
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3.	ADDENDUM #3	05/28/19

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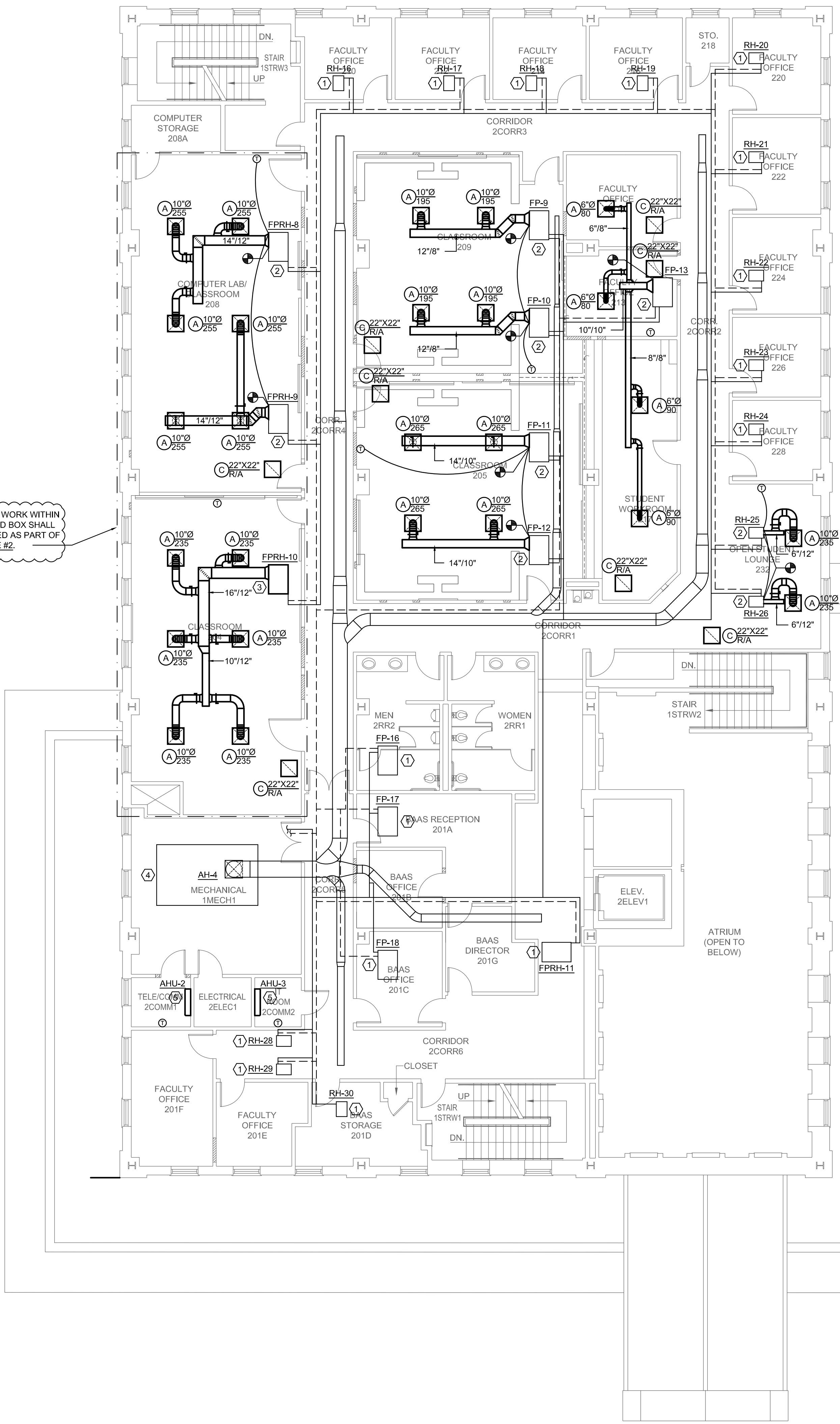
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M2.2

NOTES BY SYMBOL "#"

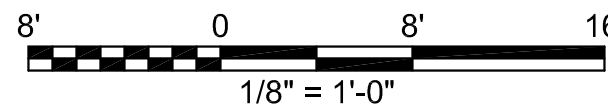
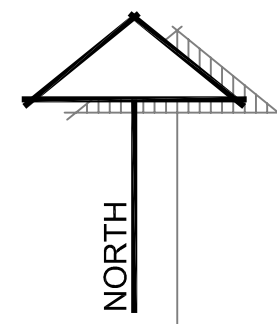
- EXISTING EQUIPMENT. RETAIN ALL DUCTWORK AND PIPING CONNECTIONS.
- VAV BOX IS EXISTING TO REMAIN. CONSTRUCT NEW DOWNSTREAM DUCTWORK AS INDICATED.
- NEW FAN POWERED VAV BOX WITH HOT WATER HEATING.
- EXISTING AIR HANDLING UNIT.
- MINI-SPLIT AIR HANDLING UNIT. RE-7/M6.1 FOR DETAIL. CONDENSING UNITS TO BE LOCATED ON ROOF. COORDINATE FINAL LOCATION OF CONDENSING UNITS WITH OWNER.

NOTE: NEW WORK WITHIN THE DASHED BOX SHALL BE INCLUDED AS PART OF ALTERNATE #2.



SECOND FLOOR MECHANICAL PLAN

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



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BRIAN D. RICHARDS
74703
LICENSED PROFESSIONAL ENGINEER

DRAWN BY:

DATE: 1 APRIL 2019

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NO.	DESCRIPTION	DATE
1.	ADDENDUM #1	05/17/19
3.	ADDENDUM #3	05/28/19

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M2.3

NOTES BY SYMBOL "A"

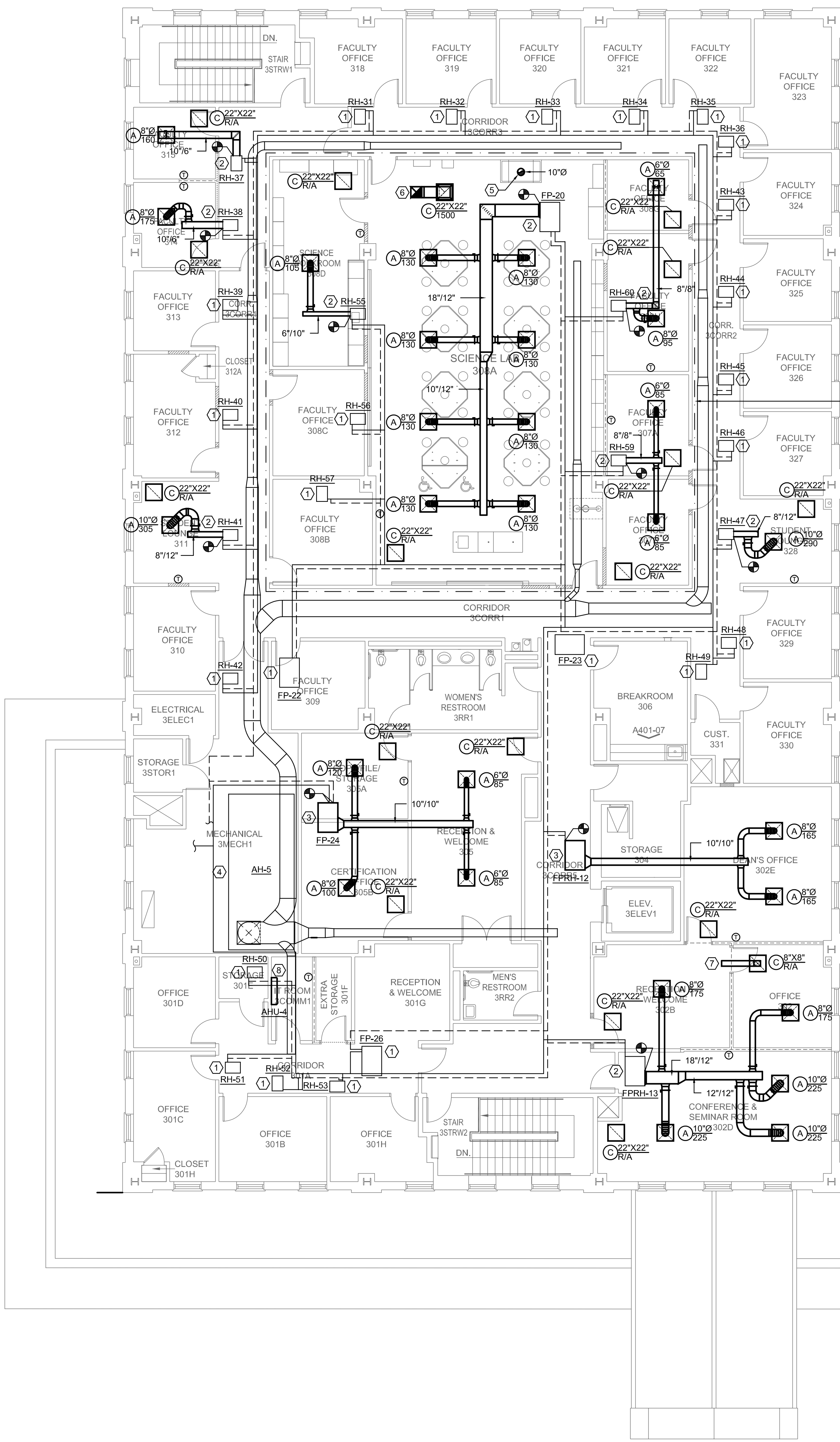
- EXISTING EQUIPMENT. RETAIN ALL DUCTWORK AND PIPING CONNECTIONS.
- VAV BOX IS EXISTING TO REMAIN. CONSTRUCT NEW DOWNSTREAM DUCTWORK AS INDICATED.
- NEW FAN POWERED VAV BOX WITH HOT WATER HEATING. TRANSITION EXISTING INLET DUCT TO NEW VAV BOX INLET SIZE AS NECESSARY.
- EXISTING AIR HANDLING UNIT.
- LAB HOOD EXHAUST DUCT. LINE ENTIRE DUCT WITH PVC FOR CHEMICAL RESISTANCE. DUCT ROUTES TO EF-1 ON ROOF ABOVE. COORDINATE LOCATION OF FAN WITH OWNER PRIOR TO INSTALLATION. RE:4/M6.1 FOR DETAIL.
- EXHAUST DUCT ROUTES TO EF-2 ON ROOF ABOVE. COORDINATE FINAL LOCATION OF FAN WITH OWNER.
- TRANSFER AIR DUCT TO FACILITATE RETURN AIR PATH.
- MINI-SPLIT AIR HANDLING UNIT. RE:7/M6.1 FOR DETAIL. CONDENSING UNITS TO BE LOCATED ON ROOF. COORDINATE FINAL LOCATION OF CONDENSING UNITS WITH OWNER.

NOTE: NEW WORK WITHIN THE DASHED BOX SHALL BE INCLUDED AS PART OF ALTERNATE #3A #3B, OR #3C.

ALTERNATE 3A NOTES:
INSTALL VAV BOXES, EXHAUST FANS, AND ALL ASSOCIATED DUCTWORK, HOT WATER PIPING, AND AIR DEVICES.

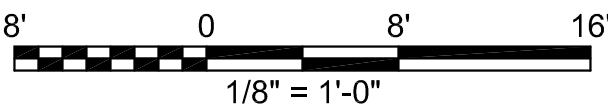
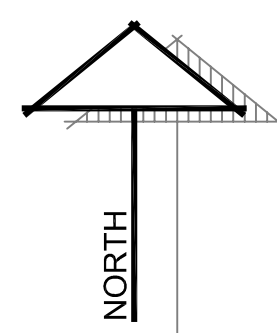
ALTERNATE 3B NOTES:
INSTALL FUME HOOD.

ALTERNATE 3C NOTES:
CONNECT FUME HOOD TO HOOD EXHAUST DUCT. CONNECT CONTROLS FOR MECHANICAL EQUIPMENT.



THIRD FLOOR MECHANICAL PLAN

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



ELECTRICAL SYMBOLS AND ABBREVIATIONS

NOTE: ALL SYMBOLS AND ABBREVIATIONS SHOWN ARE NOT NECESSARILY USED ON THE DRAWINGS

PLAN VIEW EXAMPLES

REFER TO DEVICE SYMBOL LEGENDS FOR ADDITIONAL POWER, DATA AND LIGHTING SYMBOLS.

DISCONNECT EXAMPLES

EXAMPLE TAG 1:

A91.1
KITCHEN*
H1A-6,8,10

INDICATES:

EQUIPMENT "A91.1" ON CIRCUIT H1A-6,8,10 SHOWN IN SCHEDULE BEGINNING WITH THE WORD "KITCHEN". REFER TO SCHEDULE "KITCHEN..." FOR SPECIFIC CONNECTION REQUIREMENTS.

EXAMPLE TAG 2:

PUMP1
25HP
H1A-6,8,10
3#500, #1G, 4"C
600A/3NF/NEMA 3R

INDICATES:

25HP "PUMP1" ON CIRCUIT H1A-6,8,10 WITH (3) #500 KCMIL CONDUCTORS AND (1) #1 AWG GROUND IN A 4" CONDUIT, WITH 600 AMP 3-POLE NON-FUSED DISCONNECT IN NEMA 3R ENCLOSURE.

DISTRIBUTION EQUIPMENT EXAMPLES

REFER TO PANEL SCHEDULES AND ONE-LINE DIAGRAM FOR MORE INFORMATION.

MAIN SWITCHBOARD NAMED "MSB".

HIGH VOLTAGE PANELBOARD NAMED "H1A" WITH WORKING CLEARANCE SHOWN.

TRANSFORMER NAMED "T1A". INSTALL ON CONCRETE HOUSE-KEEPING PAD UNLESS NOTED OTHERWISE.

LOW VOLTAGE PANELBOARD NAMED "L1A" WITH WORKING CLEARANCE SHOWN.

ROOM LAYOUT EXAMPLE

REFER TO SYMBOL LEGENDS FOR MORE INFORMATION.

EXAMPLE SHOWS ROOM WITH:

(4) RECEPTACLES ON CIRCUIT L1A-3.
(1) TELEVISION OUTLET TYPE "TV" ON CIRCUIT L1A-4.
(1) BASIC DATA JACK
(1) TYPE "TV" DATA JACK.

ABBREVIATIONS

A	AMPS	MAX	MAXIMUM
AFF	ABOVE FINISH FLOOR	MCA	MINIMUM CIRCUIT AMPS
AFG	ABOVE FINISH GRADE	MCB	MAIN CIRCUIT BREAKER
AIC	AMPS INTERRUPTING CAPACITY	MIN	MINIMUM
ATS	AUTOMATIC TRANSFER SWITCH	MLO	MAIN LUGS ONLY
BKR	CIRCUIT BREAKER	MOCP	MAXIMUM OVERCURRENT PROTECTION
BLDG	BUILDING	N/A	NOT APPLICABLE
C	CONDUIT	NEC	NATIONAL ELECTRICAL CODE
CB	CIRCUIT BREAKER	NEMA	NATIONAL ELECTRICAL MANUF. ASSOC.
CKT	CIRCUIT	NMT	NON-METALLIC TUBING
DEG	DEGREES	NO	NUMBER
DISC	DISCONNECT	N/O	NORMALLY OPEN
EA	EACH	N/C	NORMALLY CLOSED
ENT	ELECTRICAL NON-METALLIC TUBING	O/C	ON CENTER
EPO	EMERGENCY POWER OFF	OCPD	OVERCURRENT PROTECTIVE DEVICE
FACP	FIRE ALARM CONTROL PANEL	PF	POWER FACTOR
FARA	FIRE ALARM REMOTE ANNUNCIATOR PANEL	PH	PHASE
FLA	FULL LOAD AMPS	RCPT	RECEPTACLE
FT	FEET	RE	REFERENCE, REFER
G,GND	GROUND	RLA	RUNNING LOAD AMPS
GA	GAUGE	TGB	TELECOM GROUNDING BUS
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	TYP	TYPICAL
GFI	GROUND FAULT INTERRUPTER	U/F	UNDER FLOOR
HP	HORSEPOWER	U/G	UNDER GROUND
HZ	HERTZ	US	UNDER SLAB
IER	INTEGRATED EQUIPMENT RATING	UL	UNDERWRITERS LABORATORIES
IG	ISOLATED GROUND	UNO	UNLESS NOTED OTHERWISE
IN	INCHES	UPS	UNINTERRUPTIBLE POWER SUPPLY
KCMIL	1000 CIRCULAR MILLS	VA	VOLT-AMPS
KV	KILOVOLTS	W	WITH
KVA	KILOVOLT-AMPS	W/O	WITHOUT
KVAR	KILOVOLT-AMPS REACTIVE	WP	WEATHER PROOF IN USE ENCLOSURE
KW	KILOWATT	XFMR	TRANSFORMER
KWH	KILOWATT HOUR		
L	LENGTH		
LBS	POUNDS		
LCP	LIGHTING CONTROL PANEL		
LRA	LOCKED ROTOR AMPS		
LTG	LIGHTING		

ELECTRICAL GENERAL NOTES

- REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR THE EXACT LOCATION OF ALL CEILING MOUNTED DEVICES.
- REFER TO ARCHITECTURAL INTERIOR ELEVATION DRAWINGS, WHERE THE ARCHITECT HAS DRAWN SUCH ELEVATIONS, FOR THE LOCATIONS OF ALL WALL MOUNTED DEVICES.
- COORDINATE THE EXACT LOCATION OF ALL THERMOSTATS, STARTERS, DISCONNECTS, ETC. AND COORDINATE ALL REQUIREMENTS FOR CONTROL AND POWER WIRING WITH THE MECHANICAL CONTRACTOR OR THE TRADE PROVIDING THE EQUIPMENT.
- ALL RECEPTACLE OUTLETS LOCATED WITHIN 6'-0" OF A WET BAR OR SINK SHALL BE GFI TYPE. ALL RECEPTACLE OUTLETS LOCATED OUTDOORS SHALL BE WP/GFI. ALL RECEPTACLES SERVING VENDING MACHINES SHALL BE GFI TYPE. ALL RECEPTACLES SERVING ELECTRIC WATER COOLERS SHALL BE GFI TYPE. COORDINATE LOCATIONS OF PENETRATIONS WITH THE MECHANICAL CONTRACTOR.
- ALL CONDUIT PENETRATIONS THROUGH THE ROOF TO SERVE MECHANICAL EQUIPMENT SHALL BE WITHIN THE ASSOCIATED EQUIPMENT ROOF CURB.
- ALL DEVICE PLATE COLORS TO BE WHITE.
- PROVIDE ACCESS DOORS IN WALLS AND CEILINGS WHERE ACCESS TO CONCEALED ELECTRICAL BOXES AND DEVICES IS REQUIRED. ALL ACCESS LOCATIONS ARE TO BE APPROVED BY ARCHITECT PRIOR TO INSTALL.
- EACH BRANCH AND FEEDER CIRCUIT SHALL BE PROVIDED WITH A GROUND CONDUCTOR SIZED PER ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE (NFPA 70), WHERE A CONDUIT CONTAINS MULTIPLE BRANCH CIRCUITS, PROVIDE A SINGLE GROUND CONDUCTOR UNLESS OTHERWISE NOTED.
- CONDUIT, LIGHT FIXTURES, AND OTHER COMPONENTS MAY BE SHOWN LARGER THAN ACTUAL SIZE. CONDUIT ROUTING IS SHOWN WITH AN EXAGGERATED SPACING FOR CLARITY. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH ALL CONTRACTORS TO ENSURE CONDUIT PLACEMENT DOES NOT CONFLICT WITH LOCATION SENSITIVE COMPONENTS SUCH AS LIGHT FIXTURES.
- ALL PULL CORD/WIRE PROVIDED FOR EMPTY RACEWAY/CONDUIT SYSTEMS SHALL HAVE A MINIMUM STRENGTH OF 200 LBS TENSILE STRENGTH. ALL EMPTY CONDUITS SHALL HAVE A PULL CORD.
- PROVIDE LUGS AS REQUIRED FOR ALL ELECTRICAL EQUIPMENT TO ACCEPT THE SIZE AND NUMBER OF CONDUCTORS SHOWN IN THESE DOCUMENTS.
- ALL CONDUCTORS SHALL BE THWN/THHN UNLESS OTHERWISE INDICATED. CONDUCTORS SHALL BE RATED FOR 75 DEGREES C. TERMINATIONS SHALL BE RATED FOR 75 DEGREES C. DEVIATIONS SHALL COMPLY WITH NEC ARTICLE 110 FOR EXACT EQUIPMENT BEING PROVIDED, WHERE RECEPTACLES ARE SHOWN BACK-TO-BACK ON A COMMON WALL, OFFSET THE TWO BOXES AT LEAST SIX INCHES.
- THERE SHALL BE NO SPLICES OF WIRING INSIDE PANELBOARDS OR DISCONNECT SWITCHES. ONLY ONE WIRE SHALL BE TERMINATED TO ANY SINGLE LUG ON A CIRCUIT BREAKER.
- ALL WIRING AND CONDUIT SIZES SHALL BE BASED ON THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE.
- UNLESS OTHERWISE NOTED, FOR HOMERUNS HAVING A TOTAL LENGTH OF 100' TO 200', USE #10 CONDUCTORS; FOR HOMERUNS HAVING A TOTAL LENGTH OF 200' OR GREATER, USE #8 CONDUCTORS.
- COORDINATE THE REQUIREMENTS FOR OVERCURRENT PROTECTIVE DEVICE SIZE, DISCONNECT SWITCH SIZE, AND CONDUCTOR AND CONDUIT SIZES WITH THE REQUIREMENTS OF THE MECHANICAL EQUIPMENT THAT IS ACTUALLY TO BE INSTALLED AND PROVIDE AND INSTALL ALL ELECTRICAL COMPONENTS AS REQUIRED. THE ELECTRICAL COMPONENT SIZING SHOWN ON THESE DRAWINGS IS BASED UPON THE REQUIREMENTS FOR THE SPECIFIED MECHANICAL EQUIPMENT AVAILABLE AT THE TIME OF DESIGN. VARIATIONS IN REQUIREMENTS MAY OCCUR AS A RESULT OF THE PROVISION OF OTHER MANUFACTURER'S EQUIPMENT OR IN CHANGES TO THE SPECIFIED EQUIPMENT. SUCH REVISED REQUIREMENTS ARE A PART OF THIS CONTRACT AND SHALL BE ACCOMMODATED WITHOUT ADDITIONAL CHARGE.
- FOR COORDINATION PURPOSES, DEVICES MAY BE MOVED A MAXIMUM DISTANCE OF SIX FEET, PRIOR TO INSTALLATION, AT NO COST TO THE OWNER, UPON INSTRUCTION BY THE ARCHITECT OR ENGINEER.
- REFER TO SPECIFICATIONS AND ARCHITECTURAL DRAWINGS FOR FIRE CAULKING REQUIREMENTS. ALL PENETRATIONS THROUGH FIRE WALLS AND SMOKE BARRIERS SHALL BE SEALED IN ACCORDANCE WITH CODE REQUIREMENTS.
- MC CABLE IS PERMITTED FOR 20A/120V BRANCH CIRCUITS ONLY AND MUST BE CONCEALED IN WALLS OR ABOVE CEILING.

FIRE ALARM NOTES

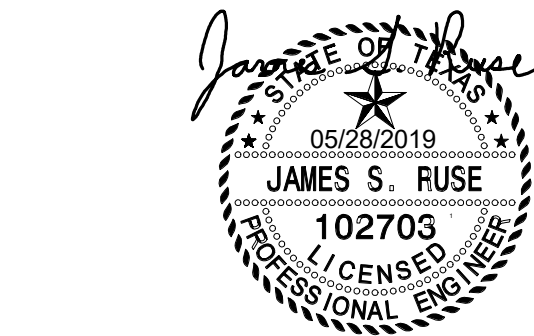
- FIRE ALARM CONTROL PANEL IS EXISTING EDWARDS EST3.
- GC SHALL HIRE CERTIFIED FIRE ALARM CONTRACTOR TO RELOCATE AND/OR EXTEND EXISTING EQUIPMENT INTO NEW SPACES AS REQUIRED FOR FULLY FUNCTIONAL SYSTEM ACCORDING TO MSU'S FIRE ALARM STANDARDS.

3

POWER SYMBOL LEGEND

NOTE: NEW RECEPTACLE UNLESS NOTED OTHERWISE.

SYMBOL /TYPE	SYMBOL DESCRIPTION
	JUNCTION BOX
	MOTOR RATED SWITCH
	RECESSED DUPLEX RECEPTACLE FOR TELEVISION, COORDINATE EXACT ELEVATION WITH ARCHITECT
	STANDARD DUPLEX RECEPTACLE FOR REFRIGERATOR
	WIRED J-BOX FOR MOTORIZED PROJECTOR SCREEN. COORDINATE EXACT REQUIREMENTS WITH SCREEN INSTALLER.
	CEILING MOUNTED DUPLEX RECEPTACLE FOR PROJECTOR
	NEW GFI DUPLEX RECEPTACLE
	NEW ABOVE COUNTER GFI DUPLEX RECEPTACLE, REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT PLACEMENT
	NEW ABOVE COUNTER DUPLEX RECEPTACLE, REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT PLACEMENT
	NEW STANDARD DUPLEX RECEPTACLE AT 18" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE. CONNECT TO NEAREST EXISTING RECEPTACLE CIRCUIT; MAX. (8) RECEPTACLES PER CIRCUIT.
	MOTORIZED GOAL; COORDINATE WITH INSTALLER FOR EXACT REQUIREMENTS AND LOCATION
	RECEPTACLE FOR ICE MAKER
	GOGGLE CABINET; REFER TO ARCHITECTURAL FOR EXACT LOCATION/ HEIGHT.
	MOTOR RATED SWITCH FOR FAN POWERED UNIT; REFER TO MECHANICAL PLANS FOR MORE INFORMATION.
	FLOOR BOX WITH FOUR DUPLEX POWER RECEPTACLES AND SEPARATE DATA COMPARTMENTS. PROVIDE 1-1/2" CONDUIT WITH PULL STRING TO ACCESSIBLE CEILING FOR DATA. FINISH TO BE SILVER. PROVIDE WIREMOLD #RFB6E-OG FOR SLAB ON-GRADE LOCATIONS AND #6ATC FOR ABOVE-GRADE POKE-THROUGH LOCATIONS. POKE THROUGH SHALL MATCH FLOOR FIRE RATINGS. PROVIDE 1-1/4" FC FOR COMMUNICATIONS TO ACCESSIBLE AREA ABOVE CEILING. COORDINATE STUB-UP AND J-BOX WITH FIXED FURNITURE AND EQUIPMENT PRIOR TO INSTALLATION. SAW CUT AND REPAIR SLAB AS REQUIRED.
	WIRED J-BOX FOR FUME HOOD. COORDINATE EXACT REQUIREMENTS WITH FUME HOOD INSTALLER.
	FLOOR BOX WITH DUPLEX RECEPTACLE FOR POWER. FINISH TO BE SILVER. PROVIDE WIREMOLD #RFB2E-OG. COORDINATE STUB-UP AND J-BOX WITH FIXED FURNITURE AND EQUIPMENT PRIOR TO INSTALLATION.
	EXISTING RECEPTACLE AND CIRCUIT TO REMAIN. PROVIDE NEW COVERPLATE.
	DISHWASHER DUPLEX RECEPTACLE; INSTALL BENEATH ADJACENT CABINET.



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DRAWN BY: NJH

DATE: 05/28/2019

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1	Addendum #1	05/17/19
3	Addendum #3	05/28/19

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REGISTERED ARCHITECT
STATE OF TEXAS

GLEND A. RAMSEY #15203
EXPIRES: 25 AUGUST 2019
DATE SIGNED: 28 MAY 2019

HPA

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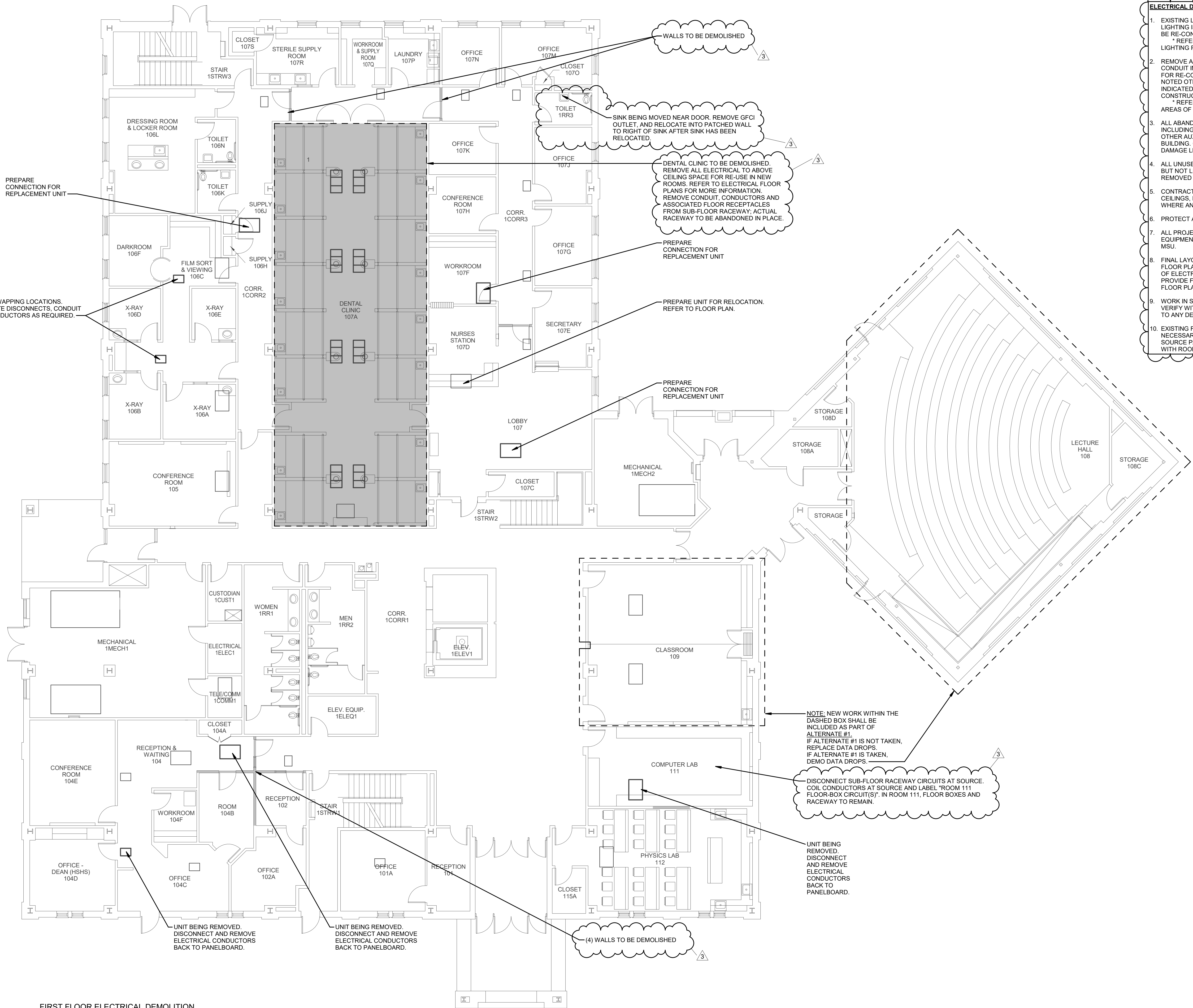
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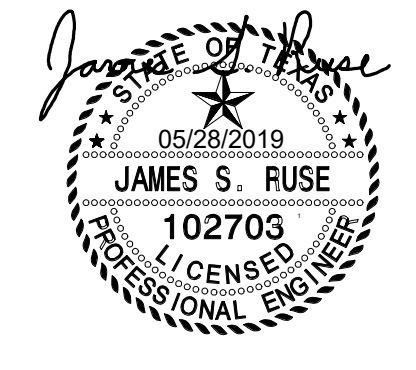




- ELECTRICAL DEMOLITION NOTES:**
1. EXISTING LIGHTING SHALL BE REMOVED IN THE AREAS WHERE NEW LIGHTING IS TO BE INSTALLED. ANY LIGHTING NOT REMOVED SHALL BE RE-CONNECTED TO A LIGHTING CIRCUIT DURING CONSTRUCTION. * REFER TO ARCHITECTURAL DEMOLITION PLANS AND TO LIGHTING PLANS FOR AREAS OF WORK.
 2. REMOVE ALL J-BOXES, RECEPTACLES, SWITCHES, WIRE AND CONDUIT IN WALLS TO BE DEMOLISHED TO ABOVE CEILING. PROTECT FOR RE-CONNECTION. EXISTING RECEPTACLE TO REMAIN, UNLESS NOTED OTHERWISE. RECEPTACLES DISCOVERED IN FIELD AND NOT INDICATED ON PLANS ARE EXISTING TO REMAIN. PROTECT DURING CONSTRUCTION. * REFER TO ARCHITECTURAL PLANS AND ELECTRICAL PLANS FOR AREAS OF WORK.
 3. ALL ABANDONED SURFACE-MOUNTED WIRING AND CABLES INCLUDING BUT NOT LIMITED TO INTERCOM, PHONE, CLOCK AND OTHER AUXILIARY SYSTEMS SHALL BE REMOVED FROM THE BUILDING. CONTRACTOR SHALL PATCH OR REPAIR AND PAINT ANY DAMAGE LEFT AFTER REMOVAL OF THESE SYSTEMS.
 4. ALL UNUSED ELECTRICAL EQUIPMENT ABOVE CEILING INCLUDING BUT NOT LIMITED TO CONDUIT AND CONDUCTORS SHALL BE REMOVED IN THEIR ENTIRETY.
 5. CONTRACTOR SHALL PAINT, PATCH, TEXTURE AND REPAIR WALLS, CEILINGS, FLOORS AND OTHER SURFACES TO MATCH EXISTING WHERE ANY COMPONENTS ARE REMOVED.
 6. PROTECT ALL EXISTING EQUIPMENT TO REMAIN.
 7. ALL PROJECTORS, SPEAKERS, PODIUMS, AV EQUIPMENT, AND DATA EQUIPMENT REMOVED DURING DEMOLITION SHALL BE RETURNED TO MSU.
 8. FINAL LAYOUT OF RECEPTACLES IS SHOWN ON THE ELECTRICAL FLOOR PLANS. DEMOLITION PLANS SHOW APPROXIMATE LOCATIONS OF ELECTRICAL EQUIPMENT TO DEMOLISH. CONTRACTOR SHALL PROVIDE FINAL RECEPTACLE LAYOUT AS SHOWN ON ELECTRICAL FLOOR PLANS.
 9. WORK IN SOME AREAS DEPENDS UPON ACCEPTED ALTERNATES. VERIFY WITH MSU REPRESENTATIVE STATUS OF ALTERNATES PRIOR TO ANY DEMOLITION OR CONSTRUCTION.
 10. EXISTING FLOOR BOXES DISCOVERED IN FIELD, AND NOT NECESSARILY SHOWN ON PLANS, SHALL BE DE-ENERGIZED AT THEIR SOURCE PANELBOARD. CONDUIT AT SOURCE COILED AND LABELED WITH ROOM NUMBER FOR FUTURE USE.

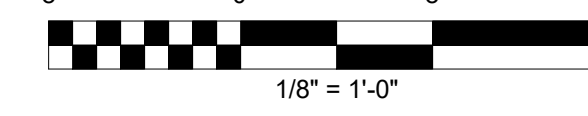
REGISTERED ARCHITECT
STATE OF TEXAS
GLENN G. RAMSEY #15203
EXPIRES: 25 AUGUST 2019
DATE SIGNED: 28 MAY 2019
HPA
HARPER PERKINS ARCHITECTS, INC.
4724 OLD JACKSBORO HIGHWAY
WICHITA FALLS, TEXAS 76302-3599
VOICE: 847.767.1421 FAX: 847.397.0273
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RENOVATION OF J.S. BRIDWELL HALL FOR
MIDWESTERN STATE UNIVERSITY
WICHITA FALLS, TEXAS
3410 TAFT BOULEVARD



Summit
CONSULTANTS, INC.

Texas BPE Registration # F-207
1300 Summit Avenue Suite 500 Fort Worth, Texas 76102
4144 N. Central Expwy Suite 635 Dallas, Texas 75204
Office 817.878.4242 Office 214.420.9111
www.summitmep.com



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DATE: 05/28/2019

REVISIONS

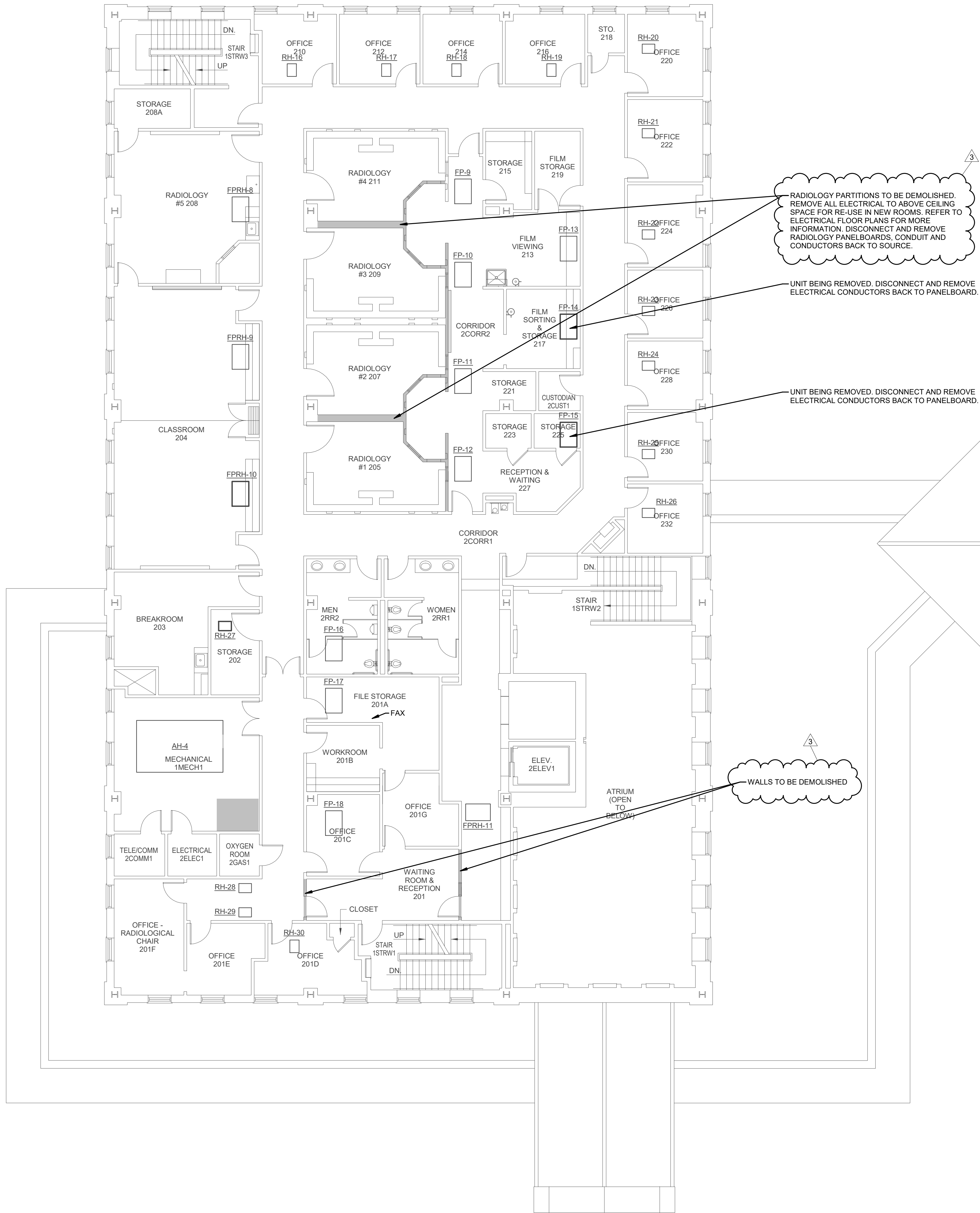
NO.	DESCRIPTION	DATE
1	Addendum #1	05/17/19
3	Addendum #3	05/28/19

18833.00

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E1.1

FIRST FLOOR ELECTRICAL DEMOLITION
PLAN
1/8" = 1'-0"



ELECTRICAL DEMOLITION NOTES:

- EXISTING LIGHTING SHALL BE REMOVED IN THE AREAS WHERE NEW LIGHTING IS TO BE INSTALLED. ANY LIGHTING NOT REMOVED SHALL BE RE-CONNECTED TO A LIGHTING CIRCUIT DURING CONSTRUCTION.
* REFER TO ARCHITECTURAL DEMOLITION PLANS AND TO LIGHTING PLANS FOR AREAS OF WORK.
- REMOVE ALL J-BOXES, RECEPTACLES, SWITCHES, WIRE AND CONDUIT IN WALLS TO BE DEMOLISHED TO ABOVE CEILING. PROTECT FOR RE-CONNECTION. EXISTING RECEPTACLE TO REMAIN, UNLESS NOTED OTHERWISE. RECEPTACLES DISCOVERED IN FIELD AND NOT INDICATED ON PLANS ARE EXISTING TO REMAIN; PROTECT DURING CONSTRUCTION.
* REFER TO ARCHITECTURAL PLANS AND ELECTRICAL PLANS FOR AREAS OF WORK.
- ALL ABANDONED SURFACE-MOUNTED WIRING AND CABLES INCLUDING BUT NOT LIMITED TO INTERCOM, PHONE, CLOCK AND OTHER AUXILIARY SYSTEMS SHALL BE REMOVED FROM THE BUILDING. CONTRACTOR SHALL PATCH OR REPAIR AND PAINT ANY DAMAGE LEFT AFTER REMOVAL OF THESE SYSTEMS.
- ALL UNUSED ELECTRICAL EQUIPMENT ABOVE CEILING INCLUDING BUT NOT LIMITED TO CONDUIT AND CONDUCTORS SHALL BE REMOVED IN THEIR ENTIRETY.
- CONTRACTOR SHALL PAINT, PATCH, TEXTURE AND REPAIR WALLS, CEILINGS, FLOORS AND OTHER SURFACES TO MATCH EXISTING WHERE ANY COMPONENTS ARE REMOVED.
- PROTECT ALL EXISTING EQUIPMENT TO REMAIN.
- ALL PROJECTORS, SPEAKERS, PODIUMS, A/V EQUIPMENT, AND DATA EQUIPMENT REMOVED DURING DEMOLITION SHALL BE RETURNED TO MSU.
- FINAL LAYOUT OF RECEPTACLES IS SHOWN ON THE ELECTRICAL FLOOR PLANS. DEMOLITION PLANS SHOW APPROXIMATE LOCATIONS OF ELECTRICAL EQUIPMENT TO DEMOLISH. CONTRACTOR SHALL PROVIDE FINAL RECEPTACLE LAYOUT AS SHOWN ON ELECTRICAL FLOOR PLANS.
- WORK IN SOME AREAS DEPENDS UPON ACCEPTED ALTERNATES. VERIFY WITH MSU REPRESENTATIVE STATUS OF ALTERNATES PRIOR TO ANY DEMOLITION OR CONSTRUCTION.
- EXISTING FLOOR BOXES DISCOVERED IN FIELD, AND NOT NECESSARILY SHOWN ON PLANS, SHALL BE DE-ENERGIZED AT THEIR SOURCE PANELBOARD, CONDUIT AT SOURCE COILED AND LABELED WITH ROOM NUMBER FOR FUTURE USE.

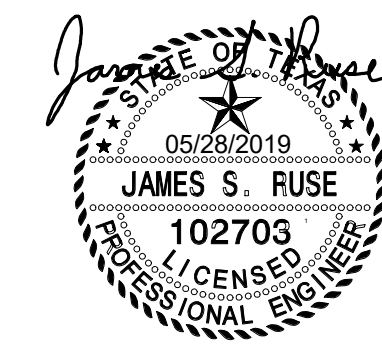
REGISTERED ARCHITECT
Glenda G. Ramsey
STATE OF TEXAS

GLEND A. G. RAMSEY #15203
EXPIRES: 25 AUGUST 2019
DATE SIGNED: 28 MAY 2019

HPA
ARCHITECTS, ENGINEERS, PLANNERS

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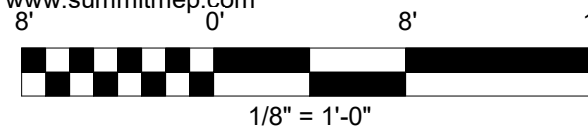
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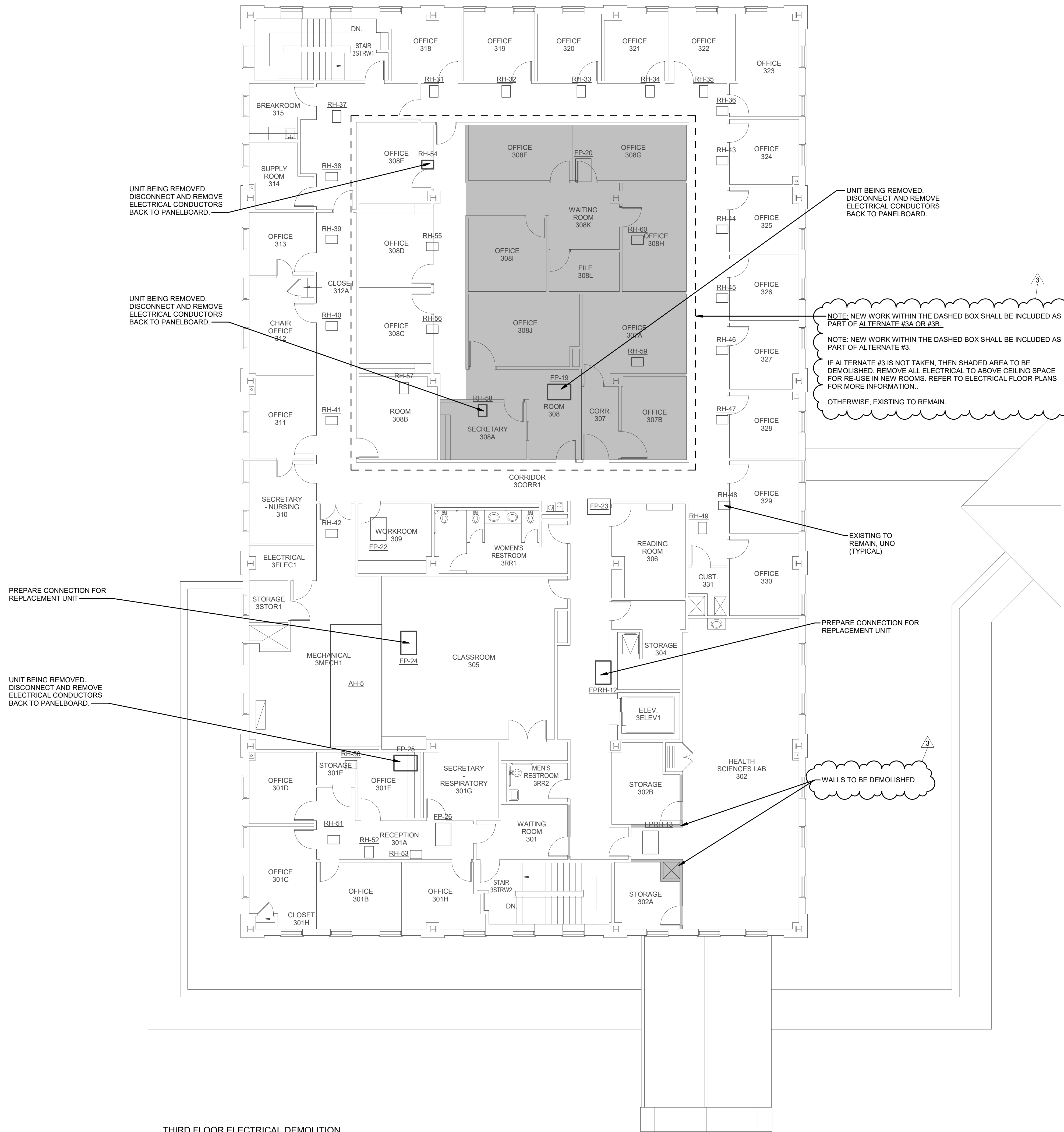
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E1.2

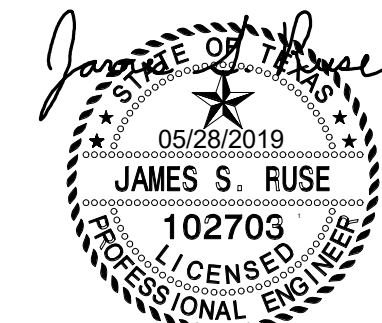
SECOND FLOOR ELECTRICAL
DEMOLITION PLAN
1/8" = 1'-0"



- ELECTRICAL DEMOLITION NOTES:**
- EXISTING LIGHTING SHALL BE REMOVED IN THE AREAS WHERE NEW LIGHTING IS TO BE INSTALLED. ANY LIGHTING NOT REMOVED SHALL BE RE-CONNECTED TO A LIGHTING CIRCUIT DURING CONSTRUCTION. * REFER TO ARCHITECTURAL DEMOLITION PLANS AND TO LIGHTING PLANS FOR AREAS OF WORK.
 - REMOVE ALL J-BOXES, RECEPTACLES, SWITCHES, WIRE AND CONDUIT IN WALLS TO BE DEMOLISHED TO ABOVE CEILING. PROTECT FOR RE-CONNECTION. EXISTING RECEPTACLE TO REMAIN, UNLESS NOTED OTHERWISE. RECEPTACLES DISCOVERED IN FIELD AND NOT INDICATED ON PLANS ARE EXISTING TO REMAIN; PROTECT DURING CONSTRUCTION. * REFER TO ARCHITECTURAL PLANS AND ELECTRICAL PLANS FOR AREAS OF WORK.
 - ALL ABANDONED SURFACE-MOUNTED WIRING AND CABLES INCLUDING BUT NOT LIMITED TO INTERCOM, PHONE, CLOCK AND OTHER AUXILIARY SYSTEMS SHALL BE REMOVED FROM THE BUILDING. CONTRACTOR SHALL PATCH OR REPAIR AND PAINT ANY DAMAGE LEFT AFTER REMOVAL OF THESE SYSTEMS.
 - ALL UNUSED ELECTRICAL EQUIPMENT ABOVE CEILING INCLUDING BUT NOT LIMITED TO CONDUIT AND CONDUCTORS SHALL BE REMOVED IN THEIR ENTIRETY.
 - CONTRACTOR SHALL PAINT, PATCH, TEXTURE AND REPAIR WALLS, CEILINGS, FLOORS AND OTHER SURFACES TO MATCH EXISTING WHERE ANY COMPONENTS ARE REMOVED.
 - PROTECT ALL EXISTING EQUIPMENT TO REMAIN.
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 - WORK IN SOME AREAS DEPENDS UPON ACCEPTED ALTERNATES. VERIFY WITH MSU REPRESENTATIVE STATUS OF ALTERNATES PRIOR TO ANY DEMOLITION OR CONSTRUCTION.
 - EXISTING FLOOR BOXES DISCOVERED IN FIELD, AND NOT NECESSARILY SHOWN ON PLANS, SHALL BE DE-ENERGIZED AT THEIR SOURCE PANELBOARD, CONDUIT AT SOURCE COILED AND LABELED WITH ROOM NUMBER FOR FUTURE USE.

REGISTERED ARCHITECT
STATE OF TEXAS
GLENDIA G. RAMSEY #15203
EXPIRES: 25 AUGUST 2019
DATE SIGNED: 28 MAY 2019
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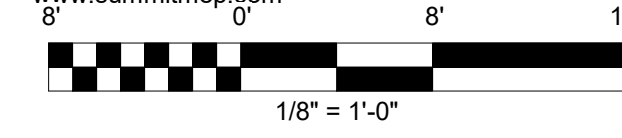
Summit
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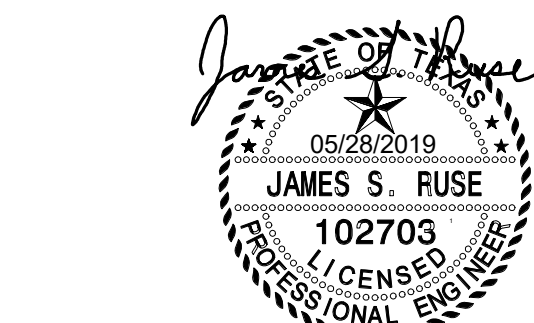
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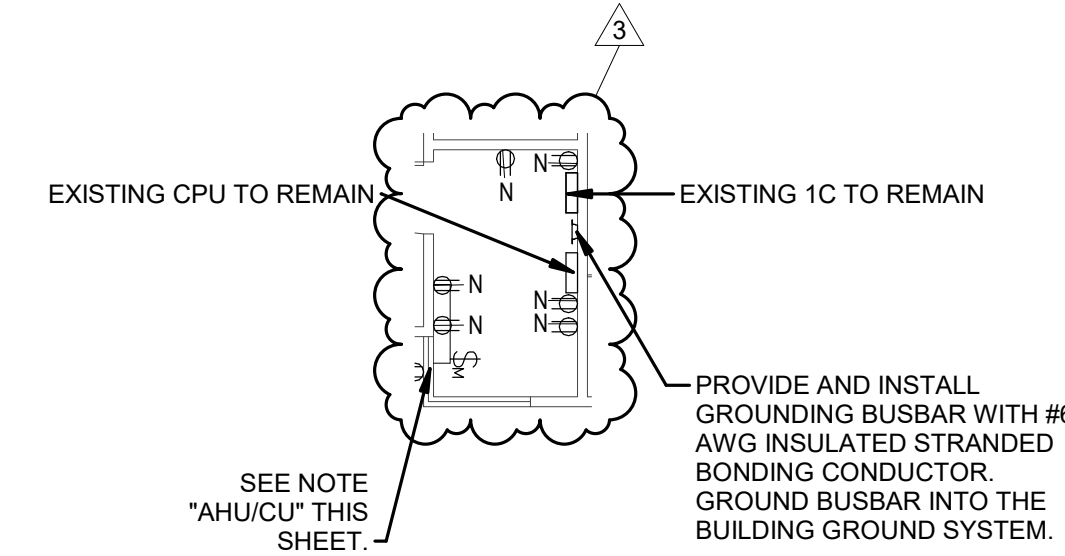
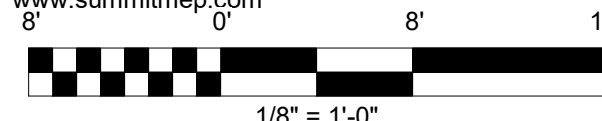


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2 TELE/COMM 1COMM1 - ELECTRICAL
1/8" = 1'-0"

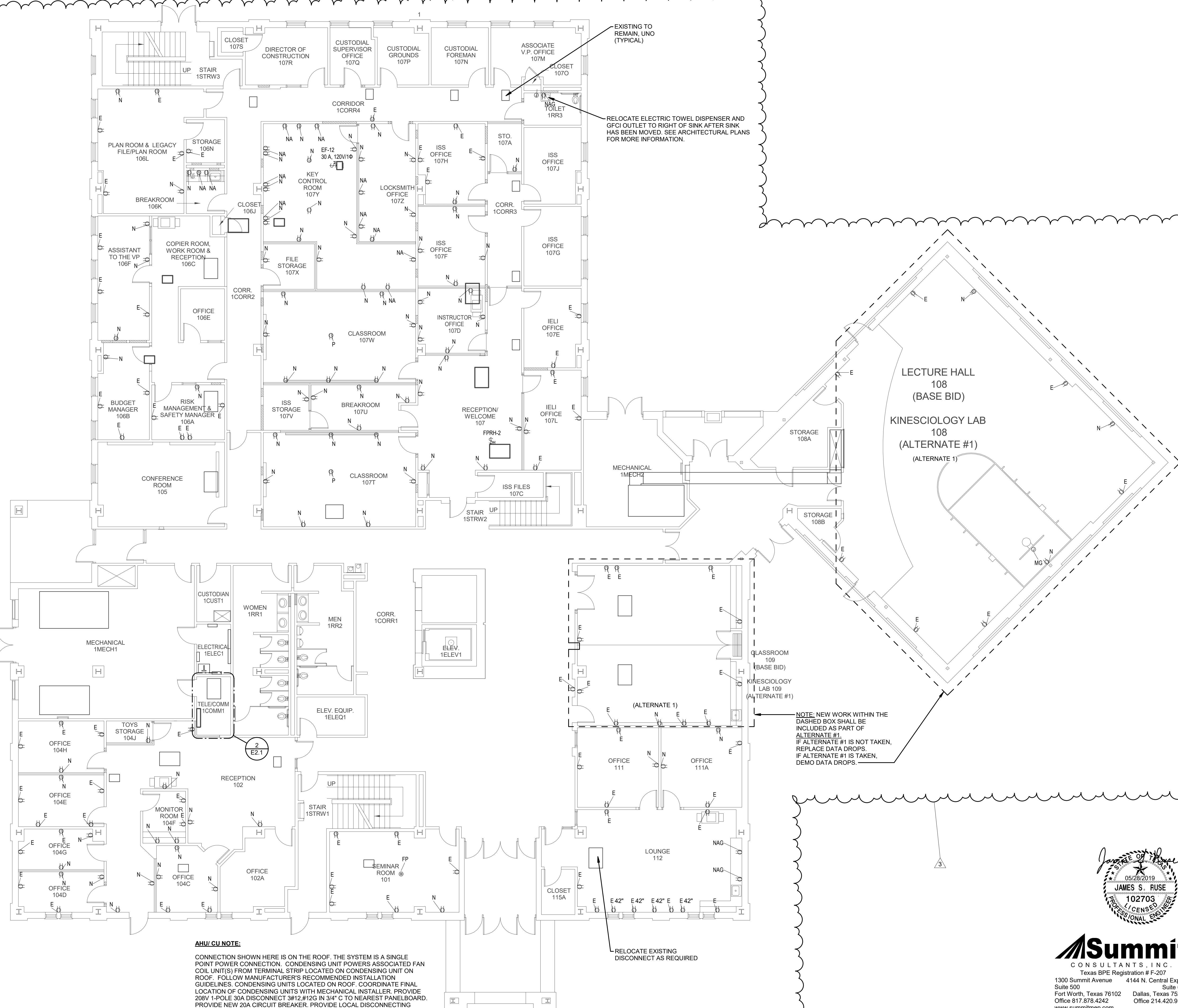
POWER GENERAL NOTES

- REFER TO ARCHITECTURAL PLANS FOR MORE INFORMATION REGARDING THE MULTIPLE ALTERNATES, INCLUDING SPECIAL IT INFRASTRUCTURE ALTERNATE.
- CIRCUIT NUMBERS SHOWN ARE ARBITRARY AND ONLY SERVE TO INDICATE GROUPING OF DEVICES ON A SINGLE 1P20A CIRCUIT, UNLESS NOTED OTHERWISE. "XR" INDICATES NEAREST EXISTING 120V RECEPTACLE CIRCUIT. PROVIDE NEW 1P20A CIRCUIT BREAKERS IN EXISTING PANELBOARD SPACES AVAILABLE, AS REQUIRED.
- THE ELECTRICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL EQUIPMENT MANUFACTURERS THROUGH ALL AREAS OF THE PROJECT FOR INCREASED ACCURACY WHEN INSTALLING DEVICE BOXES.
- OUTLET BOXES SHALL NOT BE INSTALLED BACK TO BACK IN WALLS. A MINIMUM OF 6" SEPARATION BETWEEN BOXES SHALL BE MAINTAINED TO REDUCE SOUND TRANSMISSION.
- IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO COORDINATE EXACT WIRING REQUIREMENTS OF MODULAR FURNITURE, WHERE SHOWN ON ARCHITECTURAL PLANS, WITH THE FURNITURE MANUFACTURER. DESIGN WILL SHOW AN INDEPENDENT NEUTRAL PER CIRCUIT AS REQUIRED BY NEC 200.4.
- CONTRACTOR SHALL COORDINATE FIRE RATED WALL LOCATIONS WITH ARCHITECT. ALL CONSTRUCTION GAP PENETRATIONS THROUGH FIRE RATED WALLS SHALL BE SEALED TO PRESERVE THE LEVEL OF INTEGRITY OF THE WALL RATING.
- DEVICE AND COVERPLATES PLATES TO BE COORDINATED WITH ARCHITECT.
- ALL EQUIPMENT IS EXISTING TO REMAIN; PROTECT DURING CONSTRUCTION, UNLESS OTHERWISE NOTED ON PLAN. TYPICAL.
- WORK IN SOME AREAS DEPENDS UPON ACCEPTED ALTERNATES. VERIFY WITH MSU REPRESENTATIVE STATUS OF ALTERNATES PRIOR TO ANY DEMOLITION OR CONSTRUCTION.

AHU/CU NOTE:

CONNECTION SHOWN HERE IS ON THE ROOF. THE SYSTEM IS A SINGLE POINT POWER CONNECTION. CONDENSING UNIT POWERS ASSOCIATED FAN COIL UNIT(S) FROM TERMINAL STRIP LOCATED ON CONDENSING UNIT ON ROOF. FOLLOW MANUFACTURER'S RECOMMENDED INSTALLATION GUIDELINES. CONDENSING UNITS LOCATED ON ROOF. COORDINATE FINAL LOCATION OF CONDENSING UNITS WITH MECHANICAL INSTALLER. PROVIDE 208V 1-POLE 30A DISCONNECT 3#12 #12G IN 3/4" C TO NEAREST PANELBOARD. PROVIDE NEW 20A CIRCUIT BREAKER. PROVIDE LOCAL DISCONNECTING MEANS AT AIR HANDLER.

1 FIRST FLOOR ELECTRICAL PLAN
1/8" = 1'-0"



POWER GENERAL NOTES

1. REFER TO ARCHITECTURAL PLANS FOR MORE INFORMATION REGARDING THE MULTIPLE ALTERNATES, INCLUDING SPECIAL IT INFRASTRUCTURE ALTERNATE.
2. CIRCUIT NUMBERS SHOWN ARE ARBITRARY AND ONLY SERVE TO INDICATE GROUPING OF DEVICES ON A SINGLE 1P20A CIRCUIT, UNLESS NOTED OTHERWISE. "XR" INDICATES NEAREST EXISTING 120V RECEPTACLE CIRCUIT. PROVIDE NEW 1P20A CIRCUIT BREAKERS IN EXISTING PANELBOARD SPACES AVAILABLE, AS REQUIRED.
3. THE ELECTRICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL EQUIPMENT MANUFACTURERS THROUGH ALL AREAS OF THE PROJECT FOR INCREASED ACCURACY WHEN INSTALLING DEVICE BOXES.
4. OUTLET BOXES SHALL NOT BE INSTALLED BACK TO BACK IN WALLS. A MINIMUM OF 6" SEPARATION BETWEEN BOXES SHALL BE MAINTAINED TO REDUCE SOUND TRANSMISSION.
5. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO COORDINATE EXACT WIRING REQUIREMENTS OF MODULAR FURNITURE, WHERE SHOWN ON ARCHITECTURAL PLANS, WITH THE FURNITURE MANUFACTURER. DESIGN WILL SHOW AN INDEPENDENT NEUTRAL PER CIRCUIT AS REQUIRED BY NEC 200.4.
6. CONTRACTOR SHALL COORDINATE FIRE RATED WALL LOCATIONS WITH ARCHITECT. ALL CONSTRUCTION GAP PENETRATIONS THROUGH FIRE RATED WALLS SHALL BE SEALED TO PRESERVE THE LEVEL OF INTEGRITY OF THE WALL RATING.
7. DEVICE AND COVERPLATES PLATES TO BE COORDINATED WITH ARCHITECT.
8. ALL EQUIPMENT IS EXISTING TO REMAIN; PROTECT DURING CONSTRUCTION, UNLESS OTHERWISE NOTED ON PLAN. TYPICAL.
9. WORK IN SOME AREAS DEPENDS UPON ACCEPTED ALTERNATES. VERIFY WITH MSU REPRESENTATIVE STATUS OF ALTERNATES PRIOR TO ANY DEMOLITION OR CONSTRUCTION.

NOTE: NEW WORK WITHIN THE DASHED BOX SHALL BE INCLUDED AS PART OF ALTERNATE #2.

VERIFY FINAL LOCATION WITH OWNER. COORDINATE WITH DATA INSTALLER.

SEE NOTE "AHU/CU" THIS SHEET.

PROVIDE AND INSTALL GROUNDING BUSBAR WITH A MINIMUM #6 AWG INSULATED STRANDED BONDING CONDUCTOR. GROUND BUSBAR INTO THE BUILDING GROUND SYSTEM.

② IT ROOM 2COMM2 - ELECTRICAL
1/8" = 1'-0"

AHU/CU NOTE:

CONNECTION SHOWN HERE IS ON THE ROOF. THE SYSTEM IS A SINGLE POINT POWER CONNECTION. CONDENSING UNIT POWERS ASSOCIATED FAN COIL UNIT(S) FROM TERMINAL STRIP LOCATED ON CONDENSING UNIT ON ROOF. FOLLOW MANUFACTURER'S RECOMMENDED INSTALLATION GUIDELINES. CONDENSING UNITS LOCATED ON ROOF. COORDINATE FINAL LOCATION OF CONDENSING UNITS WITH MECHANICAL INSTALLER. PROVIDE 208V 1-POLE 30A DISCONNECT 3#12,#12G IN 3/4" C TO NEAREST PANELBOARD. PROVIDE NEW 20A CIRCUIT BREAKER. PROVIDE LOCAL DISCONNECTING MEANS AT AIR HANDLER.

① SECOND FLOOR ELECTRICAL PLAN
1/8" = 1'-0"

POWER GENERAL NOTES

1. REFER TO ARCHITECTURAL PLANS FOR MORE INFORMATION REGARDING THE MULTIPLE ALTERNATES, INCLUDING SPECIAL IT INFRASTRUCTURE ALTERNATE.
2. CIRCUIT NUMBERS SHOWN ARE ARBITRARY AND ONLY SERVE TO INDICATE GROUPING OF DEVICES ON A SINGLE 1P20A CIRCUIT, UNLESS NOTED OTHERWISE. "XR" INDICATES NEAREST EXISTING 120V RECEPTACLE CIRCUIT. PROVIDE NEW 1P20A CIRCUIT BREAKERS IN EXISTING PANELBOARD SPACES AVAILABLE, AS REQUIRED.
3. THE ELECTRICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL EQUIPMENT MANUFACTURERS THROUGH ALL AREAS OF THE PROJECT FOR INCREASED ACCURACY WHEN INSTALLING DEVICE BOXES.
4. OUTLET BOXES SHALL NOT BE INSTALLED BACK TO BACK IN WALLS. A MINIMUM OF 6" SEPARATION BETWEEN BOXES SHALL BE MAINTAINED TO REDUCE SOUND TRANSMISSION.
5. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO COORDINATE EXACT WIRING REQUIREMENTS OF MODULAR FURNITURE, WHERE SHOWN ON ARCHITECTURAL PLANS, WITH THE FURNITURE MANUFACTURER. DESIGN WILL SHOW AN INDEPENDENT NEUTRAL PER CIRCUIT AS REQUIRED BY NEC 200.4.
6. CONTRACTOR SHALL COORDINATE FIRE RATED WALL LOCATIONS WITH ARCHITECT. ALL CONSTRUCTION GAP PENETRATIONS THROUGH FIRE RATED WALLS SHALL BE SEALED TO PRESERVE THE LEVEL OF INTEGRITY OF THE WALL RATING.
7. DEVICE AND COVERPLATES PLATES TO BE COORDINATED WITH ARCHITECT.
8. ALL EQUIPMENT IS EXISTING TO REMAIN; PROTECT DURING CONSTRUCTION, UNLESS OTHERWISE NOTED ON PLAN. TYPICAL.
9. WORK IN SOME AREAS DEPENDS UPON ACCEPTED ALTERNATES. VERIFY WITH MSU REPRESENTATIVE STATUS OF ALTERNATES PRIOR TO ANY DEMOLITION OR CONSTRUCTION.

PROVIDE AND INSTALL GROUNDING BUSBAR WITH #6 AWG INSULATED STRANDED BONDING CONDUCTOR. GROUND BUSBAR INTO THE BUILDING GROUND SYSTEM.

SEE NOTE "AHU/CU" THIS SHEET.

② IT ROOM 3COMM1 - ELECTRICAL
1/8" = 1'-0"

① THIRD FLOOR ELECTRICAL PLAN
1/8" = 1'-0"

AHU/CU NOTE:

CONNECTION SHOWN HERE IS ON THE ROOF. THE SYSTEM IS A SINGLE POINT POWER CONNECTION. CONDENSING UNIT POWERS ASSOCIATED FAN COIL UNIT(S) FROM TERMINAL STRIP LOCATED ON CONDENSING UNIT ON ROOF. FOLLOW MANUFACTURER'S RECOMMENDED INSTALLATION GUIDELINES. CONDENSING UNITS LOCATED ON ROOF. COORDINATE FINAL LOCATION OF CONDENSING UNITS WITH MECHANICAL INSTALLER. PROVIDE 208V 1-POLE 30A DISCONNECT 3/12 #12G IN 3/4" C TO NEAREST PANELBOARD. PROVIDE NEW 20A CIRCUIT BREAKER. PROVIDE LOCAL DISCONNECTING MEANS AT AIR HANDLER.

CONNECTIONS SHOWN HERE FOR EF-1 AND EF-2 ARE ON THE ROOF. COORDINATE FINAL LOCATION OF EXHAUST FANS WITH MECHANICAL INSTALLER. CIRCUIT TO NEAREST PANELBOARD. PROVIDE NEW 20A CIRCUIT BREAKER. INTEGRATE WITH UTILITY CONTROL PANEL PER PANEL MANUFACTURER'S INSTRUCTION.

NOTE: NEW WORK WITHIN THE DASHED BOX SHALL BE INCLUDED AS PART OF ALTERNATE #3A OR #3B.

NOTE: NEW WORK WITHIN THE DASHED BOX SHALL BE INCLUDED AS PART OF ALTERNATE #3. IF ALTERNATE #3 IS NOT TAKEN, THEN REPLACE DATA DROPS. IF ALTERNATE #3 IS TAKEN, THEN DO NOT REPLACE DATA DROPS.

ALTERNATE 3A NOTES:

1. INSTALL FLOOR BOXES WITH CONDUIT. WIRING IS NOT TO BE RUN. PROVIDE 200LB PULL STRING TO ACCESSIBLE CEILING AND LABEL "FLOOR BOXES".
2. NOTE: ALTERNATE 3C IS THE COMPLETION OF THE ELECTRICAL INSTALLATION. REFER TO ARCHITECTURAL PLANS FOR MORE INFORMATION.
3. INSTALL NEW LIGHTING. REFER TO LIGHTING PLANS.

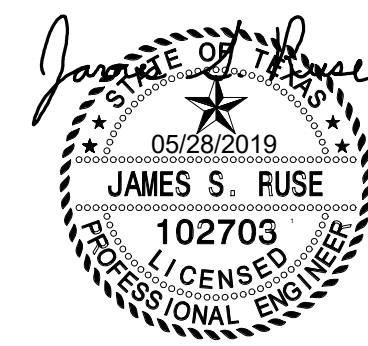
CONTROL PANEL NOTES:

1. THE CONTROL PANEL SHALL PROVIDE EMERGENCY SHUT-OFF OF GAS, WATER AND POWER.
2. "CP" ON PLANS IS THE REMOTE EMERGENCY SHUT-OFF BUTTON. VERIFY LOCATION WITH OWNER PRIOR TO ROUGH-IN.
3. PROVIDE:
 - A. FLUSH MOUNT REMOTE EMERGENCY SHUT-OFF BUTTON; ALL-OFF IN ALARM MODE; SEPARATE MANUAL FAN CONTROL BUTTON.
 - B. DIN RAIL MOUNTED J-BOXES FOR CONTACTORS LOCATED ADJACENT TO EXISTING PANELBOARD SUPPLYING CIRCUITS TO LAB. FIELD VERIFY LOCATION.
 - C. CONNECT TO PLUMBING SOLENOIDS; REFER TO PLUMBING PLANS FOR MORE LOCATION.
 - D. INTERFACE WITH EXHAUST FANS; REFER TO MECHANICAL PLANS FOR QUANTITY AND LOCATIONS.
 - E. INTEGRATE WITH EXISTING FIRE ALARM SYSTEM PER MANUFACTURER.
4. ALL RECEPTACLE CIRCUITS IN LAB 308A SHALL BE CIRCUITED THROUGH "CP".
5. COORDINATE EXACT REQUIREMENTS WITH CP SYSTEM MANUFACTURER. BASIS OF DESIGN IS AGS MERLIN 1000SW+ SYSTEM.

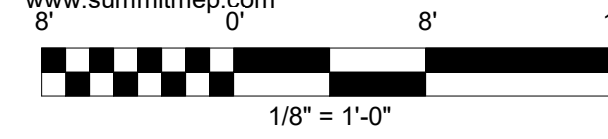
EXISTING TO REMAIN, UNO (TYPICAL)

REGISTERED ARCHITECT
STATE OF TEXAS
GLENN G. RAMSEY #15203
EXPIRES: 25 AUGUST 2019
DATE SIGNED: 28 MAY 2019
HPA
HARPER PERKINS ARCHITECTS, INC.
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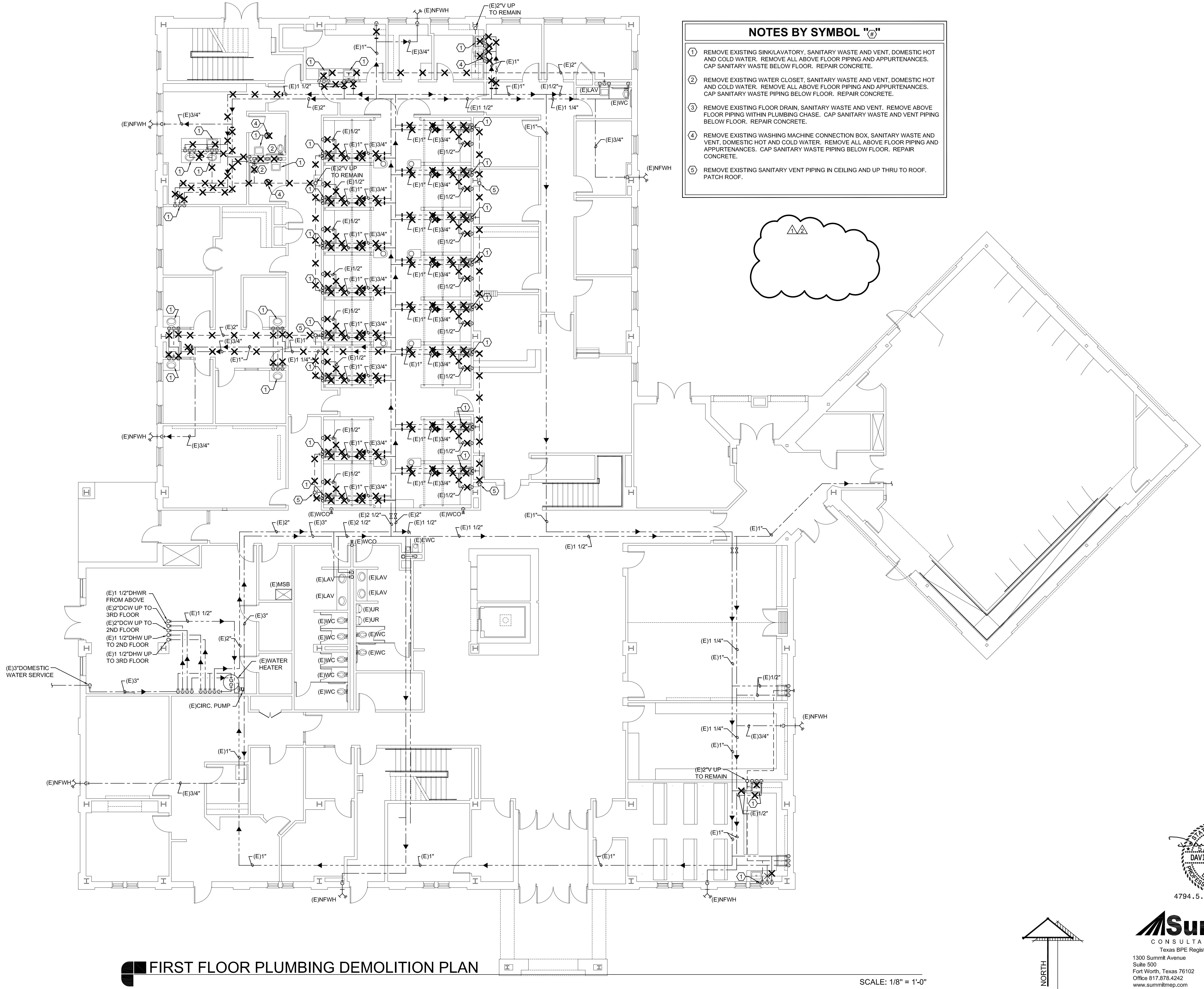
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E2.3

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DATE: 1 APRIL 2019		
REVISIONS		
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1.	ADDENDUM #1	05/17/19
3.	ADDENDUM #3	05/28/19

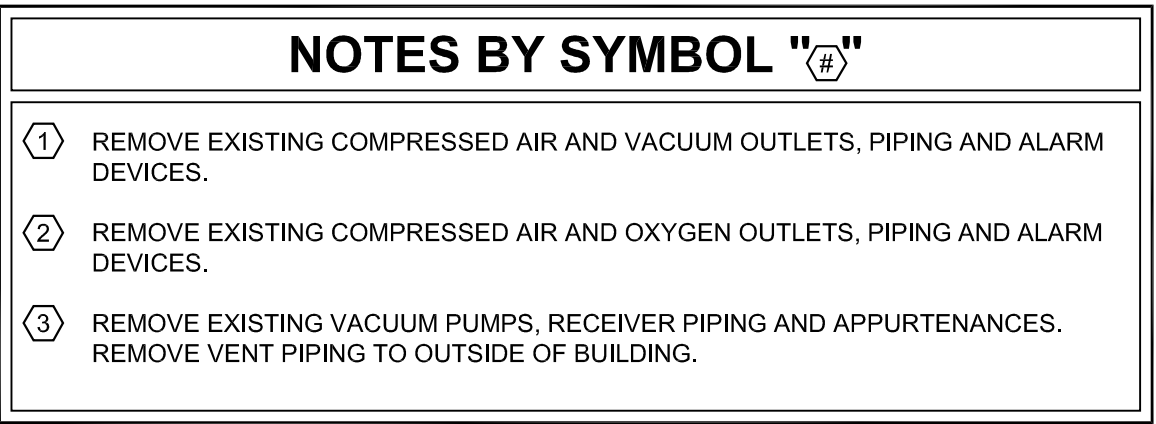
- NOTES BY SYMBOL "E"**
- 1 REMOVE EXISTING SINK/LAVATORY, SANITARY WASTE AND VENT, DOMESTIC HOT AND COLD WATER. REMOVE ALL ABOVE FLOOR PIPING AND APPURTENANCES. CAP SANITARY WASTE BELOW FLOOR. REPAIR CONCRETE.
 - 2 REMOVE EXISTING WATER CLOSET, SANITARY WASTE AND VENT, DOMESTIC HOT AND COLD WATER. REMOVE ALL ABOVE FLOOR PIPING AND APPURTENANCES. CAP SANITARY WASTE PIPING BELOW FLOOR. REPAIR CONCRETE.
 - 3 REMOVE EXISTING FLOOR DRAIN, SANITARY WASTE AND VENT. REMOVE ABOVE FLOOR PIPING WITHIN PLUMBING CHASE. CAP SANITARY WASTE AND VENT PIPING BELOW FLOOR. REPAIR CONCRETE.
 - 4 REMOVE EXISTING WASHING MACHINE CONNECTION BOX, SANITARY WASTE AND VENT, DOMESTIC HOT AND COLD WATER. REMOVE ALL ABOVE FLOOR PIPING AND APPURTENANCES. CAP SANITARY WASTE PIPING BELOW FLOOR. REPAIR CONCRETE.
 - 5 REMOVE EXISTING SANITARY VENT PIPING IN CEILING AND UP THRU TO ROOF. PATCH ROOF.



FIRST FLOOR PLUMBING DEMOLITION PLAN

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

S:\2019\163 MSU Bridwell Hall\Plumbing\Plumbing Demolition Plan.dwg - P1-1a 05/29/19 14:54:24 David
SHEET SIZE = ARCH D 24X36



STATE OF TEXAS
5/28/2019
DAVID G. MEIER
90657
LICENSED PROFESSIONAL ENGINEER
4794.5.29.2019.18163

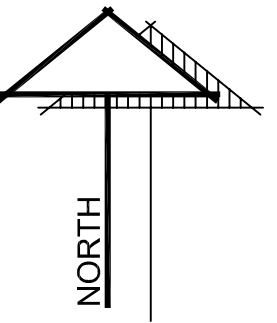
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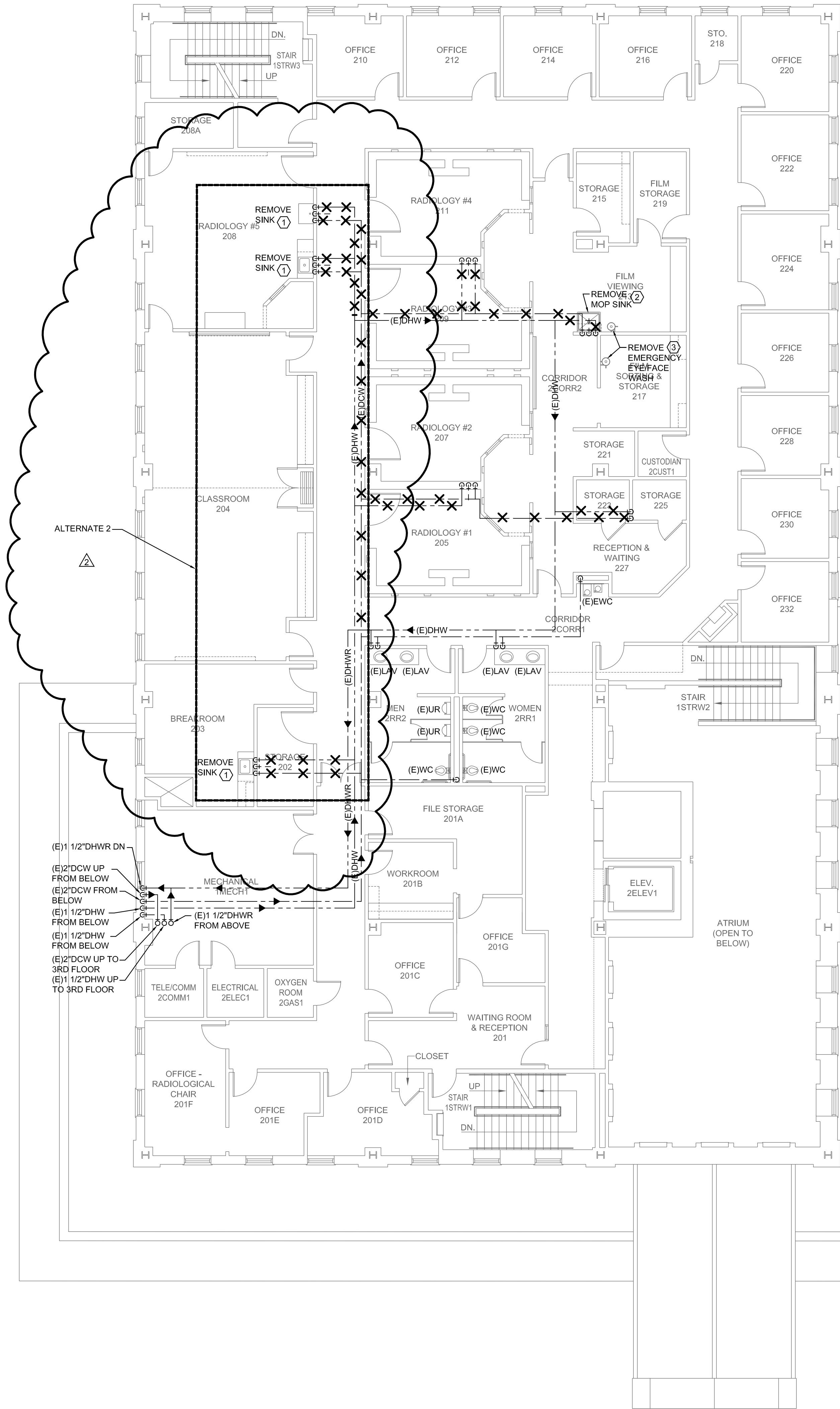
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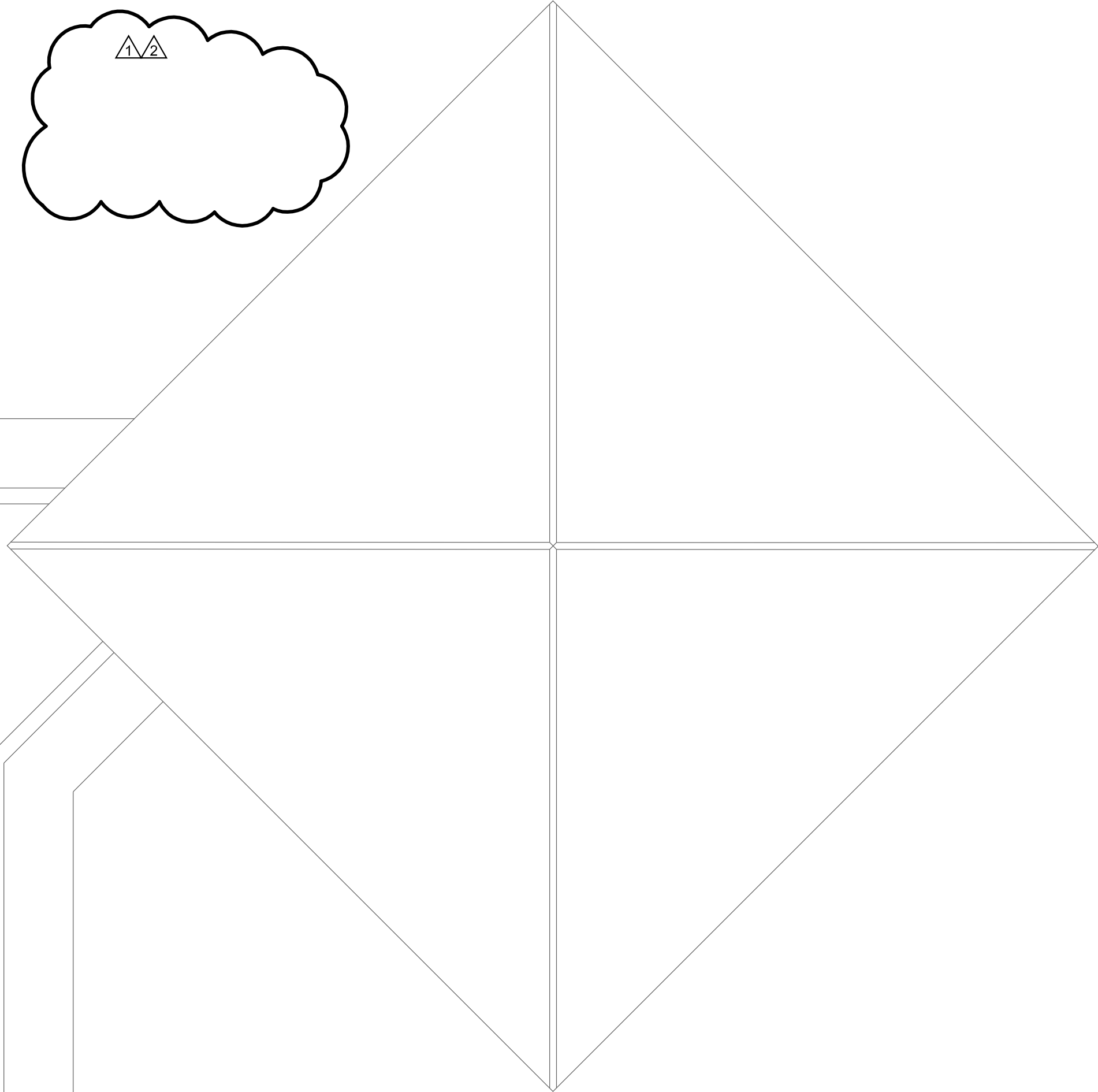
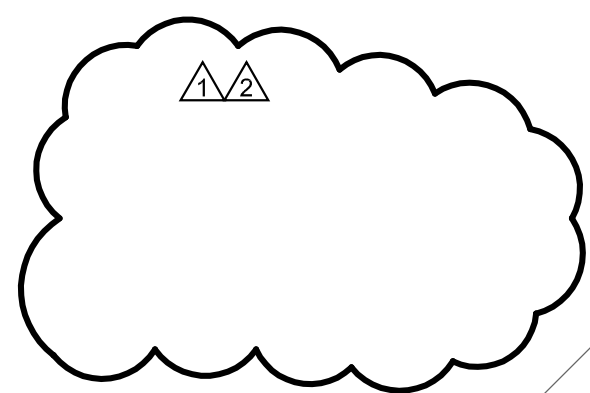
P101b

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





- NOTES BY SYMBOL "A"**
- 1 REMOVE EXISTING SINK, DRAIN, AND APPURTENANCES. REMOVE WATER AND VENT TO ABOVE CEILING; REMOVE WASTE TO BELOW FLOOR AND CAP. REPAIR CONCRETE.
 - 2 REMOVE FLOOR MOUNTED MOP SINK BASIN. REMOVE BASIN, BELOW FLOOR P-TRAP, FAUCET AND APPURTENANCES. CAP WASTE BELOW FLOOR. REPAIR CONCRETE.
 - 3 REMOVE EMERGENCY EYE/FACE WASH. REMOVE WATER AND DRAIN.

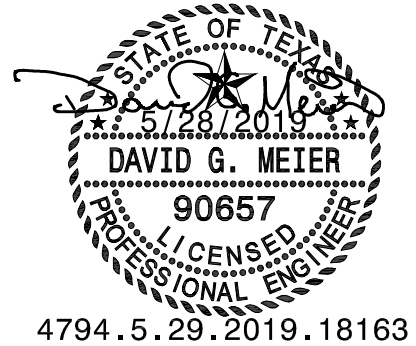


SECOND FLOOR PLUMBING DEMOLITION PLAN

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

REGISTERED ARCHITECT
GLENDA G. RAMSEY
15203
STATE OF TEXAS
EXPIRES: 25 AUGUST 2019
DATE SIGNED: 28 MAY 2019
HPA
ARCHITECTS - PROGRAMMERS - PLANNERS
HARPER PERKINS ARCHITECTS, INC.
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WICHITA FALLS, TEXAS 76302-3599
VOICE: 860.707.1421 FAX: 860.391.0273
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RENOVATION OF J.S. BRIDWELL HALL FOR
MIDWESTERN STATE UNIVERSITY
WICHITA FALLS, TEXAS
3410 TAFT BOULEVARD



4794.5.29.2019.18163



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DRAWN BY:

DATE: 1 APRIL 2019

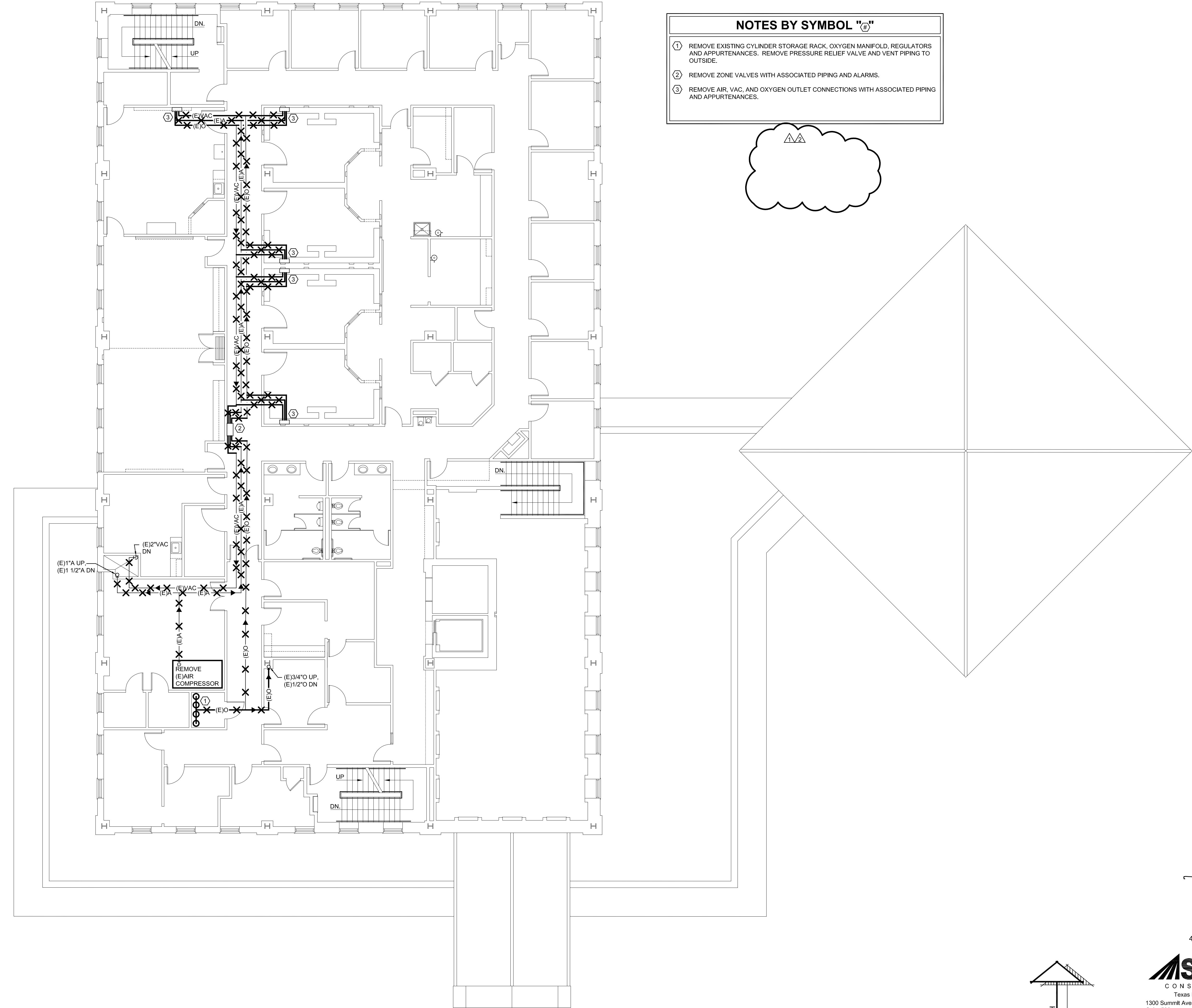
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3.	ADDENDUM #3	05/28/19

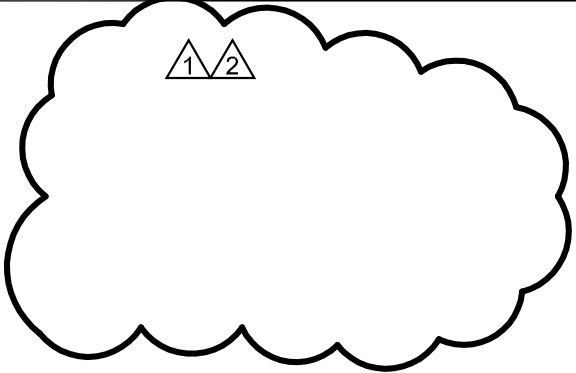
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P102a



- NOTES BY SYMBOL "B"**
- 1 REMOVE EXISTING CYLINDER STORAGE RACK, OXYGEN MANIFOLD, REGULATORS AND APPURTENANCES. REMOVE PRESSURE RELIEF VALVE AND VENT PIPING TO OUTSIDE.
 - 2 REMOVE ZONE VALVES WITH ASSOCIATED PIPING AND ALARMS.
 - 3 REMOVE AIR, VAC, AND OXYGEN OUTLET CONNECTIONS WITH ASSOCIATED PIPING AND APPURTENANCES.



REGISTERED ARCHITECT
GLENDA G. RAMSEY
15203
STATE OF TEXAS

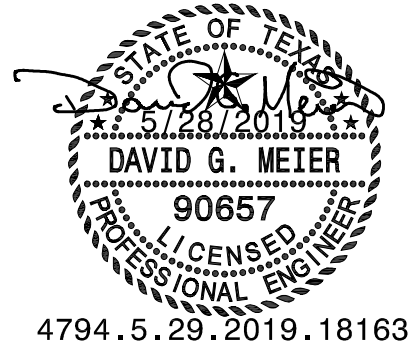
GLENDA G. RAMSEY #15203
EXPIRES: 25 AUGUST 2019
DATE SIGNED: 28 MAY 2019

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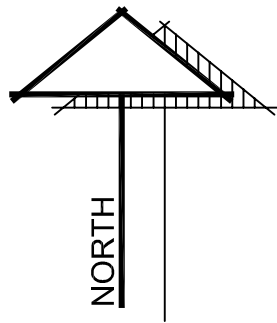
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P102b

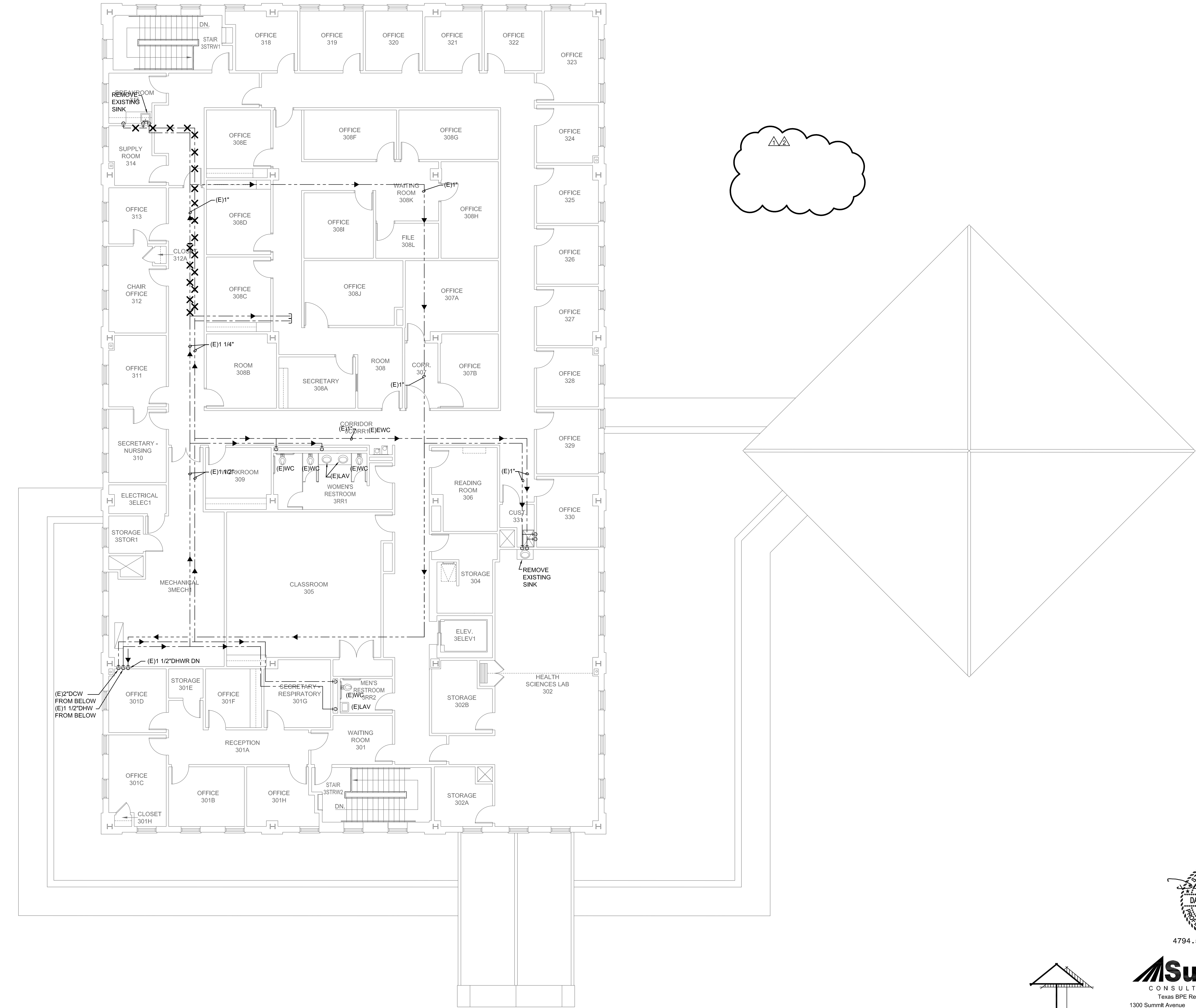
SECOND FLOOR MEDICAL GAS DEMOLITION PLAN

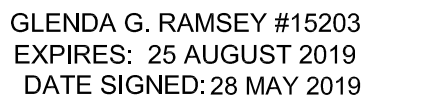
SCALE: 1/8" = 1'-0"



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SHEET SIZE = ARCH D 36x36

S:\2019\163 MSU Bridwell Hall\Plumbing\Plumbing P103a - Third Floor Plumbing Demolition Plan.dwg - Rename 05/29/19 14:49:36 David
SHEET SIZE = ARCH D 24x36





WICHITA FALLS, TEXAS



DATE: 1 APRIL 2019

DESCRIPTION	DATE
ADDENDUM #1	05/17/19
ADDENDUM #3	05/28/19



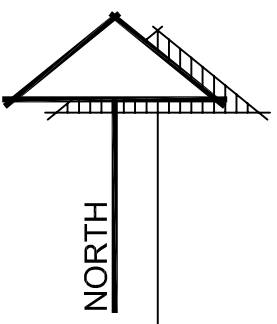
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P103b



NORTH

THIRD FLOOR MEDICAL GAS DEMOLITION PLAN



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RENOVATION OF J.S. BRIDWELL HALL FOR
**MIDWESTERN STATE
UNIVERSITY**
3410 TAFT BOULEVARD
WICHITA FALLS, TEXAS



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DATE: 1 APRIL 2019

REVISIONS		
NO.	DESCRIPTION	DATE
1.	ADDENDUM #1	05/17/19
3.	ADDENDUM #3	05/28/19

STATE OF TEXAS
 5/30/2019
 DAVID G. MEIER
 90657
 PROFESSIONAL ENGINEER

4876.5.30.2019.18163

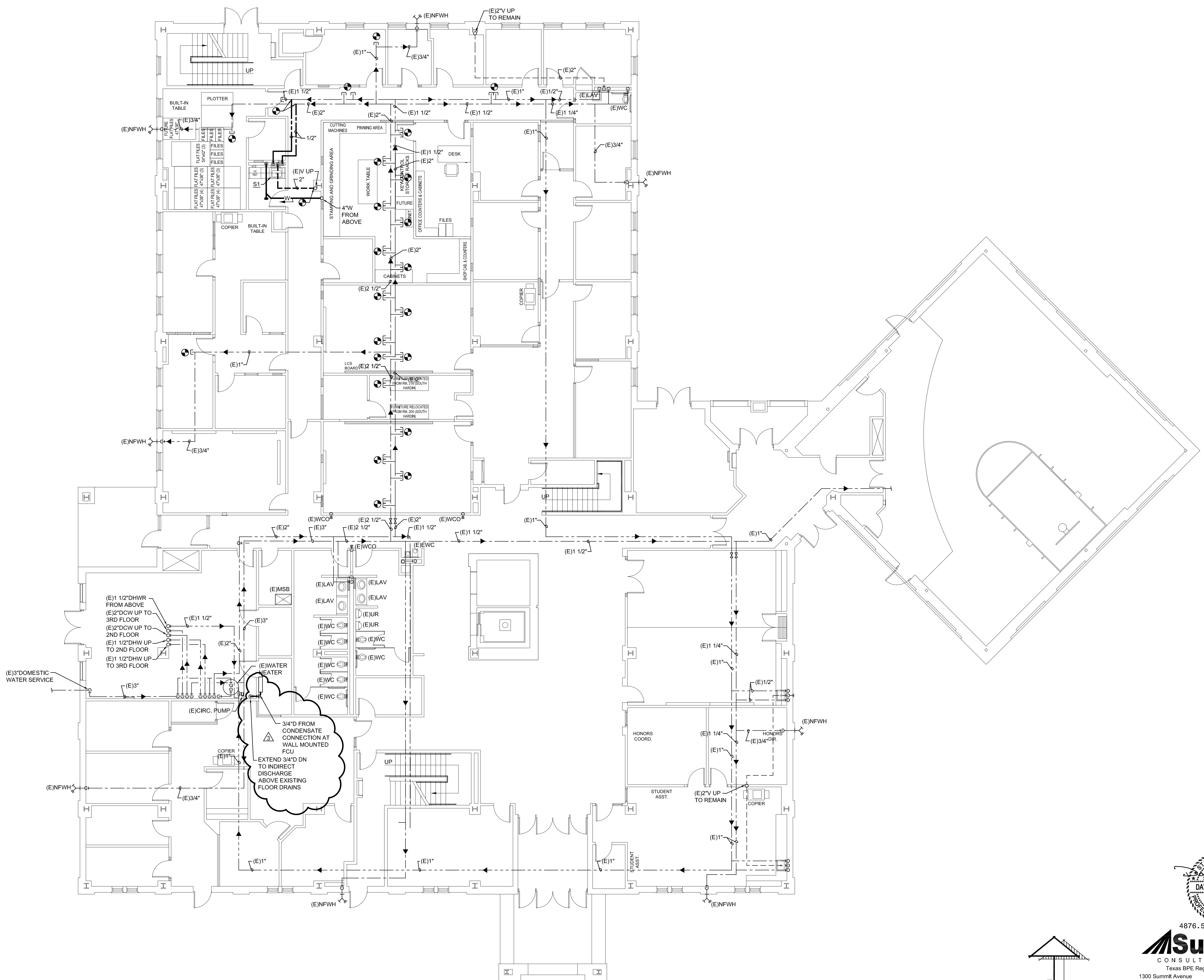
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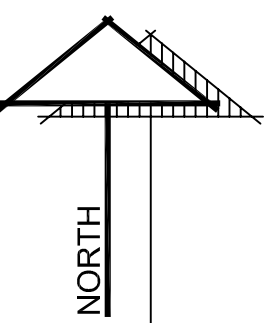
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P201



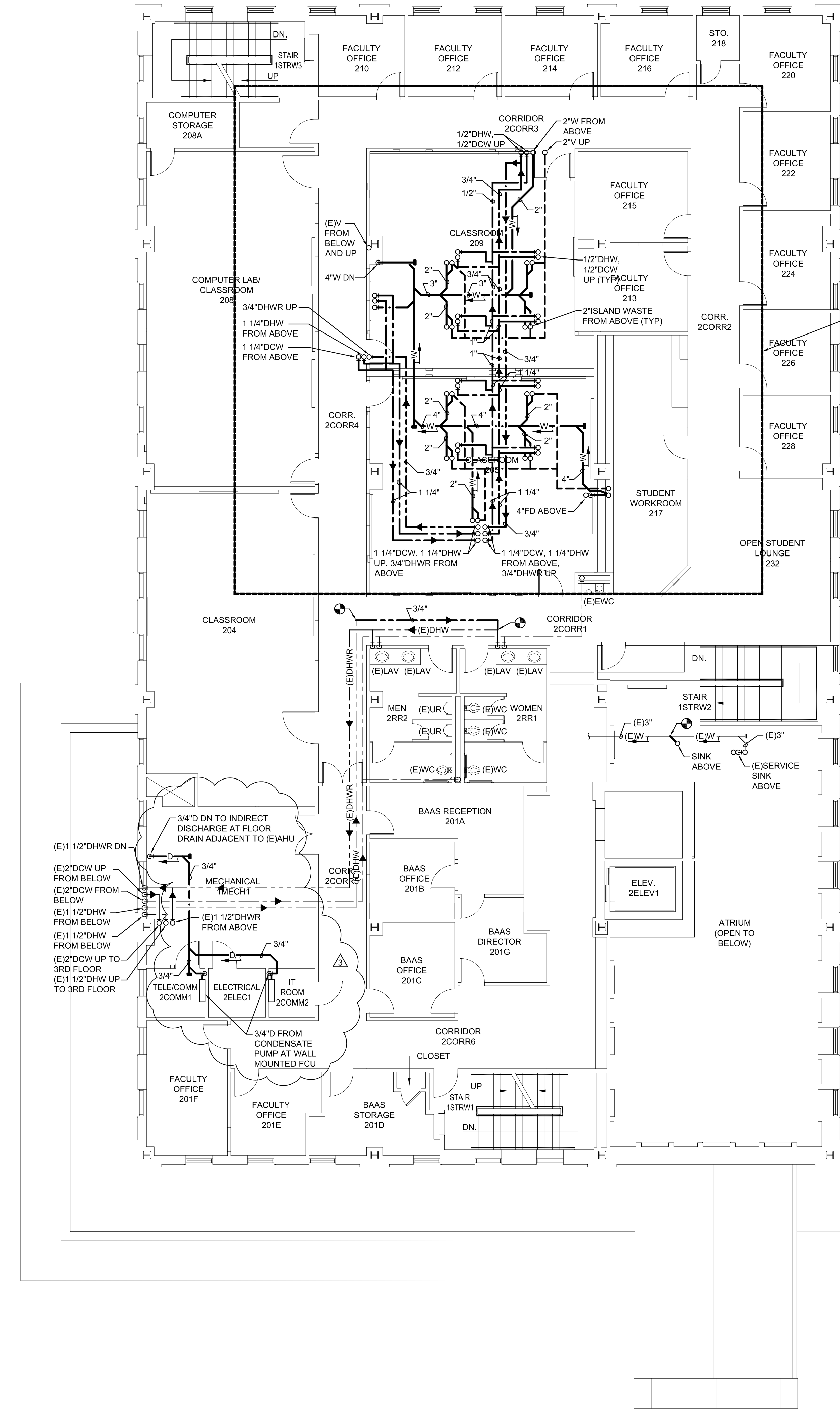
FIRST FLOOR PLUMBING PLAN

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



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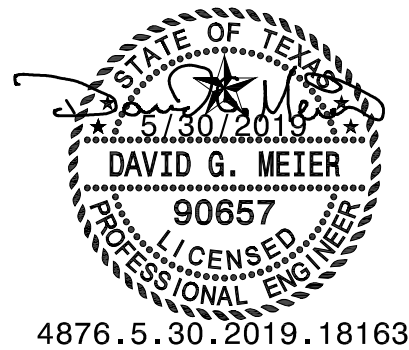
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SHEET SIZE = ARCH D 36x36



ALTERNATE 3A: PROVIDE ROUGH-IN OF PIPING FROM EXISTING SERVICES TO LAB EQUIPMENT UNDER ALTERNATE 3B, LAB BENCHES UNDER ALTERNATE 3C

ALTERNATE 3B: PROVIDE EQUIPMENT SUCH AS SOLENOID VALVING AND LABORATORY EQUIPMENT.

ALTERNATE 3C: FINAL TOP OUT OF PLUMBING TO EQUIPMENT AND LAB SINKS/BENCHES



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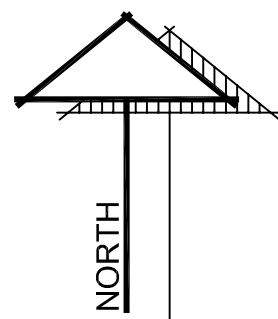
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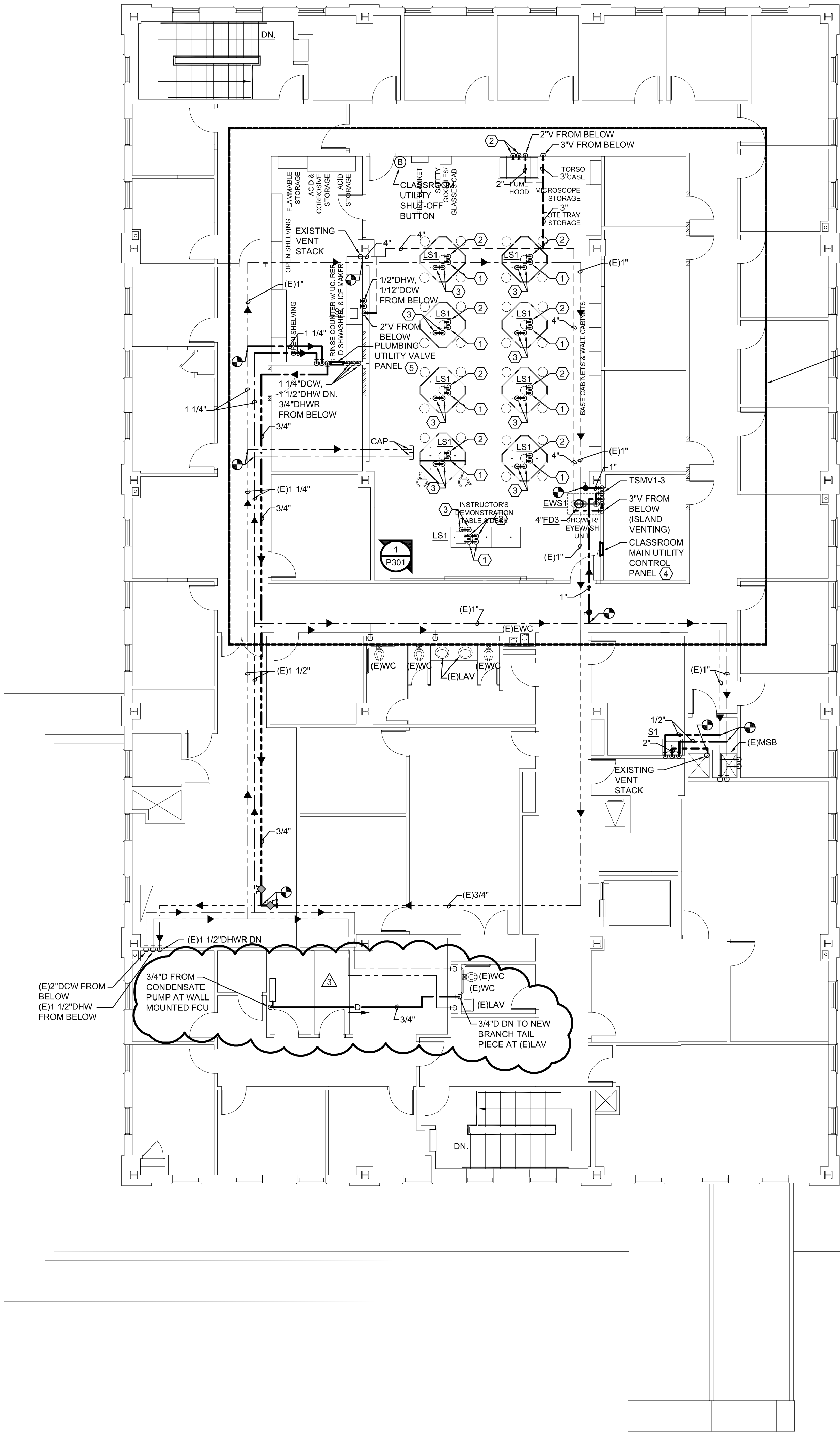
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P202



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SHEET SIZE = ARCH D 24x36

THIRD FLOOR PLUMBING PLAN



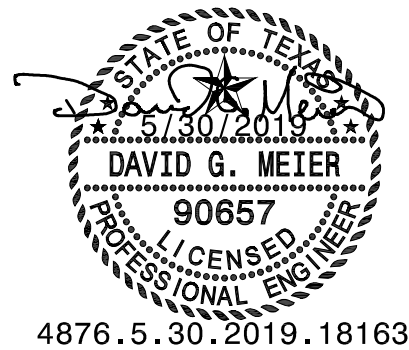
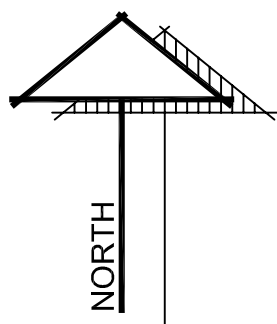
- NOTES BY SYMBOL "H"**
- 1 1"DCW FROM BELOW. EXTEND TO SINK AND DN TO ADJACENT LAB TABLE.(LOOPED).
 - 2 1"DHW FROM BELOW. EXTEND TO SINK AND DN TO ADJACENT LAB TABLE.(LOOPED).
 - 3 2" ISLAND SINK VENTING SYSTEM (IPC SECTION 913).
 - 4 CLASSROOM UTILITY SHUT-OFF CONTROL PANEL (ISOLATES CLASSROOM LAB BENCHES FROM ELECTRICAL POWER, DOMESTIC HOT AND COLD WATER).
 - 5 CLASSROOM PLUMBING UTILITY SOLENOID PANEL. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL REQUIREMENTS. AMERICAN GAS SAFETY, MERLIN OR EQUAL.

ALTERNATE 3A: PROVIDE ROUGH-IN OF PIPING FROM EXISTING SERVICES TO LAB EQUIPMENT UNDER ALTERNATE 3B, LAB BENCHES UNDER ALTERNATE 3C

ALTERNATE 3B: PROVIDE EQUIPMENT SUCH AS SOLENOID VALVING AND LABORATORY EQUIPMENT.

ALTERNATE 3C: FINAL TOP OUT OF PLUMBING TO EQUIPMENT AND LAB SINKS/BENCHES

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



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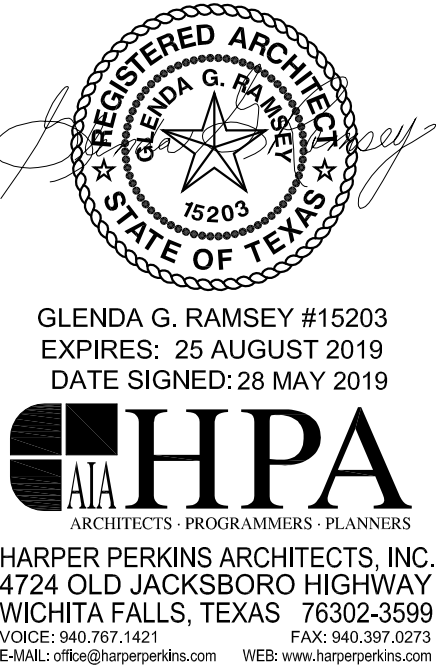


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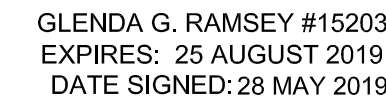
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P203



GLEND A. G. RAMSEY #15203
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DATE SIGNED: 28 MAY 2019

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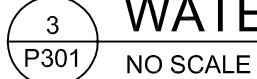


Diagram illustrating the assembly of a hot-off teachers line, showing the flow direction and components:

- 3/4" Pipe (Left)
- Isolation Valve (Typical)
- Union
- Check Valve
- 1/2" Pipe
- Concentric Reducer
- Calibrated Balancing Valve (Set at 1.5 GPM, 4 FT Signal/Head Loss, Typical), ANSI B1.20.1 (NPT Ends)
- 1/2" Pipe
- Concentric Reducer
- 3/4" Pipe (Right)
- Direction of Flow (Indicated by arrows)

1 P301 PLUMBING ISOMETRIC RISER DIAGRAM NO SCALE

2 CALIBRATED BALANCING VALVE DETAIL
P301 NO SCALE



3410 TAFT BOULEVARD



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