UTSouthwestern **Medical Center**

CLIENT

HDR PROJECT NUMBER 10411392

CLIENT PROJECT MANAGER

Matthew Schumacher, DHA, CFPS, CSP, PMP Sr. Project Manager – Facilities CIP UT Southwestern Medical Center Office: 214-648-7127 Cell: 817-716-2200

STAMPS & APPROVALS

THE UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL CENTER SIMMONS BIOMEDICAL RESEARCH BUILDING

PROJECT INFORMATION

6201 Harry Hines Blvd. Dallas, TX 75235

DESCRIPTION OF PACKAGE



ARCHITECT OF RECORD



Texas Registered Engineering Firm: F-316 8750 N. Central Expressway Suite 100 Dallas, TX 75321-6431 Tel 972-960-4000 Fax 972-960-4185 hdrinc.com

MECHANICAL & ELECTRICAL ENGINEER



Texas Registered Engineering Firm: F-2874 12400 Coit Road, Suite 850 Dallas, TX 75251 Tel 214-765-6560 Fax 214-692-0760 SSR Project # 24280450 ssr-inc.com



LOCATION MAP

DATE 03/04/2025

STRUCTURAL ENGINEER



702 Houston Street Suite 137, Fort Worth, TX 76102 Tel 469-573-2714 www.martinezmooreengineers.com

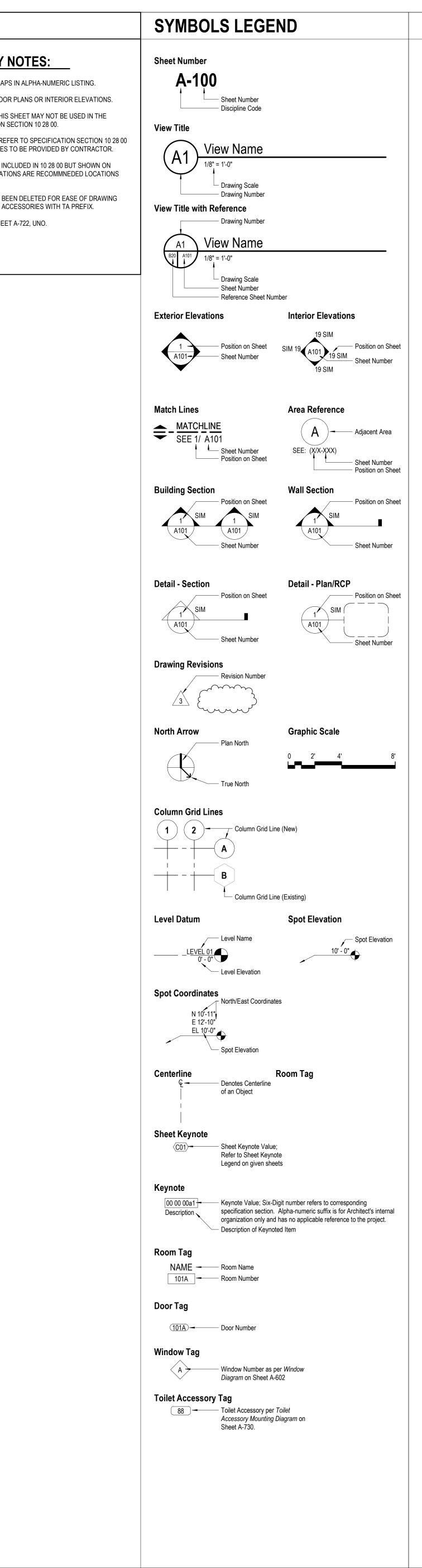
VOLUME INDEX

0 1/2" 1" 2"

G-001s - GENERAL DRAWING INDEX

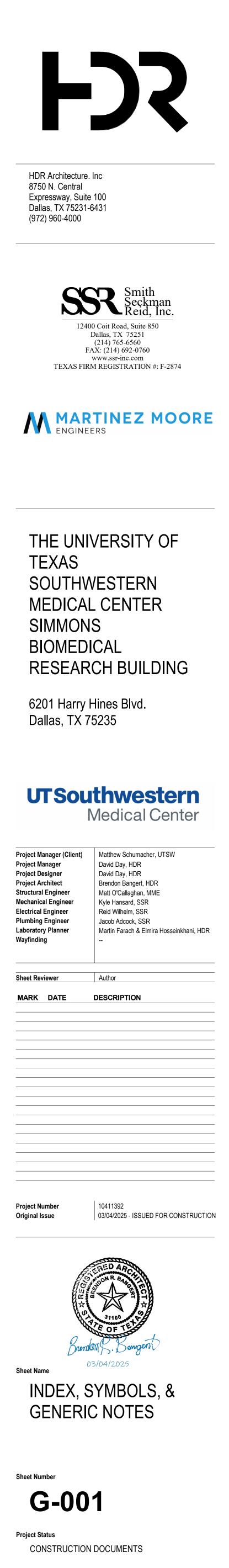
Sheet Number	Sheet Name
1-GENERAL	
G-000	COVER SHEET
G-001	INDEX, SYMBOLS, & GENERIC NOTES
G-010	LIFE SAFETY
07-STRUCTURAL	
S-105	OVERALL STRUCTURAL PLAN
08-ARCHITECTUR	AL
4-003	GENERAL ACCESSIBILITY REQUIREMENTS
AD-106	ENLARGED DEMOLITION FLOOR PLANS
- 105	OVERALL FLOOR PLAN - LEVEL 4
A-106	ENLARGED FLOOR PLANS
AC-106	ENLARGED REFLECTED CEILING PLANS
A-551	DOOR SCHEDULE, INTERIOR DETAILS, STANDARD PARTITION, & CEILING DETAILS
4-722	PARTITION FRAMING DETAILS
09-INTERIORS	1
-001	INTERIOR NOTES, FINISH LEGEND, PLAN & FLOOR TRANSITION
-301	INTERIOR DETAILS
10-LABORATORY	
Q-001	LABORATORY SYMBOLS AND GENRAL NOTES
Q-002	LABORATORY FURNISHING TYPES AND SCHEDULE
Q-104	ENLARGED LABORATORY PLANS AND ELEVATIONS
Q-550 12-PLUMBING	LABORATORY INTERIOR DETAILS
P-000	PLUMBING INDEXES SCHEDULES AND NOTES
P-000 P-001	PLUMBING INDEXES SCHEDULES AND NOTES
PD-101	PLUMBING INDEXES SCHEDULES AND NOTES
PD-102	PLUMBING DEMOLITION PLAN - LEVEL 04
PD-401	ENLARGED PLUMBING DEMOLITION PLANS - LEVEL 03
PD-402	ENLARGED PLUMBING DEMOLITION PLANS - LEVEL 04
P-101	PLUMBING PLAN - LEVEL 03
P-102	PLUMBING PLAN - LEVEL 04
P-401	ENLARGED PLUMBING PLANS - LEVEL 03
P-402	ENLARGED PLUMBING PLANS - LEVEL 04
PF-101	FIRE PROTECTION PLANS - LEVEL 04
PM-401	ENLARGED MED GAS PLANS - LEVEL 04
P-501	PLUMBING DETAILS
14-MECHANICAL	
M-000	MECHANICAL LEGENDS, INDEX, AND NOTES
M-001	MECHANICAL SCHEDULES
MD-101	MECHANICAL DEMOLITION PLAN - LEVEL 04
MD-401	MECHANICAL ENLARGED DEMOLITION PLANS
M-101	MECHANICAL PLAN - LEVEL 04
M-401	MECHANICAL ENLARGED PLANS
M-501	MECHANICAL DETAILS
M-700	MECHANICAL CONTROL NOTES AND LEGEND
M-701	MECHANICAL CONTROLS
M-702	MECHANICAL CONTROLS
M-703	MECHANICAL CONTROLS
15-ELECTRICAL	
E-000	ELECTRICAL INDEX, LEGENDS, AND NOTES ELECTRICAL SCHEDULES
E-001	
ED-101 ED-102	ELECTRICAL DEMOLITION PLAN - LEVEL 04 ELECTRICAL ENLARGED DEMOLITION PLANS
ED-102 EL-101	ELECTRICAL ENLARGED DEMOLITION PLANS
EL-101 EL-102	ELECTRICAL ENLARGED LIGHTING PLANS
EP-102	ELECTRICAL ENLARGED LIGHTING PLANS
EP-101	ELECTRICAL FOWER FLAN - LEVEL 04
EP-102	ELECTRICAL ENLARGED POWER PLANS
EY-103	ELECTRICAL SYSTEMS PLAN - LEVEL 04
EY-102	ELECTRICAL ENLARGED SYSTEMS PLANS
E-501	ELECTRICAL DETAILS
E-601	ELECTRICAL RISER DIAGRAM AND FEEDER SCHEDULE
E-801	ELECTRICAL PANEL SCHEDULES
17-TELECOMMUN	
T-000	TECHNOLOGY LEGENDS, SCHEDULES, NOTES AND SHEET INDEX
TD-101	TECHNOLOGY DEMOLITION PLAN - LEVEL 04
T-101	TECHNOLOGY FLOOR PLAN - LEVEL 04
T-501	TECHNOLOGY DETAILS

TOILET ACCE	SSORY MOL	JNTING DIAGRAI	SCALE: 1/4" = 1'-0"		
		⊡- \ ⊎ ⊢ ш		TOILET ACCESSO	RY
	3' - 4" TO TOWEL SLOT	3' - 6" MAX AT SOAP VALVE		 ACCESSORIES LISTED MAY HA ACCESSORIES CAN APPEAR O 	
FINISH FLOOR	10	<u>ب</u> کر ج		3. SOME ACCESSORIES SHOWN (PROJECT. REFER TO SPECIFIC	
TOILET ACCESSORY TYPE	PAPER TOWEL DISPENSER	SOAP DISPENSER		4. NOT ALL ACCESSORIES ARE C FOR TOILET AND BATH ACCES	
MOUNTING DETAIL - REFER TO SHEET A-722/A1, UNO	A	A		 LOCATIONS OF ACCESSORIES FLOOR PLANS AND INTERIOR E FOR OFCI OR OFOI ITEMS. TA DEFENSION ADDESIGNATION 	ELEVATI
DRAWING DESIGNATION	7 SURFACE MOUNTED	9H SURFACE MOUNTED HORIZONTAL		 TA PREFIX FOR ACCESSORIES PLACEMENT. SPECIFICATIONS MOUNTING DETAILS - REFER T 	LIST AC
		9V SURFACE MOUNTED VERTICAL			



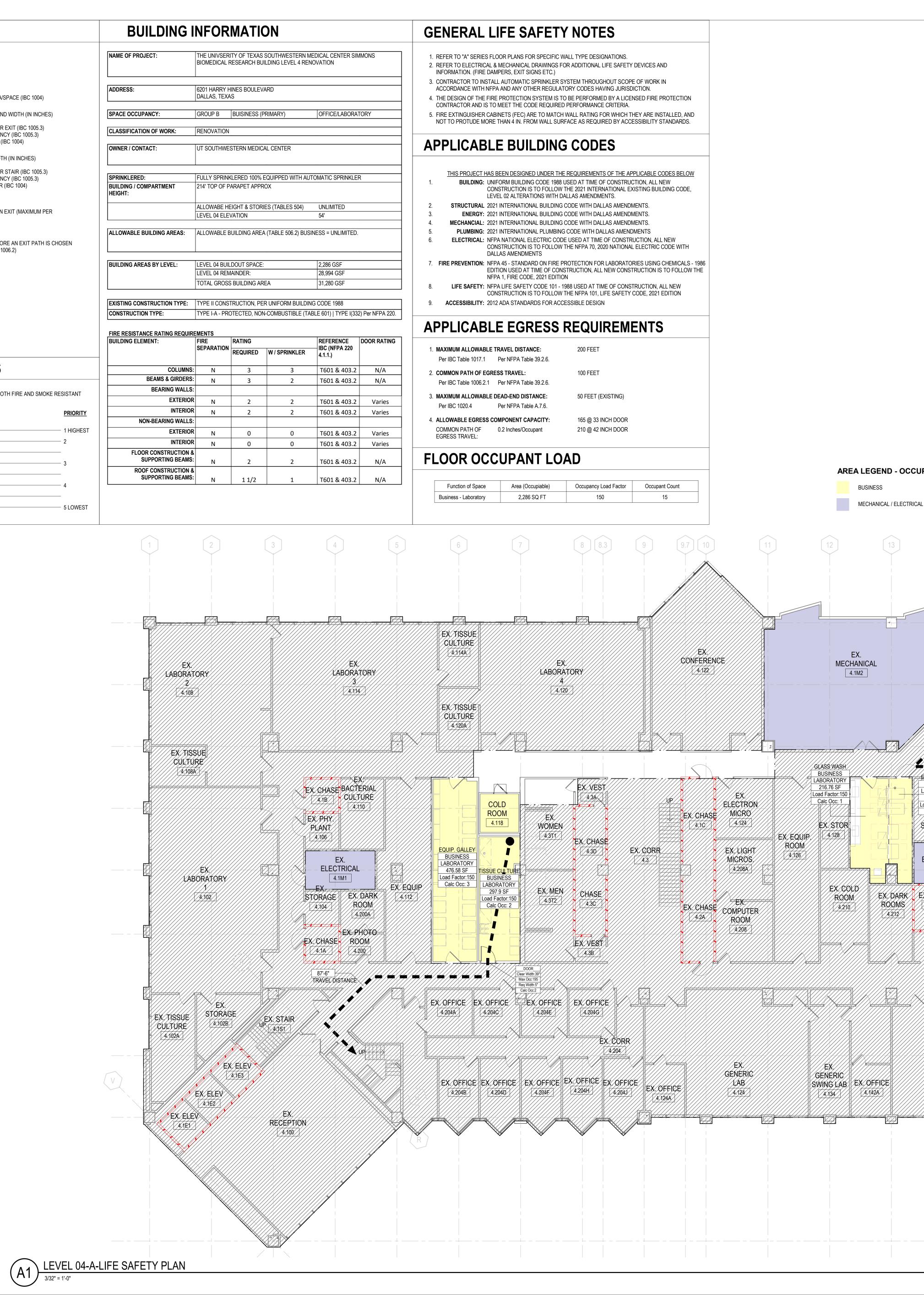
GENERAL NOTES

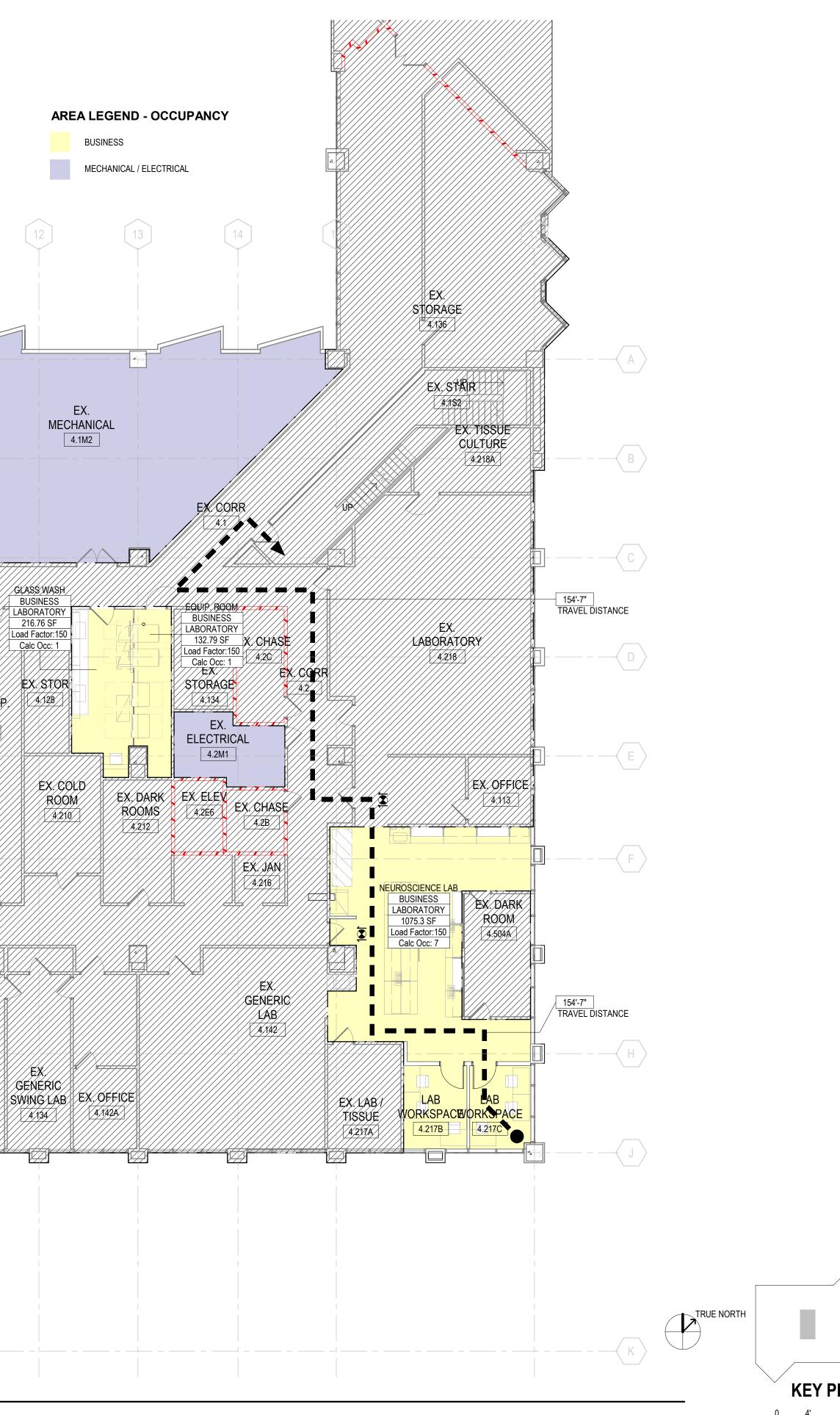
- 1. DRAWINGS & SPECIFICATIONS ARE COMPLIMENTARY COMPONENTS OF THE CONTRACT DOCUMENTS; REVIEW ALL DRAWINGS AND SPECIFICATIONS FOR THE COMPLETE SCOPE OF WORK. NOTIFY THE ARCHITECT IMMEDIATELY FOR CLARIFICATION IF INCONSISTENCIES, CONTRADICTIONS, OR OMISSIONS ARE DISCOVERED.
- ALL PRODUCTS DEPICTED ARE A GRAPHICAL REPRESENTATION OF A PRODUCT TYPE. THE ACTUAL SPECIFIED PRODUCT MAY DIFFER IN APPEARANCE FROM THE DEPICTED PRODUCT.
- DO NOT SCALE DRAWINGS; IF DIMENSIONAL INFORMATION IS REQUIRED & NOT FOUND, NOTIFY THE ARCHITECT IMMEDIATELY FOR CLARIFICATION.
- ALL DIMENSIONS ARE TO COLUMN CENTERLINES OR THE FACE OF FINISHED
- WALLS OR SURFACES UNLESS NOTED OTHERWISE.5. ALL DOOR FRAMES ARE TO BE INSTALLED 4" AWAY FROM ADJACENT PERPENDICULAR WALLS UNLESS NOTED OTHERWISE.
- 6. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BLOCKING, BACKING, FRAME HANGERS, OR OTHER SUPPORTS FOR ALL FIXTURES, EQUIPMENT, CABINETRY, FURNISHINGS, AND ALL OTHER ITEMS REQUIRING THE SAME.
- 7. TYPICAL OR 'T.Y.P.' MEANS THE CONDITION IS REPRESENTATIVE OF ALL SIMILAR CONDITIONS UNLESS NOTED OTHERWISE. 'SIMILAR' OF 'SIM' MEANS COMPARABLE CHARACTERISTICS FOR THE CONDITION NOTED. "ALIGN' AS USED IN THESE DOCUMENTS, MEANS TO ACCURATELY LOCATE FINISHES IN THE SAME PLANE.
- 8. LARGE-SCALE DRAWINGS TAKE PRECEDENCE OVER SMALL SCALE, WITH DETAILS TAKING PRECEDENCE OVER EITHER. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY CONFLICTS OR DISCREPANCIES WITH EITHER DRAWINGS OR SPECIFICATIONS, IN WRITING, PRIOR TO SHOP DRAWING SUBMITTAL AND/OR PROCEEDING WITH THE WORK IN QUESTION.
- 9. REFER TO LIFE SAFETY DRAWINGS FOR ADDITIONAL FIRE RATING REQUIREMENTS.
- 10. REFER TO INTERIOR FINISH DRAWINGS FOR ADDITIONAL INTERIOR FINISH-SPECIFIC INFORMATION.
- 11. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL STRUCTURAL-SPECIFIC INFORMATION.
- 12. REFER TO MEP DRAWINGS FOR ADDITIONAL MEP-SPECIFIC INFORMATION.

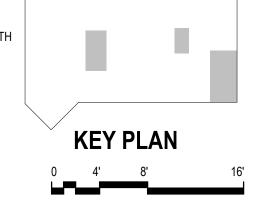


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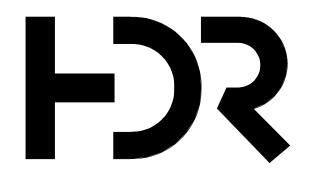
E SAFET	LEGEND		BUILDING I	NFOR	MATI
Area Name	NAME OF AREA/SPACE		NAME OF PROJECT:	THE UNIVSER BIOMEDICAL F	
Business	 FUNCTION OF SPACE (IBC TABLE 1004.5) SQUARE FOOTAGE OF AREA/SPACE LOAD FACTOR (IBC TABLE 1004.1.2) CALCULATED OCCUPANT LOAD PER AREA/SPACE (IBC 	1004)	ADDRESS:	6201 HARRY H DALLAS, TEXA	HINES BOULEV As
DOOR	EGRESS COMPONENT - OCCUPANT LOAD AND WIDTH (IN —— ACTUAL CLEAR WIDTH PROVIDED	I INCHES)	SPACE OCCUPANCY:	GROUP B	BUISINESS (F
Clear Width:33" Max Occ:165 Req Width:28"	MAXIMUM ALLOWED OCCUPANT LOAD PER EXIT (IBC 1 REQUIRED MINIMUM WIDTH PER OCCUPANCY (IBC 100		CLASSIFICATION OF WORK:	RENOVATION	
Calc Occ:140	CALCULATED OCCUPANT LOAD PER EXIT (IBC 1004)	5.5)	OWNER / CONTACT:		STERN MEDIC
STAIR Clear Width:44" Max Occ:146 Req Width:28"	EGRESS STAIR - OCCUPANT LOAD AND WIDTH (IN INCHE —— ACTUAL CLEAR WIDTH PROVIDED —— MAXIMUM ALLOWED OCCUPANT LOAD PER STAIR (IBC —— REQUIRED MINIMUM WIDTH PER OCCUPANCY (IBC 100	1005.3)	SPRINKLERED:		KLERED 100%
Calc Occ:93	CALCULATED OCCUPANT LOAD PER STAIR (IBC 1004)		BUILDING / COMPARTMENT HEIGHT:	214' TOP OF P	PARAPET APPR
	TRAVEL DISTANCE: LONGEST ROUTE TO AN EXIT (MAXI SPACE/AREA SHOWN) (IBC 1017.2)	MUM PER		LEVEL 04 ELE	
55'-6"	COMMON PATH: DISTANCE TRAVELED BEFORE AN EXIT	PATH IS CHOSEN	ALLOWABLE BUILDING AREAS:	ALLOWABLE E	BUILDING AREA
	(MAXIMUM PER SPACE/ AREA SHOWN) (IBC 1006.2)		BUILDING AREAS BY LEVEL:	LEVEL 04 BUIL	LDOUT SPACE: //AINDER:
	NOT IN CONTRACT			TOTAL GROS	S BUILDING AR
			EXISTING CONSTRUCTION TYPE:	TYPE II CONS	TRUCTION, PE
	CONTROL AREA BOUNDARY		CONSTRUCTION TYPE:	TYPE I-A - PRO	OTECTED, NON
				MENTO	
			FIRE RESISTANCE RATING REQUIRE BUILDING ELEMENT:	FIRE SEPARATION	RATING REQUIRED
RTITION F	RATING GRAPHICS		COLUMNS:	N	3
			BEAMS & GIRDERS:	IN	3
	BE SMOKE RESISTANT, FIRE RESISTANT, OR BOTH FIRE AN	D SMOKE RESISTANT	BEARING WALLS:		
RE SHOWN GRAPHICALLY	ON PLANS WITH HATCH PATTERNS.		EXTERIOR	1	2
ARTITION RATING GRAPH	IIC DESIGNATION	PRIORITY	INTERIOR NON-BEARING WALLS:	IN	2
	4 HR FIRE RATING	1 HIGHEST	EXTERIOR		
	3 HR FIRE RATING		INTERIOR	1	0
	2 HR FIRE RATING & SMOKE BARRIER		FLOOR CONSTRUCTION &	IN	0
	2 HR FIRE RATING		SUPPORTING BEAMS:	N	2
	1 HR FIRE RATING & SMOKE BARRIER		ROOF CONSTRUCTION & SUPPORTING BEAMS:		
	1 HR FIRE RATING			N	1 1/2
	SMOKE PARTITION (NON-RATED)				
				\frown	







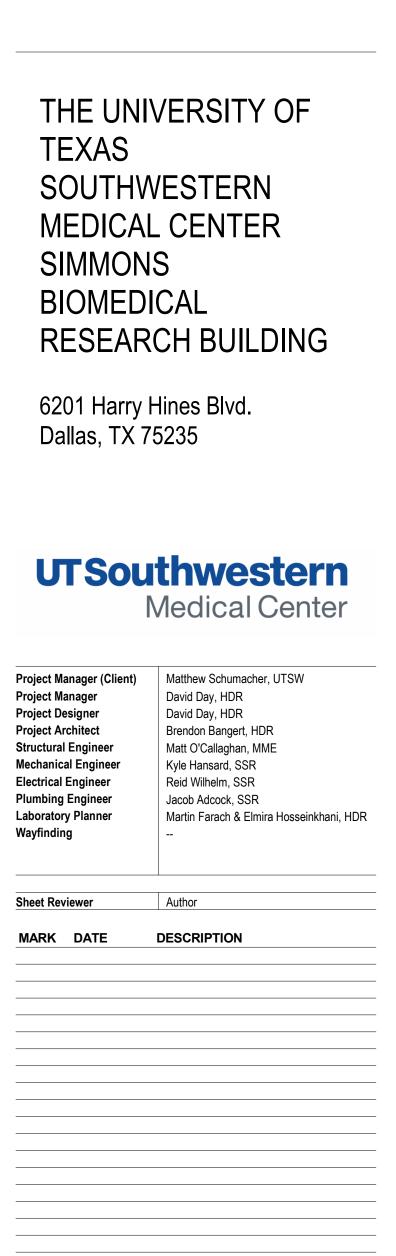
NB4



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MARTINEZ MOORE ENGINEERS



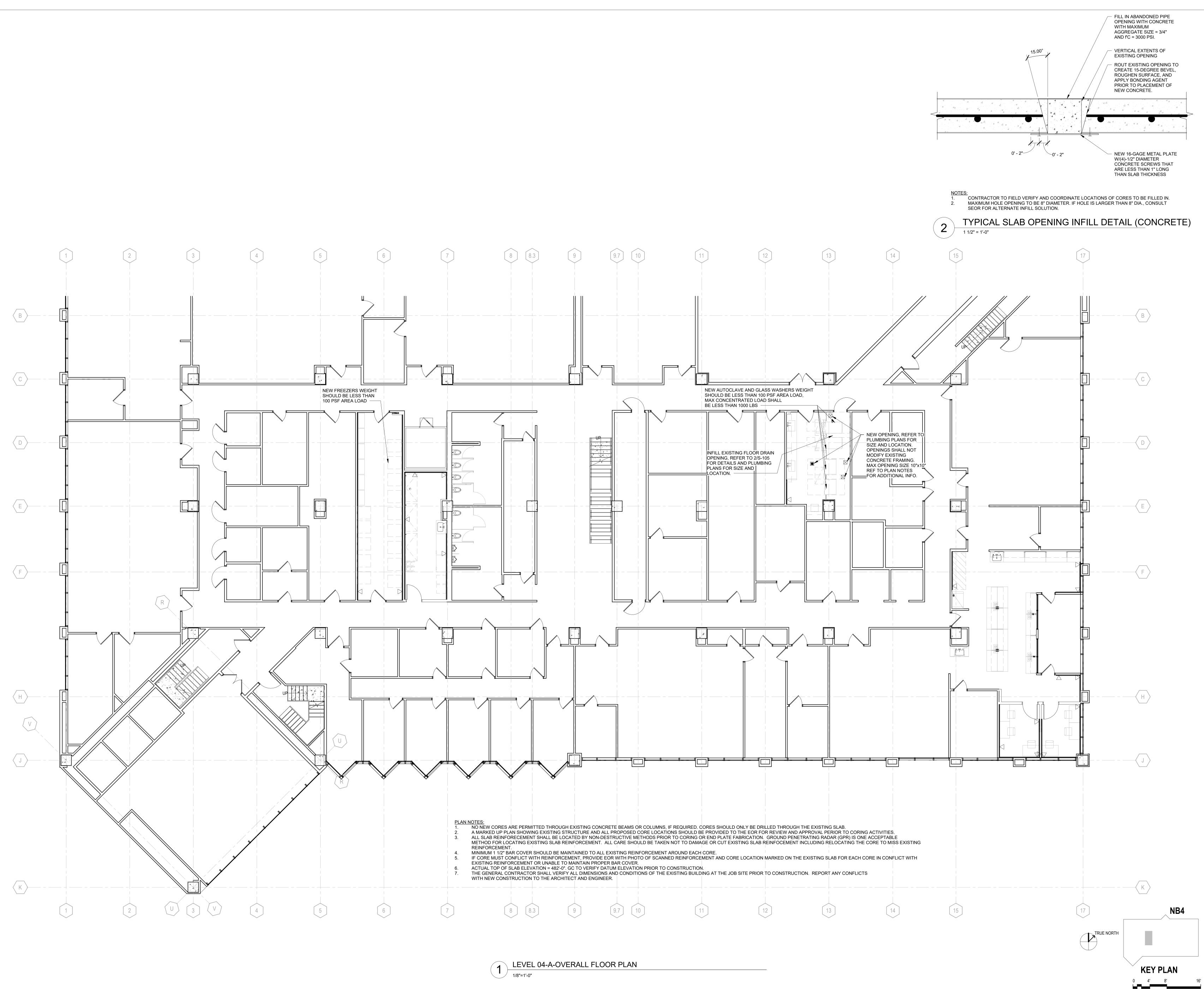
Project Number Original Issue

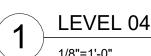
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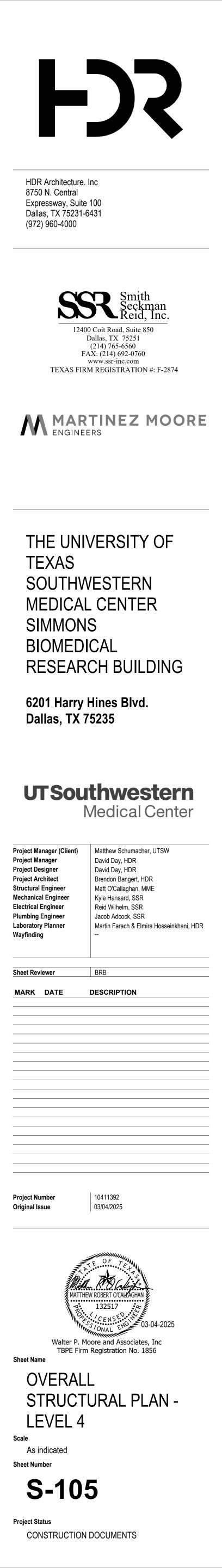


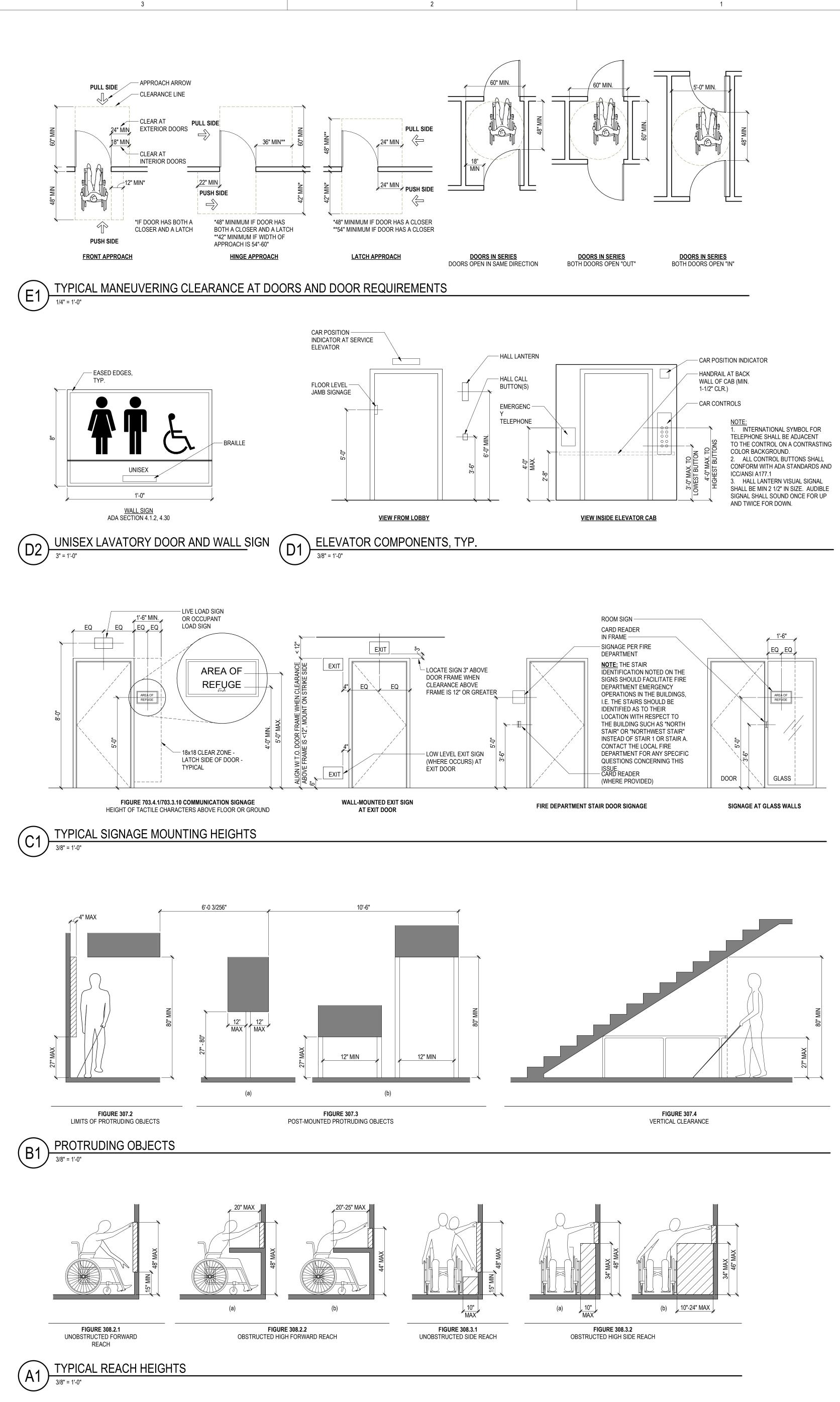


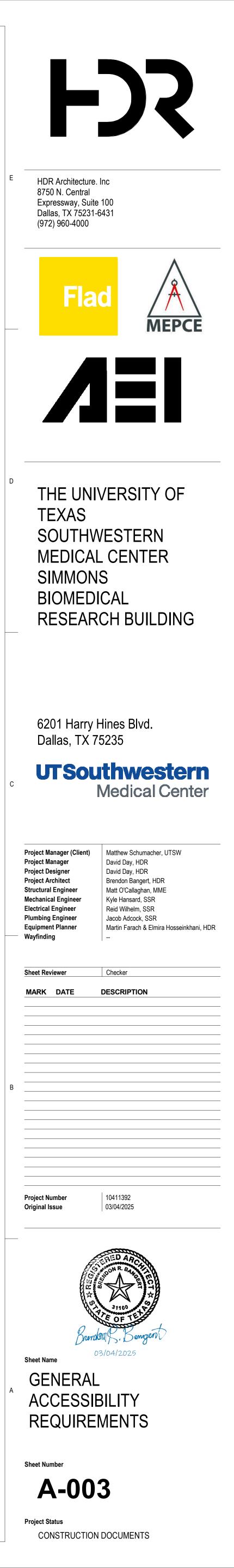
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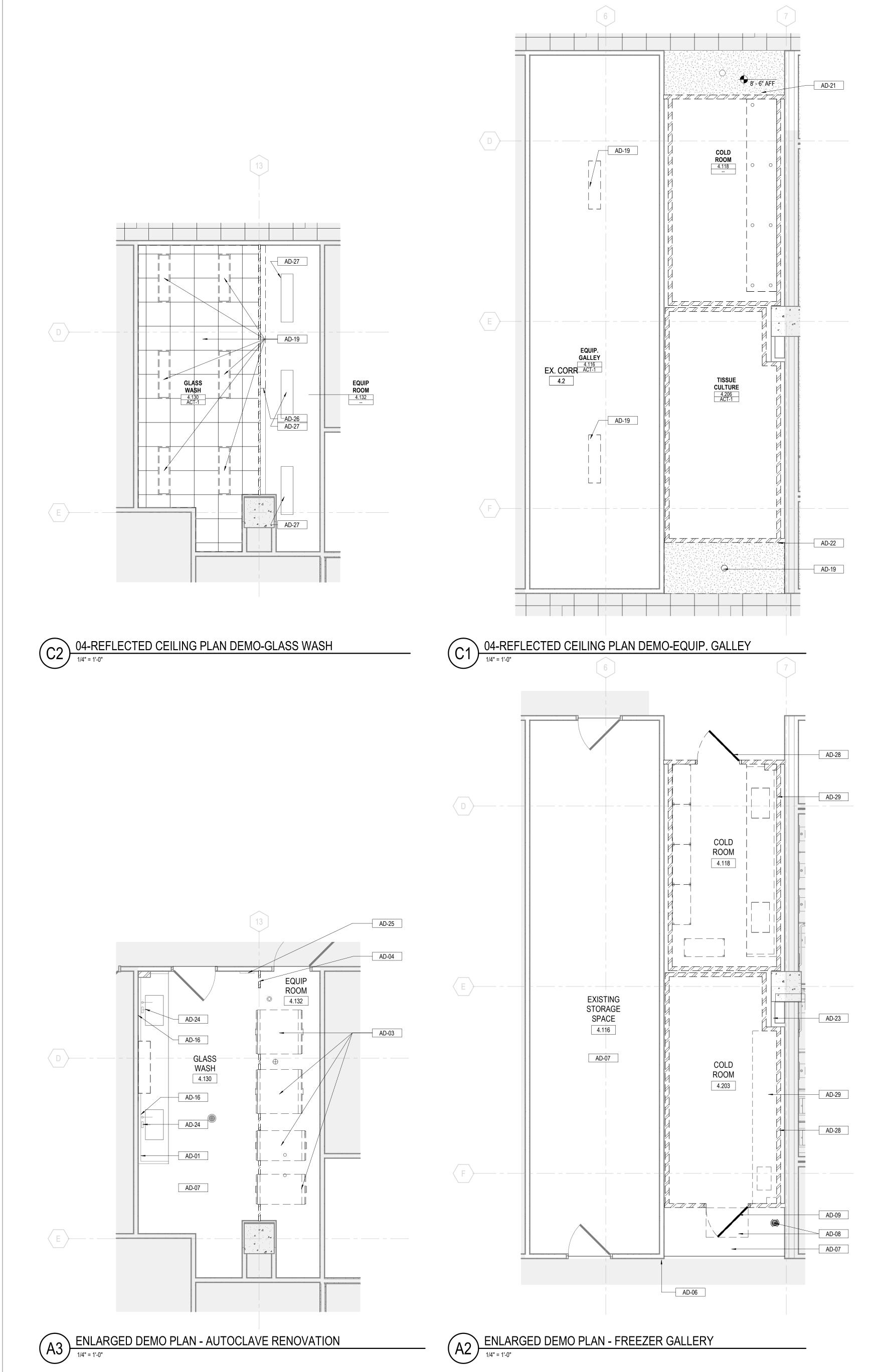


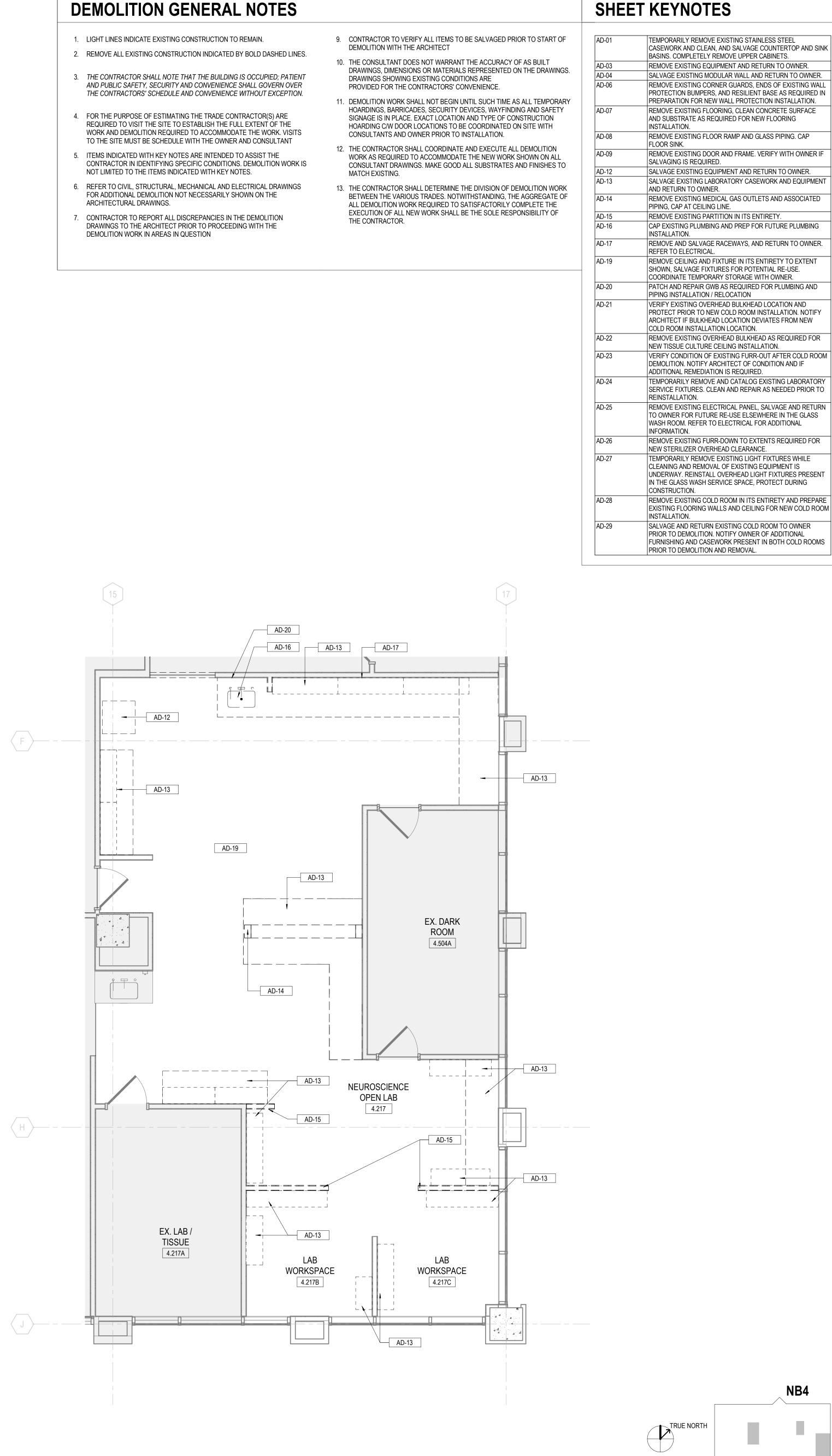






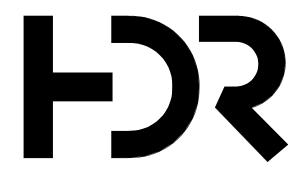






(A1) ENLARGED DEMO PLAN - LAB RENOVATION

KEY PLAN 0 4' 8'

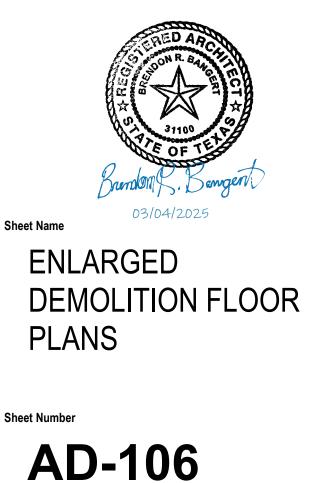


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FLOOR PLAN GENERAL NOTES

- THE COMPLETE SCOPE OF WORK. NOTIFY ARCHITECT IMMEDIATELY FOR
- DISCOVERED. DO NOT SCALE DRAWINGS, IF DIMENSIONAL INFORMATION IS REQUIRED &
- ALL DIMENSIONS ARE TO COLUMN CENTERLINES OR FACE OF FINISHED
- WALLS OR SURFACES UNLESS NOTED OTHERWISE. 4. REFER TO DEMOLITION DRAWINGS, IF ANY, FOR WORK REQUIRED IN
- ADVANCE OF CONSTRUCTION AND COORDINATE ACCORDINGLY. 5. ALL DOOR FRAMES ARE TO BE INSTALLED 4" AWAY OF ADJACENT
- PERPENDICULAR WALLS UNLESS NOTED OTHERWISE. REFER TO LIFE SAFETY DRAWINGS FOR ADDITIONAL FIRE / SMOKE RATING
- REQUIREMENTS.

DRAWINGS & SPECIFICATIONS ARE COMPLIMENTARY COMPONENTS OF THE CONTRACT DOCUMENTS, REVIEW ALL DRAWINGS AND SPECIFICATIONS FOR CLARIFICATION IF INCONSISTENCIES, CONTRADICTIONS OR OMISSIONS ARE

- NOT FOUND, NOTIFY ARCHITECT IMMEDIATELY FOR CLARIFICATION.

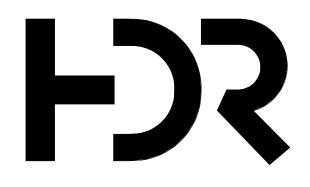
FLOOR PLAN GENERAL NOTES

- REFER TO EQUIPMENT DRAWINGS FOR ADDITIONAL EQUIPMENT SPECIFIC INFORMATION.
- REFER TO INTERIOR FINISH DRAWINGS FOR ADDITIONAL INTERIOR FINISH SPECIFIC INFORMATION.
- REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL STRUCTURAL SPECIFIC INFORMATION.
- 10. REFER TO MEP DRAWINGS FOR ADDITIONAL MEP SPECIFIC INFORMATION. 11. ALL NON-LOAD BEARING INTERIOR WALLS ARE TYPE "A" UNLESS NOTED OTHERWISE.
- 12. HIGHER RATED FIRE WALLS TAKE PRECEDENCE OVER LOWER RATED WALLS & ARE TO CONTINUE THROUGH ALL SUCH INTERSECTIONS.
- 13. ALL SMOKE BARRIER WALLS ARE TO BE EXTENDED FROM BACK SIDE OF EXTERIOR WALL SHEATHING TO BACK SIDE OF EXTERIOR WALL SHEATHING OR ANOTHER SMOKE BARRIER WALL.

SHEET KEYNOTES

THROUGHOUT.

TEMPORARILY REMOVE OVERHEAD CEILING TILES AS REQUIRED FOR MEP INSTALLATION. RE-SEAL THROUGH-WALL PENETRATIONS AS REQUIRED TO MAINTAIN WALL RATINGS



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MARTINEZ MOORE ENGINEERS





Sheet Number

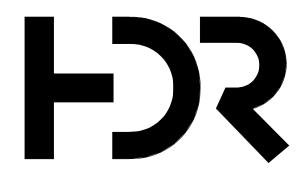




SHEET KEYNOTES

F04	NOTIFY ARCHITECT IF WALL IS NOT PLANAR.
F05	MATCH EXISTING FINISHES OF ADJACENT WALLS.
F08	PATCH AND REPAIR EXISTING GWB SURFACES THROUGHOUT SPACE PRIOR TO NEW FINISH INSTALLATION.
F09	PROTECT EXISTING WINDOWS AND STOREFRONT (AND THEIR ASSOCIATED HARDWARE) THROUGHOUT DURING CONSTRUCTION.
F10	TEMPORARILY REMOVE EXISTING STAINLESS STEEL COUNTERTOP, SERVICE FIXTURES, AND ASSOCIATED HARDWARE. CLEAN ALL SURFACES AND PATCH AND REPAIR DAMAGE INCURRED DURING CONSTRUCTION, AND DUE TO WEAR AND TEAR OVER TIME. NOTIFY OWNER OF CONDITION OF STAINLESS STEEL COUNTERTOP ASSEMBLY PRIOR TO RE INSTALLATION.

NB4 **KEY PLAN** 0 4' 8'



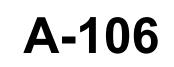
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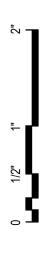
MARTINEZ MOORE ENGINEERS

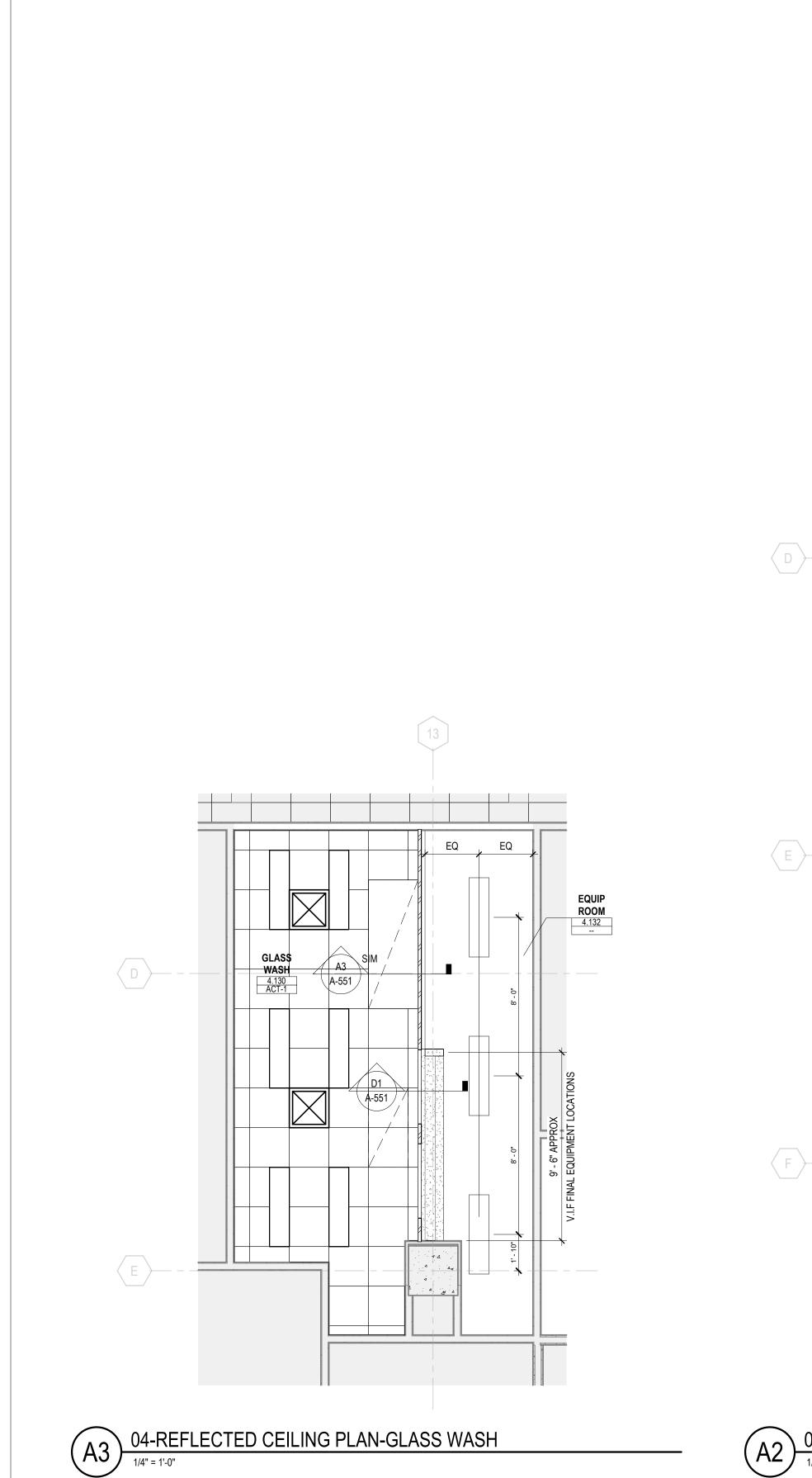






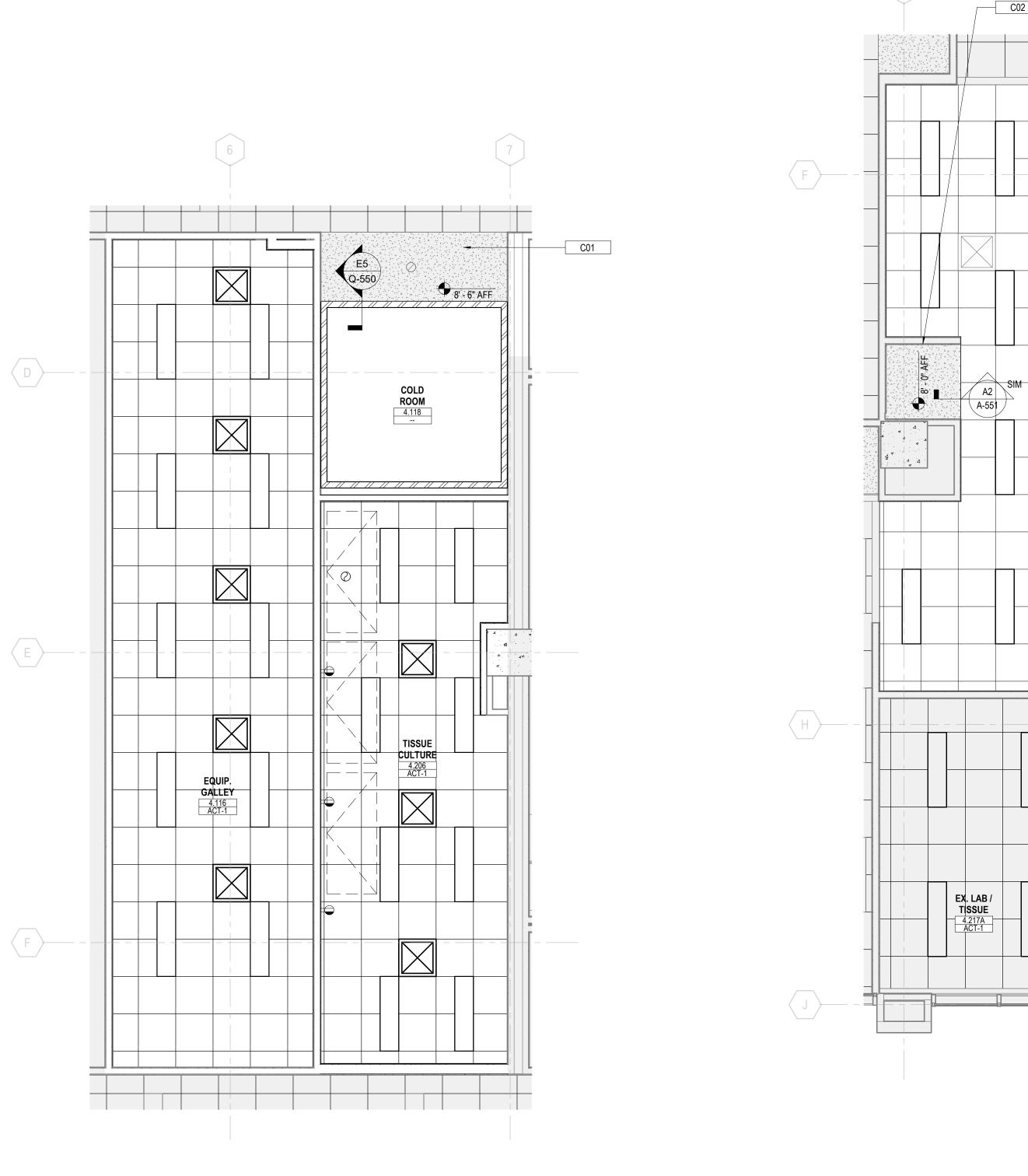






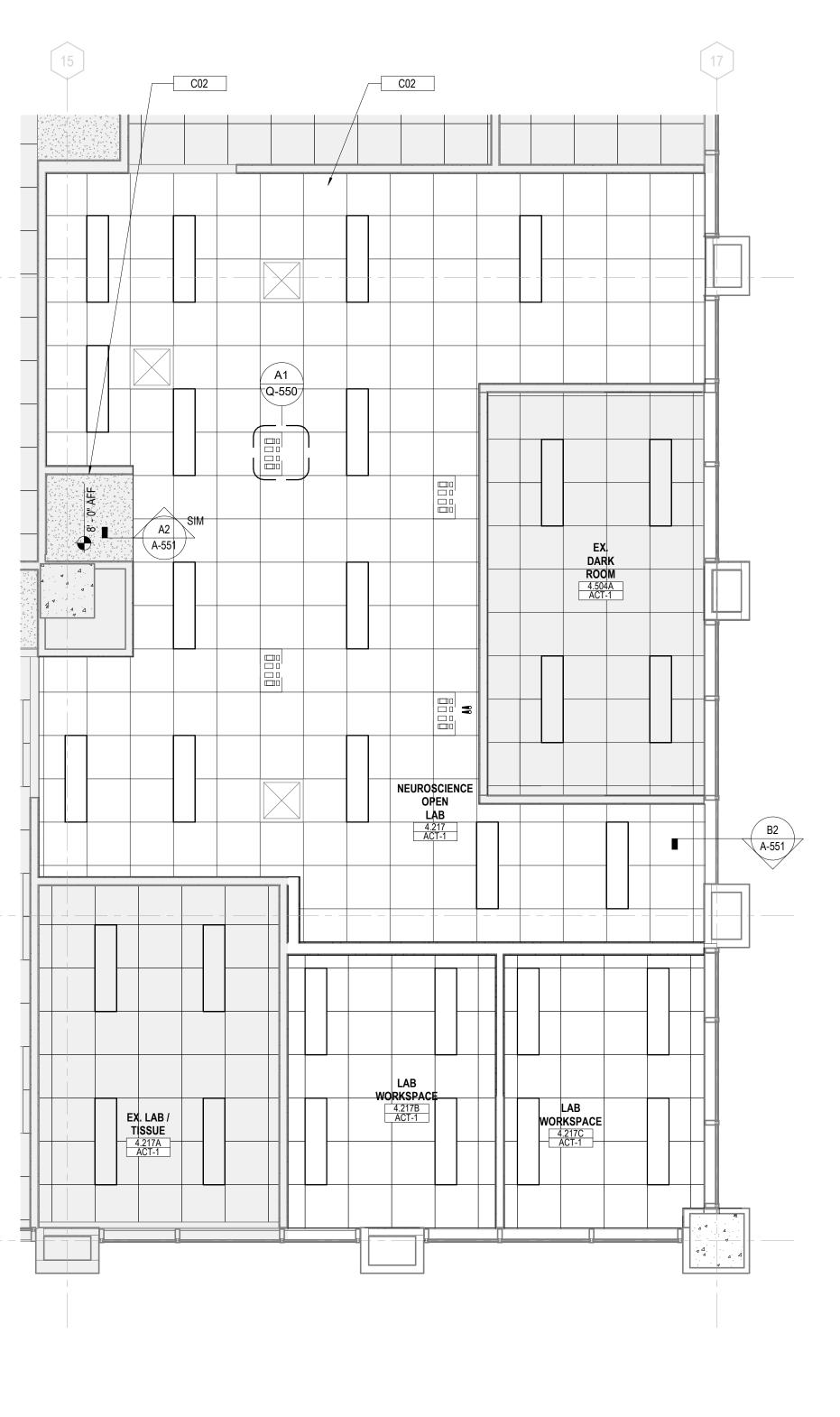
A2

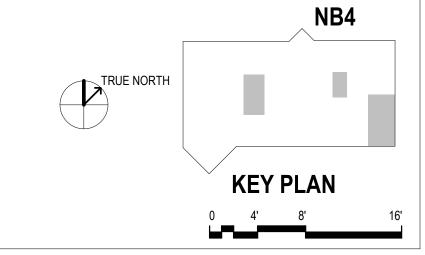
RCP LEGEND	RCP GENERAL NOTES		SHEET KEYNOTES
CEILING TAG CEILING HEIGHT (AFF) IDENTIFIES AREA TO BE TEMPORARLY REMOVED / DEMOLISHED. EXISTING CONSTRUCTION TO BE REPLACED AFTER PIPING IS INSTALLED NOTIFY ARCHITECT OF WALL CONSTRUCTION. IDENTIFIES AREA NOT IN SCOPE IDENTIFIES AREA NOT IN SCOPE	 ALL CEILING HEIGHTS TO BE AT 9'-6" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE. REFLECTED CEILING PLANS TO BE READ IN CONJUNCTION WITH ROOM FINISH SCHEDULES, SPECIFICATIONS, ARCHITECTURAL CEILING DETAILS, STRUCTURAL, MECHANICAL, ELECTRICAL, FIRE PROTECTION AND FIRE & 8. 	IN ACOUSTIC TILE CEILINGS, FIXTURES GRAPHICALLY SHOWN IN THE DRAWINGS AS INTERSECTING T-BAR SUSPENSION SYSTEMS AND/OR OTHER ELEMENTS ARE TO BE LOCATED WITHIN THE NEAREST AVAILABLE CEILING TILE. THE STANDARD PLACEMENT OF CEILING MOUNTED DEVICES WITHIN A SINGLE FULL SIZED (24" X 48") ACOUSTIC CEILING TILE SHALL BE THE FOLLOWING UNLESS NOTED OTHERWISE	C01 EXISTING SOFFIT ASSEMBLY, PROTECT DURING CONSTRUCTION. COORDINATE COLD ROOM INSTALLATION LOCATION WITH EXISTING OVERHEAD BULKHEAD EXTENTS. C02 COORDINATE CEILING INSTALLATION WITH EXISTING OVERHEAD GAS LINE TO REMAIN., PROTECT ACCORDINGLY.
CANOPY EXHAUST HOOD	FINISH COLOUR.		

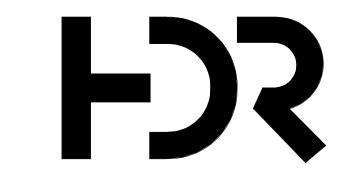


) 04-REFLECTED CEILING PLAN-EQUIP. GALLEY

A1 04-REFLECTED CEILING PLAN-OPEN LAB



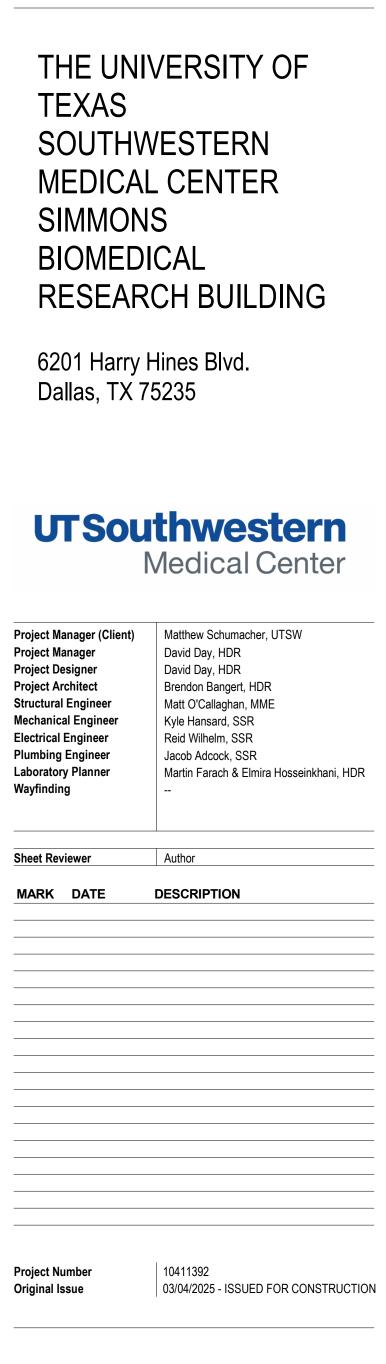


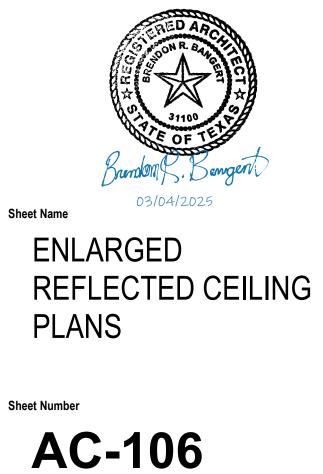


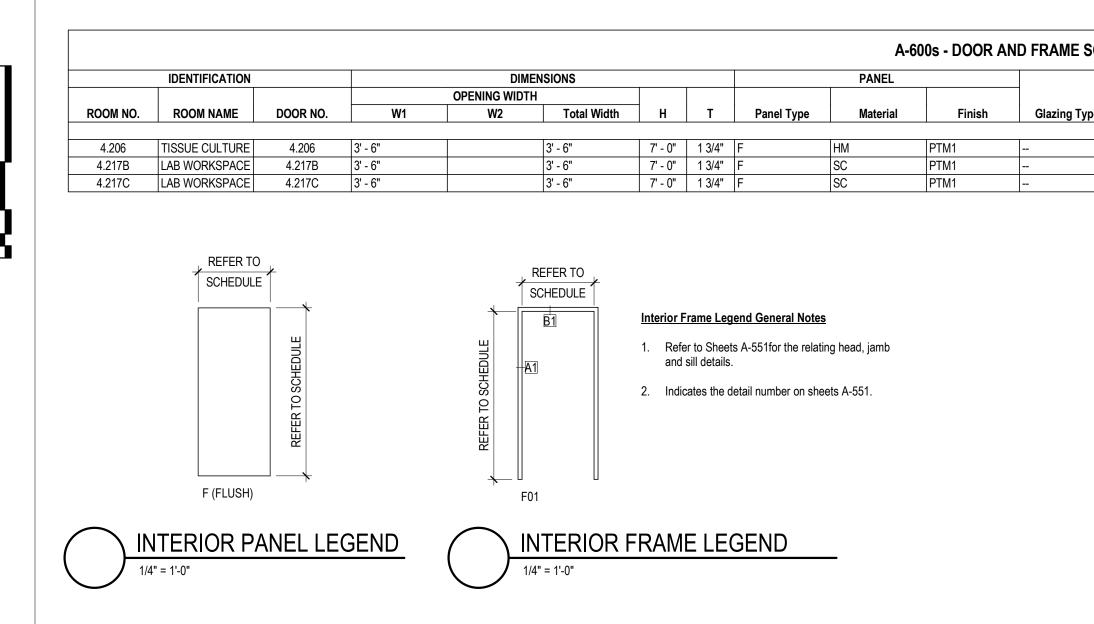
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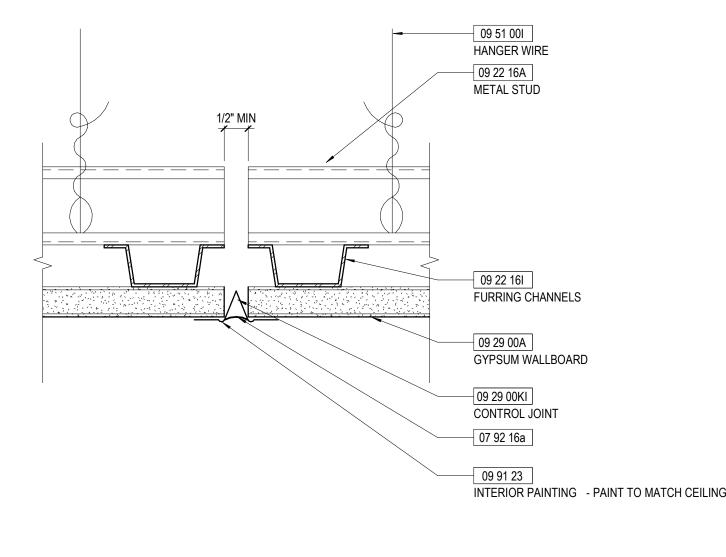


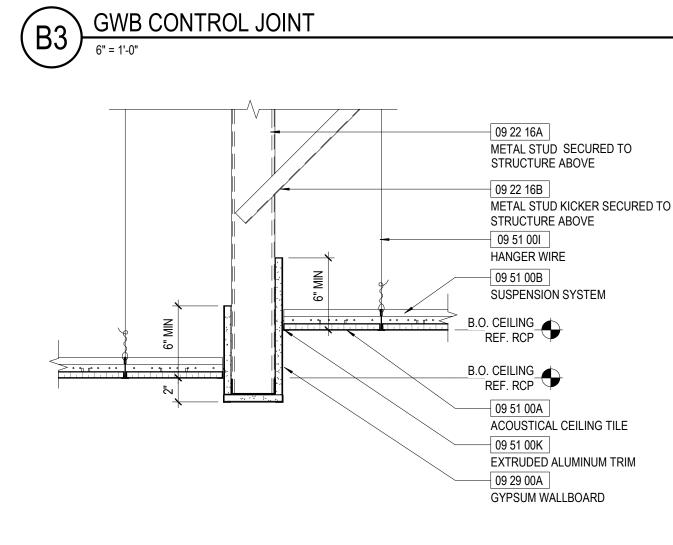
MARTINEZ MOORE ENGINEERS





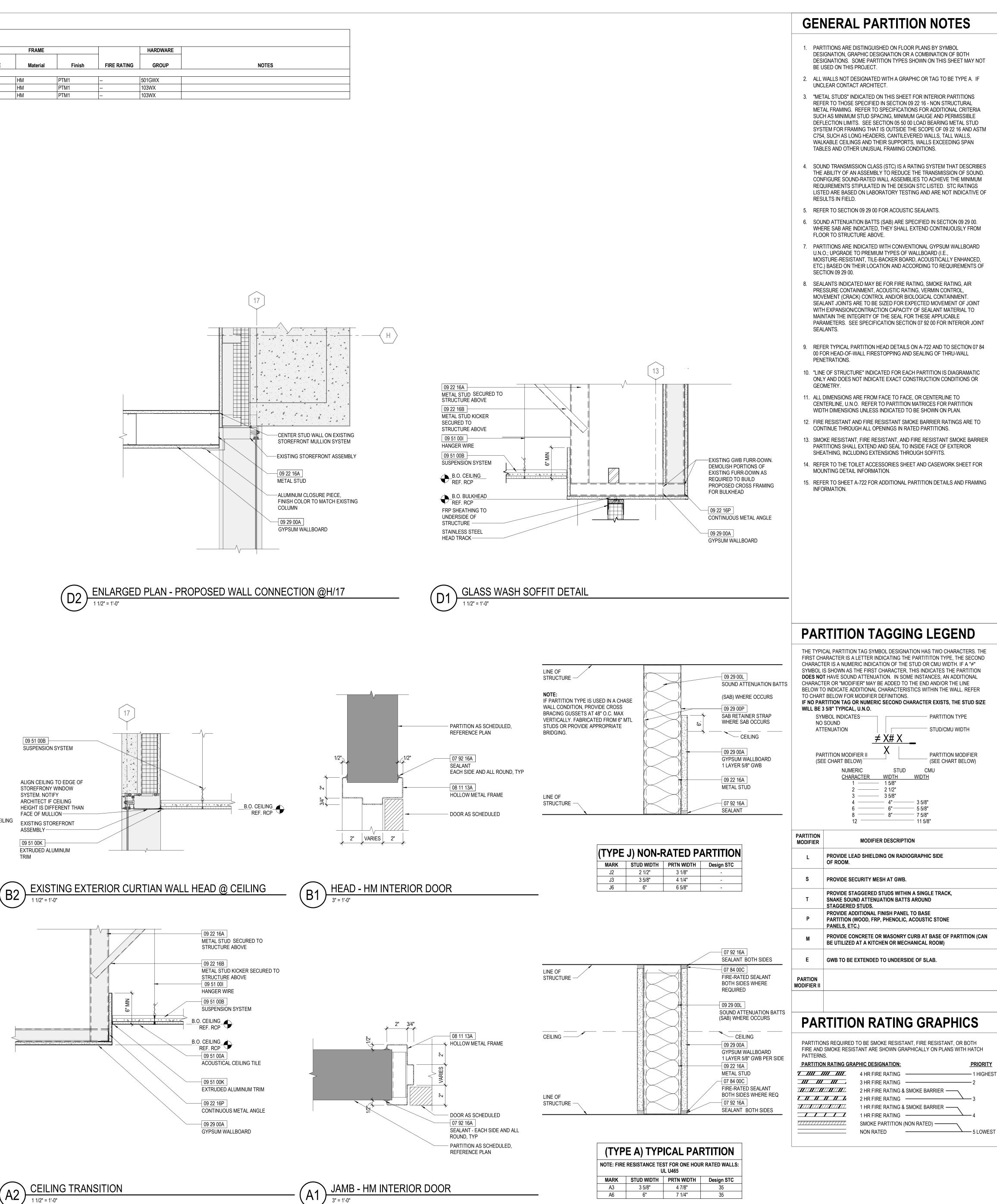




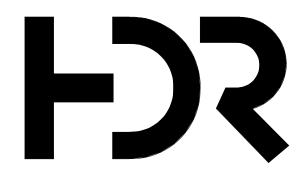


(A3) BULKHEAD DETAIL 1 1/2" = 1'-0"

SCH	EDULE						
		FRAME			HARDWARE		
	TYPE	Material	Finish		CDOUD	NOTES	
pe	TYPE	Material	Finish	FIRE RATING	GROUP	NOTES	_
	-		-				
	F01	HM	PTM1		501GWX		
	F01	HM	PTM1		103WX		
	F01	HM	PTM1		103WX		



1 1/2" = 1'-0"



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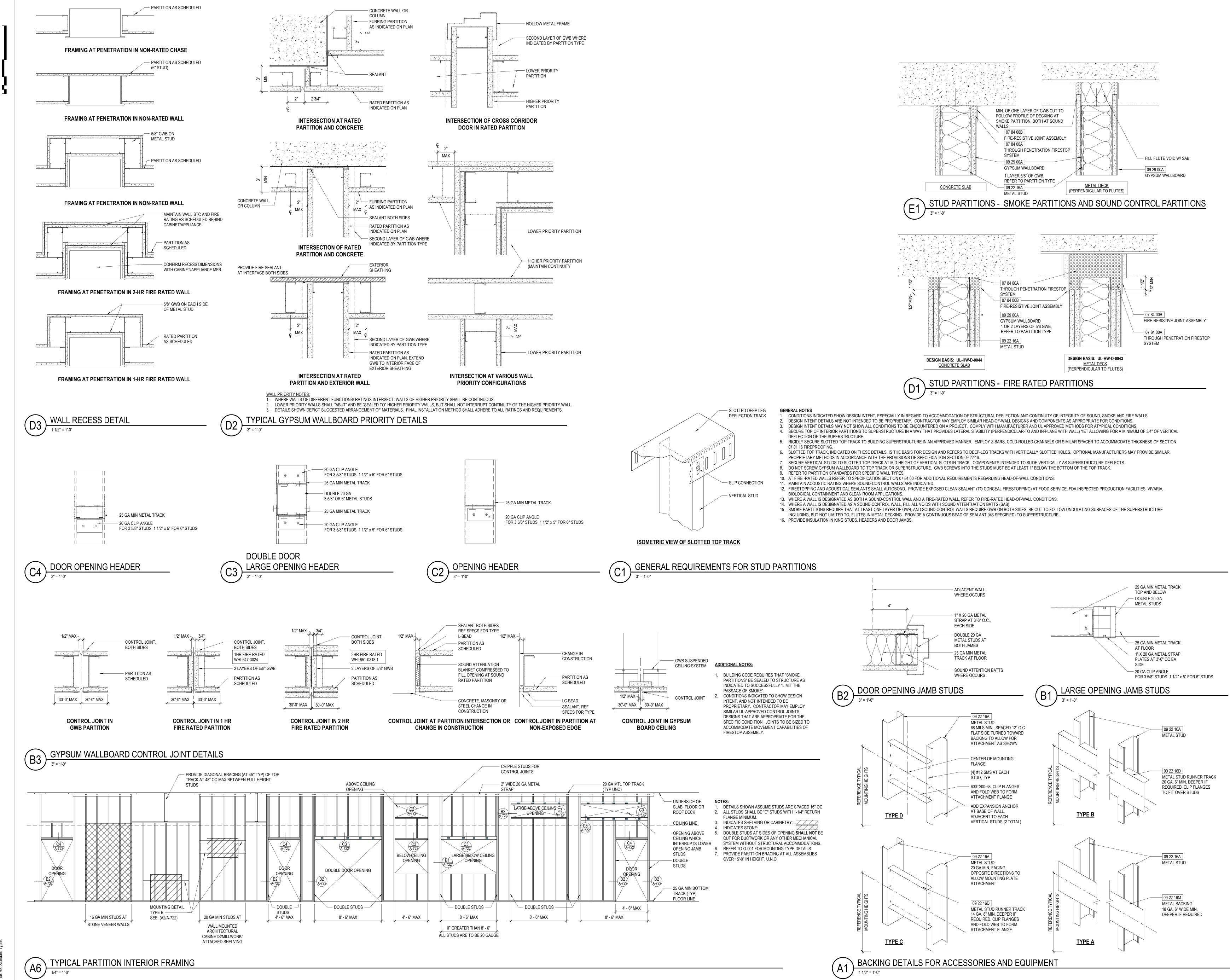
MARTINEZ MOORE

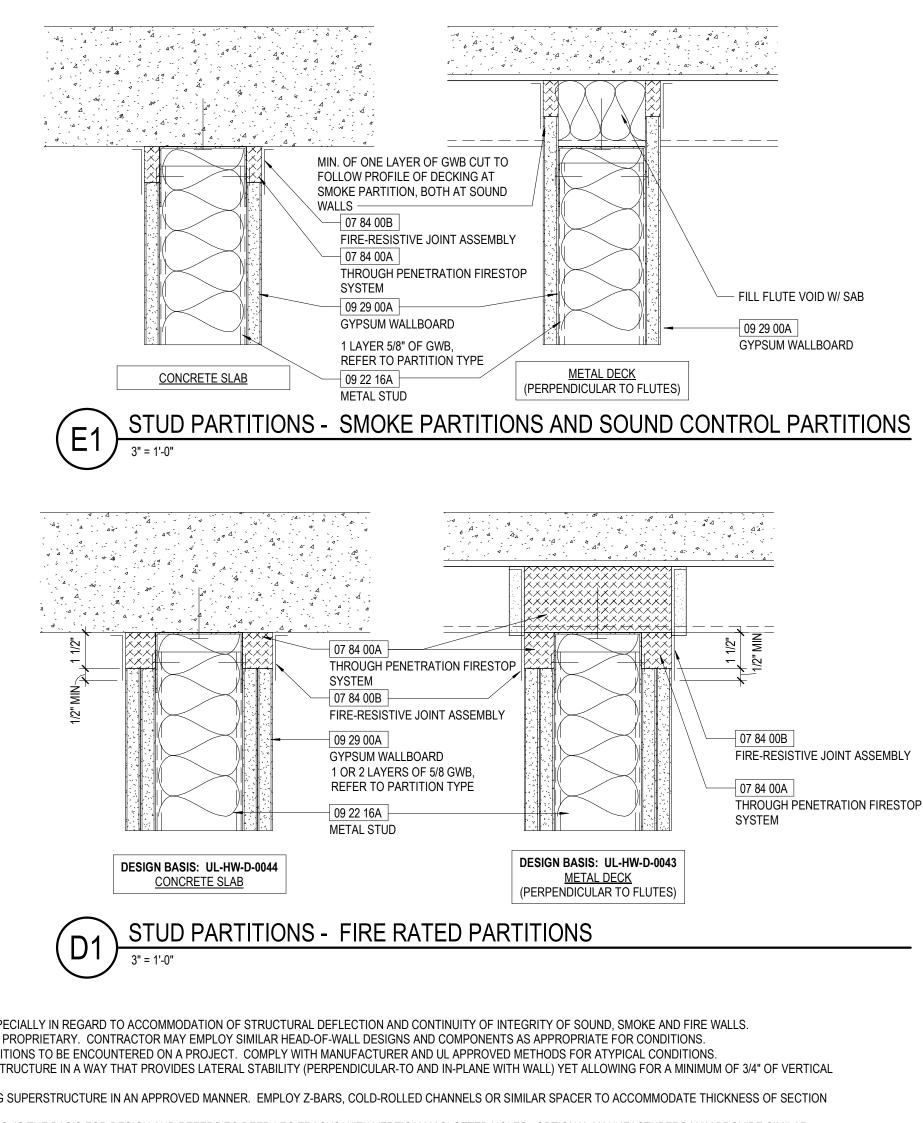


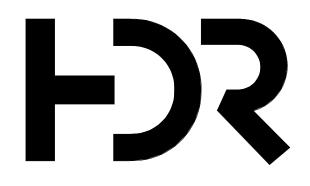
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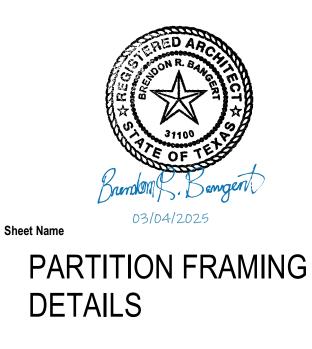


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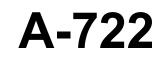


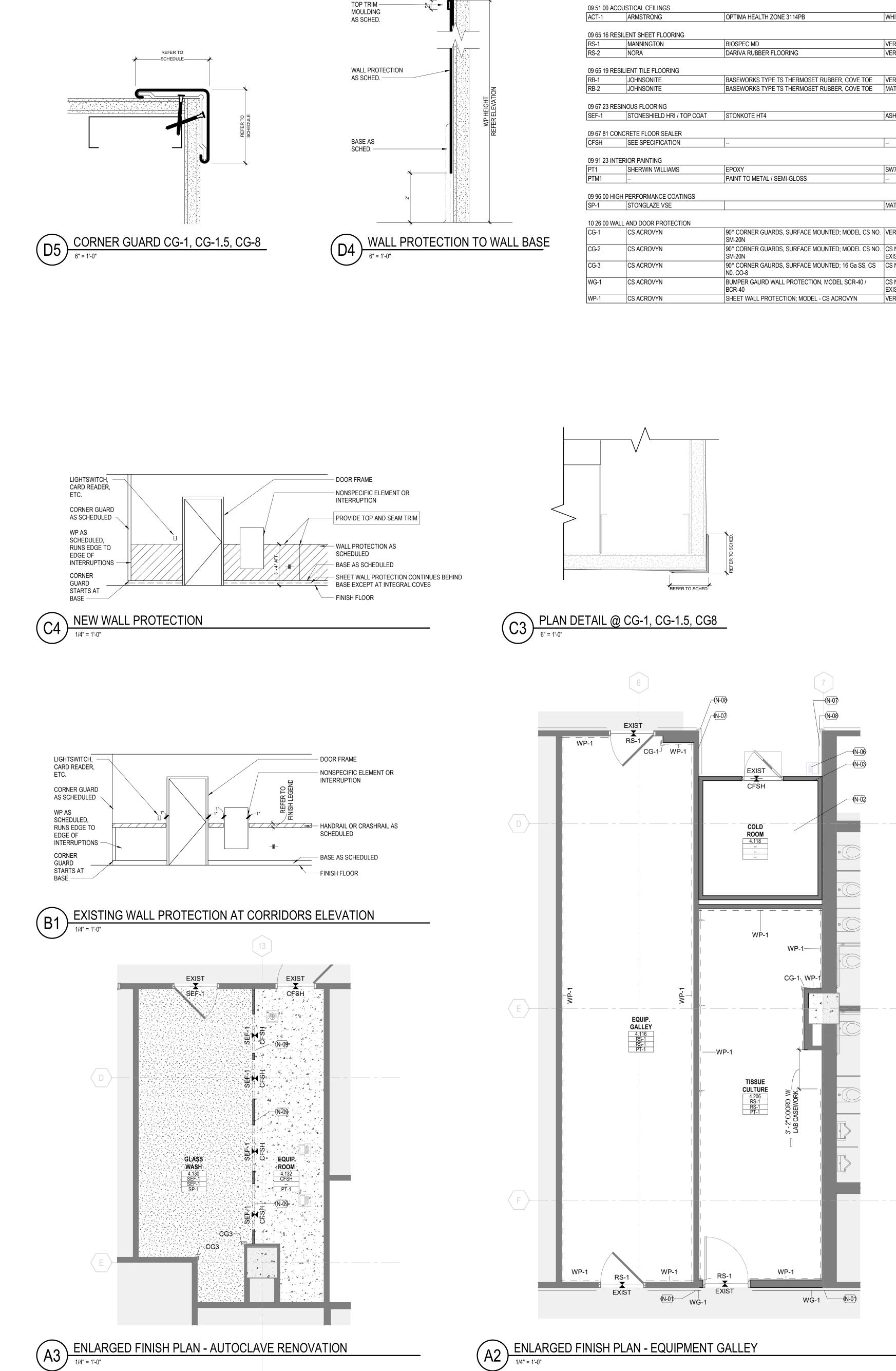
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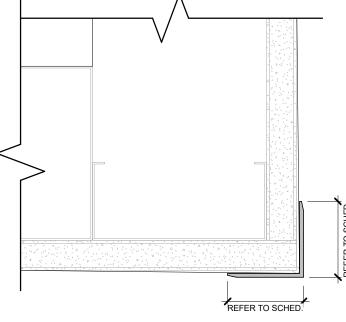


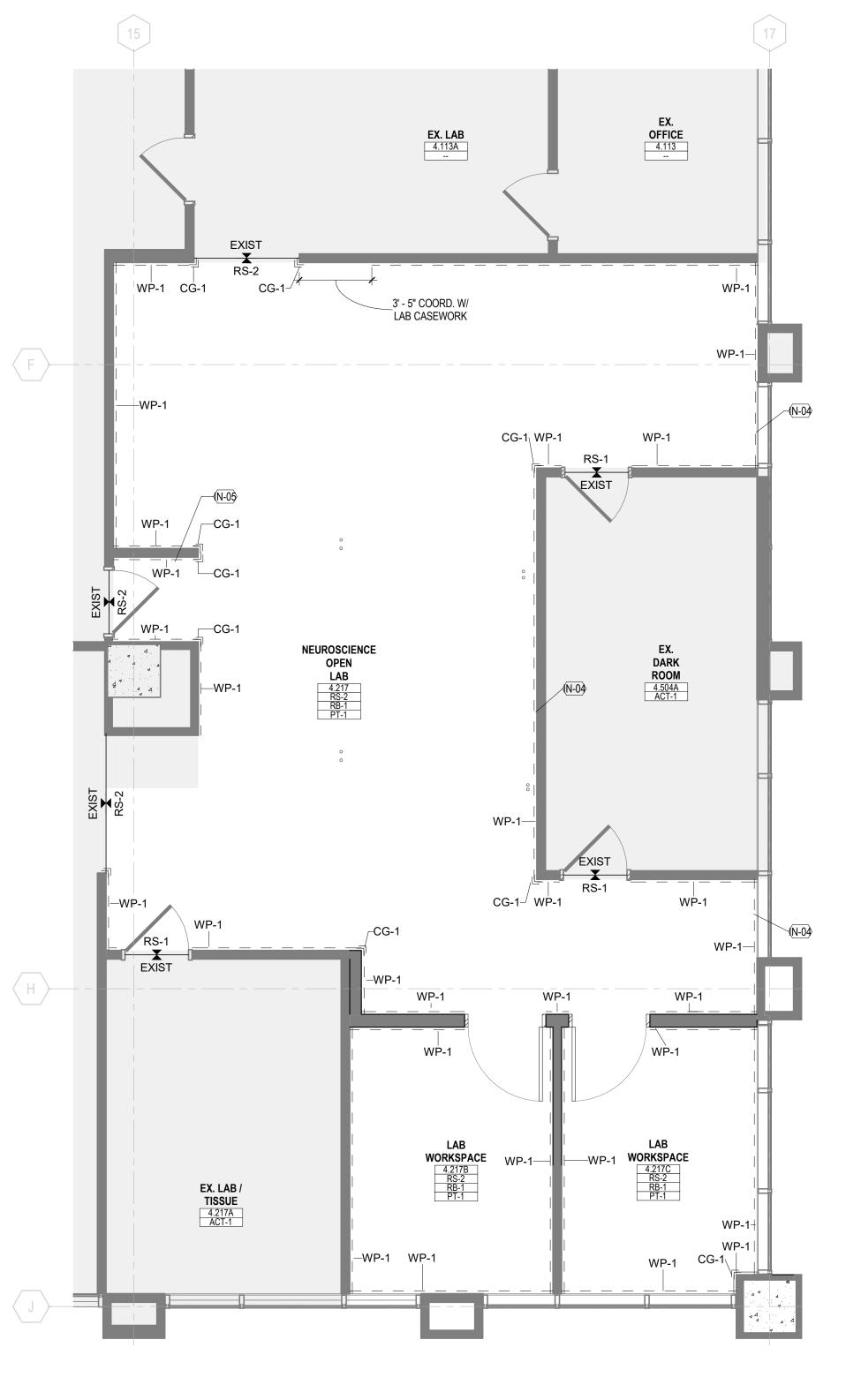
Sheet Number





		I-001s -	INTERIOR FINISH LEGENE)	
CODE	MANUFACTURER	SERIES/STYLE	COLOR	SIZE	COMMENTS
	DUSTICAL CEILINGS			0.411.37 0.411	
ACT-1	ARMSTRONG	OPTIMA HEALTH ZONE 3114PB	WHITE	24" X 24"	PRELUDE GRID, EXPOSED GRID, SHADOW-MOLD PERIMETER ANGLES
)9 65 16 RES	ILENT SHEET FLOORING				
RS-1	MANNINGTON	BIOSPEC MD	VERIFY W/ ARCHITECT	6'-6"W	HEAT WELD AT AREAS WITH INTEGRAL BASE PER INTERIOR FINISH PLANS
RS-2	NORA	DARIVA RUBBER FLOORING	VERIFY W/ ARCHITECT	3MM THICK SHEET	LVT WOOD LOOK
0 65 10 DES	ILIENT TILE FLOORING				
RB-1	JOHNSONITE	BASEWORKS TYPE TS THERMOSET RUBBER, COVE TOE	VERIFY W/ ARCHITECT	4"H	
RB-2	JOHNSONITE	BASEWORKS TYPE TS THERMOSET RUBBER, COVE TOE	MATCH EXISTING COLOR	4.5"H	
9 67 23 RES	INOUS FLOORING				
SEF-1	STONESHIELD HRI / TOP COAT	STONKOTE HT4	ASH		GLASS WASH
09 67 81 CON CFSH	ICRETE FLOOR SEALER				
)9 91 23 INTI	ERIOR PAINTING				
PT1	SHERWIN WILLIAMS	EPOXY	SW7008 ALABASTER		OVERALL EPOXY
PTM1		PAINT TO METAL / SEMI-GLOSS			HOLLOW METAL DOOR & WINDOW FRAMES
	H PERFORMANCE COATINGS				
SP-1	STONGLAZE VSE		MATCH PT-1	BI LAB ARC	
	L AND DOOR PROTECTION				1
CG-1	CS ACROVYN	90° CORNER GUARDS, SURFACE MOUNTED; MODEL CS NO. SM-20N	VERIFY W/ ARCHITECT	3" WIDTH, EACH LEG	REFER TO INTERIOR WALL PROTECTION LEGEND ON I-001
CG-2	CS ACROVYN	90° CORNER GUARDS, SURFACE MOUNTED; MODEL CS NO. SM-20N	CS NO. UNKNOWN, MATCH EXISTING COLOR	3" WIDTH, EACH LEG	REFER TO EXISTING INTERIOR WALL PROTECTION LEGEND ON I-001, VERIFY MOUNTING OPTIONS WITH EXISTING.
CG-3	CS ACROVYN	90° CORNER GAURDS, SURFACE MOUNTED; 16 Ga SS, CS N0. CO-8	CS N0. CO-8	2" WIDTH, EACH LEG	REFER TO INTERIOR WALL PROTECTION LEGEND ON I-001
VG-1	CS ACROVYN	BUMPER GAURD WALL PROTECTION, MODEL SCR-40 / BCR-40	CS NO. UNKNOWN, MATCH EXISTING COLOR	4" WIDE V.I.F.	REFER TO EXISTING INTERIOR WALL PROTECTION LEGEND ON I-001, VERIFY MOUNTING OPTIONS WITH EXISTING.
VP-1	CS ACROVYN	SHEET WALL PROTECTION; MODEL - CS ACROVYN	VERIFY W/ ARCHITECT	0.060-INCH THICK	REFER TO INTERIOR WALL PROTECTION LEGEND ON I-001





A2 ENLARGED FINISH PLAN - EQUIPMENT GALLEY

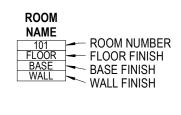
A1 ENLARGED FINISH PLAN - LAB RENOVATION

INTERIOR FINISH GENERAL NOTES

- . REFER TO ASSOCIATED SPECIFICATION SECTION FOR DETAILED INFORMATION.
- 2. IF FINISH CODE IS NOT SPECIFIED (--), NO FIELD FINISH IS APPLIED. REFER TO CORRESPONDING SPECIFICATION SECTION. IF MANUFACTURER FINISH IS SPECIFIED (MFR), REFER TO CORRESPONDING SPECIFICATION SECTION.
- 3. ANY COLOR SUBSTITUTE SHALL BE REQUESTED TO THE ARCHITECT. REFER TO SECTION 01 33 00.
- 4. CONSISTENT MATERIAL COLORS AND PATTERNS SHALL BE PROVIDED. PROVIDE MATERIALS FROM SAME PRODUCT RUN.
- 5. WHERE ITEMS OR SURFACES ARE NOT SPECIFICALLY MENTIONED, PAINT THE SAME AS SIMILAR ADJACENT MATERIALS OR AREA. IF COLOR OF FINISH IS NOT DESIGNATED, ARCHITECT WILL SELECT FROM STANDARD COLORS OR FINISHES AVAILABLE.
- 6. UNLESS OTHERWISE INDICATED, DO NOT PAINT FACTORY-FINISHED OR INSTALLER-FINISHED ITEMS.
- 7. GRILLES, DIFFUSERS, ELECTRICAL PANELS, ACCESS PANELS, ETC... WHICH ARE EXPOSED IN FINISHED SPACES SHALL BE PAINTED TO MATCH THE SURFACE ON WHICH THEY OCCUR.
- 8. PAINT INTERIOR SURFACES OF DUCTS LOW VOC BLACK WHERE SURFACES ARE VISIBLE THROUGH GRILLES AND DIFFUSERS.
- 9. ALL INTERIOR FINISHES SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. INSTALLER SHALL BE QUALIFIED TO INSTALL SPECIFIC FINISH MATERIAL AND HAVE EXPERIENCE WITH PROJECTS OF SIMILAR SIZE AND COMPLEXITY.
- 10. ALL HOLLOW METAL DOORS AND DOOR FRAMES SHALL BE PAINTED PTM1. 11. ALL FLOORING TYPE TRANSITIONS AT DOORS SHALL OCCUR ON THE CENTERLINE OF THE DOOR LEAF. TRANSITION TO BE SMOOTH AND EVEN. MAXIMUM VERTICAL CHANGE IN ELEVATION SHALL BE 1/4 IN. REFER TO SPECIFICATIONS FOR REQUIRED FLOOR TRANSITION TRIMS.
- 12. EXTEND FLOORING UNDER LAV/SINK BASE CABINETS AND OPEN KNEE SPACE.
- 13. CASEWORK TOE-KICK HEIGHT TO MATCH BASE HEIGHT IN ROOM.
- 14. WALL BASE DOES NOT EXTEND OVER STOREFONT OR OTHER SPECIALTY WALL FINISH UNLESS SHOWN OTHERWISE.
- 15. ALL WOOD-LOOK PLASTIC LAMINATE ON DOORS AND CASEWORK SHALL
- RUN VERTICALLY. 16. WALL PROTECTION: REFER TO I-SERIES PLANS FOR WALL PROTECTION LOCATIONS. REFER TO I-001 FOR WALL PROTECTION DETAILS.
- 17. ALL PRIVACY CURTAINS SHALL BE CC1.
- 18. ALL SHEET FLOORING TO HAVE HEAT WELDED SEAMS AND SELF-COVING BASE 6" A.F.F UNLESS NOTED OTHERWISE.

INTERIOR FLOOR FINISH PLAN LEGEND

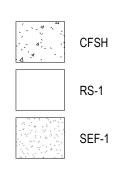
NOTE: REFER TO INTERIOR FINISH LEGEND SHEET I-001 FOR FINISH CODES AND DESCRIPTION OF MATERIALS.



FIELD FLOOR

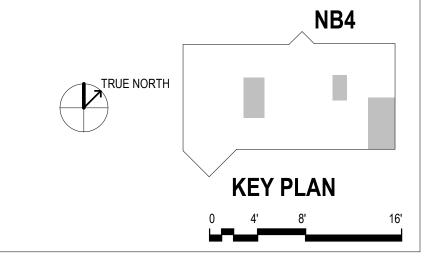
FINISH - REFER TO

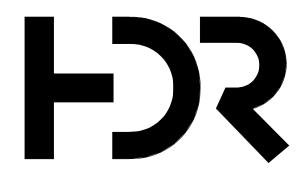
ROOM FINISH TAG



SHEET KEYNOTES (12)

IN-01	MATCH EXISTING FINISHES OF ADJACENT WALLS.
IN-02	REFER TO CONTROLLED ENVIRONMENT ROOM SPECIFICATION FOR FLOORING REQUIREMENTS.
IN-03	VERIFY NEW COLD ROOM LOCATION OVERLAPS WITH EXISTING FLOOR PRIOR TO INSTALLATION. NOTIFY ARCHITECT IF FLOORING SUBSTRATE IS EXPOSED AND NOT CONCEALED BY COLD ROOM.
IN-04	COORDINATE WALL FINISH WITH EXISTING STOREFRONT / WINDOW SILL HEIGHT. PROVIDE TRIM AND FINISH EDGE ACCORDING TO MANUFACTURER RECOMMENDATIONS.
IN-05	COORDINATE WALL PROTECTION INSTALLATION WITH EXISTING GAS LINE SHUT OFF VALVE.
IN-06	PATCH AND REPAIR EXISTING FLOORING AT PROPOED FLOOR SINK LOCATION. PROTECT EXISTING FLOORING PRIOR COLD ROOM INSTALLATION.
IN-07	PROTECT EXISTING WALL BUMPER RAILER PRIOR TO COLD ROOM INSTALLATION. MODIFY EXTENTS TO COORDIANTE WITH NEW FACE OF NEW COLD ROOM INSTALLATION. PATCH AND REPAIR ACCORDINGLY. REMOVE EXISTING WALL BUMPER RAIL AS REQUIRED TO REPAIR EXISTING GWB SUBSTRATE PRIOR TO FRESHED PAINT APPLICATION.
IN-08	PROTECT EXISTING CORNER GAURDS PRIOR TO COLD ROOM INSTALLATION. PATCH AND REPAIR CORNER GAURDS ACCORDING TO MANUFACTURER RECOMMENDATIONS. REMOVE EXISTING CORNER GAURDS AS REQUIRED TO REPAIR EXISTING GWB SUBSTRATE PRIOR TO FRESHED PAINT APPLICATION.
IN-09	COORDINATE FLOOR TRANSITION LOCATION WITH EQUIPMENT MODULAR WALL LOCATION. CLEAN AND REPAIR EXISTING FLOOR IN SERVICE COORIDOR PRIOR TO NEW EQUIPMENT INSTALLATION.





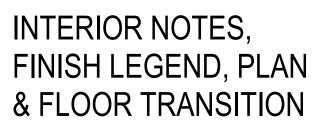
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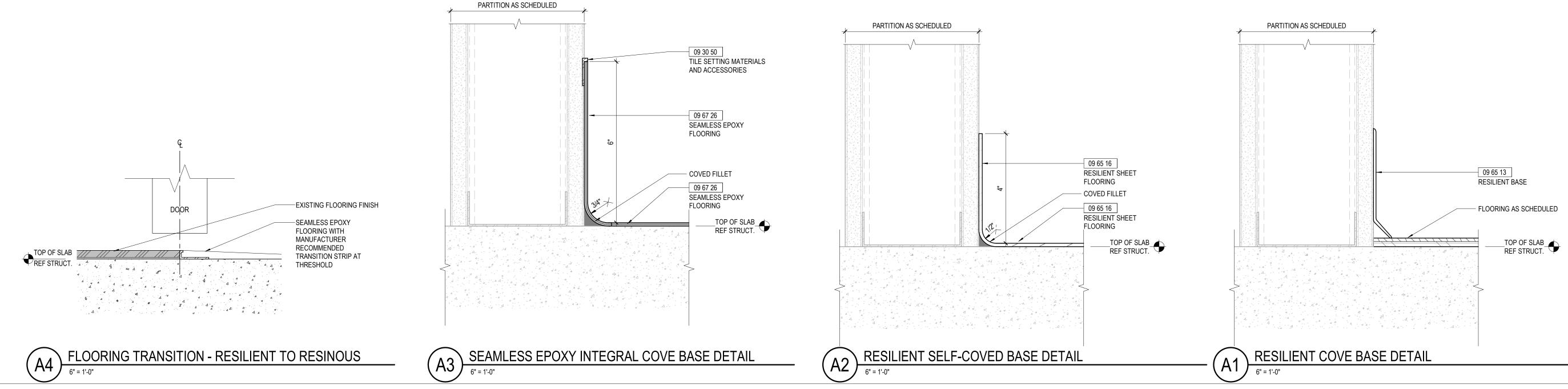


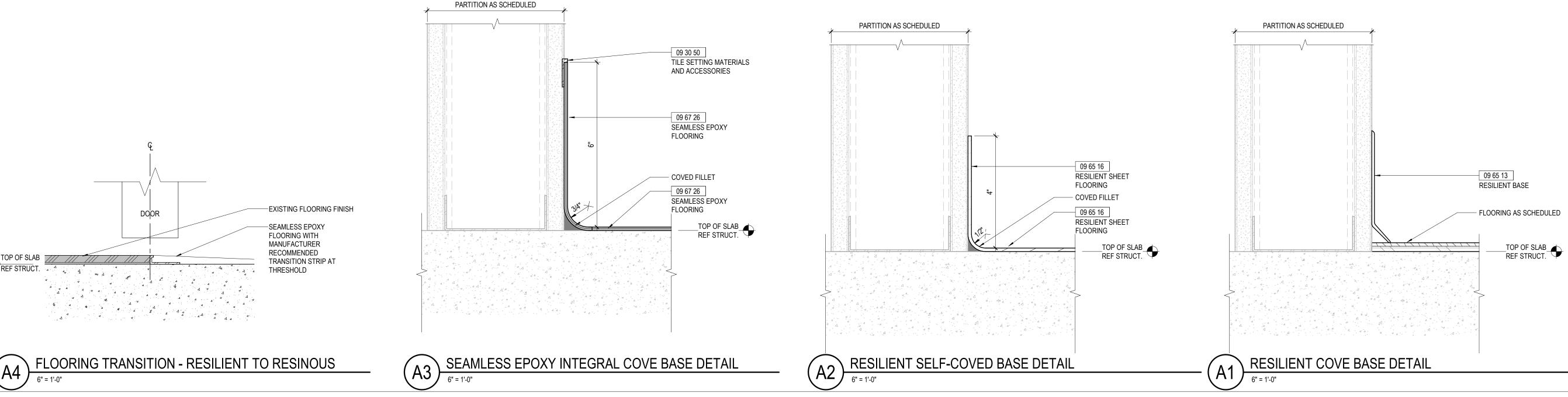


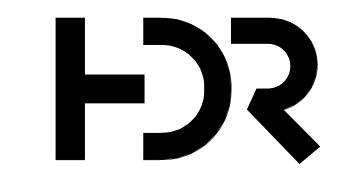


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ER TO GENERAL ABBREVIATIONS FOR ADDITION	NOTE: RE
AT	@
AND	&
POSITIVE PRESSURE	(+)
NEGATIVE PRESSURE	(-)
AMPS	A
AIR CHANGES / HOUR	ACH
ADJUSTABLE	ADJ
ABOVE FINISHED FLOOR	AFF
ALTERNATE	ALT
AMBIENT	AMB
AMPERES	AMPS
ACCESS PANEL	AP
ARGON	Ar
ARCHITECTURAL	ARCH
ACID WASTE NEUTRALIZATION	AWN
BUILDING AUTOMATION SYSTEM	BAS
BOTTOM OF	BO
BIOLOGICAL SAFETY CABINET	BSC
BALANCE TABLE	BT
BRITISH THERMAL UNITS PER HOUR	BTUH
ACETYLENE	C2H2
CAPACITY	CAP
CONSTANT AIR VOLUME	CAV
CHALKBOARD	CB
CLEAN BENCH	CBH
CLEAN DRY AIR LOW PRESSURE	CDALP
CLEAN DRY AIR HIGH PRESSURE	CDAHP
CONTROLLED ENVIRONMENT ROOM	CER
CONTRACTOR-FURNISHED/CONTRACTOR-INSTA	CFCI
CONTRACTOR-FURNISHED/OWNER-INSTALLED	CFOI
CHEMICAL FUME HOOD	CFH
CUBIC FEET PER MINUTE	CFM
SHOWER CURTAIN, HOOKS AND ROD	CHR
CENTERLINE	CL
CEILING, COOLING	CLG
CHLORINE DIOXIDE	CIO2
CARBON DIOXIDE	CO2
COMPRESSOR	COMPR
CONDENSATE, CONDENSER	COND
CONNECTION	CONN
CONTINUATION	CONT
CLEANROOM ACCESS FLOOR	CRAF
CLEANROOM CEILING SYSTEM	CRCS
CLEANROOM PANEL SYSTEM	CRPS
CUPSINK	CS
CEILING SERVICE PANEL	CSP
POTABLE COLD WATER	CW
CHILLED WATER RETURN	CWR
CHILLED WATER SUPPLY	CWS
DEDICATED	D
DECIBEL(S), DRY BULB	DB
DOUBLE	DBL
DEGREE(S)	DEG
DETAIL	DET
DRENCH HOSE	DH
DIAMETER	DIA
DEIONIZED WATER RETURN	DIR
DEIONIZED WATER SUPPLY	DIS
DIVISION	DIV
DEIONIZED WATER	DIW
DOWN	DN
DRYING RACK, DOOR	DR
DRAWINGS	DWGS
EXISTING	(E)
EMERGENCY POWER, EPOXY RESIN	E
ENVIRONMENTAL HEALTH & SAFETY	EH&S
ELECTRICAL	ELEC
ELEVATION	ELEV
ELECTROMAGNETIC INTERFERENCE	EMI
EQUAL	EQ
EQUIPMENT	EQUIP
EMERGENCY SHOWER	ES
EMERGENCY SHOWER/EYE WASH	ESEW
EYEWASH	EW
EXHAUST	EXH
FUTURE	(F)
FAHRENHEIT	F
FIRST AID KIT	FAK
FLOOR DRAIN	FD
FAN FILTER UNITS	FFU
FUME HOOD FLOOR FLAMMABLE FLEXIBLE	FH FL FLAM
FILLER PANEL FEET PER MINUTE	FLEX FP FPM
FREEZER	FRZ
FLOOR SINK	FS
FACE VELOCITY	FV
FIXTURE	FXTR
GALLON(S)	GAL
GAS CYLINDER RACK	GCRK
GALLONS PER HOUR	GPH
GALLONS PER MINUTE	GPM
GLOBAL POSITIONING SYSTEM	GPS
GLASSWARE WASHER	GW
HYDROGEN	H2
HOSE BIBB	HB
POTABLE HOT/COLD MIXED WATER	HCW
HIGH DENSITY	HD
HELIUM	He
MERCURY	Hg
HOT GAS	HG
COAT HOOK	HK
HIGH VOLUME/LOW VELOCITY DIFFUSER	HV/LV
HIGH PRESSURE, HORSEPOWER	HP
HOSE REEL, HOUR	HR
HEIGHT	HT
HEATING, VENTILATION & AIR CONDITIONING HIGH VOLTAGE POWER	HVAC HVP HW

RATORY ABBRE

LABORATORY SYMBOLS

 \rightarrow

- SINK

_ _ _ _ _ _ _

_ _ _ _ _ _ _

_ _ _ _ _ _ _ _ _ _

EVI	ATION	S	LABORATOF
ABBRE	EVIATIONS - S	SEE SHEET A-000.	
	ICW ID IHCW IHW IN INC I/O ISO	INDUSTRIAL COLD WATER INSIDE DIAMETER INDUSTRIAL HOT/COLD MIXED WATER INDUSTRIAL HOT WATER INCH(ES) INCUBATOR INPUT/OUTPUT ISOLATION	 BIOLOGICAL SAFETY CABINET CLASS II / TYPE A2 (DASHED LINES INDICATE OFOI BSC)
	JT	JOINT	BIOLOGICAL SAFETY CABINET
	KW L/R LAHP LALP LBS LF	KILOWATT(S) LEFT/RIGHT LABORATORY AIR (HIGH PRESSURE) LABORATORY AIR (LOW PRESSURE) POUNDS LINEAR FEET, LINEAR FOOT	CLASS II /TYPE A2 WITH THIMBLE CONNECTION (DASHED OUTLINES INDICATE OFOI BSC)
	LF LFH LHe LN2 LV LW	LINEAR FEET, LINEAR FOOT LAMINAR FLOW HOOD LIQUID HELIUM LIQUID NITROGEN LABORATORY VENT LABORATORY WASTE	 EYEWASH UNIT EMERGENCY SHOWER
	MAX MB MBH MECH MFR MIN MISC MS MTD	MAXIMUM MARKERBOARD MOP & BROOM RACK MECHANICAL MANUFACTURER MINIMUMM, MINUTE(S) MISCELLANEOUS MIRROR WITH SHELF MOUNTED METAL	- POINT EXHAUST - OFOI EQUIPMENT
ED	MTL (N) N/A NG NIC NO N2 NO2 NTS O2	NEW NOT APPLICABLE NATURAL GAS NOT IN CONTRACT NUMBER NITROGEN NITROUS OXIDE NOT TO SCALE OXYGEN	 FUME HOOD (DASHED LINES INDICATE OFOI)
	OC OD OFCI INSTALLEE OFOI OH OSC OPP	OWNER-FURNISHED/OWNER-INSTALLED OVERHEAD, OPPOSITE HAND OVERHEAD SERVIICE CARRIER OPPOSITE	- GCRK GAS CYLINDER RACK- REFER TO PLANS FOR CYLINDER QUANTITY (GAS CYLINDER - OFOI)
	PCWR PCWS PE PH PL PLBG PSI PTD PV PW	PROCESS COOLING WATER RETURN PROCESS COOLING WATER SUPPLY POINT EXHAUST PHASE, PHENOLIC ACID RESISTANT PLASTIC LAMINATE PLUMBING POUNDS PER SQUARE INCH PAPER TOWEL DISPENSER PROCESS VACUUM PURIFIED WATER	- GCRS GAS CYLINDER RESTRAINT BRACKET REFER TO PLANS FOR QUANTITY (GAS CYLINDERS - OFOI)
	QTY RECEPT REF REF/FRZ REQD RF RH	QUANTITY RECEPTACLE REFRIGERATOR REFRIGERATOR/FREEZER REQUIRED RADIO FREQUENCY RELATIVE HUMIDITY	

RELATIVE HUMIDITY

SERVICE COLUMN

SPECIALTY GAS

SNORKEL EXHAUST

STATIC PRESSURE

STAINLESS STEEL

SAFETY SUPPLY CABINET

STAINLESS STEEL SHELVING UNIT

REVERSE OSMOSIS WATER RETURN

REVERSE OSMOSIS WATER SUPPLY

REVERSE OSMOSIS WATER

ROOM

SHEET

SIMILAR

SQUARE

STEAM

SYSTEM

TYPICAL

STRUCTURAL

TACKBOARD

TEMPERATURE

UNDER COUNTER

ULTRA HIGH PURITY

UNDER COUNTER FREEZER

NITROGEN (SAME AS N2)

UNLESS NOTED OTHERWISE

ULTRA PURE WATER RETURN

ULTRA PURE WATER SUPPLY VENT (SANITARY), VOLTS

LABORATORY VACUUM

WET BULB, WHITEBOARD

VARIABLE AIR VOLUME

VELOCITY

WITH

VERIFY IN FIELD

WATT(S), WOOD

WATER GAUGE

WITHOUT

UNDER COUNTER GLASSWARE WASHER

UNDER COUNTER REFRIGERATOR

UNINTERRUPTED POWER SUPPLY

VAPORIZED HYDROGEN PEROXIDE

SINK

RH

RM ROR

ROS

SC

SE SG SHT

SK

SIM

SP

SQ

SS SSC

SSS STM

SYS

ΤВ

TEMP TYP

UC UCF UCGW

UCR

UHP

UN2

UNO UPS

UPWR

UPWS

V VAC

VAV

VEL

VIF

W/

WB

WG W/O

VHP

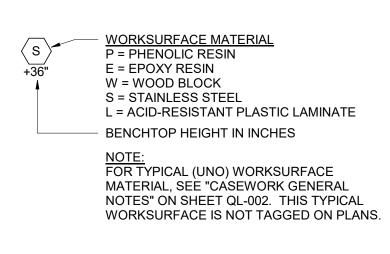
STRUCT

ROW

OWER, EPOXY RESIN	
AL HEALTH & SAFETY	

SYSTEM

NOTATIONAL TAGS



CFHxxa - FUME HOOD

RIGHT LEFT

- BASE CABINET BELOW ADJUSTABLE HT OR FIXED HT TABLE (SHOWN W/ MOBILE CABINET BELOW) ADJUSTABLE SHELVING, WALL MOUNTED, (3) TIER (UNO)

TALL STORAGE CABINET

ADAPTABLE BENCH -SINGLE FRAME (SINGLE SIDED)

ADAPTABLE BENCH -SHARED FRAME (DOUBLE SIDED)

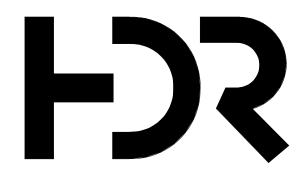
STAINLESS STEEL MULTI-TIER SHELVING

- DR-x DRYING RACK - SERVICE COLUMN

- LABORATORY GENERAL NOTES
- 1. REFER TO ARCHITECTURAL FLOOR PLANS FOR ROOM DIMENSIONS, CONSTRUCTION TYPES, CONTROL AREAS, RATED WALLS AND FINISHES.
- 2. LOCATE/INSTALL BLOCKING/BACKING AT WALLS WHERE CASEWORK IS PLACED/MOUNTED, PER SPECIFICATION
- SECTION 09 22 16. 3. LABORATORY FURNISHINGS CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.
- 4. LABORATORY CASEWORK SHALL BE METAL, UNLESS NOTED OTHERWISE.
- 5. LABORATORY WORKSURFACES SHALL BE **36** AFF, UNLESS NOTED OTHERWISE.
- 6. LABORATORY WORKSURFACES SHALL BE **EPOXY RESIN** UNLESS NOTED OTHERWISE.
- 7. LABORATORY ADJUSTABLE SHELVING SHALL BE METAL UNLESS NOTED OTHERWISE. TOP SHELF END BRACKETS TO BE TURNED DOWN, UNLESS NOTED OTHERWISE. 8. OVERALL LENGTH OF TOPS SHALL BE DETERMINED BY MODULAR CASEWORK WIDTH AND DIMENSIONS AS INDICATED ON
- PLANS. SUCH LENGTHS SHALL REMAIN CONSTANT REGARDLESS OF SUCCESSFUL BIDDER'S STANDARDS. TOPS TYPICALLY SHALL OVERHANG 1" AT EACH END AND 1" FROM FRONT OF BASE CABINET. WHEN OVERALL DIMENSIONS ARE GIVEN, 1" OVERHANG IS INCLUDED. WHEN BASE CABINETS ARE LOCATED DIMENSIONALLY ON LABORATORY FURNISHINGS FLOOR PLANS, DIMENSIONS ARE TO FACE OF BASE CABINET, UNLESS NOTED OTHERWISE. 9. ON WALL-TO-WALL CASEWORK ASSEMBLIES, THE "KNEE SPACE" DIMENSION SHALL BE DETERMINED IN THE FIELD, UNLESS
- NOTED OTHERWISE. IF THERE IS MORE THAN ONE "KNEE SPACE" INDICATED, SPACE AVAILABLE FOR "KNEE SPACES" SHALL BE EVENLY DISTRIBUTED, UNLESS NOTED OTHERWISE. 10. PROVIDE BACKSPLASHES AT ALL FIXED COUNTER EDGES ABUTTING WALLS, COLUMN FURRING, FUME HOODS AND TOP
- PENETRATIONS. 11. FREESTANDING TALL STORAGE CABINETS AND FREESTANDING HAZARDOUS MATERIALS CABINETS SHALL BE SEISMICALLY
- RESTRAINED; REFER TO SPECIFICATION SECTION 12 35 53. 12. LOCATION OF EQUIPMENT, SUCH AS PENINSULA BENCH SHELF SUPPORTS, OVERHEAD EQUIPMENT SUPPORT STRUCTURES, FUME HOODS, BRACES, OR ANY OTHER ITEMS THAT MAY INTERFERE WITH LIGHTING, STRUCTURAL OR MECHANICAL SYSTEMS SHALL BE CAREFULLY COORDINATED BY THE LABORATORY FURNISHINGS CONTRACTOR, AND ANY DISCREPANCIES BROUGHT TO THE ARCHITECT'S ATTENTION IMMEDIATELY.
- 13. ANY TYPE OF EQUIPMENT SUPPORT STRUCTURES OR SLOTTED STANDARD FRAME SUPPORTS (USED FOR RACKS, SHELVING, ETC.) SHALL BE SPACED AND POSITIONED TO CLEAR FITTINGS, SINKS AND CUPSINKS.
- 14. ON WALLS WHERE EQUIPMENT SUPPORT STRUCTURES OR SLOTTED STANDARDS RUN FULL HEIGHT AND INTERFERE WITH ELECTRICAL SERVICES, RACEWAYS SHALL BE WALL MOUNTED AND EQUIPMENT SUPPORT STRUCTURES / STANDARDS CUT AS REQUIRED UNLESS NOTED OTHERWISE.
- 15. FOR LOCATION OF OVERHEAD EQUIPMENT SUPPORT STRUCTURES, FUME HOODS, SNORKEL EXHAUSTS AND ANY OTHER FURNISHINGS THAT PENETRATE THE CEILING, REFER TO ARCHITECTURAL REFLECTED CEILING PLANS. 16. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL ELECTRICAL/DATA RACEWAYS. FOR INSTALLATION, SEE
- ELECTRICAL AND LABORATORY FURNISHINGS DRAWINGS AND SPECIFICATIONS FOR QUANTITY, TYPE, LOCATION, AND MOUNTING HEIGHT. 17. ALL WALL-MOUNTED ELECTRICAL/DATA RACEWAY SHALL BE MOUNTED AT +45" AFF TO BOTTOM OF RACEWAY, UNLESS NOTED OTHERWISE.
- 18. ON LABORATORY EQUIPMENT ELEVATIONS, 'Q' SERIES DRAWINGS, INDIVIDUAL WALL MOUNTED ELECTRICAL, DATA, VOICE OR OTHER DEVICES TYPICALLY NOT SHOWN. REFER TO BUILDING ELECTRICAL POWER, DATA/VOICE DRAWINGS FOR THOSE LOCATIONS.
- 19. PROVIDE TASK LIGHT AT LOWER SHELF OF ALL ADJUSTABLE SHELVING LOCATIONS AND BENEATH ALL WALL CABINETS WHEN LOCATED ABOVE WORKSURFACE, I.E. FIXED BENCH TOPS AND MOVABLE TABLES. DO NOT PROVIDE TASK LIGHT UNDER LOWER SHELF WHEN ABOVE EQUIPMENT OR EQUIPMENT ZONE. 20. ALL OFOI EQUIPMENT SHOWN DASHED, UNLESS NOTED OTHERWISE.
- 21. ALL LABORATORY CASEWORK AND LABORATORY SERVICE FITTINGS AND FIXTURES MOUNTED ON THE LABORATORY CASEWORK ARE TO BE PROVIDED BY THE OWNER AND IS TO BE INSTALLED BY SELLESYED CASEWORK VENDOR BY THE OWNER.
- 22. REFER TO RELATED SPECIFICATION SECTIONS INCLUDING, BUT NOT LIMITED TO: - DIVISION 1
- DIVISION 9 - DIVISION 10
- 11 53 13 FUME HOODS AND EXHAUST DEVICES - 11 53 43 LABORATORY SERVICE FITTINGS AND FIXTURES - 12 35 53 LABORATORY CASEWORK AND OTHER FURNISHINGS

OR **BIOLOGICAL SAFETY** CABINET

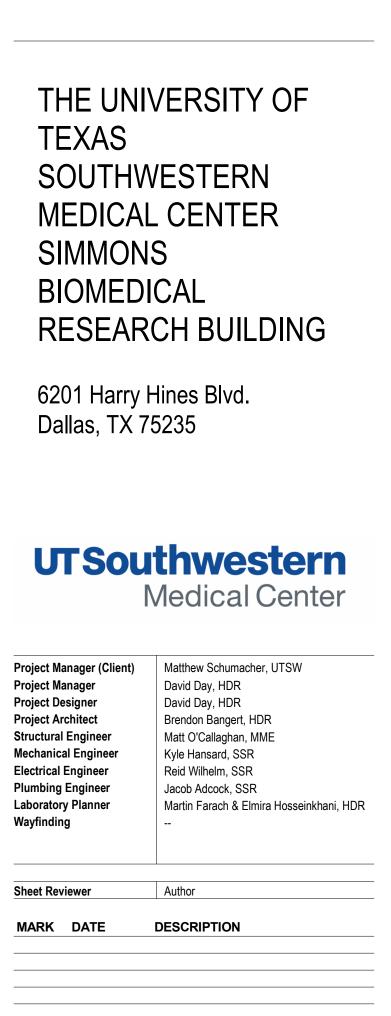
CENTER - FIXTURES AT SINK



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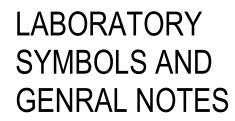


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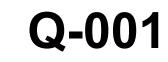
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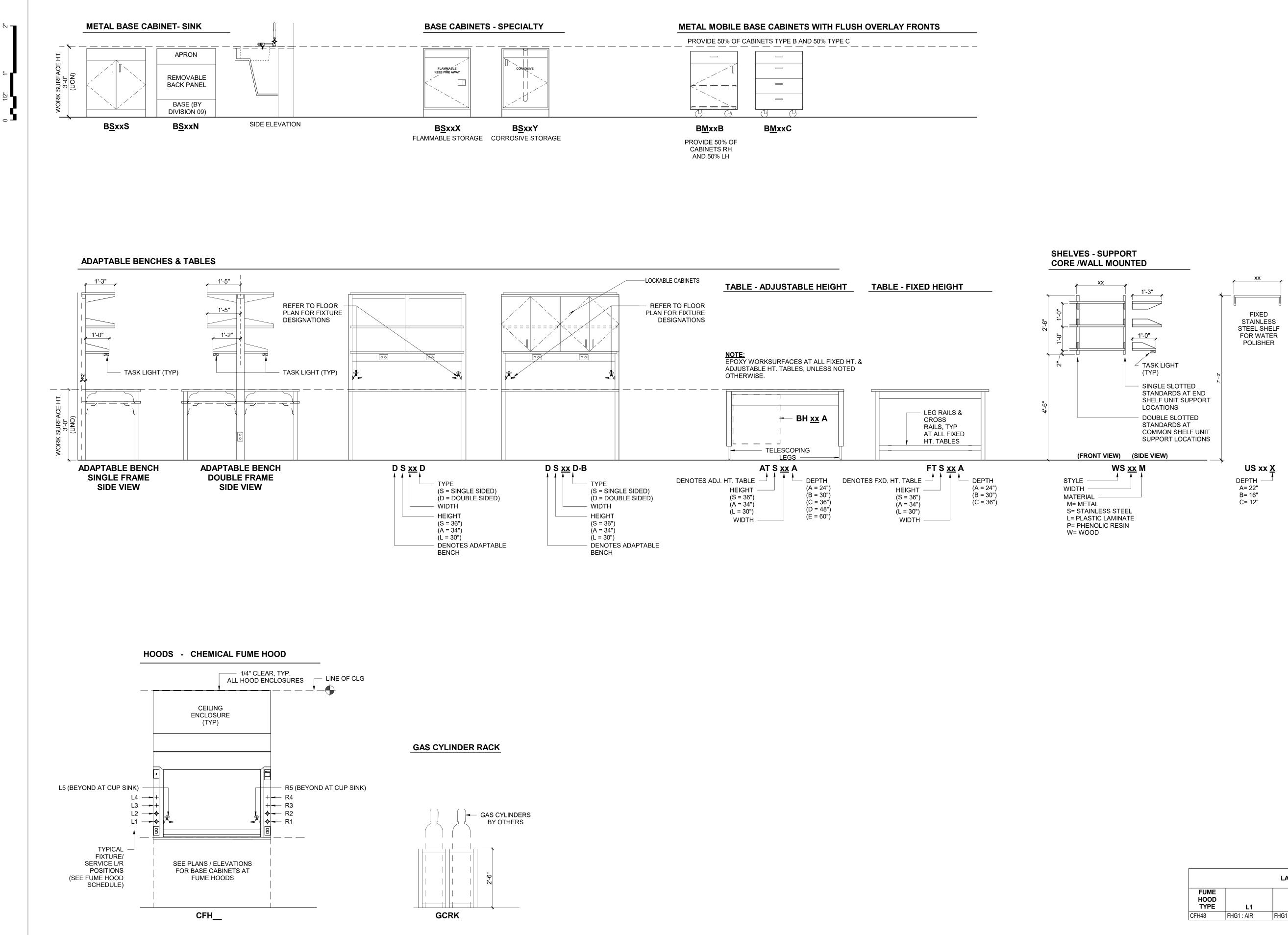




Sheet Number

Sheet Name





Equipment Number	Phase (<varies> = New Construction and Alternate)</varies>	CFCI	CFOI	OFCI (NIC)	OFOI	ТҮРЕ	DESCRIPTION	MANUFACTURER	MODEL #	COMMENTS	NOTES:
EQ-01	New Construction	No	No	Yes	No	BSC72-A1	6' BIOLOGICAL SAFETY CABINET (FUTURE) - CLASS II, TYPE A2	NUAIRE	NU-540 (LAB GAURD ES)		
EQ-02	New Construction	No	No	Yes	No	BSC72-B2	6' BIOLOGICAL SAFETY CABINET (FUTURE) - CLASS II, TYPE B2, HARD DUCTED	NUAIRE	NU-560 (LAB GAURD ES)	CAP DUCT FOR FUTURE USE	
EQ-03	New Construction	No	No	No	Yes	DBL. STACK INCUBATORS	INCUBATOR - DOUBLE STACK				
EQ-04A	New Construction	No	No	Yes	No	AMSCO 630LS	MEDIUM STERILIZER SINGLE DOOR	STERIS	AMSCO CENTURY 48" CHAMBER		
EQ-04B	New Construction	No	No	Yes	No	AMSCO 630RS	MEDIUM STERILIZER SINGLE DOOR	STERIS	AMSCO CENTURY 48" CHAMBER		
EQ-05	New Construction	No	No	Yes	No	RELIANCE 400XLS	LABORATORY GLASSWARE WASHER	STERIS	RELIANCE 400		
EQ-06	New Construction	No	No	No	Yes	BENCH CLAMPS	CYLINDER BENCH CLAMPS (OWNER FURNISHED OWNER INSTALLED)				

BASE CABINET NOMENCLATURE

₿ <u>X</u>	<u>xx</u>	<u>X</u> *	
Å	ł	↑ ▲	 '*' DEN
			 DENOT (SEE A
			 DENOT
			 DENOT S = ST A = AE L = ST M = M H = SU

** DENOTES CABINET LOCK
DENOTES CABINET STYLE (SEE ADJACENT STYLE ELEVATIONS)
DENOTES CABINET WIDTH
DENOTES CABINET TYPE: S = STANDING HEIGHT (36") A = ADA HEIGHT (34") L = SITTING HEIGHT (30") M = MOBILE CABINET H = SUSPENDED CABINET
DENOTES BASE CABINET

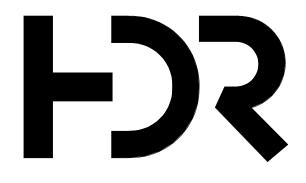
CASEWORK GENERAL NOTES:

- 1. REFER TO SHEET Q-001 FOR LABORATORY GENERAL NOTES
- 2. DIMENSIONS ARE NOMINAL, COORDINATE VARIATIONS BASED UPON MANUFACTURER, SUBJECT TO ARCHITECT'S APPROVAL
- LOCATE / INSTALL BLOCKING / BACKING AT WALLS WHERE CASEWORK IS PLACED / MOUNTED, PER SPECIFICATION SECTION 09 22 16.
- INSTALL ALL FILLER AND END PANELS AS REQUIRED TO PROVIDE A COMPLETE INSTALLATION. FILLER AND END PANELS ARE NOT TAGGED ON PLANS
- 5. PROVIDE BACKSLPASHES AT ALL FIXED COUNTER EDGES ABUTTING WALLS, COLUMN FURRING AND FUME HOODS
- 6. PROVIDE EPOXY RESIN WORKSURFACES AT ALL FIXED / ADJUSTABLE
- HEIGHT TABLES, UNLESS NOTED OTHERWISE.7. ALL CABINETS WITH THE SUFFIX ' * ' ARE TO HAVE LOCKS.
- SEE SPECIFICATIONS SECTION 12 35 53 FOR FURTHER INFORMATION ABOUT CASEWORKS, CURBES AND SPLASHES.

LABORATORY FUME HOOD SCHEDULE, OFOI								
FUME HOOD TYPE	L1	L2	R5	LEFT SINK TYPE	RIGHT SINK TYPE	SPEC SECTION		
CFH48	FHG1 : AIR	FHG1 : VAC			CS-1 : CW-5	11 53 13		

		BOWL DIMENSIONS					FIXT	URES			
MARK					TYPES			LOCATION		N	
ΨW	DESCRIPTION	LENGTH	WIDTH	DEPTH	LEFT	CENTER	RIGHT	CENTER	LEFT	RIGHT	Comments
SK-1	Epoxy Lab Sink	2' - 1"	1' - 3"	10"	-	HCW-1	EW-1	1' - 0 1/2"	10"	10"	
SK-2	Epoxy Lab Sink	2' - 1"	1' - 3"	10"	RO-1	HCW-1	EW-1	1' - 0 1/2"	10"	10"	
	SPECIFICATION		LABORATO	RY FIXTURE &	FITTING	SCHEDU	LE (11 5	3 43)		MOUNTING	
10		SERVIO		FIXTURE TYPE					TYPE	REMARKS	
		1									-
AC-1	B1	VACUUM		SINGLE BALL						DECK	
AC-2	B2	VACUUM		DUAL BALL V						DECK	
IR	B5	CLEAN DRY AIR - HI	GH PRESSURE	SINGLE BALL						VALL	
AC	B5	VACUUM		SINGLE BALL	VALVE				\	VALL	
W-1	EW	TEMPERED WATER	DRENCH HOSE DUAL HEAD						Deck		
ICW-1	HCW	POTABLE HOT & CO	LD WATER	LABORATORY	Y MIXING F.	AUCET				DECK	
JR-1	HPG2	CLEAN DRY AIR - HI	GH PRESSURE	FINE CONTROL NEEDLE VALVE				[DECK		
AIR-2 HPG3 CLE		CLEAN DRY AIR - HI	CLEAN DRY AIR - HIGH PRESSURE		FINE CONTROL NEEDLE VALVE			[DECK		
NG6 NG6 NATURAL GAS		SINGLE NEED	SINGLE NEEDLE VALVE					VALL			
W-1	PW1	DEIONIZED WATER		PURE WATER	R FAUCET				[DECK	
WV-2	PWV-2	REVERSE OSMOSIS	WATER	PURE WATER	R VALVE				1	VALL	FOR POLISHER
RO-1	RO	REVERSE OSMOSIS		PURE WATER						DECK	

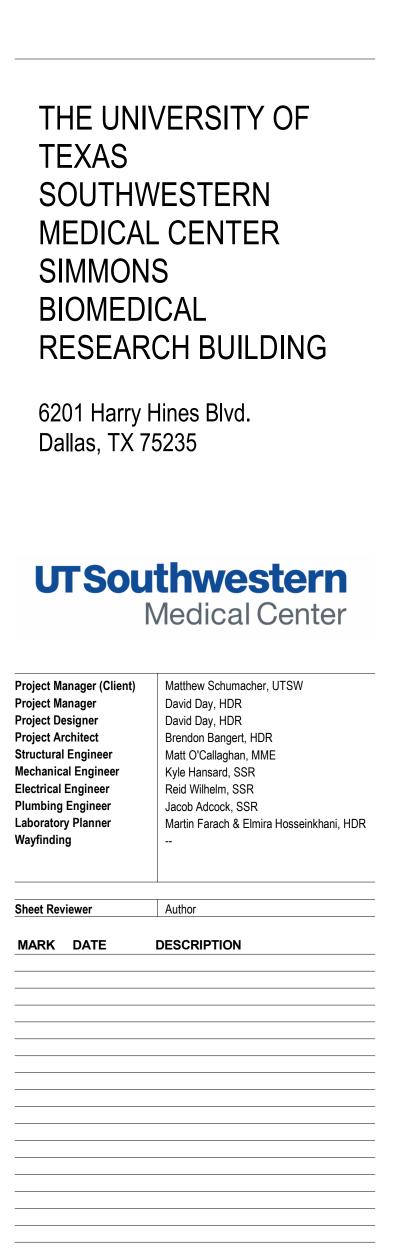
LABORATORY MAJOR EQUIPMENT SCHEDULE - CFCI / OFCI / OFOI



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MARTINEZ MOORE ENGINEERS



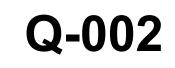
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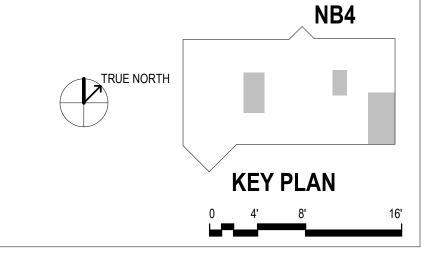


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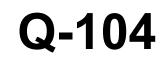
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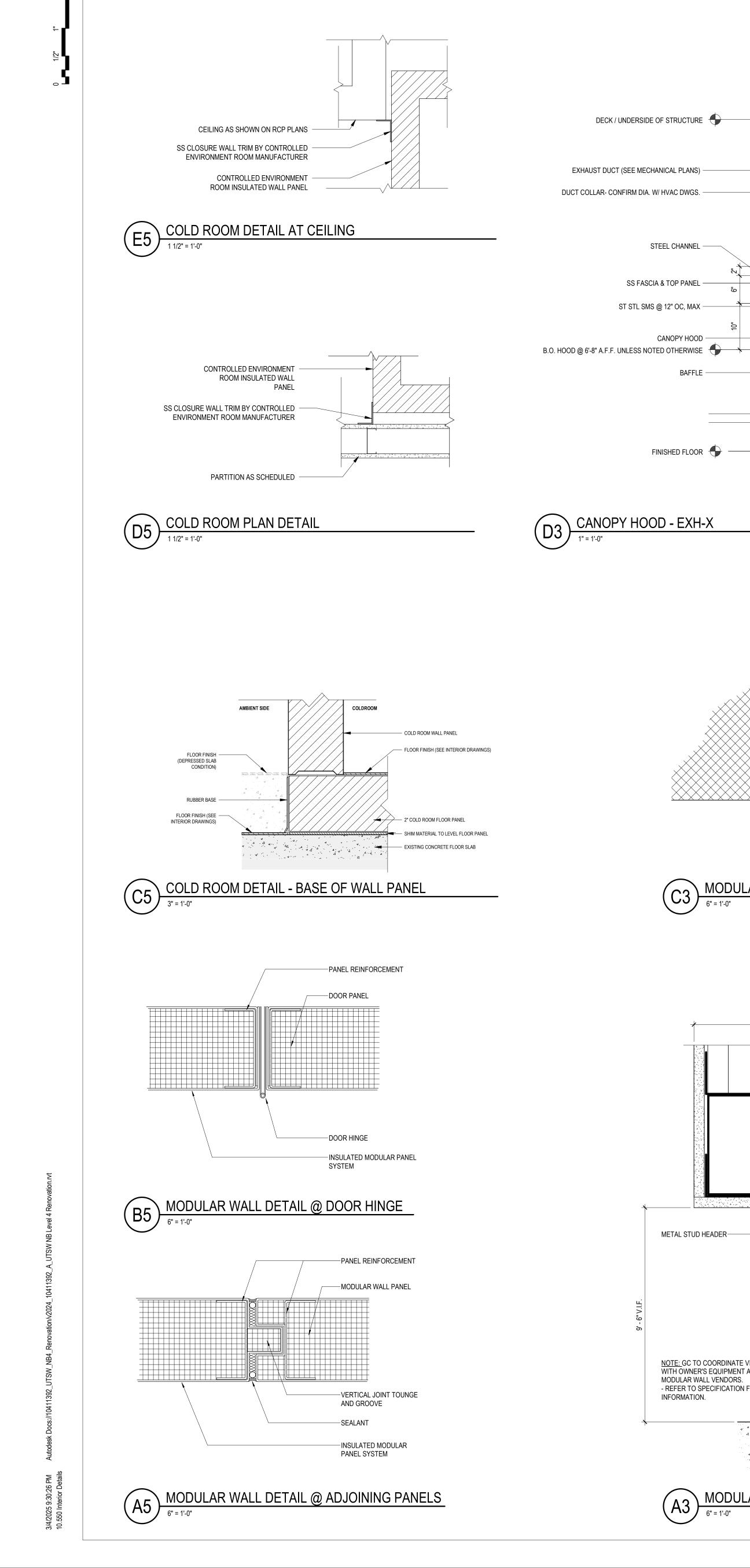
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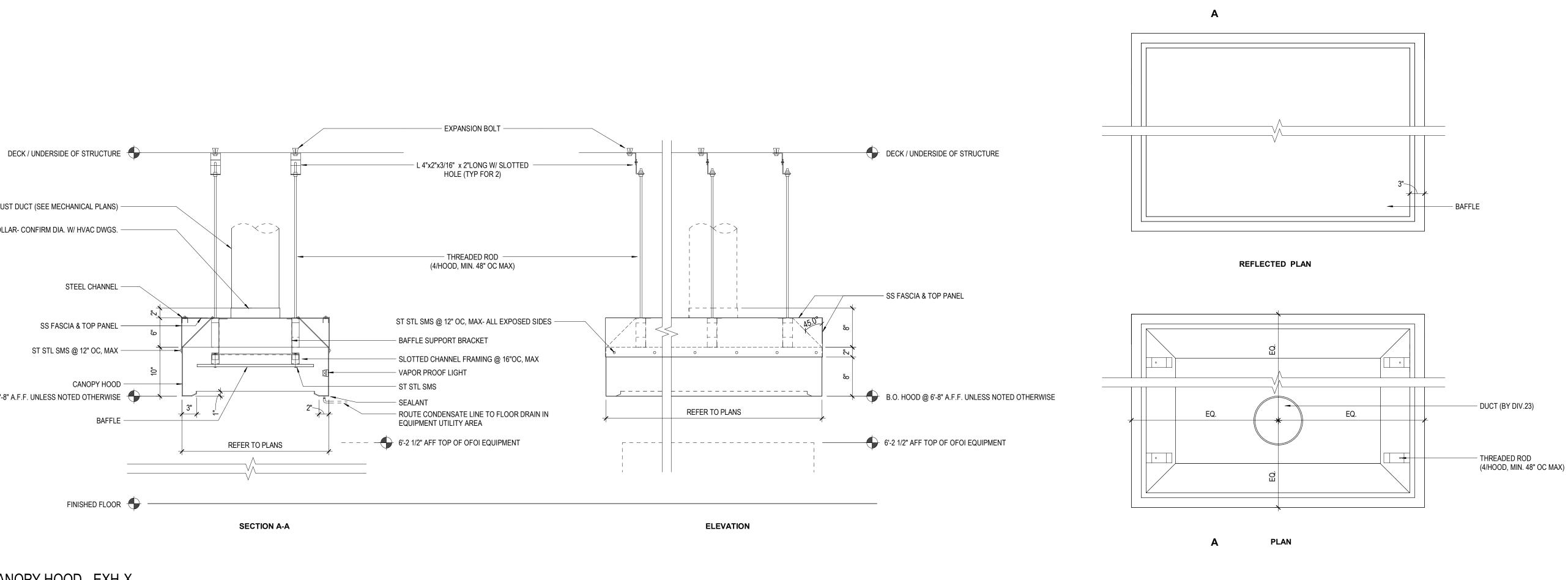




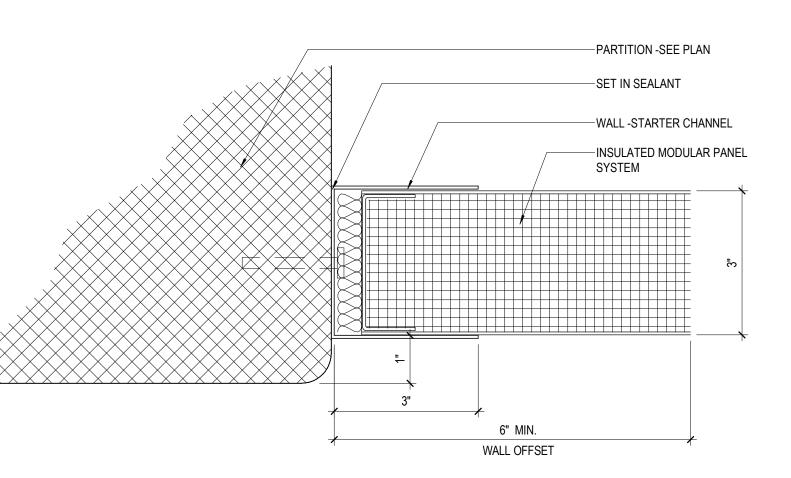
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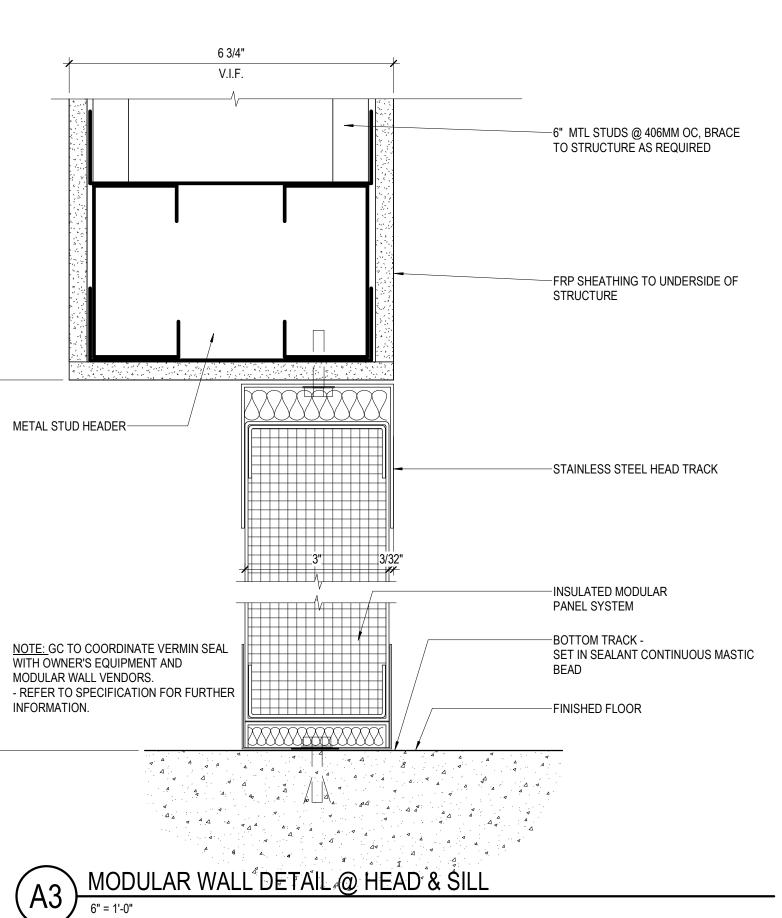


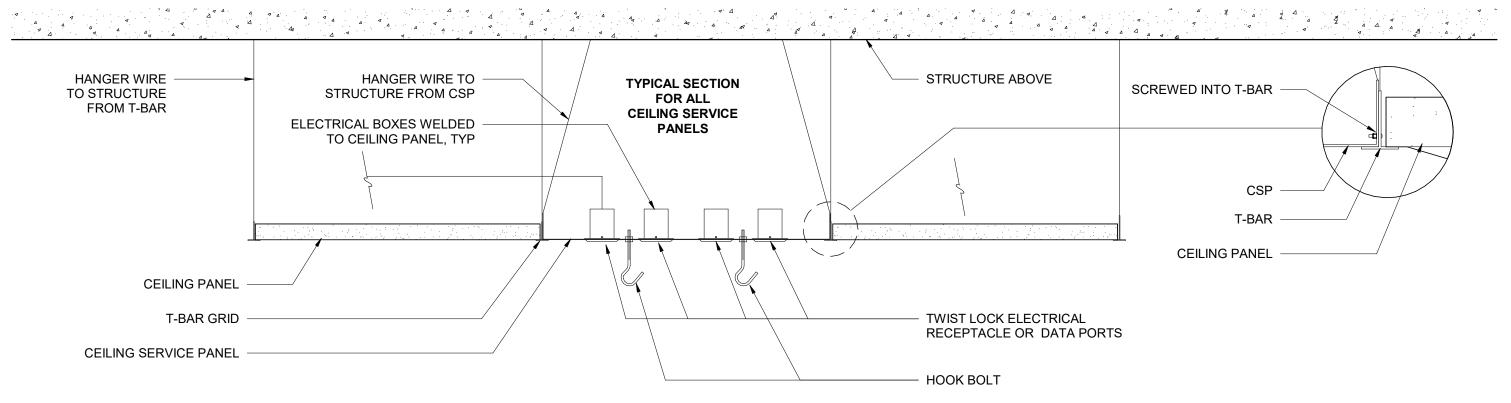




C3 MODULAR WALL DETAIL @ WALL



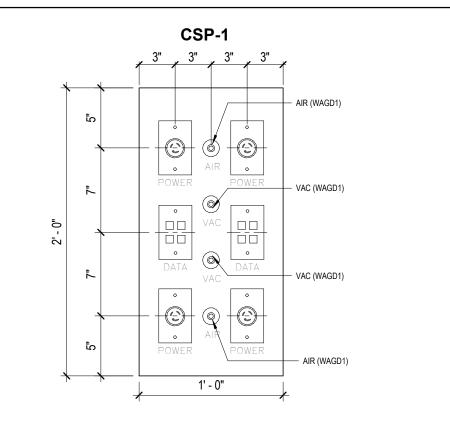


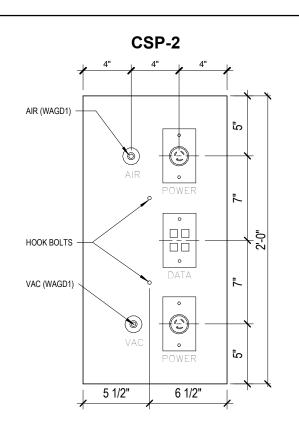


CEILING SERVICE PANEL (CSP) SUGGESTED SCOPE OF WORK

DESCRIPTION	DIVISIONS	REMARKS
DATA	DIVISION 27	SUPPLY AND INSTALL ALL COPPER AND/OR FIBER OPTICS CABLES AT CEILING SERVICE PANEL AND AT CUTOUT AT CASEWORK SYSTEM COLUMN, INCLUDING ALL OTHER COMPONENTS SUCH AS WHITE FACE PLATES, JACKS, JUNCTION BOXES, CONNECTORS, ETC.
ELECTRICAL	DIVISION 26	WIRING DEVICES, TWIST LOCK PLUGS AND WHITE COVER PLATES AT CSP. ALL COMPONENTS TO BE U.L. LISTED. PROVIDE NEMA RECEPTACLES AS SHOWN ON THE CSP DRAWINGS UNO. COORDINATE WITH DIVISION 12 TO PROVIDE CIRCUIT LABELING ON CSP TO CORRESPOND WITH OUTLETS ON COLUMN BASED MOVABLE WORKSTATION SYSTEMS.
GASES	DIVISION 12	SUPPLY AND INSTALL QUICK DISCONNECT VALVES ONCSP. SEE SPECIFICATION SECTION 11 53 43 FOR VALVE MODELS.
	DIVISION 22	INSTALL PIPED CONNECTIONS TO THE QUICK DISCONNECTS ABOVE THE CSP.
CEILING SERVICE PANEL (CSP)	DIVISION 12	REFER TO CSP DRAWINGS FOR DESIGN INTENT AND UTILITY REQUIREMENTS. CSP COLOR TO MATCH CEILING GRID COLOR UNO. PROVIDE ELECTRICAL JUNCTION BOX ABOVE CSP. COORDINATE WITH DIVISION 26 TO PROVIDE CIRCUIT LABELING ON CSP TO CORRESPOND WITH OUTLETS ON ADAPTABLE BENCHES.

CEILING SERVICE PANEL (CSP) LAYOUT



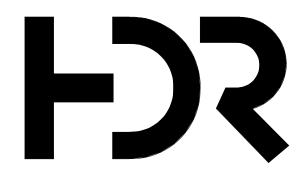


CEILING SERVICE PANEL (CSP) SECTION

CEILING SERVICE PANEL LAYOUT & DETAIL

(A1)

1 1/2" = 1'-0"



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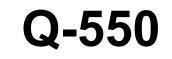
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Sheet Number



			PLUMBING **NOT ALL SYMBOLS		ע		
SYME	BOL	ABB.	DESCRIPTION	ABB.	DESCRIPTION		
LCW 7	LCW	CW	LAB COLD WATER	SYME -+			PIPE TURN DOWN
CW [CW	DOM. COLD WATER (BELOW)	+0			PIPE TURN UP
-CW HP-	CW HP	CW HP	DOMESTIC COLD WATER HIGH PRESSURE				BALL VALVE
LHW 7	LHW	HW	LAB HOT WATER	• 	 		GATE VALVE
HW ?		HW	DOMESTIC HOT WATER (BELOW)		 了		CHECK VALVE
-HW 140-	HW 140	HW 140	DOMESTIC HOT WATER 140	\boxtimes	\$		BALANCING VALVE
—LHWR—	LHWR	HWR	LAB HOT WATER RECIRC.	Ŕ			BUTTERFLY VALVE
HWR 9		HWR	DOMESTIC HOT WATER RECIRC. (BELOW)	Å		PRV	PRESSURE REGULATING VALVE
D ?	D	D	DRAIN		<u> </u>		SOLENOID VALVE
D 🔊		D	DRAIN (BELOW)	<u> </u>			STRAINER
	SHW	SHW	SOFTENED HOT WATER	\square	۵		REDUCER
—scw—	SCW	SCW	SOFTENED COLD WATER		ф		PIPE GUIDE
DI [DI	DEIONIZED WATER SUPPLY	×	X		ANCHOR
		DIR	DEIONIZED WATER RETURN	Ŷ	Ŷ		PRESSURE GAUGE
TW 🗲	TW	TW	TEMPERED WATER	φ	 0		THERMOMETER
C	G	G	NATURAL GAS	'	•		CAP/PLUG
•	w P	w	WASTE	<u> </u>		со	CLEANOUT (ABOVE CEILING)
w 🦉	_	W	WASTE (BELOW)	 1	0		UNION
V []		V	SANITARY VENT	À		PR	PRESSURE RELIEF VALVE
—AW—	AW	AW	ACID WASTE	· · ·			SHOCK ARRESTOR
AW	ĀW3	AW	ACID WASTE (BELOW)	+			HOSE BIBB / WALL HYDRANT
AV 2	AV	AV	ACID VENT	OFCO		FCO	FLOOR CLEAN OUT
						wco	WALL CLEAN OUT
						FD	FLOOR DRAIN
						VTR	VENT THRU ROOF
						I.E.	INVERT ELEVATION
						AFF	ABOVE FINISHED FLOOR
				X" SW-X (UP/DN) X S.F. X GPM			STORM WATER STACK ID SIZE SYSTEM-STACK ID (UP/DN) SQUARE FEET GPM
				X" OD-X (UP/DN) X S.F. X GPM			OVERFLOW DRAIN STACK ID SIZE SYSTEM-STACK ID (UP/DN) SQUARE FEET GPM
				X" AW-X (UP/DN)	X" AV-X (UP/DN)		ACID WASTE/VENT STACK ID SIZE SYSTEM-STACK ID (UP/DN)
				X" P-X (UP/DN) X-DFU, X GPM			SANITARY WASTE STACK ID SIZE SYSTEM-STACK ID (UP/DN) DRAINAGE FIXTURE UNITS (

MEDICAL GAS LEGEND							
NOT ALL SYMBOLS MAY BE USED							
SYMBOL	ABB.	DESCRIPTION	SYMB	OL	ABB.	DESCRIPTION	
—AW— (AW)	AW	ACID WASTE	C+-			PIPE TURN DOWN	
AW 2AW3	AW	ACID WASTE (BELOW)	-+0	D		PIPE TURN UP	
AV <u>[AV</u>]	AV	ACID VENT	•	ů		BALL VALVE	
— AI — AI	AI	AIR INTAKE	N	式		CHECK VALVE	
— CO2 CO2	CO2	CARBON DIOXIDE		đ		REDUCER	
—CA— 《 CA 》	CA	COMPRESSED AIR	÷	¢		PIPE GUIDE	
— IA — AI —	IA	INSTRUMENT AIR	×	X		ANCHOR	
— LA — 🛛 📃 LA 💦	LA	LAB AIR	ρ	Q		PRESSURE GAUGE	
— LV — E LV 🔒	LV	LAB VACUUM	P	₽∽		PRESSURE SENSOR	
—MA— 《 MA 》	MA	MEDICAL AIR	C	ł		CAP/PLUG	
—VAC— VAC	VAC	MEDICAL VACUUM		D		UNION	
—N20— N20	N20	NITROUS OXIDE			I.E.	INVERT ELEVATION	
— N2 — (<u>N2</u>)	N2	NITROGEN			AFF	ABOVE FINISHED FLOOR	
— O2 — (O2)	02	OXYGEN					
-VE-VE	VE	VACUUM EXHAUST					
—WAGD— WAGD	WAGD	WASTE ANESTHESIA GAS DISPOSAL					
—HE— HE	HE	HELIUM					
— H2 — H2	H2	HYDROGEN					
—AR — AR	AR	ARGON					

MEDICAL GAS DEMOLITION NOTES

- A. DRAWINGS SHOW KNOWN EXISTING MEDICAL GAS PIPING, OUTLETS, VALVES, ALARMS, AND RELATED ITEMS IN REASONABLE PROXIMITY. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS AND SIZES. ANY DISCREPANCIES AND / OR DEVIATIONS SHALL IMMEDIATELY BE BROUGHT TO THE ARCHITECTS ATTENTION.
- B. CONTRACTOR SHALL REMOVE EXISTING MEDICAL GAS SERVICES TO OUTLETS AND/OR CONNECTIONS, VALVES AND RELATED ITEMS WHICH ARE INDICATED AND/OR SHOWN ON THE DRAWINGS TO BE REMOVED OR RELOCATED. PERMANENTLY SEAL AND CAP SERVICES NEXT TO MAIN SERVICE LINES ABOVE CEILING OR AS SHOWN. EXISTING OUTLETS, VALVES AND RELATED ITEMS WHICH ARE TO BE REMOVED SHALL BE SUBMITTED TO THE OWNER. ITEMS THE OWNER WISHES TO RETAIN SHALL BE STORED BY THE CONTRACTOR WHERE DIRECTED BY THE OWNER. ALL OTHER ITEMS NOT RETAINED BY THE OWNER SHALL BE LEGALLY DISPOSED.
- C. EXISTING MEDICAL GAS OUTLETS, VALVES, ALARMS, PIPING AND RELATED ITEMS INDICATED TO REMAIN OR BE REUSED WHICH ARE DAMAGED DURING CONSTRUCTION SHALL BE REWORKED OR REPLACED TO PROVIDE ORIGINAL CONDITION AND OPERATION.
- D. PENETRATIONS THROUGH EXISTING WALLS AND FLOORS SHALL BE SLEEVED, PATCHED AND SEALED/FIRESAFED TO MAINTAIN THE INTEGRITY OF THE EXISTING WALL AND FLOOR UL FIRE RESISTANCE RATING. E. CONTRACTOR SHALL COORDINATE THE INTERRUPTION OF EXISTING MEDICAL GAS SERVICES WITH THE OWNER
- OF OUTAGE. ALL WORK SHALL BE PERFORMED TO FIT THE OPERATIONAL SCHEDULE OF THE FACILITY. F. EXISTING MEDICAL GAS SERVICES NOT SHOWN ON THE DRAWINGS SHALL REMAIN AS IS, UNLESS NOTED OTHERWISE.

PRIOR TO CONSTRUCTION. PROVIDE A MINIMUM OF 48 HOURS WRITTEN NOTICE WITH ANTICIPATED DURATION

SHEET INDEX - PLUMBING

NUMBER	SHEET NAME
P-000	PLUMBING INDEXES SCHEDULES AND NOTES
P-001	PLUMBING INDEXES SCHEDULES AND NOTES
PD-101	PLUMBING DEMOLITION PLAN - LEVEL 03
PD-102	PLUMBING DEMOLITION PLAN - LEVEL 04
PD-401	ENLARGED PLUMBING DEMOLITION PLANS - LEVEL 03
PD-402	ENLARGED PLUMBING DEMOLITION PLANS - LEVEL 04
P-101	PLUMBING PLAN - LEVEL 03
P-102	PLUMBING PLAN - LEVEL 04
P-401	ENLARGED PLUMBING PLANS - LEVEL 03
P-402	ENLARGED PLUMBING PLANS - LEVEL 04
PM-401	ENLARGED MED GAS PLANS - LEVEL 04
PF-101	FIRE PROTECTION PLANS - LEVEL 04
P-501	PLUMBING DETAILS

PLUMBING DEMOLITION NOTES

- A. CONTRACTOR SHALL REMOVE EXISTING SERVICES SUCH AS WATER, WASTE AND VENT PIPING SERVING FIXTURES AND/OR CONNECTIONS TO EQUIPMENT WHICH ARE SHOWN ON THE DRAWINGS TO BE REMOVED OR RELOCATED. PERMANENTLY SEAL AND CAP SERVICES NEXT TO MAIN SERVICE LINES ABOVE CEILINGS, IN WALLS OR BELOW FLOORS. ALL EXISTING DOMESTIC HOT AND COLD WATER DEAD-LEG PIPING, WHETHER SHOWN ON THE DRAWINGS OR NOT SHALL BE REMOVED BACK TO MAIN.
- B. EXISTING PLUMBING FIXTURES AND RELATED ITEMS WHICH ARE TO BE REMOVED SHALL BE SUBMITTED TO THE OWNER. ITEMS THE OWNER WISHES TO RETAIN SHALL BE STORED BY THE CONTRACTOR WHERE DIRECTED BY THE OWNER. ALL OTHER ITEMS NOT RETAINED BY THE OWNER SHALL BE LEGALLY DISPOSED.
- D. DRAWINGS SHOW KNOWN EXISTING SERVICES IN REASONABLE PROXIMITY. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS. NOTE DISCREPANCIES AND BRING TO THE ARCHITECT'S ATTENTION.
- D. EXISTING FIXTURES, EQUIPMENT, SERVICES AND CONNECTIONS WHICH ARE DAMAGED DURING CONSTRUCTION SHALL BE REWORKED OR REPLACED AS REQUIRED TO PROVIDE ORIGINAL CONDITION AND OPERATION.
- E. PENETRATIONS THROUGH EXISTING WALLS AND FLOORS SHALL BE SLEEVED, PATCHED AND SEALED/FIRESAFED TO MAINTAIN THE INTEGRITY OF EXISTING WALL AND FLOOR UL FIRE RESISTANCE RATING.
- F. EXISTING PLUMBING SERVICES NOT SHOWN ON THE DRAWINGS SHALL REMAIN AS IS, UNLESS NOTED OTHERWISE.
- G. CONTRACTOR SHALL COORDINATE THE INTERRUPTION OF EXISTING SERVICES WITH THE OWNER PRIOR TO DEMOLITION OR CONSTRUCTION. PROVIDE A MINIMUM OF 48 HOURS WRITTEN NOTICE WITH ANTICIPATED DURATION OF OUTAGE. ALL WORK SHALL BE PERFORMED TO FIT THE OPERATIONAL SCHEDULE OF THE FACILITY.

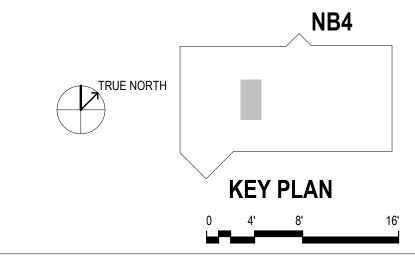
H. EXISTING FIXTURES, EQUIPMENT CONNECTIONS AND SERVICE LINES SHALL BE FIELD VERIFIED FOR EXACT LOCATION AND SIZE. NOTE DISCREPANCIES AND DEVIATIONS AND BRING TO THE ARCHITECT'S ATTENTION.

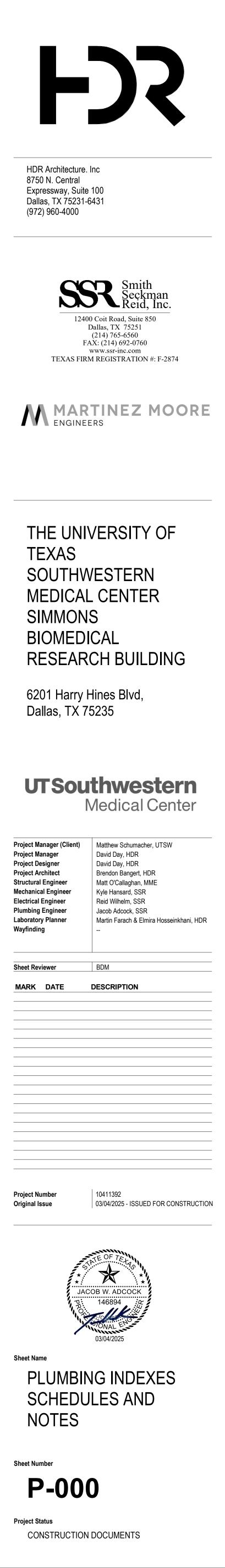
PLUMBING GENERAL NOTES

A. CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE PROJECT SCOPE, UTILITY CONNECTIONS AND ALL BUILDING SERVICES. EXISTING SITE UTILITIES SHALL BE FIELD LOCATED FOR EXACT LOCATION AND ELEVATION BEFORE BEGINNING CONSTRUCTION OR DEMOLITION.
B. DRAWINGS SHOW KNOWN EXISTING SERVICES, PIPING, FIXTURES, EQUIPMENT, AND CONNECTIONS IN REASONABLE PROXIMITY. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS AND SIZES. ANY DISCREPANCIES AND / OR DEVIATIONS SHALL IMMEDIATELY BE BROUGHT TO THE ARCHITECTS ATTENTION.
C. COORDINATE WATER, WASTE, VENT, RAIN WATER AND OTHER PIPING WITH ALL TRADES TO AVOID SPACING AND ROUTING PROBLEMS.
D. FIXTURES, EQUIPMENT, CONNECTIONS AND PIPING SHALL BE FURNISHED AND INSTALLED TO MEET OR EXCEED STATE AND LOCAL CODES AND REQUIREMENTS.
E. STANDARD DETAILS ILLUSTRATED ON THE DRAWINGS SHALL BE APPLIED IN ALL CASES WHERE THE FEATURE OCCURS IN THE SYSTEM DESIGN.
F. FURNISH AND INSTALL SHOCK ARRESTORS IN COLD WATER LINES AT CONNECTIONS TO FLUSH VALVES AND QUICK CLOSING VALVES AND AT EACH HOT AND COLD WATER CONNECTION TO FIXTURES.
G. PLUMBING VENTS AND STACKS THROUGH ROOF SHALL BE INSTALLED A MINIMUM OF 25 FEET CLEAR OF HVAC OUTSIDE AIR INTAKES AND ANY OPERABLE WINDOW OR BUILDING OPENING.
H. VENT AND WASTE STACKS LESS THAN THREE INCHES IN DIAMETER SHALL NOT ROUTE THROUGH THE ROOF. PROVIDE INCREASERS ON PIPING BELOW ROOF.
I. PENETRATIONS THROUGH WALLS AND FLOORS SHALL BE SLEEVED, SEALED AND FIRESAFED TO MAINTAIN THE INTEGRITY OF THE WALL AND FLOOR UL FIRE RESISTANCE RATING.
J. DRAWINGS ARE SCHEMATIC IN NATURE AND SHALL NOT BE SCALED. CONTRACTOR IS RESPONSIBLE FOR COORDINATING EXACT ROUTING OF ALL SERVICES WITH EXISTING CONDITIONS AND WITH ALL OTHER TRADES.
K. PROVIDE INSULATION KIT FOR SUPPLIES, TRAP AND DRAIN PIPING FOR ALL HANDICAP ACCESSIBLE LAVATORIES AND SINKS. INSULATION OF PIPING IS NOT REQUIRED WHERE PROTECTIVE SKIRT IS PROVIDED BELOW FIXTURE.
L. PROVIDE HOUSEKEEPING PADS UNDER ALL EQUIPMENT. COORDINATE PAD SIZE AND FLOOR DRAIN LOCATIONS WITH FINAL EQUIPMENT PAD LOCATIONS. LOCATE DRAINS NEAR EQUIPMENT DRAINS AND DISCHARGE TO AVOID ROUTING OF PIPING ACROSS WALK PATHS.
M. SUPPORTS, ANCHOR BOLTS AND HANGERS FOR ALL EQUIPMENT SPECIFIED SHALL CONFORM TO THE SPECIFICATIONS. MISCELLANEOUS STEEL BRACING SUPPORTS AND REINFORCING STEEL NEEDED TO SUPPORT EQUIPMENT AND PIPING SYSTEMS SPECIFIED SHALL BE FURNISHED AND INSTALLED AS PART OF THE WORK.
N. MAINTAIN ACCESSIBILITY OF ALL EQUIPMENT AND VALVES. PROVIDE ACCESS PANELS AS REQUIRED. COORDINATE PLACEMENT WITH THE ARCHITECT PRIOR TO INSTALLATION.
O. INSTALL EXTERIOR WALL HYDRANTS AT 18" ABOVE FINISHED GRADE.
P. CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT PRIOR TO CUTTING ANY OPENING IN THE STRUCTURE. COORDINATE SLEEVING OF BEAMS AND CORING OF STRUCTURE WITH STRUCTURAL DRAWINGS AND DETAILS PRIOR TO INSTALLATION.
Q. CONTRACTOR SHALL PROVIDE TRAP PRIMERS ON ALL FLOOR DRAINS NOT RECEIVING CONSTANT DISCHARGE FROM FIXTURES AND/OR EQUIPMENT AND AS REQUIRED BY STATE AND LOCAL CODES.
R. ALL SANITARY AND STORM WATER PIPING BELOW GRADE IN AREAS SUBJECT TO TRAFFIC WITH LESS THAN TWO FEET OF EARTH COVER SHALL BE DUCTILE IRON.
S. PROVIDE PIPING EXPANSION JOINTS AT EACH PIPE CROSSING AN INTERIOR BUILDING EXPANSION JOINT.
T. ORIENT FLUSH VALVE HANDLES ASSOCIATED WITH BARRIER-FREE WATER CLOSETS ON THE WIDE SIDE OF THE STALL TO COMPLY WITH ADA REQUIREMENTS.

U. PROVIDE LEAD FREE MIXING VALVES UNDER PUBLIC LAVATORIES, KITCHEN HAND WASHING SINKS OR ANY OTHER FIXTURE REQUIRING TEMPERED WATER TO MEET ASSE 1070/ASME A112.1070 OR LOCAL ADOPTED CODE.

V. A DOUBLE WYE OR DOUBLE COMBINATION WYE AND 1/8 BEND FITTING IS NOT ACCEPTABLE IN A HORIZONTAL POSITION FOR A DRAINAGE SYSTEM.

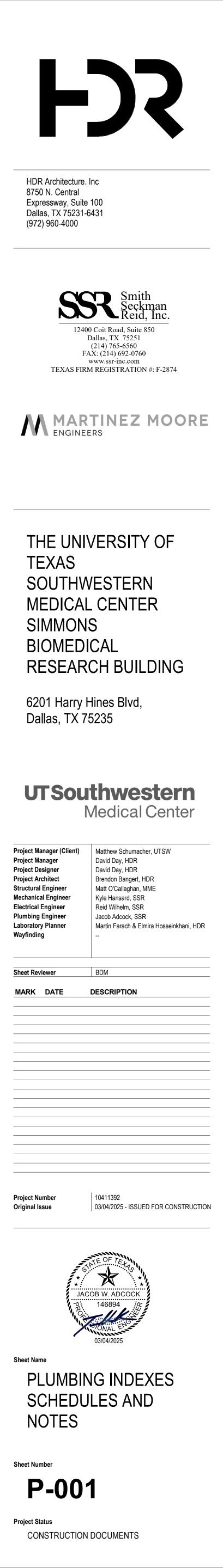




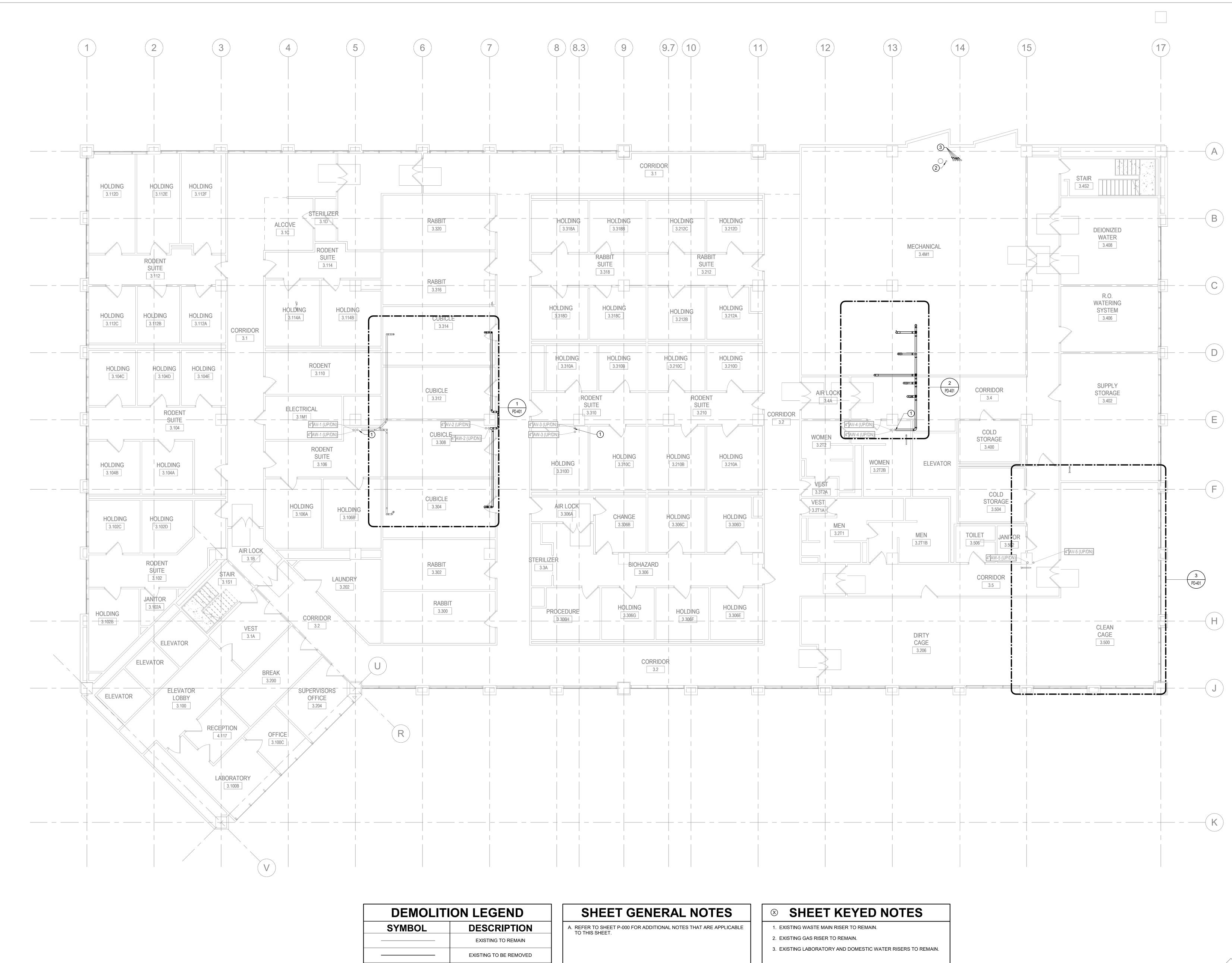
NOTES:	
1. REFER TO FLOC	R PLA
DESIGNATION	
EE-2	EYEW 1. FIX POLYI ASSEI REPL/ HAND MOUN 2. THE EYEW BE 1/2 3. SIG 4. ISO READ INDIC, VISUA UNLES
FD-1	FLOO
FS-1	FLOOI 1.FIXT PORC OF DF 2.TRA 3.PRC 4.TDH
FS-2	FLOO 1. FIX PORC TO ½ 2. TRA PROV TDHS
RI-1	SINK (1. FIX 2. TRI
TP-1	TRAP 1. FIX ⁻ DRAIN INSTA

PLUMBING FIXTURE CONNECTION SCHEDULE

FIXTURE DESCRIPTION	COLD WATER	HOT WATER	DRAIN	VENT	NOTES
ASH / DRENCH HOSE WITH BACKFLOW PREVENTER (LAB) - DECK MOUNTED TURE: GUARDIAN G5022 OR EQUIVALENT PRODUCT BY ACCEPTABLE MANUFACTURER, WITHOUT BOWL. PROVIDE 2 PROPYLENE SPRAY HEADS WITH INTEGRAL FLIP-UP DUST COVERS, FILTERS, MOUNTED ON CHROME PLATED BRASS MBLY, AND FLAG STYLE HANDLE. INCLUDES 1/2 INCH STAY OPEN CHROME-PLATED BRASS SQUEEZE VALVE WITH ACEABLE STAINLESS STEEL SEAT AND LOCKING CLIP, STAINLESS STEEL SQUEEZE HANDLE WITH PLASTIC COVER, NYLON LE, NYLON DECK FLANGE WITH LOCATOR GUIDE, AND 8 FOOT PVC HOSE. ITING: RIGHT HAND. INCLUDE HARDWARE TO SECURE TO COUNTERTOP. ERMOSTATIC MIXING VALVE: MIXING VALVE PRECISELY BLENDS HOT AND COLD WATER TO DELIVER TEPID WATER TO (ASH ROUTE SUPPLY LINE FROM MIXING VALVE UP TO EYE WASH WITH STOP VALVE. SUPPLY LINES TO MIXING VALVE TO 1. PROVIDE ANSI-COMPLIANT IDENTIFICATION SIGN. LATION BALL VALVE - WOG RATED VALVE, PRESSURE RATING TO MATCH FLOOR REQUIREMENTS. INSTALL IN-LINE, ILY ACCESSIBLE, AND AS CLOSE AS POSSIBLE PRIOR TO THE UNIT INSTALLATION. FOR ABOVE CEILING INSTALLATION, ATE VALVE LOCATION WITH CEILING TACK OR ADDITIONAL SIGNAGE. AL OR AUDIBLE ACCESSORIES (EX. STROBES OR AUDIBLE ALARMS) WHEN A UNIT IS ACTIVATED SHALL NOT BE INSTALLED, SS APPROVED IN WRITING BY OSBC CHEMICAL / BIOLOGICAL SAFETY TEAM.		3/4"			
R DRAIN (ACID RESISTANT) FURE: ORION FITTINGS INC. #AWFDSTD, POLYPROPYLENE MATERIAL, TRAP SHALL BE ACID RESISTANT MATERIAL.					1.
R SINK (12"X12"X10" TOP) - FULL GRATE – SEDIMENT BUCKET URE: MIFAB #FS1720-FL 6" DEEP CAST IRON BODY WITH ANCHOR FLANGE AND SEEPAGE HOLES, WHITE A.R.E. ELAIN INTERIOR, SEDIMENT BUCKET, FULL GRATE STAINLESS STEEL FS1500-TA-3 CONVERTIBLE TO ½ OR ¾ GRATE. SIZE AIN AS SHOWN ON DRAWINGS. P: ZURN #Z1000 DEEP SEAL P-TRAP. VIDE TRAP PRIMER CONNECTION. S REQUIREMENT - PROVIDE ¼" STAINLESS STEEL MESH UNDER THE ENTIRE GRATE.					1.
R SINK (8"X8" TOP - FULL GRATE – DOME STRAINER) FURE: MIFAB #FS1520-FL-5, 6" DEEP CAST IRON BODY WITH ANCHOR FLANGE AND SEEPAGE HOLES, WHITE A.R.E. ELAIN INTERIOR, ALUMINUM ANTI-SPLASH DOME STRAINER, FULL GRATE STAINLESS STEEL FS1500-TA-3 CONVERTIBLE OR ¾ GRATE. SIZE OF DRAIN AS SHOWN ON DRAWINGS. IP: ZURN #Z1000 DEEP SEAL P-TRAP. IDE TRAP PRIMER CONNECTION. REQUIREMENT - PROVIDE ¼" STAINLESS STEEL MESH UNDER THE ENTIRE GRATE.					1.
ROUGH-IN-ONLY) ONE-COMP. FURE: LAB SINK, STRAINERS, AND FAUCETS BY OTHERS, CONTRACTOR INSTALLED. M: ORION ACID RESISTANT WASTE TRAP AND DRAIN.	1/2"	1/2"	2"	2"	
PRIMER TURE: PRECISION PLUMBING PRODUCTS MODEL #P-1 AND P-2 SERIES, SIZED AS REQUIRED TO SERVE NUMBER OF IS SHOWN ON DRAWINGS. INCLUDES TRAP PRIMER VALVE, DISTRIBUTION UNIT WITH INTEGRAL VACUUM BREAKERS. LLATION TO BE RIGID TO WALL. SEE DETAIL.	1/2"				

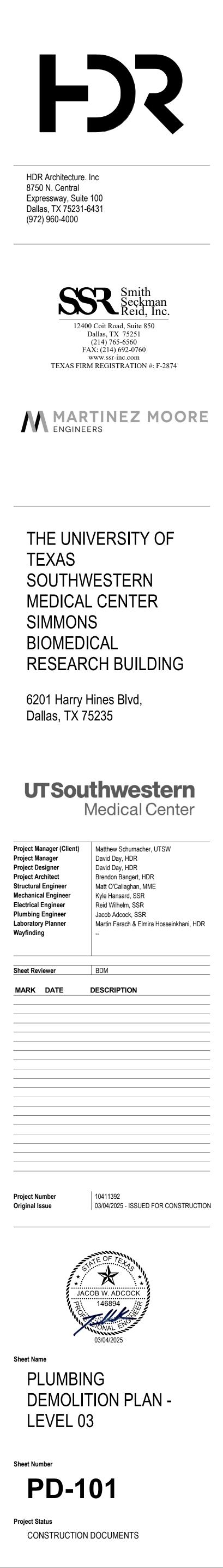


1 LEVEL 03-P-DEMOLITION PLAN

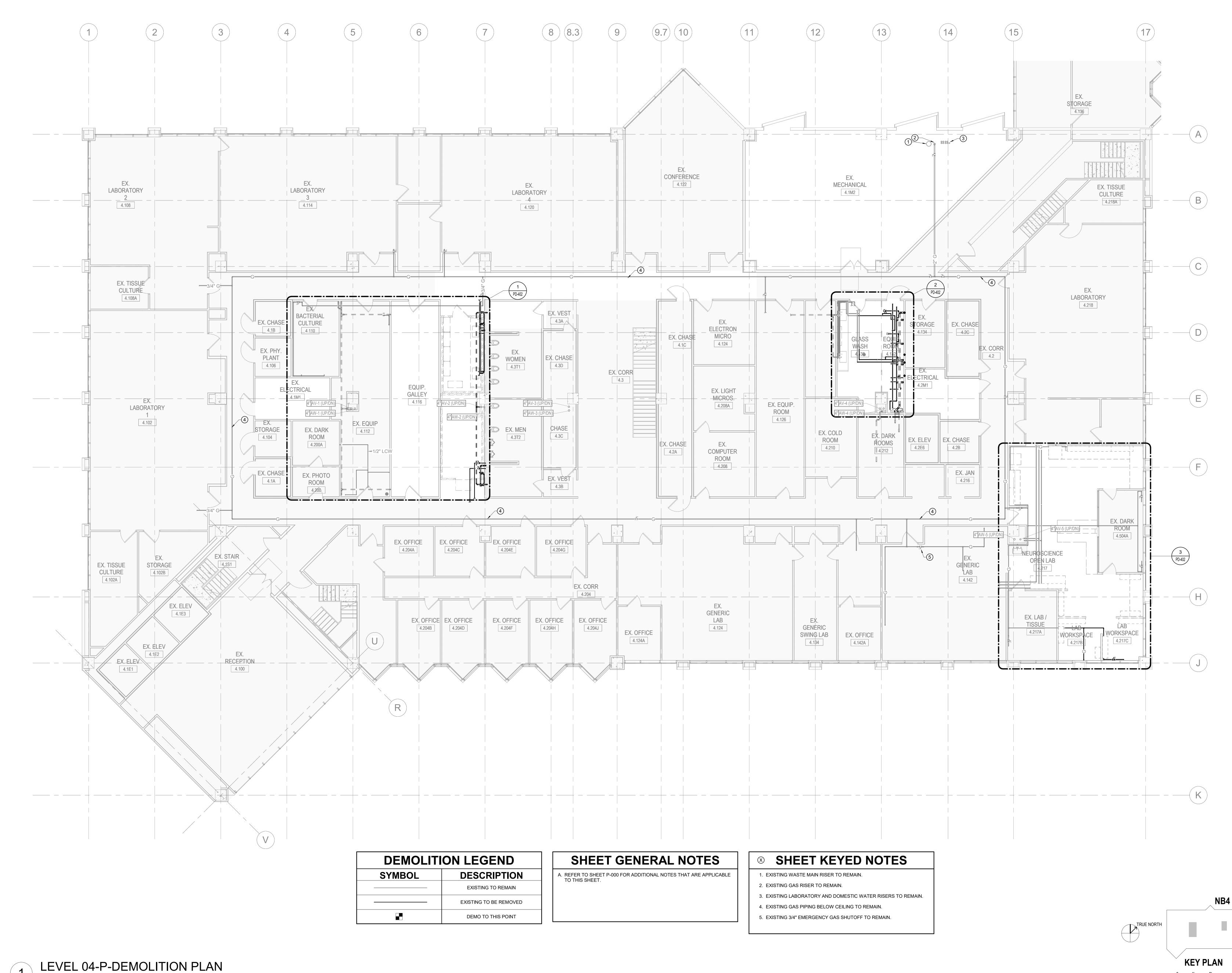


DEMOLITION LEGEND					
SYMBOL	DESCRIPTION				
	EXISTING TO REMAIN				
	EXISTING TO BE REMOVED				
	DEMO TO THIS POINT				

NB4 \setminus **KEY PLAN** 0 4' 8' 16'

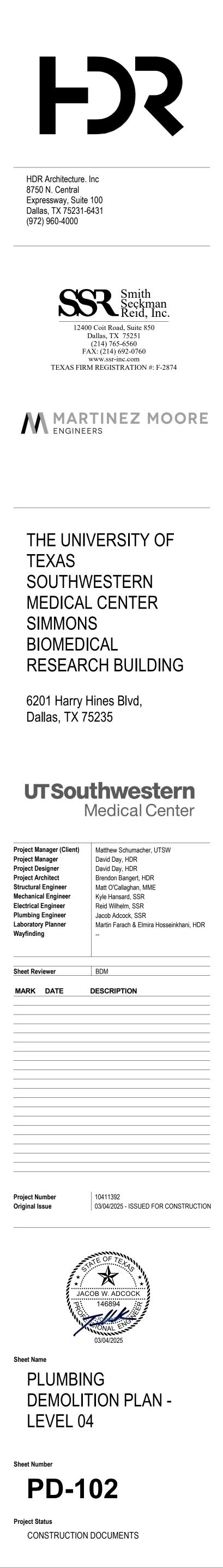


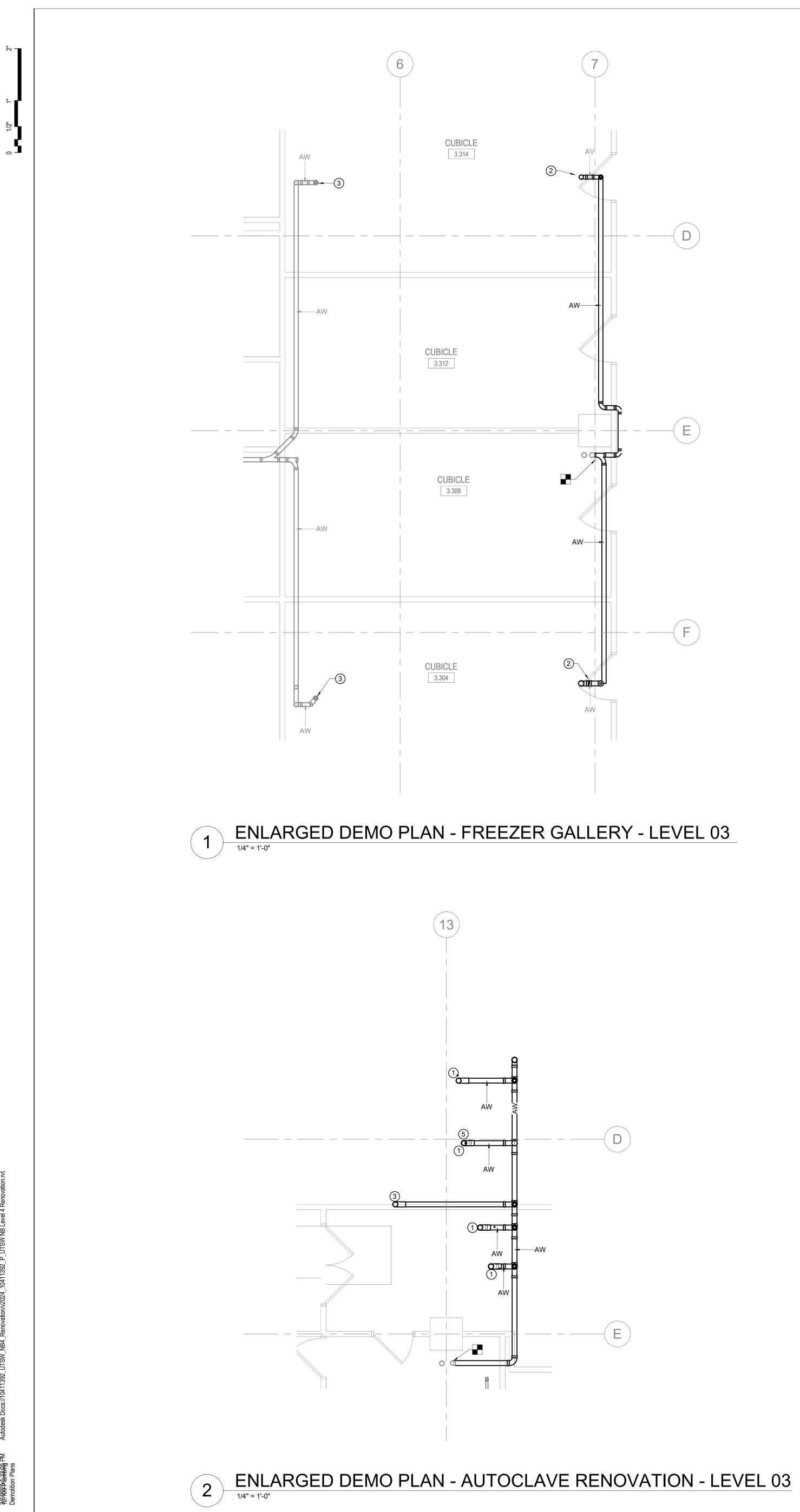




(1)

KEY PLAN 0 4' 8' 16'





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ENLARGED DEMO PLAN - LAB RENOVATION - LEVEL 03 3

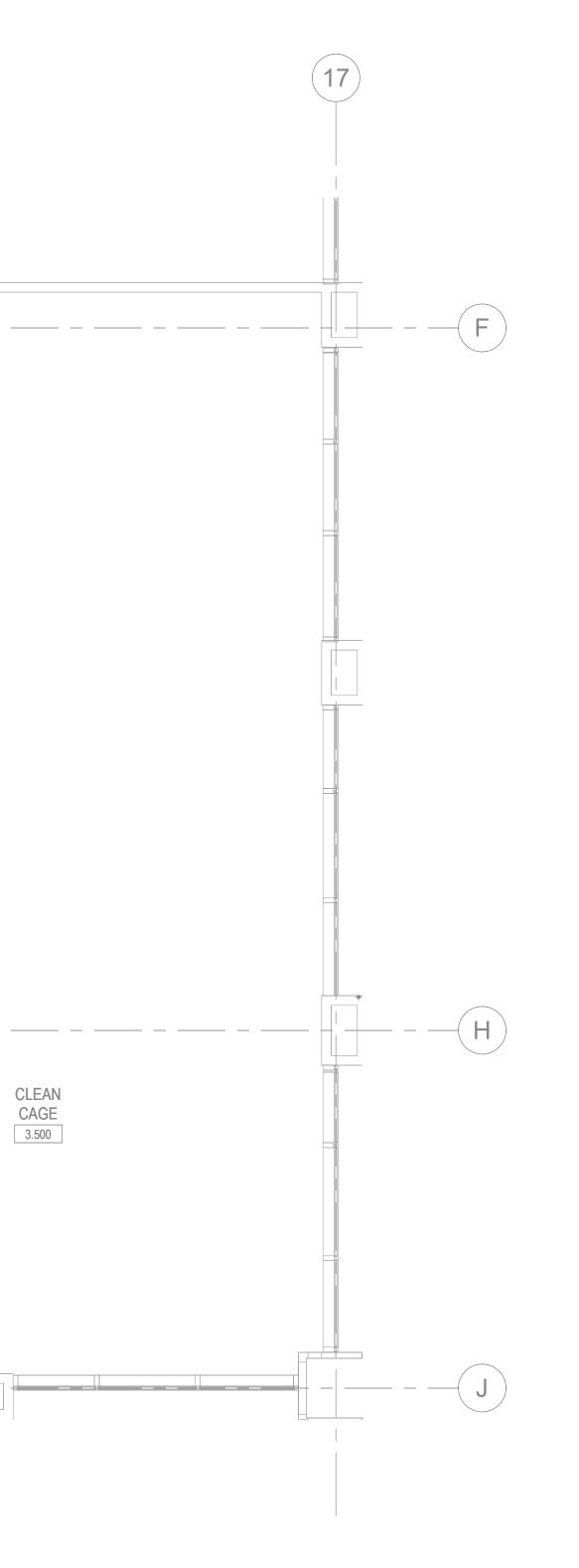
DEMOLITION LEGEND						
SYMBOL	DESCRIPTION					
	EXISTING TO REMAIN					
	EXISTING TO BE REMOVED					
	DEMO TO THIS POINT					

SHEET GENERAL NOTES

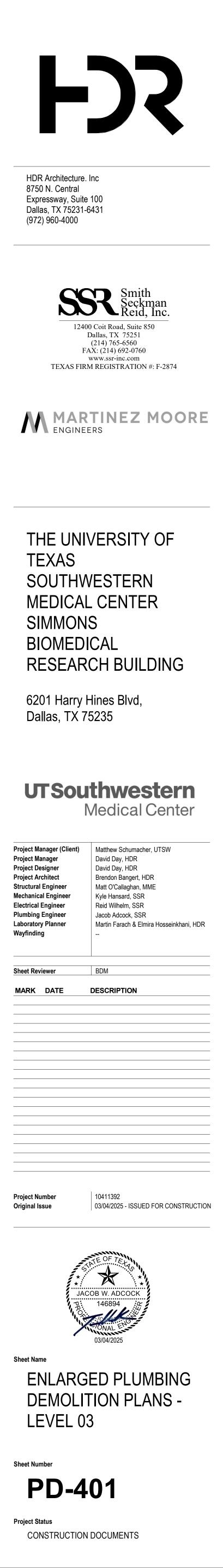
A. SEE SHEET P-000 FOR ADDITIONAL NOTES THAT ARE APPLICABLE TO THIS SHEET.

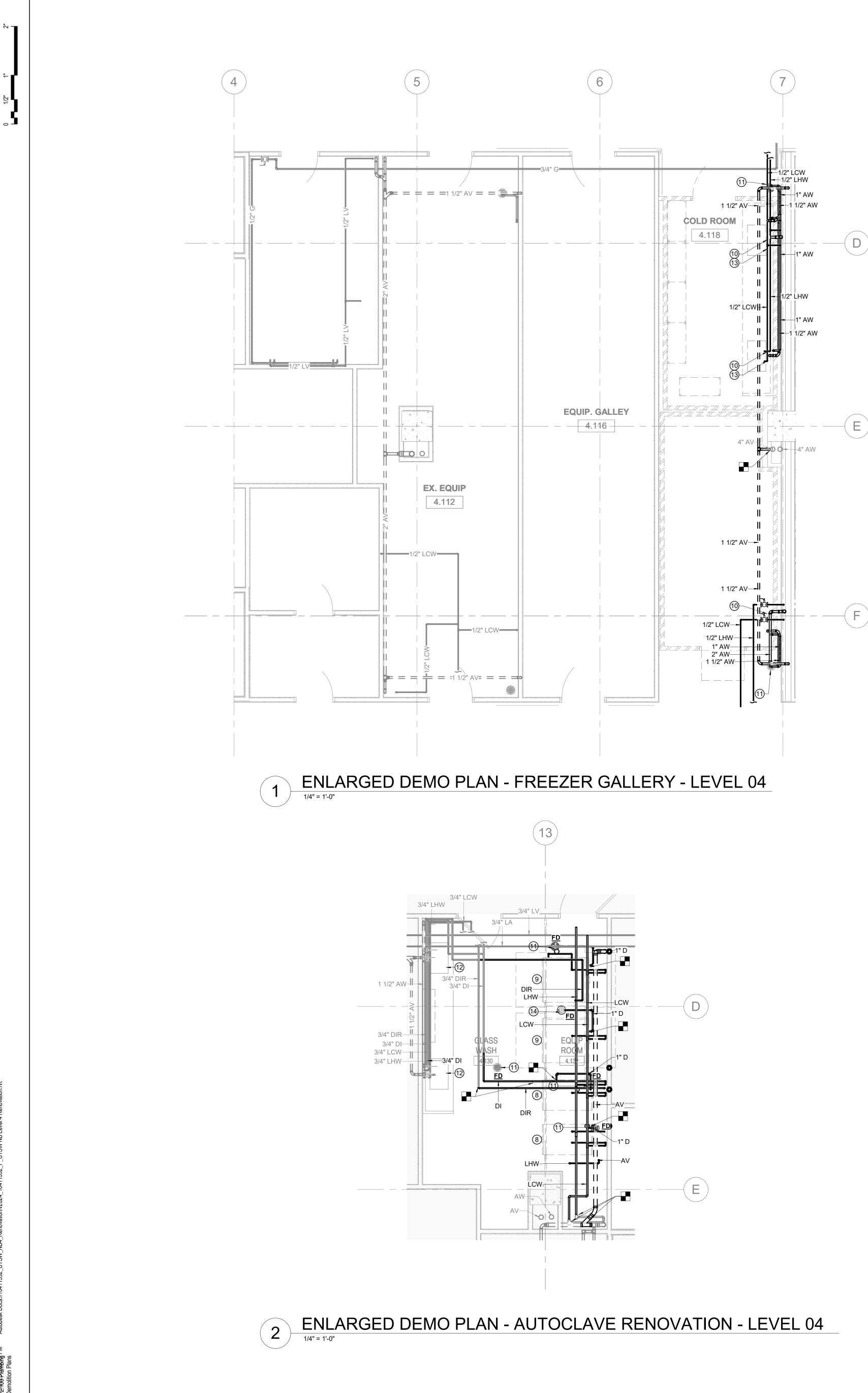
SHEET KEYED NOTES

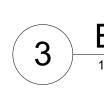
- . EXISTING FLOOR DRAINS SERVING STERILIZER WASHROM ABOVE TO BE DEMOLISHED. DEMOLISH ASSOCIATED BRANCH PIPING AND VENT BACK TO MAIN RISER.
- 2. EXISTING FLOOR DRAINS FOR COLD ROOMS ABOVE TO BE DEMOLISHED. DEMOLISH ASSOCIATED BRANCH PIPING AND VENT BACK TO MAIN.
- 3. EXISTING FLOOR DRAINS FOR EQUIPMENT ROOM ABOVE SHALL REMAIN IN WORKING ORDER.
- 4. EXISTING SINK DRAINS FOR EQUIPMENT ROOM ABOVE SHALL REMAIN IN WORKING ORDER.
- 5. EXISTING FLOOR DRAIN PENETRATION IS TO BE BACKFILLED. REFER TO STRUCTURAL DRAWINGS FOR DETAILS REGARDING BACKFILL.

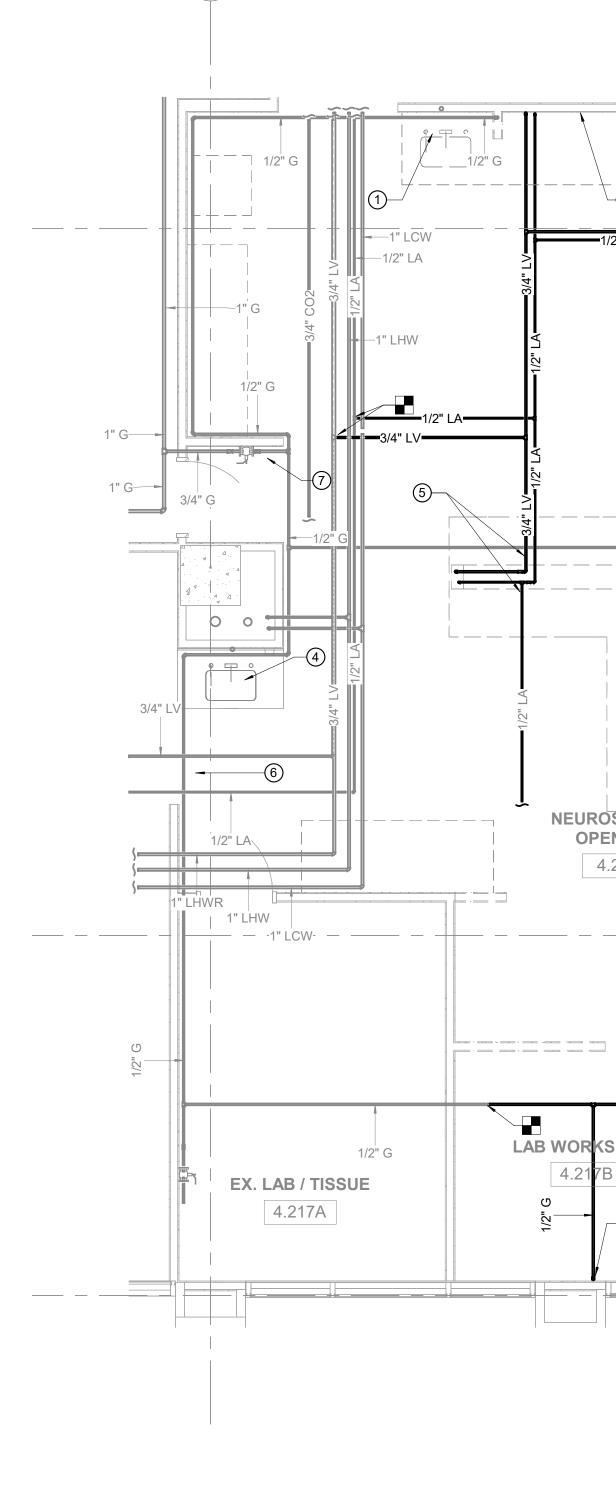


NB4 TRUE NORTH **KEY PLAN** 0 4' 8'









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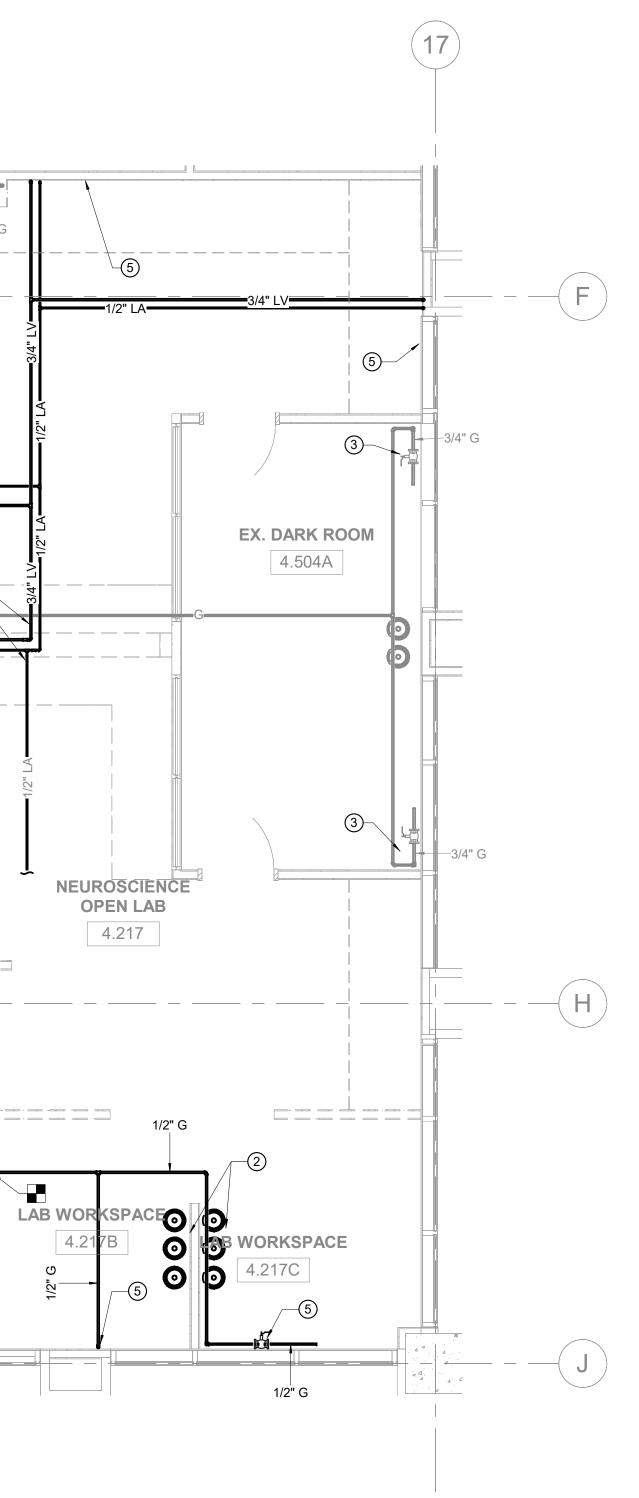
DEMOLITION LEGEND						
SYMBOL DESCRIPTION						
	EXISTING TO REMAIN					
	EXISTING TO BE REMOVED					

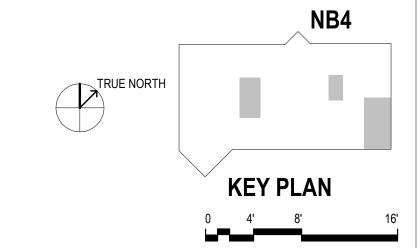
DEMO TO THIS POINT

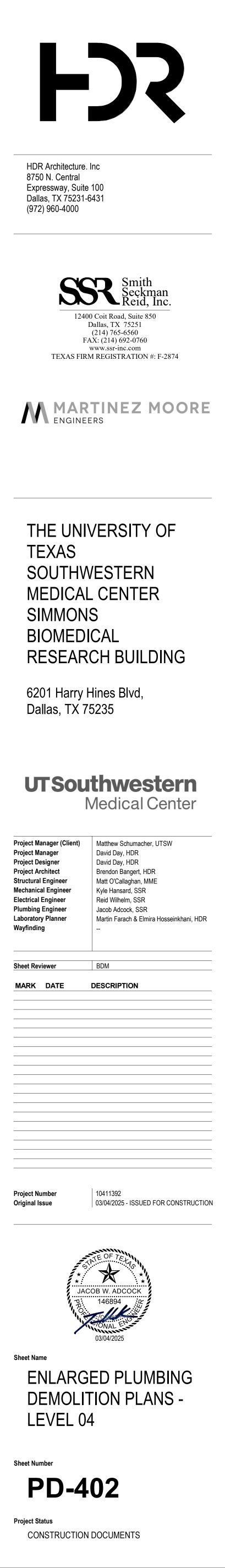
SHEET GENERAL NOTES

- A. SEE SHEET P-000 FOR ADDITIONAL NOTES THAT ARE APPLICABLE TO THIS SHEET.
- B. REPORT ANY ABANDONED PIPING SYSTEMS THAT ARE DISCOVERED ABOVE CEILING TO ENGINEER. ANY ABONDONED SYSTEMS WITHIN SCOPE OF WORK SHALL BE REMOVED.

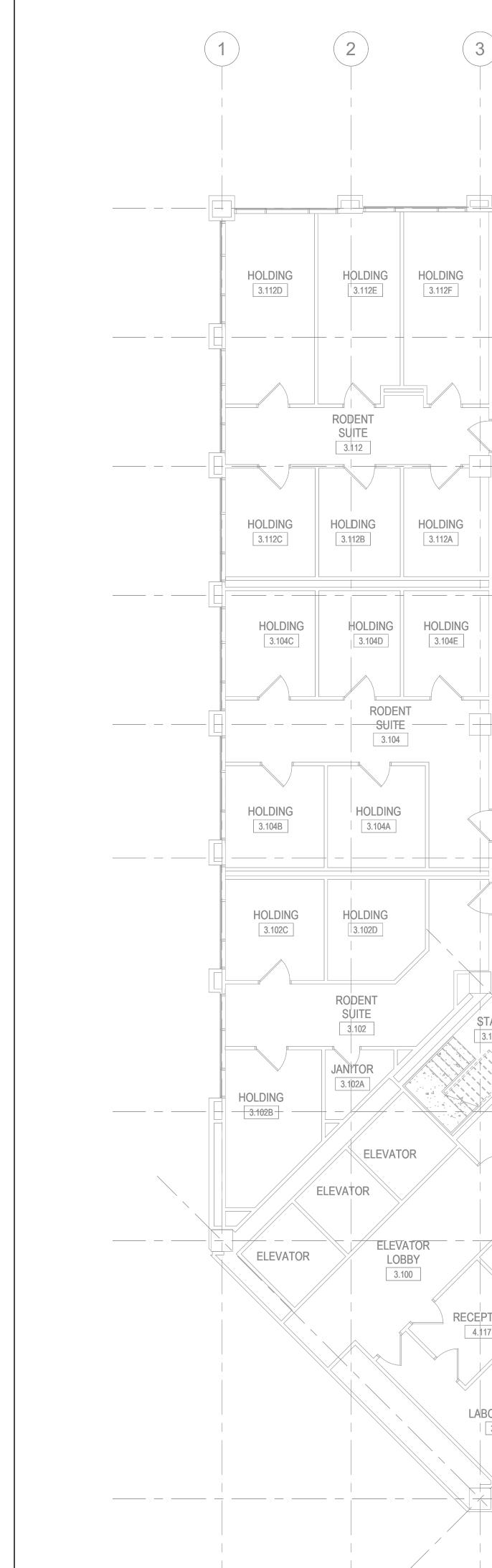
- . EXISTING SINK, DI FAUCET AND EMERGENCY EYEWASH TO BE DEMOLISHED.
- 2. EXISTING CYLINDER RACKS TO BE DEMOLISHED.
- 3. EXISTING NATURAL GAS PIPE DROP WITH BALL VALVE TO REMAIN.
- 4. EXISTING SINK, DI FAUCET AND EMERGENCY EYEWASH TO REMAIN. COORDINATE ACCESS DURING CONSTRUCTION FROM ADJACENT LAB.
- 5. EXISTING LAB GAS TURRETS FOR LAB VAC, LAB AIR AND LAB GAS TO BE DEMOLISHED. DEMOLISH PIPING BACK TO MAIN.
- 6. EXISTING NATURAL GAS PIPING BELOW CEILING TO REMAIN.
- 7. EXISTING 3/4" EMERGENCY NATURAL GAS SHUTOFF TO REMAIN.
- 8. EXISTING GLASS WASHER TO BE DEMOLISHED. SUPPLY PIPING TO BE DEMOLISHED BACK TO MAIN. WATER QUALITY AND PRESSURE DATA SHALL BE TESTED AND RECORDED PRIOR TO DEMOLITION OF EQUIPMENT. COORDINATE WITH WATER TREATMENT PROVIDER AND EQUIPMENT MANUFACTURER.
- 9. EXISTING STERILIZER TO BE DEMOLISHED. SUPPLY PIPING TO BE DEMOLISHED BACK TO MAIN. WATER QUALITY AND PRESSURE DATA SHALL BE TESTED AND RECORDED PRIOR TO DEMOLITION OF EQUIPMENT. COORDINATE WITH WATER TREATMENT PROVIDER AND EQUIPMENT MANUFACTURER.
- 10. DEMOLISH SINK, DOMESTIC COLD WATER, HOT WATER AND VENT PIPING BACK TO MAIN. VALVE AND CAP ABOVE CEILING FOR FUTURE USE.
- 11. DEMOLISH FLOOR DRAIN. REMOVE ALL DEAD END PIPING.
- 12. EXISTING SINK FAUCETS AND CONNECTIONS TO DECK ARE TO BE REMAIN.
- 13. DEMOLISH EXISTING POINT OF USE DI SYSTEM.
- 14. EXISTING FLOOR DRAIN IS TO BE DEMOLISHED. EXISTING FLOOR DRAIN PENETRATION IS TO BE BACKFILLED. REFER TO STRUCTURAL DRAWINGS FOR DETAILS REGARDING BACKFILL.









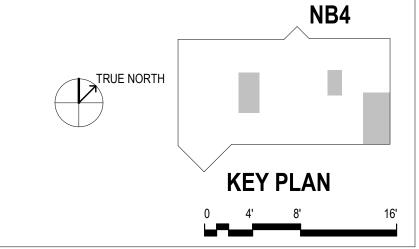


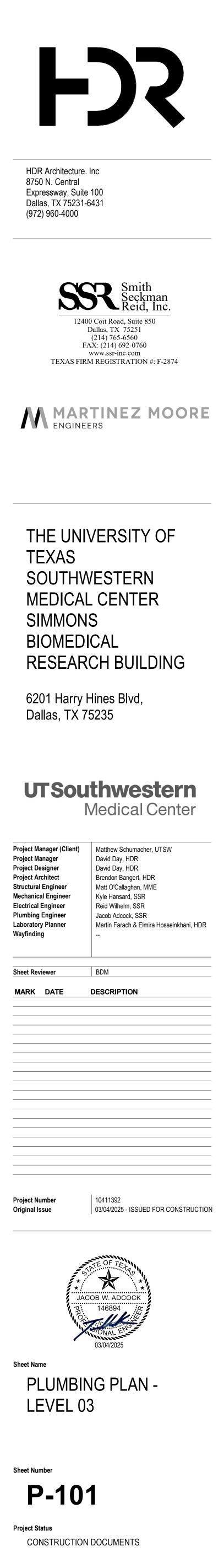
1 LEVEL 03-P-PLUMBING PLAN

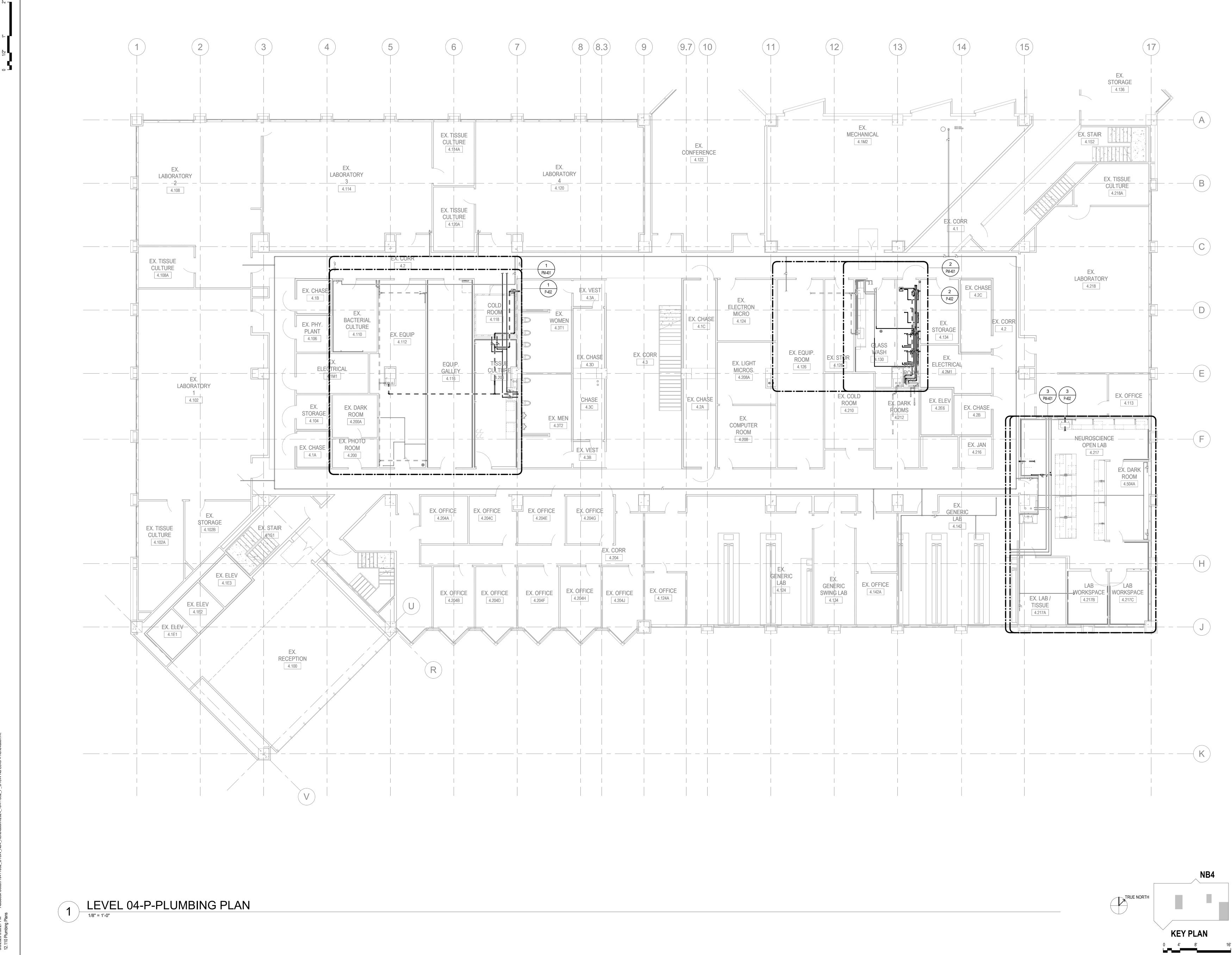


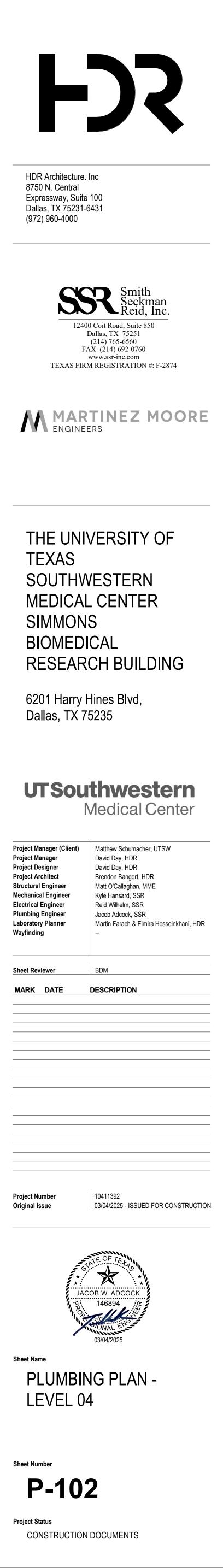
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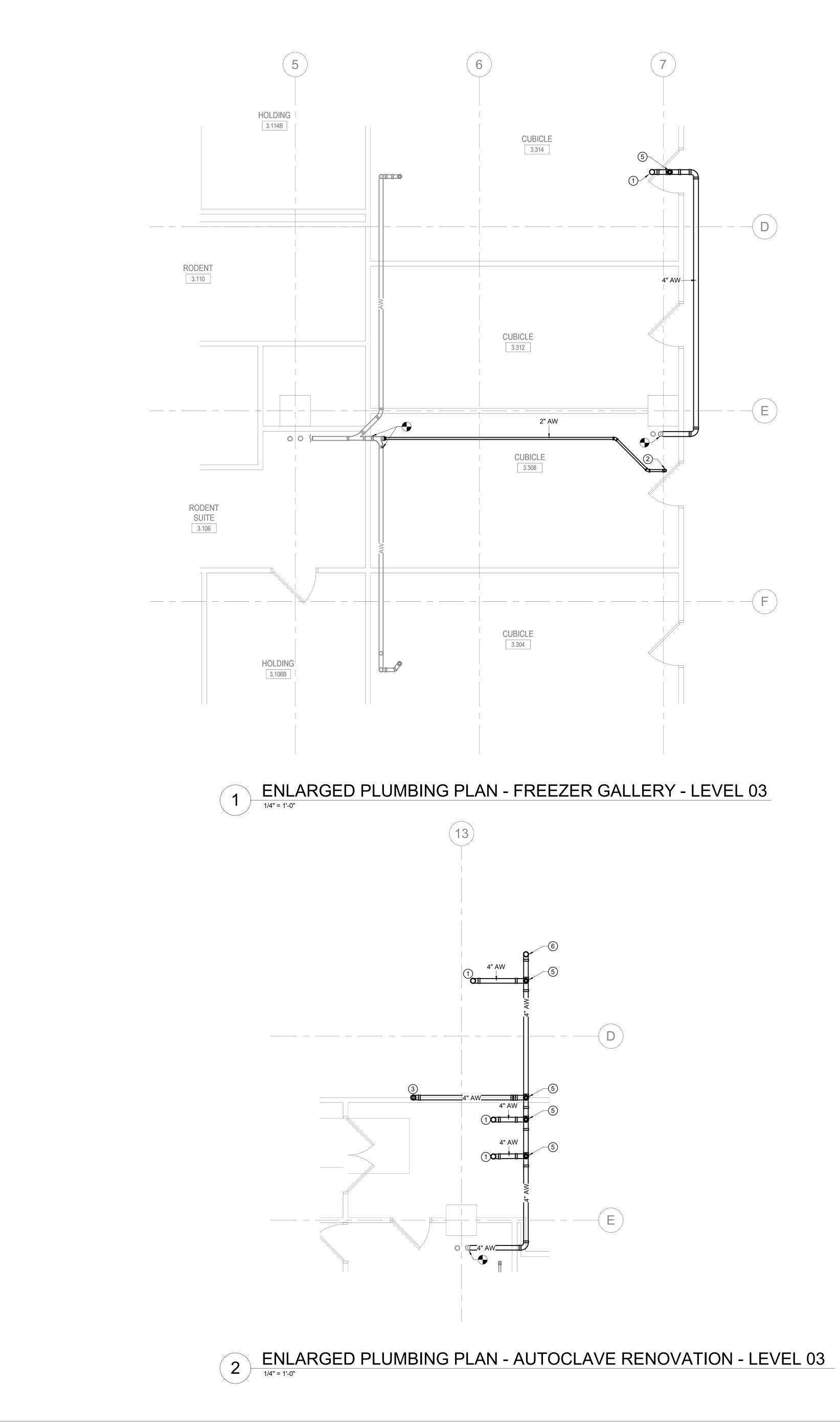
RENOVATION LEGEND						
SYMBOL DESCRIPTION						
	EXISTING TO REMAIN					
	NEW CONSTRUCTION					
•	CONNECT TO EXISTING AT THIS POINT					



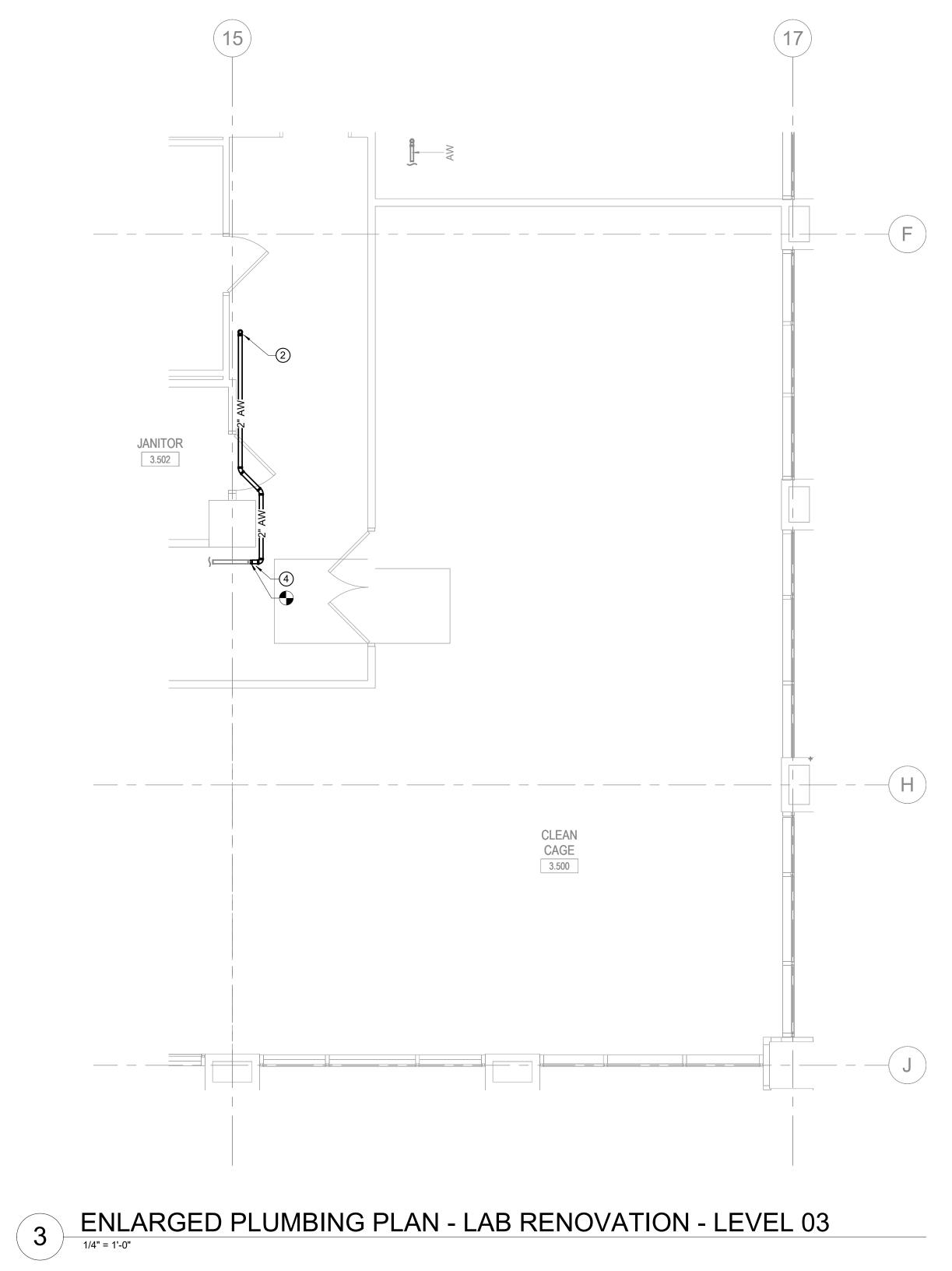








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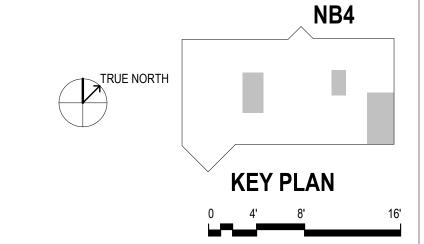


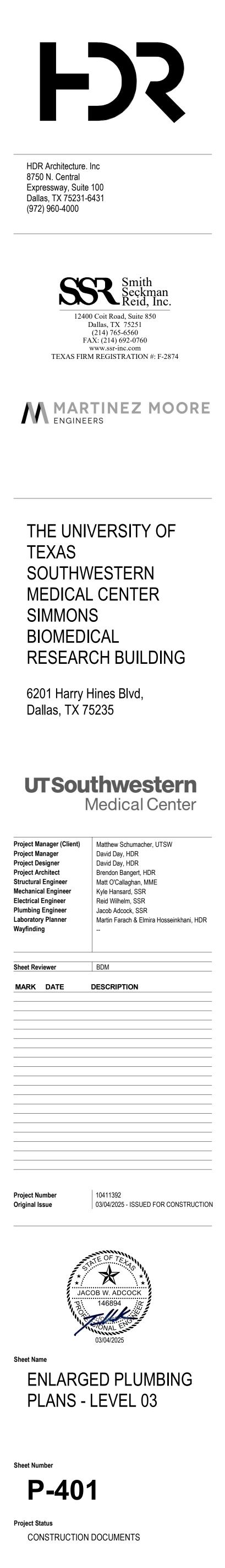
RENOVATION LEGEND							
SYMBOL	DESCRIPTION						
	EXISTING TO REMAIN						
	NEW CONSTRUCTION						
•	CONNECT TO EXISTING AT THIS POINT						

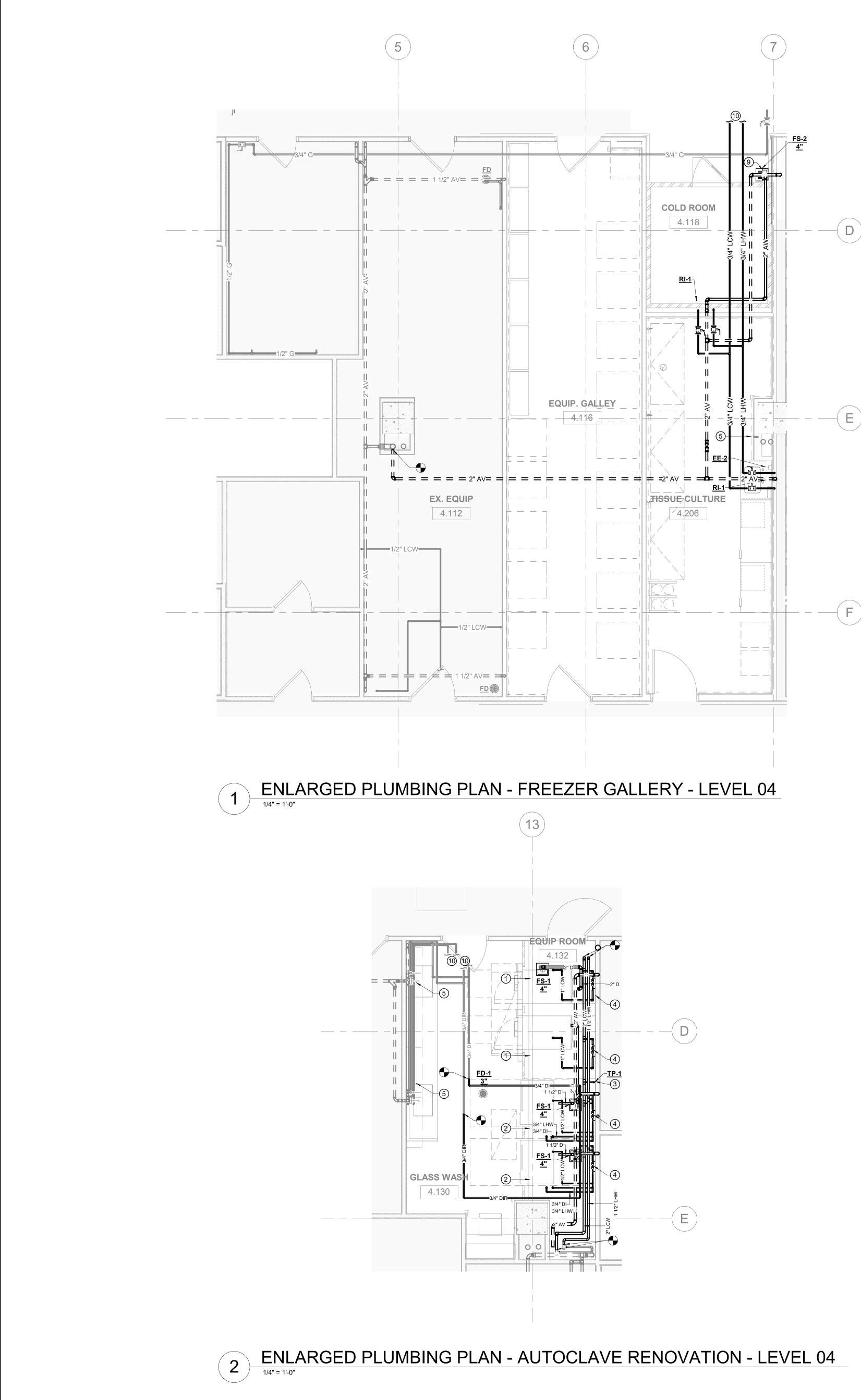
SHEET GENERAL NOTES

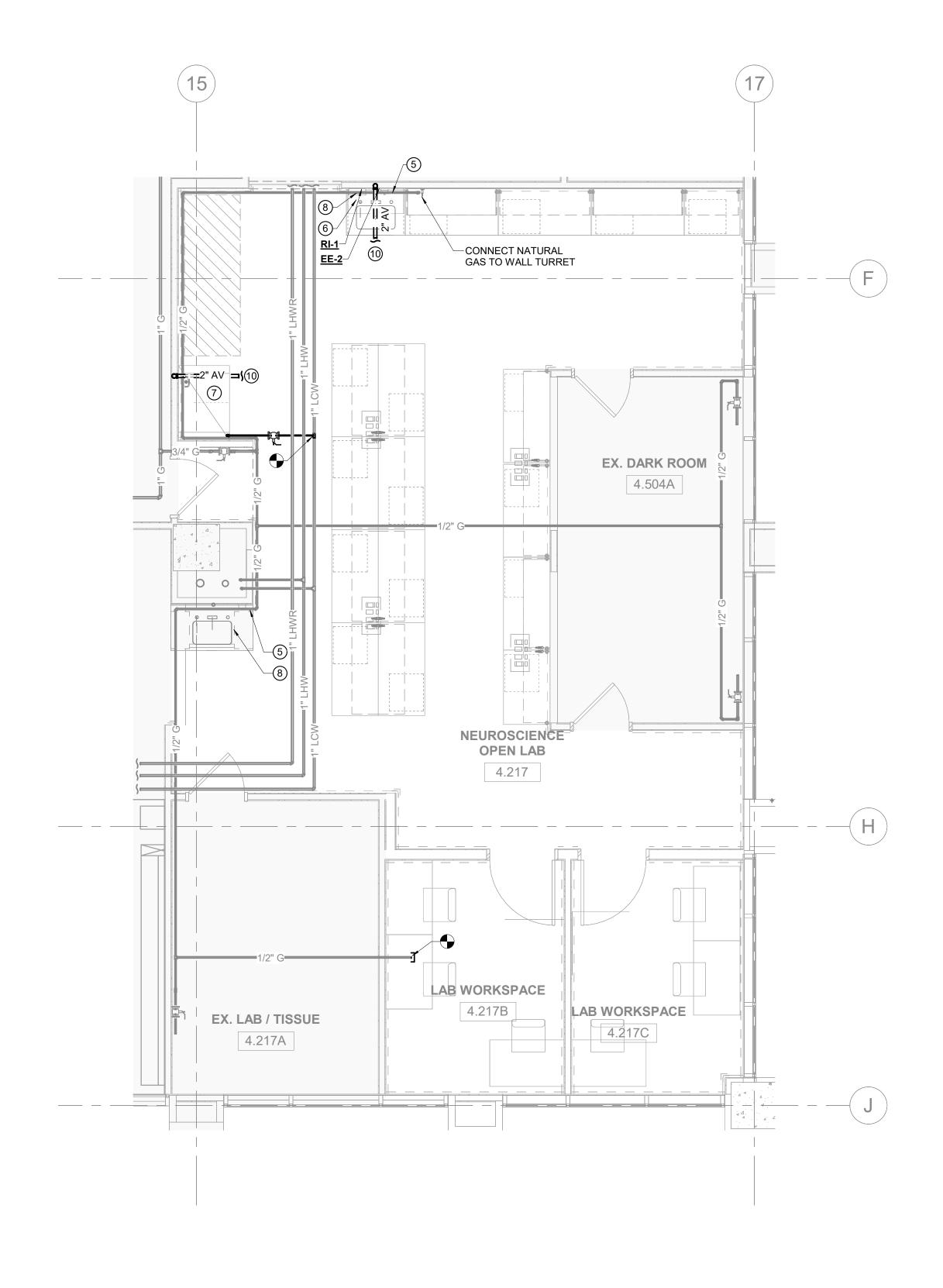
A. SEE SHEET P-000 FOR ADDITIONAL NOTES THAT ARE APPLICABLE TO THIS SHEET.

- 1. CONNECT EXISTING ACID WASTE TO NEW FLOOR SINK.
- 2. ACID WASTE UP TO SINK.
- 3. CONNECT EXISTING ACID WASTE TO NEW FLOOR DRAIN.
- 4. CONNECT BRANCH PIPING TO NEAREST MAIN OF EQUAL OR GREATER SIZE.
- 5. VENT UP THROUGH FLOOR.
- 6. UP TO FLOOR CLEAN OUT.











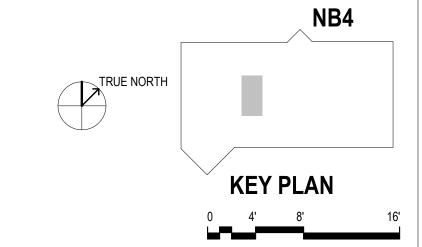
RENOVATION LEGEND					
SYMBOL	DESCRIPTION				
	EXISTING TO REMAIN				
	NEW CONSTRUCTION				
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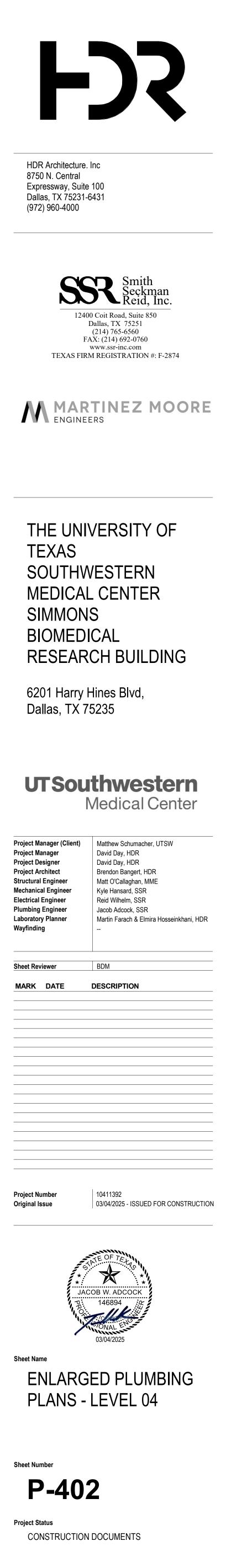
SHEET GENERAL NOTES

A. SEE SHEET P-000 FOR ADDITIONAL NOTES THAT ARE APPLICABLE TO THIS SHEET. B. COORDINATE OPTIONAL SECONDARY CONTAINMENT LOCATIONS WITH UTSW FACILITIES MANAGEMENT.

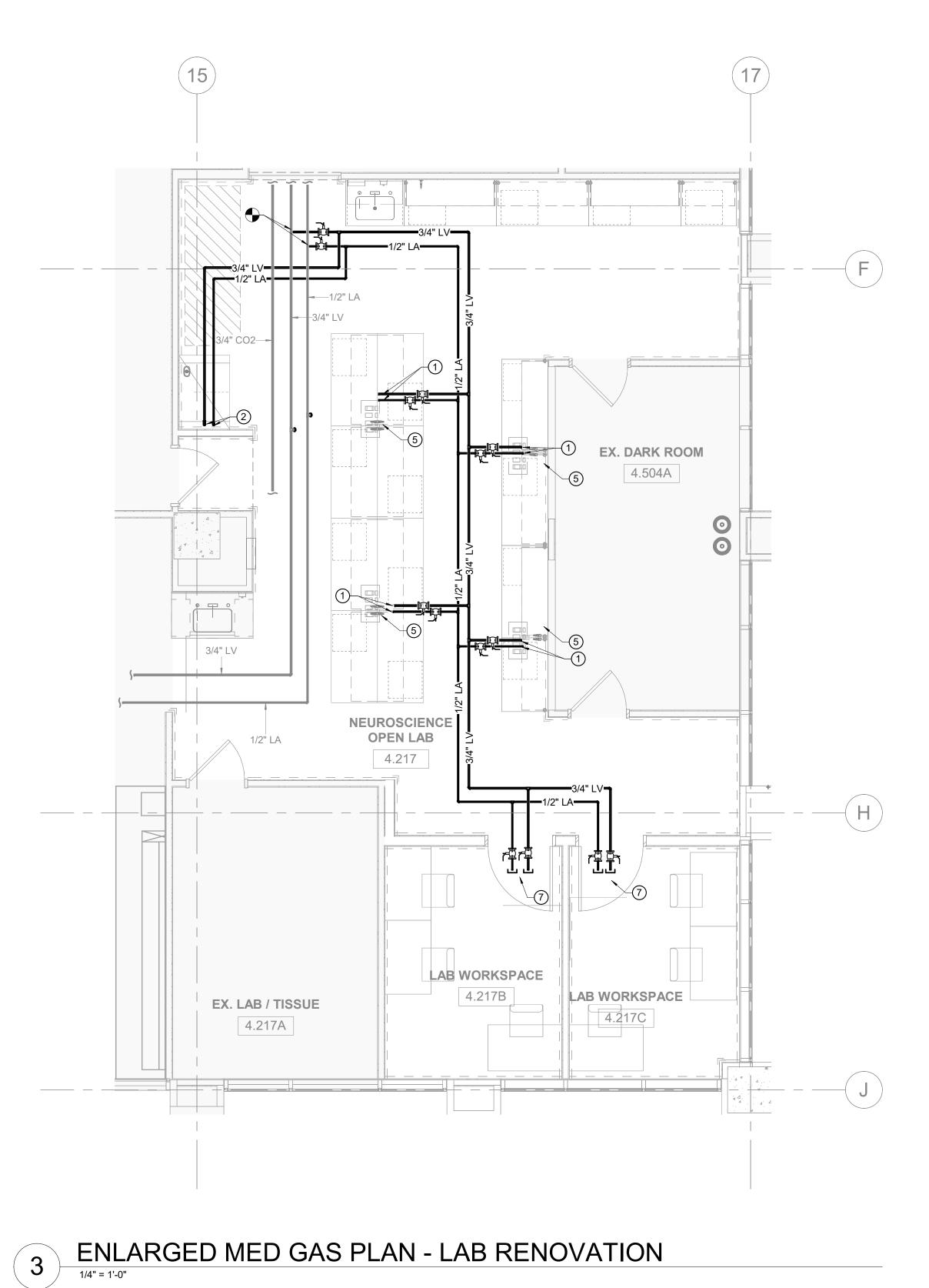
- 1. STEAM STERILIZER BY EQUIPMENT VENDOR. A. PROVIDE 1" LHW CONNECTION BETWEEN 20-50 PSI.
- B. PROVIDE PRESSURE REDUCING VALVES FOR EACH EQUIPMENT CONNECTION. C. COORDINATE WATER QUALITY AND INTERCONNECTING PIPING WITH
- EQUIPMENT PROVIDER. D. PROVIDE 2" DRAIN PIPING TO FLOOR DRAIN.
- 2. GLASS WASHER BY EQUIPMENT VENDOR. A. PROVIDE 1/2" LCW CONNECTION SET TO 45 PSI.
- B. PROVIDE 1/2" LHW CONNECTION BETWEEN 15-50 PSI. C. PROVIDE 1/2" DI WATER CONNECTION BETWEEN 1-10 PSI. D. PROVIDE 1/2" AIR CONNECTION BETWEEN 80-100 PSI. REFER TO GAS PLANS FOR ADDITIONAL REQUIREMENTS.
- E. PROVIDE PRESSURE REDUCING VALVES FOR EACH EQUIPMENT CONNECTION.
- F. PROVIDE 1-1/2" DRAIN PIPING TO FLOOR DRAIN.
- . TRAP PRIMER VALVE ANCHOR TO WALL. SEE DETAIL #10 ON SHEET P-501 FOR PIPING DIAGRAM. SEE SPECIFICATIONS.
- 4. PROVIDE A REDUCED PRESSURE BACKFLOW PREVENTER MOUNTED ON WALL FOR EACH WATER EQUIPMENT SUPPLY. ROUTE PIPING OVERHEAD TO ADJACENT STERILIZER/GLASS WASHER. PROVIDE ISOLATION VALVE AT OVER TOP OF EQUIPMENT PER MANUFACTURER'S CUT SHEETS. REFER TO STERILIZER/GLASS WASHER DETAIL FOR ADDITIONAL INFORMATION. ROUTE RPBP DRAINS TO NEAREST FLOOR SINK.
- 5. PROVIDE ELECTRONIC BALL VAVLE EQUAL TO ISIMET EBV 900 SERIES ON BOTH LCH AND LHW SUPPLY LINES TO SINK. CONNECT VALVE CONTROL TO PUSH BUTTON SHUTOFF ON WALL EQUAL TO ISIMET LAV2. PROVIDE ALL ASSOCIATED EQUIPMENT AND WIRING. COORDINATE ALL POWER AND WIRING REQUIRMENTS AND WITH THE ELECTRICAL CONTRACTOR.
- 6. CONNECT NEW SINK TO EXISTING UTILITIES INCLUDING LCW, LHW, ACID VENT, AND ACID WASTE.
- 7. FUME HOOD BY EQUIPMENT VENDOR. PROVIDE 1/2" LCW AND 1-1/2"
- TAILPIECE FOR DRAIN. SEE FUME HOOD DETAIL.
- 8. POINT OF USE DI WATER POLISHING SYSTEM BY OTHERS. 9. CONNECT NEW FLOOR SINK TO EXISTING ACID WASTE PIPING.
- 10. CONNECT BRANCH PIPING TO NEAREST MAIN OF EQUAL OR GREATER SIZE.

ENLARGED PLUMBING PLAN - LAB RENOVATION - LEVEL 04









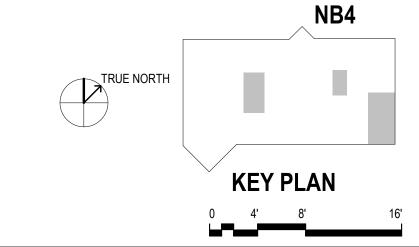


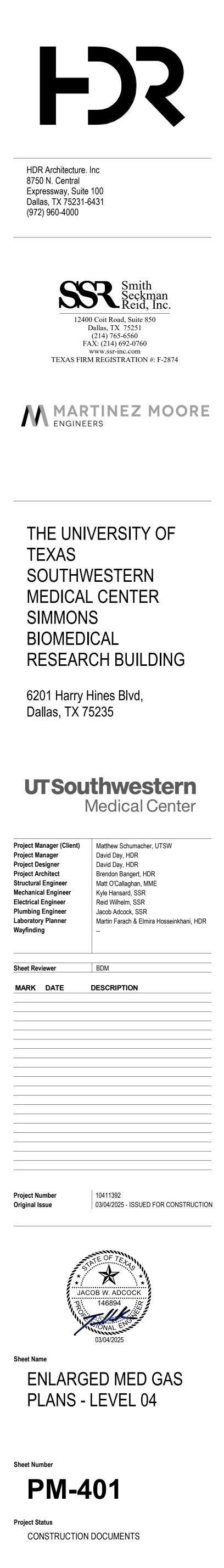
RENOVAT	RENOVATION LEGEND						
SYMBOL	DESCRIPTION						
	EXISTING TO REMAIN						
	NEW CONSTRUCTION						
•	CONNECT TO EXISTING AT THIS POINT						

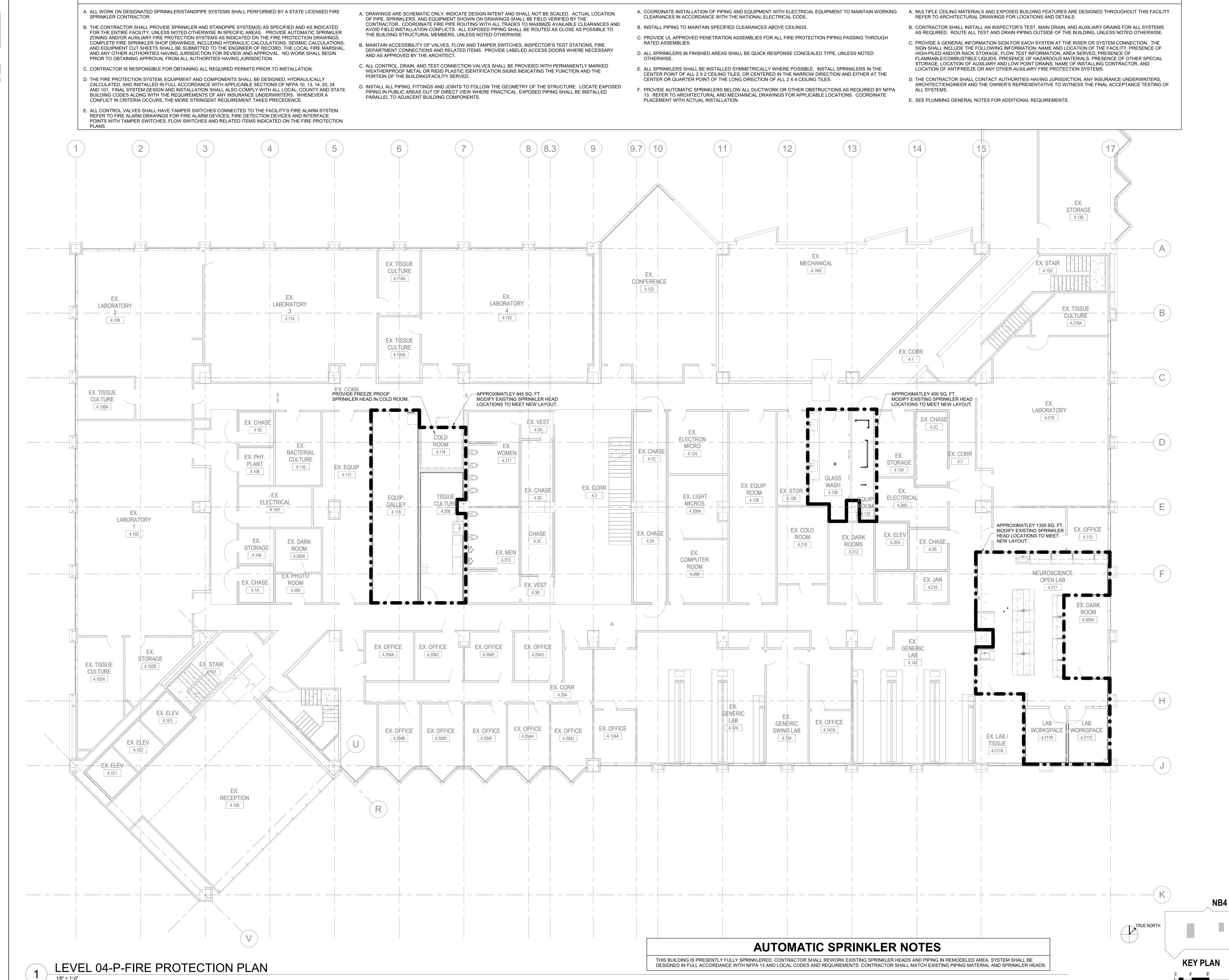
SHEET GENERAL NOTES

A. SEE SHEET P - 000 FOR ADDITIONAL NOTES THAT ARE APPLICABLE TO THIS SHEET.

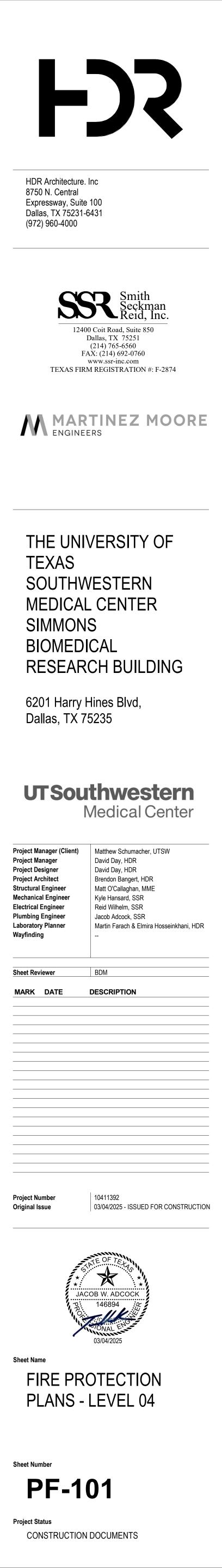
- 1. 1/2" LAB AIR AND 3/4" LAB VACUUM TO SERVE CEILING SERVICE PANEL. REFER TO ARCHITECTURE FOR CEILING PANEL DETAILS.
- 2. 1/2" LAB AIR AND 3/4" LAB VACUUM DOWN TO SERVE FUME HOOD. REFER TO FUME HOOD DETAIL.
- 3. COORDINATE GLASS WASHER AIR REQUIREMENTS WITH EQUIPMENT VENDOR.
- a. PROVIDE 1/2" AIR CONNECTION BETWEEN 80-125 PSI AT 1.2 CFM. VENDOR TO PROVIDE AIR COMPRESSOR FOR GLASS WASHERS. . PROVIDE GAS MONITORING SYSTEM EQUAL TO BEACON MEDAES MEG+.
- MOUNT ON WALL PER MANUFACTURER'S INSTALLATION DETAILS. GAS MONITORING SYSTEM SHALL ALARM LOCALLY. a. PROVIDE OXYGEN DEPLETION AND CARBON DIOXIDE SENSOR AT CYLINDER STORAGE WITHIN TISSUE CULTURE ROOM.
- b. COORDINATE ADDITIONAL GAS MONITORING LOCATIONS WITH FINAL EQUIPMENT DRAWINGS AND PERMINANT CYLINDER /CONTAINER LOCATIONS.
- 5. PROVIDE LAB GAS TO CEILING MOUNTED DISTRIBUTION PANEL. HOSE CONNECTIONS FROM PANEL TO EQUIPMENT BY CASEWORK MANUFACTURER.
- 6. ROUTE 3/4" LAB VACUUM DOWN TO WALL OUTLET. REFER TO EQUIPMENT DRAWINGS FOR ELEVATION AND LOCATION.
- 7. 1/2" LAB AIR AND 3/4" LAB VACUUM ABOVE CEILING CAPPED FOR FUTURE USE.
- 8. ROUTE 1/2" LAB AIR DOWN TO WALL OUTLET. REFER TO EQUIPMENT DRAWINGS FOR ELEVATION AND LOCATION.

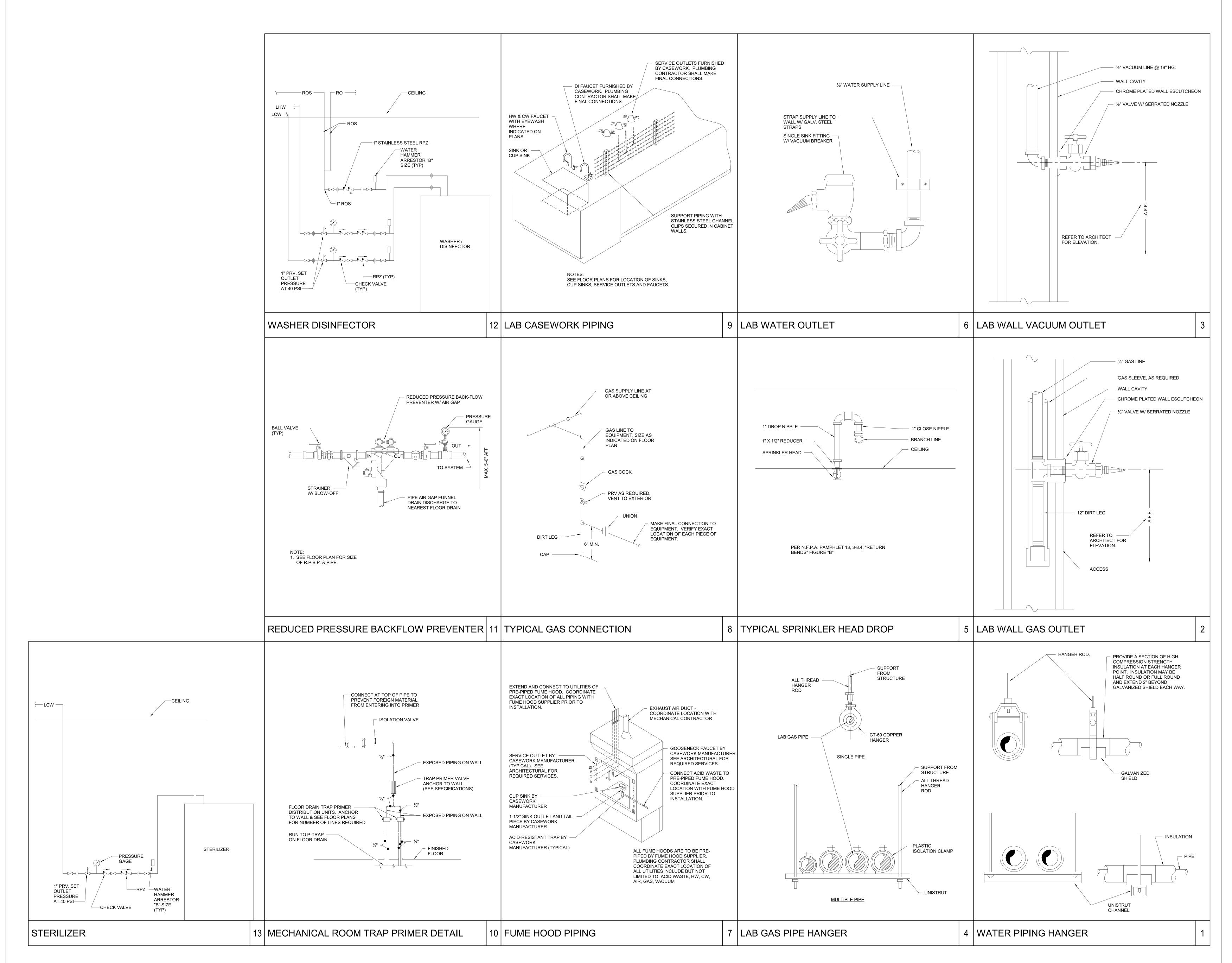


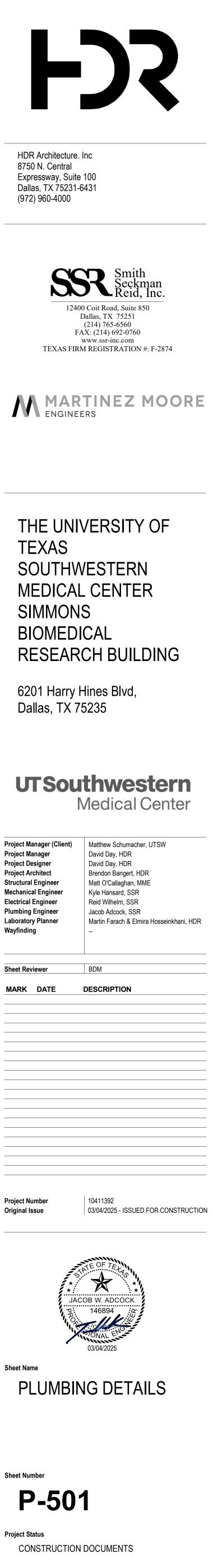




FIRE PROTECTION GENERAL NOTES





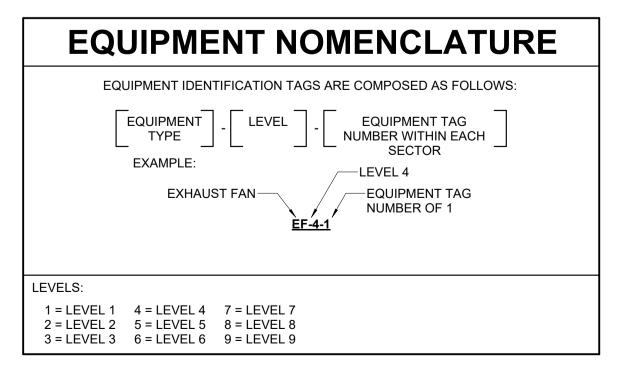


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SYMBOL / ABBREV	IATION	DESCRIPTION	SYMBOL / /			DESCRIPTION
		RECTANGULAR SUPPLY DUCT - UP	TAC			SUPPLY DIFFUSER AND AIR QUANTITY. BLANK OUTS INDICATE NO AIR FLOW IN THIS
		RECTANGULAR SUPPLY DUCT - DOWN			∑sx ∑	DIRECTION. (X DENOTES TYPE. SEE NOTE 1 OF AIR DISTRIBUTION DEVICE SCHEDULE)
						RETURN GRILLE AND AIR QUANTITY
		RECTANGULAR RETURN / EXHAUST DUCT - UP			EX	(X DENOTES TYPE) EXHAUST GRILLE AND AIR QUANTITY (X DENOTES TYPE)
		RECTANGULAR RETURN / EXHAUST DUCT - DOWN	100SX			LAMINAR FLOW SUPPLY DIFFUSER AND AIR FLOW QUANTITY (X DENOTES TYPE)
		ROUND SUPPLY DUCT - UP			100	LINEAR SLOT DIFFUSER AND AIR FLOW QUANTITY
	<u>۱</u> ــــــــــــــــــــــــــــــــــــ			100		SCREENED OPENING AND AIR FLOW QUANTITY
\leftrightarrow		ROUND SUPPLY DUCT - DOWN	<u>AT-XX-XX</u>			SOUND ATTENUATOR HEATING COIL WITH IDENT.
		ROUND RETURN / EXHAUST DUCT - UP			╨┈╹ ┨──┤	ELECTRIC HEATING COIL WITH IDENT.
		ROUND RETURN / EXHAUST DUCT - DOWN	ATU-XX-XX			AIR TERMINAL UNIT WITH IDENT. & MAX CFM
		OVAL SUPPLY DUCT - UP	ATU-XX-XX			AIR TERMINAL UNIT WITH IDENT., MIN AND MAX
		OVAL SUPPLY DUCT - DOWN	<u>CB-XX-XX</u> -		┎╼╜╴╵ ┥╺┥ ┓	CHILLED BEAM WITH IDENT. & CFM
		OVAL RETURN / EXHAUST DUCT - UP	XXX		<u>+</u> +	AIRFLOW TRANSFER RATE AT DOOR
	<u>ــــــ</u> ۲		ļ		1	
(\rightarrow)		OVAL RETURN / EXHAUST DUCT - DOWN		CS DD]]	COLD DECK SUPPLY DRYER EXHAUST DUCT
				DE	」]	DISHWASHER EXHAUST
		FIRE DAMPER		EA]	EXHAUST AIR
	\mathbf{A}	SMOKE DAMPER		GE]	GREASE EXHAUST
	ĽĽ			HE]	HOOD EXHAUST
⊢.\$ \	\$	COMBINATION FIRE/SMOKE DAMPER		HS]	
MVD				IE LE	<u>]</u>]	ISOLATION EXHAUST
		MANUAL VOLUME DAMPER		OA]	OUTSIDE AIR
<u>, ф. ;</u>		MOTORIZED DAMPER		PE]	PHARMACY EXHAUST
м — — — — — — — — — — — — — — — — — — —	щ M			RA]	RETURN AIR
		AIR FLOW MONITORING STATION		SA]	
				SA AD]	SUPPLY AIR MEDIUM PRESSURE
		DIFFERENTIAL PRESSURE SENSOR		AFF		ABOVE FINISHED FLOOR
		STATIC PRESSURE SENSOR		ATC		AUTOMATIC TEMPERATURE CONTROL PANEL
	SP			BDD BOD		BACKDRAFT DAMPER BOTTOM OF DUCT
		CARBON DIOXIDE DETECTOR		BOD		BOTTOM OF PIPE
, , , , , , , , , , , , , , , , , , , 				DDC		DIRECT DIGITAL CONTROL
	CO	CARBON MONOXIDE DETECTOR		D.L.		INTERNAL DUCT LINING
		DUCT SENSOR	<u> </u>	FD		FIRE DAMPER
· 			<u> </u>	FSD ML		COMBINATION FIRE/SMOKE DAMPER
, <u>♦</u> , <u>†</u>	ł	TRAVERSE DUCT TEST AND BALANCE		ML MVD		MARINE LIGHT MANUAL VOLUME DAMPER
<u></u>	<u></u>			OBD		OPPOSED BLADE DAMPER
		HUMIDIFIER WITH IDENTIFICATION		SD		SMOKE DAMPER
, }				SO		
		TRANSITION		SWR SWG		SIDEWALL REGISTER SIDEWALL GRILLE
			<u> </u>	TG		TRANSFER GRILLE
		RADIUS ELBOW		UNO		UNLESS NOTED OTHERWISE
	Ţ	SQUARE THROAT ELBOW WITH TURNING				CONTROL DEVICES
		VANES		T		THERMOSTAT OR TEMP SENSOR
ΤП	Π	BRANCH DUCT CONNECTION RECTANGULAR OR ROUND BRANCH.		Ð		HUMIDISTAT OR HUMIDITY SENSOR
		RECTANGULAR OR ROUND BRANCH. RECTANGULAR TRUNK. MVD REQUIRED TO AIR DEVICES				DIFFERENTIAL PRESSURE SENSOR
· · · · · · · · · · · · · · · · · · ·				<u>(CO₂)</u> ©		CARBON DIOXIDE SENSOR CARBON MONOXIDE SENSOR
	∐` R/D	RISE/DROP IN ELEVATION	(RM-X		ROOM MONITOR
				(EPO)		EMERGENCY POWER OFF
x 「		SPLITTER WITH SPLIT SIZE SHOWN		(NO ₂)		NITROGEN DIOXIDE SENSOR
^ _ x∕⊥				R		REFRIGERANT SENSOR
	<u> </u>			P		PRESSURE MONITOR
		SPLITTER WITH SPLIT SIZES SHOWN				
		BRANCH DUCT CONNECTION CONICAL TEE AND TAP ROUND TRUNK.				

			N	IECHANICAL	LEG	END	(NOT ALL SYMBOLS MAY BE USED)
				PIPING			
SYMBOL	/ ABBREV	IATION		DESCRIPTION	SYMBOL	/ ABBREVIATION	DESCRIPTION
—CHR—		CHR	CHILLE	D WATER RETURN	Ā	Δ	GATE VALVE
—CHS—	2	CHS	CHILLE	D WATER SUPPLY	₹	<u> </u>	BALL VALVE
—PCHR—	P	CHR	PRIMA	RY CHILLED WATER RETURN	þ	đ	BUTTERFLY VALVE
—PCHS—	F	PCHS	PRIMA	RY CHILLED WATER SUPPLY	Ŕ	串	CONTROL VALVE, 2 WAY
—_CD—	<u> </u>	CD		NSATE DRAIN	Ŕ	B	CONTROL VALVE, 3 WAY
—CWR—		CWR		NSER WATER RETURN	ľ	ال	CHECK VALVE - SWING
—cws—		CWS		NSER WATER SUPPLY	ľ	Ī	CHECK VALVE - WAFER
—HWR—	E H	IWR	HEATIN	IG WATER RETURN	\sim	Ŕ	STRAINER
—HWS—	H	HWS	HEATIN	IG WATER SUPPLY	_ S≵	Ŕ	STRAINER & BLOWDOWN VALVE
— D —		D	DRAIN	LINE		Þ	BALANCING VALVE
—HPS—		HPS	HIGH P	RESSURE STEAM	Å	Å	PRESSURE REDUCING VALVE
—HPR—		HPR	HIGH P	RESSURE CONDENSATE RETURN	Å	Δ	OS & Y VALVE
—MPS—		MPS	MEDIUI	M PRESSURE STEAM	2	E T	PRESSURE RELIEF VALVE
—MPR—	- I	MPR	MED. P	RESSURE CONDENSATE RETURN	1	0	COMPANION FLANGE
—LPS —	Ł	LPS	LOW PI	RESSURE STEAM	ų	0	UNION
—LPR —		LPR	LOW PI	RESSURE CONDENSATE RETURN	+	₽	PIPE GUIDE
—PCR—		PCR	PUMPE	D CONDENSATE RETURN	×	X	PIPE ANCHOR
-FSHRR-	F	SHRR	FOOD	SERVICE HEAT REJECTION RETURN	XXX		FLEXIBLE CONNECTOR
-FSHRS-	F	SHRS	FOOD	SERVICE HEAT REJECTION SUPPLY	U		THERMOMETER WELL
—GCHS—		GCHS	GLYCO	L CHILL WATER SUPPLY	υ _P		PETE'S PLUG
—GCHR—	6	GCHR	GLYCO	L CHILL WATER RETURN	ιιδi	₽ D	VALVE WITH BLIND FLANGE
—GHWS—	G	HWS	GLYCO	L HEATING WATER SUPPLY	C		CAP/PLUG
—GHWR—	G	iHWR	GLYCO	L HEATING WATER RETURN	Т		STEAM TRAP
—gts—		GTS	GEOTH	ERMAL SUPPLY		ОМ	END OF MAIN DRIP
—GTR—		GTR	GEOTH	ERMAL RETURN	·	•	PRESSURE REDUCING STATION
—HPWS—	Ен	IPWS	HEAT F	UMP WATER SUPPLY	Ŷ	Ŷ	PRESSURE GAUGE
—HPWR—	Н	IPWR	HEAT F	UMP WATER RETURN	P	Į.	THERMOMETER
—FOR—		FOR	FUEL C	IL RETURN		PRV	PRESSURE REDUCING VALVE
—FOS—	2	FOS	FUEL C	IL SUCTION		PR	PRESSURE RELIEF VALVE
—FOV—	2	FOV	FUEL C	IL VENT		PRS	PRESSURE REDUCING STATION
—RHGB—	E R	RHGB	REFRIC	GERANT HOT GAS BYPASS		Μ	FLOW METER
	2	RL	REFRIC	GERANT LIQUID			
RS	2	RS	REFRIC	GERANT SUCTION			
RV	2	RV	RELIEF	VENT			
			DIRECT	TION OF FLOW			
			REDUC	ER			
			SLOPE	PIPE DOWN IN THIS DIRECTION			
	$\circ \square$)	ELBOW	/ UP			
			ELBOW	DOWN			
TEE	, P		F BRANC	H PIPE CONNECTION			
			TEE - C	UTLET DOWN			
	٢Ā	8	TEE - C	UTLET UP			

MECHANICAL EQUIPMENT NAMING CONVENTION

ABB.	DESCRIPTION	ABB.	DESCRIPTION	ABB.	DESCRIPTION				
AC	AIR COMPRESSOR	DOA	DEDICATED OUTSIDE AIR	MAF	MAKE-UP AIR FAN				
ACC	AIR COOLED CHILLER	EAV	EXHAUST AIR VALVE	MAU	MAKE-UP AIR UNIT				
AFM	AIRFLOW MONITOR	EF	EXHAUST FAN	PCHP	PRIMARY CHILLED WATER PUMP				
AHU	AIR HANDLING UNIT	ERV	ENERGY RECOVERY VENTILATOR	PDU	POOL DEHUMIDIFICATION UNIT				
AS	AIR SEPARATOR	ET	EXPANSION TANK	PRS	PRESSURE REDUCING STATION				
ATU	AIR TERMINAL UNIT	FCU	FAN COIL UNIT	RAD	REFRIGERATED AIR DRYER				
В	BOILER	FFU	FAN FILTER UNIT	RAF	RETURN AIR FAN				
BC	BLOWER COIL	FOP	FUEL OIL PUMP	RAV	RETURN AIR VALVE				
BFU	BOILER FEED UNIT	FT	FLASH TANK	REF	RELIEF AIR FAN				
BT	BUFFER TANK	FTR	FINNED TUBE RADIATOR	RH	RADIANT HEAT PANEL				
СВ	CHILLED BEAM	GVH	GRAVITY VENT HOOD	RTU	ROOFTOP PACKAGE UNIT				
СН	CHILLER	н	HUMIDIFIER	SAF	SUPPLY AIR FAN				
CHP	CHILLED WATER PUMP	HP	HEAT PUMP	SAT	SOUND ATTENUATOR				
CH-XT	CHILLED WATER EXPANSION TANK	нс	HEATING COIL (STEAM OR HW)	SAV	SUPPLY AIR VALVE				
CP	CONDENSATE PUMP	НТ	HEAT TRACE	SCHP	SECONDARY CHILLED WATER PUMP				
CRAC	COMPUTER ROOM A/C UNIT	HVLS	HIGH VOLUME LOW SPEED FAN	SEF	SMOKE EXHAUST FAN				
СТ	COOLING TOWER	HWP	HEATING WATER PUMP	SSAC	SPLIT SYSTEM AC UNIT				
CU	CONDENSING UNIT	HWCP	HEATING WATER CIRCULATION PUMP	UH	UNIT HEATER				
CWP	CONDENSER WATER PUMP	HW-XT	HEATING WATER EXPANSION TANK	VFD	VARIABLE FREQUENCY DRIVE				
DA	DEAERATOR	нх	HEAT EXCHANGER	VRV	VARIABLE REFRIGERANT FAN COIL UNI				
DAC	AIR CURTAIN	IEF	ISOLATION EXHAUST FAN						
DC	DRY COOLER	KEF	KITCHEN HOOD EXHAUST FAN						



	SHEET INDEX									
NUMBER	IUMBER SHEET NAME									
M-000	M-000 MECHANICAL LEGENDS, INDEX, AND NOTES									
M-001	1-001 MECHANICAL SCHEDULES									
MD-101	MD-101 MECHANICAL DEMOLITION PLAN - LEVEL 04									
MD-401	MD-401 MECHANICAL ENLARGED DEMOLITION PLANS									
M-101	M-101 MECHANICAL PLAN - LEVEL 04									
M-401	M-401 MECHANICAL ENLARGED PLANS									
M-501	M-501 MECHANICAL DETAILS									
M-700	M-700 MECHANICAL CONTROL NOTES AND LEGEND									
M-701	M-701 MECHANICAL CONTROLS									
M-702	MECHANICAL CONTROLS									
M-703	MECHANICAL CONTROLS									

MECHANICAL GENERAL NOTES A. CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE PROJECT SCOPE, UTILITY CONNECTIONS, AND ALL BUILDING SERVICES. B. STANDARD DETAILS ILLUSTRATED ON THE DRAWINGS SHALL BE APPLIED IN ALL CASES WHERE THE FEATURE OCCURS IN THE SYSTEM DESIGN. C. ALL DUCTWORK SIZES SHOWN ARE CLEAR INSIDE DIMENSIONS IN INCHES. REFER TO SPECIFICATION SECTION 230700 FOR DUCT INSULATION. D. MAJOR EQUIPMENT SHOWN ON THE PLANS AND ELEVATIONS ILLUSTRATE THE GENERAL ARRANGEMENT AND SPACE ALLOCATIONS. THE CONTRACTOR SHALL VERIFY THE SPACE REQUIREMENTS FOR EACH SYSTEM COMPONENT USING MANUFACTURER CERTIFIED SHOP DRAWINGS AND MAKE THE NECESSARY ADJUSTMENTS IN EQUIPMENT PLACEMENT AND CONNECTION IN ORDER TO ACCOMMODATE THE EXACT EQUIPMENT TO BE INSTALLED. E. SUPPORTS, ANCHOR BOLTS, AND HANGERS FOR ALL EQUIPMENT SPECIFIED IN DIVISION 23 SHALL CONFORM TO THE SPECIFICATIONS. MISCELLANEOUS STEEL BRACING SUPPORTS AND REINFORCING STEEL NEEDED TO SUPPORT EQUIPMENT SPECIFIED IN DIVISION 23 SHALL BE PART OF THE SCOPE OF WORK OF DIVISION 23. F. DIFFUSERS, REGISTERS, AND GRILLES SHOWN ON THE MECHANICAL DRAWINGS SHALL BE IN ACCORDANCE WITH THE AIR DISTRIBUTION DEVICE SCHEDULE AND SPECIFICATIONS. BRANCH DUCTS TO AIR DEVICES SHALL BE IN ACCORDANCE WITH THE SCHEDULE UNLESS NOTED OTHERWISE. G. FIRE/SMOKE DAMPERS SHALL BE INSTALLED IN DUCTWORK PENETRATIONS THROUGH RATED PARTITIONS, WALLS, BARRIERS, FLOORS, AND SHAFTS IN ACCORDANCE WITH THE PROJECT APPLICABLE BUILDING CODES. DAMPERS SHALL MEET THE REQUIREMENTS OF THE FIRE/SMOKE RATING AND BE "U.L." LABELED. REFER TO ARCHITECTURAL DRAWINGS FOR THE LOCATIONS AND RATINGS OF ALL WALLS AND FLOORS. H. PENETRATIONS THROUGH RATED WALLS AND FLOORS SHALL BE SLEEVED, SEALED AND FIRESAFED TO MAINTAIN THE INTEGRITY OF THE WALL AND FLOOR UL FIRE RESISTANCE RATING. I. DUCTWORK AND PIPING 4" AND LARGER ROUTED PARALLEL TO A RATED WALL SHALL BE INSTALLED WITH A

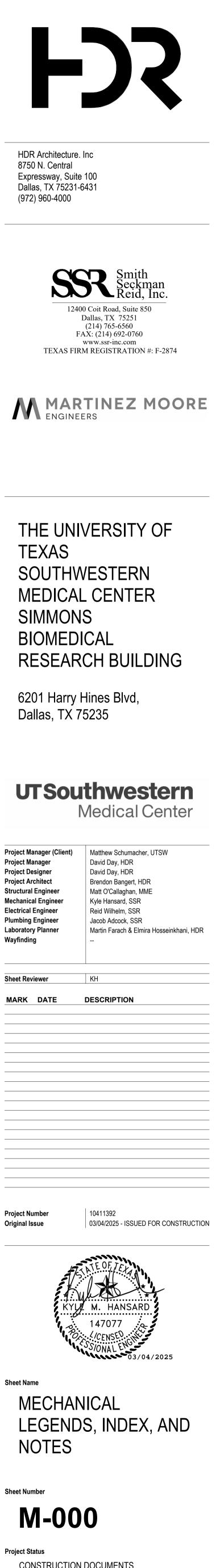
- MINIMUM 6" CLEARANCE TO ALLOW FOR INSPECTION OF WALL PENETRATIONS.
- J. DUCTWORK STORED ON-SITE AWAITING INSTALLATION SHALL REMAIN PROPERLY SEALED AND PROTECTED. OPEN ENDS OF DUCTWORK SHALL BE CAPPED AND SEALED AFTER INSTALLATION.
- K. CEILING DIFFUSERS, REGISTERS AND GRILLES SHALL BE FURNISHED WITH MOUNTING FRAMES AND FEATURES IN ACCORDANCE WITH THE CEILING TYPE.
- L. PIPING CONNECTIONS TO AIR HANDLING UNIT COILS AND MAJOR EQUIPMENT TO BE FABRICATED WITH ISOLATION VALVES, FLANGES, AND/OR UNIONS POSITIONED TO ALLOW REMOVAL AND SERVICE OF THE

COMPONENT PARTS.

- M. THERMOMETER WELLS AND PRESSURE GAUGES SHALL BE INSTALLED ON THE TOP OR SIDE OF HORIZONTAL PIPING IN ORDER TO RETAIN GAUGE FLUID AND BE EASILY READ FROM THE FLOOR.
- N. PROVIDE MANUAL BALANCING/VOLUME DAMPERS AT ALL LOW PRESSURE BRANCH TAKE-OFFS TO DIFFUSERS AND GRILLES FROM SUPPLY, RETURN AND EXHAUST MAINS AND SUB-MAINS, AND AT ALL LOW PRESSURE DUCT SPLITS OR SUB-MAIN TAKE-OFFS. DAMPERS SHALL BE INSTALLED ABOVE AN ACCESSIBLE CEILING OR ACCESS PANEL
- O. DRAWINGS ARE SCHEMATIC IN NATURE AND SHALL NOT BE SCALED. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING EXACT ROUTING OF ALL SERVICES WITH EXISTING CONDITIONS AND WITH ALL OTHER TRADES. REFER TO SPECIFICATIONS FOR COORDINATION DRAWING REQUIREMENTS. P. MAINTAIN ACCESSIBILITY OF ALL EQUIPMENT, DAMPERS, CONTROL PANELS, VALVES, AND OTHER DEVICES.
- PROVIDE ACCESS PANELS AS REQUIRED. COORDINATE PLACEMENT WITH THE ARCHITECT PRIOR TO INSTALLATION. Q. CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT PRIOR TO CUTTING ANY OPENING IN THE STRUCTURE.
- R. WHERE WORK IN RENOVATED AREAS AFFECTS SYSTEMS IN OTHER AREAS OF THE BUILDING. THE CONTRACTOR SHALL COORDINATE THIS WORK WITH THE OWNER. THIS WORK SHALL BE DONE TO FIT THE BUILDING OPERATIONAL SCHEDULE AND MINIMIZE DISRUPTION/ DISCOMFORT TO OCCUPIED AREAS. PROVIDE MINIMUM 48 HOURS WRITTEN NOTICE WITH ANTICIPATED DURATION OF OUTAGE.
- S. COORDINATE WITH ALL TRADES FOR REQUIRED CEILING REMOVAL IN EXISTING BUILDING. NOTIFY THE ARCHITECT AND OWNER PRIOR TO COMMENCING REMOVAL. REMOVE ONLY THAT PORTION OF CEILING NECESSARY TO ACCESS AND COMPLETE THE NEW WORK. UPON COMPLETION OF THE ABOVE CEILING WORK, CEILING IS TO BE REINSTALLED. REPLACE ANY DAMAGED CEILING TILES WITH NEW TILES TO MATCH EXISTING.

MECHANICAL DEMOLITION NOTES

- A. PRIOR TO ANY DEMOLITION WORK, CONTRACTOR SHALL TAKE AIR FLOW AND STATIC PRESSURE READINGS ON EXISTING EQUIPMENT AND DUCTWORK AS INDICATED ON DEMOLITION PLANS. RECORD AND SUBMIT TO ARCHITECT/ENGINEER.
- B. PRIOR TO DEMOLITION WORK, CONTRACTOR SHALL TAKE AIRFLOW READINGS OF ALL GRILLES, REGISTERS, AND DIFFUSERS IN PROJECT AREAS. RECORD AND SUBMIT TO ARCHITECT/ENGINEER.
- . IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE CONDITION OF ALL EXISTING EQUIPMENT, EXACT SIZES OF EXISTING DUCT AND PIPING, ETC. BEFORE DEMOLITION WORK IS BEGUN. REPORT ANY DISCREPANCIES BETWEEN PLANS AND ACTUAL FIELD CONDITIONS TO ARCHITECT AND ENGINEER PRIOR TO THE COMMENCEMENT OF DEMOLITION WORK.
-). REMOVE THE INDICATED HVAC ITEMS AS SHOWN ON PLANS. THIS INCLUDES ALL HANGERS, STRAPS AND RELATED MATERIAL. IF THE OWNER WISHES TO UTILIZE THE EXISTING EQUIPMENT, CONTRACTOR SHALL MOVE THE EQUIPMENT TO AN ON-SITE LOCATION DESIGNATED BY THE OWNER. ALL EQUIPMENT REFUSED BY OWNER SHALL BE DISPOSED OF IN A MANNER ACCEPTABLE BY LOCAL JURISDICTION. ITEMS SHOWN TO BE REMOVED SHALL NOT BE ABANDONED IN PLACE.
- E. CAP AND SEAL AIR TIGHT ALL POINTS AT WHICH DUCTWORK IS REMOVED FROM DUCTWORK THAT WILL REMAIN. RE-INSULATE REMAINING DUCTWORK TO MAINTAIN VAPOR BARRIER.
- CAP AND SEAL WATER TIGHT ALL POINTS WHICH PIPING IS REMOVED. RE-INSULATE REMAINING PIPING TO MAINTAIN VAPOR BARRIER.
- B. PATCH OPENINGS IN WALLS WITH LIKE MATERIALS TO MAINTAIN THE INTEGRITY OF THE WALL WHERE AIR DEVICES, DUCTS, PIPING, ETC. HAVE BEEN REMOVED.
- L CONTRACTOR SHALL VERIFY CLEARANCE REQUIREMENTS AND INDICATE ROUTING OF NEW DUCTWORK BEFORE FABRICATION BEGINS AS RISES AND DROPS MAY BE NECESSARY DUE TO EXISTING FIELD CONDITIONS.
- CONTRACTOR SHALL VERIFY ALL EXISTING TO REMAIN FIRE, SMOKE, AND COMBINATION FIRE/SMOKE DAMPERS AND DUCT SMOKE DETECTORS IN THE PROJECT AREA ARE IN PROPER WORKING CONDITION. CONTRACTOR TO NOTIFY ENGINEER AND OWNER OF ANY EXISTING EQUIPMENT FOUND INOPERABLE.
- CONTRACTOR TO VERIFY ALL MOTORS, MANUAL AND MOTORIZED DAMPERS, TEMPERATURE AND HUMIDITY SENSORS, AIR TERMINAL UNITS, AND CONTROLS IN THE PROJECT AREA SHOWN AS EXISTING TO REMAIN ARE IN PROPER WORKING CONDITION. CONTRACTOR TO NOTIFY ENGINEER AND OWNER OF ANY EXISTING EQUIPMENT FOUND INOPERABLE.
- (. GENERAL CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL AND ELECTRICAL CONTRACTOR ALL CEILING REMOVAL WHICH IS REQUIRED TO ACCESS THEIR WORK AND IS NOT DESIGNATED FOR REMOVAL, NOTIFY ARCHITECT AND OWNER PRIOR TO COMMENCING REMOVAL. IF EXISTING CEILING IS DETERMINED TO REQUIRE REMOVAL, REMOVE ONLY THAT PORTION NECESSARY TO ACCESS AND COMPLETE DEMOLITION AND NEW WORK. UPON COMPLETION OF THE ABOVE CEILING WORK, CEILING IS TO BE REPLACED TO MATCH EXISTING CEILING.



CONSTRUCTION DOCUMENTS

GENERAL NOTES:

1. FAN EFFICIENCY GRADE (FEG) PER AMCA 205. TOTAL FAN EFFICIENCY AT DESIGN POINT OF OPERATION SHALL BE WITHIN 15% OF THE MAX TOTAL FAN EFFICIENCY. 2. FAN EFFICIENCY INDEX (FEI) AT THE DESIGN POINT OF OPERATION PER AMCA 208. FEI FOR FAN ARRAYS SHALL BE CALCULATED PER AMCA 208 ANNEX C. 3. FRACTIONAL HP MOTORS SHALL BE ELECTRONICALLY COMMUTATED (EC) MOTORS.

	r	r	
DESIGNATION	AREA SERVED	MANUFACTURER	
FCU-4-1	FREEZER GALLEY	TRANE	
FCU-4-2	FREEZER GALLEY	TRANE	

FAN COIL UNIT SCHEDULE

- **REMARKS:** A. AUXILIARY DRAIN PAN.
- B. MOISTURE SENSOR.

C. EMERGENCY POWER.

- D. MULTI-SPEED FAN CONTROL.
- E. VARIABLE SPEED FAN CONTROL. F. UNIT MOUNTED DISCONNECT SWITCH.

COOLING COIL FAN MOTOR TSP ESP EAT LAT TOTAL MODEL NUMBER TYPE VOLT/PH TYPE DB/WB DB/WB CAPACITY CAPACITY CAPACITY CFM (IN. (IN. CFM COUNT (EACH) OA MOTOR HP GPM (°F) (°F) /FPI ŴG) ŴG) (°F) (°F) (MBTUH) FCCB120 HORIZONTAL 1030 0.82 0.5
 2
 0.25
 208/1

 2
 0.25
 208/1

 40
 60
 4/12

 40
 60
 4/12
 EC EC 75/66.5 55/54.9 3.62 36 FCCB120 HORIZONTAL 1030 0.82 0.5 75/66.5 55/54.9 36 3.62

AIR DISTRIBUTION DEVICE SCHEDULE

GENERAL NOTES:

1. PROVIDE MOUNTING STYLE BASED ON CEILING TYPE INDICATED ON THE REFLECTED CEILING PLANS. 2. ALL AIR DISTRIBUTION DEVICES SHALL HAVE A MAXIMUM NC RATING OF 25.

3. IN AREAS WITH LAY-IN CEILINGS, PROVIDE LISTED PANEL SIZE.

4. IN AREAS WITH HARD CEILINGS, PROVIDE SURFACE MOUNTED TYPE AIR DISTRIBUTION DEVICE AT LISTED FACE SIZE WITHOUT PANEL. 5. ALL AIR DEVICES LOCATED IN INACCESSIBLE HARD CEILINGS SHALL BE PROVIDED WITH VOLUME DAMPERS (OPPOSED BLADE WHEN AVAILABLE).

6. CONTRACTOR SHALL PAINT THE INTERIOR OF RETURN/EXHAUST SQUARE TO ROUND TRANSITIONS AND PLENUMS FLAT BLACK.

7. PROVIDE TRANSITION AS REQUIRED FOR DUCT AND DEVICE CONNECTION. 8. RUNOUT DUCTS FOR RETURN/EXHAUST GRILLES SIZED AT MAXIMUM VELOCITY OF 600 FPM.

9. CEILING DIFFUSERS ARE 4-WAY THROW UNLESS NOTED OTHERWISE. INCREASE NECK SIZE ONE STEP FOR 2-WAY THROW AND PROVIDE BLANK OFF PLATES AS REQUIRED. 10. FACE, NECK, AND RUNOUT SIZES FOR SIDEWALL GRILLES ARE THE NOMINAL DUCT SIZE.

11. REFER TO FLOOR PLANS FOR LENGTHS OF TYPE S2 NOT REFLECTED IN THE SCHEDULE. 12. REFER TO SPECIFICATION SECTION 233700 FOR ADDITIONAL REQUIREMENTS.

13. SIDEWALL GRILLE FRONT BLADES SHALL BE PARALLEL TO THE FLOOR UNLESS NOTED OTHERWISE.

	CFM F	RANGE					FACE	NECK	RUNOUT	PANEL	
DESIGNATION	MIN.	MAX.	MANUFACTURER	MODEL	TYPE	LOCATION	SIZE (IN.)	SIZE (IN.)	SIZE (IN.)	SIZE (IN.)	REMARKS
R1/E1	0	190	TITUS	50F	1/2 IN. EGGCRATE	CEILING	24x24	8 DIA.	8 DIA./10x6	24x24	D
R1/E1	195	280	TITUS	50F	1/2 IN. EGGCRATE	CEILING	24x24	10 DIA.	10 DIA./12x8	24x24	D
R1/E1	285	460	TITUS	50F	1/2 IN. EGGCRATE	CEILING	24x24	12 DIA.	12 DIA./14x10	24x24	D
R1/E1	465	620	TITUS	50F	1/2 IN. EGGCRATE	CEILING	24x24	14 DIA.	14 DIA./16x10	24x24	D
S1	0	90	TITUS	TMS	LOUVERED FACE	CEILING	24x24	6 DIA.	6 DIA./8x4	24x24	-
S1	95	190	TITUS	TMS	LOUVERED FACE	CEILING	24x24	8 DIA.	8 DIA./10x6	24x24	-
S1	195	320	TITUS	TMS	LOUVERED FACE	CEILING	24x24	10 DIA.	10 DIA./12x8	24x24	-
S1	325	450	TITUS	TMS	LOUVERED FACE	CEILING	24x24	12 DIA.	12 DIA./14x10	24x24	-
S1	455	650	TITUS	TMS	LOUVERED FACE	CEILING	24x24	14 DIA.	14 DIA./16x10	24x24	-

						A	11
 SEE CONTRO AIR VALVES A MAXIMUM INL HEATING COII CONTROL VAI EXTEND DUC MAX NC OF 26 MAXIMUM CO MAXIMUM CO FACTORY FU AIR VALVES 	CATIONS FOR ADDITION L DRAWINGS FOR SEQU RE DDC PRESSURE IN ET VELOCITY - 2000FPM LS ARE SEPARATE FRC LVES SHALL BE MODUL T RUNOUT TWO INLET I & PER ARI 880. IL WPD- 5 FEET. DIL APD IS 0.3 IN WG. JRNISHED AND MOUNT SHALL HAVE DIGITAL C	JENCES OF OPERATION DEPENDENT.	TAILS FOR MOUNT R SHOP DRAWINGS ITION AT INLET FRO TION. ED ACTUATION.	6 FOR FLOW R			RE A. B. C. D. E. F. G.
						CFM	
DESIGNATION	MANUFACTURER	MODEL NUMBER	SERVICE	DUTY	МАХ	MIN. /	

			CFM			HEATING COIL													
DESIGNATION	MANUFACTURER	MODEL NUMBER	SERVICE	DUTY	МАХ	MIN. / HEATING	AIR VALVE QTY-SIZE (IN.)	DUCT RUNOUT QTY-SIZE (IN.)	EAT		SIZE L X W (IN.)	ROWS		LWT (° F)	CAPACITY (BTUH)	GPM	PIPE RUNOUT SIZE	MIN. INLET S (IN. WG)	REMARKS
EAV-4-1	SIEMENS	LGE	NEUROSCIENCE	EXHAUST	790	790	1-8	1-8	-	-	-	-	-	-	-	-	-	0.25	D,G
EAV-4-2	SIEMENS	LGE	TISSUE CULTURE	EXHAUST	1275	1275	1-10	1-10	-	-	-	-	-	-	-	-	-	0.25	D,F

GENERAL NOTES:

1. UNIT INLET SIZE SHOWN IS MINIMUM ACCEPTABLE.

2. HEATING COIL SELECTION BASIS: SCHEDULED LEAVING AIR TEMPERATURE

3. HEATING COIL MINIMUM FLOW RATE: 0.5 GPM

4. HEATING COIL MAXIMUM FACE VELOCITY: 700 FPM

5. HEATING COIL ROW QUANTITY SHALL BE AS REQUIRED TO OBTAIN THE SCHEDULED CONDITIONS. 6. HEATING COILS SELECTED WITH 1 ROW AND AT THE MINIUM HOT WATER FLOW RATE OF 0.5 GPM CAN EXCEED THE

SCHEDULED LEAVING AIR TEMPERATURE. 7. AIR TERMINAL UNIT TAG NUMBER TO BE VERIFIED WITH EXISITNG SCHEME AND HAVE NEXT SEQUENTIAL NUMBER AVAILABLE.

REMARKS:

A. DEMAND CONTROLLED VENTILATION

B. NIGHT SETBACK C. COOLING MAX SHOWN FOR BOX SELECTION SIZE. SMALLEST AVAILABLE BOX REQUIRED TO BALANCE DOWN TO 40 CFM TO SERVE COLD ROOM DESSICANT DRYER.

		OCC.	OCC.	occ.	UNOCC.	INLET	DUCT								PIPE		МАХ	МАХ	МАХ	MAX	X NC	ELECT	RICAL	
DESIGNATION	AHU		HEATING MAX		MIN. CFM	SIZE (IN.)	RUNOUT SIZE	EAT (°F)	LAT (°F)	FLUID	MIN BTUH	EWT (°F)	GPM	MAX LWT (°F)	RUNOUT CONTROL TYPE		CONTROL TYPE WPD (FT. W.G.)		INLET S.P. (IN. W.G.)	DIS	RAD	VOLTS / PH	CONTROL VOLTAGE	REMARKS
ATU-4-1	NB/AHU-6	750	750	750	750	10	12	55	90	WATER	28,201	170	2.5	150	0.75	2-WAY	5.0	0.75	1.0	24	25	120 / 1	24V	
ATU-4-2	NB/AHU-6	1,125	565	260	260	12	14	55	90	WATER	21,245	170	1.9	150	0.75	2-WAY	5.0	0.75	1.0	25	29	120 / 1	24V	
ATU-4-3	NB/AHU-6	100		100	100	6	8	55	55									0.10	1.0	34	26	120 / 1	24V	
ATU-4-4	NB/AHU-6	100		40	40	4	4	55	55									0.10	1.0			120 / 1	24V	С
ATU-4-5	NB/AHU-6	470	470	470	470	8	10	55	90	WATER	8,836	170	0.8	150	0.75	2-WAY	5.0	0.75	1.0	26	28	120 / 1	24V	
ATU-4-6	NB/AHU-6	790	395	160	160	10	12	55	85	WATER	12,753	170	1.1	150	0.75	2-WAY	5.0	0.75	1.0	25	26	120 / 1	24V	
ETU-4-1	NB/AHU-6	470	470	470	470	12	12													35	27	120 / 1	24V	
ETU-4-2	NB/AHU-6	360		360	360	12	12													35	27	120 / 1	24V	
ETU-4-3	NB/AHU-6	100		40	40	4	4															120 / 1	24V	С

UNIT TYPES:

HORIZONTAL.

VERTICAL.

CABINET.

- STARTER TYPES:
- 1. MANUAL MOTOR STARTER.
- 2. HOA SWITCH, PILOT LIGHT, 120V CCT. 3. COMBINATION MAGNETIC ACROSS-THE-LINE.

MOTOR TYPE: PSC - PERMANENT SPLIT CAPACITOR EC - ELECTRONICALLY COMMUTATED

			н	EATING CO	DIL				STARTER			
WPD (FT WC)	CAPACITY (MBTUH)	EAT (° F)	LAT (° F)	GPM	EWT (° F)	WPD	ROW /FPI	TYPE	LOCATION	ACC		REMARKS
4.73	-	-	-	-	-	-	-	3	UNIT	2	A,B,E	
4.73	-	-	-	-	-	-	-	3	UNIT	2	A,B,E	

REMARKS:

- A. FIELD EXTERNALLY INSULATED PLENUM/BACK PAN. B. MANUFACTURER PROVIDED EXTERNAL INSULATION.
- C. FACTORY LEAK TESTED.
- D. MANUFACTURER PROVIDED BACK PLENUM WITH NECK OPENING SIZES AS INDICATED.
- E. PROVIDE WITH KNIFE EDGE FOR HEPA GEL SEAL. F. COLOR SELECTED BY ARCHITECT.
- G. PROVIDE BLANK OFF PLATES FOR UNUSED PORTIONS OF CONTINUOUS SLOT. H. HEAVY DUTY CONSTRUCTION.
- I. PROVIDE WITH HINGED FRAME.
 - J. FACE OPERATED (VIA SLOT) OPPOSED BLADE DAMPER.
 - K. REAR OPERATED (VIA SLOT) OPPOSED BLADE DAMPER.

L. LAMINAR DIFFUSER WITH INTEGRAL LED LIGHTING. PROVIDED BY MECHANICAL CONTRACTOR, WIRING BY ELECTRICAL CONTRACTOR. REFER TO ELECTRICAL LUMINAIRE SCHEDULE FOR ADDITIONAL REQUIREMENTS. M. SURFACE MOUNT FOR LAY-IN TILE, SURFACE MOUNT IN CENTER OF TILE. TILE SIZE TO STAY CONSISTENT WITH OTHER TILES IN THAT SPACE.

IR VALVE SCHEDULE

- REMARKS: . MATCHED WITH CORRESPONDING SUPPLY AIR VALVE AS A TRACKING PAIR.
- . MATCHED WITH CORRESPONDING RETURN AIR VALVE AS A TRACKING PAIR. . 120V TO 24V CCT BY CONTROLS VENDOR.
- . HORIZONTAL ORIENTATION.
- . VERTICAL ORIENTATION. . CONSTANT VOLUME VALVE. . MODULATING VALVE.

AIR TERMINAL UNIT SCHEDULE

7. HEATING COIL FLOW RATES ARE BASED ON AN AVERAGE WATER DELTA-T AND SHOWN FOR RUNOUT PIPE SIZING. CONTROL VALVE AND BALANCING VALVE SIZES SHALL BE BASED ON THE FLOW RATES LISTED IN THE APPROVED AIR TERMINAL UNIT SUBMITTAL.

DUTY:

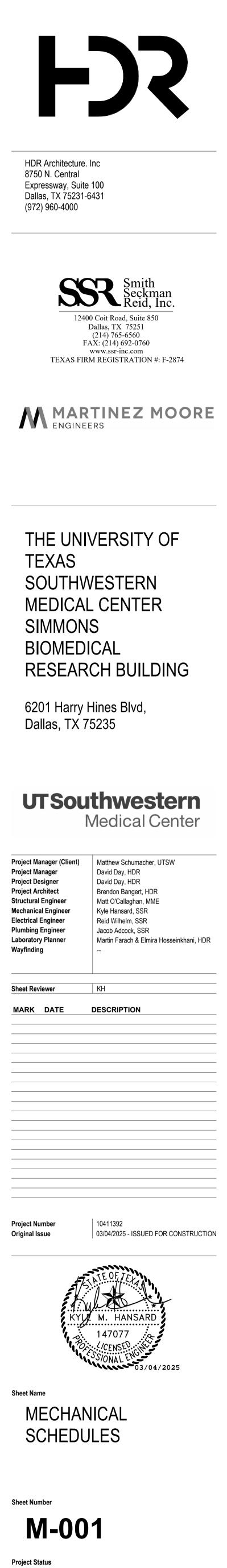
SUPPLY

RETURN

EXHAUST

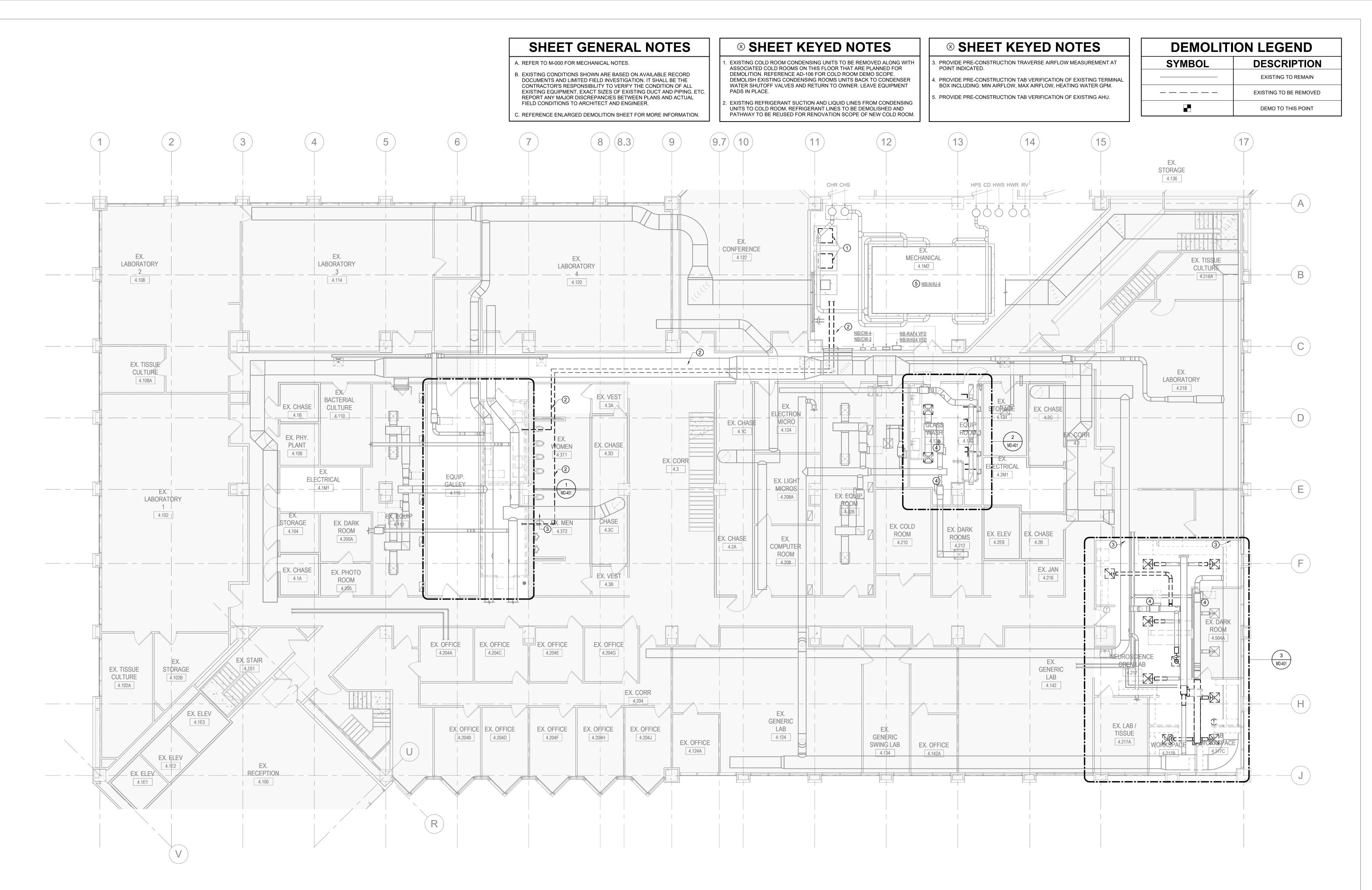
8. IF HEATING CAPACITY CANNOT BE MET, ELIMINATE COIL FROM ATU AND PROVIDE SEPARATE DUCT MOUNTED HEATING COIL TO MEET SCHEDULED CAPACITY. INDEPENDENTLY INSTALL COIL AND INSULATE DUCT AND COIL. COMPLY WITH THE MAXIMUM AIR PRESSURE DROP,

MAXIMUM WATER PRESSURE DROP AND MAXIMUM LEAVING WATER TEMPERATURE REQUIREMENTS. 9. NOISE CRITERIA (NC) SHALL BE DETERMINED USING AHRI STANDARD 885-2008 APPENDIX E WITH SOLID LINER AND 1" THICK INSULATION AT THE INDICATED MAXIMUM INLET STATIC PRESSURE.

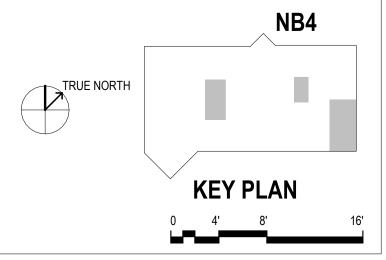


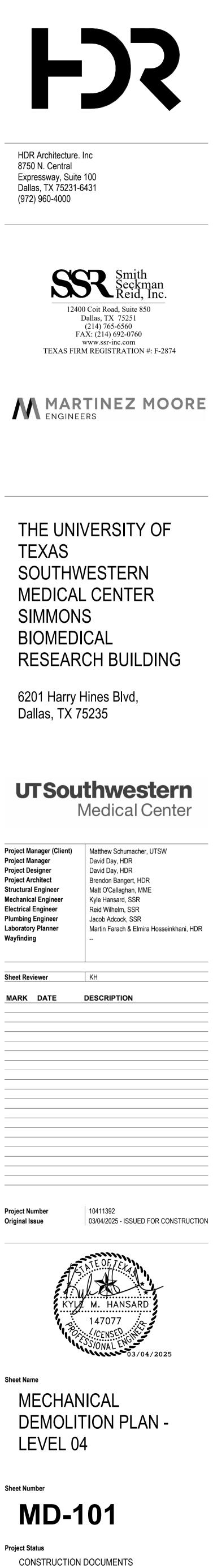
CONSTRUCTION DOCUMENTS

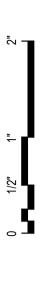
0 1/2" 1" 2"

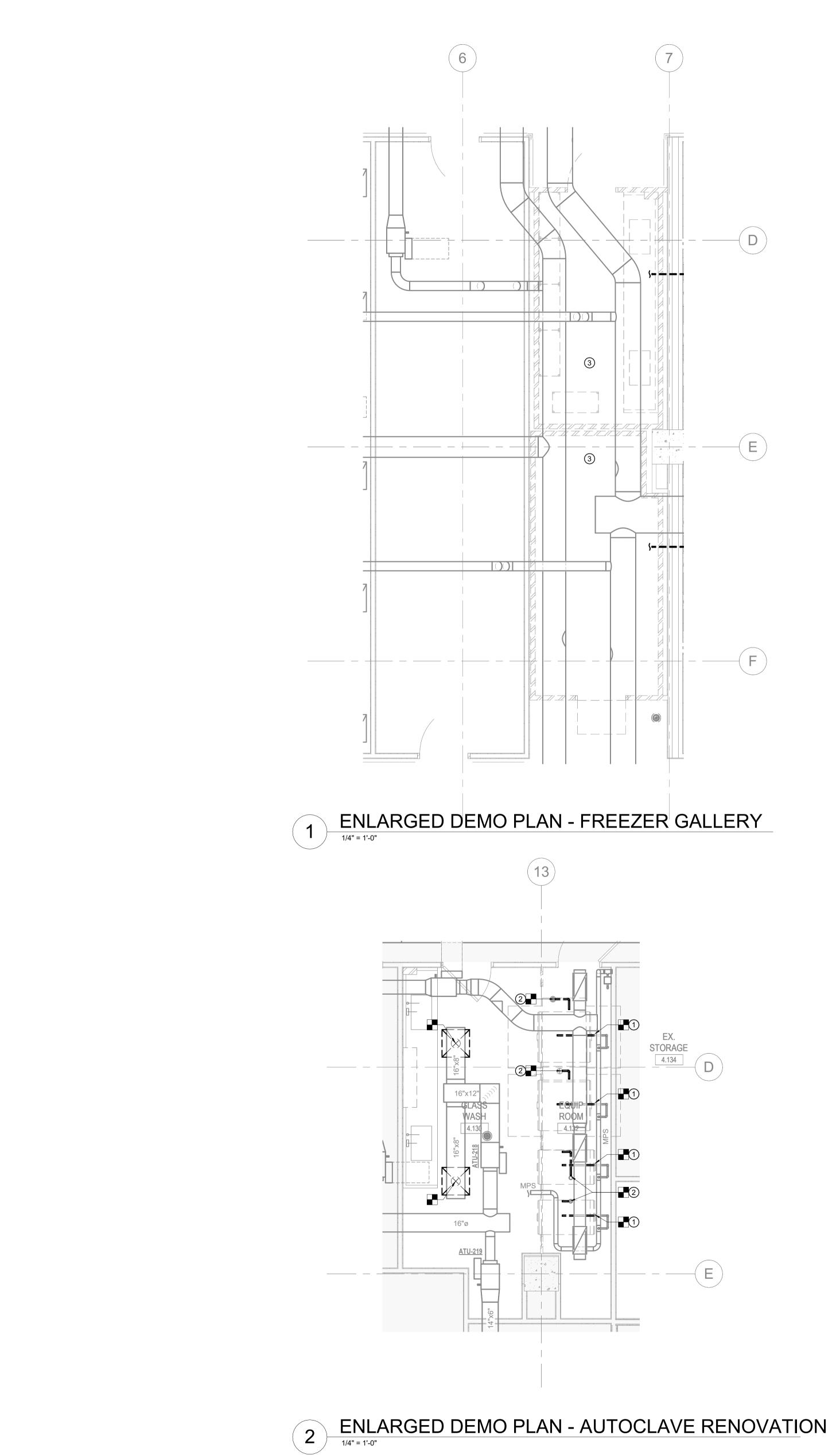


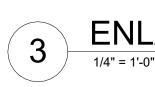
1 MECHANICAL DEMOLITION PLAN - LEVEL 04



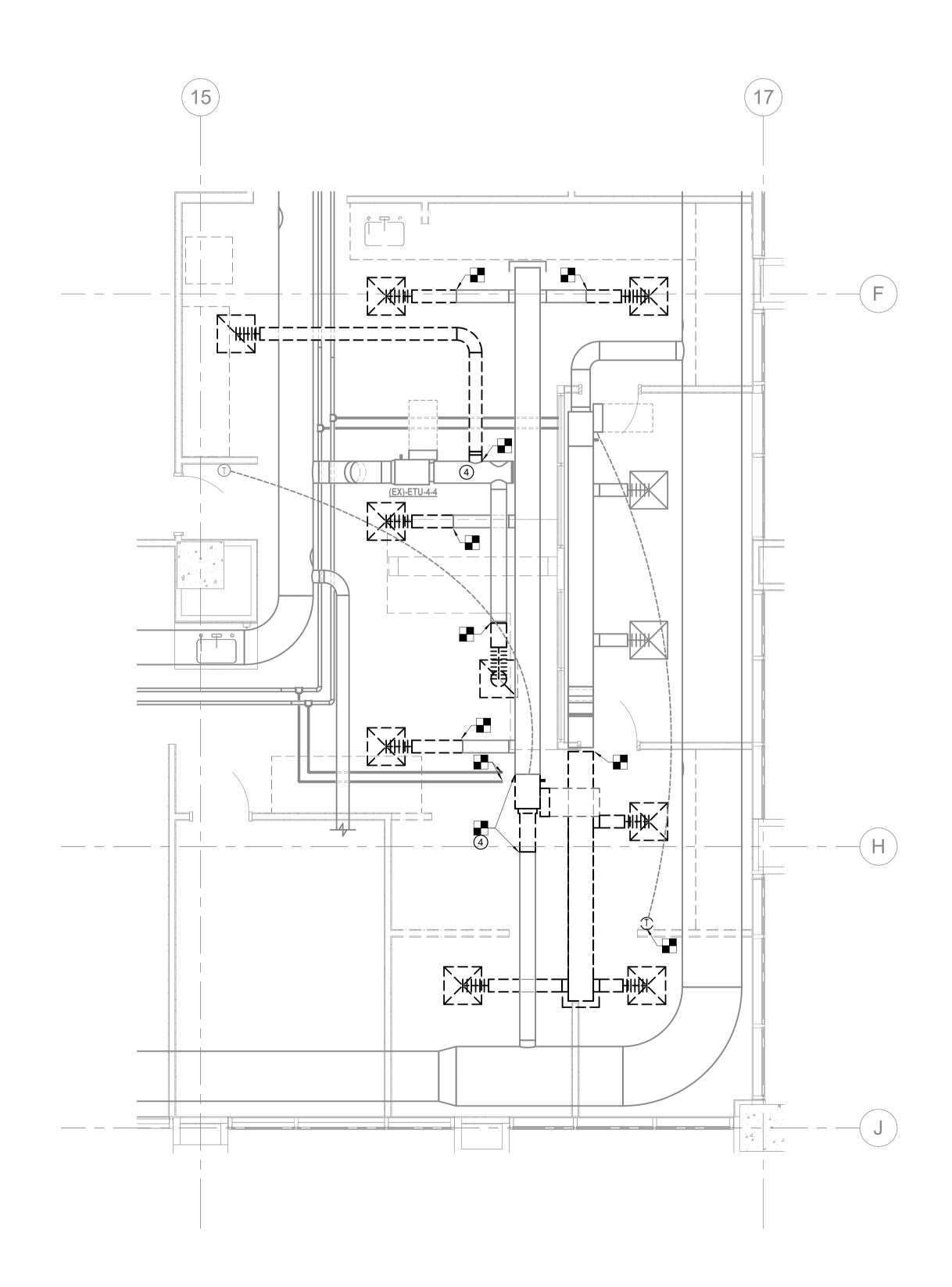








3 ENLARGED DEMO PLAN - LAB RENOVATION



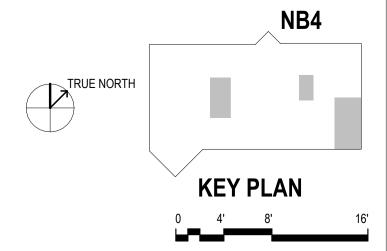
SHEET GENERAL NOTES

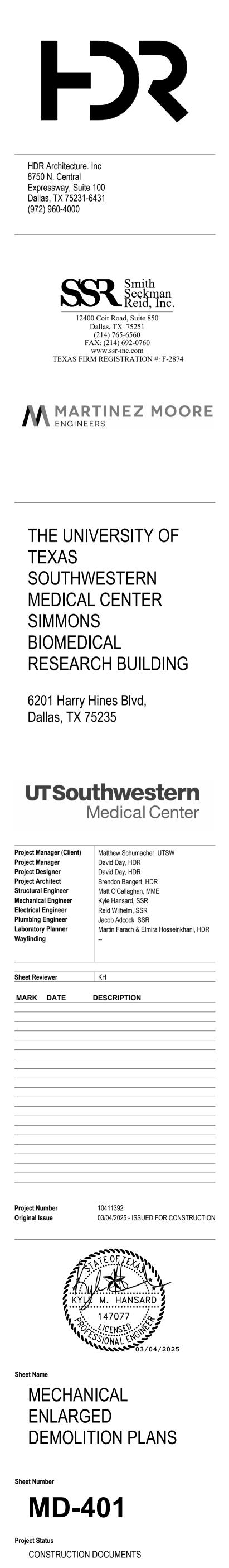
A. REFER TO M-000 FOR MECHANICAL NOTES.

B. EXISTING CONDITIONS SHOWN ARE BASED ON AVAILABLE RECORD DOCUMENTS AND LIMITED FIELD INVESTIGATION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE CONDITION OF ALL EXISTING EQUIPMENT, EXACT SIZES OF EXISTING DUCT AND PIPING, ETC. REPORT ANY MAJOR DISCREPANCIES BETWEEN PLANS AND ACTUAL FIELD CONDITIONS TO ARCHITECT AND ENGINEER.

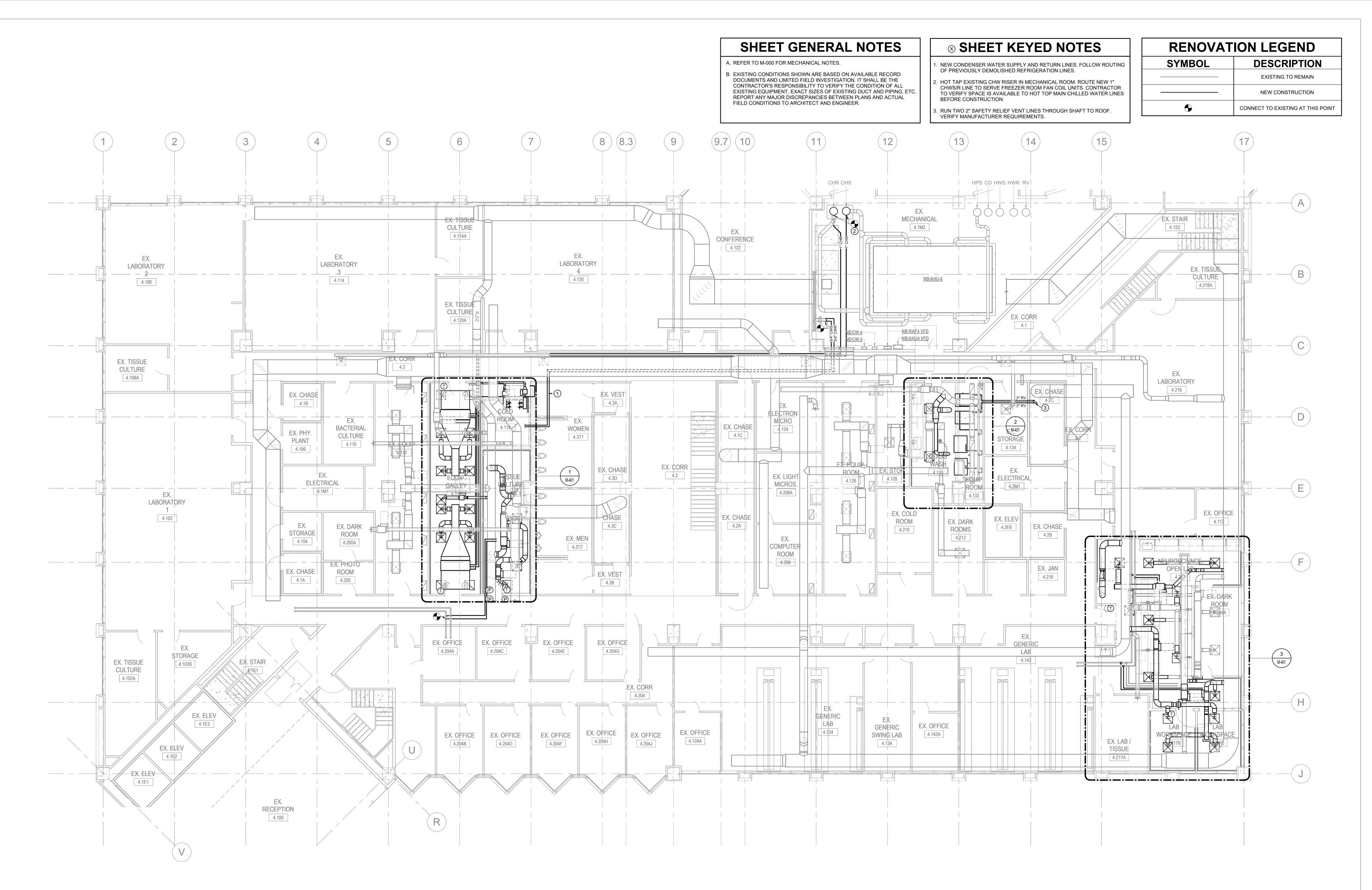
DEMOLITION LEGEND									
SYMBOL	DESCRIPTION								
	EXISTING TO REMAIN								
	EXISTING TO BE REMOVED								
	DEMO TO THIS POINT								

- 1. DEMOLISH EXISTING STEAM LINE TO SHUTOFF VALVE.
- 2. DEMOLISH EXISTING DRAIN LINE FROM UNIT TO FLOOR DRAIN.
- 3. DEMOLISH REFRIGERANT SUCTION AND LIQUID LINES AND ASSOCIATED CONDENSER UNITS IN MECHANICAL ROOM. EXISTING REFRIGERANT PATHWAYS TO BE REUSED FOR RENOVATION OF NEW COLD ROOM.
- 4. FIELD VERIFY EXISTING DUCT SIZE DURING DEMOLITION.

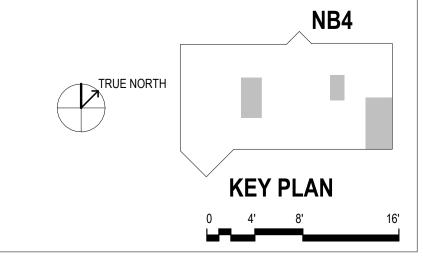


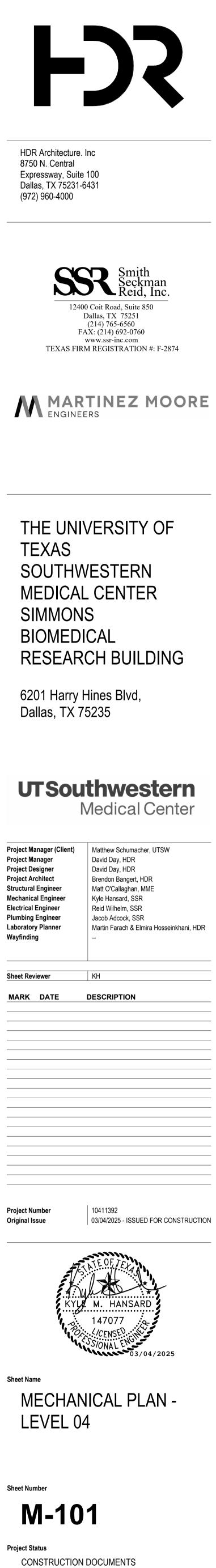


0 1/2" 1" 2"



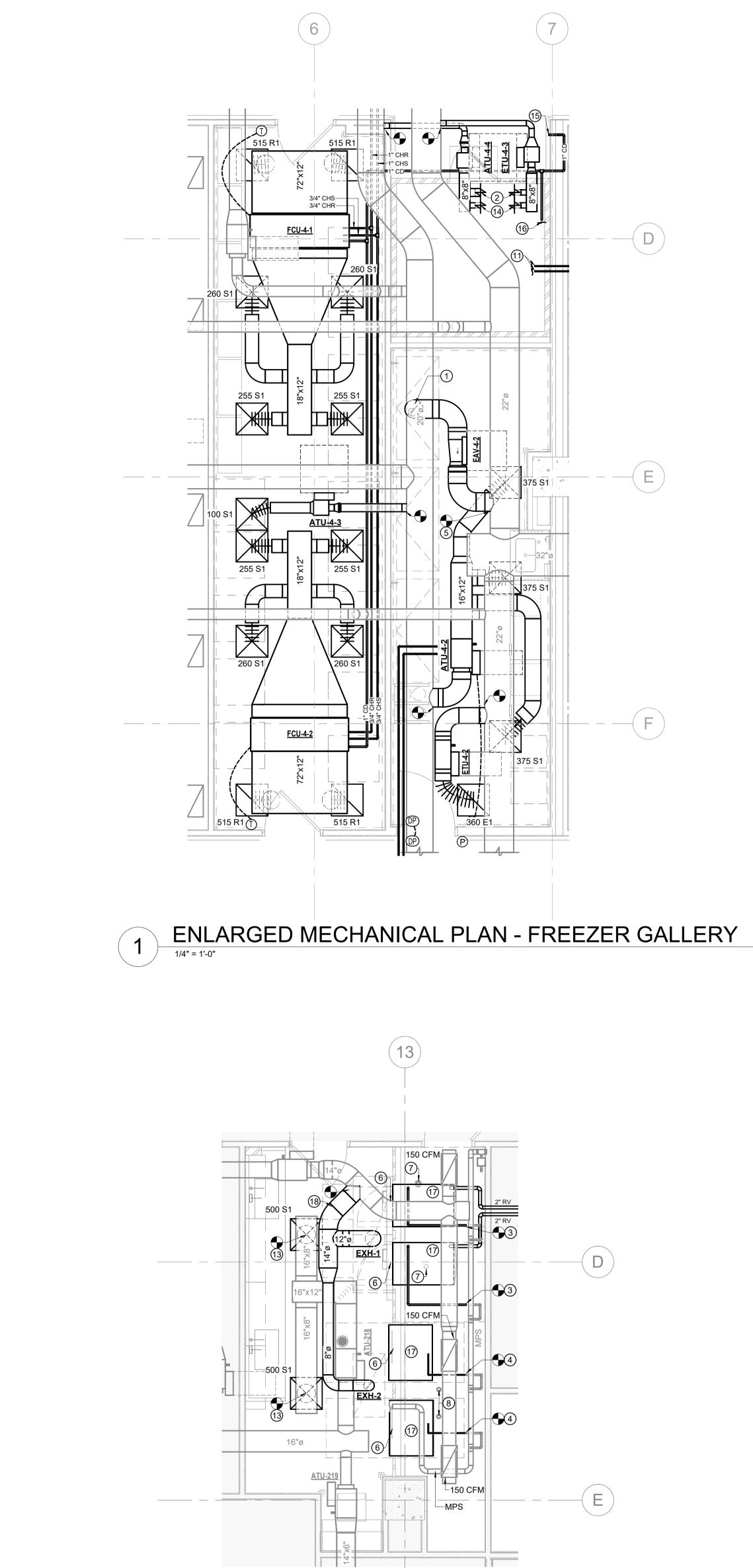
1 MECHANICAL PLAN - LEVEL 04



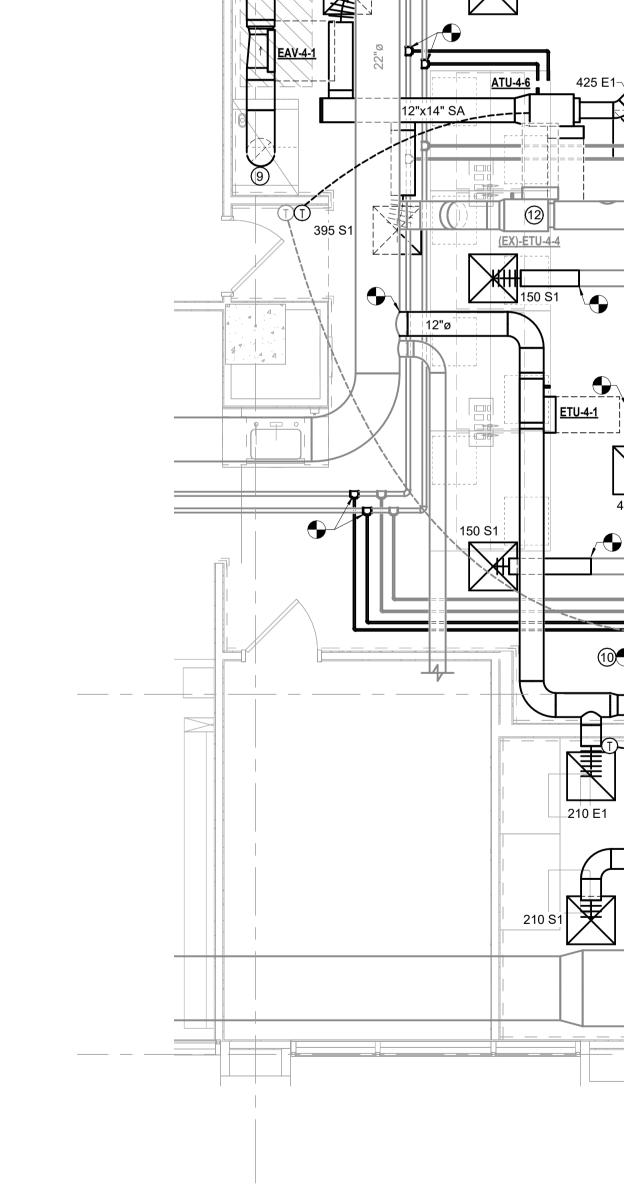








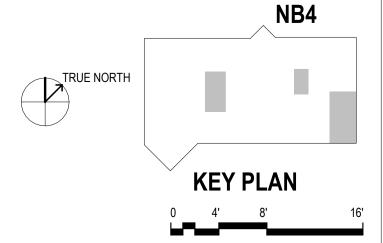
2 ENLARGED MECHANICAL PLAN - AUTOCLAVE RENOVATION

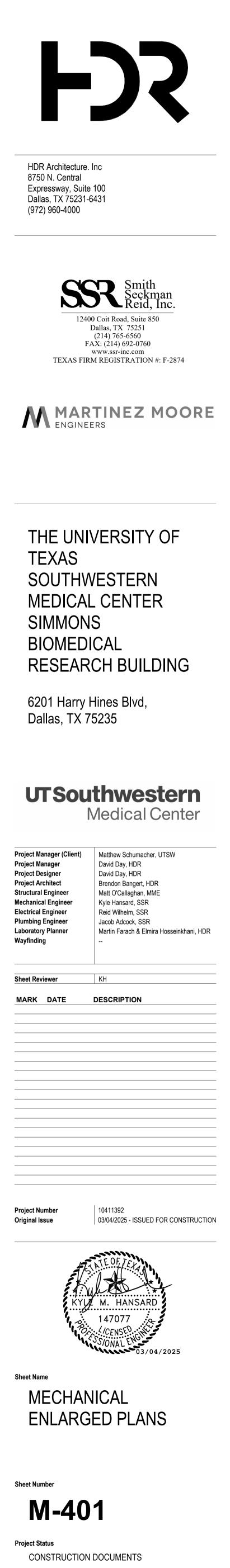


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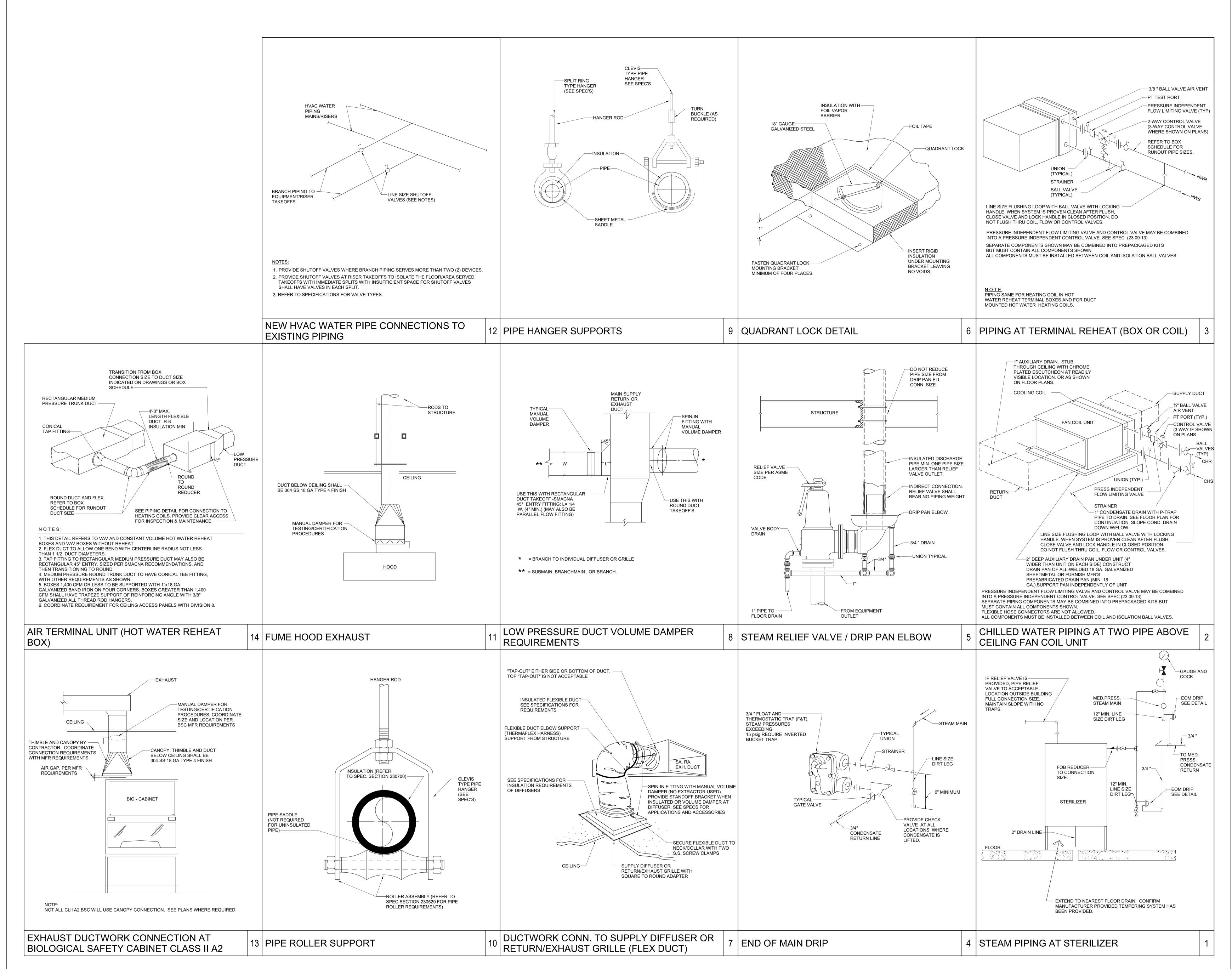


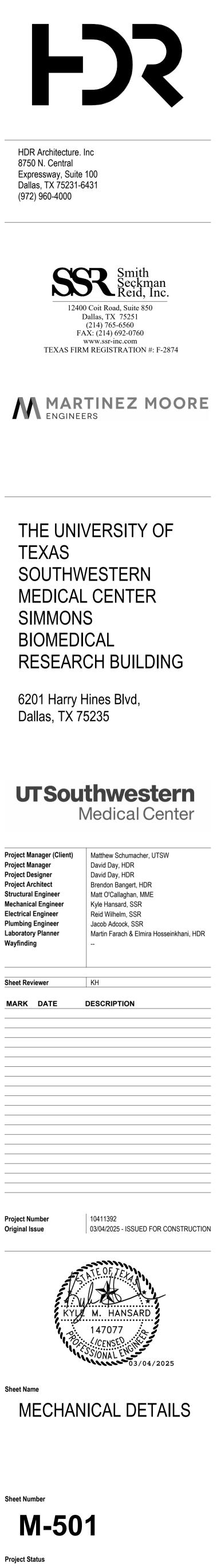
3 ENLARGED MECHANICAL PLAN - LAB RENOVATION











~ –

	ROC	M SEI	NSOR SC	HEDULE		SPACE SETPOINTS						
ALL ROOM SENSORS HAVE TEMP SENSOR AND SH						SPACE	HEATING SETPOINT	COOLING SETPOINT	NC LEVEL			
SETPOINTS, TIME PERIODS AND DEADBANDS SHA	LL BE REMOTELY ADJUSTA	BLE BY BAS VIA	GRAPHIC INTERFACE.			ALL ROOMS UNLESS OTH	ERWISE 68 F	74 F/60% rh	40 NC			
USE COMBINATION SENSOR WHEN BOTH HUMIDIT						NOTED						
SEE VAV BOX SCHEDULE SHEET FOR BOXES WITH WHERE NOTED TO HAVE ROOM SENSORS FOR OC	CC/UNOCC CONTROL, PROV	IDE ROOM OCC				ADMINISTRATIVE SPACES	OFFICES 68 F	74 F/60% rh	35 NC			
EQUAL TO KELE LX-24. UNLESS SHOWN OTHERWIS					CLASSROOMS	68 F	75 F/60% rh	35 NC				
SENSING OCCUPANCY AND SHALL RETURN TO "UI	NOCCUPIED MODE" 20 MINU	JTES AFTER SPA	ACE IS UNOCCUPIED.		CONFERENCE/MEETING R		74 F/60% rh	35 NC				
WHEN OCCUPANCY CONTROL IS NOTED AS "TIME WHEN OCCUPANCY CONTROL IS NOTED AS "ROOM						LOBBY/PUBLIC/WAITING R		74 F/60% rh	45 NC			
AFTER SPACE IS UNOCCUPIED.												
	USER ADJUSTABLE	HUMIDITY		OCCUPIED/UNOCCUPIED	DEMARKO	DIAGNOSTIC AREAS	70 F/20% rh	74 F/60% rh	45 NC			
ROOM	AT ROOM SENSOR?	SENSOR?	ROOM CONDITIONS?	CONTROL?	REMARKS	DINING	68 F	75 F/60% rh	45 NC			
UNLESS NOTED OTHERWISE	NO	NO	NO	NO		EXAM AND TREATMENT	70 F/20% rh	74 F/60% rh	45 NC			
						ICU	70 F/20% rh	74 F/60% rh	35 NC			
		NO	VEO	NO		IMAGING	70 F/20% rh	74 F/60% rh	45 NC			
BIRTHING/LDR INTENSIVE/CRITICAL/CARDIAC CARE	YES YES	NO	YES YES	NO		KITCHEN	68 F	75 F/60% rh	45 NC			
ISOLATION ROOMS	YES	NO	YES	NO	SEE "ISOLATION ROOM CONTROL SCHEMATIC"	LAB	70 F/20% rh	74 F/60% rh	35 LABORATORY NOISE CRITERIA ON MEASUREMENTS TAKEN THRE			
NURSE STATIONS	YES	NO	YES	NO					FRONT OF A SIX FOOT FUME HOOD			
NURSERY PRIVATE PATIENT	YES YES	YES	YES YES	NO		NURSERY	72 F/20% rh	74 F/60% rh	35 NC			
			1E0	NU		OPERATING ROOM	70 F/20% rh	68 F/50% rh	45 NC			
DIAGNOSTIC AND IMAGING						PATIENT ROOMS	70 F/20% rh	74 F/60% rh	35 NC			
CONTROL ROOMS ADJACENT	YES	NO	YES	TOD & ROOM SENSOR		PHARMACY	68 F/20% rh	74 F/60% rh	45 NC			
CT SCAN	YES	NO	YES	TOD & ROOM SENSOR		PRE-OP/PACU/RECOVERY	72 F/20% rh	74 F/60% rh	45 NC			
MRI NUCLEAR MEDICINE	YES	NO	YES	TOD & ROOM SENSOR	SEE "MRI CONTROL SCHEMATIC"	PROCEDURE ROOMS	70 F/20% rh	75 F/60% rh	45 NC			
RADIOLOGY	YES	NO	YES	TOD & ROOM SENSOR		STERILE PROCESSING	68 F/20% rh	74 F/60% rh	45 NC			
						_						
PROCEDURE ROOMS						BOWL AREA	68 F	75 F/40% rh	55 NC			
CATH/EP LAB/IR/ANGIO DELIVERY (C SECTION)	YES	YES	YES	TOD & ROOM SENSOR	SEE "CATH LAB CONTROL SCHEMATIC"	CLUB SUITES	70 F	74 F/50% rh	35 NC			
ENDOSCOPY	YES	YES	YES	TOD & ROOM SENSOR		FOOD PREP/SERVER ARE	4S 68 F	75 F/60% rh	55 NC			
LINEAR ACCELERATOR	YES	NO	YES	TOD & ROOM SENSOR		GENERAL SEATING	68 F	75 F/60% rh	45 NC			
OR	YES	YES	YES	TOD & ROOM SENSOR	SEE "OR CONTROL SCHEMATIC"	LOCKER ROOMS	68 F	75 F/60% rh	45 NC			
PACU/RECOVERY/PRE & POST PROCEDURE PREP/HOLDING	YES	YES	YES	TOD & ROOM SENSOR		MEDIA ROOMS	68 F	75 F/50% rh	35 NC			
PROCEDURE	YES	NO	YES	TOD & ROOM SENSOR		-						
						_						
EMERGENCY	NO	NO		NO		_						
EXAM TRAUMA	NO YES	NO YES	NO YES	NO		_	ADDITIONAL REQU	IREMENTS FOR	RCONTROL			
TREATMENT	NO	NO	NO	NO		_		WATER SYST				
TRIAGE	YES	YES	YES	NO		_	1. THE BAS SHALL ROTATE "LEAD", "FIRST LAG", " COOLING TOWERS MONTHLY TO EQUALIZE RU	SECOND LAG", ETC DESIGNATIONS OF	CHILLERS, PUMPS AND			
SERVICES						_	PUMP BEING COMMANDED OFF WILL CONTINUE PROVEN ON AND HAS DEVELOPED SPEED. WH	E TO RUN FOR 1 MINUTE UNTIL THE NE EN A COOLING TOWER IS SWITCHED FO	WLY SELECTED PUMP IS DR SEQUENCING, THE			
CENTRAL STERILE DECONTAM	YES	YES	NO	TOD & ROOM SENSOR		_	ISOLATION VALVES ON THE TOWER CURRENTL NEWLY SELECTED TOWER VALVES ARE OPEN. NEW SEQUENCE SHALL TAKE PLACE DURING N	WHEN TIME TO SWITCH SEQUENCING	POSITIONS OF CHILLER, THE			
CENTRAL STERILE CLEAN	YES	YES	NO	TOD & ROOM SENSOR			2. AFTER ANY CHILLER IS COMMANDED ON/OFF,	THERE SHALL BE A 15 MINUTE DELAY E				
CENTRAL STERILE WORK	YES NO	YES	NO	TOD & ROOM SENSOR	PROVIDE LOCKING COVER	_	COMMAND TO PREVENT POSSIBLE SHORT CYC 3. ALARMS AND PROOF OF COMMAND FROM PUM		AVE A 1 MINUTE DELAY			
FOOD PREP	YES	NO	NO	TOD & ROOM SENSOR		_	ALARMS AND PROOF OF COMMAND FROM CHIL	LERS WILL HAVE A 5 MINUTE DELAY.				
LABS	YES	NO	NO	TOD & ROOM SENSOR	SEE "LAB CONTROL SCHEMATIC"		4. ANY PROOF OF COMMAND FROM CHILLERS WI TO LOCK OUT ANY CHILLER, PUMP OR COOLING					
ON CALL SLEEP ROOMS	YES	NO	YES	NO		_	5. IF A CHILLER, PUMP OR COOLING TOWER HAS WILL UPDATE THE LEAD/LAG SEQUENCE ACCO					
PHARMACY	YES	YES	YES	NO	SEE "PHARMACY CONTROL SCHEMATIC"	_	FOR STAGING PURPOSES. 6. DURING STARTUP, THE BAS AND TAB FIELD TE	CHNICIANS SHALL FIFLD AD ILIST SETP				
GENERAL						-	AND ISOLATION AND CONTROL VALVE OPENING AND TO PREVENT COOLING TOWER OVERFLOW	G/CLOSING SPEEDS TO OBTAIN OPTIMU				
CLASSROOMS	YES	NO	NO	ROOM SENSORS			7. THE BAS CONTROL LOOPS SHALL BE TUNED SU CHILLED WATER BYPASS VALVE SHALL OPERA					
CONFERENCE ROOMS	YES	NO	NO	ROOM SENSORS		_	CHILLER MAXIMUM ALLOWABLE RATE OF CHAN	GE OF FLOW.				
CORRIDORS- PUBLIC	NO	NO	NO	NO	PROVIDE LOCKING COVER	-	8. THE BAS SHALL RECEIVE SIGNALS FROM THE C REQUIRED SYSTEM CONTROL.	HILLER CONTROL PANEL AS AVAILABL	E IN ORDER TO PROVIDE			
LOBBIES	NO	NO	NO	NO	PROVIDE LOCKING COVER	-						
OFFICES	YES	NO	NO	ROOM SENSORS								
RESTROOMS-PUBLIC	NO	NO	NO	NO	PROVIDE LOCKING COVER							
	YES	NO	NO	TIME OF DAY		-						
STAFF WORK AREAS WAITING AREAS - PUBLIC	YES NO	NO	YES	NO	PROVIDE LOCKING COVER	-						
						-						

			STEM LEG		
		SPACE	SENSORS		
	SYMBOL / ABBREVIATION	DESCRIPTION	SYMBOL / ABBREVIATION	DESCRIPTION	
		CARBON DIOXIDE	T	TEMPERATURE	
	H	RELATIVE HUMIDITY	DP	DIFFERENTIAL PRESSURE SENSOR	
	(RM-X)	ROOM MONITOR		CARBON MONOXIDE SENSOR	
	R	REFRIGERANT SENSOR	EPO	EMERGENCY POWER SHUTOFF	
		WATERSIDE	COMPONENTS	5 5	
	SYMBOL / ABBREVIATION	DESCRIPTION	SYMBOL / ABBREVIATION	DESCRIPTION	
	Ь	MANUAL ISOLATION VALVE	Ŕ	THREE WAY MOTORIZED CONTROL VALVE	
	\boxtimes	PRESSURE INDEPENDENT FLOW LIMITING VALVE	Ā	SPRING LOADED PRESSURE RELIEF / REDUCING VALVE	
		MANUAL THROTTLING / ISOLATION VALVE		PUMP	
HREE FEET IN HOOD	▶	CHECK VALVE	M	FLOW METER	
	Ŕ	TWO WAY MOTORIZED CONTROL VALVE		NOT USED	
		AIRSIDE CO	OMPONENTS		
	SYMBOL / ABBREVIATION	DESCRIPTION	SYMBOL / ABBREVIATION	DESCRIPTION	
		AIR VALVE	$\overline{ au au au au au au au}$	HUMIDIFIER	
			-4111111111111111	HEATING FIN TUBE	
		DAMPER		DUCT SMOKE DETECTOR	
		FILTER	-~~	SENSOR TO COVER COIL FACE	
	⊖	COOLING COIL	•	INSERTION MOUNTED SENSOR	
	•	HEATING COIL			
				DIFFERENTIAL SENSOR	
		FAN		NOT USED	

GENERAL REQUIREMENTS FOR CONTROL SYSTEMS

1. ALL SETPOINTS, ALARM VALUES, POLLING QUANTITIES/SELECTIONS, TIME DURATIONS AND OTHER CONTROL PARAMETERS SHALL BE USER ADJUSTABLE VIA GRAPHIC DISPLAY AND NOT FROM THE PROGRAM OR THROUGH LAYERS OF SOFTWARE NAVIGATION.

2. ALL DAMPERS AND VALVES SHALL BE ABLE TO ACCEPT MANUAL OVERRIDE OF POSITION VIA GRAPHIC DISPLAY.

3. ALL POINTS LISTED IN THE SIGNAL LEGEND SHALL BE SHOWN ON GRAPHICAL DISPLAY. 4. SEE CONTROL SHEET "TRENDING REQUIREMENTS" FOR INFORMATION ON POINTS TO BE TRENDED.

5. IF ANY PIECE OF EQUIPMENT IS COMMANDED ON AND FAILS TO START, THE BAS SHALL SEND A FAILURE ALARM. IF THERE ARE MULTIPLE PIECES OF SAME EQUIPMENT TYPE, BAS SHALL START THE NEXT EQUIPMENT IN ROTATION.

6. ALL PID LOOPS ASSOCIATED WITH ANY OF THE SEQUENCES SHOULD BE TUNED AND ABLE TO ACHIEVE STEADY STATE IN 5 MINUTES OR LESS WITH MAXIMUM NOISE (OSCILLATION) OF 2% - 4%.

7. VALVES WILL BE POSITIONED SUCH THAT 0% IS FULLY CLOSED AND 100% IS FULLY OPEN. VALVES SHALL HAVE POSITION FEEDBACK CONTROL SIGNAL FOR VERIFICATION OF POSITION.

8. PUMP VFDS WILL BE CONTROLLED SUCH THAT 0% = 0 HZ AND 100% = 60 HZ. TAB SHALL DETERMINE, SET AND DOCUMENT PUMP VFD THAT CORRESPONDS TO 100% DESIGN FLOW.

9. DAMPERS WILL BE POSITIONED SUCH THAT 0% IS FULLY CLOSED AND 100% IS FULLY OPEN. SEE SPECIFIC SEQUENCES TO DETERMINE POSITION FEEDBACK REQUIREMENTS.

10. FAN VFDS WILL BE CONTROLLED SUCH THAT 0% = 0 HZ AND 100% = DESIGN FLOW. TAB SHALL DETERMINE, SET AND DOCUMENT FAN VFD SPEED AND HZ THAT CORRESPONDS TO 100% DESIGN FLOW.

ADDITIONAL REQUIREMENTS FOR CONTROL **OF CONDENSING BOILER HEATING HOT** WATER SYSTEM

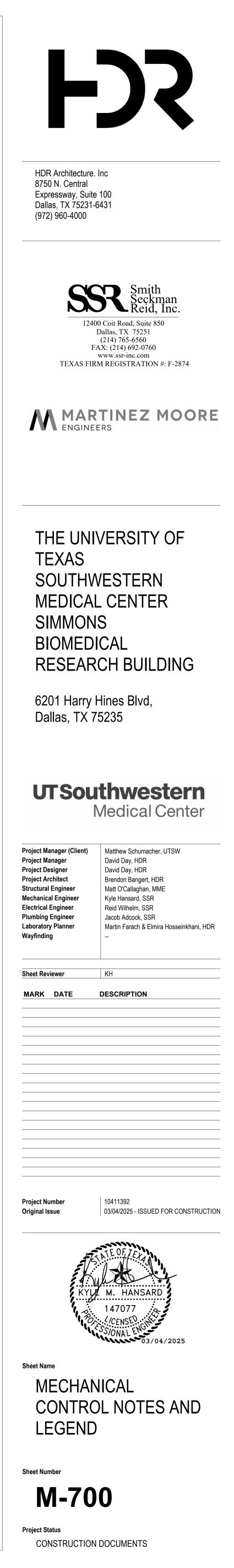
1. THE BAS SHALL ROTATE "LEAD", "FIRST LAG", "SECOND LAG", ETC DESIGNATIONS OF BOILERS AND PUMPS MONTHLY TO EQUALIZE RUNTIMES. WHEN A PUMP IS SWITCHED FOR SEQUENCING, THE PUMP BEING COMMANDED OFF WILL CONTINUE TO RUN FOR 1 MINUTE UNTIL THE NEWLY SELECTED PUMP IS PROVEN ON AND HAS DEVELOPED SPEED. WHEN TIME TO SWITCH SEQUENCING POSITIONS OF BOILERS, THE NEW SEQUENCE SHALL TAKE PLACE DURING NEXT STAGING COMMAND DUE TO LOAD.

2. USER SHALL BE ABLE, VIA GRAPHICS, TO LOCK OUT ANY BOILER OR PUMP FOR MAINTENANCE VIA GRAPHIC DISPLAY.

3. IF A BOILER OR PUMP HAS A START FAILURE OR IS LOCKED OUT FOR MAINTENANCE, THE BAS WILL UPDATE THE LEAD/LAG SEQUENCE ACCORDINGLY. THE BAS WILL NOT "SEE" THAT PIECE OF EQUIPMENT FOR STAGING PURPOSES

4. THE BAS CONTROL LOOPS SHALL BE TUNED SUCH THAT PUMP SPEEDS, BOILER ISOLATION VALVES AND HOT WATER BYPASS VALVES SHALL OPERATE SUCH THAT RATE OF CHANGE OF FLOW DOES NOT EXCEED BOILER MAXIMUM ALLOWABLE RATE OF CHANGE OF FLOW.

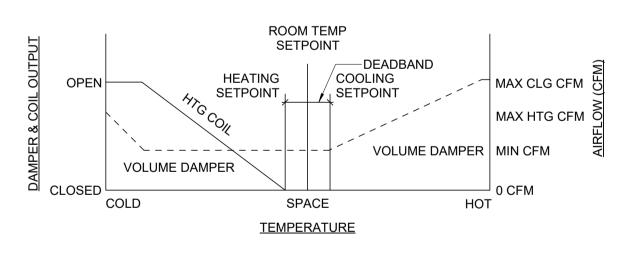
5. THE BAS SHALL COMMUNICATE WITH THE BOILER SYSTEM CONTROL PANEL AS AVAILABLE IN ORDER TO PROVIDE REQUIRED SYSTEM CONTROL.

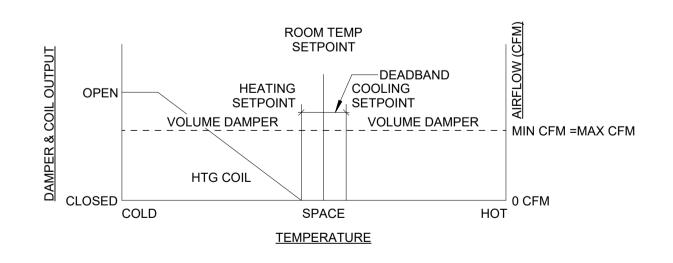


HVAC CONTROL SIGNAL LEGEND - TERMINAL AIR BOX CONTROL - HOT WATER REHEAT

SIGNAL LEGEND IS A DESC	CRIPTION OF POINTS AND NOT A QUANTITATIVE POINTS	LIST. CONTRACTOR SH	ALL DEVELOP POINT	S LIST BASED ON SCO	PE OF PROJECT.		
	DULATING; "B"= BINARY/TWO POSITION.						
ALL POINTS LISTED IN "BA	S VALUE" OR "BAS ALARM" SHALL BE SHOWN ON GRAP	PHICAL DISPLAY.					
TAG	DEVICE	ACTION	FAIL POSITION	BAS VALUE	BAS ALARM	NOTES	
PHYSICAL POINTS							
D-SA	DAMPER - SUPPLY AIR	A	LAST POSITION	% OPEN			
S-OCC	OCCUPANCY SENSOR	В		OCC/UNOCC			
T-DAT	TEMPERATURE - DISCHARGE AIR TEMP SENSOR	A		DEG °F	DAT > HIGH LIMIT SETPOINT + 2°F		
T-SPACE	TEMPERATURE - SPACE TEMP SENSOR	A		DEG °F			
V-HC	VALVE - HEATING COIL	A	OPEN	% OPEN			
VIRTUAL POINT	•						
CALCULATED CLG SET	COOLING TEMP SETPOINT	CALCULATED		DEG °F	ROOM TEMP > CLG SETPOINT + 2 °F OCCUPIED MODE:	CLG SETPOINT = ROOM TEMP SETPOINT +2.0 °F; UNOCCUPIED = 80 °F	
CALCULATED HTG SET	HEATING TEMP SETPOINT	CALCULATED		DEG °F	ROOM TEMP < HTG SETPOINT - 2 °F OCCUPIED MODE:	HTG SETPOINT = ROOM TEMP SETPOINT -2.0 °F; UNOCCUPIED = 65 °F	
INPUT TEMP	ROOM TEMPERATURE SETPOINT	INPUT		DEG °F	OCCUPIED MODE: ALLOWABLE RANGE 68-75 °F		

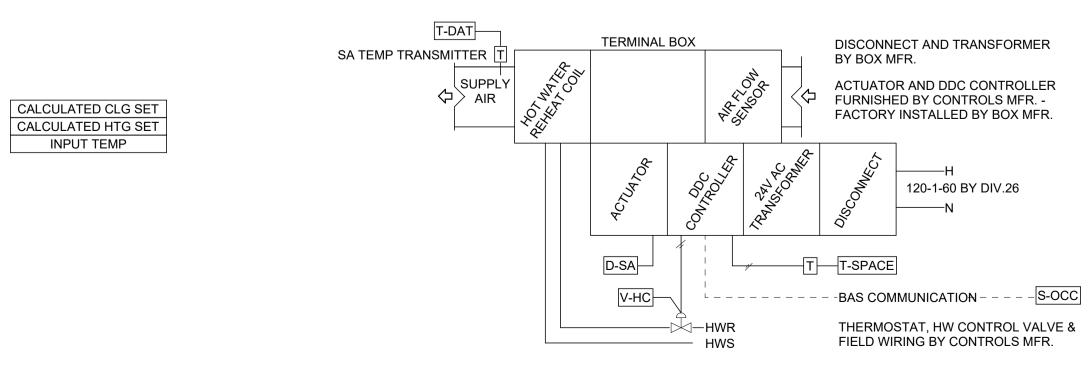
SEE SHEET M-700 FOR GENERAL REQUIREMENTS OF CONTROL SYSTEMS



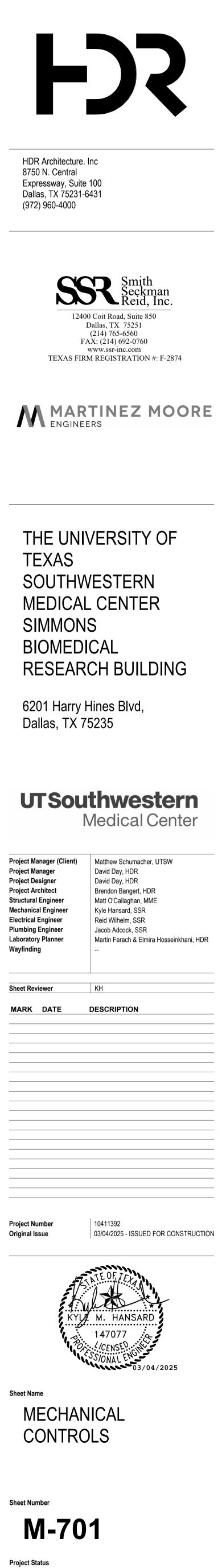




<u>VARIABLE AIR VOLUME BOX CONTROL</u> UPON A RISE IN ROOM TEMPERATURE ABOVE COOLING TEMPERATURE SETPOINT , BOX AIR DAMPER SHALL OPEN. UPON A FALL IN ROOM TEMPERATURE BELOW COOLING TEMPERATURE SETPOINT, BOX AIR DAMPER SHALL MODULATE CLOSED UNTIL IT REACHES MINIMUM COOLING AIR FLOW. UPON A CONTINUED FALL IN ROOM TEMPERATURE BELOW HEATING TEMPERATURE SETPOINT, BOX AIR DAMPER SHALL STAY AT MINIMUM AIR FLOW AND HOT WATER VALVE SHALL BEGIN TO MODULATE OPEN. HOT WATER VALVE OPEN POSITION SHALL BE LIMITED SO THAT DISCHARGE AIR TEMPERATURE SHALL NOT EXCEED HIGH LIMIT SETPOINT. UPON A CONTINUED FALL IN ROOM TEMPERATURE BELOW HEATING TEMPERATURE SETPOINT AND AFTER HOT WATER VALVE IS FULLY OPEN OR DISCHARGE AIR TEMPERATURE HAS REACHED HIGH LIMIT SETPOINT, BOX AIR DAMPER SHALL BEGIN TO MODULATE OPEN. HOT WATER VALVE POSITION SHALL BE LIMITED TO NOT EXCEED DISCHARGE AIR TEMPERATURE HIGH LIMIT SETPOINT AS BOX AIR DAMPER MODULATES. IF OCCUPANCY SENSOR IS USED IN SPACES SERVED BY BOX, THE BOX AIR DAMPER AND HOT WATER VALVE SHALL MODULATE TO MAINTAIN UNOCCUPIED HEATING AND COOLING SETPOINTS WHEN UNOCCUPIED. IF BOX HAS DEMAND CONTROL VENTILATION CONTROL, THE BOX SHALL ADJUST THE MINIMUM CFM TO THE UNOCCUPIED MIN CFM SETTING UNOCCUPIED. CONSTANT AIR VOLUME BOX CONTROL UPON A FALL IN ROOM TEMPERATURE BELOW HEATING TEMPERATURE SETPOINT, HOT WATER VALVE SHALL MODULATE OPEN. HOT WATER VALVE OPEN POSITION SHALL BE LIMITED SO THAT DISCHARGE AIR TEMPERATURE SHALL NOT EXCEED HIGH LIMIT SETPOINT. IF OCCUPANCY SENSOR IS USED IN SPACES SERVED BY BOX, THE HOT WATER VALVE SHALL MODULATE TO MAINTAIN "UNOCCUPIED" HEATING AND COOLING SETPOINTS WHEN UNOCCUPIED. IF BOX HAS NIGHT SETBACK CONTROL, THE BOX SHALL ADJUST AIR FLOW TO UNOCCUPIED CFM SETTING AND SHALL MODULATE HOT WATER VALVE TO MAINTAIN UNOCCUPIED HEATING AND COOLING SETPOINTS WHEN UNOCCUPIED.



SCHEMATIC - TERMINAL AIR BOX CONTROL - HOT WATER REHEAT



UVAC CONTROL SIGNAL LECEND EAN COLL CULLED WATER 2 DIDE NO OA

NAL LEGEND IS A DES	CRIPTION OF POINTS AND NOT A QUANTITATIVE POINTS L	IST. CONTRACT	OR SHALL DEVELOP POI	NTS LIST BASED ON SCO	PE OF PROJECT.		
CTION: "A"= ANALOG/M	ODULATING; "B"= BINARY/TWO POSITION.						
LL POINTS LISTED IN "B	AS VALUE" OR "BAS ALARM" SHALL BE SHOWN ON GRAP	HICAL DISPLAY.					
TAG	DEVICE	ACTION	FAIL POSITION	BAS VALUE	BAS ALARM	DIRECT CONTROL BY FIRE ALARM	NOTES
PHYSICAL POINTS							
CR-SF	CURRENT RELAY - SUPPLY FAN	В		ON/OFF	MOTOR FAILURE		ALARM IF MOTOR STATUS NOT EQUAL TO COMMAND
SS-SF	START/STOP - SUPPLY FAN	В					
T-RA	TEMPERATURE - RETURN AIR	А		DEG °F			
T-SA	TEMPERATURE - SUPPLY AIR	А		DEG °F	SETPOINT + 4 °F		SETPOINT = T-CC + 2° F
V-CC	VALVE - COOLING COIL	А	CLOSED	% OPEN			
/IRTUAL POINT	•		•	•		-	•
CALCULATED OA	OUTSIDE AIRFLOW			CFM			BAS TO COMPUTE SUPPLY AIR FLOW - RETURN AIR FLOW
INPUT TEMP	ROOM TEMPERATURE SETPOINT	INPUT		DEG °F			OCCUPIED MODE: ALLOWABLE RANGE 68-75 °F
MEASURED SP	STATIC PRESSURE - HIGHEST BOX OPEN POSITION			SPACE INDENT			VAV BOX WITH HIGHEST DAMPER OPEN POSITION

SEQUENCE OF OPERATION

SEE SHEET M-700 FOR GENERAL REQUIREMENTS OF CONTROL SYSTEMS

<u>SUPPLY FAN CONTROL</u> SUPPLY FAN SHALL BE STARTED BY ANY OF THE FOLLOWING: BAS COMMAND AUTOMATICALLY OR BY OPERATOR.

SUPPLY FAN SHALL BE STOPPED BY ANY OF THE FOLLOWING:

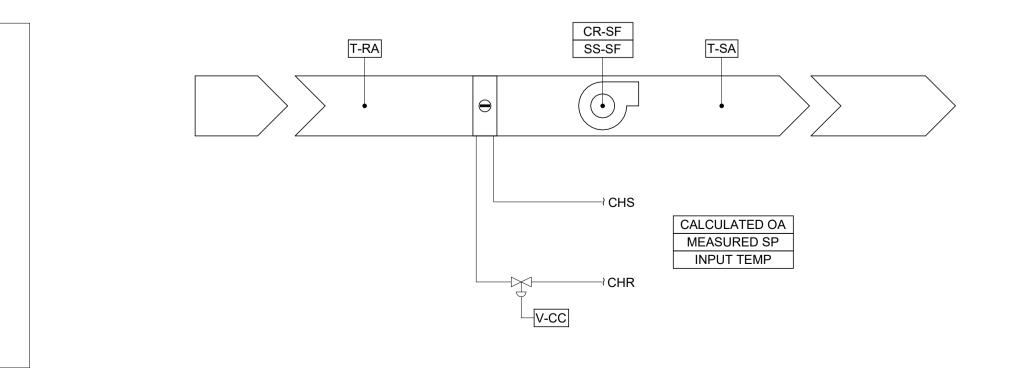
BAS COMMAND AUTOMATICALLY OR BY OPERATOR.

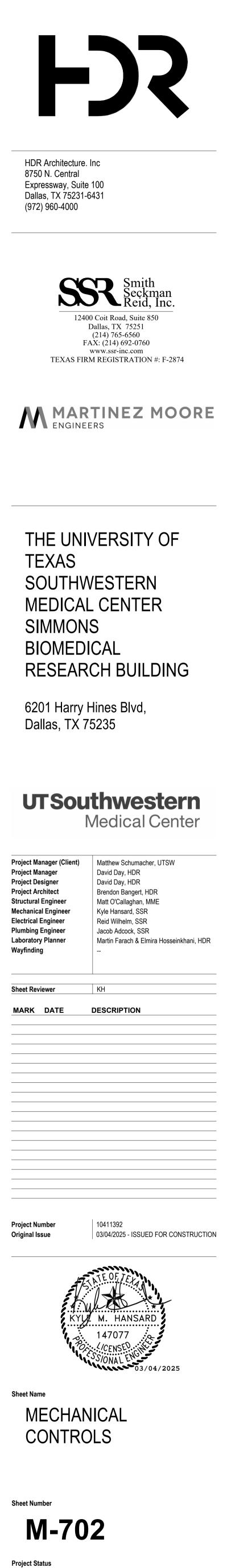
SUPPLY AIR TEMPERATURE CONTROL IF SPACE TEMPERATURE RISES ABOVE CLG SETPOINT, CHILLED WATER VALVE SHALL OPEN AND MODULATE TO MAINTAIN SPACE TEMP LESS THAN COOLING SETPOINT.

AHU RESPONSE TO FIRE ALARM

UPON ACTIVATION OF ANY FIRE ALARM DEVICE OTHER THAN PULL STATIONS: • THE FIRE ALARM SYSTEM SHALL HARDWIRE STOP THE SUPPLY FAN AND INTERLOCKED RETURN AND EXHAUST FANS. • FIRE/SMOKE DAMPERS WILL BE CLOSED BY THE FIRE ALARM SYSTEM.







	HVAC CONTR	ROL SIGN	NAL LEGE	END - LAE	SORATORY AIRFLOW	CONTROL
IGNAL LEGEND IS A DESC	RIPTION OF POINTS AND NOT A QUANTITATIVE POINTS LIST. CONTRACTOR SHALL DEVELOP POINT	S LIST BASED ON SO	OPE OF PROJECT.			
	DULATING; "B"= BINARY/TWO POSITION.				,	
LL POINTS LISTED IN "BAS	S VALUE" OR "BAS ALARM" SHALL BE SHOWN ON GRAPHICAL DISPLAY.					
TAG	DEVICE	ACTION	FAIL POSITION	BAS VALUE	BAS ALARM	NOTES
	·				·	·
HYSICAL POINTS						
AV-EXH ROOM	AIR VALVE - EXHAUST AIR ROOM	A	LAST POSITION	% OPEN		
AV-HOOD	AIR VALVE - EXHAUST FUME HOOD	A	OPEN	% OPEN		
D-BYP	DAMPER - BYPASS	A		OPEN/CLOSED		
D-FAN-ISO	DAMPER - FAN ISOLATION	В	OPEN	OPEN/CLOSED		PROVIDED BY FAN MFR
D-SA	DAMPER - SUPPLY AIR	A	LAST POSITION	% OPEN		
D-SMK	DAMPER - FIRE/SMOKE	В	CLOSED	OPEN/CLOSED		WIRED BY F.A. INSTALLER; HARDWIRED END SWITCH TO VERIFY POSITION
DP-CORR/CORR	DIFFERENTIAL PRESSURE DISPLAY PANEL- LAB CORRIDOR TO ADJ CORRIDOR	В			GREATER THAN -0.02"	PROVIDE LOCAL DISPLAY ON MONITOR; MOUNT ON CORRIDOR WALL
DP-LAB/CORR	DP-LAB/CORR - DIFFERENTIAL PRESSURE DISPLAY PANEL- LAB CORRIDOR TO ADJ CORRIDOR	В			GREATER THAN -0.02"	PROVIDE LOCAL DISPLAY ON MONITOR; MOUNT ON CORRIDOR WALL
FHM	FUME HOOD MONITOR	В		ON/OFF		
HSS	HOOD SASH SENSOR	А		% OPEN		
SP-EF	STATIC PRESSURE - EXHAUST FAN	А		IN. W.C.	SP <setpoint +<="" -1"="" greater="" or="" setpoint="" td="" than=""><td>1"</td></setpoint>	1"
SP-LL	STATIC PRESSURE - DUCT LOW LIMIT	В			LESS THAN -2.5 IN.W.C.	
SPT	STATIC PRESSURE TRANSMITTER	A		IN. W.C.		LOCATE NEAR EXHAUST FAN DOWNSTREAM OF ANY FIRE/SMOKE DAMPERS
T-DAT	TEMPERATURE - DISCHARGE AIR TEMP SENSOR	А		DEG °F	DAT > HIGH LIMIT SETPOINT + 2°F	
T-SPACE	TEMPERATURE - SPACE TEMP SENSOR	A		DEG °F		<varies></varies>
V-HC	VALVE - HEATING COIL	A	OPEN	% OPEN		
RTUAL POINT	·				·	
CALCULATED CLG SET	COOLING TEMP SETPOINT	CALCULATED		DEG °F	ROOM TEMP > CLG SETPOINT + 2 °F	OCCUPIED MODE: CLG SETPOINT = ROOM TEMP SETPOINT +2.0 °F; UNOCCUPIED = 80 °F
CALCULATED HTG SET	HEATING TEMP SETPOINT	CALCULATED		DEG °F	ROOM TEMP < HTG SETPOINT - 2 °F	OCCUPIED MODE: HTG SETPOINT = ROOM TEMP SETPOINT -1.5 °F; UNOCCUPIED = 65 °F
INPUT TEMP	ROOM TEMPERATURE SETPOINT	INPUT		DEG °F		OCCUPIED MODE: ALLOWABLE RANGE 68-75 °F

SEQUENCE OF OPERATION

SEE SHEET M-700 FOR GENERAL REQUIREMENTS OF CONTROL SYSTEMS LABORATORY AIRFLOW CONTROL SEQUENCE OF OPERATION

FOR VARIABLE SUPPLY AIR VALVES, SUPPLY AIR VALVES SHALL MODULATE TO MAINTAIN SPACE TEMPERATURE AS SPACE TEMPERATURE RISES ABOVE SETPOINT, VALVE SHALL MODULATE OPEN. AS SPACE TEMPERATURE FALLS BELOW SETPOINT VALVE SHALL MODULATE CLOSED TO MINIMUM SETTING. UPON FURTHER FALL BELOW SETPOINT, REHEAT COIL SHALL MODULATE OPEN. CONSTANT SUPPLY AIR TERMINAL UNITS SHALL MAINTAIN CONSTANT FLOW. REHEAT COIL VALVE SHALL MODULATE TO MAINTAIN

SPACE TEMP SETPOINT. EXHAUST AIR VALVES LINKED TO FUME HOODS SHALL MODULATE IN RESPONSE TO HOOD SASH POSITION. EXHAUST AIR VALVES LINKED TO BIO SAFETY CABINETS SHALL OPEN/CLOSE BASED ON BSC ON/OFF STATUS. <u>MAIN LAB</u>

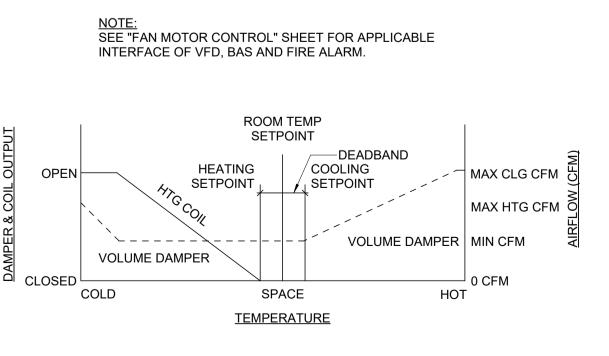
CONSTANT VOLUME TERMINAL UNITS ATU-4-1 AND EXISTING EXHAUST AIR DEVICE (NOTED AS (EX)-ETU-4-4 ON PLANS) TO MAINTAIN PRESSURIZATION IN MAIN LAB WHEN NEW FUME HOOD IS NOT IN OPERATION. WHEN FUME HOOD IS NOT IN OPERATION, EAV-4-1 AND ATU-4-6 WILL REMAIN CLOSED. WHEN FUME HOOD IS ENERGIZED, EAV-4-1 SHALL OPEN TO MAINTAIN CONSTANT VOLUME AT HOOD AS NOTED ON SCHEDULES. ATU-4-1 AND (EX)-ETU-4-4 WILL REMAIN AT CONSTANT VOLUME.

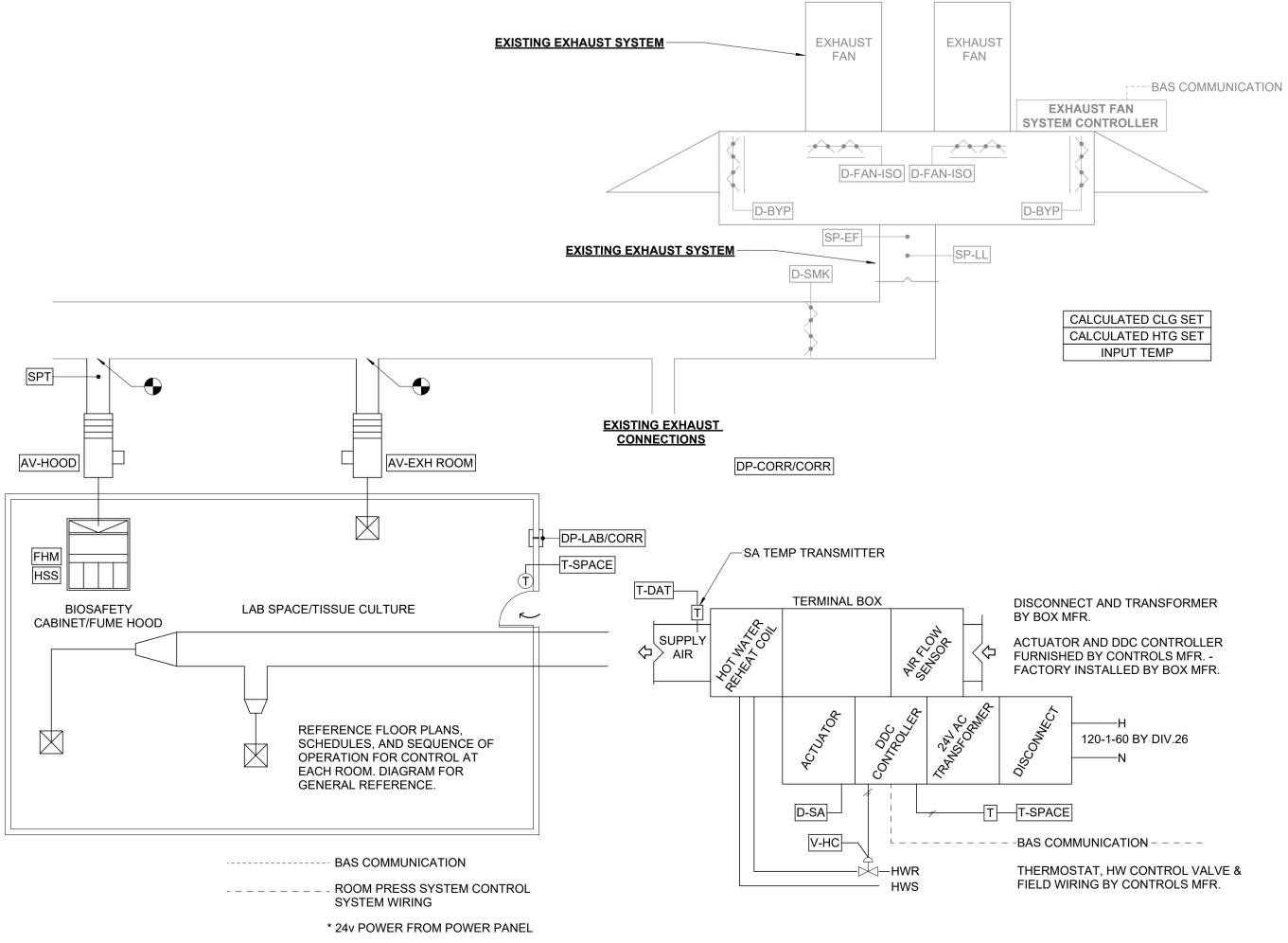
TISSUE CULTURE

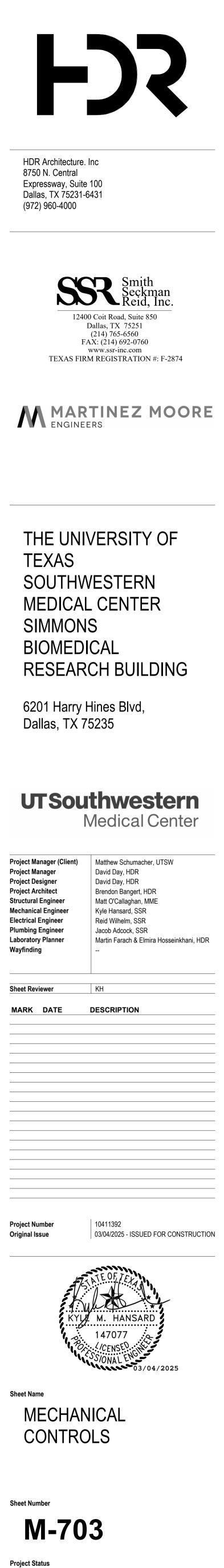
CONSTANT VOLUME TERMINAL UNIT ETU-4-2 AND VARIABLE VOLUME TERMINAL UNIT ATU-4-2 TO MAINTAIN PRESSURIZATION IN TISSUE CULTURE ROOM WHEN NEW BIOSAFETY CABINET IS NOT IN OPERATION. ATU-4-2 TO OP WHEN BIOSAFETY CABINET IS NOT IN OPERATION, EAV-4-2 WILL REMAIN CLOSED, ATU-4-2 WILL OPERATE AT MINIMUM NOTED ON SCHEDULE AND ETU-4-2 WILL OPEN.

WHEN BIOSAFETY CABINET IS ENERGIZED, EAV-4-2 SHALL OPEN TO MAINTAIN CONSTANT VOLUME AT HOOD AS NOTED ON SCHEDULES. ATU-4-2 SHALL INCREASE TO MAXIMUM CFM NOTED ON SCHEDULE AND ETU-4-2 WILL CLOSE.

1







	LEGEND (NOT ALL SYMBOLS MAY BE USED)
SYMBOL	DESCRIPTION
	ABBREVIATIONS
ABC	ABOVE COUNTER
ADO	AUTOMATIC DOOR OPENER
AFCI	ARC FAULT CIRCUIT INTERRUPTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
BW	BLANKET WARMER
С	CRITICAL BRANCH
CC	CRASH CART
CLG	CEILING
COF	COFFEE MACHINE
COP	COPIER
CR	CONTROLLED RECEPTACLE
CS	CONTROLLED RECEPTACLE - SPLIT WIRED
DC	DIGITAL CLOCK
DW	DISHWASHER
EQ	EQUIPMENT BRANCH
EPO	EMERGENCY POWER OFF
EV	ELECTRICAL VEHICLE CHARGING STATION
EWB	ELECTRONIC WHITE BOARD
EWC	ELECTRIC WATER COOLER
FBO	FURNISHED BY OTHERS
FI	FILM ILLUMINATOR (VIEW BOX)
FLR	FLOOR MOUNTED
FSD	FIRE/SMOKE DAMPER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
ICE	ICE MACHINE/MAKER
IG	ISOLATED GROUND
LS	LIFE SAFETY BRANCH
MW	MICROWAVE
PC	PERSONAL COMPUTER WORKSTATION
PR	PRINTER
PT	
RF	REFRIGERATOR
RX	PHARMACEUTICAL DISPENSER
TC	
TR	
TV	
URF	
USB	RECEPTACLE WITH USB OUTLET(S)
USBX	USB ONLY (X) = NUMBER OF USB OUTLETS
VFD	VARIABLE FREQUENCY DRIVE
VM	
WP	
	CIRCUIT OR RACEWAY CONCEALED OR EXPOSED CIRCUIT OR RACEWAY BELOW OR IN FLOOR SLAB OR BELOW
	GRADE
0	
•	
	CAPPED CONDUIT OR RACEWAY
\frown	CIRCUIT OR CONDUIT CONTINUATION

	LEGEND (NOT ALL SYMBOLS MAY BE USED)
SYMBOL	DESCRIPTION
	FIRE ALARM
 X	FIRE ALARM VISUAL DEVICE - STROBE ONLY
<u> </u>	FIRE ALARM CEILING MOUNT VISUAL DEVICE - STROBE ONLY
þ	FIRE ALARM AUDIO DEVICE
<u>N</u>	FIRE ALARM AUDIO DEVICE WITH STROBE
$\Box \triangleleft$	FIRE ALARM HORN
$\boxtimes \triangleleft$	FIRE ALARM HORN WITH STROBE
\otimes	FIRE ALARM CEILING MOUNT HORN WITH STROBE
 ©	FIRE ALARM CEILING MOUNT AUDIO DEVICE WITH STROBE
	FIRE ALARM CEILING MOUNT SPEAKER
	FIRE ALARM MANUAL PULL STATION FIRE ALARM SMOKE DETECTOR
ି (ଆଲୁ (ଆଲୁ (ଆଲୁ (ଆଲୁ (ଆଲୁ (ଆଲୁ (ଆଲୁ (ଆଲୁ	NO SUBSCRIPT= IONIZATION TYPE; P= PHOTOELECTRIC; SS= SINGLE STATION SMOKE ALARM FIRE ALARM HEAT DETECTOR
(H)	SUBSCRIPT AS FOLLOWS: R=RATE OF RISE; T=FIXED TEMPERATURE
SD	FIRE ALARM DUCT SMOKE DETECTOR
\bigcirc	GAS DETECTOR
\oslash	FLAME DETECTOR
HBD _X	BEAM DETECTOR SUBSCRIPT AS FOLLOWS: T=TRANSMITTER; R=RECEIVER
	FIRE ALARM CONTROL MODULE
	FIRE ALARM MONITOR MODULE
	FIRE ALARM RELAY MODULE
FS	FLOW SWITCH
TS	TAMPER SWITCH
₹F	FIREFIGHTER'S TELEPHONE JACK
	MAGNETIC DOOR HOLDER
RI	SMOKE DETECTOR REMOTE INDICATOR / TEST SWITCH
FACU	FIRE ALARM CONTROL UNIT
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FEP	FIRE ALARM EXTENDER PANEL
SCPP	SMOKE CONTROL AND PRESSURE PANEL
	MISCELLANEOUS
	NON-FUSIBLE SAFETY SWITCH, SIZE AS NOTED (AMP RATING/POLES)
4	FUSIBLE SAFETY SWITCH, SIZE AS NOTED (AMP RATING/POLES/FUSE SIZE)
ß	COMBINATION MOTOR STARTER
	FACTORY WIRED CONTROLLER OR EQUIPMENT
/x/	MOTOR CONNECTION
	DUCT HEATER CONNECTION
J	JUNCTION BOX - WALL MOUNTED UNLESS OTHERWISE NOTED
	PANELBOARD
	X-RAY ISOLATION PANEL LINE ISOLATION MONITOR
R	ISOLATION PANEL LINE ISOLATION MONITOR
(C)	CLOCK, SINGLE FACE - CLOCK AND RECEPTACLE AS SPECIFIED
C2	CLOCK, DOUBLE FACE - CLOCK AND RECEPTACLE AS SPECIFIED
C _{et}	ELAPSED TIMER - DIGITAL TYPE
ET	ELAPSED TIMER CONTROL - DIGITAL TYPE
	MEDICAL GAS AREA ALARM PANEL
AAP BAS	MEDICAL GAS AREA ALARM PANEL
AAP BAS CAP	MEDICAL GAS AREA ALARM PANEL BUILDING AUTOMATION SYSTEM CONTROL PANEL MEDICAL GAS COMPRESSED AIR CONTROL PANEL
AAP BAS CAP GRA	MEDICAL GAS AREA ALARM PANEL BUILDING AUTOMATION SYSTEM CONTROL PANEL MEDICAL GAS COMPRESSED AIR CONTROL PANEL GENERATOR REMOTE ANNUNCIATOR PANEL
AAP BAS CAP GRA MAP	MEDICAL GAS AREA ALARM PANEL BUILDING AUTOMATION SYSTEM CONTROL PANEL MEDICAL GAS COMPRESSED AIR CONTROL PANEL GENERATOR REMOTE ANNUNCIATOR PANEL MEDICAL GAS MASTER ALARM PANEL
AAP BAS CAP GRA MAP NCP	MEDICAL GAS AREA ALARM PANEL BUILDING AUTOMATION SYSTEM CONTROL PANEL MEDICAL GAS COMPRESSED AIR CONTROL PANEL GENERATOR REMOTE ANNUNCIATOR PANEL
AAP BAS CAP GRA MAP	MEDICAL GAS AREA ALARM PANEL BUILDING AUTOMATION SYSTEM CONTROL PANEL MEDICAL GAS COMPRESSED AIR CONTROL PANEL GENERATOR REMOTE ANNUNCIATOR PANEL MEDICAL GAS MASTER ALARM PANEL
AAP BAS CAP GRA MAP NCP	MEDICAL GAS AREA ALARM PANEL BUILDING AUTOMATION SYSTEM CONTROL PANEL MEDICAL GAS COMPRESSED AIR CONTROL PANEL GENERATOR REMOTE ANNUNCIATOR PANEL MEDICAL GAS MASTER ALARM PANEL MEDICAL GAS NITROGEN CONTROL PANEL
AAP BAS CAP GRA MAP NCP SP	MEDICAL GAS AREA ALARM PANEL BUILDING AUTOMATION SYSTEM CONTROL PANEL MEDICAL GAS COMPRESSED AIR CONTROL PANEL GENERATOR REMOTE ANNUNCIATOR PANEL MEDICAL GAS MASTER ALARM PANEL MEDICAL GAS NITROGEN CONTROL PANEL SECURITY SYSTEM CONTROL PANEL
AAP BAS CAP GRA MAP NCP SP DC	MEDICAL GAS AREA ALARM PANEL BUILDING AUTOMATION SYSTEM CONTROL PANEL MEDICAL GAS COMPRESSED AIR CONTROL PANEL GENERATOR REMOTE ANNUNCIATOR PANEL MEDICAL GAS MASTER ALARM PANEL MEDICAL GAS NITROGEN CONTROL PANEL SECURITY SYSTEM CONTROL PANEL DOOR SWITCH MOUNTED IN DOOR JAMB
AAP BAS CAP GRA MAP NCP SP DC DR	MEDICAL GAS AREA ALARM PANEL BUILDING AUTOMATION SYSTEM CONTROL PANEL MEDICAL GAS COMPRESSED AIR CONTROL PANEL GENERATOR REMOTE ANNUNCIATOR PANEL MEDICAL GAS MASTER ALARM PANEL MEDICAL GAS NITROGEN CONTROL PANEL SECURITY SYSTEM CONTROL PANEL DOOR SWITCH MOUNTED IN DOOR JAMB DOOR RELEASE PUSH BUTTON
AAP BAS CAP GRA MAP NCP SP DC DR CR	MEDICAL GAS AREA ALARM PANEL BUILDING AUTOMATION SYSTEM CONTROL PANEL MEDICAL GAS COMPRESSED AIR CONTROL PANEL GENERATOR REMOTE ANNUNCIATOR PANEL MEDICAL GAS MASTER ALARM PANEL MEDICAL GAS NITROGEN CONTROL PANEL SECURITY SYSTEM CONTROL PANEL DOOR SWITCH MOUNTED IN DOOR JAMB DOOR RELEASE PUSH BUTTON CARD READER
AAP BAS CAP GRA MAP NCP SP DC DR CR KP Image	MEDICAL GAS AREA ALARM PANEL BUILDING AUTOMATION SYSTEM CONTROL PANEL MEDICAL GAS COMPRESSED AIR CONTROL PANEL GENERATOR REMOTE ANNUNCIATOR PANEL MEDICAL GAS MASTER ALARM PANEL MEDICAL GAS NITROGEN CONTROL PANEL SECURITY SYSTEM CONTROL PANEL DOOR SWITCH MOUNTED IN DOOR JAMB DOOR RELEASE PUSH BUTTON CARD READER ELECTRONIC KEY PAD PUSH BUTTON STATION
AAP BAS CAP GRA GRA MAP SP DC DC DC DC KP KP VFD	MEDICAL GAS AREA ALARM PANEL BUILDING AUTOMATION SYSTEM CONTROL PANEL MEDICAL GAS COMPRESSED AIR CONTROL PANEL GENERATOR REMOTE ANNUNCIATOR PANEL MEDICAL GAS MASTER ALARM PANEL MEDICAL GAS NITROGEN CONTROL PANEL SECURITY SYSTEM CONTROL PANEL DOOR SWITCH MOUNTED IN DOOR JAMB DOOR RELEASE PUSH BUTTON CARD READER ELECTRONIC KEY PAD PUSH BUTTON STATION VARIABLE FREQUENCY DRIVE
AAP BAS CAP GRA GRA MAP NCP DC DC DC DC DC DC VFD P	MEDICAL GAS AREA ALARM PANEL BUILDING AUTOMATION SYSTEM CONTROL PANEL MEDICAL GAS COMPRESSED AIR CONTROL PANEL GENERATOR REMOTE ANNUNCIATOR PANEL MEDICAL GAS MASTER ALARM PANEL MEDICAL GAS NITROGEN CONTROL PANEL SECURITY SYSTEM CONTROL PANEL DOOR SWITCH MOUNTED IN DOOR JAMB DOOR RELEASE PUSH BUTTON CARD READER ELECTRONIC KEY PAD PUSH BUTTON STATION VARIABLE FREQUENCY DRIVE PUSH PLATE (DOOR OPERATOR)
AAP BAS CAP GRA MAP SP DC DC DC DR CR VFD P EXXX-1	MEDICAL GAS AREA ALARM PANEL BUILDING AUTOMATION SYSTEM CONTROL PANEL MEDICAL GAS COMPRESSED AIR CONTROL PANEL GENERATOR REMOTE ANNUNCIATOR PANEL MEDICAL GAS MASTER ALARM PANEL MEDICAL GAS NITROGEN CONTROL PANEL SECURITY SYSTEM CONTROL PANEL DOOR SWITCH MOUNTED IN DOOR JAMB DOOR RELEASE PUSH BUTTON CARD READER ELECTRONIC KEY PAD PUSH BUTTON STATION VARIABLE FREQUENCY DRIVE
AAP BAS CAP GRA GRA MAP NCP DC DC DC DC DC DC VFD P	MEDICAL GAS AREA ALARM PANEL BUILDING AUTOMATION SYSTEM CONTROL PANEL MEDICAL GAS COMPRESSED AIR CONTROL PANEL GENERATOR REMOTE ANNUNCIATOR PANEL MEDICAL GAS MASTER ALARM PANEL MEDICAL GAS NITROGEN CONTROL PANEL SECURITY SYSTEM CONTROL PANEL DOOR SWITCH MOUNTED IN DOOR JAMB DOOR RELEASE PUSH BUTTON CARD READER ELECTRONIC KEY PAD PUSH BUTTON STATION VARIABLE FREQUENCY DRIVE PUSH PLATE (DOOR OPERATOR)
AAP BAS CAP GRA MAP MAP SP DC DR CR KP VFD P EXXX-1	MEDICAL GAS AREA ALARM PANEL BUILDING AUTOMATION SYSTEM CONTROL PANEL MEDICAL GAS COMPRESSED AIR CONTROL PANEL GENERATOR REMOTE ANNUNCIATOR PANEL MEDICAL GAS MASTER ALARM PANEL MEDICAL GAS NITROGEN CONTROL PANEL SECURITY SYSTEM CONTROL PANEL DOOR SWITCH MOUNTED IN DOOR JAMB DOOR RELEASE PUSH BUTTON CARD READER ELECTRONIC KEY PAD PUSH BUTTON STATION VARIABLE FREQUENCY DRIVE PUSH PLATE (DOOR OPERATOR) SPECIALTY EQUIPMENT TAG
AAP BAS CAP GRA MAP MAP SP DC DC DC DC DC VFD P €XXX-1)	MEDICAL GAS AREA ALARM PANEL BUILDING AUTOMATION SYSTEM CONTROL PANEL MEDICAL GAS COMPRESSED AIR CONTROL PANEL GENERATOR REMOTE ANNUNCIATOR PANEL MEDICAL GAS MASTER ALARM PANEL MEDICAL GAS NITROGEN CONTROL PANEL SECURITY SYSTEM CONTROL PANEL DOOR SWITCH MOUNTED IN DOOR JAMB DOOR RELEASE PUSH BUTTON CARD READER ELECTRONIC KEY PAD PUSH BUTTON STATION VARIABLE FREQUENCY DRIVE PUSH PLATE (DOOR OPERATOR) SPECIALTY EQUIPMENT TAG

SYME	BOL	DESCRIPTION
		LIGHTING
<u>xx</u>	1	LIGHTING FIXTURE ANNOTATIONS (LOCATION OF DESIGNATORS MAY VARY
0) [X]	FIXTURE TYPE: XX CIRCUIT NUMBER: 1 CONTROL DESIGNATION: [x]
		SURFACE, SUSPENDED, OR RECESSED LUMINAIRES (TYPE DETERMINES MOUNTING)
0	<u></u>	RECESSED OR SURFACE DOWNLIGHT LUMINAIRE
ں اے۔۔۔	<u></u>	PENDANT MOUNTED LUMINAIRE
Υ 	Г 	
0		WALLWASH LUMINAIRE
	<u> </u>	WALL MOUNTED LUMINAIRES
		NO SHADING INDICATES CONNECTION TO NORMAL BRANCH CIRCUIT
	₫ Ø	HALF-SHADING INDICATES CONNECTION TO CRITICAL BRANCH CIRCUIT
<u>//////</u> //////////////////////////////	20	FULL-SHADING INDICATES CONNECTION TO LIFE SAFETY BRANCH CIRCUIT
8	⊗∤	ILLUMINATED EXIT SIGNS, PROVIDE DIRECTIONAL ARROWS AND MOUNTINAS INDICATED ON PLANS
<		BATTERY POWERED EMERGENCY LIGHT
$\nabla \nabla$	′ ✓	TRACK LIGHTING
•]+[]	POLE MOUNTED SITE LIGHTING LUMINAIRES
<	1	GROUND OR POLE MOUNTED FLOODLIGHT
•	Æl	FAA SPECIALTY LIGHTING (TYPE DETERMINES MOUNTING)
¥	<u> </u>	RECEPTACLES
	11 E XX	DUPLEX RECEPTACLE - STANDARD MOUNTING HEIGHT 11 = CIRCUIT NUL
		XX= RECEPTACL
e		DUPLEX RECEPTACLE - ABOVE COUNTER OR SPECIAL MOUNTING HEIGHT
•		DOUBLE-DUPLEX RECEPTACLE - STANDARD MOUNTING HEIGHT
•	•	DOUBLE-DUPLEX RECEPTACLE - ABOVE COUNTER OR SPECIAL MOUNTING
0	=	DUPLEX GFCI RECEPTACLE - STANDARD MOUNTING HEIGHT
€	-	DUPLEX GFCI RECEPTACLE - ABOVE COUNTER OR SPECIAL MOUNTING HE
Ð	F	CONTROLLED DUPLEX RECEPTACLE - STANDARD MOUNTING HEIGHT
•	E	DUPLEX RECEPTACLE, ESSENTIAL POWER - STANDARD MOUNTING HEIGHT
•		DUPLEX RECEPTACLE, ESSENTIAL POWER - ABOVE COUNTER OR SPECIAL
•	=	DOUBLE-DUPLEX RECEPTACLE, ESSENTIAL POWER - STANDARD MOUNTIN
•		DOUBLE-DUPLEX RECEPTACLE, ESSENTIAL POWER - ABOVE COUNTER OR
•	=	DUPLEX GFCI RECEPTACLE, ESSENTIAL POWER - STANDARD MOUNTING H
•		DUPLEX GFCI RECEPTACLE, ESSENTIAL POWER - ABOVE COUNTER OR SPI
€		SPECIAL CONFIGURATION RECEPTACLE (TYPE AS NOTED)
0		SPECIAL CONFIGURATION RECEPTACLE, ESSENTIAL POWER (TYPE AS NOT
)[XX]	FLOOR BOX / POKE-THRU XX - DEVICE TYPE
		FLOOR BOX / POKE-THRU, ESSENTIAL POWER XX - DEVICE TYPE
		SURFACE WIREWAY OR RACEWAY WITH RECEPTACLES AS NOTED
	I	SWITCHES AND LIGHTING CONTRO
NORMAL	CRITICA	
S	\$	SINGLE POLE SWITCH
S2	\$2	DOUBLE POLE, SINGLE THROW SWITCH
S₃	\$ ₃	THREE-WAY SWITCH
S4	\$4	FOUR-WAY SWITCH
Sк	\$к	SINGLE POLE SWITCH - KEY OPERATED
S _D	\$ _D	DIMMER SWITCH
Slv	\$LV	LOW VOLTAGE SWITCH
Sp	\$P	SINGLE POLE SWITCH WITH PILOT LIGHT
S _{oc}	\$oc 	
S _{VD}	\$vd	
Svc	\$vc	VACANCY SENSOR SWITCH
SM	\$м	MOTOR RATED SWITCH WITH THERMAL OVERLOAD
ST	\$т	TIMER SWITCH
Sv	\$∨	VARIABLE INTENSITY SWITCH
Sj	\$J	JOG SWITCH
PO	НÊ	PHOTOCELL - CEILING / WALL MOUNT
00	Н®	OCCUPANCY SENSOR - CEILING / WALL MOUNT
	H	DAYLIGHT SENSOR - CEILING / WALL MOUNT
(DS)		
-	HQ	VACANCY SENSOR - CEILING / WALL MOUNT
	HS	VACANCY SENSOR - CEILING / WALL MOUNT

FIRE ALARM TO BE DEFER

A. FIRE DEVICES SHOWN ON PLAN FOR REFERENCE ONLY. FIRE ALARM DRAWINGS SHALL ALARM CONTRACTOR FOR APPROVAL BY THE AHJ. FA CONTRACTOR TO COORDINATE W OFFICE FOR PERMIT AND FINAL INSPECTION. CONTRACTOR SHALL ADD FA DEVICES AS CODES. NEW DEVICES SHALL BE COMPATIBLE WITH THE EXISTING FIRE ALARM SYSTEM AFTER INSTALLATION. THE COLOR OF THE NEW DEVICES SHALL MATCH THE COLOR OF FIELD VERIFY THE BRAND OF THE EXISTING FIRE ALARM SYSTEM. REFERENCE MECHAN INSTALLATION OF SMOKE DUCT DETECTORS, FIRE/SMOKE DAMPERS, AND CONTROL DA CONTRACTOR SHALL COORDINATE ANY ADDITIONAL 120V POWER REQUIREMENTS FOR WITH THE FIRE ALARM CONTRACTOR. PROVIDE ALL LABOR AND MATERIALS FOR A COMI SYSTEM. FOR ADDITIONAL REQUIREMENTS, REFERENCE SPECIFICATION 28 31 00, FIRE I SYSTEM.

(NOT ALL SYMBOLS MAY BE USED)		SHEET INDEX	
	NUMBER E-000 E-001	SHEET NAME ELECTRICAL INDEX, LEGENDS, AND NOTES ELECTRICAL SCHEDULES	
/ARY)	ED-101 ED-102 EL-101	ELECTRICAL DEMOLITION PLAN - LEVEL 04 ELECTRICAL ENLARGED DEMOLITION PLANS ELECTRICAL LIGHTING PLAN - LEVEL 04	
	EL-102 EP-101 EP-102	ELECTRICAL ENLARGED LIGHTING PLANS ELECTRICAL POWER PLAN - LEVEL 04 ELECTRICAL ENLARGED POWER PLANS	
	EP-103 EY-101	ELECTRICAL ENLARGED POWER PLANS ELECTRICAL SYSTEMS PLAN - LEVEL 04	
	EY-102 E-501 E-601	ELECTRICAL ENLARGED SYSTEMS PLANS ELECTRICAL DETAILS ELECTRICAL RISER DIAGRAM AND FEEDER SCHEDULE	
	E-801	ELECTRICAL PANEL SCHEDULES	
		GENERAL NOTES	
	ELECTRICAL	GENERAL NOTES:	
г	EQUIPMEN	LL CONFORM TO LOCAL CODES AND ORDINANCES AS WELL AS APPLICABLE INDU T SHALL BE LISTED/LABELED BY NATIONALLY RECOGNIZED TESTING AGENCY FO	OR THE INTENDED USE.
	WITH ARCH	TE FINAL LOCATIONS AND INSTALLATION REQUIREMENTS OF LIGHT FIXTURES, E HITECTURAL DRAWINGS, EXISTING CONDITIONS, AND OTHER TRADES PRIOR TO F Y ACCESSORIES FOR COMPLETE AND PROPER OPERATION IN ACCORDANCE WIT	Rough-In. Provide
NTING	C. ELECTRICA	AL DRAWINGS ARE DIAGRAMMATIC IN NATURE AND REPRESENT GENERAL SCOPE T OF THESE DRAWINGS TO SHOW EVERY ITEM/DETAIL REQUIRED FOR COMPLET	
	D. NOTES ON	FLOOR PLANS AND SITE PLAN APPLY ONLY TO THE WORK SCOPE WITHIN THE BO THEY APPEAR, UNLESS INDICATED OTHERWISE.	
		UIPMENT GROUND BUS BARS ARE SPECIFIED OR INDICATED ON DRAWINGS, INS L ALLOW ADEQUATE ACCESS FOR FUTURE CONNECTIONS.	TALL IN LOCATION
		RING DEVICES ARE INDICATED BACK-TO-BACK ON A COMMON WALL, INSTALL SUGAL SPACING IS PROVIDED BETWEEN THEM TO REDUCE NOISE TRANSMISSION.	CH THAT A 12"
		IRE PROOFING AT PENETRATIONS THROUGH RATED WALLS TO MEET OR EXCEE PRODUCTS IN ACCORDANCE WITH MANUFACTURE INSTRUCTION/UL PENETRATIO	
NUMBER (TYPICAL) ACLE DESIGNATOR (TYPICAL)		S SHALL BE CONCEALED FROM VIEW WHEREVER POSSIBLE. WHERE EXPOSED, F IN NEAT AND WORKMANLIKE MANNER AND PARALLEL/PERPENDICULAR TO WALI	
нт	BETWEEN I	F BENDS SHALL NOT EXCEED THE EQUIVALENT OF FOUR 90 DEGREE BENDS (360 PULL POINTS IN ACCORDANCE WITH NEC ARTICLES 342, 344, 358. WHERE REQUI	
ING HEIGHT	J. CONDUIT R	SIZED IN ACCORDANCE WITH NEC ARTICLE 314. ROUTING, AND WIRE COUNTS ARE NOT INDICATED ON FLOOR PLANS. CONTRACT S IN ACCORDANCE WITH SPECIFICATIONS AND WIRE COUNTS AS REQUIRED TO A	
	CONTROL	VICES ARE INDICATED IN CAST-IN-PLACE CONCRETE OR PRECAST, COORDINATE	
HEIGHT	DEVICES A	ND ROUTING OF RACEWAYS AND PENETRATIONS WITH ARCHITECT AND WALL SU DENSURE RACEWAYS ARE CONCEALED AND DEVICES ARE PROPERLY PLACED.	
GHT	CONDUCTO	DEDICATED NEUTRAL CONDUCTOR FOR EACH CIRCUIT REQUIRING NEUTRAL CON DR SHALL BE CONSIDERED CURRENT-CARRYING FOR THE PURPOSES OF DERATI IONS. MULTI-WIRE BRANCH CIRCUITS ARE NOT PERMITTED UNLESS SPECIFICALL	ING AND RACEWAY FILL
CIAL MOUNTING HEIGHT	BRANCH CI	S SHALL BE LIMITED TO A MAXIMUM OF SIX CURRENT CARRYING CONDUCTORS (I IRCUITS), UNLESS OTHERWISE NOTED. WHERE THE NUMBER OF CURRENT CARR IHREE (INCLUDING NEUTRAL CONDUCTORS PER NEC 310.15), THE ALLOWABLE A	RYING CONDUCTORS
ITING HEIGHT	CONDUCTO	DR SHALL BE REDUCED PER THE "ADJUSTMENT FACTORS FOR MORE THAN THRE DRS" TABLE IN NEC 310.15.	
OR SPECIAL MOUNTING HEIGHT		TE EXACT DIMENSIONS FOR LOCATIONS OF FLOOR MOUNTED BOXES AND FIRE-I ES WITH ARCHITECT PRIOR TO ROUGH-IN.	RATED POKE-THRU
SPECIAL MOUNTING HEIGHT	REQUIRED	ECTRICAL EQUIPMENT SUCH THAT MANUFACTURER'S VENTILATION REQUIREME CLEARANCES ARE MAINTAINED.	
	PARALLEL.	2 FEET SEPARATION BETWEEN LIGHTING/POWER CIRCUITS AND A/V CIRCUITS WH CROSSINGS SHALL BE AS CLOSE TO 90 DEGREES AS POSSIBLE.	
NOTED)	LESS AND	CONDUIT IS PERMITTED ONLY WHERE SPECIFICALLY ALLOWED BY SPECIFICATION WHERE CONCEALED FROM VIEW. MENSIONS ARE SHOWN ADJACENT TO A DEVICE (I.E. +6"), THE DEVICE SHALL BE I	
	CENTERLIN	VELL LINE OR TAPE IN EACH EMPTY CONDUIT LEFT FOR FUTURE USE OR FOR OTH	
OLS	ARE MOUN AVAILABLE BREAKERS HINGED EN	GFCI PROTECTION FOR OUTLETS WHERE INDICATED AND WHERE REQUIRED BY C TED BEHIND FIXED EQUIPMENT, GFCI BREAKERS SHALL BE PROVIDED WHERE C WHERE BOTH GFCI PROTECTION AND SHUNT TRIP FUNCTION ARE REQUIRED, G ARE NOT AVAILABLE, PROVIDE IN-LINE GFCI MODULE IN FLUSH OUTLET BOX OR ICLOSURE MOUNTED ADJACENT TO PANEL CONTAINING SHUNT TRIP BREAKER F JTLET, LABEL ASSOCIATED RECEPTACLES AS 'GROUND FAULT PROTECTED'.	OMMERCIALLY OR, WHERE GFCI FLUSH MOUNTED
	U. CONTRACT RECEPTAC ALIGNED. C POSITIONIN PLATE, UNI	OR SHALL PAY PARTICULAR ATTENTION DURING ROUGH-IN TO PLACEMENT OF E CLES, TELECOM OUTLETS, ETC., TO ENSURE BOXES ARE GANGED AND GROUPED CONTRACTOR SHALL SPAN BETWEEN FRAMING CHANNELS AS NECESSARY TO A NG OF DEVICES AS DESCRIBED. DEVICES SHOWN ADJACENT SHALL BE MOUNTED LESS OTHERWISE NOTED. FOR HIGH FINISH AREAS, DEFER TO ARCHITECTURAL I) TOGETHER AND CCOMPLISH D UNDER A COMMON
	V. WHERE WI	IT, WHERE INDICATED. RE AND CONDUITS SIZES ARE SHOWN ON ONE PART OF A FEEDER OR BRANCH C RACEWAY FOR THE ENTIRE FEEDER OR BRANCH CIRCUIT UNLESS OTHERWISE N	
	DRAWINGS		
	FIRE ALARM C	GENERAL NOTES:	
	AND UNIT N	MECHANICAL DRAWINGS FOR QUANTITIES AND LOCATIONS OF DAMPERS, DUCT MOUNTED DETECTORS	
	B. REFER IO	FIRE PROTECTION DRAWINGS FOR QUANTITIES AND LOCATIONS OF FLOW AND T	AMPER SWITCHES.
	A. ALL WORK	DEMOLITION NOTES SHOWN IS THE RESULT OF LIMITED FIELD INVESTIGATION AND EXISTING ORIGIN	JAL PLANS. IT IS THE
	BIDDING.	TOR'S RESPONSIBILITY TO VISIT THE SITE AND INFORM THE ENGINEER OF ANY D	
		ICES/LIGHT FIXTURES ON A CIRCUIT ARE REMOVED, REMOVE CONDUCTORS AND LESS OTHERWISE NOTED. IF ALL DEVICES ARE NOT REMOVED, CONNECT REMAII CIRCUIT.	
	THE JOB S THE CONT DOCUMEN	TOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS BEFORE WORK BEGINS. CC ITE PRIOR TO BEGINNING WORK AND REVIEW ALL AREAS CONCERNED WITH THIS RACTOR'S RESPONSIBILITY TO INFORM THE DESIGNER OF ANY DISCREPANCY IN TS INDICATING ANY ADDITIONAL WORK REQUIRED TO BE PERFORMED WITH EXP TOR SHALL PROVIDE CIRCUIT TRACING AS REQUIRED AND INCLUDE ALL ASSOCIA	S PROJECT. IT SHALL B I THE CONTRACT PLANATION OF WORK.
	D. IT SHALL B ADVANCE. COORDINA	E THE CONTRACTOR'S RESPONSIBILITY TO SCHEDULE ALL DEMOLITION WORK V WORK SHALL BE PERFORMED AT SUCH TIMES AND UNDER SUCH CONDITIONS A TE ELECTRICAL SYSTEMS OPERATION INTERRUPTIONS WITH BUILDING OPERAT ON SHALL BE STAGED TO MAINTAIN DOWNTIME AT AN ABSOLUTE MINIMUM.	S SUITS THE OWNER.
CHEDULE		LES LEFT IN WALLS AND FLOORS AFTER REMOVAL OF EXISTING PIPING, CONDUI NG CONSTRUCTION AND FIRE RATING.	T, ETC TO MATCH NEV
	ITEMS THA	TOR SHALL SUBMIT A COMPLETE LIST OF EQUIPMENT AND ITEMS TO BE REMOVE AT THE OWNER WISHES TO RETAIN SHALL BE PLACED IN STORAGE AND THE REM FROM THE SITE AND DISPOSED OF LEGALLY.	
RRED	G. REMOVE A	LL JUNCTION BOXES, CONDUIT, PIPE HANGERS, STRAPS OR TIE WIRES ANCHOR ILING THAT ARE NO LONGER IN USE.	ED IN CONCRETE SLAB
LL BE SUBMITTED BY THE FIRE E WITH THE FIRE MARSHAL'S AS REQUIRED BY APPLICABLE EM AND SHALL BE TESTED DF THE EXISTING DEVICES. ANICAL DRAWINGS FOR THE	FIELD OBS CONTRACT DEVIATION	SERVICES INDICATED ON THESE DRAWINGS WERE DERIVED FROM EXISTING DRA ERVATIONS. THESE DRAWINGS ARE NOT ALL INCLUSIVE OF SERVICES THAT EXIS TOR SHALL VERIFY SERVICES, LOCATION, TYPE, AND SIZES PRIOR TO ANY CONS IS IMPACTING WORK SHOWN ON THESE DOCUMENTS SHALL BE REPORTED TO T ATION PRIOR TO DEMOLITION.	ST IN THE PROJECT ARE TRUCTION. ANY
DAMPERS. THE ELECTRICAL DR FIRE ALARM EQUIPMENT DMPLETE CODE COMPLIANT	I. COORDINA	ATE WITH ARCHITECTURAL DRAWINGS FOR WALL, FLOOR AND CEILING DEMOLITI	
E DETECTION AND ALARM	K. IF ANY EXI	ATE WITH MECHANICAL DRAWINGS FOR ELECTRICAL DEMOLITION REQUIREMENT STING CIRCUITS ARE TO REMAIN FROM PANEL THAT IS IN THE DEMOLITION AREA	A, NOTIFY ENGINEER OF
		OF CIRCUITS TO REMAIN, WHAT THE CIRCUITS SERVE AND CIRCUIT SIZE FOR DIRI ON OF PANEL.	ECTION PRIOR TO



GENERAL NOTES: . WHERE FIXTURES EQUIPPED WITH BATTERY PACKS, OR 'BUG-EYE' UNITS, ARE INDICATED, THE BATTERY UNIT SHALL BE CONNECTED TO THE UNSWITCHED PORTION OF THE CIRCUIT. LED TAPE LIGHT:). COORDINATE DIRECTIONAL ARROWS FOR EXIT SIGNAGE WITH LIFE SAFETY EXITING PLANS. MOUNT FIXTURE SUCH THAT BOTTOM OF FIXTURE IS 12' AFF. DESCRIP TYPF BA 1'-0" X 4'-0" 22 GA STEEL HOUSING AND F KA 4'-0" LENSED STRIP LIGHT, ROLLED STEE FINISH, FROSTED LENS XB LED THERMOPLASTIC EXIT SIGN WITH R MOUNTING, AND NUMBER OF FACES PER PLANS.

LUMINAIRE SCHEDULE

. REFER TO AND COORDINATE WITH ARCHITECTURAL REFLECTED CEILING PLANS AND ELEVATIONS FOR FINAL FIXTURE LOCATIONS, CEILING TYPES, MOUNTING TYPES, ETC. PROVIDE REQUIRED MOUNTING KITS (I.E. FLANGE KITS, FLANGELESS FRAMES, ETC.) AS REQUIRED FOR CEILING COMPATIBILITY. VERIFY AND COORDINATE ALL FIXTURE FINISHES WITH ARCHITECT PRIOR TO ORDERING. WHERE EXIT SIGNS ARE CIRCUITED WITH OTHER FIXTURES, THEY SHALL BE CONNECTED TO THE UNSWITCHED PORTION OF THE CIRCUIT.

. CONFIRM LED DRIVER DIMMING COMPATIBILITY (E.G. 0-10V, ELV, ETC.) FOR ALL FIXTURES PRIOR TO ORDERING. REFER TO LIGHTING PLANS, LIGHTING CONTROLS SPECIFICATIONS, AND LIGHTING CONTROL DIAGRAMS FOR ADDITIONAL INFORMATION. . REFER TO ELECTRICAL SITE PLANS FOR QUANTITY AND ORIENTATION OF FIXTURE HEADS FOR EACH POLE LOCATION. PROVIDE CORRESPONDING MOUNTING ARMS AND ADAPTERS AS NEEDED. . WHERE SUSPENDED OR PENDANT MOUNTED FIXTURES ARE SPECIFIED, REFER TO ARCHITECTURAL DRAWINGS FOR OVERALL SUSPENSION LENGTHS AND MOUNTING HEIGHTS. PROVIDE ALL NECESSARY HARDWARE, ADAPTERS, ETC., FOR A COMPLETE INSTALLATION. . WHERE FIXTURES ARE SHOWN IN CONTINUOUS RUNS (E.G. COVES, SUSPENDED LINEAR, RECESSED LINEAR, UNDER CABINET, ETC.) PROVIDE STANDARD LENGTH SECTIONS WHERE POSSIBLE TO ACHIEVE ROW LENGTHS AS INDICATED ON THE DRAWINGS. PROVIDE ALL NECESSARY CONNECTORS, HARDWARE, ADAPTERS, END CAPS, ETC., FOR A COMPLETE INSTALLATION. REFER TO MANUFACTURER 'S INSTALLATION INSTRUCTIONS FOR STANDARD SECTION LENGTHS AND MINIMUM SECTION LENGTHS. . CONFIRM LED COLOR TEMPERATURE (WHERE APPLICABLE) FOR ALL LUMINAIRE TYPES WITH ARCHITECT AND OWNER PRIOR TO ORDERING.

A. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS, ELEVATIONS, AND OTHER INFORMATION REGARDING LOCATIONS OF LED TAPE LIGHT. B. PROVIDE REMOTE LED POWER SUPPLIES AS REQUIRED FOR LENGTHS OF LED TAPE LIGHT RUNS INDICATED ON THE DRAWINGS. DO NOT EXCEED 80% OF RATED CAPACITY. INSTALL POWER SUPPLIES IN ACCESSIBLE, BUT CONCEALED LOCATIONS, SUCH AS CLOSETS, CONCEALED IN MILLWORK, ABOVE ACCESSIBLE CEILINGS ETC. FIELD VERIFY FINAL LOCATIONS AND CONFIRM WITH ARCHITECT PRIOR TO ROUGH-IN. CONFIRM DIMMING COMPATIBILITY OF LED POWER SUPPLIES (E.G. 0-10V, ELV, TRIAC, ETC.) PRIOR TO ORDERING. C. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR VOLTAGE DROP INFORMATION. PROVIDE LOW VOLTAGE WIRING AS REQUIRED TO NOT EXCEED MANUFACTURER'S MAXIMUM VOLTAGE DROP. D. WHERE LED TAPE LIGHT IS SPECIFIED WITH A HOUSING, PROVIDE ALL NECESSARY HARDWARE FOR A COMPLETE INSTALLATION

. PROVIDE NEUTRAL CONDUCTOR TO WALL MOUNTED LINE VOLTAGE SWITCHES/DIMMERS AS REQUIRED PER NEC.

2. WHERE OCCUPANCY/VACANCY SENSING IS REQUIRED PER OPERATIONAL SEQUENCE, SENSORS SHALL CONTROL ALL FIXTURES IN THE SPACE UNLESS OTHERWISE INDICATED. 3. WALL MOUNTED EXIT SIGNS SHALL BE MOUNTED WITH BOTTOM OF SIGN 12" ABOVE THE FRAME AND CENTERED ON THE DOOR, UNLESS INDICATED OTHERWISE. WHERE PENDANT MOUNTING IS REQUIRED DUE TO EXPOSED STRUCTURE OR HIGH CEILING,

				LAMPS					REMARKS	
CRIPTION	MANUFACTURER	MODEL	LAMPS	MPS MIN. LUMENS COLOR WATTS		T VOLTAG	E BALLAST/DRIVER	MOUNTING		
ND PRISMATIC DIFFUSER	LITHONIA CPX	CPX-1X4-AL07-80CRI-SWW7-SWL-MVOLT	LED	3200,4000	3500K 33	UNIV	0-10V DIMMABLE DRIVER	RECESSED LAY-IN GRID	PROVIDE 90-MINUTE BATTERY BACK-UP AS REQUIRED. (E10WLCP) 3200LM FOR GLASS WASH ROOM 4.130, EQUIP GALLEY ROOM 4.116, TISSUE CULTURE ROOM 4.206, AND LAB WORKSPACE ROOMS 4.217B & 4.217C. 4000LM FOR NEUROSCIENCE OPEN LAB 4.217.	
TEEL HOUSING, BAKED WHITE ENAMEL	LITHONIA ZL1D	ZL1D-L48-3000LM-FST-MVOLT-35K-80CRI	LED	3000	3500K 30	UNIV	0-10V DIMMABLE DRIVER	CHAIN MOUNTED	PROVIDE WIRE GUARD.	
H RED LETTERS. CHEVRON ARROWS, PER THE ARCHITECTURAL LIFE SAFETY	LITHONIA LQM	LQM-S-W-3-R-MVOLT-ELN	LED	N/A	N/A 3	UNIV	LED DRIVER	(AS REQUIRED PER PLANS) PROVIDE 90-MINUTE BATTERY BACK-UP.	

1. WHERE RECEPTACLE CONTROL IS INDICATED, SENSOR SHALL TURN ON IMMEDIATELY AND OFF AT 20 MINUTES FOR INDICATED 50% OF RECEPTACLES IN SPACE, OR 25% OF CIRCUITS TO MODULAR FURNITURE (OPEN OFFICE) UNLESS INDICATED IN REMARKS TO BE CONTROLLED VIA TIMED OFF/ON FUNCTION. 2. WHERE MULTIPLE LIGHTING CIRCUITS (AND CONTROLLED RECEPTACLE CIRCUITS, IF ANY) ARE PRESENT IN THE SPACE, PROVIDE A RELAY/POWER PACK FOR EACH CIRCUIT. 3. WHERE MULTIPLE SENSORS ARE REQUIRED FOR PROPER SPACE COVERAGE, THEY SHALL BE INTERCONNECTED SUCH THAT ALL SENSORS CONTROL ALL ASSOCIATED LIGHTING. 4. WHERE AUTOMATIC DAYLIGHT CONTROL IS INDICATED. CONTROL SHALL REDUCE LIGHTING OUTPUT USING CONTINUOUS DIMMING FOR EVEN ILLUMINATION IN THE SPACE AT THE TARGET LIGHT LEVEL INDICATED. 5. TRANSFER DEVICE, WHERE INDICATED, TO BE INTERCONNECTED WITH EMERGENCY FIXTURES FOR OVERRIDE OF DIMMED OR 'OFF' CONTROL OF FIXTURES IMMEDIATELY UPON LOSS OF NORMAL POWER. 3. WHERE SENSOR TYPE INDICATED CANNOT BE APPLIED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS (I.E. DUE TO PROXIMITY TO AIR DIFFUSER, ETC.) SUBSTITUTE APPROPRIATE SENSOR TYPE. 7. CONTROL DESIGNATION LOCATION WITHIN SPACE INDICATES THE LOCATION(S) FOR THE ASSOCIATED MANUAL CONTROL DEVICE. SYMBOL MAY APPEAR ANYWHERE IN SPACE WHERE LOCAL CONTROLS ARE NOT REQUIRED. 8. WHERE BOTH DAYLIGHTING AND SENSOR CONTROL ARE INDICATED IN A SPACE, THE DAYLIGHTING CONTROL SHALL BE ACTIVATED ONLY WHEN THE 9. REMARKS COLUMN CODE REFERENCES: A=IECC-2018; B=IECC-2021; C=ASHRAE 90.1-2016; D=ASHRAE 90.1-2019.
 SENSOR TYPE
 SENSOR OPERATION
 MANUAL CONTROL
 DAYLIGHTING CONTROL
 INTEGRATION
 CONTROL SPACE TYPE DESIGNATION EQUIP GALLEY CLG MTD D2 TISSUE CULTURE VACANCY STAND-ALONE ON/OFF NO DT GLASS WASH NEUROSCIENCE OPEN LAB M5 N/A ON/OFF/10% DIMMING NO STAND-ALONE N/A LAB WORKSPACE U2 EQUIP ROOM N/A N/A NO STAND-ALONE ON/OFF

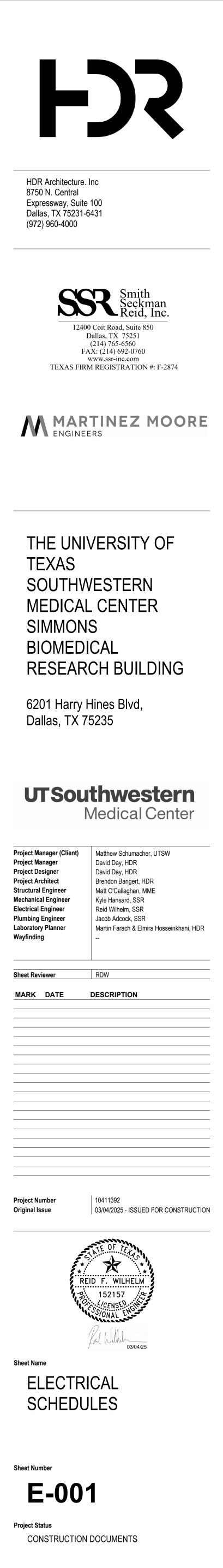
	MECHANICAL EQUIPMENT CONNECTION SCHEDULE													
GENERAL NOTES:	GENERAL NOTES: REMARKS:									ABBREVIATIONS:				
1. REFER TO MOTOR CONNECTION SCHEDULE IN THIS DRAWING SET WHEN ALPHA CHARACTERS (E.G. "AA") NONE. ARE USED IN DISCONNECT, WIRE SIZE, AND CONDUIT SIZE COLUMNS.									FDS = FUSED DISCONNECT SWITCH NFDS = NON-FUSED DISCONNECT SW CMSD = COMBINATION MOTOR START MMS = MANUAL MOTOR STARTER WIT	ER/DISCONNECT SWITCH	VFD = VARIABLE FREQUENCY DRIVE INT = INTEGRAL DISCONNECT CP = CONTROL PANEL TG = MOTOR RATED TOGGLE SWITCH			
TAG		VOLTAGE	PHASE		PANEL	СКТ.		DISCONNECT			REMARKS			
IAG	DESCRIPTION	VOLTAGE	PRASE	FLA	PANEL	CKI.	DISC. TYPE	AMP RATING	G WIRE SIZE	CONDUIT SIZE	REMARK5			
FCU-4-1	FAN COIL UNIT	208 V	1	3.65 A	LP 4.116	61,63	NFDS	30A/2P	2#12, 1#12G	3/4"				
FCU-4-2	FAN COIL UNIT	208 V	1	3.65 A	LP 4.116	62,64	NFDS	30A/2P	2#12, 1#12G	3/4"				

LIGHTING CONTROL SCHEDULE

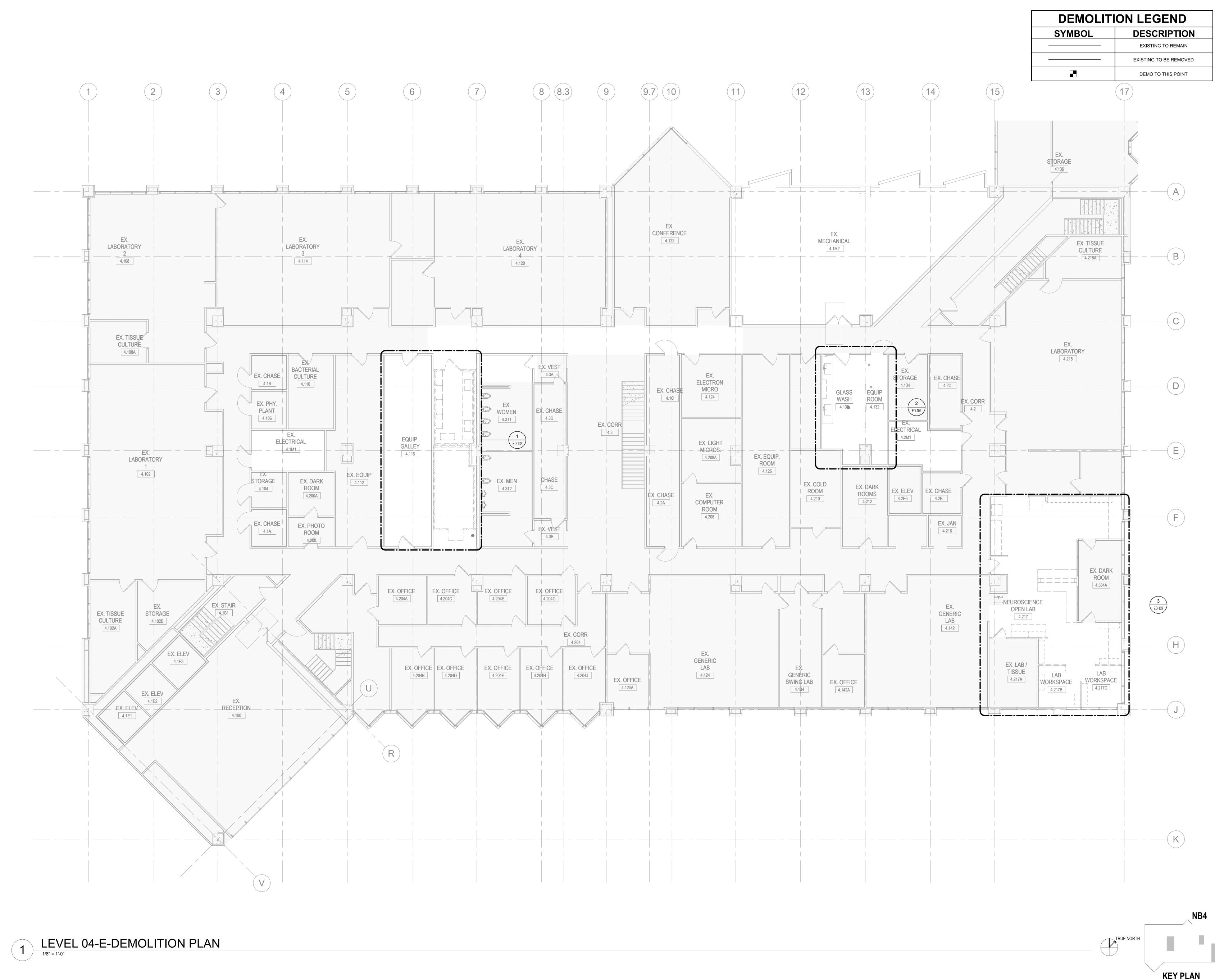
PPEAR ANYWHERE IN SPACE WHERE LOCAL CONTR	lO
HE SPACE IS OCCUPIED.	

ON	CONTROL STATION	RECEPTACLE CONTROL	UL924 TRANSFER DEVICE	TIMED CONTROL	COMMISSIONING SETTINGS
NE	LC4	NO	NO	NO	TIME SETTING FOR OFF CONTROL: 20 MINUTES AFTER VACANCY.
NE	LC2	NO	YES	NO	TRANSFER DEVICE IMMEDIATELY TURNS EMERGENCY LIGHTS FULL ON UPON LOSS OF NORMAL POWER.
NE	LC1	NO	NO	NO	N/A

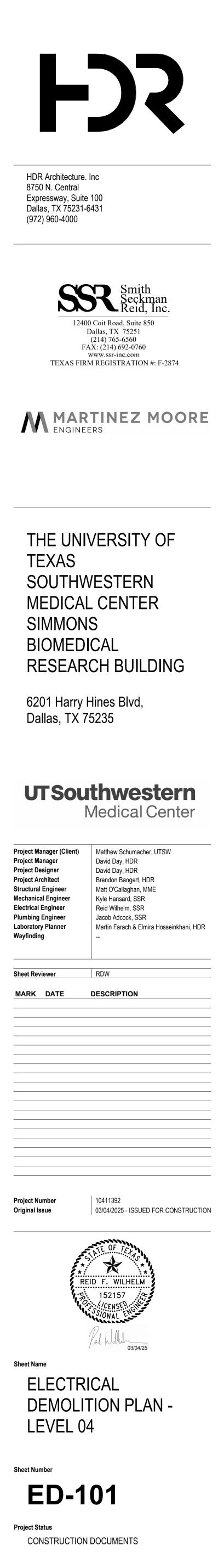
LIGHTING CONTROL STATION SCHEDULE						
DESIGNATION	CONTROL FUNCTION					
LC1	LINE VOLTAGE ON/OFF STANDARD WALL SWITCH(ES)					
LC2	SINGLE ZONE MANUAL ON/OFF AND CONTINUOUS DIMMING CONTROL VIA WALL MOUNTED, 2 BUTTON DIGITAL CONTROL SWITCH					
LC3	TWO ZONE MANUAL ON/OFF AND CONTINUOUS DIMMING CONTROL SWITCH VIA WALL MOUNTED, 2 BUTTON DIGITAL CONTROL SWITCH					
LC4	SINGLE ZONE MANUAL ON/OFF CONTROL VIA WALL MOUNTED DIGITAL CONTROL SWITCH					
LC5	TWO ZONE MANUAL ON/OFF CONTROL VIA WALL MOUNTED DIGITAL CONTROL SWITCH					
LC6	MULTI-ZONE MANUAL ON/OFF AND SCENE CONTROL AND DIMMING (SET TO RANGE OF 20% TO 80% OUPUT U.O.N.)					
LC7	SINGLE ZONE MANUAL ON/OFF CONTROL AND CONTINUOUS DIMMING INTEGRAL TO WALL SENSOR					
LC8	SINGLE ZONE MANUAL ON/OFF CONTROL INTEGRAL TO WALL SENSOR					
LC9	TWO ZONE MANUAL ON/OFF AND CONTINUOUS DIMMING CONTROL SWITCH VIA WALL MOUNTED, 2 BUTTON DIGITAL CONTROL SWITCH AT PRESENTER STATION WITH ADDITIONAL TWO BUTTON ON/OFF ENTRY STATIONS AT DOORS					
LC10	TOUCHSCREEN CONTROLLER					



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KEY PLAN 0 4' 8'





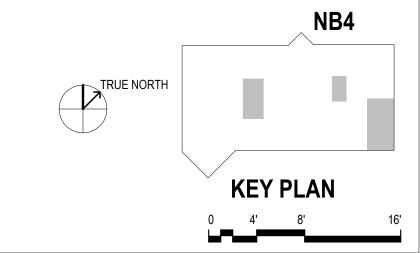
DEMOLITION LEGEND					
SYMBOL	DESCRIPTION				
	EXISTING TO REMAIN				
	EXISTING TO BE REMOVED				
	DEMO TO THIS POINT				

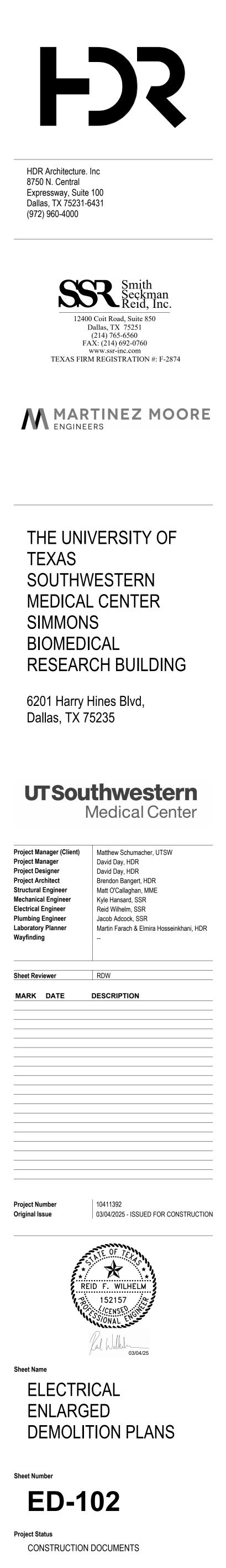
SHEET GENERAL NOTES

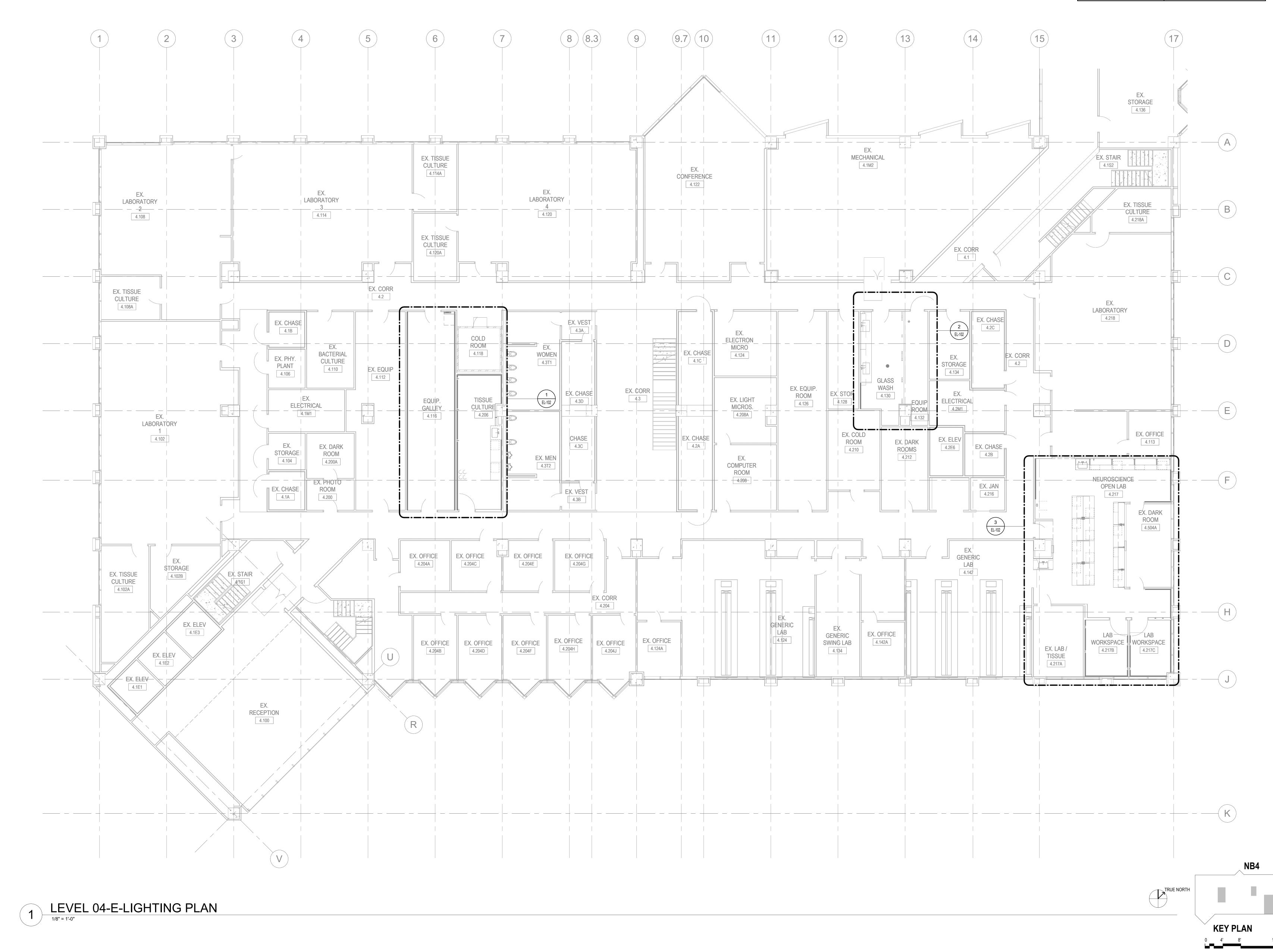
A. REFER TO SHEET E-000 FOR DEMOLITION NOTES.

SHEET KEYED NOTES

- 1. REMOVE AND SALVAGE PANEL LP 4.130. RETURN TO OWNER. RETAIN EXISTING FEEDER FOR REUSE. REFER TO RISER DIAGRAM ON E-601 FOR MORE INFORMATION. PROVIDE DEDUCTIVE ALTERNATE PRICING TO REUSE AND RELOCATE EXISTING PANEL LP 4.130. IF DEDUCTIVE ALTERNATE IS ACCEPTED, CONTRACTOR SHALL COORDINATE INSTALLATION AND DIMENSIONING WITH ARCHITECT AND EEOR TO ENSURE NEC CLEARANCES ARE MAINTAINED.
- 2. UNLESS OTHERWISE NOTED, DEMOLISH ALL LIGHT FIXTURES, LIGHTING CONTROL DEVICES, CONDUITS, WIRING, JUNCTION BOXES, AND ASSOCIATED MATERIALS BACK TO NEAREST JUNCTION BOX. CIRCUIT SHALL BE RE-USED IN NEW WORK.
- 3. UNLESS OTHERWISE NOTED, DEMOLISH ALL RECEPTACLES, DEVICES, CONDUITS, WIRING, JUNCTION BOXES, AND ASSOCIATED MATERIALS BACK TO NEAREST JUNCTION BOX (IF CIRCUIT SHALL BE RE-USED) OR BACK TO NEAREST SOURCE (IF CIRCUIT SHALL BE SPARE).
- 4. UNLESS OTHERWISE NOTED, DEMOLISH ALL FIRE ALARM DEVICE AND ASSOCIATED MATERIALS BACK TO NEAREST JUNCTION BOX.







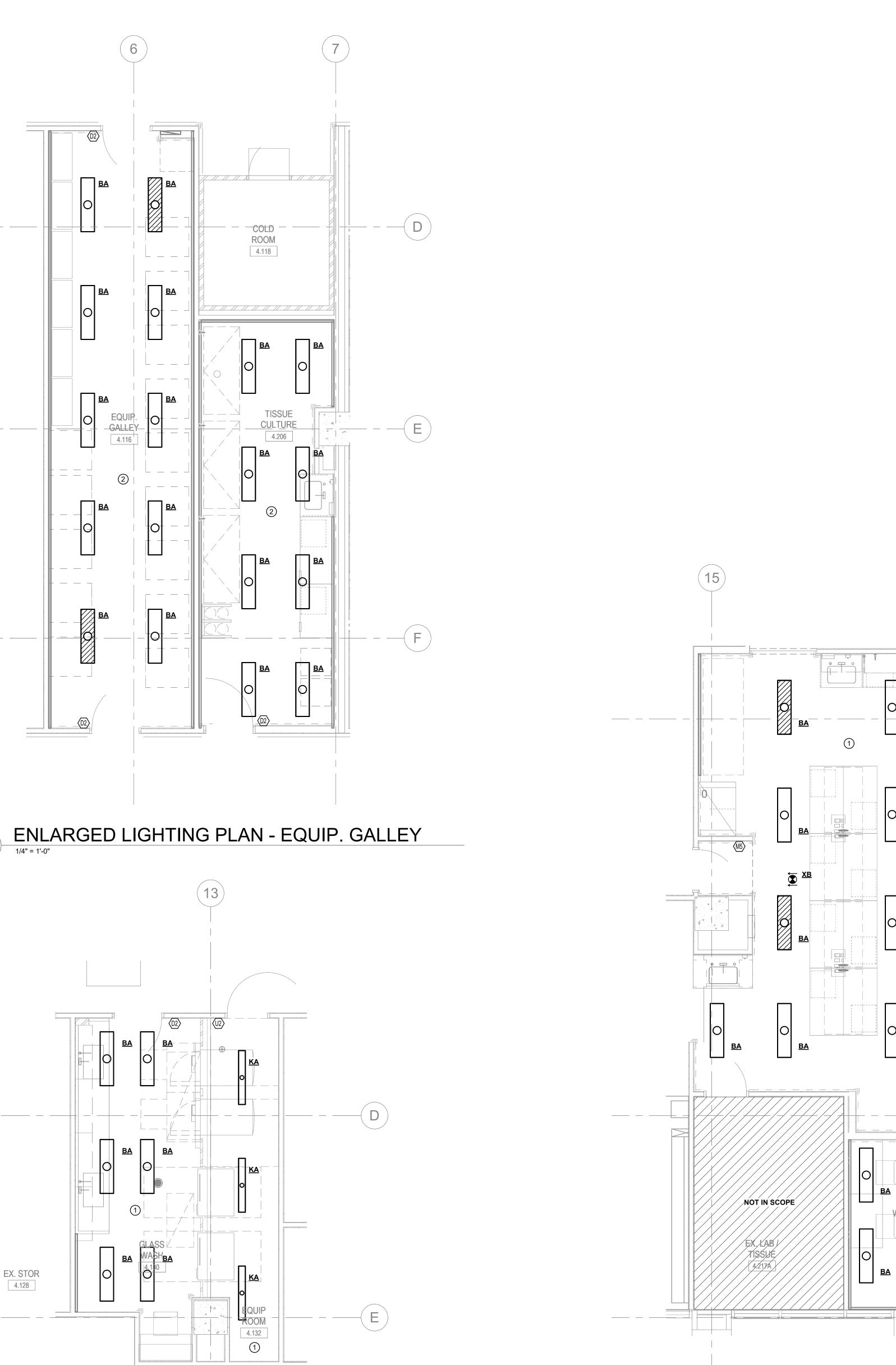
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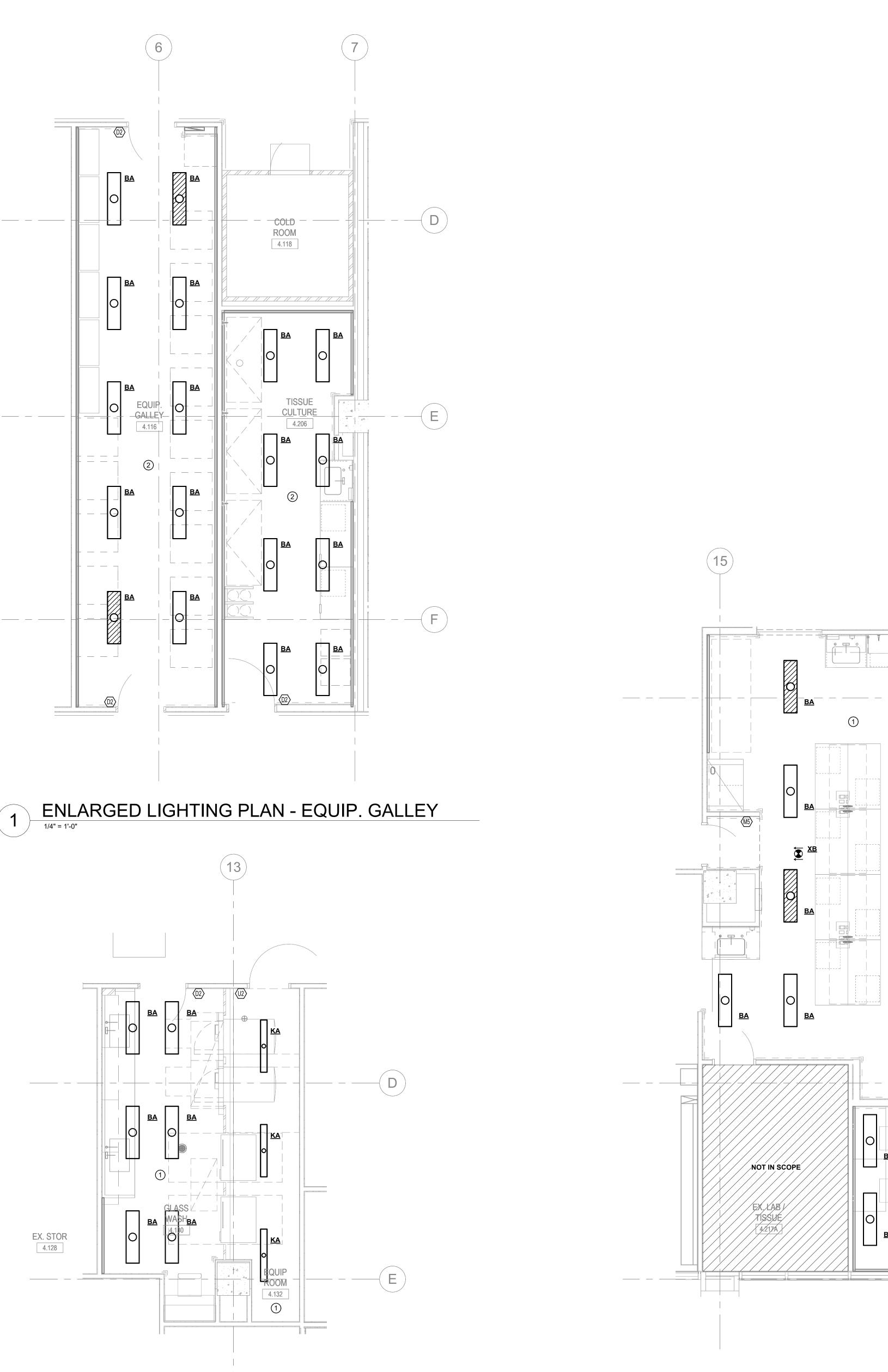
RENOVATION LEGEND				
SYMBOL	DESCRIPTION			
	EXISTING TO REMAIN			
	NEW CONSTRUCTION			
•	CONNECT TO EXISTING AT THIS POINT			

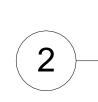




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ENLARGED LIGHTING PLAN - AUTOCLAVE RENOVATION



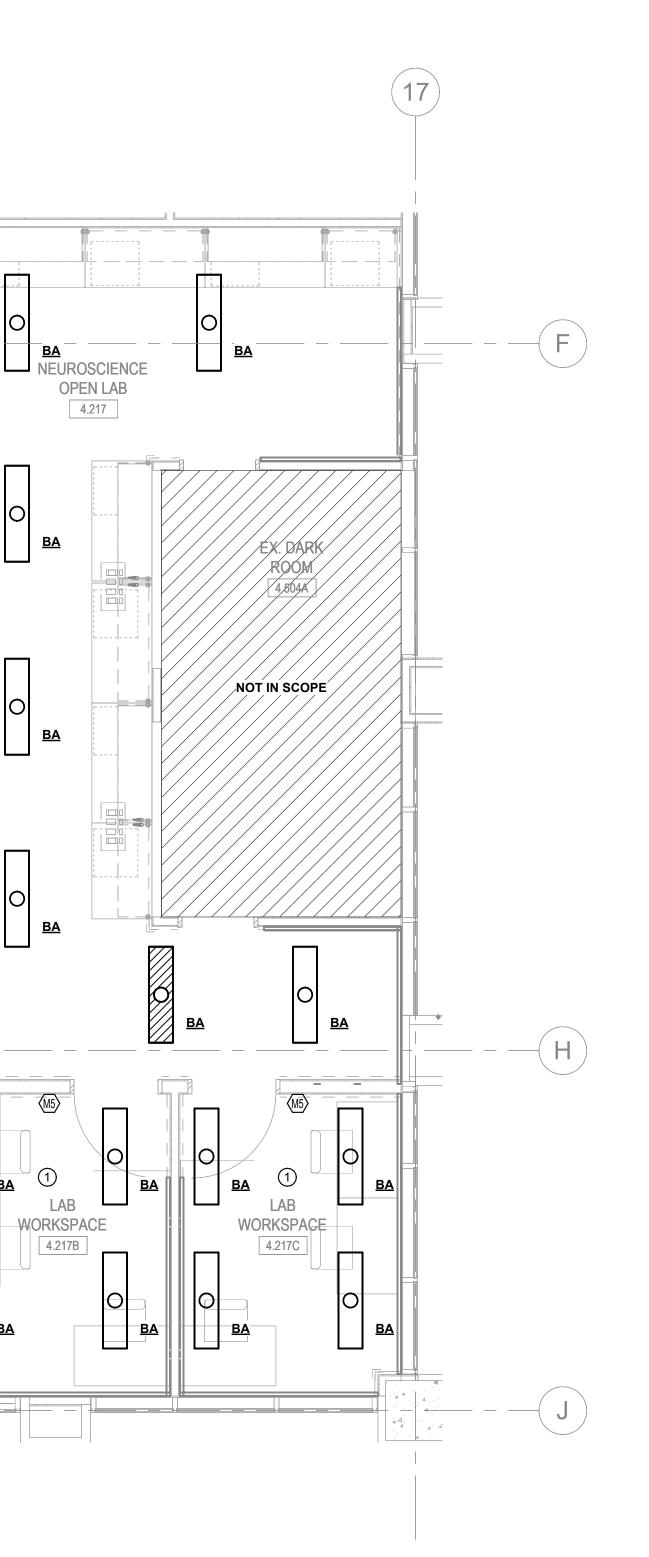
RENOVATION LEGEND				
SYMBOL	DESCRIPTION			
	EXISTING TO REMAIN			
	NEW CONSTRUCTION			
\bullet	CONNECT TO EXISTING AT THIS POINT			

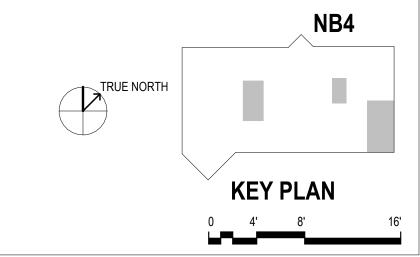
SHEET GENERAL NOTES

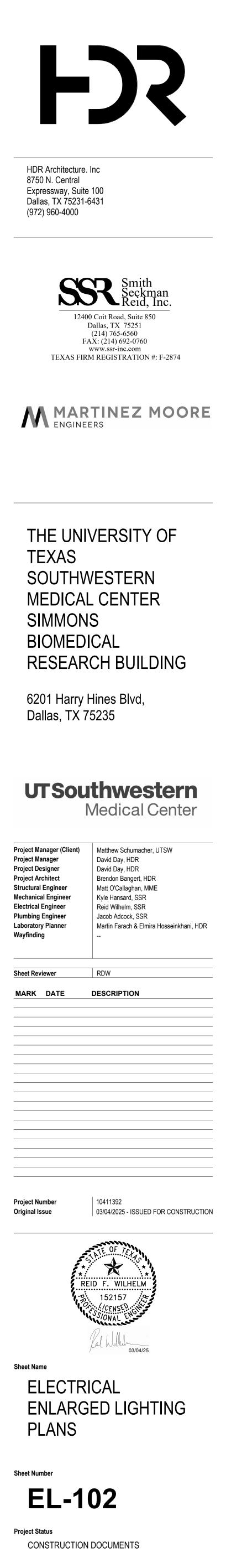
- A. REFER TO SHEET E-000 FOR LEGENDS AND ADDITIONAL GENERAL NOTES.
- B. REFER TO SHEET E-001 FOR LUMINAIRE SCHEDULE AND LIGHTING CONTROL SCHEDULE.
- C. VERIFY THE EXACT LOCATION OF LIGHT FIXTURES WITH THE ARCHITECTURAL REFLECTED CEILING PLAN.

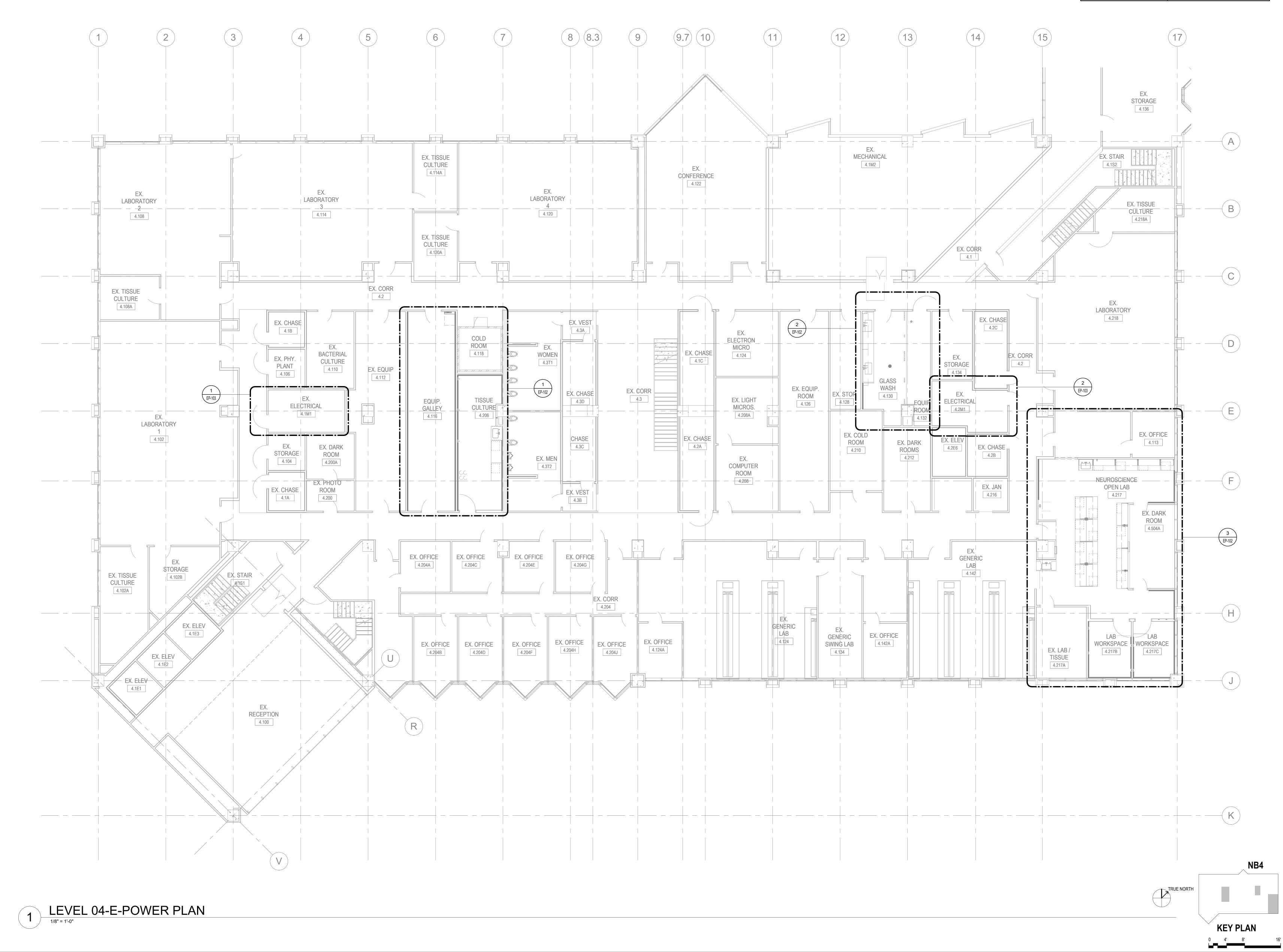
SHEET KEYED NOTES

- 1. CONNECT NEW LIGHT FIXTURES TO EXISTING 277V LIGHTING CIRCUIT IN THIS AREA. IF EXISTING CIRCUIT LOAD EXCEEDS 80% OF BREAKER RATING, PROVIDE NEW 20A/1P BREAKER AND FEED FROM NEXT AVAILABLE SPARE ON PANEL 4HA.
- 2. CONNECT NEW LIGHT FIXTURES TO EXISTING 277V LIGHTING CIRCUIT IN THIS AREA. IF EXISTING CIRCUIT LOAD EXCEEDS 80% OF BREAKER RATING, PROVIDE NEW 20A/1P BREAKER AND FEED FROM NEXT AVAILABLE SPARE ON PANEL 4HB.



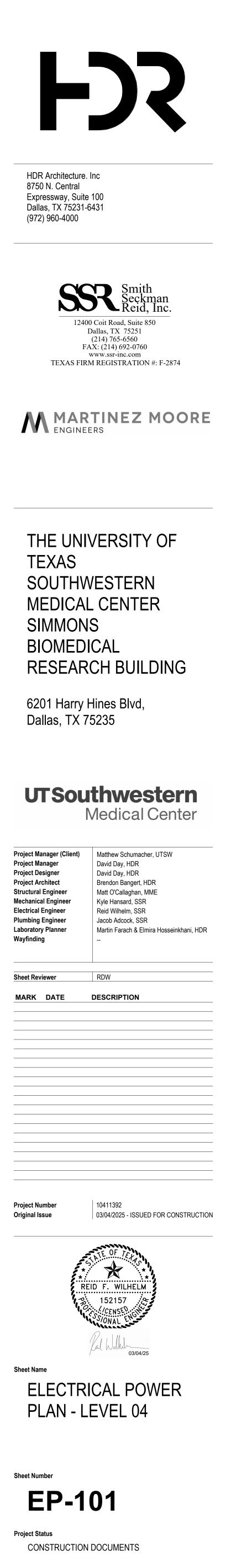






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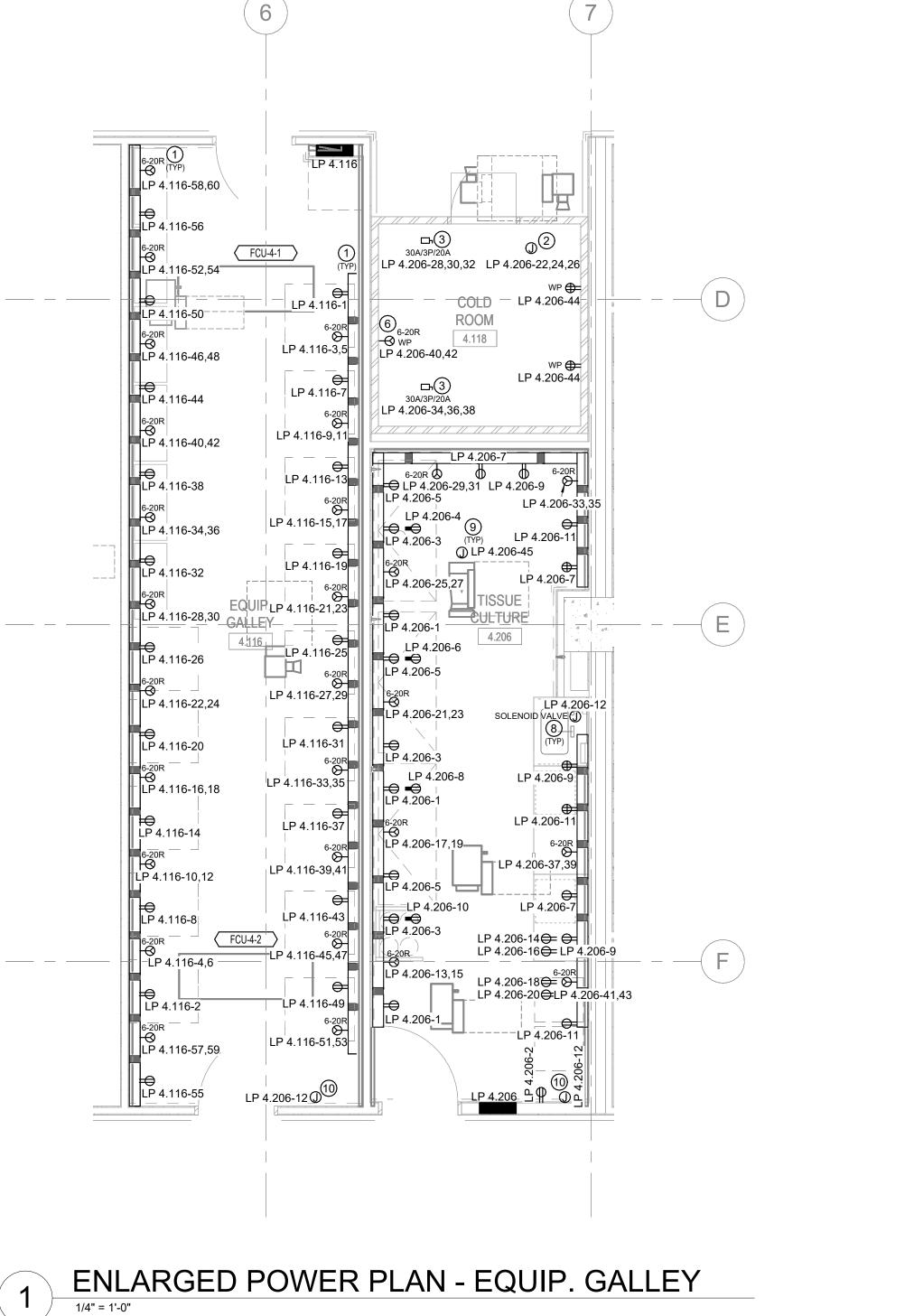
RENOVATION LEGEND				
SYMBOL	DESCRIPTION			
	EXISTING TO REMAIN			
	NEW CONSTRUCTION			
\bigcirc	CONNECT TO EXISTING AT THIS POINT			



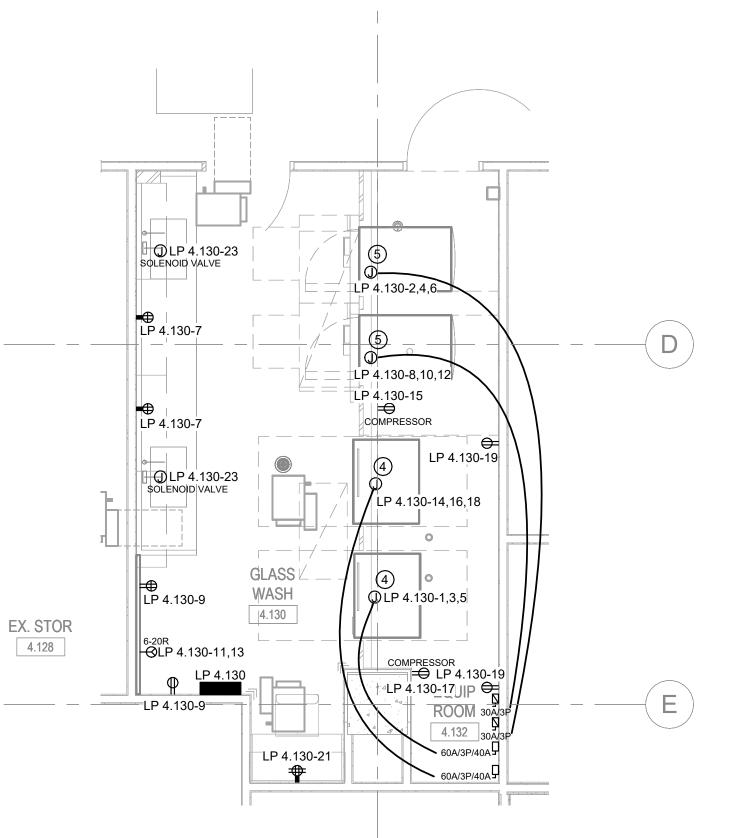


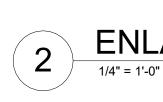




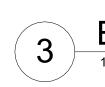


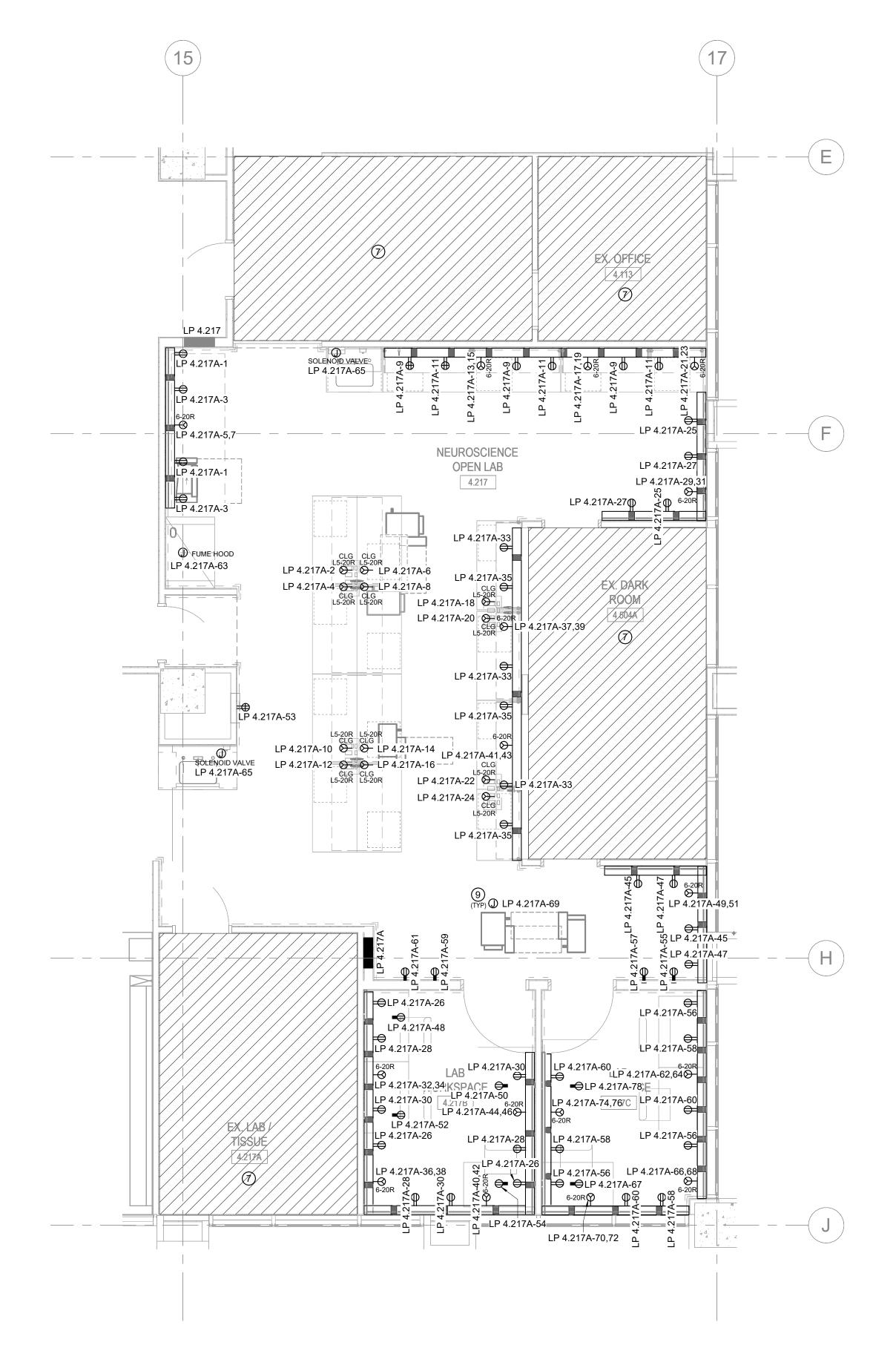
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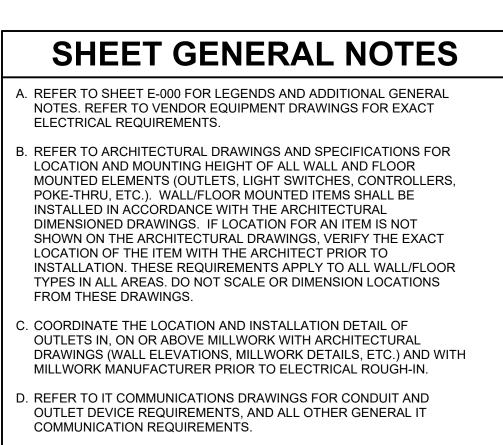








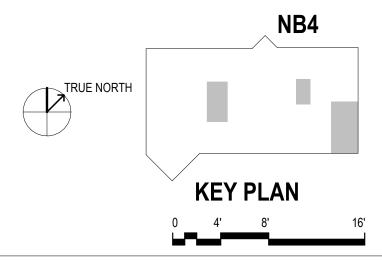
RENOVATION LEGEND				
SYMBOL DESCRIPTION				
EXISTING TO REMAIN				
NEW CONSTRUCTION				
CONNECT TO EXISTING AT THIS POINT				

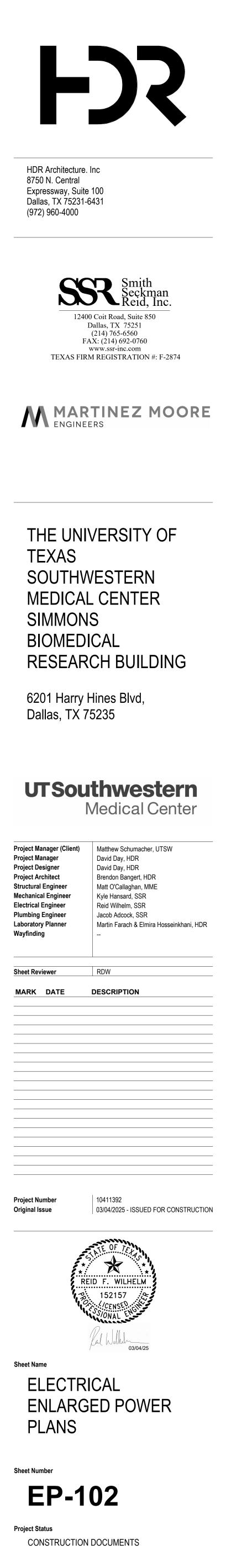


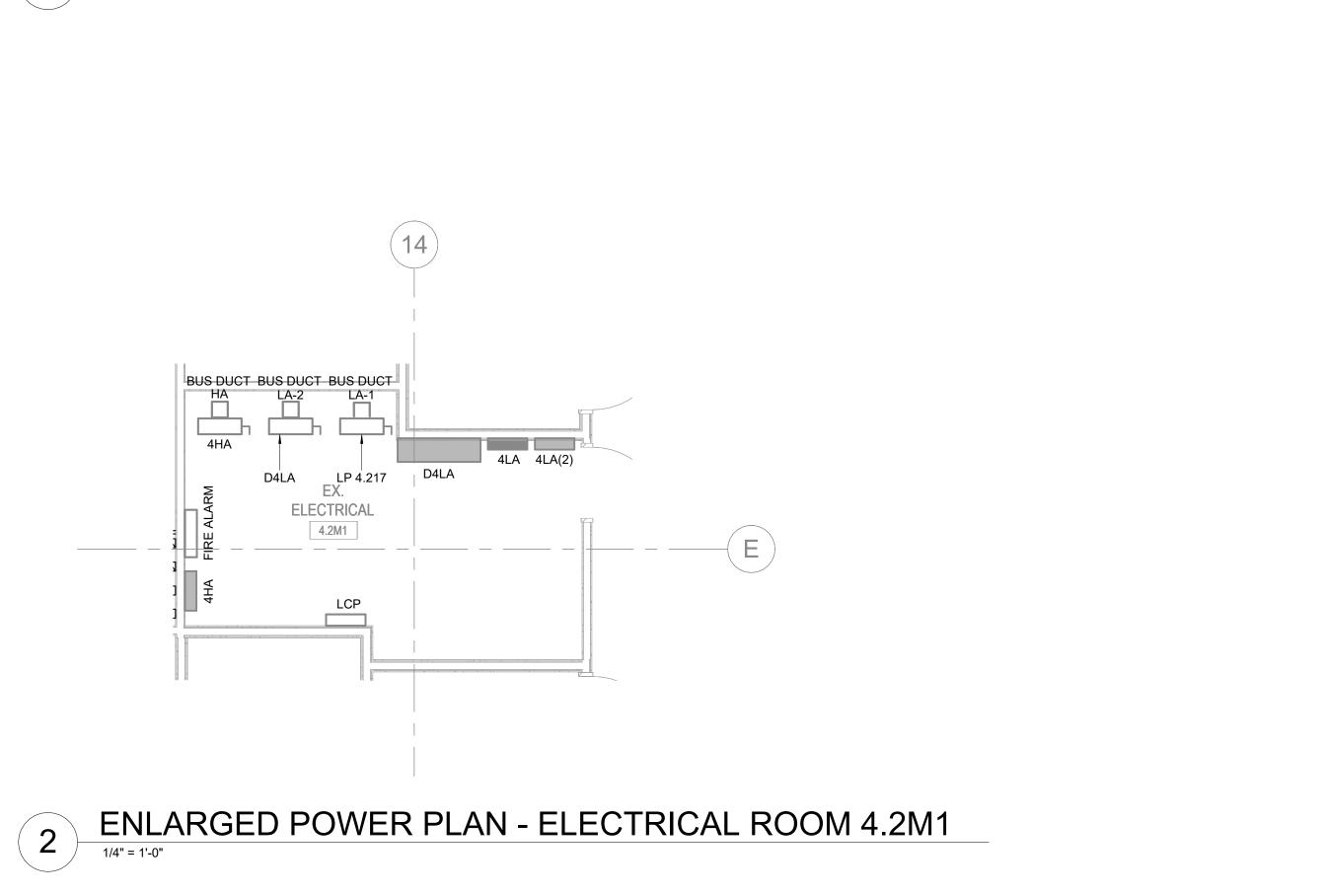
- E. ANY DEVIATION FROM SCHEDULED EQUIPMENT RESULTING IN ADDITIONAL COSTS DUE TO LACK OF COORDINATION WITH DIMENSIONS AND WEIGHTS WILL BE RESPONSIBILITY OF THE CONTRACTOR.
- COORDINATE EXACT LOCATIONS OF ALL MECHANICAL EQUIPMENT INCLUDING BUT NOT LIMITED TO FIRE/SMOKE DAMPERS, VAV BOXES, ETC. WITH MECHANICAL DRAWINGS AND DIVISION 23 CONTRACTOR.

SHEET KEYED NOTES

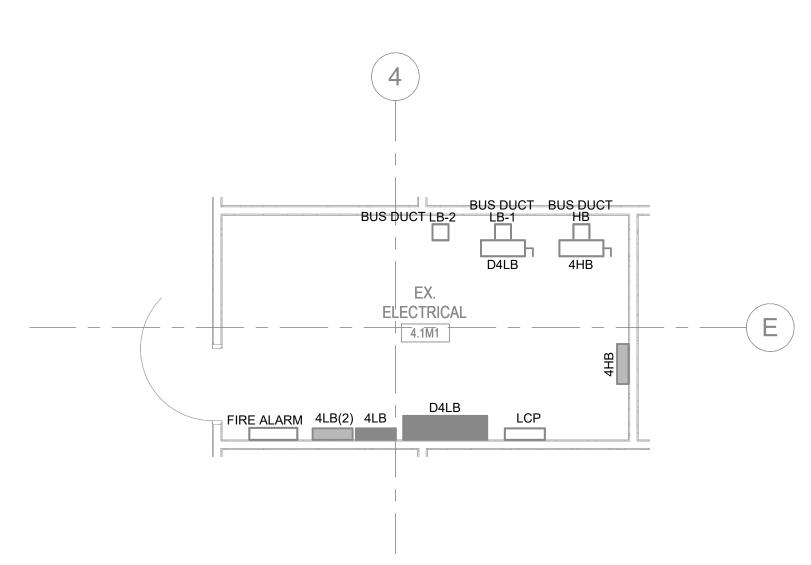
- . PROVIDE DUAL CHANNEL, SURFACE MOUNTED RACEWAY SYSTEM (LEGRAND WIREMOLD ALA4800). COORDINATE REQUIRED NUMBER OF DATA DEVICES WITH TECHNOLOGY PLANS. REFER TO POWER PLANS FOR RECEPTACLE QUANTITIES, TYPES, AND CIRCUTING. EXACT MOUNTING HEIGHT PER ARCHITECT. PROVIDE ALL COMPONENTS NECESSARY FOR A COMPLETE INSTALLATION. TYPICAL FOR ALL SURFACE MOUNTED RACEWAY.
- 2. PROVIDE 208V/3PH POWER WITH 4#12, 1#12G, 3/4"C FOR COLD ROOM CONTROL CONSOLE. COORDINATE EXACT ELECTRICAL REQUIREMENTS WITH COLD ROOM SHOP DRAWINGS PRIOR TO ROUGH-IN.
- 3. PROVIDE 208V/3PH POWER WITH 3#12, 1#12G, 3/4"C FOR COLD ROOM CONDENSING UNIT. COORDINATE EXACT ELECTRICAL REQUIREMENTS WITH COLD ROOM SHOP DRAWINGS PRIOR TO ROUGH-IN.
- 4. PROVIDE 208V/3PH POWER WITH 3#8, 1#10G, 1"C FOR LABORATORY GLASSWARE WASHER. COORDINATE EXACT ELECTRICAL REQUIREMENTS WITH VENDOR DRAWINGS PRIOR TO ROUGH-IN.
- 5. PROVIDE 208V/3PH POWER WITH 3#12, 1#12G, 3/4"C FOR STERILIZER. COORDINATE EXACT ELECTRICAL REQUIREMENTS WITH VENDOR DRAWINGS PRIOR TO ROUGH-IN. 6. PROVIDE GFCI CIRCUIT BREAKER.
- 7. CONTRACTOR SHALL PROVIDE CIRCUIT TRACING IN THIS ROOM PRIOR TO CONSTRUCTION. INCLUDE ALL ASSOCIATED COSTS IN THE BASE BID. RESULT OF CIRCUIT TRACING MAY IMPACT THE SIZE OF PANEL LP 4.217A. CONTRACTOR SHALL COORDINATE WITH EEOR AND ARCHITECT PRIOR TO ISSUING THE PANELBOARD SUBMITTAL.
- 8. CONNECT TO SOLENOID VALVE AS REQUIRED. PROVIDE ALL J-BOXES, LOW VOLTAGE TRANSFORMERS, WIRING, AND ALL NECESSARY COMPONENTS FOR A COMPLETE CONNECTION. TYPICAL.
- 9. CONTRACTOR TO PROVIDE COMPLETE CONNECTIONS WITH LOW VOLTAGE TRANSFORMER AND DISCONNECTS TO AIR TERMINAL UNITS AND AIR VALVES AS REQUIRED. SEE MECHANICAL PLANS FOR QUANTITY AND APPROXIMATE LOCATIONS. VERIFY EXACT LOCATION OF WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN. TYPICAL.
- 10. PROVIDE 120V POWER FOR GAS MONITOR. COORINDATE EXACT LOCATION AND POWER REQUIREMENTS WITH PLUMBING CONTRACTOR PRIOR TO ROUGH-IN.







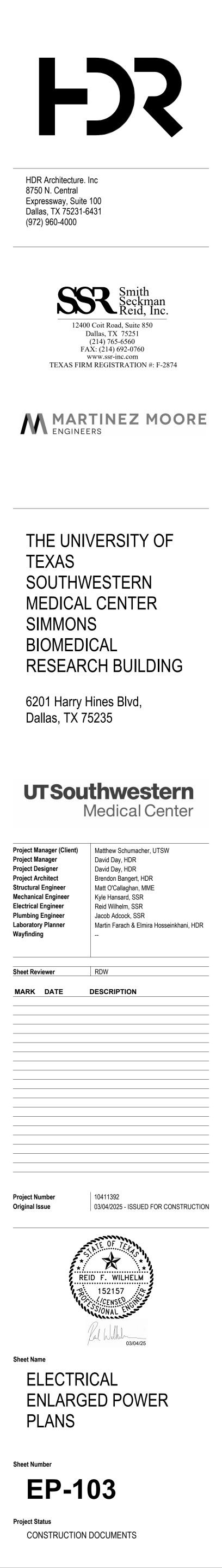


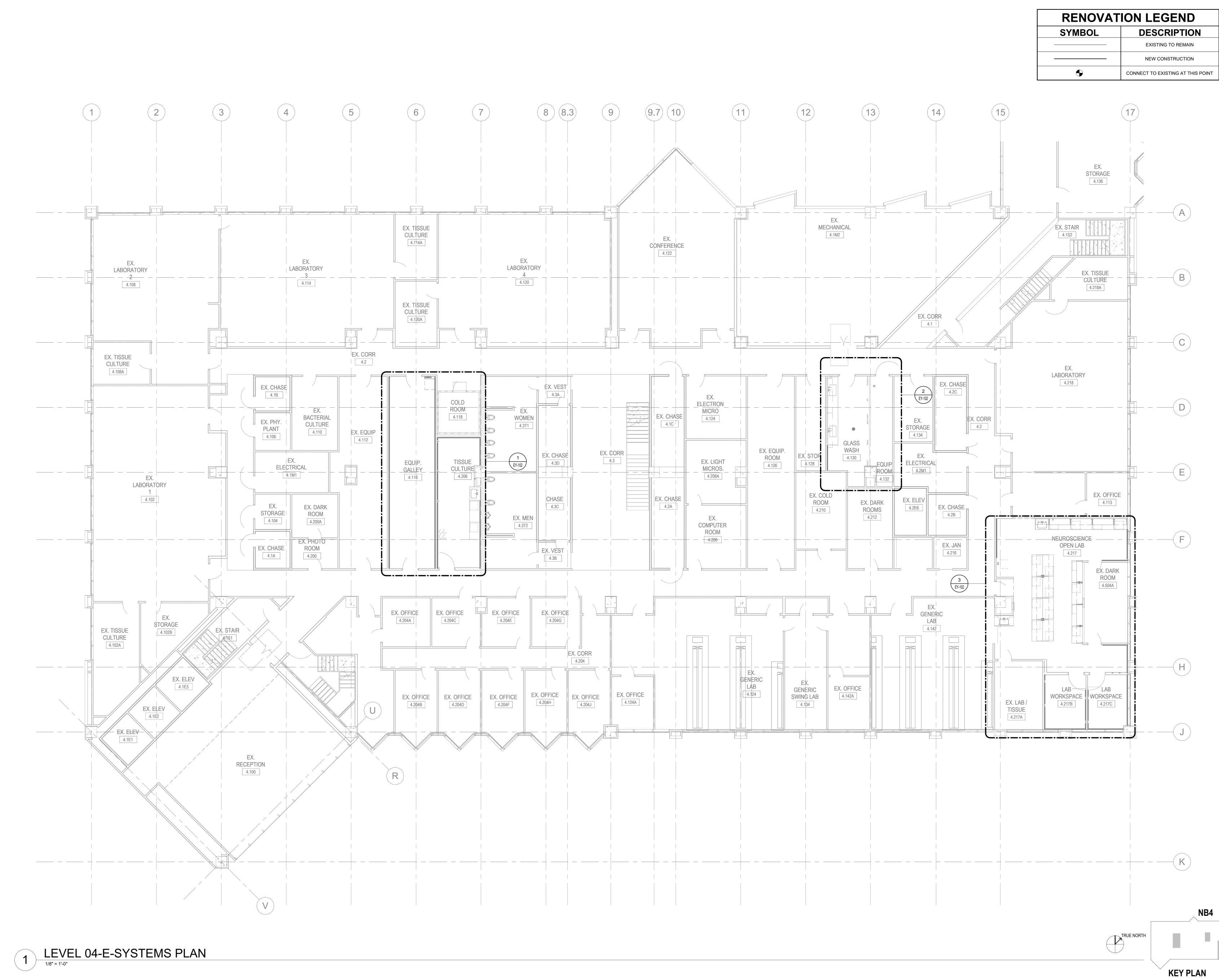


RENOVATION LEGEND					
SYMBOL	DESCRIPTION				
	EXISTING TO REMAIN				
	NEW CONSTRUCTION				
\bullet	CONNECT TO EXISTING AT THIS POINT				

SHEET GENERAL NOTES A. REFER TO SHEET E-000 FOR LEGENDS AND ADDITIONAL GENERAL NOTES. REFER TO VENDOR EQUIPMENT SCHEDULES FOR VENDOR EQUIPMENT CONNECTION INFORMATION. B. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR LOCATION AND MOUNTING HEIGHT OF ALL WALL AND FLOOR MOUNTED ELEMENTS (OUTLETS, LIGHT SWITCHES, CONTROLLERS, POKE-THRU, ETC.). WALL/FLOOR MOUNTED ITEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE ARCHITECTURAL DIMENSIONED DRAWINGS. IF LOCATION FOR AN ITEM IS NOT SHOWN ON THE ARCHITECTURAL DRAWINGS, VERIFY THE EXACT LOCATION OF THE ITEM WITH THE ARCHITECT PRIOR TO INSTALLATION. THESE REQUIREMENTS APPLY TO ALL WALL/FLOOR TYPES IN ALL AREAS. DO NOT SCALE OR DIMENSION LOCATIONS FROM THESE DRAWINGS. C. COORDINATE THE LOCATION AND INSTALLATION DETAIL OF OUTLETS IN, ON OR ABOVE MILLWORK WITH ARCHITECTURAL DRAWINGS (WALL ELEVATIONS, MILLWORK DETAILS, ETC.) AND WITH MILLWORK MANUFACTURER PRIOR TO ELECTRICAL ROUGH-IN. D. REFER TO IT COMMUNICATIONS DRAWINGS FOR CONDUIT AND OUTLET DEVICE REQUIREMENTS, AND ALL OTHER GENERAL IT COMMUNICATION REQUIREMENTS. E. ANY DEVIATION FROM SCHEDULED EQUIPMENT RESULTING IN ADDITIONAL COSTS DUE TO LACK OF COORDINATION WITH DIMENSIONS AND WEIGHTS WILL BE RESPONSIBILITY OF THE CONTRACTOR.

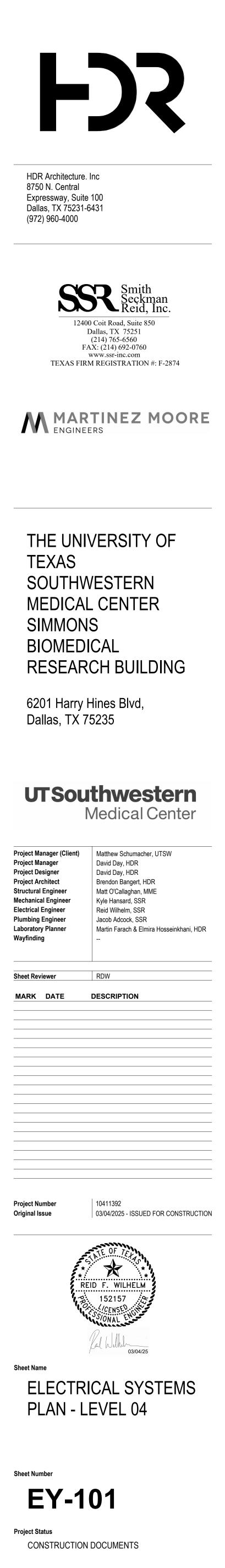
F. COORDINATE EXACT LOCATIONS OF ALL MECHANICAL EQUIPMENT INCLUDING BUT NOT LIMITED TO F/S DAMPERS, VAV BOXES, FCU'S ETC. WITH MECHANICAL DRAWINGS AND DIVISION 23 CONTRACTOR.



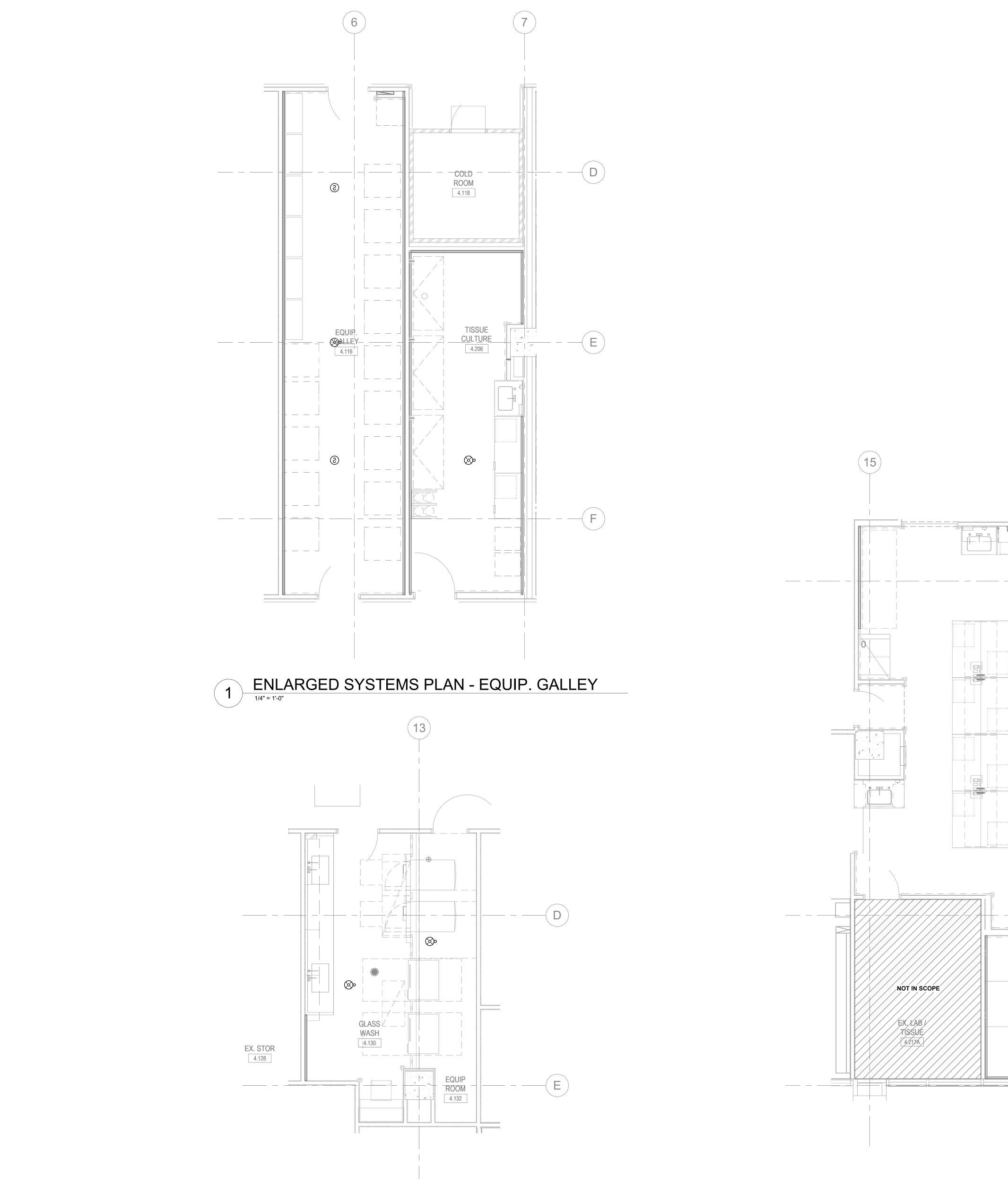


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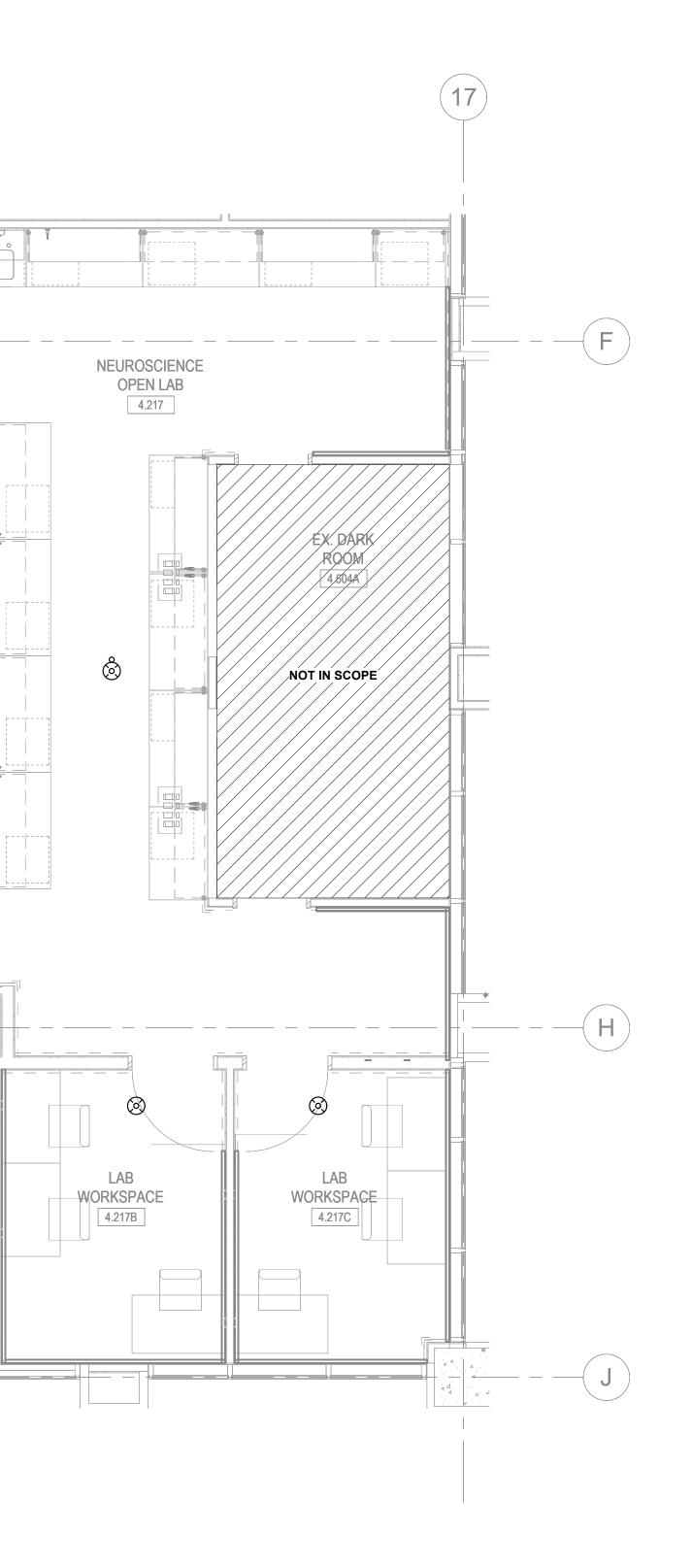
ENLARGED SYSTEMS PLAN - LAB RENOVATION

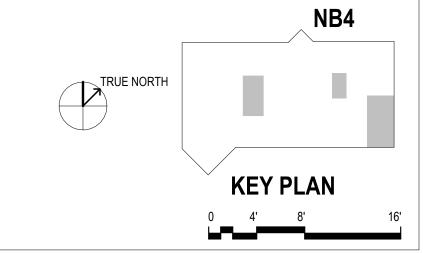
RENOVATION LEGEND					
SYMBOL	DESCRIPTION				
	EXISTING TO REMAIN				
	NEW CONSTRUCTION				
e	CONNECT TO EXISTING AT THIS POINT				

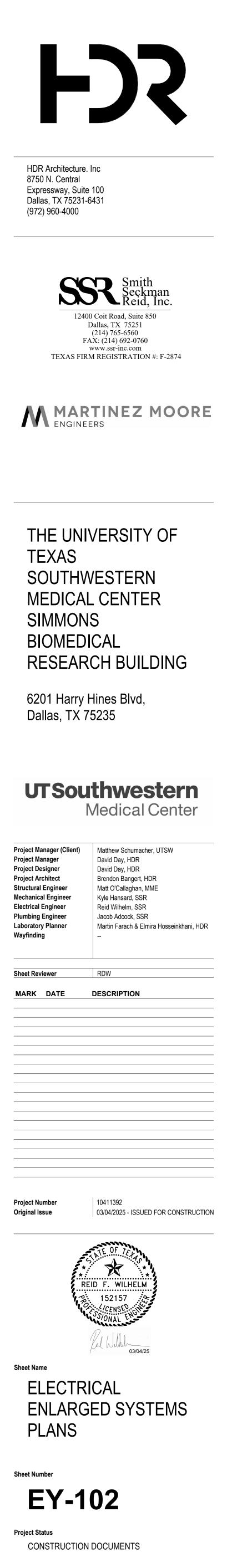
SHEET GENERAL NOTES

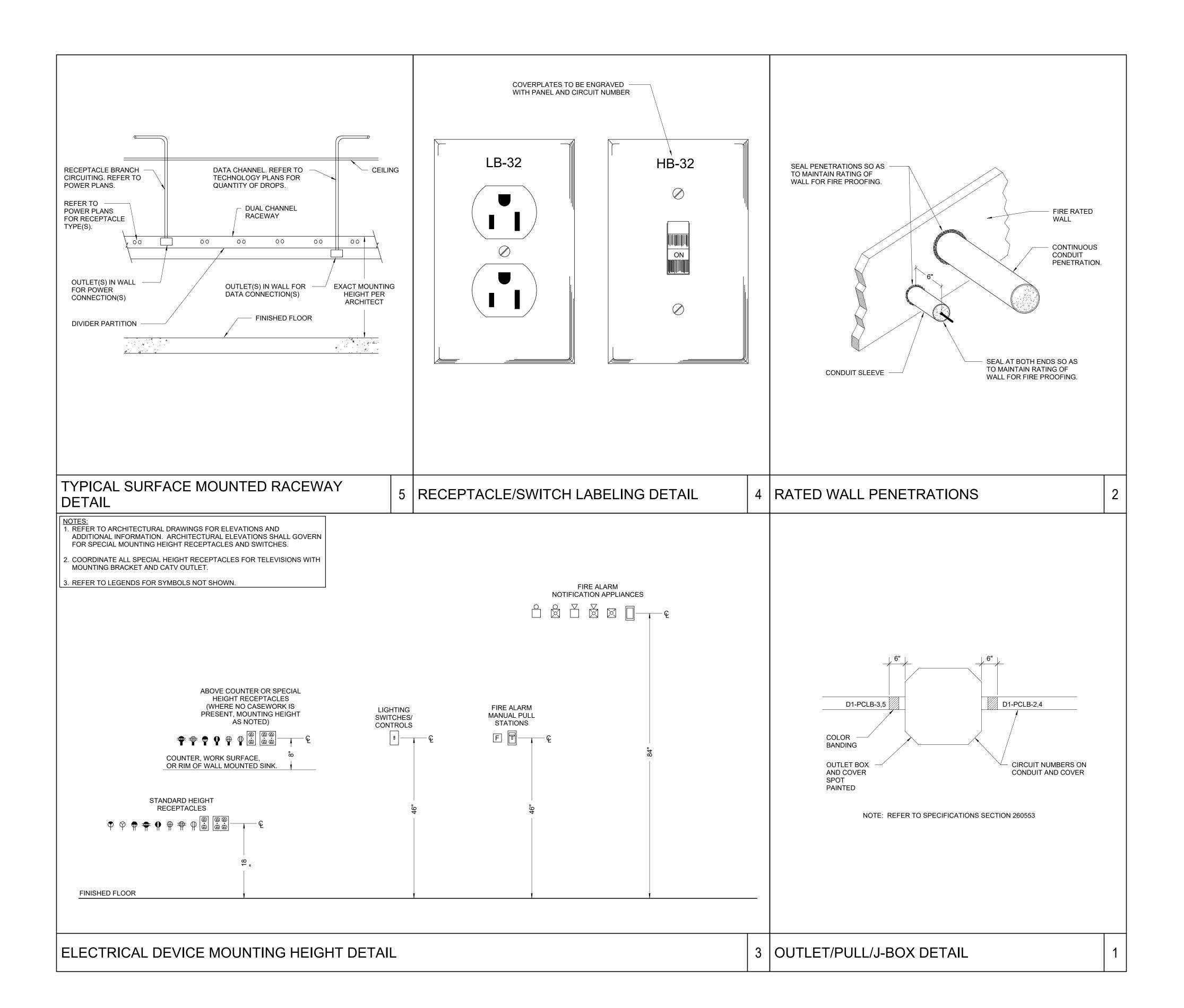
A. THE FIRE ALARM INITIATING DEVICES, NOTIFICATION DEVICES, CONTROL ANNUNCIATE PANELS AND OTHER PERIPHERAL DEVICES SHOWN ON THE DOCUMENTS DO NOT CONSTITUTE THE TOTAL QUANTITY AND/OR TYPE OF DEVICES REQUIRED FOR THE PROJECT. THE EQUIPMENT INDICATED ON THE DRAWINGS IS SHOWN FOR THE PURPOSE OF COORDINATION ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, LAYOUT AND INSTALLATION OF A COMPLETE SYSTEM IN ACCORDANCE WITH APPLICABLE CODES AND STANDARDS (INCLUDING THIRD PARTY LIFE SAFETY REPORTS), AND WITH THE LOCAL AUTHORITY HAVING JURISDICTION. THE SYSTEM DRAWING SHALL BE DESIGNED AND SEALED BY NICET LEVEL III CERTIFIED DESIGNER.

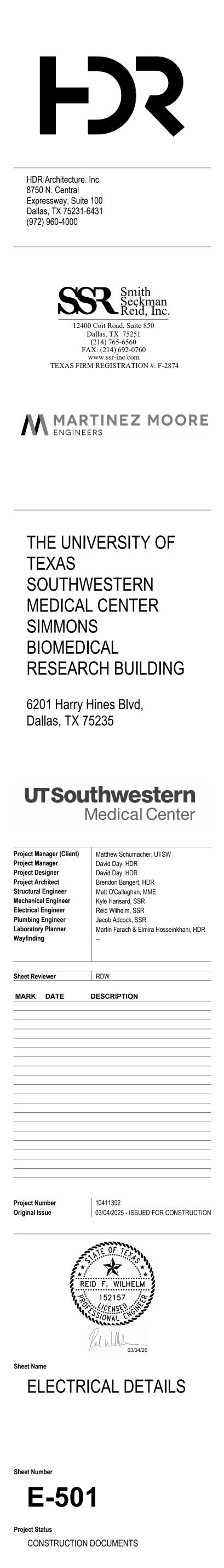
B. REFERANCE ARCHITECTURAL PLANS, DETAILS, ELEVATIONS FOR EXACT MOUNTING HEIGHTS.

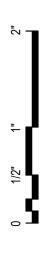




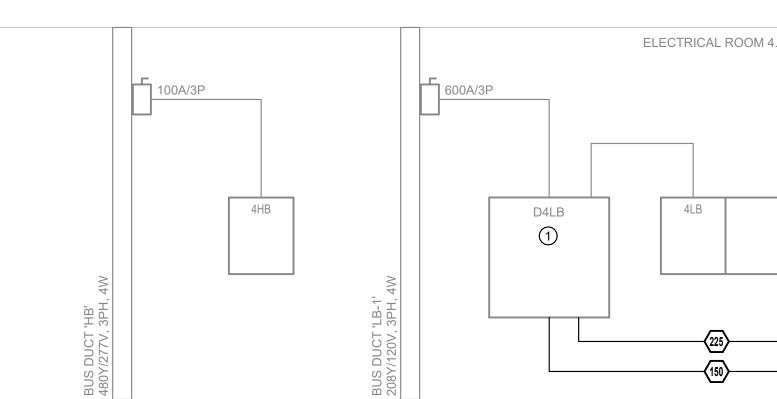












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NOTES:								
1. "AMPS" COLUN								
2. SUBSCRIPT "G								
3. SUBSCRIPT "N								
4. SUBSCRIPT "C								
5. SUBSCRIPT "R								
6. SUBSCRIPT "S								
7. SUBSCRIPT "T	-	-						
8. SUBSCRIPT "V								
9. REFER TO SPE								
AMPS	SETS	PH						
100	1	(1)						
150	1	3‡						
225	1	3‡						

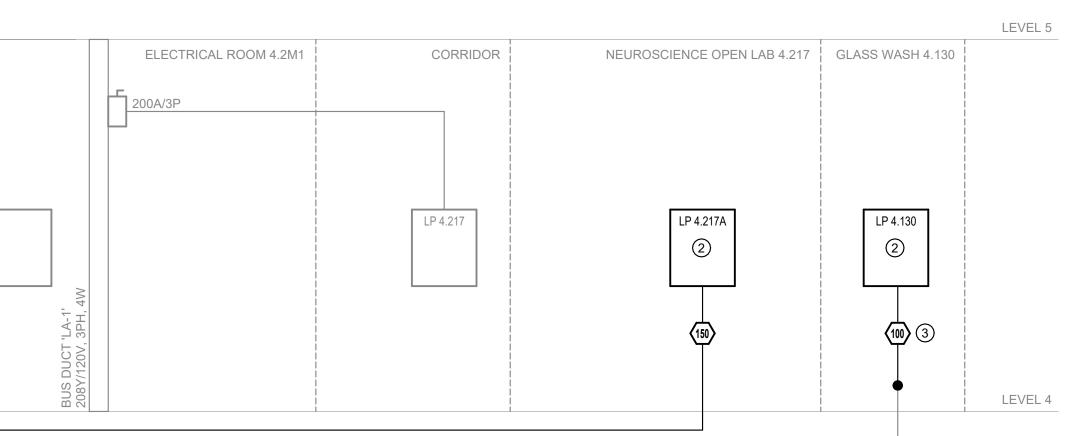
DM 4.1M1	EQUIP GALLEY 4.116 (2)	ISSUE CULTURE 4.206 (2)	BUS DUCT 'HA' 480Y/277V, 3PH, 4W	4HA	BUS DUCT 'LA-2' 208Y/120V, 3PH, 4W	D4L4	4LA

600 VOLT FEEDER SCHEDULE COPPER ONLY

RENT PROTECTION DEVICE AHEAD OF FEEDER.	

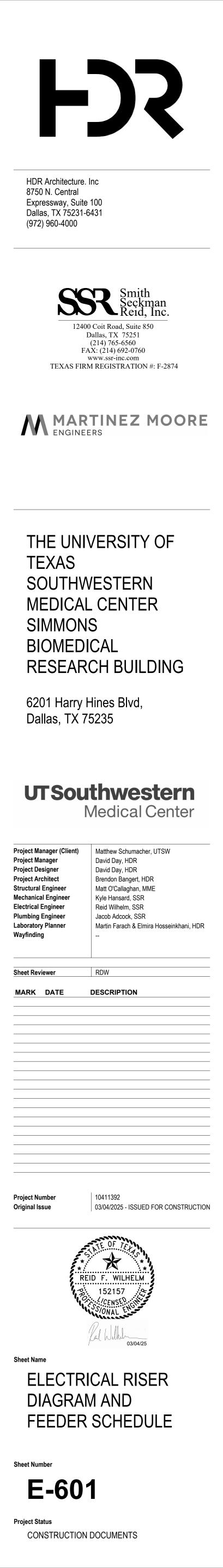
WITHOUT A Gr	KUUND.			
VITHOUT A NE	EUTRAL.			
VITH OVERSIZ	ZED CONDUIT.			
GY FEEDER. F	PROVIDE EQUIPMENT G	ROUNDING CONDUCT	FOR SAME SIZE AS PHASE CONDUC	TOR AND OVERSIZED CONDUIT INDICATED IN SCHEDU
NDUIT, SIZE A	ND QUANTITY EQUAL T	O "AMPS" INDICATED,	LESS CABLE. SUBSCRIPTS APPLY	AS NOTED.
ZED FEEDER D	DUE TO HIGH TEMPERA	TURE. INCREASE EQU	JIPMENT GROUNDING CONDUCTOR	SIZE PER REQUIREMENTS OF 250.122(B).
ZED FEEDER [DUE TO VOLTAGE DROF	P. INCREASE EQUIPME	ENT GROUNDING CONDUCTOR SIZE	PER REQUIREMENTS OF 250.122(B).
DUCTOR MAT	ERIAL.			
		600 VOLT COPPER C	ONDUCTORS	
HASE	NEUTRAL	GROUND	CONDUIT	OVERSIZED
3#1	1#1	1#6	1-1/2"	2"
3#1/0	1#1/0	1#6	1-1/2"	2"
3#4/0	1#4/0	1#4	2-1/2"	3"

ENERAL NOTES:				
SCHEDULE IS BASED O REFER TO SPECIFICAT CONDUIT SIZING IS BAS	IN COPPER CONDUCTORS. RE	FER TO SPECIFICATIONS FOR ONDUCTOR SIZING FOR VOLT NGLE OR THREE PHASE. REF	TAGE DROP. ER TO SPECIFICATIONS FOR A	
BREAKER AMPS	PHASE CONDUCTORS	NEUTRAL CONDUCTOR	EQUIPMENT GROUNDING CONDUCTOR	CONDUIT
15	#12 AWG	#12 AWG	#12 AWG	3/4"
20	#12 AWG	#12 AWG	#12 AWG	3/4"
30	#10 AWG	#10 AWG	#10 AWG	3/4"
40	#8 AWG	#8 AWG	#10 AWG	3/4"
50	#6 AWG	#6 AWG	#10 AWG	1"
60	#4 AWG	#4 AWG	#10 AWG	1"
70	#4 AWG	#4 AWG	#8 AWG	1 1/4"
80	#3 AWG	#3 AWG	#8 AWG	1 1/4"
90	#2 AWG	#2 AWG	#8 AWG	1 1/4"
100	#1 AWG	#1 AWG	#6 AWG	1 1/2"
110	#1 AWG	#1 AWG	#6 AWG	1 1/2"
125	#1 AWG	#1 AWG	#6 AWG	1 1/2"
150	#1/0 AWG	#1/0 AWG	#6 AWG	1 1/2"
175	#2/0 AWG	#2/0 AWG	#6 AWG	2"
200	#3/0 AWG	#3/0 AWG	#6 AWG	2"
225	#4/0 AWG	#4/0 AWG	#4 AWG	2 1/2"



⊗ SHEET KEYED NOTES

- 1. PROVIDE NEW CIRCUIT BREAKER(S) TO FEED NEW PANEL(S). CIRCUIT BREAKER TYPE AND MANUFACTURER SHALL MATCH EXISTING. AIC AND WITHSTAND RATINGS SHALL MATCH EXISTING OCPD RATINGS OR DISTRIBUTION EQUIPMENT WITHSTAND RATINGS -WHICHEVER IS HIGHER.
- 2. NEW PANEL TYPE AND MANUFACTURER SHALL MATCH EXISTING DISTRIBUTION. TYPICAL.
- 3. INTERCEPT AND EXTEND EXISTING 100A FEEDER TO NEW PANEL LP 4.130. IF EXISTING FEEDER DOES NOT MATCH THE FEEDER SCHEDULE ON THE CONSTRUCTION DOCUMENTS, PROVIDE NEW FEEDER FROM EXISTING DISTRIBUTION PANEL D4LA TO NEW PANEL LP 4.130.



Notes:	Location: ELECTRICAL 4.3 Supply From: LA-2 Mounting: SURFACE Enclosure: NEMA 1	2M1		Feed	Ph ۱	Volts: 120/2 nases: 3 Wires: 4 Lugs: No	:08 W	'ye		Ma Bi	C. Rating: ains Type: us Rating: CB Rating:	MLO 600 A			
СКТ	Circuit D	escriptio	on			# of Pole)s	Trip R 150		Lo	ad (VA)	Rema	ırks		
2 3 4	LP 4.218 LP 4.208 LP 4.130					3 3 3		200 200 100) A		0 0 27274				
5 6 7	LP 4.126 LP 4.124					3 3 3		200 100) A) A		0				
7 8 9	COLD ROOM 4.210 COLD ROOM CU NB 4.610					3 3 3		40 30 225	А		0 0 0				
10 11 12	LP 4.215 EXISTING LP 4.214					3 3 3		225 225 225	5 A		0 0 0 0				
13 14	LP 4.217A SPACE					3		150) A	65	38584 5858 VA		[1]		
Load Cl Rec	lassification	Co	onnected 39972 \			and Factor 62.51%	-	mand L 24986 V			183 A	Panel	Totals		
Misc.			25886 \	/A	1	00.00%		25886 V		Tota		mand: urrent:			
Notes: [1] PRO	VIDE NEW CIRCUIT BREAKE	۲.													D4LA LOA EXISTING EXISTING
	NG PANEL Name: D4LB Location: ELECTRICAL 4. Supply From: LA-2 Mounting: SURFACE Enclosure: NEMA 1	M1		Feed	Ph ۱	Volts: 120/2 nases: 3 Wires: 4 Lugs: No	208 W	/ye		Ma Bi	C. Rating: ains Type: us Rating: CB Rating:	MLO 600 A			NEW LOAD
скт	Circuit D	escriptio	on			# of Pole	s	Trip R		Lo	ad (VA)	Rema	ırks		
1 2 3	4LB LP 4.102 LP 4.102A					3 3 3		150 200 100) A		0 0 0				
4 5	LP 4.108 LP 4.114A					3 3		200 200) A		0 0				
6 7	LP 4.120 LP 4.110					3		200) A		0				
8 9 10	LP 4.112 LP 4.206 SPARE					3 3 3		200 150 30) A		0 38746 0		[1]		
11 12	SPARE SPARE					3 3		40 30	A A		0 0				
13 14 15	EXISTING LP 4.116 SPACE					3		225 225			0 40878				
15 16 17 18	SPACE SPACE SPACE SPACE					1 3 3 3			-		 				
Load Cl	lassification	Co	onnected	Load	Dem	and Factor	De	mand L	oad		9624 VA 221 A	Panel	Totals		
Eq Rec			5764 V 64620 \	'A VA	1	00.00% 57.74%	;	5764 V/ 37310 V	A A	Тс	otal Conn.	Load:	79624 VA		
Motor Misc.			1518 V 7722 V			12.50% 00.00%	-	1708 VA 7722 VA			Total De I Conn. Cu Demand Cu	urrent:			
Notes: [1] PRO	IVIDE NEW CIRCUIT BREAKE	٩.			Pł	Volts: 120/2 nases: 3 Wires: 4	208 W	/ye		Ma Bi	C. Rating: ains Type: us Rating: CB Rating:	MCB 225 A			D4LB LOAI EXISTING I EXISTING I LOAD ADD NEW LOAD
s	Name: LP 4.116 Location: EQUIP. GALLEY Supply From: D4LB Mounting: RECESSED Enclosure: NEMA 1 Notes:	4.116		Feed		Lugs: Yes							uit Decemination	СКТ	
CKT 1 RI	Location: EQUIP. GALLEY Supply From: D4LB Mounting: RECESSED Enclosure: NEMA 1 Notes: Circuit Description Notes EC FREEZER RM 4.116	tes Tri 20			Thru	B		C	Poles 1 2	20		C FRE	uit Description EZER RM 4.116 EZER RM 4.116	2	
CKT 1 RI 3 RI 5 7 RI	Location: EQUIP. GALLEY Supply From: D4LB Mounting: RECESSED Enclosure: NEMA 1 Notes: Circuit Description Notes EC FREEZER RM 4.116 EC FREEZER RM 4.116	tes Tri 20 20 20) 1) 2) 1	A	Thru	B 1248 1248	1248		1 2 1	20 20 20	RE RE RE	C FRE	EZER RM 4.116 EZER RM 4.116 EZER RM 4.116	4 6 8	
CKT 1 RI 3 RI 5 7 RI 9 RI 11 13 RI 15 RI	Location: EQUIP. GALLEY Supply From: D4LB Mounting: RECESSED Enclosure: NEMA 1 Notes: Circuit Description Notest EC FREEZER RM 4.116 EC FREEZER RM 4.116 EC FREEZER RM 4.116 EC FREEZER RM 4.116 EC FREEZER RM 4.116	tes Tri 20 20) 1) 2) 1) 2) 2) 2) 1) 2	0	Thru 0	B	1248	0	1 2 	20 20 	RE RE RE RE	C FRE C FRE C FRE C FRE	EZER RM 4.116 EZER RM 4.116	4 6 8 10 12 14 16	
CKT 1 RI 3 RI 5 7 RI 9 RI 11 13 RI 15 RI 15 RI 17 19 RI 21 RI 23	Location: EQUIP. GALLEY Supply From: D4LB Mounting: RECESSED Enclosure: NEMA 1 Notes: Circuit Description NC EC FREEZER RM 4.116 EC FREEZER RM 4.116	tes Tri 20 20 20 20 20 20 20 20 20 20 20 20) 1) 2) 1) 2) 1) 2) 1) 2) 1) 2) 1) 2	0 1440 0 0 1440	Thru 0 1440 0 1440	B 1248 1248 0 0 0 0 0 0	1248	0	1 2 1 2 1 2 1 2 1 2 	20 20 20 20 20 20 20 20 20 	RE RE RE RE RE RE RE RE RE RE	C FRE C FRE C FRE C FRE C FRE C FRE C FRE C FRE	EZER RM 4.116 EZER RM 4.116	4 6 8 10 12 14 16 18 20 22 24	
CKT 1 RI 3 RI 5 7 RI 9 RI 11 13 RI 15 RI 17 19 RI 21 RI 23 25 RI 27 RI 29	Location: EQUIP. GALLEY Supply From: D4LB Mounting: RECESSED Enclosure: NEMA 1 Notes: Circuit Description Notes: Circuit Description Notes: CFREEZER RM 4.116 EC FREEZER RM 4.116	tes Tri 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20) 1) 2)) 2)) 2)) 1) 2)) 1) 2)) 1) 2)) 2)) 2)) 2)) 2)) 2	0 0 1440 0	Thru 0 1440 0	B 1248 1248 1248 1248 0 0 1248 1248 1248 1248 1248 1248	0	1248 0 1248 1248 0	1 2 1 2 1 2 1 2 2	20 20 20 20 20 20 20 20 20 20	RE RE RE RE RE RE RE RE RE RE RE	C FRE C FRE C FRE C FRE C FRE C FRE C FRE C FRE C FRE C FRE	EZER RM 4.116 EZER RM 4.116 EZER RM 4.116 EZER RM 4.116 EZER RM 4.116 EZER RM 4.116 EZER RM 4.116	4 6 8 10 12 14 16 18 20 22	
CKT 1 RI 3 RI 5 7 RI 9 RI 11 13 RI 15 RI 15 RI 17 RI 23 RI 23 25 RI 27 RI 29 31 RI 33 RI 35 37 RI	Location: EQUIP. GALLEY Supply From: D4LB Mounting: RECESSED Enclosure: NEMA 1 Notes: Circuit Description NC EC FREEZER RM 4.116 EC FREEZER RM 4.116	tes Tri 20 20 20 20 20 20 20 20 20 20 20 20 20) 1) 2)) 2)) 2)) 2)) 2)) 1) 2)) 1) 2)) 1) 2)) 1) 2)) 1) 2)) 1	0 1440 0 0 1440 0 1440 0	Thru 0 1440 0 1440 0 1440 0 0 0 0 0 0 0 0 0	B 1248 1248 1248 1248 0 0 0 0 1248 1248 1248 1248 1248 1248 1248 1248 1248 1248 1248 1248 0 0 1248 1248 1248 1248 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1248 0 1248 1248 0	1248 0 1248 1248 0	1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 1 1 1 1 1 	20 20 20	RE RE RE <	C FRE C FRE	EZER RM 4.116 EZER RM 4.116	4 6 8 10 12 14 16 18 20 22 24 24 26 28 30 32 34 36 38	
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CKT 1 RI 3 RI 5 7 RI 9 RI 11 13 RI 15 RI 17 19 RI 21 RI 23 25 RI 27 RI 29 31 RI 33 RI 33 RI 34 RI 35 37 RI 39 RI 41 43 RI 45 RI 47 49 RI 51 RI 53	Location: EQUIP. GALLEY Supply From: D4LB Mounting: RECESSED Enclosure: NEMA 1 Notes: Circuit Description NC EC FREEZER RM 4.116 EC FREEZER RM 4.116	tes Tri 200 200 200 200 200 200 200 200) 1) 2)) 2)) 2)) 1) 2)) 1) 2)) 1) 2)) 1) 2)) 1) 2)) 1) 2)) 1) 2)) 1) 2)) 1) 2)) 2)) 1) 2	0 0 1440 0 0 1440 0 1440 0 1440 0 1440 0 1440 0 1440 0 1440 0	Thru 0 1440 0 1440 0 1440 0 1440 0 1440 0 1440 0 1440 0 0 1440 0 0 0 0 0 0 0 0 0 0 0 0	B 1248 1248 1248 1248 0 0 1248 1248 1248 1248 1248 1248 1248 1248 1248 1248 1248 1248 0 0 1248 1248 1248 1248 1248 1248	1248 0 1248 1248 0 1248 0 1248 0 0	1248 0 1248 1248 1248 0 1248 0 1248 1248 1248 1248 0 1248	1 2 1 2 1 2 1 2 1 2 1 2 1 2 	20 20	RE	C FRE C FRE	EZER RM 4.116 EZER RM 4.116	4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54	
CKT 1 RI 3 RI 5 7 RI 9 RI 11 13 RI 15 RI 17 RI 13 RI 15 RI 21 RI 23 25 RI 27 RI 23 31 RI 33 RI 34 RI 35 31 RI 33 RI 34 RI 35 37 RI 39 RI 41 43 RI 45 RI 45 RI 45 RI 51 RI 53 55 RI 57 RI 59 61	Location: EQUIP. GALLEY Supply From: D4LB Mounting: RECESSED Enclosure: NEMA 1 Notes: Circuit Description NC EC FREEZER RM 4.116 EC FREEZER RM 4.116	tes Tri 20 <	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0 1440 0 1440 0 1440 0 1440 0 1440 0 1440 1440 0 1440	Thru 0 1440 1440 14	I 1248 1248 1248 1248 1248 0 0 1248 <td>1248 0 1248 1248 0 1248 0 1248 0 1248 0 1248 0 1248</td> <td>1248 0 1248 1248 1248 0 1248 0 1248 1248 1248 1248 0 1248</td> <td>1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 </td> <td>20 <!--</td--><td>RE RE RE </td><td>C FRE C FRE</td><td>EZER RM 4.116 EZER RM 4.116</td><td>4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62</td><td></td></td>	1248 0 1248 1248 0 1248 0 1248 0 1248 0 1248 0 1248	1248 0 1248 1248 1248 0 1248 0 1248 1248 1248 1248 0 1248	1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 	20 20 </td <td>RE RE RE </td> <td>C FRE C FRE</td> <td>EZER RM 4.116 EZER RM 4.116</td> <td>4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62</td> <td></td>	RE	C FRE C FRE	EZER RM 4.116 EZER RM 4.116	4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62	
CKT 1 RI 3 RI 5 7 RI 9 RI 11 13 RI 15 RI 17 RI 13 RI 15 RI 21 RI 23 25 RI 27 RI 23 31 RI 32 31 RI 33 RI 34 RI 35 31 RI 35 RI 36 RI 41 43 RI 45 RI 45 RI 45 RI 51 RI 53 54 RI 55 RI 57 RI 59 61	Location: EQUIP. GALLEY Supply From: D4LB Mounting: RECESSED Enclosure: NEMA 1 Notes: Circuit Description NC EC FREEZER RM 4.116 EC FREEZER RM 4.116 PARE	tes Tri 200) 1) 2) 1) 2) 1) 2) 1) 2) 1) 2) 1) 2) 1) 2) 1) 2) 1) 2) 1) 2) 1) 2) 1) 2) 1) 2) 1) 2) 1) 2) 1) 2) 1) 2) 1) 2) 1) 1)	0 0 1440 0 0 1440 0 1440 0 1440 0 1440 0 1440 0 1440 0 1440 0 1440 0 1440 380 380 15155 127	Thru 0 1440 1440 144	IPP IPP <	1248 0 1248 0 1248 0 1248 0 1248 0 1248 0 1248 0 1248 0 1248 0 0 1248 0 0 1248	1248 0 1248 0 1248 1 1248 0 1248 0 1248 0 1248 0 1248 0 1248 0 1248 0 1248 0 1248 0 1248 0 1248 0 1248 0 0 1248 0 0 1248 0 0 1248 0 0 1248 0 0 1248 0 0 1248 0 0 1248 0 0 1248 0 12 12 12 12 12 12 12 12 12 12 12 12 12	1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 1 1	20 20 </td <td>RE RE RE </td> <td>C FRE C C C FRE C C C C C C C C C C C C C C C C C C C</td> <td>EZER RM 4.116 EZER RM 4.116</td> <td>4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60</td> <td></td>	RE	C FRE C C C FRE C C C C C C C C C C C C C C C C C C C	EZER RM 4.116 EZER RM 4.116	4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60	
CKT 1 RI 3 RI 5 7 RI 9 RI 11 13 RI 15 RI 17 RI 13 RI 15 RI 21 RI 23 25 RI 27 RI 23 31 RI 32 31 RI 33 RI 34 RI 35 31 RI 35 RI 36 RI 41 43 RI 45 RI 47 43 RI 45 RI 51 RI 53 55 RI 57 RI 59 61	Location: EQUIP. GALLEY Supply From: D4LB Mounting: RECESSED Enclosure: NEMA 1 Notes: Circuit Description NC EC FREEZER RM 4.116 EC FREEZER RM 4.116	tes Tri 200	0 1 0 2 0 0 2 0 0 2 0 0 1 0 2 0 0 1 0 2 0 0 1 0 2 0 1 0 2 0 1 0 2 1 0 2 1 0 2 1 0 2 1 0 2 1 0 2 1 0 2 1 0 2 2 1 0 2 2 </td <td></td> <td>Thru 0 1440 1 1440 1 1440 1 1 1440 1 1 1440 1 1 1 1 1 1 1 1 1 1 1 1 1</td> <td>B 1248 1248 1248 1248 0 0 0 0 1248 1248 1248 1248 1248 1248 1248 1248 1248 1248 1248 1248 0 0 1248 1248 1248 1248 1248 1248 0 0 1248 1248 1248 1248 1248 1248 0 0 1248 1248 1248 1248 0 0 1248 1248 1248 1248 0 0 1248 1248 1248 1248 1248 1248 1248 1248 1248 1248 1248 1248 1248 1248 1248</td> <td>1248 0 1248 0 1248 0 1248 0 1248 0 1248 0 1248 0 1248 0 1248 0 1248 0 1248 0 1248 0 1248 0 0 1248 0 0 1248 0 0 1248 0 0 1248 0 0 1248 0 0 1248 0 0 1248 0 0 1248 0 0 1248 0 0 1248 0 0 1248 0 0 0 1248 0 0 0 0 0 0 0 0 0 0 0 0 0</td> <td>1248 0 0 1248 0 12 12 12 12 12 12 12 12 12 12 12 12 12</td> <td>1 2 2 1 2 1 2 1 2 1 2 1 2 1 2 1 1 1 </td> <td>20 20</td> <td>RE RE RE </td> <td>C FRE C FRE</td> <td>EZER RM 4.116 EZER RM 4.116</td> <td>4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64</td> <td></td>		Thru 0 1440 1 1440 1 1440 1 1 1440 1 1 1440 1 1 1 1 1 1 1 1 1 1 1 1 1	B 1248 1248 1248 1248 0 0 0 0 1248 1248 1248 1248 1248 1248 1248 1248 1248 1248 1248 1248 0 0 1248 1248 1248 1248 1248 1248 0 0 1248 1248 1248 1248 1248 1248 0 0 1248 1248 1248 1248 0 0 1248 1248 1248 1248 0 0 1248 1248 1248 1248 1248 1248 1248 1248 1248 1248 1248 1248 1248 1248 1248	1248 0 1248 0 1248 0 1248 0 1248 0 1248 0 1248 0 1248 0 1248 0 1248 0 1248 0 1248 0 1248 0 0 1248 0 0 1248 0 0 1248 0 0 1248 0 0 1248 0 0 1248 0 0 1248 0 0 1248 0 0 1248 0 0 1248 0 0 1248 0 0 0 1248 0 0 0 0 0 0 0 0 0 0 0 0 0	1248 0 0 1248 0 12 12 12 12 12 12 12 12 12 12 12 12 12	1 2 2 1 2 1 2 1 2 1 2 1 2 1 2 1 1 1 	20 20	RE	C FRE C FRE	EZER RM 4.116 EZER RM 4.116	4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64	

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	Location: TISSUE CUL Supply From: D4LB Mounting: RECESSED Enclosure: NEMA 1 Notes:	TURE 4	Phases: 3 Wires: 4 Feed Thru Lugs: Yes								A.I.C. Rating: 22 kA Mains Type: MCB Bus Rating: 225 A MCB Rating: 150 A							
СКТ	Circuit Description	Notes	Trip	Poles	ŀ	4	E	3	C)	Poles	Trip	Notes	Circu	it Description	СКТ		
1	REC RACEWAY RM 4.206		20	1	540	180					1	20		REC RM	4.206	2		
3	REC RACEWAY RM 4.206		20	1			540	1200			1	20		BIOSAFE	TY CAB. RM 4.206	4		
5	REC RACEWAY RM 4.206		20	1					540	1200	1	20		BIOSAFE	TY CAB. RM 4.206	6		
7	REC RACEWAY RM 4.206		20	1	540	1200					1	20		BIOSAFE	TY CAB. RM 4.206	8		
9	REC RACEWAY RM 4.206		20	1			540	1200			1	20		BIOSAFE	TY CAB. RM 4.206	10		
11	REC RACEWAY RM 4.206		20	1					540	132	1	20		SLN. VAL	VE RM 4.206	12		
13	REC RACEWAY RM 4.206		20	2	500	1920					1	20		REC INC	JB. RM. 4.206	14		
15							500	1920			1	20		REC INC	JB. RM. 4.206	16		
17	REC RACEWAY RM 4.206		20	2					500	1920	1	20		REC INC	JB. RM. 4.206	18		
19					500	1920					1	20		REC INC	JB. RM. 4.206	20		
21	REC RACEWAY RM 4.206		20	2			500	1921			3	20			L COLD RM. 4.118			
23									500	1921						24		
25	REC RACEWAY RM 4.206		20	2	500	1921										26		
27						-	500	1165			3	20		CONDEN	S. COLD RM 4.206			
29	REC RACEWAY RM 4.206		20	2					500	1165						30		
31					500	1165										32		
33	REC RACEWAY RM 4.206		20	2			500	1165			3	20		CONDEN	S. COLD RM 4.206			
35							000	1100	500	1165					0.0010 1.00 1.200	36		
37	REC RACEWAY RM 4.206		20	2	500	1165				1100						38		
39						1100	500	500			2	20		REC COL	D RM 4.118	40		
41	REC RACEWAY RM 4.206		20	2			000	000	500	500						42		
43					500	360				000	1	20		REC COL	D RM 4.118	44		
45	ATU RM 4.206, 4.116, 4.118		20	1		000	600	0			1	20		SPARE		46		
47	SPARE		20	1			000	Ŭ	0	0	1	20		SPARE		48		
49	SPARE		20	1	0	0				•	1	20		SPARE		50		
51	SPARE		20	1	0	•	0	0			1	20		SPARE		52		
53	SPARE		20	1			Ū	Ŭ	0	0	1	20		SPARE		54		
55	SPARE		20	1	0	0			0	•	1	20		SPARE		56		
57	SPARE		20	1	0	•	0	0			1	20		SPARE		58		
	SPARE		20	1			0	0	0	0	1	20		SPARE		60		
	SPARE		20	1	0	0			0	0	1	20		SPARE		62		
	SPARE		20	1	0	0	0	0			1	20		SPARE		64		
	SPARE		20	1			0	0	0	0	1	20		SPARE		66		
00	STARE			Load:	1391	1 \/Δ	1325	1 VA	-	3 VA	•	20				00		
		-		Amps:		3 A		3 A]							
				•						Α					T - 4 - 1 -			
	Classification		_	nected			and F			nand L				Panel	IOTAIS			
Eq			_	5764 V			00.00			5764 V								
Rec				25260 V	Ά		69.79%	6	1	7630 \	/A	T			38746 VA			
Misc.				7722 V	A	1	00.00	%	7	722 V	'A		Total	Demand:	31116 VA			
												Tota	al Conn	Current:	108 A			
														Current:				
			+															
Note	5:					<u> </u>			1									

8KVA (VA (342A @208Y/120V)

IMARY: 56KVA (x1.25): 70KVA

I<u>MARY:</u> 48KVA (x1.25): 60KVA o1KVA . 111KVA (309A @208Y/120V)

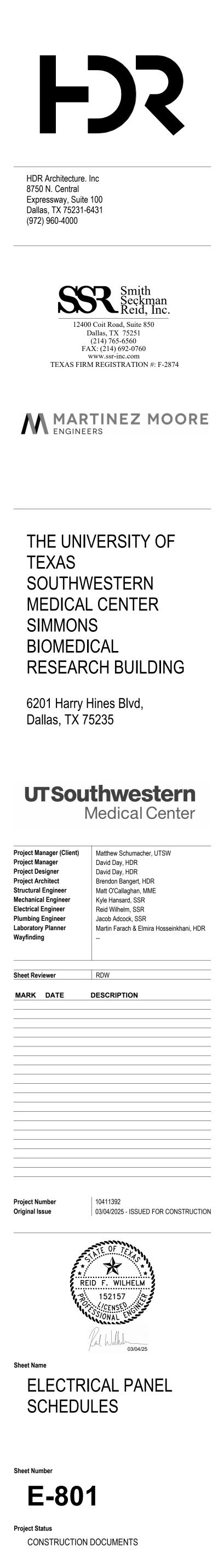
	Location: NEUROSCIE Supply From: D4LA Mounting: RECESSED Enclosure: NEMA 1 Notes:	AB	Phases: 3 Wires: 4 Feed Thru Lugs: Yes							N	<i>l</i> lains Ty Bus Rati	ing: 22 kA vpe: MCB ing: 225 A ing: 150 A	ι.			
СКТ	Circuit Description	Notes	Trip	Poles	Α(VA)	В (VA)	C (VA)	Poles	Trip	Notes	Circu	uit Description	СКТ
1	REC RACEWAY LAB 4.217		20	1	360	1080		-			1	20		CLG REC	LAB 4.217	2
3	REC RACEWAY LAB 4.217		20	1			360	1080			1	20		CLG REC	CLAB 4.217	4
5	REC RACEWAY LAB 4.217		20	2					500	1080	1	20		CLG REC	CLAB 4.217	6
7					500	1080					1	20		CLG REC	CLAB 4.217	8
9	REC RACEWAY LAB 4.217		20	1			540	1080			1	20		CLG REC	CLAB 4.217	10
11	REC RACEWAY LAB 4.217		20	1					540	1080	1	20		CLG REC	CLAB 4.217	12
13	REC RACEWAY LAB 4.217		20	2	500	1080					1	20		CLG REC	CLAB 4.217	14
15							500	1080			1	20		CLG REC	CLAB 4.217	16
17	REC RACEWAY LAB 4.217		20	2					500	1080	1	20		CLG REC	CLAB 4.217	18
19					500	1080					1	20		CLG REC	CLAB 4.217	20
21	REC RACEWAY LAB 4.217		20	2			500	1080			1	20		CLG REC	CLAB 4.217	22
23									500	1080	1	20		CLG REC	CLAB 4.217	24
25	REC RACEWAY LAB 4.217		20	1	360	540					1	20		REC RAC	CEWAY RM 4.217B	26
27	REC RACEWAY LAB 4.217		20	1			360	540			1	20		REC RAC	CEWAY RM 4.217B	
29	REC RACEWAY LAB 4.217		20	2					500	540	1	20		REC RAC	CEWAY RM 4.217B	30
31					500	500					2	20		REC RAC	CEWAY RM 4.217B	32
33	REC RACEWAY LAB 4.217		20	1			540	500								34
35	REC RACEWAY LAB 4.217		20	1					540	500	2	20		REC RAC	CEWAY RM 4.217B	36
37	REC RACEWAY LAB 4.217		20	2	90	500										38
39							90	500			2	20		REC RAC	CEWAY RM 4.217B	40
41	REC RACEWAY LAB 4.217		20	2					90	500						42
43					90	500	-				2	20		REC RAC	CEWAY RM 4.217B	44
45	REC RACEWAY LAB 4.217		20	1			360	500								46
47	REC RACEWAY LAB 4.217		20	1					360	180	1	20			HRM 4.217B	48
49	REC RACEWAY LAB 4.217		20	2	500	180	-				1	20			HRM 4.217B	50
51							500	180			1	20			HRM 4.217B	52
53	REC LAB 4.217		20	1					180	180	1	20		-	1 RM 4.217B	54
55	REC SPH LAB 4.217		20	1	180	540					1	20			CEWAY RM 4.217C	
57	REC SPH LAB 4.217		20	1			180	540			1	20			CEWAY RM 4.217C	
59	REC SPH LAB 4.217		20	1					180	540	1	20			CEWAY RM 4.217C	
61	REC SPH LAB 4.217		20	1	180	500					2	20		REC RAC	CEWAY RM 4.217C	
	FUME HOOD LAB 4.217		20	1			1200	500								64
	SOL. VALVE RM 4.217		20	1					24	500	2	20		REC RAG	CEWAY RM 4.217C	
67	REC SPH RM 4.217C		20	1	180	500										68
	ATU RM 4.217		20	1			500	500			2	20		REC RAG	CEWAY RM 4.217C	70
71	SPARE		20	1		500			0	500						72
73	SPARE		20	1	0	500		500			2	20			CEWAY RM 4.217C	74
75	SPARE		20	1			0	500	0	400						76
77	SPARE		20	1	0	0			0	180	1	20			1 RM 4.217C	78
79 81	SPARE SPARE		20 20	1	0	0	0	0			1	20 20		SPARE SPARE		80 82
-	SPARE		20	1			0	0	0	0	1	20		SPARE		84
03	SFARE			Load:	1050	20 VA	1404	0 VA		-		20		JFARE		04
								-		54 VA						
<u> </u>				Amps:		5 A		9 A		9 A -						
Load	Classification			nected					-	mand				Panel	Totals	
Rec				36860 \	/A		63.569	%	2	23430	VA					
Misc.				1724 V	A		100.00	%		1724 \	/A		Total Co	nn. Load:	38584 VA	
													Total	Demand:	25154 VA	
												Tot	al Conn	. Current:	107 A	-
														d Current:		
															-	
Note	e.															
Note	5.															

EXIST. D4LA						LP 4.130	
EXIST. D4LB						EXIST. LP 4.217	
LP 4.116		LF	P 4.2	06		LP 4.217A	
	0		4'		8'		16'

Long	Classification		Con	nected L	oad	Dem	and Fac	tor I	Demand	Load			Panel	Totals	
												Fotal Co	nn. Load:	Ο ΜΑ	
													Demand:		
											Tat		. Current:		
											Total	Demano	d Current:	0 A	
Note	S:														
[1] PF	ROVIDE NEW CIRCUIT BREA	KER.													
	Name: LP 4.217	^													
											_				
	Location: NEUROSCIE	NCE OF	'EN L/	AB			Volts: 12	20/208	vvye				ing: 22 kA		
	Supply From: D4LA					Ph	nases: 3				N	lains Tv	pe: MCB		
	Mounting: RECESSED					Ň	Nires: 4				E	Bus Rati	ng: 225 A		
					Feed	Ň		es			E	Bus Rati			
	Mounting: RECESSED				Feed	Ň	Nires: 4	es			E	Bus Rati	ng: 225 A		
скт	Mounting: RECESSED Enclosure: NEMA 1 Notes:	Notes	Trip		Feed	\ Thru	Nires: 4		C (VA)	Poles	E M	Bus Rati ICB Rati	ng: 225 A ng: 150 A		СКТ
<u>СКТ</u>	Mounting: RECESSED Enclosure: NEMA 1 Notes:	Notes	Trip 20	Poles		\ Thru	Nires: 4 Lugs: Y		C (VA)	Poles	E M	Bus Rati ICB Rati	ng: 225 A ng: 150 A Circu		СКТ 2
	Mounting: RECESSED Enclosure: NEMA 1 Notes: Circuit Description	Notes		Poles	A (\	۲hru /A)	Wires: 4 Lugs: Y B (VA		C (VA)		E M Trip	Bus Rati ICB Rati	ng: 225 A ng: 150 A Circu CLG REC	it Description	
1	Mounting: RECESSED Enclosure: NEMA 1 Notes: Circuit Description REC RACEWAY LAB 4.217	Notes	20	Poles 1	A (\	۲hru /A)	Wires: 4 Lugs: Y B (VA)		1	E M Trip 20	Bus Rati ICB Rati	ng: 225 A ng: 150 A Circu CLG REC CLG REC	uit Description	2
1 3	Mounting: RECESSED Enclosure: NEMA 1 Notes: Circuit Description REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217	Notes	20 20	Poles 1 2	A (\	۲hru /A)	Wires: 4 Lugs: Y B (VA) 080		1 1	E M 20 20 20	Bus Rati ICB Rati	ng: 225 A ng: 150 A Circu CLG REC CLG REC CLG REC	it Description CLAB 4.217 CLAB 4.217 CLAB 4.217	2 4 6
1 3 5 7	Mounting: RECESSED Enclosure: NEMA 1 Notes: Circuit Description REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 	Notes	20 20 20 	Poles 1 2	A (\ 360	Thru /A) 1080	Wires: 4 Lugs: Y B (VA 360 1) 080 50		1 1 1 1	E M 20 20 20 20 20	Bus Rati ICB Rati	ng: 225 A ng: 150 A CLG REC CLG REC CLG REC CLG REC	LAB 4.217 LAB 4.217 LAB 4.217 LAB 4.217 LAB 4.217 LAB 4.217	2 4 6 8
1 3 5 7 9	Mounting: RECESSED Enclosure: NEMA 1 Notes: Circuit Description REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217	Notes 	20 20 20 20	Poles 1 1 2 1 1	A (\ 360	Thru /A) 1080	Wires: 4 Lugs: Y B (VA 360 1) 080 50 080	0 1080	1 1 1 1 1 1	н М 20 20 20 20 20 20 20	Bus Rati ICB Rati	ng: 225 A ng: 150 A CLG REC CLG REC CLG REC CLG REC CLG REC	LAB 4.217 CLAB 4.217 CLAB 4.217 CLAB 4.217 CLAB 4.217 CLAB 4.217 CLAB 4.217	2 4 6 8 10
1 3 5 7 9 11	Mounting: RECESSED Enclosure: NEMA 1 Notes: Circuit Description REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217	Notes	20 20 20 20 20 20	Poles 1 2 1 1 1	A (\ 360 500	/A) 1080	Wires: 4 Lugs: Y B (VA 360 1) 080 50	0 1080	1 1 1 1 1 1 1	н М 20 20 20 20 20 20 20 20	Bus Rati ICB Rati	ng: 225 A ng: 150 A CLG REC CLG REC CLG REC CLG REC CLG REC CLG REC	LAB 4.217 LAB 4.217 LAB 4.217 LAB 4.217 LAB 4.217 LAB 4.217 LAB 4.217 LAB 4.217 LAB 4.217	2 4 6 8 10 12
1 3 5 7 9 11 13	Mounting: RECESSED Enclosure: NEMA 1 Notes: Circuit Description REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217		20 20 20 20 20 20 20	Poles 1 2 1 1 2 1 2	A (\ 360	Thru /A) 1080	Wires: 4 Lugs: Y B (VA 360 1 540 1))80 50)80 54 54	0 1080	1 1 1 1 1 1 1 1	E M 20 20 20 20 20 20 20 20 20	Bus Rati ICB Rati	ng: 225 A ng: 150 A CLG REC CLG REC CLG REC CLG REC CLG REC CLG REC CLG REC	LAB 4.217 LAB 4.217 LAB 4.217 LAB 4.217 LAB 4.217 LAB 4.217 LAB 4.217 LAB 4.217 LAB 4.217 LAB 4.217	2 4 6 8 10 12 14
1 3 5 7 9 11 13 15	Mounting: RECESSED Enclosure: NEMA 1 Notes: Circuit Description REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 	Notes	20 20 20 20 20 20 20 	Poles 1 2 1 2 2 2	A (\ 360 500	/A) 1080	Wires: 4 Lugs: Y B (VA 360 1 540 1)	0 1080	1 1 1 1 1 1 1 1 1 1	E X 20 20 20 20 20 20 20 20 20 20 20	Bus Rati ICB Rati	ng: 225 A ng: 150 A CLG REC CLG REC CLG REC CLG REC CLG REC CLG REC CLG REC CLG REC	LAB 4.217 LAB 4.217	2 4 6 8 10 12 14 16
1 3 5 7 9 11 13 15 17	Mounting: RECESSED Enclosure: NEMA 1 Notes: Circuit Description REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217		20 20 20 20 20 20 20 20	Poles 1 2 1 1 2 1 2 2 2 2 2 2 2	A (V 360 500 500	/A) 1080 1080	Wires: 4 Lugs: Y B (VA 360 1 540 1))80 50)80 54 54	0 1080	1 1 1 1 1 1 1 1 1 1 1	E X 20 20 20 20 20 20 20 20 20 20 20 20 20	Bus Rati ICB Rati	ng: 225 A ng: 150 A CLG REC CLG REC CLG REC CLG REC CLG REC CLG REC CLG REC CLG REC CLG REC	ait Description C LAB 4.217	2 4 6 8 10 12 14 16 18
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1 3 5 7 9 11 13 15 17 19 21 23	Mounting: RECESSED Enclosure: NEMA 1 Notes: Circuit Description REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 		20 20 20 20 20 20 20 20 20 20 20 20 	Poles 1 1 1 2 1 1 1 2 1 2 2 2 2 1 1	A (\ 360 500 500 500 500	Thru /A) 1080 1080 1080 1080 1080	Wires: 4 Lugs: Y B (VA) 1 360 1 540 1 5500 1 500 1) (1))80 (2))80 (2))80 (2))80 (2))80 (2) (3) (4) (5) (4) (5) (5) (5) (5) (5) (5) (5) (5	0 1080	1 1 1 1 1 1 1 1 1 1 1 1 1 1	Frip 20 20 20 20 20 20 20 20 20 20 20 20 20	Bus Rati ICB Rati	ng: 225 A ng: 150 A CLG REC CLG REC	uit Description C LAB 4.217	2 4 6 8 10 12 14 16 18 20 22 24
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1 3 5 7 9 11 13 15 17 19 21 23 25 27	Mounting: RECESSED Enclosure: NEMA 1 Notes: Circuit Description REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217		20 20 20 20 20 20 20 20 20 20 20 20 20 20	Poles 1 1 2 1 2 2 2 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1	A (\ 360 500 500 500 500	Thru /A) 1080 1080 1080 1080 1080	Wires: 4 Lugs: Y B (VA) 360 1 360 1 360 1 540 1 360 1 5500 1 360 1 500 1 360 1 500 1 360 1) (1000) (100	0 1080 0 1080 0 1080 0 1080 0 1080 0 1080	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Trip 20	Bus Rati ICB Rati	ng: 225 A ng: 150 A CLG REC CLG REC REC RAC	LAB 4.217 LAB 4.217	2 4 6 8 10 12 14 16 18 20 22 24 26 28
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29	Mounting: RECESSED Enclosure: NEMA 1 Notes: Circuit Description REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217		20 20 20 20 20 20 20 20 20 20 20 20	Poles 1 1 2 1 2 2 2 1 2 1 1 2 1 1 2 1 1 2 1 2 1 2	A (\ 360 500 500 500 500 360	/A) 1080 1080 1080 1080 540	Wires: 4 Lugs: Y B (VA) 360 1 360 1 360 1 540 1 360 1 5500 1 360 1 500 1 360 1 500 1 360 1)	0 1080 0 1080 0 1080 0 1080 0 1080 0 1080	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Frip 20 20 20 20 20 20 20 20 20 20 20 20 20	Bus Rati ICB Rati	ng: 225 A ng: 150 A Circu CLG REC CLG REC REC RAC REC RAC	Ait Description C LAB 4.217 C	2 4 6 8 10 12 14 16 18 20 22 24 26 28 30
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31	Mounting: RECESSED Enclosure: NEMA 1 Notes: Circuit Description REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 		20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 	Poles 1 1 2 1 2 2 2 1 2 1 2 1 1 2 1 1 2 2 1 2 2 1 2 1 2 1 2 1 2 1 2 1 1	A (\ 360 500 500 500 500	Thru /A) 1080 1080 1080 1080 1080	Wires: 4 Lugs: Y B (VA 360 1 540 1 5500 1 500 1 360 2 500 1 360 5 360 5 360 5 360 5) (1) 1)80 (1)80 (1) 1)80 (1)8	0 1080 0 1080 0 1080 0 1080 0 1080 0 1080	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Trip 20	Bus Rati ICB Rati	ng: 225 A ng: 150 A Circu CLG REC CLG REC REC RAC REC RAC	LAB 4.217 LAB 4.217	2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32
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1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33	Mounting: RECESSED Enclosure: NEMA 1 Notes: Circuit Description REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217		20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20	Poles 1 1 2 1 2 2 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	A (\ 360 500 500 500 500 360	/A) 1080 1080 1080 1080 540	Wires: 4 Lugs: Y B (VA 360 1 540 1 5500 1 500 1 360 2 500 1 360 5 360 5 360 5 360 5) (1) 1)80 (1) 1)90 (1) 1)90 (1)90	0 1080 0 1080	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2 	Frip 20 20 20 20 20 20 20 20 20 20 20 20 20	Bus Rati	ng: 225 A ng: 150 A Circu CLG REC CLG REC REC RAC REC RAC REC RAC REC RAC	LAB 4.217 LAB 4.217 CLAB	2 4 6 8 10 12 14 16 18 20 22 24 22 24 26 28 30 32 34
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35	Mounting: RECESSED Enclosure: NEMA 1 Notes: Circuit Description REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217		20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20	Poles 1 1 2 1 2 2 2 1 2 1 1 2 1 1 2 1 2 1 1 1 1 1	A (\ 360 500 500 500 360 500	Thru /A) 1080 1080 1080 1080 540 5500	Wires: 4 Lugs: Y B (VA 360 1 360 1 540 1 500 1) (1) 1)80 (1) 1)90 (1) 1)90 (1)90	0 1080 0 1080	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2 2	Frip 20 20 20 20 20 20 20 20 20 20 20 20 20	Bus Rati	ng: 225 A ng: 150 A CLG REC CLG REC REC RAC REC RAC REC RAC REC RAC 	LAB 4.217 LAB 4.217 CLAB	2 4 6 8 10 12 14 16 18 20 22 24 22 24 26 28 30 32 34 36
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39	Mounting: RECESSED Enclosure: NEMA 1 Notes: Circuit Description REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217 REC RACEWAY LAB 4.217	 	20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20	Poles 1 1 2 1 2 2 1 1 2 1 1 1 2 1 1 2 1 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 1 1 1 1	A (\ 360 500 500 500 360 500	Thru /A) 1080 1080 1080 1080 540 5500	Wires: 4 Lugs: Y B (VA 360 1 360 1 540 1 500 1)	0 1080 0 1080 0 1080 0 1080 0 1080 0 1080 0 1080 0 500 0 500	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2 2 2	Frip 20 20 20 20 20 20 20 20 20 20 20 20 20	Bus Rati	ng: 225 A ng: 150 A CLG REC CLG REC REC RAC REC RAC REC RAC REC RAC 	Ait Description C LAB 4.217 C	2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38
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EXIS	TING PANEL															
	Name: LP 4.217															
	Location: CORR 4.2						Volts:	120/2	08 Wy	'e		Α.	I.C. Rati	ng: EXIST	ING	
	Supply From: LA-1					Ρ	hases:	: 3				Ν	lains Ty	pe: MCB		
	Mounting: RECESSED						Wires:	: 4				E	Bus Rati	ng: 225 A		
	Enclosure: NEMA 1				Feed	Thru	Lugs	: No				Μ	CB Rati	ng: 225 A		
	Notes:															
СКТ	•	Notes		Poles	A (\	VA)	В (VA)	C (VA)	Poles		Notes		it Description	СКТ
1	EXISTING		20	1	0	0					1	20		EXISTING		2
3	EXISTING		20	1			0	0			1	20		EXISTING		4
5	EXISTING		20	1					0	0	1	20		EXISTING		6
7	EXISTING		20	1	0	0					1	20		EXISTING		8
9	EXISTING		20	1			0	0			1	20		EXISTING	G	10
11	EXISTING		20	1					0	0	1	20		SPARE		12
13	EXISTING		30	1	0	0					1	20		EXISTIN	3	14
15	EXISTING		20	1			0	0			1	20		EXISTING	3	16
17	EXISTING		20	1					0	0	1	20		EXISTING	3	18
19	EXISTING		20	1	0	0					1	20		EXISTING	3	20
21	EXISTING		20	1			0	0			1	20		EXISTING	3	22
23	EXISTING		20	1					0	0	1	20		EXISTING	3	24
25	EXISTING		20	1	0	0					1	20		EXISTING	3	26
27	SPARE		20	1			0	0			1	20		EXISTING	3	28
29	EXISTING		20	1					0	0	1	20		SPARE		30
31	EXISTING		20	1	0	0					1	20		EXISTING	3	32
33	EXISTING		20	1			0	0			1	20		SPARE		34
35	SPARE	-	20	1					0	0	1	20		EXISTING	3	36
37	EXISTING	-	20	2	0	0					1	20		SPARE		38
39							0	0			1	20		SPARE		40
41	SPARE		20	1					0	0	1	20		SPARE		42
			Total	Load:	0 \	/A	0	VA	0	VA						_
		-	Total	Amps:	0	A	0	A	0	A						
Load	Classification		1	nected	Load	Den	nand F	actor	Der	nand	Load			Panel	Totals	
			+													
			+									٦	Total Co	nn. Load:	0 VA	
			+										Total	Demand:	0 VA	
			+									Tot	al Conn	. Current:	0 A	
			+									Total	Demand	Current:	0 A	
			+													
Note	 5:					I			1						I	
	S. ROVIDE NEW CIRCUIT BREA	VEB														
		u \L I \.														

	Name: LP 4.130 Location: GLASS WA Supply From: D4LA				Volts: hases:	120/2	08 Wy	e				ing: 22 kA vpe: MCB				
	Mounting: SURFACE Enclosure: NEMA 1 Notes:				Feed		Wires: Lugs:	4				E	Jus Rati	ng: 225 A ng: 100 A		
скт	Circuit Description	Notes	Trip	Poles	A	1		В	C)	Poles	Trip	Notes	Circu	it Description	СКТ
1	WASHER RM 4.132		40	3	3302	721					3	20		STERILIZ	ER RM 4.132	2
3							3302	721								4
5									3302	721						6
7	REC WASH RM 4.130		20	1	360	721					3	20		STERILIZ	ER RM 4.132	8
9	REC WASH RM 4.130		20	1			360	721								10
11	REC WASH RM 4.130		20	2					500	721						12
13					500	3302					3	40		WASHER	RM 4.132	14
15	REC COMP. RM 4.132		20	1			336	3302								16
17	REC COMP. RM 4.132		20	1					336	3302						18
19	REC RM 4.132		20	1	360	0					1	20		SPARE		20
21	REC QUAD RM 4.130		20	1			360	0			1	20		SPARE		22
23	SOL. VALVE RM 4.130		20	1					24	0	1	20		SPARE		24
25	SPARE		20	1	0	0					1	20		SPARE		26
27	SPARE		20	1			0	0			1	20		SPARE		28
29	SPARE		20	1					0	0	1	20		SPARE		30
31	SPACE			1							1			SPACE		32
33	SPACE			1							1			SPACE		34
35	SPACE			1							1			SPACE		36
37	SPACE			1							1			SPACE		38
	SPACE			1							1			SPACE		40
41	SPACE			1							1			SPACE		42
			Total	Load:	9266	S VA	910	2 VA	8906	5 VA						
		-		Amps:	77			6 A		A]					
Load	Classification			nected	Load	Dem	nand F	actor	Den	nand I	Load			Panel	Totals	
Rec				3112 V	A		100.00	%	3	3112 V	'A					
Misc.			-	24162 \			100.00	%		4162 \		٦	Fotal Co	nn. Load:	27274 VA	
													Total	Demand:	27274 VA	
												Tot	al Conn	. Current:	76 A	
												Total	Demano	d Current:	76 A	
Note	S:															
-																



	STRUCTURED			
٩×	DATA OUTLET (EXISTING) (SUB-SCRIPT DENOTES NUMBER OF OUTLETS IN FACEPLATE)	18" AFF OR MATCH POWER OUTLET	4" x 4" x 2 1/8" WITH SINGLE GANG MUD RING	1"
∢x	DATA OUTLET (SUB-SCRIPT DENOTES NUMBER OF OUTLETS IN FACEPLATE)	18" AFF OR MATCH POWER OUTLET	4" x 4" x 2 1/2" WITH SINGLE GANG MUD RING	1"
⊲×	DATA OUTLET (SPECIAL MOUNTING HEIGHT) (EXISTING) (SUB-SCRIPT DENOTES NUMBER OF OUTLETS IN FACEPLATE)	SMH AS NOTED, OR PER ARCH. ELEVATIONS	4" x 4" x 2 1/8" WITH SINGLE GANG MUD RING	1"
∢ x	DATA OUTLET (SPECIAL MOUNTING HEIGHT) (SUB-SCRIPT DENOTES NUMBER OF OUTLETS IN FACEPLATE)	SMH AS NOTED, OR PER ARCH. ELEVATIONS	4" x 4" x 2 1/2" WITH SINGLE GANG MUD RING	1"
€x	DATA OUTLET (CEILING) (SUB-SCRIPT DENOTES NUMBER OF OUTLETS IN FACEPLATE)	FLUSH IN CEILING	4" x 4" x 2 1/2" WITH SINGLE GANG MUD RING	1" IF HARD CEILING
₩	WALL PHONE VOICE OUTLET	44" AFF OR PER ARCH. WALL ELEVATIONS	4" x 4" x 2 1/8" WITH SINGLE GANG MUD RING	1"
ф _х	WIRELESS ACCESS POINT CONNECTION (EXISTING) (SUB-SCRIPT REPRESENTS NUMBER OF CABLES)	FLUSH IN CEILING OR ABOVE CEILING (AC)	4" x 4" x 2 1/8" WITH SINGLE GANG MUD RING (FOR HARD CEILING ONLY)	1" IF HARD CEILING
- (Tx	WIRELESS ACCESS POINT CONNECTION (SUB-SCRIPT REPRESENTS NUMBER OF CABLES)	FLUSH IN CEILING OR ABOVE CEILING (AC)	4" x 4" x 2 1/2" WITH SINGLE GANG MUD RING (FOR HARD CEILING ONLY)	1" IF HARD CEILING

	ABBREVIATIONS
ABC	ABOVE COUNTER
AC	ABOVE CEILING
AFF	ABOVE FINISHED FLOOR
ATC	ACOUSTIC TILE CEILING
С	CONDUIT
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED
DAS	DISTRIBUTED ANTENNA SYSTEM
EF	ENTRANCE FACILITY
ER	EQUIPMENT ROOM
ERRCS	EMERGENCY RESPONDER RADIO COMMUNCATION SYSTEM
JB	JUNCTION BOX
ММ	MULTI MODE
NTS	NOT TO SCALE
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
PACS	PICTURE ARCHIVE AND COMMUNICATION SYSTEM
POE	POWER OVER ETHERNET
RIO	ROUGH IN ONLY
RTL	REFER TO HOST DEVICE LEGEND
RTLS	REAL TIME LOCATION SYSTEM
RU	RACK UNIT
SM	SINGLE MODE
SMH	SPECIAL MOUNTING HEIGHT
TGB	TELECOM GROUNDING BUSBAR
TMGB	TELECOM MAIN GROUNDING BUSBAR
TR	TELECOM ROOM
ТҮР	TYPICAL
WAP	WIRELESS ACCESS POINT
WP	WEATHER PROOF (EXTERIOR APPLICATION)
+72"	NUMBER DENOTES MOUNTING HEIGHT ABOVE FINISHED FLOOR TO CENTER LINE
(X)Y"	"X" DENOTES NUMBER OF CONDUITS, "Y" DENOTES TRADE SIZE OF CONDUIT

N

- A. COORDINATE LOCATION AND MOUNTING REQUIREMENTS OF ALL CEILING MOUNTED OR ABOVE CEILING MOUNTED DEVICES WITH REFLECTED CEILING PLAN, LIGHTING LAYOUT, AND OTHER CEILING OR ABOVE CEILING MOUNTED EQUIPMENT.
- B. ALL ABOVE CEILING WORK IN EXISTING FACILITY IS TO BE CONDUCTED IN ACCORDANCE WITH FACILITY I.C.R.A. POLICIES. C. ELEVATOR CAB TELEPHONE CABLE SHALL BE PROVIDED BY THE DIVISION 27 CONTRACTOR. LEAVE 50' SLACK LOOP AND DO NOT TERMINATE. ELEVATOR VENDOR SHALL PROVIDE CABLE TERMINATION.
- D. PATIENT ROOM HEADWALL DEVICES PRIOR TO ROUGH-IN, COORDINATE EXACT DEVICE LOCATIONS, BACKBOX, AND CONDUIT REQUIREMENTS WITH ARCHITECTURAL HEADWALL ELEVATIONS AND OWNER FURNISHED PRE-FABRICATED HEADWALL REQUIREMENTS.
- E. DEVICES MOUNTED IN/ADJACENT TO CASEWORK PRIOR TO ROUGH-IN, COORDINATE EXACT DEVICE LOCATIONS WITH ARCHITECTURAL CASEWORK ELEVATIONS. COORDINATE WITH CASEWORK SHOP DRAWINGS FOR CABLING PATHWAY AND ROUGH-IN REQUIREMENTS.
- TELEVISION OUTLETS COORDINATE EXACT DEVICE LOCATION WITH TV BRACKET/MOUNTING LOCATION AND ADJACENT TO POWER OUTLET AS INDICATED ON
- ARCHITECTURAL FLOOR PLANS, ARCHITECTURAL WALL ELEVATIONS, AND ELECTRICAL POWER DRAWINGS. G. DRAWINGS ARE SCHEMATIC IN NATURE AND ARE NOT DRAWN TO SCALE. CONTRACTOR IS RESPONSIBLE FOR COORDINATING EXACT ROUTING OF ALL SERVICES AND DISTANCES WITH EXISTING CONDITIONS AND WITH ALL OTHER TRADES.
- H. CONDUITS ARE TO HAVE A MAXIMUM 40% FILL RATIO.
- IN THE INSTALLATION OF THIS WORK, THE CONTRACTOR IS TO COMPLY WITH THE REQUIREMENTS OF LOCAL LAWS AND ORDINANCES, THE LAWS OF THE STATE OF XXXXX, THE NATIONAL BOARD OF FIRE UNDERWRITERS, AND THE NATIONAL ELECTRIC CODE.
- CAREFULLY EXAMINE THE PREMISES TO DETERMINE THE EXTENT OF WORK AND THE CONDITION UNDER WHICH IT MUST BE DONE. IF THERE ARE ANY QUESTIONS REGARDING THE PROJECT, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING CLARIFICATIONS FROM THE ENGINEER OR DESIGNATED REPRESENTATIVE BEFORE PROCEEDING WITH WORK OR RELATED WORK IN QUESTION. K. ANY DISCREPANCIES BETWEEN THE PLANS AND ACTUAL FIELD CONDITIONS MUST BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER OR
- DESIGNATED REPRESENTATIVE FOR CLARIFICATION. . ALL WORK IS TO BE DONE IN A THOROUGH AND PROFESSIONAL MANNER ACCORDING TO INDUSTRY AND MANUFACTURERS' STANDARDS AND WILL BE SUBJECT TO INSPECTION AND ACCEPTANCE. WORK THAT IS DEEMED SUB-STANDARD WILL BE SUBJECT TO REPLACEMENT OR REPAIR AT NO ADDITIONAL COST TO THE OWNER OR GENERAL CONTRACTOR.
- M. THE CONTRACTOR IS REQUIRED TO PROPERLY FIRE-STOP ANY WALL OR FLOOR PENETRATIONS UTILIZED FOR THE PLACEMENT OF COMMUNICATIONS CABLING WITH APPROVED FIRE-STOPPING COMPOUND AND ACCORDING TO LOCAL AND NATIONAL CODES.
- N. ANY DISCREPANCIES BETWEEN THE PLANS AND ACTUAL PROJECT SPECIFICATIONS MUST BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER OR DESIGNATED REPRESENTATIVE FOR CLARIFICATION.
- O. ALL PENETRATED STRUCTURES ARE TO BE RETURNED TO ORIGINAL CONDITION AND FIRE RATING.
- P. REPRESENTATION OF OUTSIDE PLANT CABLE, PATHWAY, AND FACILITIES IS APPROXIMATE AND SCHEMATIC IN NATURE. DO NOT RELY ON PLANS FOR DETERMINATION AND COORDINATION OF EXACT LOCATIONS. VERIFY ALL PERTINENT CONDITIONS AND LOCATIONS WITH THE CIVIL ENGINEER AND UTILITY LOCATION SERVICES PRIOR TO PERFORMING WORK.
- Q. WIRELESS ACCESS POINT LOCATIONS ARE DIAGRAMMATIC ONLY FOR BUDGETARY PURPOSES. FINAL LOCATION TO BE DETERMINED BY OWNER. R. A PULL BOX SHAL BE PLACED IN A CONDUIT RUN WHEN ANY OF THE FOLLOWING CONDITIONS EXIST:
- 1. THE LENGTH OF THE CONDUIT RUN IS OVER 100 FEET. 2. THERE ARE MORE THAN TWO 90 DEGREE BENDS IN THE CONDUIT RUN. 3. THERE IS A REVERSE BEND IN THE CONDUIT RUN.

CODE

S. PULL BOXES SHALL BE PLACED IN STRAIGHT SECTION OF CONDUIT AND NOT USED TO REPLACE A BEND. CONDUITS ENTERING AND EXITING PULL BOXES SHALL BE ALIGNED WITH ONE ANOTHER TO ALLOW FOR EASE OF CABLE INSTALLATION. T. PULL BOXES AND JUNCTION BOXES SHALL BE PLACED IN EASILY ACCESSIBLE LOCATIONS. PULL BOX SIZES SHALL BE AS DEFINED BY THE NATIONAL ELECTRICAL

GENERAL DEMOLITION NOTES

- A. DEMOLITION REQUIREMENTS INCLUDE ONLY THE SCOPE OF COMMUNICATION/ LOW VOLTAGE WORK ON THESE DRAWINGS. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL COMMUNICATIONS/LOW VOLTAGE DEMOLITION REQUIREMENTS. B. BEFORE DEMOLITION OF ANY CONDUIT OR CABLING, VERIFY ALL DEVICES AND SYSTEMS BEING SERVED OUTSIDE CONSTRUCTION AREA. VERIFY WITH OWNER OR DEPARTMENT SUPERVISOR BEFORE DISRUPTING ANY SERVICES AFFECTED OUTSIDE THE CONSTRUCTION AREA. ANY EXISTING DEVICES AND SYSTEMS DISRUPTED BY DEMOLITION ARE TO BE RESTORED TO OPERATION IMMEDIATELY OR WITHIN TIME AGREED UPON WITH OWNER.
- ALL DEVICES LOCATED IN WALLS, CEILINGS, AND ON OR IN FURNITURE INDICATED BY THE ARCHITECT TO BE REMOVED ARE LIKEWISE TO BE REMOVED. REMOVE ALL CABLING BACK TO POINT OF ORIGIN. REMOVED DEVICES ARE TO BE OFFERED FIRST TO OWNER PRIOR TO DISPOSAL. CONSULT WITH OWNER FOR STORAGE LOCATION AND REQUIREMENTS OF DEVICES RETAINED FOR FUTURE USE.
- D. EXISTING DEVICES TO REMAIN OR TO BE REUSED ARE TO BE THOROUGHLY CLEANED AND TESTED FOR PROPER OPERATION.
- E. EXISTING CONDUITS TO BE REUSED ARE TO BE CLEANED OUT BEFORE INSTALLATION OF NEW CABLING. F. AREAS WHERE LOW VOLTAGE DEVICES OR CONDUITS ARE REMOVED ARE TO BE REPAIRED TO MATCH EXISTING FINISHES. CONSULT WITH GENERAL CONTRACTOR FOR REPAIRS TO BE MADE BY APPROPRIATE TRADES.
- G. ALL EXISTING LOW VOLTAGE CABLING IS TO BE INDEPENDENTLY SUSPENDED ABOVE NEW CEILING IN ACCORDANCE WITH INDUSTRY STANDARDS AND CLEARANCES. NO CABLING IS TO BE TIED TO STRUCTURE, CONDUITS, PIPING, DUCTS, OR ANY ABOVE CEILING EQUIPMENT.
- H. ALL LOW VOLTAGE CABLING QUANTIFIED IN DRAWING ARE APPROXIMATE. EXACT QUANTITIES, POINT OF ORIGIN AND TERMINATION ARE TO BE FIELD VERIFIED. COORDINATE WITH OWNER BEFORE CUTTING, REPLACING OR REROUTING ANY LOW VOLTAGE CABLING.

I. ALL ABANDONED LOW VOLTAGE CABLING IS TO BE REMOVED. **GENERAL INFECTION CONTROL NOTES**

- A. OBTAIN FROM THE OWNER A COPY OF THE INFECTION CONTROL RISK ASSESSMENT (ICRA) PREPARED FOR THIS PROJECT. REVIEW THE REQUIREMENTS IN THE REPORT AND PERFORM ALL WORK IN ACCORDANCE WITH THOSE PROTOCOLS. STRICTLY ADHERE TO THE LIMITS OF THE CONSTRUCTION AREA, AND WHERE PHASING APPLIES, ADHERE TO PHASING PLAN. COORDINATE ANY WORK OUTSIDE THE CONSTRUCTION AREA WITH THE OWNER AND PERFORM IT IN ACCORDANCE WITH THE ICRA REPORT, UNDER THE SUPERVISION OF THE OWNER'S REPRESENTATIVE OR OTHER DESIGNATED ICRA COMMITTEE OFFICER.
- B. TO THE EXTENT THAT IS REQUIRED BY THE ICRA, ENDEAVOR TO MAINTAIN EXISTING LEVELS OF INDOOR AIR QUALITY IN AREAS SURROUNDING AND ADJACENT TO THE CONSTRUCTION WORK ZONE, AND ELSEWHERE IN THE FACILITY. IT SHOULD BE ANTICIPATED THAT THE ICRA REPORT WILL REQUIRE MEASURES TO THIS EFFECT, INCLUDING THE ASSEMBLY OF THE CONSTRUCTION ZONE BARRIERS.
- PERFORM CONSTRUCTION ACTIVITIES IN AREAS THAT ARE OCCUPIED BY THE HOSPITAL STAFF, THE GENERAL PUBLIC, OR HOSPITAL PATIENTS PER THE REQUIREMENTS OF THE OWNER'S ICRA. WHERE CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED, RETURN THE AREA TO "CLEAN" CONDITIONS, AS DEFINED BY THE OWNER'S PROTOCOLS, BEFORE IT IS OCCUPIED BY THE HOSPITAL STAFF, THE GENERAL PUBLIC, OR HOSPITAL PATIENTS.

NOTES

NUMBER

T-000

TD-101

T-101

T-501 TECHNOLOGY DETAILS FACE PLATE REQUIREMENTS INITIAL CAPACITY: X CONNECTIONS MAXIMUM CAPACITY: 4 CONNECTIONS DESCRIPTION QTY 1-4 HORIZONTAL COMMUNICATION CABLE(S)** 4 PORT FACEPLATE 1 UL LISTED HORIZONTAL COMMUNICATION CABLE PULLED TO EACH DATA JACK. INSTALL BLANKS IN UNUSED JACKS. * SMH —⁄ MAXIMUM CAPACITY: 1 CONNECTION DESCRIPTION HORIZONTAL COMMUNICATION CABLE(S)** 1 PORT FACE PLATE 1 UL LISTED HORIZONTAL COMMUNICATION CABLE PULLED TO EACH DATA JACK. SMH-* COORDINATE ALL VOICE/DATA LOCATIONS, SPECIAL MOUNTING HEIGHT (SMH) DEVICES WITH ARCHITECTURAL WALL ELEVATIONS AND/OR MOUNTING HEIGHTS OF POWER DEVICES ON ELECTRICAL DRAWINGS. ** REFER TO SPECIFICATIONS FOR JACK AND CABLING REQUIREMENTS. JACK REQUIREMENTS INITIAL CAPACITY: X CONNECTIONS MAXIMUM CAPACITY: 2 CONNECTIONS QTY DESCRIPTION HORIZONTAL COMMUNICATION CABLE(S)** 1-2 SURFACE MOUNT HOUSING ABOVE CEILING \square \square UL LISTED HORIZONTAL COMMUNICATION CABLE PULLED TO $\bigcirc \bigcirc$ EACH DATA JACK. INSTALL BLANKS IN UNUSED JACKS. LEAVE 35' OF SLACK COILED IN CEILING.

SHEET INDEX

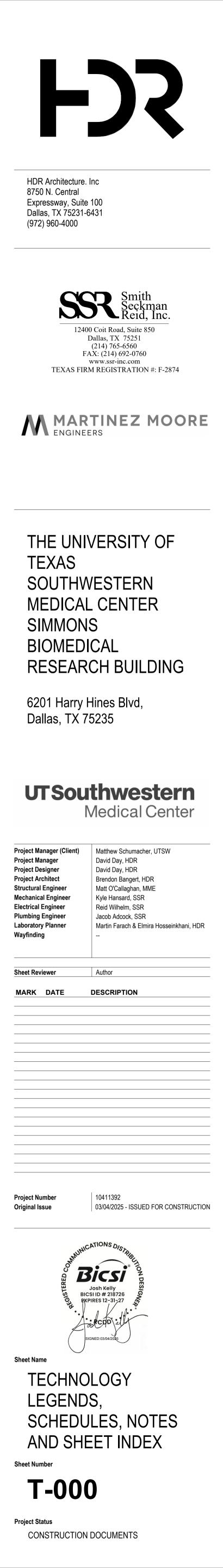
ECHNOLOGY LEGENDS, SCHEDULES, NOTES AND SHEET INDEX

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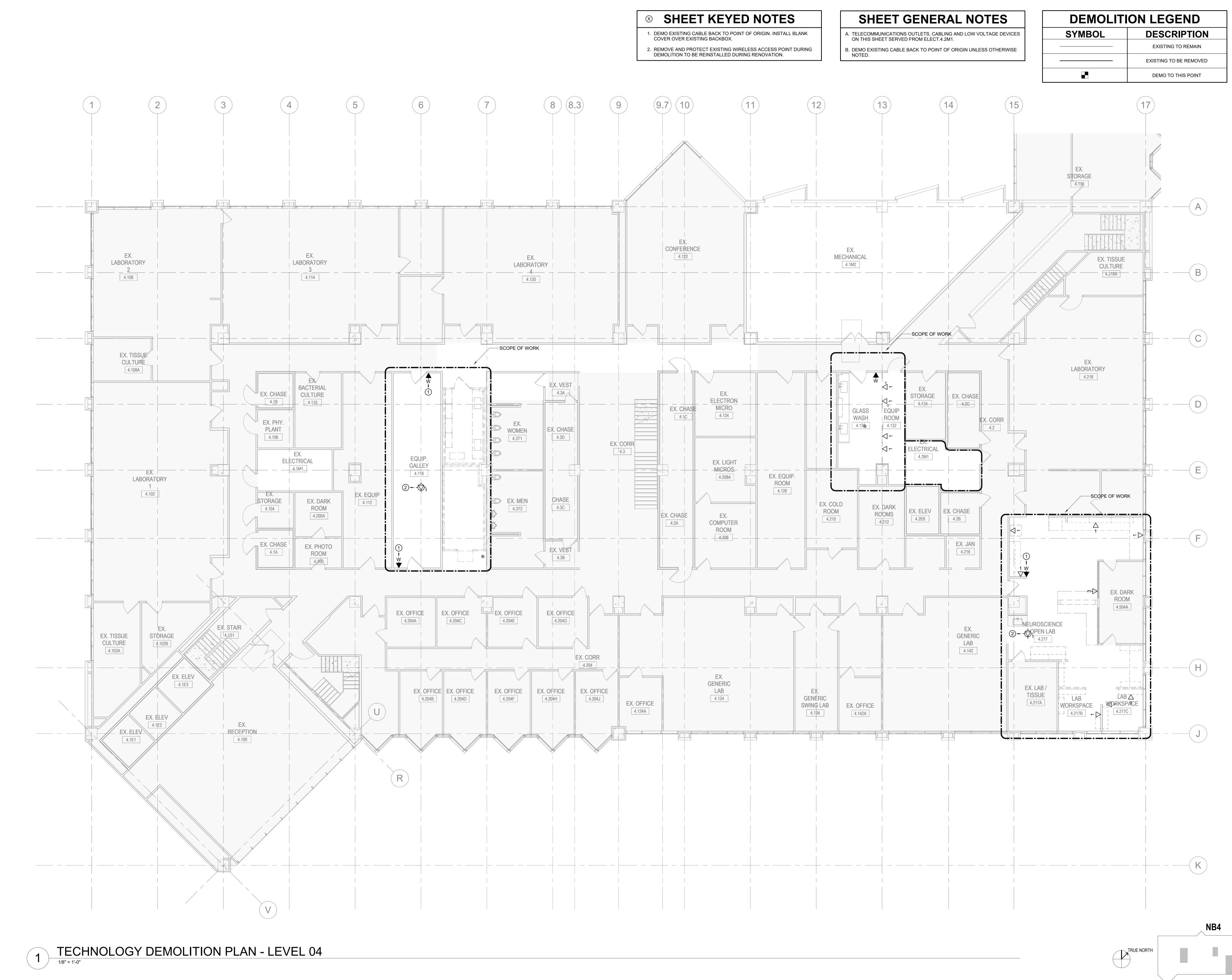
TECHNOLOGY FLOOR PLAN - LEVEL 04

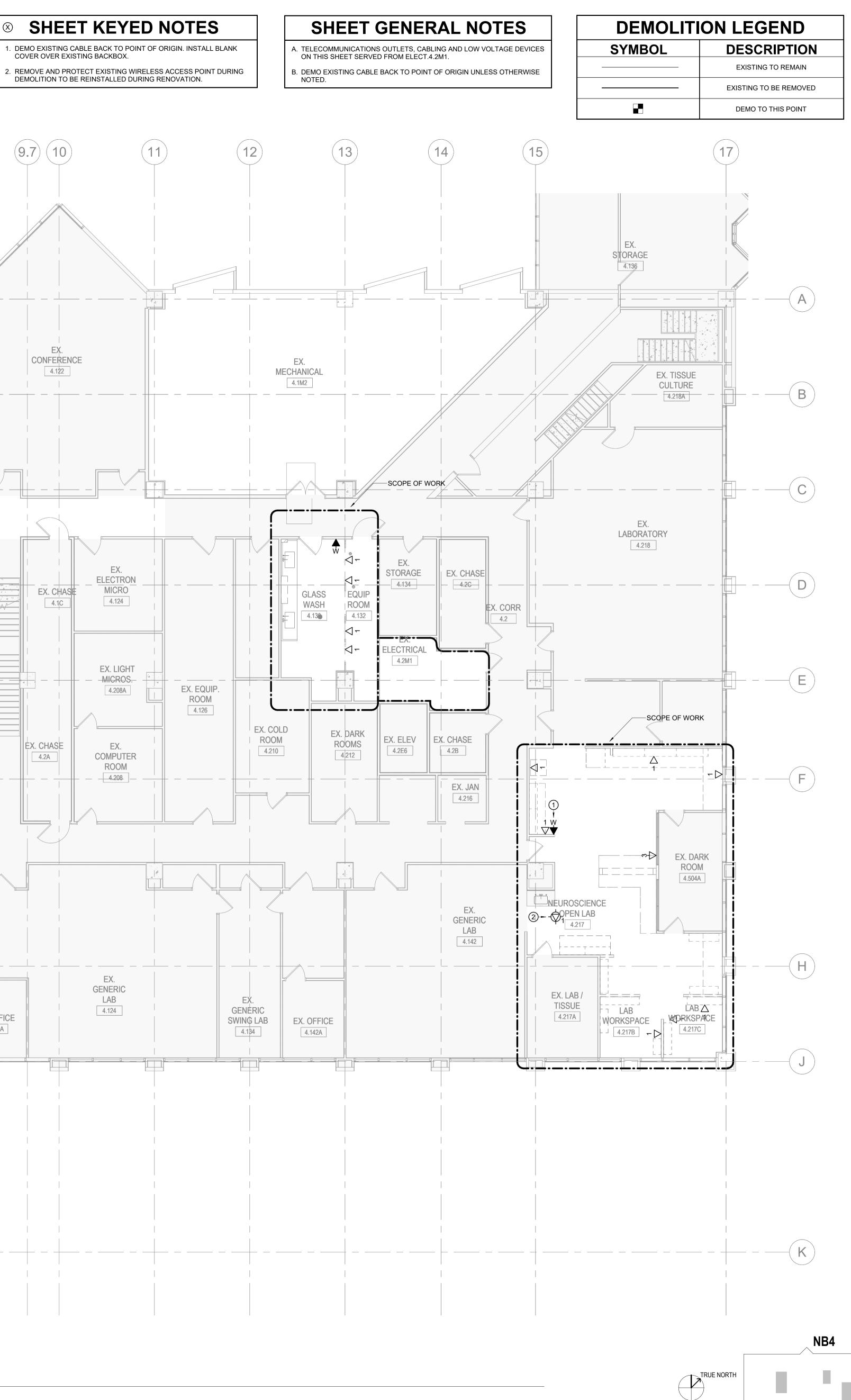
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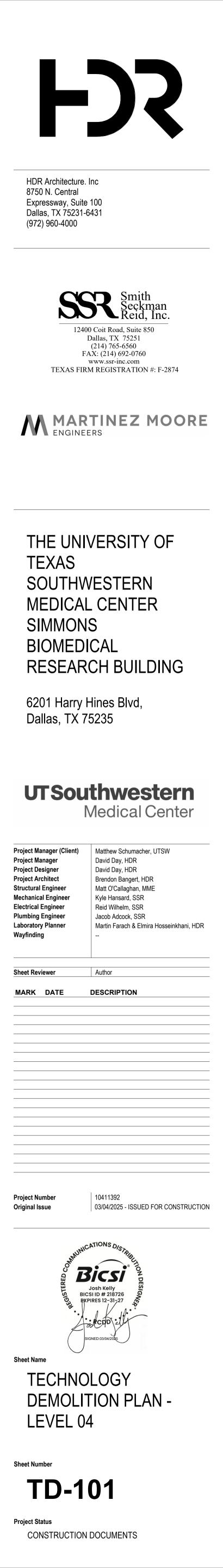
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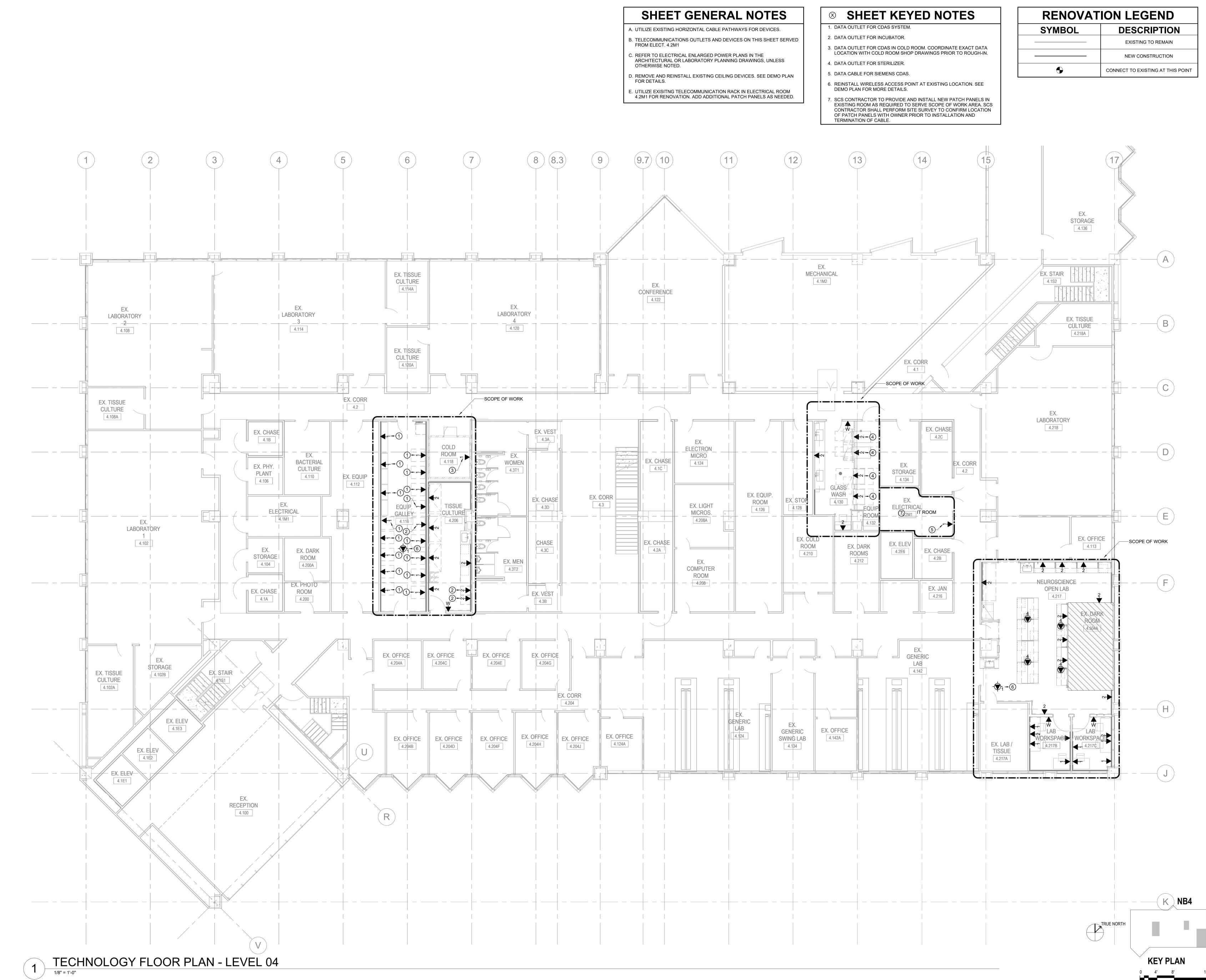
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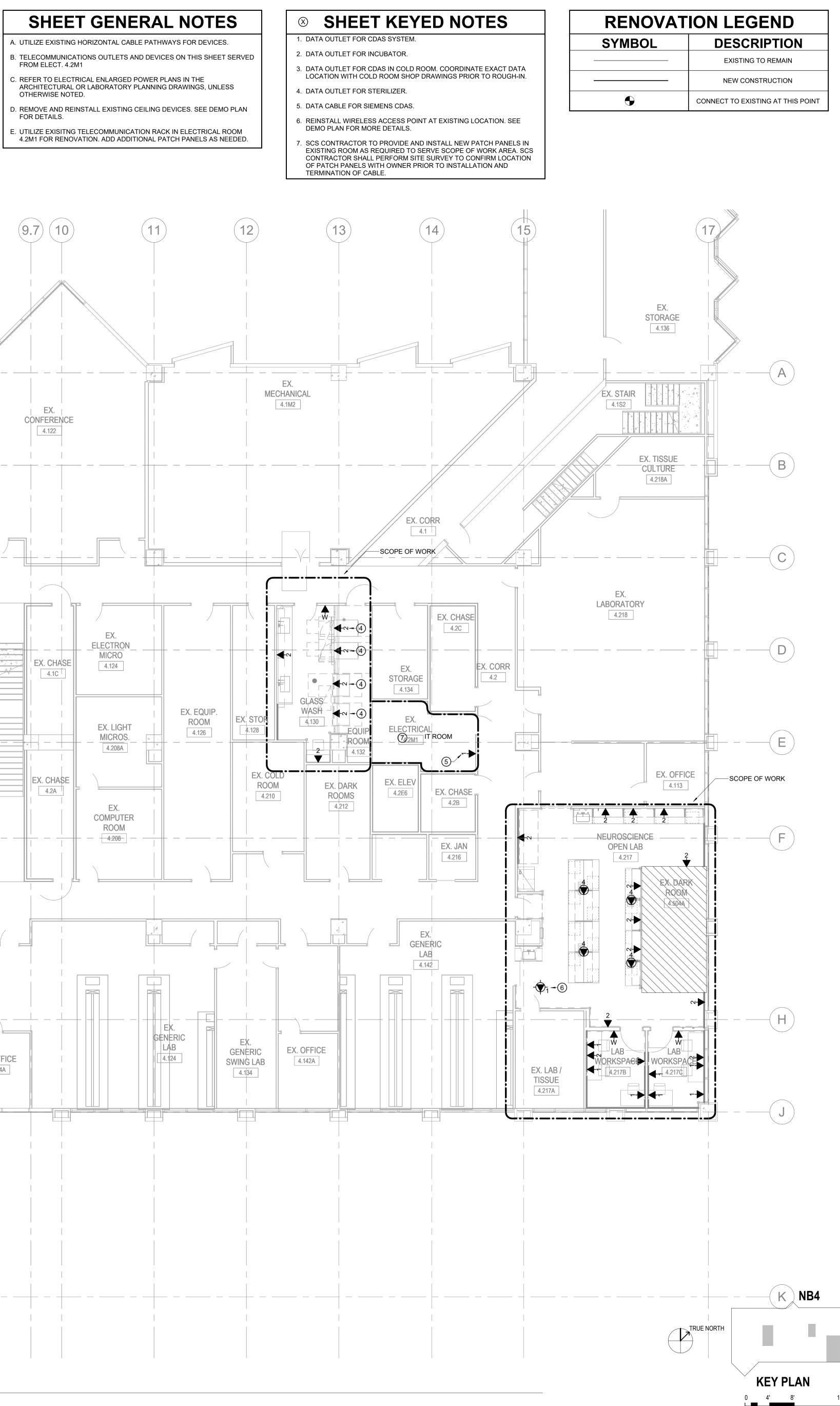


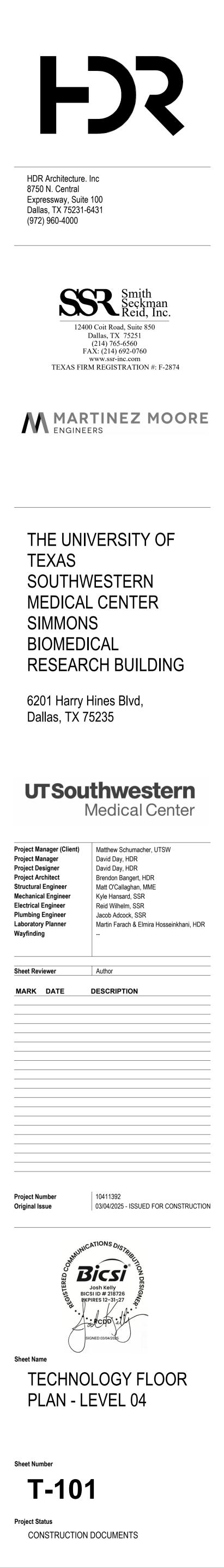












WIRELESS ACCESS POINT (WAP)	COIL 10' OF SLACK FOR CAT6 CABLING USED TO SERVE WA PROVIDE 3" DEEP 4"-SQUARE JUNCTION BOX WITH DOUBLE GANG TRIM RING. PROVIDE WIRELESS ACCESS POINT MANUFACTURER'S ADAPTER PLATE SO IT CAN MOUNT TO JUNCTION BOX.		GENERAL NOTE: G1. ANY DEVICE MOUNTED AD. TO INFRINGE WITHIN THE B COORDINATE WITH ARCHIT
TYPICAL WIRELESS ACCESS POINT		3	WALL PHONE CL

