						CONT	AC	TS		
OWNER:	OWNER: ARCHITECT OF RECORD:			PLUMBI	PLUMBING & MECHANICAL ENGINEER:					
PCC PERSON COUNTY CAMPUS 1715 COLLEGE DRIVE ROXBORO, NORTH CAROLINA T: 919.672.3910	800 TAYLOR STREET, SUITE			9A-154	WEST KEY CONSULTING 4008 BARRETT DRIVE, SUITE 204 RALEIGH, NORTH CAROLINA T: 919.881.8020				ANGUS CI 543 KEISL CARY, NO T: 919.859	
CONTACT: ED MORRAH ED.MORRAH@PIEDMONTCC.EDU	CONTACT: BARRY HILL BHILL@MHAWORKS.COM			JASON	CONTACT: JASON RIVENBARK JASONR@WESTKEYCONSULTING.COM					
PRO	JECT SC	OPE						PL	an symboi	S
	ESS	G CODE				CAROLINA	FLOOR PLAN LIFE SAFETY	LOBBY	ROOM NAME ROOM NUMBER OCCUPANCY LOAD SQUARE FOOTAGE FUNCTION OF SPAC ROOM NAME ROOM NUMBER SQUARE FOOTAGE WALL FINISH BASE FINISH FLOOR FINISH	
	DRAWIN	IGS					TED PLAN		ROOM NAME	
SHEET NO. SHEET NAME 01 - GENERAL G000 SHEET INDEX, NC DECISION DIAGRAM,		ISSUED	NO		SION: DATE		REFLECTED CEILING PLAN	ACT #'-#''	ROOM NUMBER CEILING HEIGHT CEILING FINISH	
G100 2018 APPENDIX B BUILDING CODE SUM G110 LIFE SAFETY PLAN		19 SEP 2024 19 SEP 2024 19 SEP 2024							2-HEAD EMERGENC	Y EXIT LIGHT
02 - ARCHITECTURAL A001 DEMOLITION FLOOR PLAN		19 SEP 2024						•	2X4 LIGHT FIXTURE (S	EE ELEC.)
A002 DEMOLITION REFLECTED CEILING PLAN A100 RENOVATION FLOOR PLAN & DOOR SC	CHEDULE	19 SEP 2024 19 SEP 2024						##	ACTUAL EXIT DOOR	OCCUPANT LOA
A120 RENOVATION REFLECTED CEILING PLAN A400 ENLARGED FLOOR PLANS & INTERIOR E		19 SEP 2024 19 SEP 2024						C	CAMERA	
A401 ENLARGED FLOOR PLANS & INTERIOR E A402 ENLARGED FLOOR PLANS & INTERIOR E		19 SEP 2024 19 SEP 2024						##	CLEAR EXIT WIDTH (I	NCHES)
A403 ENLARGED FLOOR PLANS & INTERIOR E A404 ENLARGED FLOOR PLANS & INTERIOR E	LEVATIONS	19 SEP 2024 19 SEP 2024						D##	DEMOLITION NOTE T	AG
A405 ENLARGED FLOOR PLANS & INTERIOR E		19 SEP 2024							DIRECTION OF DISCI	HARGE
A430CASEWORK SECTIONSA431CASEWORK SECTIONS		19 SEP 2024 19 SEP 2024						(###)	DOOR TAG	
03 - FIRE ALARM							5		EXISTING CMU WALL	
FA001 FIRE ALARM COVER SHEET FA101 FIRE ALARM DEMO PLAN		19 SEP 2024 19 SEP 2024					-			
FA201 FIRE ALARM PLAN		19 SEP 2024					-		EXISTING GWB WALL	
04 - PLUMBING								###	EXIT DOOR CAPACI	Ϋ́
P001 PLUMBING DEMO PLAN P101 S, W, & V FLOOR PLAN		19 SEP 2024 19 SEP 2024	_					Ρ	FIRE ALARM PULL STA	ATION
P102 WATER FLOOR PLAN		19 SEP 2024					L			
P103 GAS FLOOR PLAN P201 PLUMBING RISER		19 SEP 2024	_							
P201 PLUMBING RISER P202 PLUMBING DETAILS		19 SEP 2024 19 SEP 2024								
05 - MECHANICAL M001 HVAC DEMO		19 SEP 2024								
M101 HVAC FLOOR PLAN		19 SEP 2024								
M201 HVAC DETAILS		19 SEP 2024								
06 - ELECTRICAL										
E001 ELECTRICAL COVER SHEET E101 ELECTRICAL DEMO PLAN		19 SEP 2024 19 SEP 2024								
		I IZ JLI ZUZA	1	1						

19 SEP 2024

19 SEP 2024

19 SEP 2024

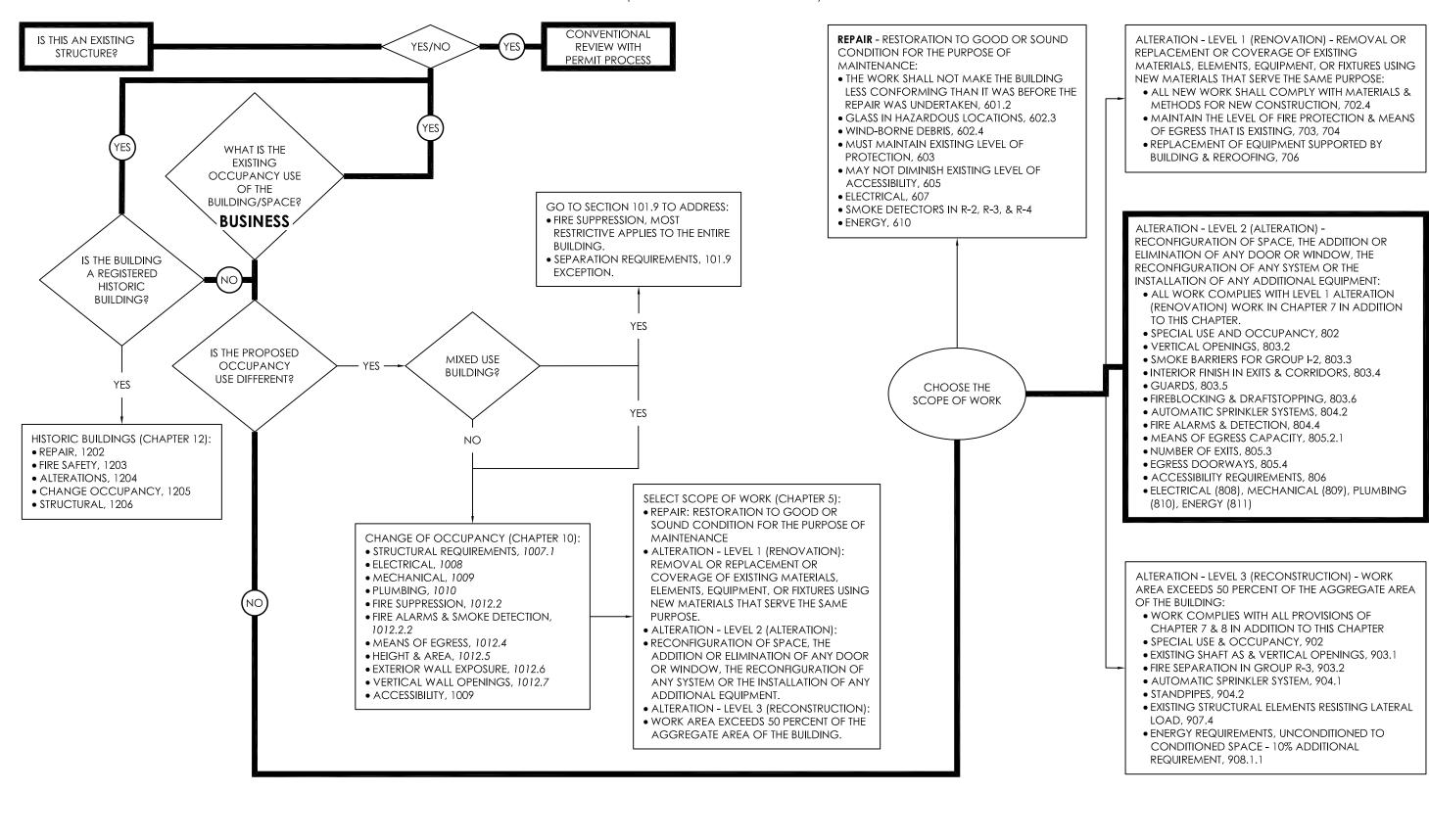
E201 LIGHTING PLAN

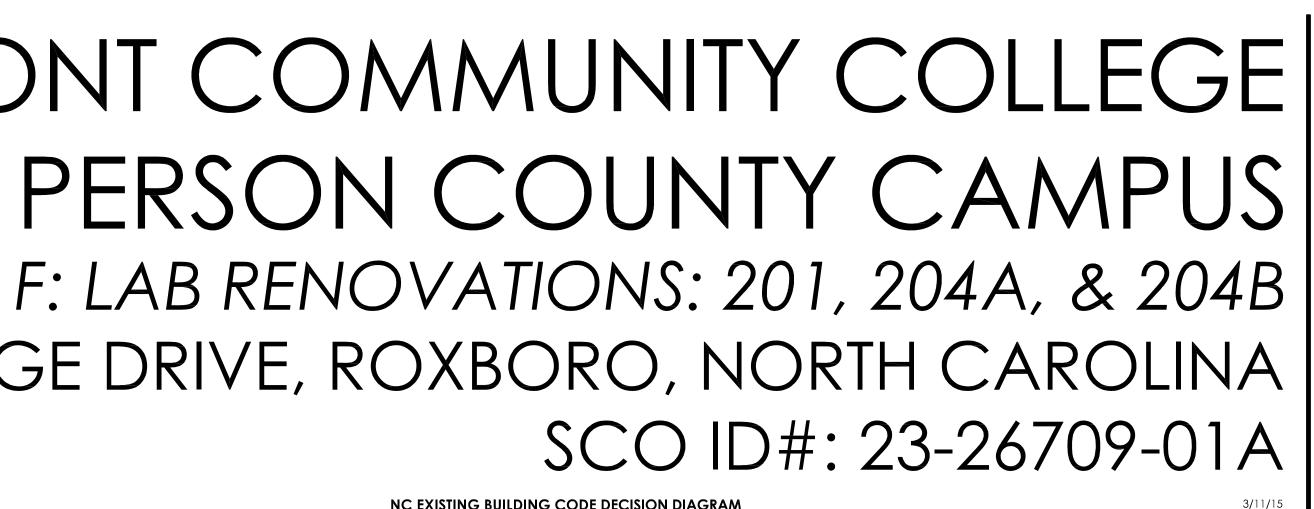
E401 RISER, SCHEDULES, & DETAILS

E301 POWER PLAN

PIEDMONT COMMUNITY COLLEGE BUILDING F: LAB RENOVATIONS: 201, 204A, & 204B 1715 COLLEGE DRIVE, ROXBORO, NORTH CAROLINA

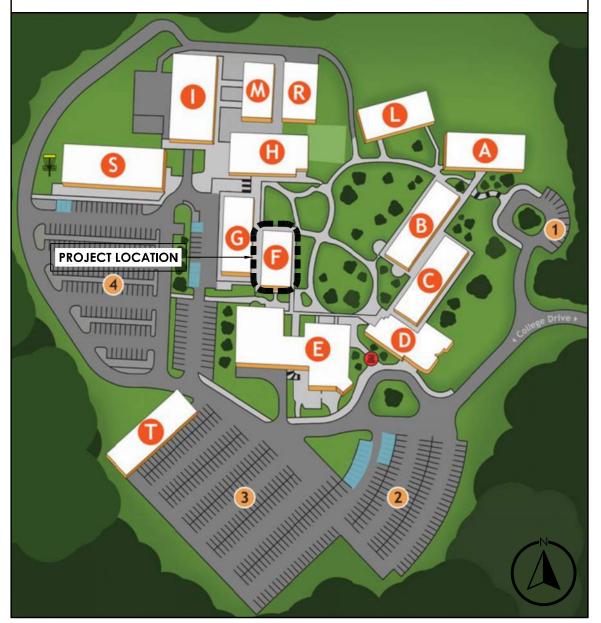
CAL E	NGINEER:	
BLER	RK ENGINEERING DRIVE, SUITE 10 H CAROLINA 74	
CLAF	RK GUSCLARKENGIN	NEERING.COM
	PLAN S	YMBOLS - CONT.
	FE	FIRE EXTINGUISHER
	$\langle \mathbf{b} \rangle$	HEAT DETECTOR
		HORN/STROBE DEVICE
		HVAC EXHAUST GRILLE
		HVAC RETURN GRILLE
	\bowtie	HVAC SUPPLY GRILLE
		MAX. TRAVEL DISTANCE
	M	MICROPHONE
		NEW GWB PARTITION
	42	NIGHT LIGHT
	(OS)	OCCUPANCY SENSOR
	P	PROJECTOR
DAD	0	RECESSED LIGHT FIXTURE
	\$	REMOTE POINT
	E##	RENOVATION NOTE TAG (ELEVATIONS)
	F##	RENOVATION NOTE TAG (PLAN)
	R##	RENOVATION NOTE TAG (RCP)
	(\mathbf{z})	SMOKE DETECTOR
	S	SPEAKER
	X	TRANSITION STRIP
	— A	WALL TYPE
	Ŵ	WIFI ROUTER
	L	





NC EXISTING BUILDING CODE DECISION DIAGRAM (WORK AREA COMPLIANCE METHOD)







THESE DRAWINGS AND THE ACCOMPANYING SPECIFICATIONS ARE INSTRUMENTS OF SERVICE AND AS SUCH SHALL REMAIN THE PROPERTY OF THE ARCHITECT. THEY HAVE BEEN PREPARED FOR A SPECIFIC PROJECT AND SHALL NOT BE USED IN CONJUNCTION WITH ANY OTHER PROJECTS WITHOUT PRIOR WRITTEN PERMISSION OF THE ARCHITECT ©-MHAworks 2024





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REVISIONS:				
#	DESCRIPTION:	DATE		

SHEET INDEX, NC DECISION DIAGRAM, & CAMPUS MAP
PHASE: BID SET

ISSUE DATE: **19 SEP 2024**

SHEET NUMBER

PROJECT #: 23030

SHEET NAME:

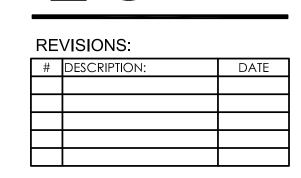
DRAWN BY: KNG

2018 APPEN			/ENTS:		1			SECTION 1106): NO CHANGE	Ι		
BUILDING CODE			FIRE (HOURS)	DETAIL #	DESIGN # FOR DESIGN #	FOR	LOT OR	TOTAL # OF PARKING SPACES	REGULAR WITH	# OF ACCESSIBLE SPACES PRO' 5' VAN SPACES WITH	VIDED TOTAL # OF ACCESSIBLE VAN SPACES WITH SPACES PROVIDED
FOR ALL COMMERCI (EXCEPT 1 AND 2 - FAMILY DWELL	LINGS AND TOWNHOUSES)	BUILDING ELEMENT	SEPARATION DISTANCE (FEET) REQ'D (W/	& SHEET #	DESIGN # FOR RATED ASSEMBLY PENETRA	SHEET # FOR		REQUIRED PROVIDED	ACCESS AISLE		8' ACCESS AISLE
(REPRODUCE THE FOLLOWING DATA ON THE NAME OF PROJECT: PIEDMONT COMMUNITY COLLEGE PERSON COUNTY CAMPUS	E BUILDING PLAN SHEET 1 OR 2)		REQUERTION	<u>,</u>							
ADDRESS: 1715 COLLEGE DRIVE		STRUCTURAL FRAME, INCLUDING COLUMNS, GIRDERS, TRUSSES	0								
PROPOSED USE: BUSINESS		BEARING WALLS					TOTAL:				
	HONE #: _919.672.3910 E-MAIL: _ED.MORRAH@PIEDMONTCC.EDL	EXTERIOR					PLUMBING FIXTURE REQ	QUIREMENTS (TABLE 2902.1): NO	OT APPLICABLE - NOT	(E: OCCUPANCY HAS NC	T CHANGED
	I COUNTY STATE: NORTH CAROLINA	NORTH	0				USE: BUSINESS	WATER CLOSETS	URINALS		SHOWERS/ DRINKING FOUNTAINS
LEAD DESIGN PROFESSIONAL ARCHITECTURAL DESIGNER FIRM NAME	LICENSE# TELEPHONE E-MAIL	EAST	0				SPACE EXISTING	MALE FEMALE		MALE FEMALE	REGULAR ACCESSIBLE
ARCHITECTURAL: MHAworks, PA BARRY F. HILL, AIA	5124919.682.2870bhill@mhaworks.com	. WEST	0				NEW				
CIVIL: ELECTRICAL: ANGUS CLARK ENGINEERING ANGUS CLARK	13719 919.859.2674 angus@angusclarkengineering.com	SOUTH	0				REQUIRED				
FIRE ALARM:ANGUS CLARK ENGINEERINGANGUS CLARK	<u>13719 919.859.2674 angus@angusclarkenglneering.com</u>							CIAL APPROVAL: (LOCAL JURISDICTION, DEPART	MENT OF INSURANCE, OSC, DPI	, DHHS, ICC, ETC., DESCRIBE BELOW)	
PLUMBING: WEST KEY CONSULTING JASON RIVENBARK MECHANICAL: WEST KEY CONSULTING JASON RIVENBARK	<u>31987</u> <u>919.881.8020</u> <u>jasonr@westkeyconsulting.com</u> <u>31987</u> <u>919.881.8020</u> <u>jasonr@westkeyconsulting.com</u>	NON-BEARING WALLS &	0				APPROVALS: <u>LO</u>	OCAL JURISDICTION			
SPRINKLER/STANDPIPE:		PARTITIONS									
RETAINING WALLS >5' HIGH:		EXTERIOR WALLS									
		NORTH	0				ENERGY SUMMARY: NO	CHANGE			
2018 NC BUILDING CODE: NEW CONSTRUCTION ADDITION RENOVA		EAST	0				ENERGY REQUIREMENTS:	:			
	HISTORIC PROPERTY	WEST	0				CODE SHALL ALSO BE PROVID	L BE CONSIDERED MINIMUM AND ANY SPECIAL AT IDED. EACH DESIGNER SHALL FURNISH THE REQUIR	ED PORTIONS OF THE PROJECT INF	FORMATION FOR THE PLAN DATA SHEET	T. IF
	CHANGE OF USE	SOUTH	0					ATE THE ANNUAL ENERGY COST FOR THE STANDAR			JGN.
		INTERIOR WALLS AND PARTITIONS	0					YES (PROVIDE CODE OR STATUTORY REFER		,	
CONSTRUCTED (DATE): 1977 CURRENT OCCUPANCY(S) (CH. 3): BUSI RENOVATED (DATE): PROPOSED OCCUPANCY(S) (CH. 3): BUSI		FLOOR CONSTRUCTION						3A _ 4A _ 5A			
RISK CATEGORY (TABLE 1604.5): CURRENT: II PROPOSED: II		INCLUDING SUPPORTING BEAMS & JOISTS	; 				METHOD OF COMPLIAN	NCE: ENERGY CODE PERFORMANCE			
BASIC BUILDING DATA:		FLOOR CEILING ASSEMBLY	0					ASHRAE 90.1 PERFORMANCE			
CONSTRUCTION TYPE: I-A I-B II-A II-A II-A II-A II-A II-A I	_ III-В IV V-А V-В	COLUMNS SUPPORTING FLOORS	0					(IF "OTHER" SPECIFY SOURCE HERE)			
(CHECK ALL IHAT APPLY) SPRINKLERS: NO PARTIAL YES NFPA 13 NFPA 13R STANDPIPES: NO YES CLASS: I II III WET	NFPA 13D	ROOF CONSTRUCTION INCLUDING SUPPORTING BEAMS & JOISTS					THERMAL ENVELOPE:				
STANDPIPES: NO YES CLASS: I II III WET PRIMARY FIRE DISTRICT: NO YES (PRIMARY) FLOOD HAZARD AREA: NO		ROOF CEILING ASSEMBLY	0				ROOF/CEILING ASSEMBLY (EA DESCRIPTION OF ASSEM	-		WALLS BELOW GRADE (EACH ASSEMB DESCRIPTION OF ASSEMBLY:	LY):
SPECIAL INSPECTIONS REQUIRED: NO YES		COLUMNS SUPPORTING ROOF	0				U-VALUE OF TOTAL ASSE	EMBLY:		U-VALUE OF TOTAL ASSEMBLY:	
GROSS BUILDING AREA TABLE:		SHAFT ENCLOSURES - EXIT	N/A				R-VALUE OF TOTAL INSU SKYLIGHT IN EACH ASSE	JLATION:		R-VALUE OF INSULATION: FLOORS OVER UNCONDITIONED SPACE	
FLOOR EXISTING BUILDING F (SQ FT)	ROOM # PROJECT SCOPE (SQ FT)	SHAFT ENCLOSURES - OTHER	N/A				U-VALUE OF SKYL			DESCRIPTION OF ASSEMBLY:	
	201 904						41			U-VALUE OF TOTAL ASSEMBLY:	
1ST LEVEL: 5,083	204A 957	CORRIDOR SEPARATION	N/A				EXTERIOR WALLS (EACH ASSEM			R-VALUE OF INSULATION:	
	204B 743	OCCUPANCY/FIRE BARRIER SEPARATION					U-VALUE OF TOTAL ASSE			FLOORS SLAB ON GRADE: DESCRIPTION OF ASSEMBLY:	
GROUND LEVEL: 5,083		PARTY/FIRE WALL SEPARATION	N/A				R-VALUE OF INSULATION OPENING (WINDOWS O	n: Dr doors with glazing):		U-VALUE OF TOTAL ASSEMBLY:	
TOTAL: 10,166	2,604	SMOKE BARRIER SEPARATION	N/A				U-VALUE OF ASSE SOLAR HEAT GAIN			R-VALUE OF INSULATION: HORIZONTAL / VERTICAL REQUI	IREMENTS:
ALLOWABLE AREA:		SMOKE PARTITION	N/A				PROJECTION FAC DOOR R-VALUES:			SLAB HEATED? (Y/N):	
PRIMARY OCCUPANCY: ASSEMBLY A-1 A-2 A-3 A-4 A-5		TENANT/DWELLING UNIT/ SLEEPING UNIT SEPARATION	N/A				STRUCTURAL DESIGN: N				
BUSINESS		INCIDENTAL USE SEPARATION	N/A				DESIGN LOADS:		I		
		* INDICATED SECTION NUMBER PERMITTI	NG REDUCTION.					SNOW (LS)		BASIC STRUCTURAL SYSTE	M (CHECK ONE):
FACTORY F-1 MODERATE F-2 LOW HAZARDOUS H-1 DETONATE H-2 DEFLAGRATE H-3 COMBUST H-4 HEALTH		PERCENTAGE OF WALL OPE	NING CALCULATIONS: NO CHANGE					SEISMIC (LE)			
INSTITUTIONAL I-1 I-2 I-3 I-4		FIRE SEPARATION DISTANCE (FEET)		ALLOWABLE ARE			LIVE LOADS: ROOF	PSF			
I-1 CONDITION 1 2 I-2 CONDITION 1 2		PROPERTY LIN	ES (TABLE 705.8)	(%)	(%)		FLOOR	E PSF PSF			—
							GROUND SNOW LOAD:	PSF		_	
MERCANTILE								WIND SPEED MPH (ASCE-7)		ANALYSIS PROCEDURE: ARCHITECTURAL, MECH/	SIMPLIFIED EQUIVALENT LATERAL FORCE DYNAMIC
RESIDENTIAL R-1 R-2 R-3 R-4 STORAGE S-1 MODERATE S-2 LOW HIGH-PILED							EXPOSURE C	CATEGORY		LATERAL DESIGN CONTR	
PARKING GARAGE OPEN ENCLOSED REPAIR GARAGE			RGENCY LIGHTING: NO YES SIGNS: NO YES							SOIL BEARING CAPACITI	ES:
UTILITY & MISC.			ALARM: NO YES				SEISMIC DESIGN CATEG	GORY: A B C C		FIELD TEST (PROVIDE COPY OF	
ACCESSORY OCCUPANCY CLASSIFICATION(S): INCIDENTAL USES: (TABLE 509):			KE DETECTION SYSTEMS: NO YES PARTIAL BON MONOXIDE DETECTION: NO YES				PROVIDE THE FOLLOWING SEI	EISMIC DESIGN PARAMETERS:		PRESUMPTIVE BEARING CAPAC PILE SIZE, TYPE, AND CAPACITY:	CITY: PSF
SPECIAL USES (CHAPTER 4 - LIST CODE SECTION):		LIFE SAFETY PLAN REQUIRE		10			RISK CATEGORY (TABLE	E 1604.5) I II III III	/	FILE SIZE, TIFE, AND CAFACIT.	
SPECIAL PROVISIONS (CHAPTER 5 - LIST CODE SECTIONS):		FIRE AND/OR SMOKE RATED WALL LOO	LIFE SAFETT PLAN SHEET#.				SPECTRAL RESPONSE AC	CCELERATION Ss%g St	%g		
NON-SEPARATED USE (508.3)		ASSUMED AND REAL PROPERTY LINE	LOCATIONS (IF NOT ON THE SITE PLAN)	_	OAD FOR EACH EXIT DOOR		SITE CLASSIFICATION (A	ASCE 7) 🗌 A 🗌 B 🗌 C 🗌 D	E F		
THE REQUIRED TYPE OF CONSTRUCTION FOR THE BUILDING SHALL BE DE OCCUPANCIES TO THE ENTIRE BUILDING. THE MOST RESTRICTIVE TYPE O	ETERMINED BY APPLYING THE HEIGHT AND AREA LIMITATIONS FOR EACH OF THE APPLICABLE OF CONSTRUCTION, SO DETERMINED, SHALL APPLY TO THE ENTIRE BUILDING.	EXTERIOR WALL OPENING AREA WITH	RESPECT TO DISTANCE TO ASSUMED PROPERTY LINES (705.8)		IDED FOR PURPOSES OF OCCUPANCY SEP/		DATA	A SOURCE: FIELD TEST PRESUMPTIVE	HISTORICAL DATA		
ACTUAL FLOOR ÀREA ÓF EACH USE DIVIDED BY THE ALLOWABLE FLOOR A			IT RELATES TO OCCUPANT LOAD CALCULATION (TABLE 1004.1.2)		S WITH PANIC HARDWARE (1010.1.10)		MECHANICAL SUMMAR		I		
ACTUAL AREA OF OCCUPANCY A ALLOWABLE AREA OF OCCUPANCY A + ALLOWABLE AREA OF OCCUPANCY B	B = <1.00	OCCUPANT LOADS FOR EACH AREA	-		WITH DELAYED EGRESS LOCKS AND THE A	, , , , , , , , , , , , , , , , , , ,		, SERVICE SYSTEMS, AND EQUIPME	AIT.		
STORY DESCRIPTION (A) BUILDING	AREA (B) (C) (D) AREA FOR ALLOWABLE		,	LOCATION OF DOORS	EQUIPPED WITH HOLD-OPEN DEVICES	、 · · ·					
NUMBER AND USE PER STO (ACTUA	DRY AREA PER STORY	DEAD END LENGTHS (1020.4)		LOCATION OF EMERG	SENCY ESCAPE WINDOWS (1030)		THERMAL ZONE: WINTER DRY BULB:			MECHANICAL SPACING COND UNITARY	
G GROUND LEVEL - BUSINESS - CLASSROOMS 5,083	3 23,000 -	CLEAR EXIT WIDTHS FOR EACH EXIT D	OOR		GE OF EACH FIRE AREA (202)		SUMMER DRY BULB:	90°F		DESCRIPTION OF UI HEATING EFFICIENC	CY: AREA OF WORK. EFFICIENCIES & OUTPUTS FOR HEATING &
1 FIRST LEVEL - BUSINESS - CLASSROOMS 5,083	3 23,000 -	MAXIMUM CALCULATED OCCUPANT LC BASED ON EGRESS WIDTH (1005.3)	DAD CAPACITY EACH EXIT DOOR CAN ACCOMMODATE	THE SQUARE FOOTAC (407.5)	GE OF EACH SMOKE COMPARTMENT FOR O	CCUPANCY CLASSIFICATION I-2	INTERIOR DESIGN CONDITION: WINTER DRY BULB:			COOLING EFFICIEN SIZE CATEGORY OF	VCY: COOLING ARE LISTED IN THE SCHEDULES WHERE F UNIT: APPLICABLE - SEE DRAWINGS.
A. PERIMETER WHICH FRONTS A PUBLIC WAY OR OPEN SPACE HAVING 20 FEET MINIMUM WIDTH =	(F)			NOTE ANY CODE EXC	EPTIONS OR TABLE NOTES THAT MAY HAVI	E BEEN UTILIZED REGARDING THE	SUMMER DRY BULB: RELATIVE HUMIDITY:			BOILER	
B. TOTAL BUILDING PERIMETER =(P) C. RATIO (F/P)=(F/P) D. W= MINIMUM WIDTH OF PUBLIC WAY=(W)		ACCESSIBLE DWELLING UNI	TS (SECTION 1107); N/A				BUILDING HEATING LOAD:	N/A		SIZE CATEGORY. IF CHILLER	F OVERSIZED, STATE REASON: N/A
E. PERCENT OF FRONTAGE INCREASE $I^{F} = 100 [F/P-0.25] \times W/30 =(%)$				TYPE A UNITS	TYPE B UNITS TYPE B UNITS	TOTAL ACCESSIBLE	BUILDING COOLING LOAD:				F OVERSIZED, STATE REASON: N/A
² UNLIMITED AREA APPLICABLE UNDER CONDITIONS OF SECTION 507. ³ MAXIMUM BUILDING AREA = TOTAL NUMBER OF STORIES IN THE BUILDING x D (506.2).		TOTAL UNITS REQUIR		PROVIDED	REQUIRED PROVIDED	UNITS PROVIDED	BUILDING COOLING LOAD.	N/A		LIST EQUIPMENT EFFICIENCIES:	EFFICIENCIES ARE LISTED ON EQUIPMENT SCHEDULES - SEE DRAWINGS.
⁴ THE MAXIMUM AREA OF OPEN PARKING GARAGES MUST COMPLY WITH 406.5.4. THE MAXIMUM AREA OF AIR ⁵ FRONTAGE INCREASE IS BASED ON THE UNSPRINKLERED AREA VALUE IN TABLE 506.2	TRAFFIC CONTROL TOWERS MUST COMPLY WITH TABLE 412.3.1.										
ALLOWABLE HEIGHT:							ELECTRICAL SUMMARY:	:			
	CODE REFERENCE							D EQUIPMENT			
	TEET: 20 504.3 STORIES: 2 504.4								ERFORMANCE		
BUILDING HEIGHT IN STORIES (TABLE 504.4) STORIES: 3 STORIES	STORIES: 2 504.4							ASHRAE 90.1: PRESCRIPTIVE F			
							LIGHTING SCHEDULE (EACH FI LAMP TYPE REQUIRED IN	N FIXTURE:			
							NUMBER OF LAMPS IN FI BALLAST TYPE USED IN TH		11 E		
							NUMBER OF BALLASTS IN TOTAL WATTAGE PER FI)	IXTUR <u>E:</u>	JLL		
								AGE SPECIFIED VS. ALLOWED: 1.5 KW VS 2.4KW AGE SPECIFIED VS. ALLOWED: N/A - EXISTING			
								CC; NOT REQUIRED FOR ASHRAE 90.1)			



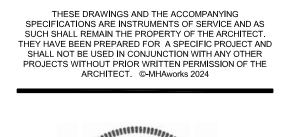
ISSUE DATE: 19 SEP 2024 PROJECT #: 23030 DRAWN BY: KNG

SHEET NAME: 2018 APPENDIX B - BUILDING CODE SUMMARY PHASE: BID SET







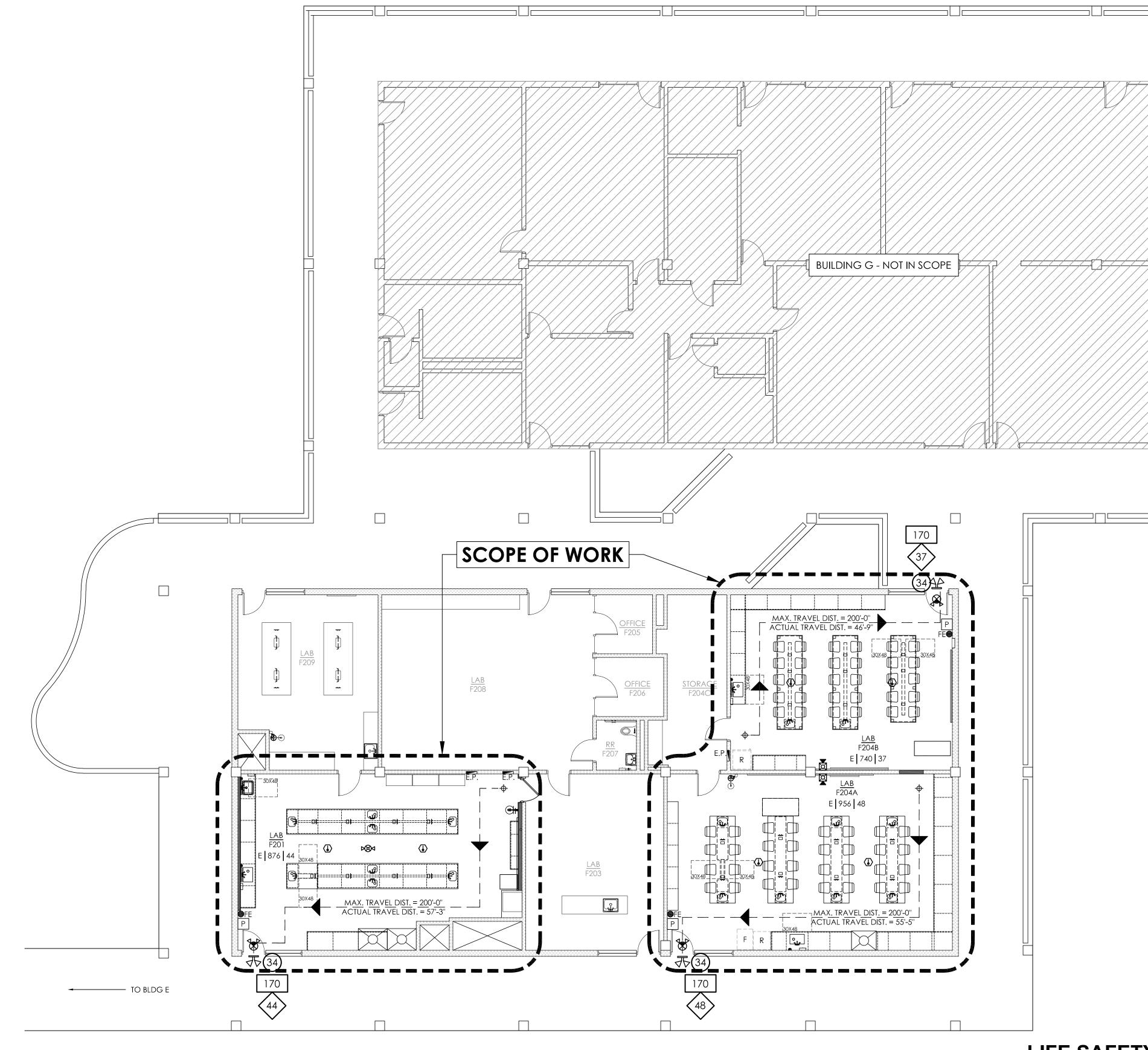


DWOR/

CERT NO. 50455



C406.2 MORE EFFICIENT MECHANICAL EQUIPMENT C406.3 REDUCED LIGHTING POWER DENSITY C406.4 ENHANCED DIGITAL LIGHTING CONTROLS C406.5 ON-SITE RENEWABLE ENERGY C406.6 DEDICATED OUTDOOR AIR SYSTEM C406.7 REDUCED ENERGY USE IN SERVICE WATER HEATING



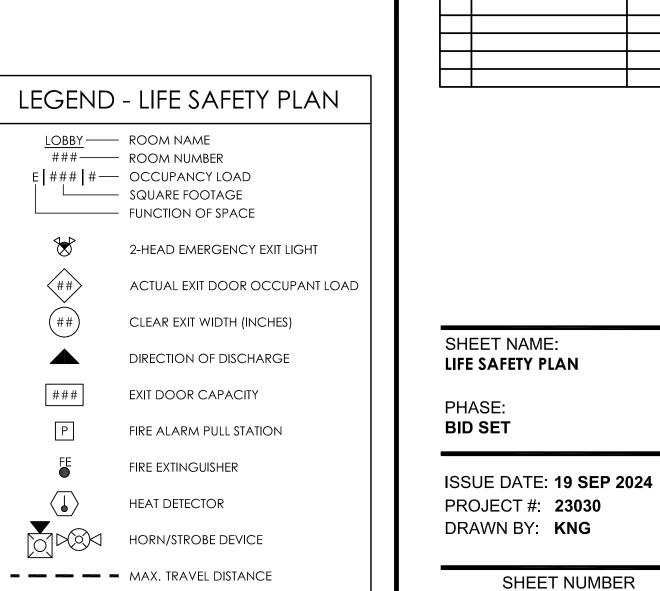




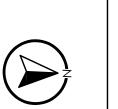




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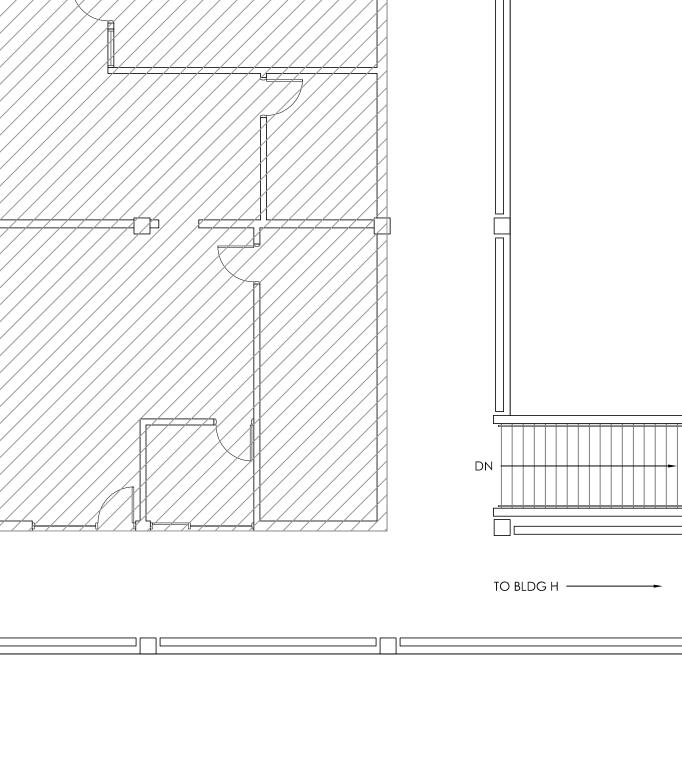
42

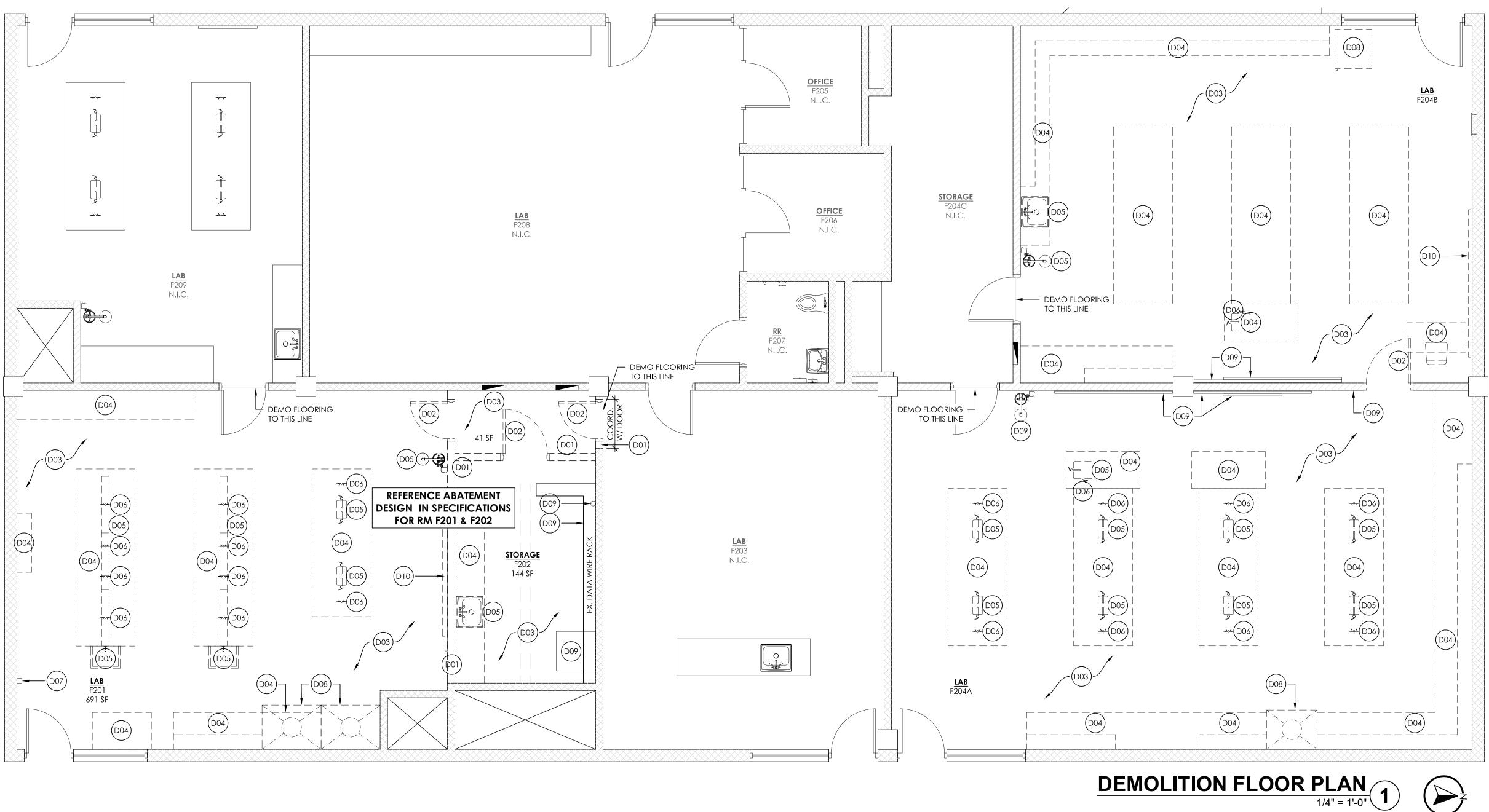
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NIGHT LIGHT

REMOTE POINT

DRAWN BY: KNG SHEET NUMBER G110















REVISIONS:				
#	description:	DATE		

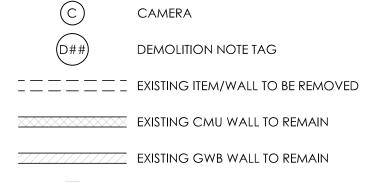
DLITION E AREA,	
S REQUIRED. DRAWINGS	
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SHEET NAME: DEMOLITION FLOOR PLAN

PHASE: BID SET

ISSUE DATE: 19 SEP 2024 PROJECT #: 23030 DRAWN BY: KNG





LEGEND - DEMOLITION

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	EXISTING CMU WALL TO REMAIN
<u>/////////</u>	EXISTING GWB WALL TO REMAIN
$\langle \downarrow \rangle$	HEAT DETECTOR
	HORN/STROBE DEVICE
	HVAC EXHAUST GRILLE
	HVAC RETURN GILLE
$\bowtie$	HVAC SUPPLY GRILLE
M	MICROPHONE
<u>OS</u>	OCCUPANCY SENSOR
P	PROJECTOR
( <b>2</b> )	Smoke detector
S	SPEAKER

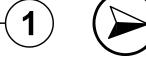
## GENERAL NOTES - DEMO

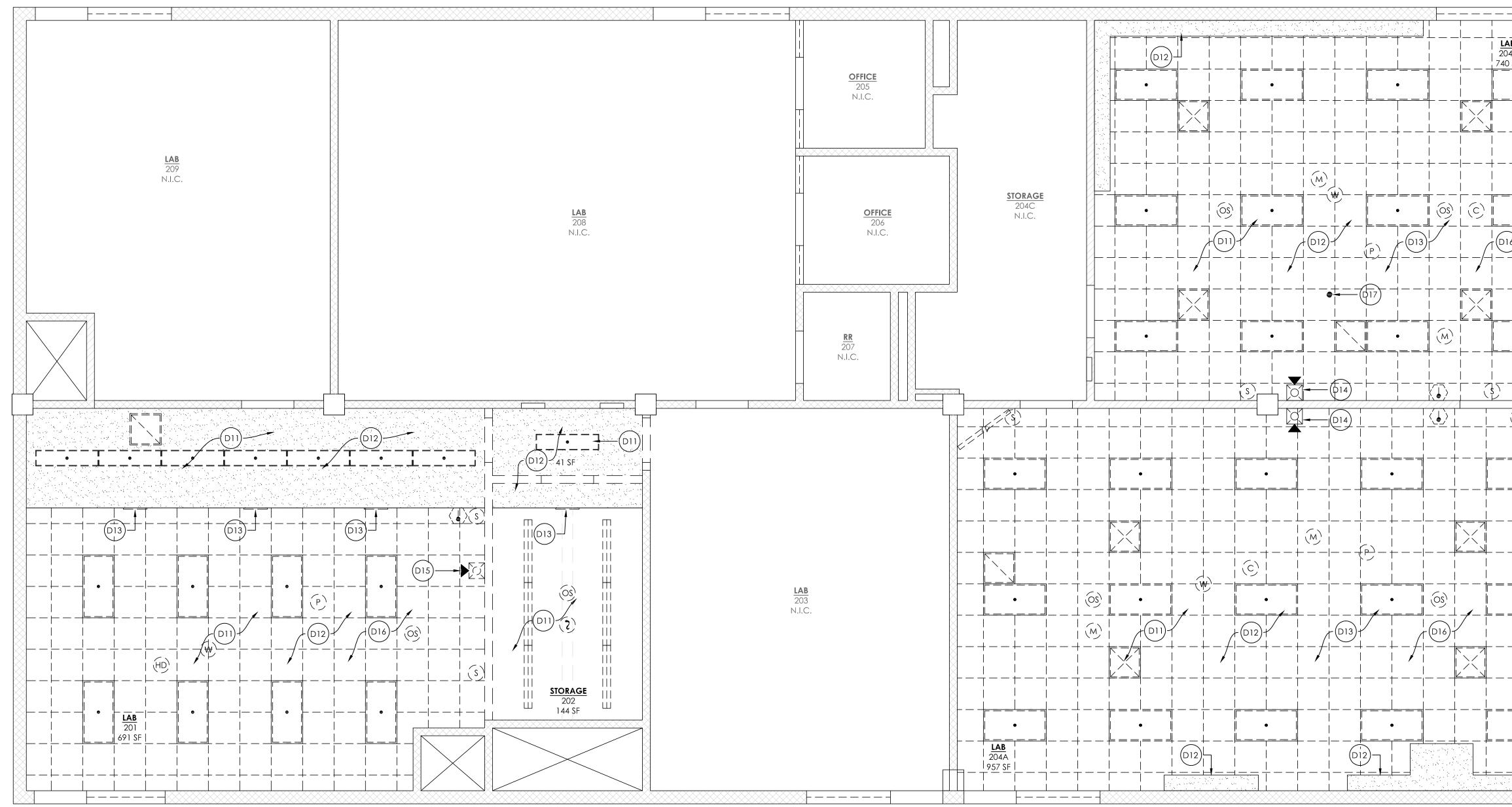
WIFI ROUTER

 $(\mathbb{W})$ 

## • DEMOLISH ALL WALL BASE IN PROJECT SCOPE U.N.O. PREP CONCRETE SLAB FOR NEW FLOORING A: • SEE PLUMBING, MECHANICAL, & ELECTRICAL FOR DEMOLITION OF PME ITEMS. CONSTRUCTION. ANY ITEMS LEFT IN CLASSROO DISPOSED OF PROPERLY, U.N.O. BY OWNER.

• OWNER TO REMOVE ALL ITEMS TO BE SAVED P • EXISTING DATA WIRE RACK TO BE SUPPORTED CEILING. COORDINATE WITH OWNER. • ROOM F201: SEE SPECIFICATIONS FOR ABATEM SHEET NOTES - DEMOL D01 DEMOLISH EXISTING RUBBER BASE & PARTI & REPAIR DAMAGED SURFACES AS REQU NEW WORK. D02 DEMOLISH EXISTING DOOR, HARDWARE, a D03 DEMOLISH EXISTING FLOORING & WALL B. PLAN FOR LIMITS). D04 DEMOLISH EXISTING CASEWORK (BASE & CABINETS) & COUNTERTOP. D05 DEMOLISH EXISTING PLUMBING FIXTURE (S PLUMBING DRAWINGS FOR MORE INFO.). D06 DEMOLISH GAS CONNECTION (SEE PLUM EXACT DIRECTION). D07 DISPOSE OF THERMOMETER APPROPRIATELY. D08 SALVAGE EXISTING EQUIPMENT, APPLIANCE, ACCESSORY. STORE ITEM(S) IN A LOCKED SPACE FOR REINSTALL AFTER CONSTRUCTION. D09 EQUIPMENT/FIXTURE TO REMAIN IN PLACE; PROTECT DURING CONSTRUCTION. REPAIR/REPLACE IF DAMAGED DURING CONSTRUCTION. D10 REMOVE WHITE BOARD, SAFELY STORE, & REINSTALL IN NEW LOCATION. SEE A100 FOR MORE INFO. D11 DEMOLISH EXISTING LIGHT FIXTURE (SEE ELECTRICAL FOR MORE INFO.). D12 DEMOLISH EXISTING CEILING &/OR SOFFIT. D13 DEMOLISH EXISTING HVAC (SEE MECHANICAL FOR MORE INFO.) D14 EX. HORN/STROBE DEVICE TO REMAIN IN PLACE DURING CONSTRUCTION. D15 DEMOLISH HORN/STROBE DEVICE. D16 SALVAGE CAMERAS, MICROPHONES, PROJECTORS, WIFI ROUTERS, SPEAKERS, TELEVISIONS, OCCUPANCY SENSORS, ETC. RETURN TO OWNER. D17 DEMO POWER POLE.















REVISIONS:			
#	description:	DATE	

SHEET NAME:
<b>DEMOLITION REFLECTED</b>
CEILING PLAN
PHASE:
BID SET

ISSUE DATE: 19 SEP 2024 PROJECT #: 23030 DRAWN BY: KNG



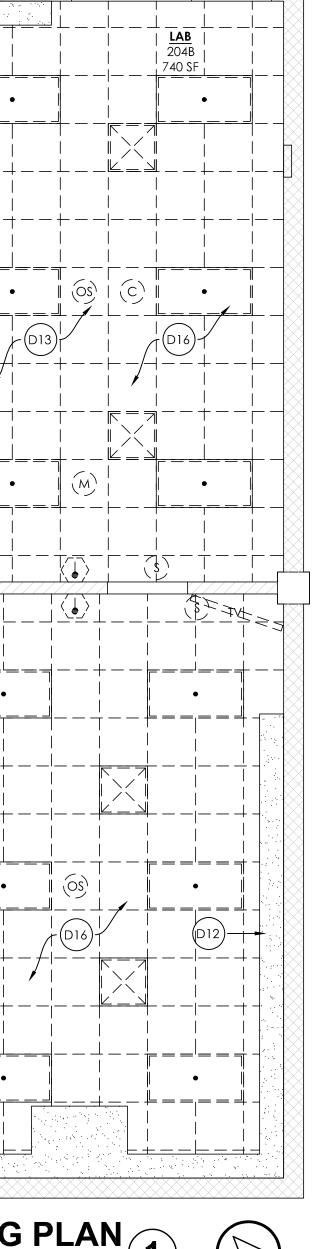
C	CAMERA
D##)	DEMOLITION NOTE TAG
======	EXISTING ITEM/WALL TO BE REMOVED
	Existing CMU WALL TO REMAIN
<u> </u>	EXISTING GWB WALL TO REMAIN
$\langle \downarrow \rangle$	HEAT DETECTOR
	HORN/STROBE DEVICE
	HVAC EXHAUST GRILLE
$\square$	HVAC RETURN GILLE
$\bowtie$	HVAC SUPPLY GRILLE
M	MICROPHONE
$\overline{(2)}$	OCCUPANCY SENSOR
P	PROJECTOR
2	SMOKE DETECTOR
$(\mathbf{S})$	SPEAKER
W	WIFI ROUTER

## GENERAL NOTES - DEMOLITION

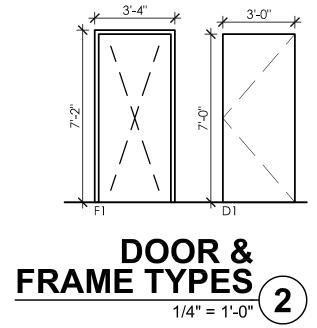
- DEMOLISH ALL WALL BASE IN PROJECT SCOPE AREA, U.N.O. • PREP CONCRETE SLAB FOR NEW FLOORING AS REQUIRED. • SEE PLUMBING, MECHANICAL, & ELECTRICAL DRAWINGS FOR DEMOLITION OF PME ITEMS. • OWNER TO REMOVE ALL ITEMS TO BE SAVED PRIOR TO
- CONSTRUCTION. ANY ITEMS LEFT IN CLASSROOMS WILL BE DISPOSED OF PROPERLY, U.N.O. BY OWNER. • EXISTING DATA WIRE RACK TO BE SUPPORTED FROM
- CEILING. COORDINATE WITH OWNER. • ROOM F201: SEE SPECIFICATIONS FOR ABATEMENT DESIGN.

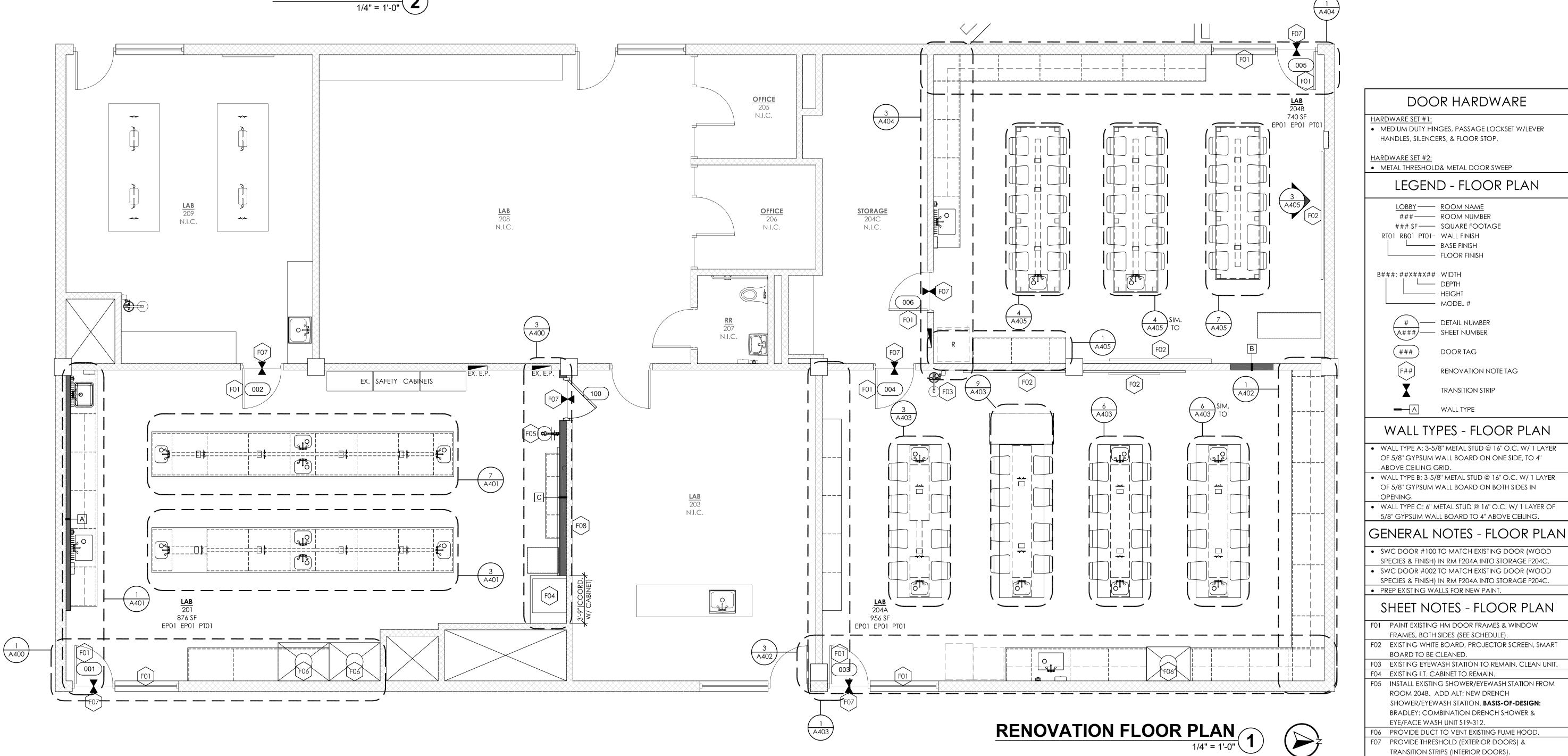
## SHEET NOTES - DEMOLITION

- D01 DEMOLISH EXISTING RUBBER BASE & PARTITION. PATCH & REPAIR DAMAGED SURFACES AS REQUIRED FOR NEW WORK. D02 DEMOLISH EXISTING DOOR, HARDWARE, & FRAME. D03 DEMOLISH EXISTING FLOORING & WALL BASE (SEE
- PLAN FOR LIMITS). D04 DEMOLISH EXISTING CASEWORK (BASE & UPPER CABINETS) & COUNTERTOP.
- D05 DEMOLISH EXISTING PLUMBING FIXTURE (SEE PLUMBING DRAWINGS FOR MORE INFO.).
- D06 DEMOLISH GAS CONNECTION (SEE PLUMBING FOR EXACT DIRECTION).
- D07 DISPOSE OF THERMOMETER APPROPRIATELY. D08 SALVAGE EXISTING EQUIPMENT, APPLIANCE, ACCESSORY. STORE ITEM(S) IN A LOCKED SPACE FOR
- REINSTALL AFTER CONSTRUCTION. D09 EQUIPMENT/FIXTURE TO REMAIN IN PLACE; PROTECT DURING CONSTRUCTION. REPAIR/REPLACE IF
- DAMAGED DURING CONSTRUCTION. D10 REMOVE WHITE BOARD, SAFELY STORE, & REINSTALL IN
- NEW LOCATION. SEE A100 FOR MORE INFO. D11 DEMOLISH EXISTING LIGHT FIXTURE (SEE ELECTRICAL
- FOR MORE INFO.).
- D12 DEMOLISH EXISTING CEILING &/OR SOFFIT.
- D13 DEMOLISH EXISTING HVAC (SEE MECHANICAL FOR MORE INFO.)
- D14 EX. HORN/STROBE DEVICE TO REMAIN IN PLACE DURING CONSTRUCTION.
- D15 DEMOLISH HORN/STROBE DEVICE. D16 SALVAGE CAMERAS, MICROPHONES, PROJECTORS, WIFI ROUTERS, SPEAKERS, TELEVISIONS, OCCUPANCY SENSORS, ETC. RETURN TO OWNER.
- D17 DEMO POWER POLE.



	FINISH SCHEDULE - BASIS-OF-DESIGN											
CSI DIV.	CODE	EQUAL MANUFACTURES										
DIVISION	6 - WOOE	D, PLASTICS, & COMPOSITES										
064023	PL01	PLASTIC LAMINATE	NEVAMAR	TRANQUILITY WA3000-VE	201, 204A, & 204B	WILSONART, FORMICA						
DIVISION	9 - FINISHE	ËS										
095123	ACT01	ACOUSTICAL CEILING TILE	ARMSTRONG CEILINGS	ULTIMA 15/16" SQUARE LAY-IN #1910 24"X24" W/ 15/16" PRELUDE SUSPENSION SYSTEM BLIZZARD WHITE	201, 204A, & 204B	USG CEILINGS, CHICAGO METALLIC CORPORATION						
095123	ACT02	ACOUSTICAL CEILING TILE	ARMSTRONG CEILINGS	ULTIMA 15/16" SQUARE LAY-IN #1943 24"X48" W/ 15/16" PRELUDE SUSPENSION SYSTEM BLIZZARD WHITE	201	USG CEILINGS, CHICAGO METALLIC CORPORATION						
096500	RB01	RESILIENT BASE	TARKETT/ROPPE	BLACK	FURNITURE/CASEWORK	FLEXCO, INC., MANNINGTON						
099123	PT01	PAINT (INTERIOR)	Sherwin Williams	ALABASTER SW7008 255-C2	WALLS	BEHR, GLIDDEN						
099123	PT02	PAINT (INTERIOR)	Sherwin Williams	WHITE	CEILING/SOFFIT, INT. DOOR FRAMES, & INTERIOR OF EXTERIOR DOOR	BEHR, GLIDDEN						
099123	PT03	PAINT (INTERIOR)	Sherwin Williams	RHUMBA ORANGE SW6642 121-C6	EXTERIOR SIDE OF EXTERIOR DOOR	BEHR, GLIDDEN						
099123	PT04	PAINT (EXTERIOR)	Sherwin Williams	VOGUE GREEN SW0065	EXTERIOR SIDE EXTERIOR DOOR FRAME	BEHR, GLIDDEN						
099656	EP01	EPOXY COATINGS	Sherwin Williams	RESUFLOR DECO FLAKE BC: 1/8'' FLAKE: GROUND HAZELNUT	FLOORS & BASE	C.A. REED, STONHARD						





	DOOR & FRAME SCHEDULE														
			I	DOOR			FRAME								
DOOR #	OPENING SIZE (W X H)		MATERIAL	FINISH	FRAME ELEVATION	MATERIAL	FINISH	HARDWARE SET	ROOM						
100	3'-0'' X 7'-0''	D1	1.75"	SWC	CLR	Fl	НМ	PT02	1	F201/F202					
001	3'-0'' X 8'-0''	EX.	-	НМ	PT02/PT03	-	EX.	*PT02 & PT04	2	F201					
002	3'-0'' X 7'-0''	EX.	-	SWC	CLR	-	EX.	PT02	-	F201/F209					
003	3'-0'' X 8'-0''	EX.	-	НМ	PT02/PT03	_	EX.	*PT02 & PT04	2	F204A					
004	3'-0'' X 7'-0''	EX.	-	SWC	CLR	-	EX.	PT02	-	F20A/F204C					
005	3'-0'' X 8'-0''	EX.	-	НМ	PT02/PT03	-	EX.	*PT02 & PT04	2	F204B					
006	3'-0'' X 7'-0''	EX.	-	SWC	CLR	-	EX.	PT02	-	F204B/F204C					
* SEE FIN	* SEE FINISH SCHEDULE FOR PT02 & PT04 LOCATIONS.														

F08 PAINT WALL (PT01) & INSTALL NEW BASE (RB01).



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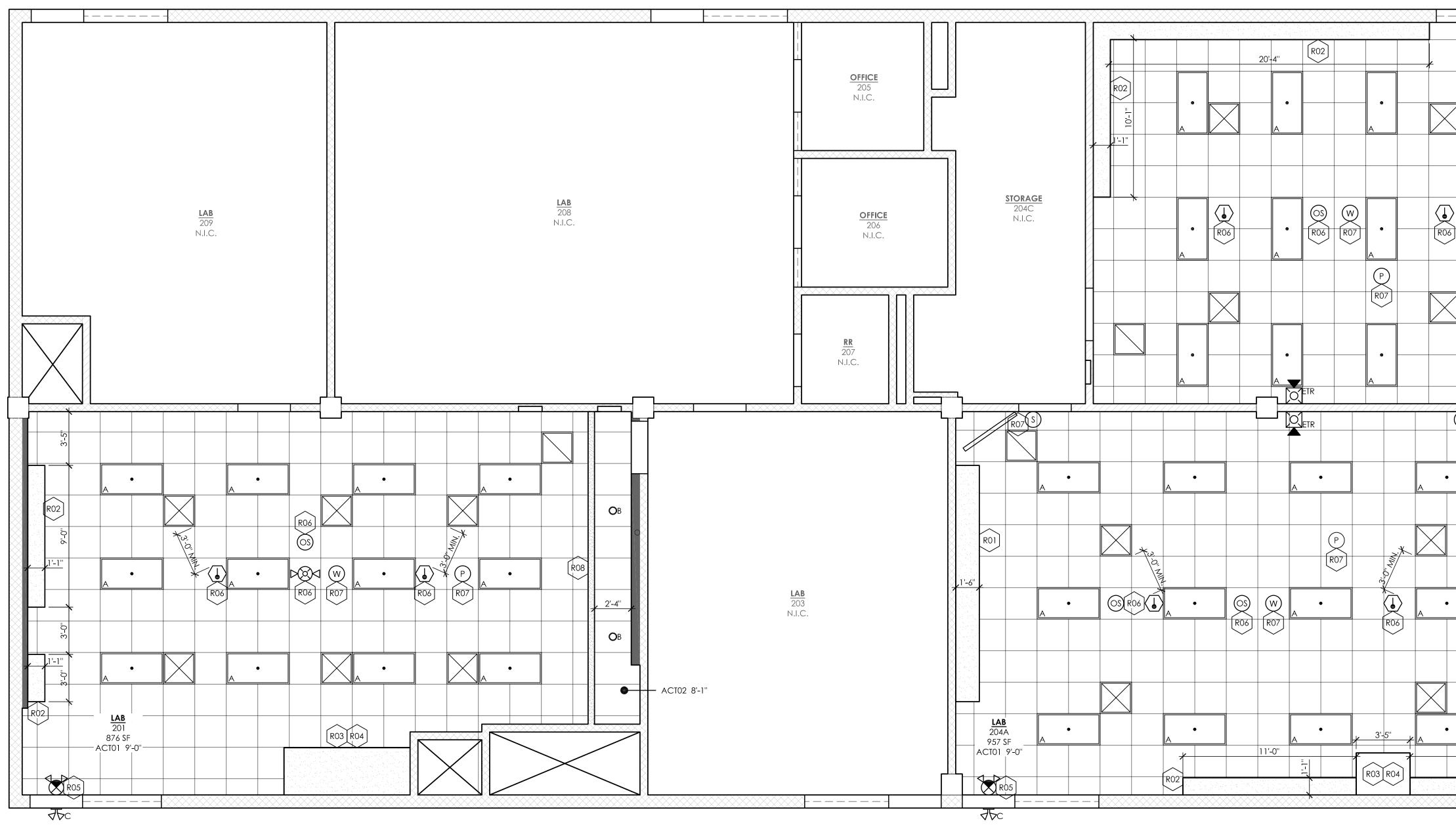






PROJECT #: 23030 DRAWN BY: KNG





## RENOVATION REFLECTED CEILING PLAN

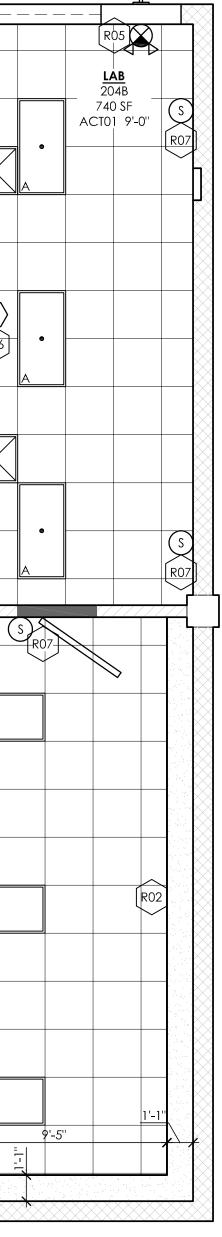




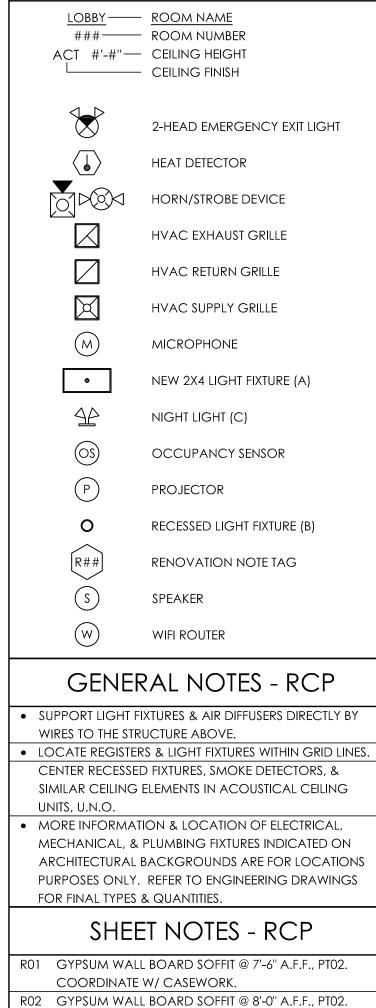
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ADC



LEGEND - RCP

- R02 GYPSUM WALL BOARD SOFFIT @ 8'-0" A.F.F., PT02. COORDINATE W/ CASEWORK.
- R03 GYPSUM WALL BOARD SOFFIT (PT02). COORDINATE DIMENSIONS WITH EXISTING FUME HOODS. R04 EXISTING FUME HOOD.
- R05 PROVIDE NEW 2-HEAD EMERGENCY EXIT LIGHT. R06 PROVIDE HEAT SENSOR, HORN/STROBE DEVICE, OCCUPANCY SENSOR (SEE ELEC./FA FOR MORE
- INFO.) R07 WIFI ROUTER, SPEAKERS, PROJECTOR, & TV PROVIDED
- & INSTALLED BY OWNER. R08 GWB BULKHEAD 1" BELOW ACT02 (COORD. HT. W/ CASEWORK).

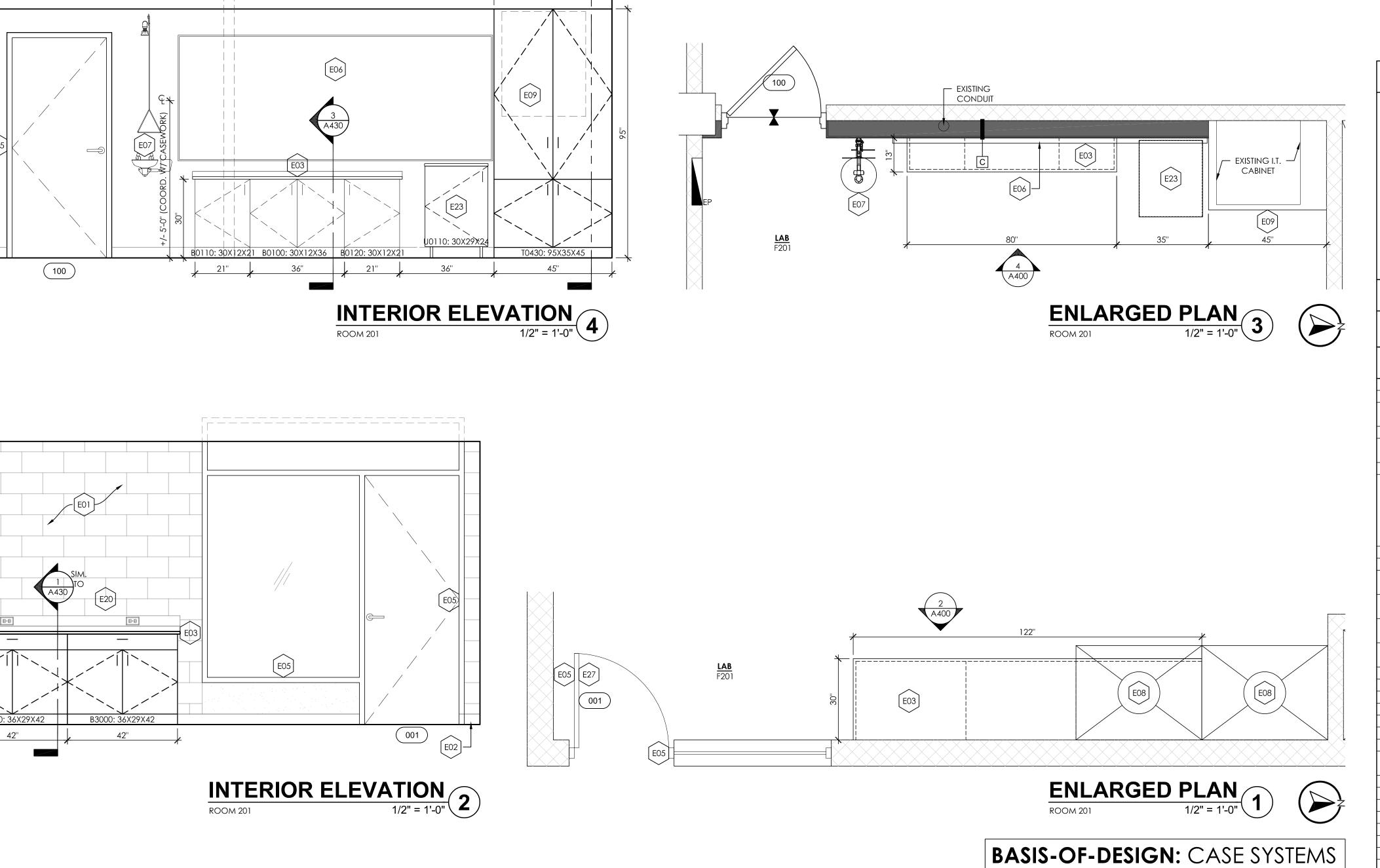


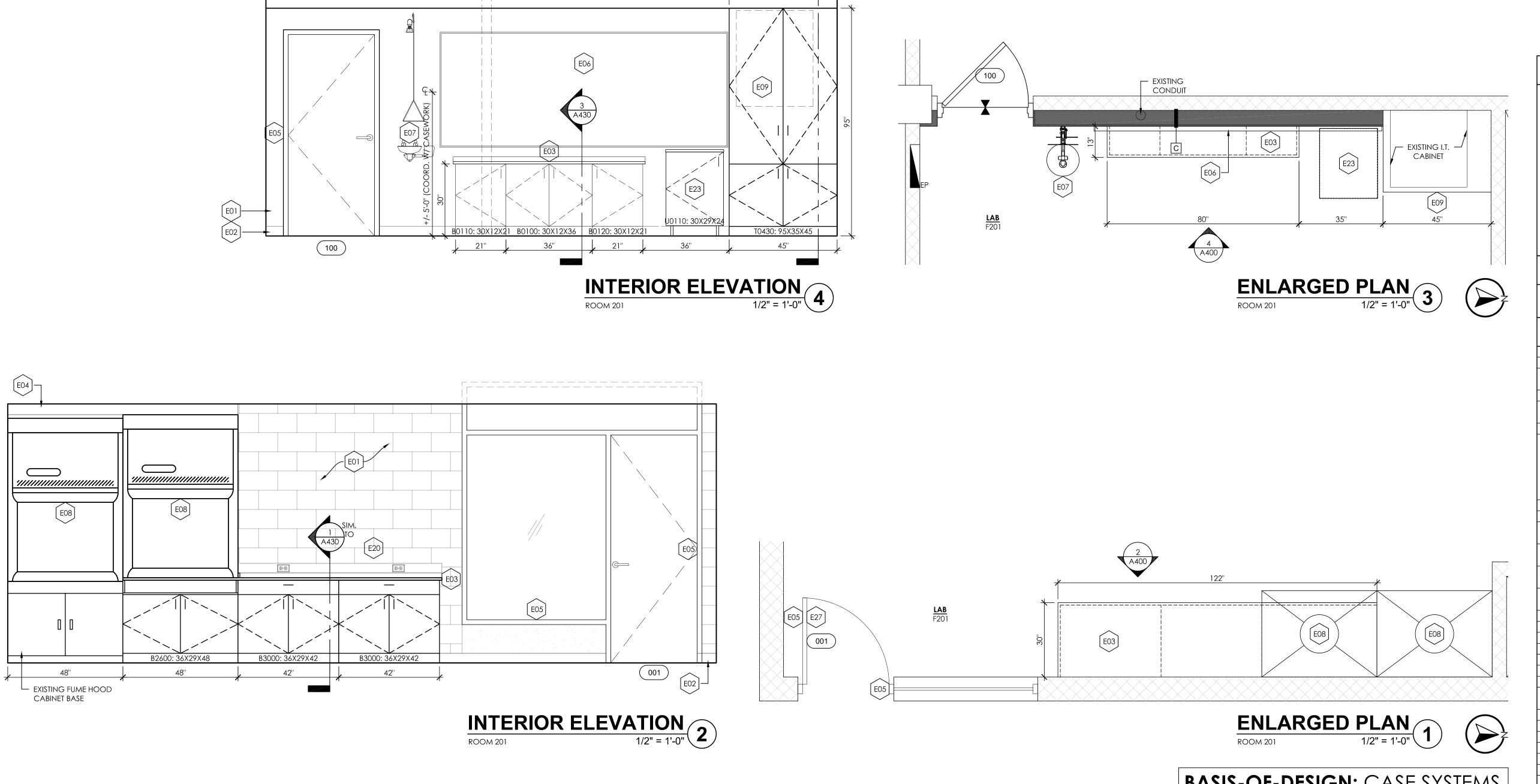
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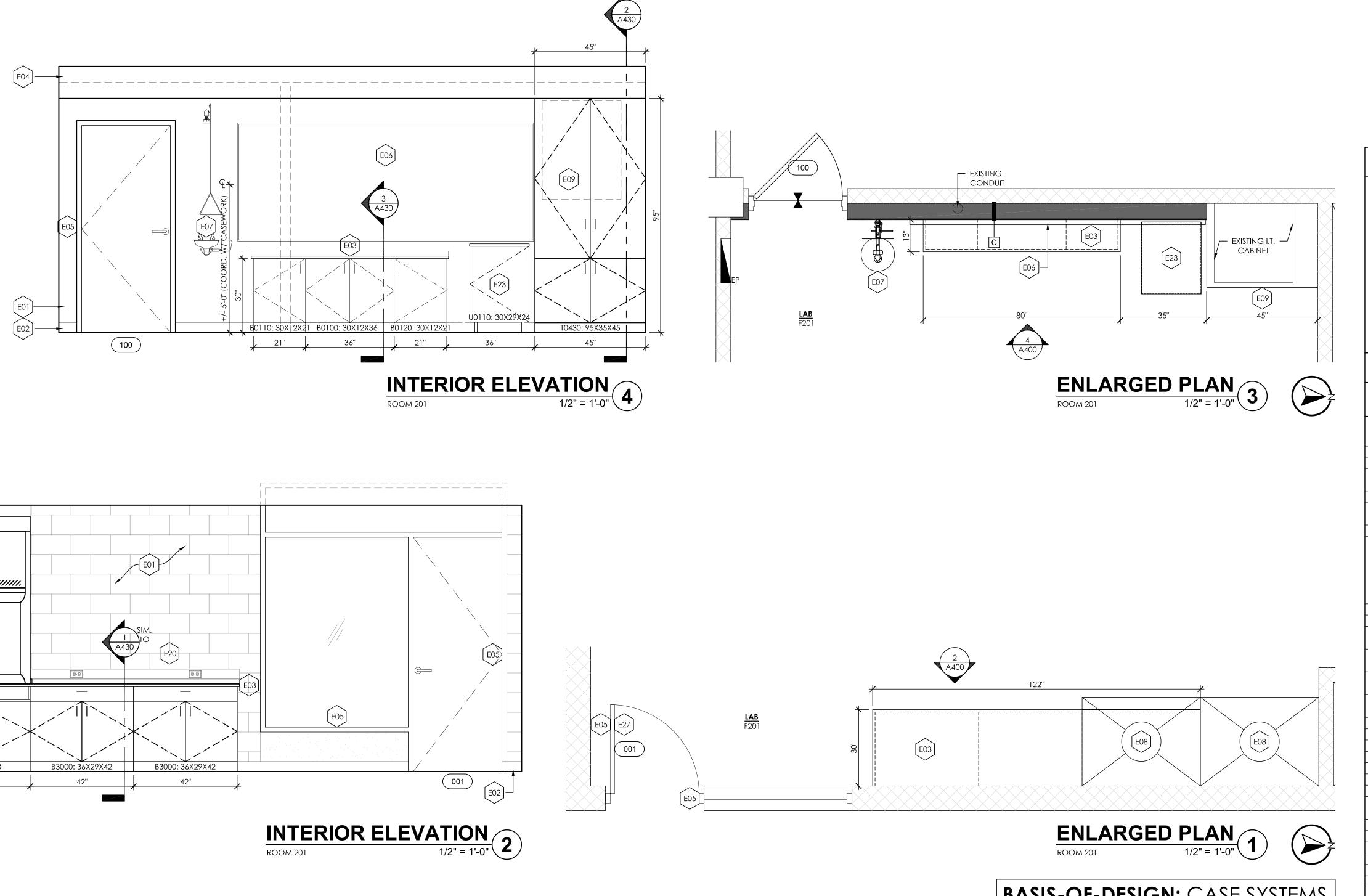
SHEET NAME:
<b>RENOVATION REFLECTED</b>
CEILING PLAN
PHASE:
BID SET

ISSUE DATE: 19 SEP 2024 PROJECT #: 23030 DRAWN BY: KNG











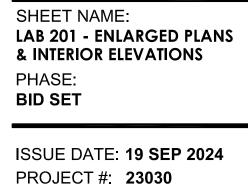




	LEGEN	d - elevations
B#:	##: ##X##X## 	WIDTH DEPTH HEIGHT MODEL #
	# 	DETAIL NUMBER SHEET NUMBER
	###	DOOR TAG
	E##	RENOVATION NOTE TAG
	X	TRANSITION STRIP
	<b>—</b> [A]	WALL TYPE
GE	ENERAL I	NOTES - PLANS/ELEV
N	(COM, INC.	TURER'S FOR CASEWORK: KEWAUNNE, CHEDULE) FOR ALL CASEWORK FACES.
	-	TES - PLANS & ELEV.
E01	PTO1.	
E02	EP01.	
E03	BLACK RESIN C REQUIRED).	OUNTERTOP & BACKSPLASH (WHERE
E04	GWB SOFFIT; P1	02.
E05		/NEW DOOR &/OR WINDOW FRAME;
	PT02.	
E06	EXISTING WHITE	BOARD. CLEAN AFTER INSTALL.
E07		?/EYEWASH STATION FROM
		04B. PROVIDE NEW SHOWER
		SE NO MORE THAN 48" A.F.F. IF UNABLE
		ING PROVIDE (ADD ALTERNATE): <b>GN:</b> BRADLEY: COMBINATION DRENCH
		FACE WASH UNIT \$19-312.
E08	EXISTING FUME	
E09	I.T. CABINET. R	EMOVE ALL SHELVES.
E10	resin sink (Ca	SE SYSTEMS: SS520) & FAUCET (CASE
	SYSTEMS: SF853	-
E11		AY ELUHAD211545PD) & FAUCET (CASE
E12	SYSTEMS: SF853	). items: ss510) & faucet (case systems:
	SF603).	
E13	SINK (CASE SYS SF853).	TEMS: SS510) & FAUCET (CASE SYSTEMS:
E14	GAS CHECK V	alve (Case systems: sf022).
E15	POWER TOMBS	
E16	PAPER TOWEL	
E17 E18	SOAP DISPENSE	
E19		OWNER PROVIDED & INSTALLED).
E20	METAL POWER	
E21	FRIDGE &/OR F	REEZER (OWNER PROVIDED &
E22	INSTALLED).	
E22 E23	TEACHING STA	(SEE PLUMBING). TION.
E24	EXISTING FIRE E	
E25		NER PROVIDED & INSTALLED).
E26	DUPLEX OUTLET	& DATA OUTLET.
E27		R SIDE OF EXTERIOR DOOR; PT03.
E28		OVIDED & INSTALLED.
E29	EXISTING GAS S	HUI-OFF.

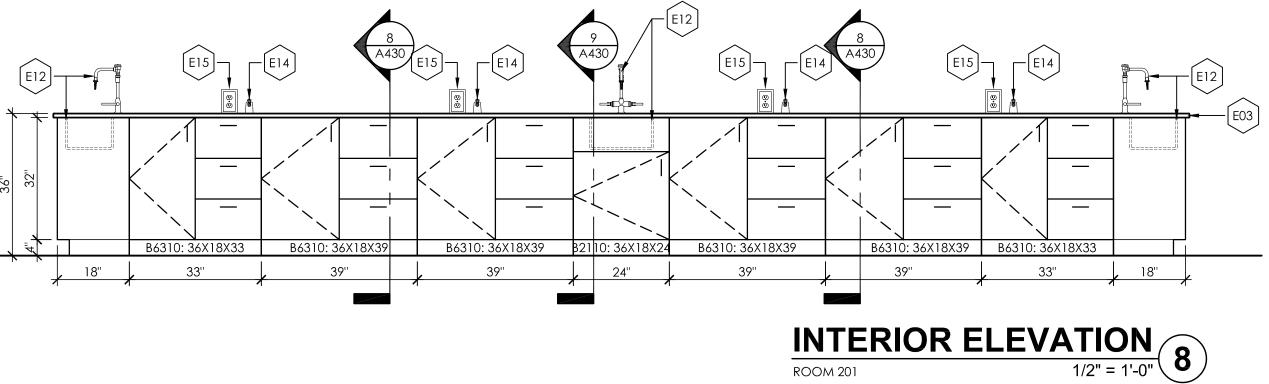


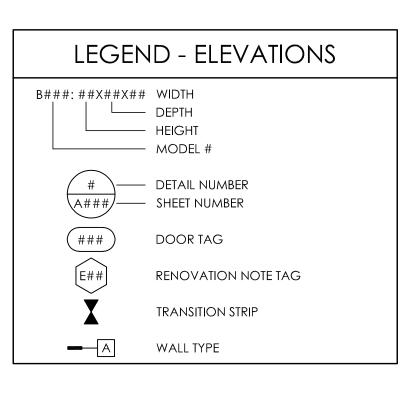
REVISIONS:										
#	description:	DATE								

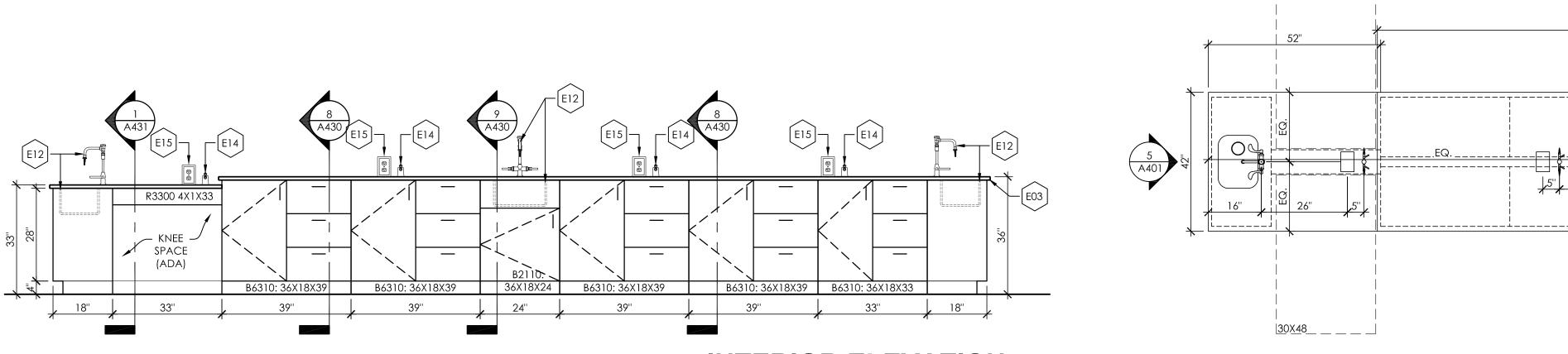


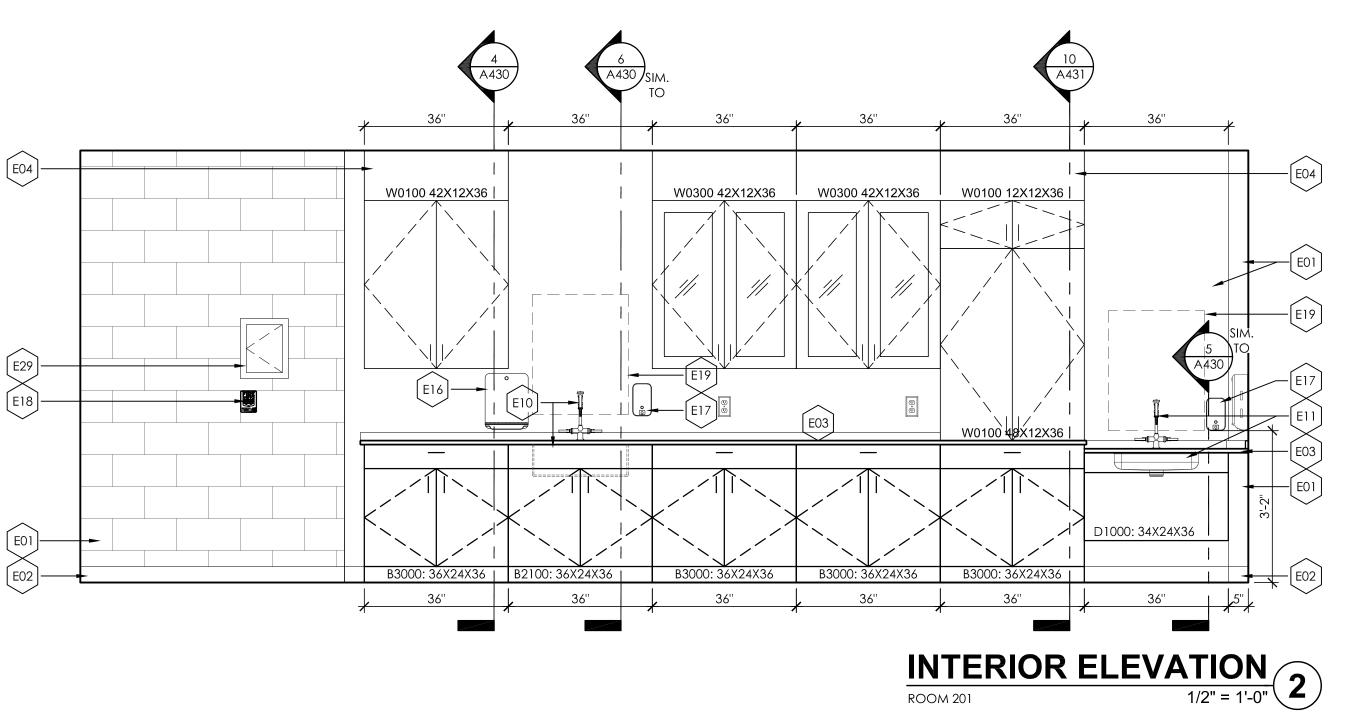
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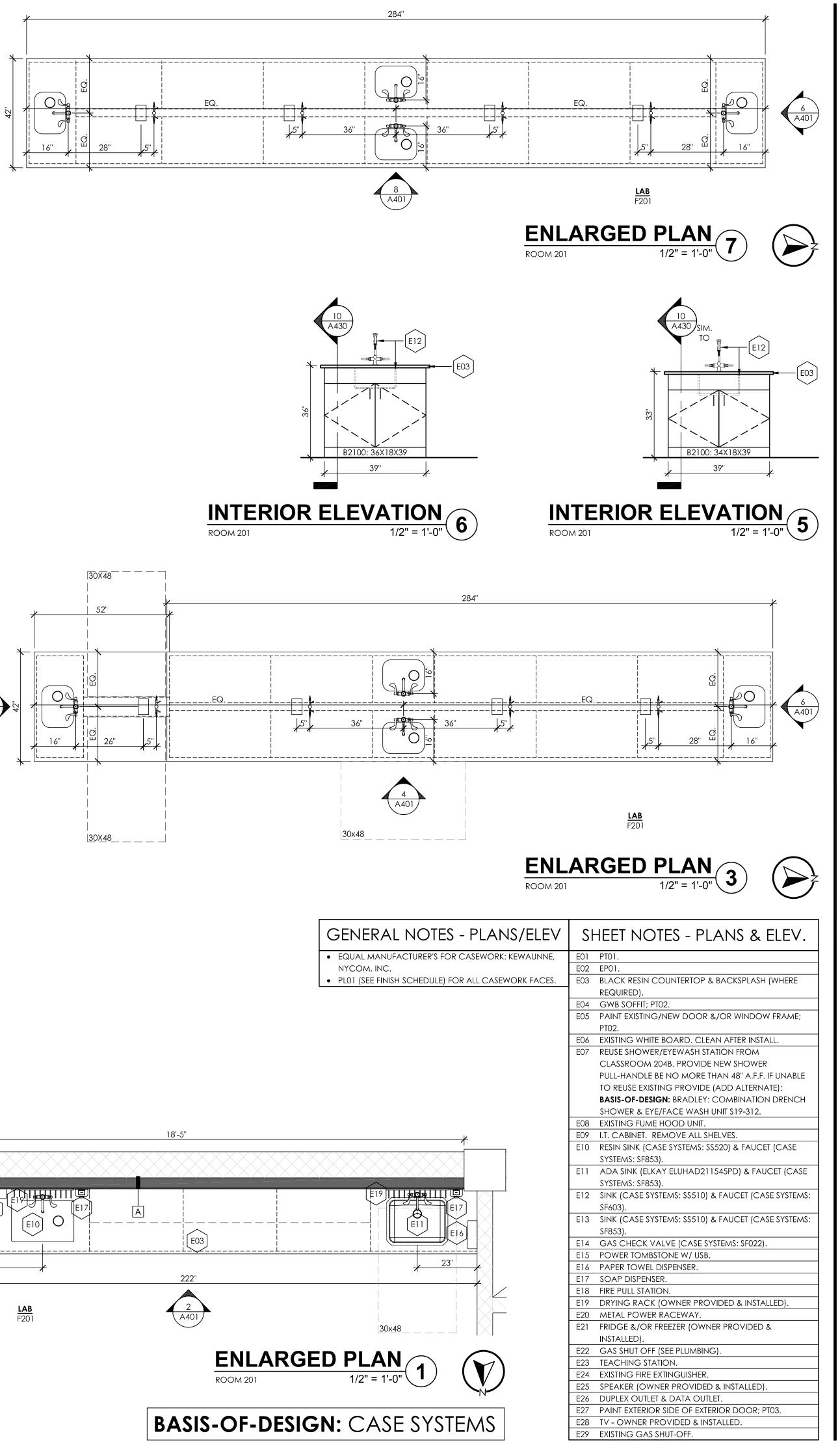
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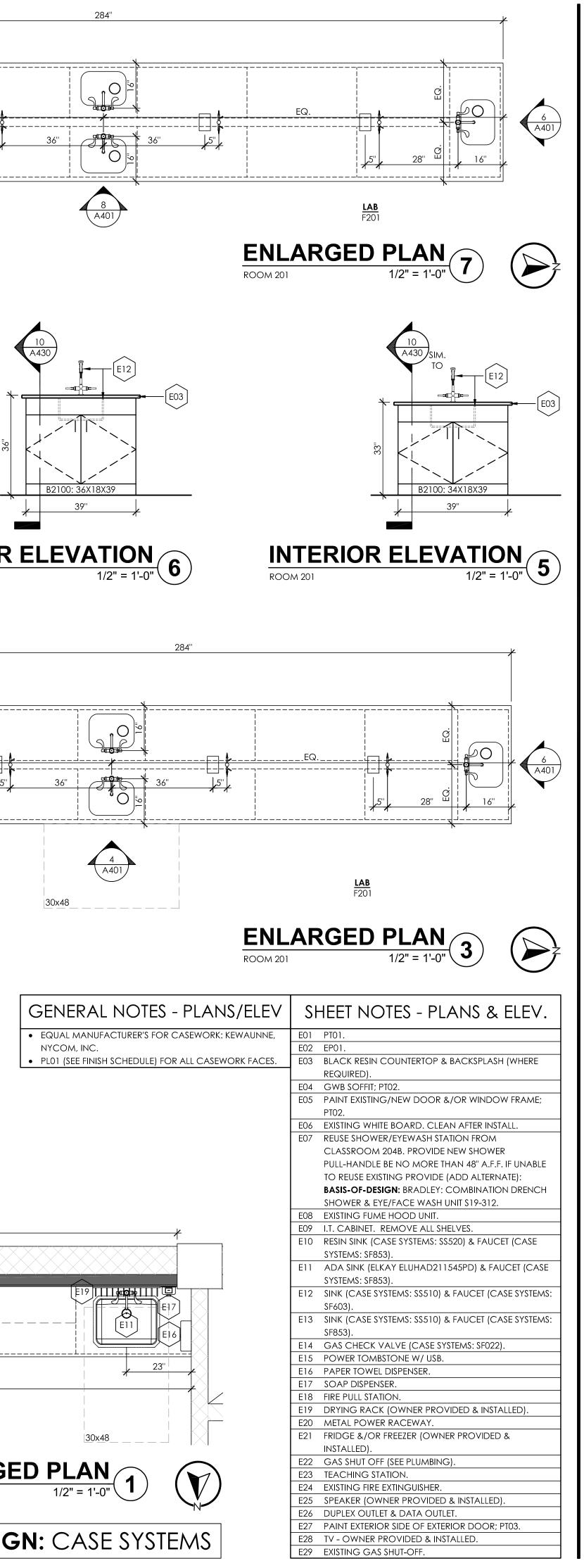


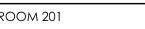




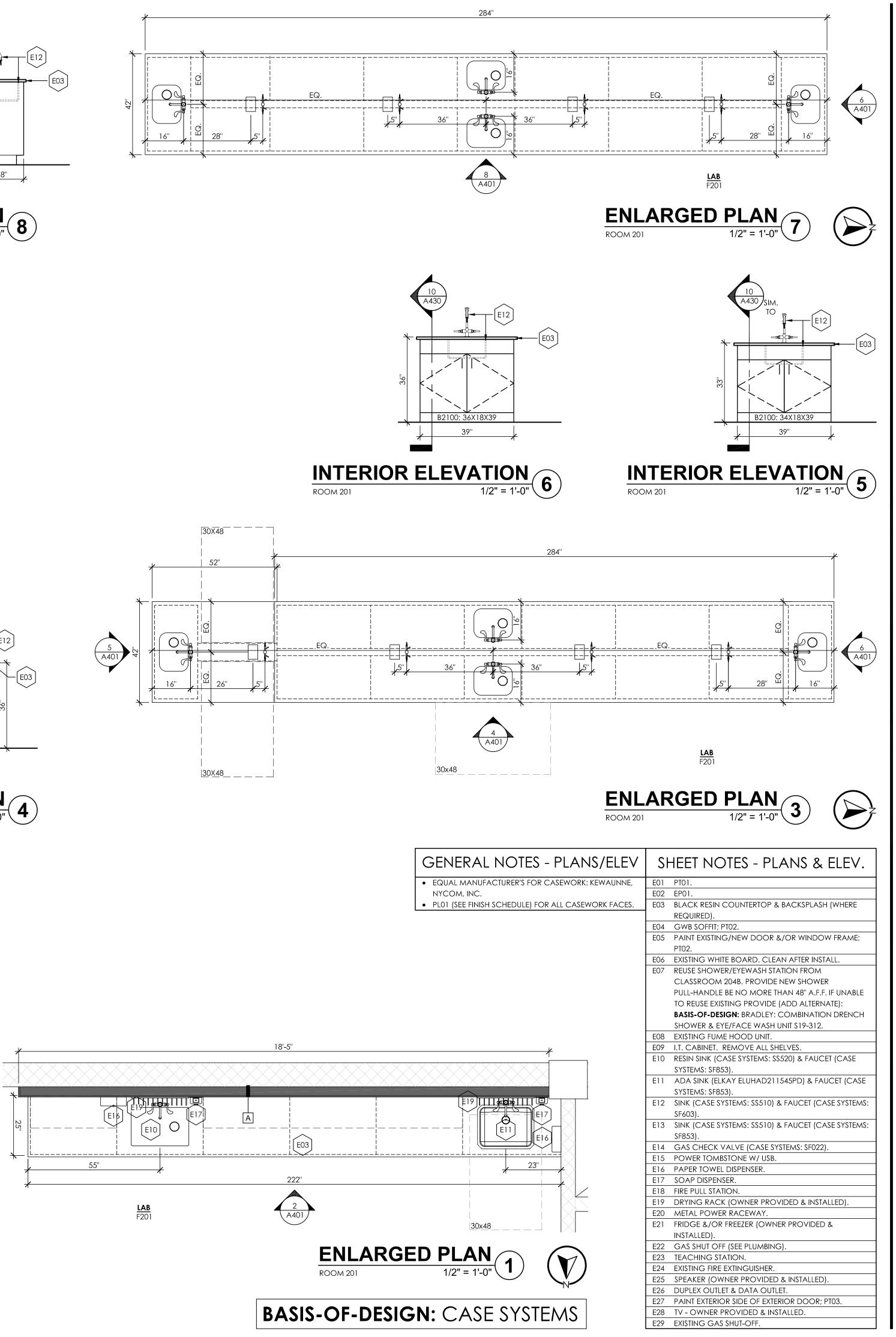










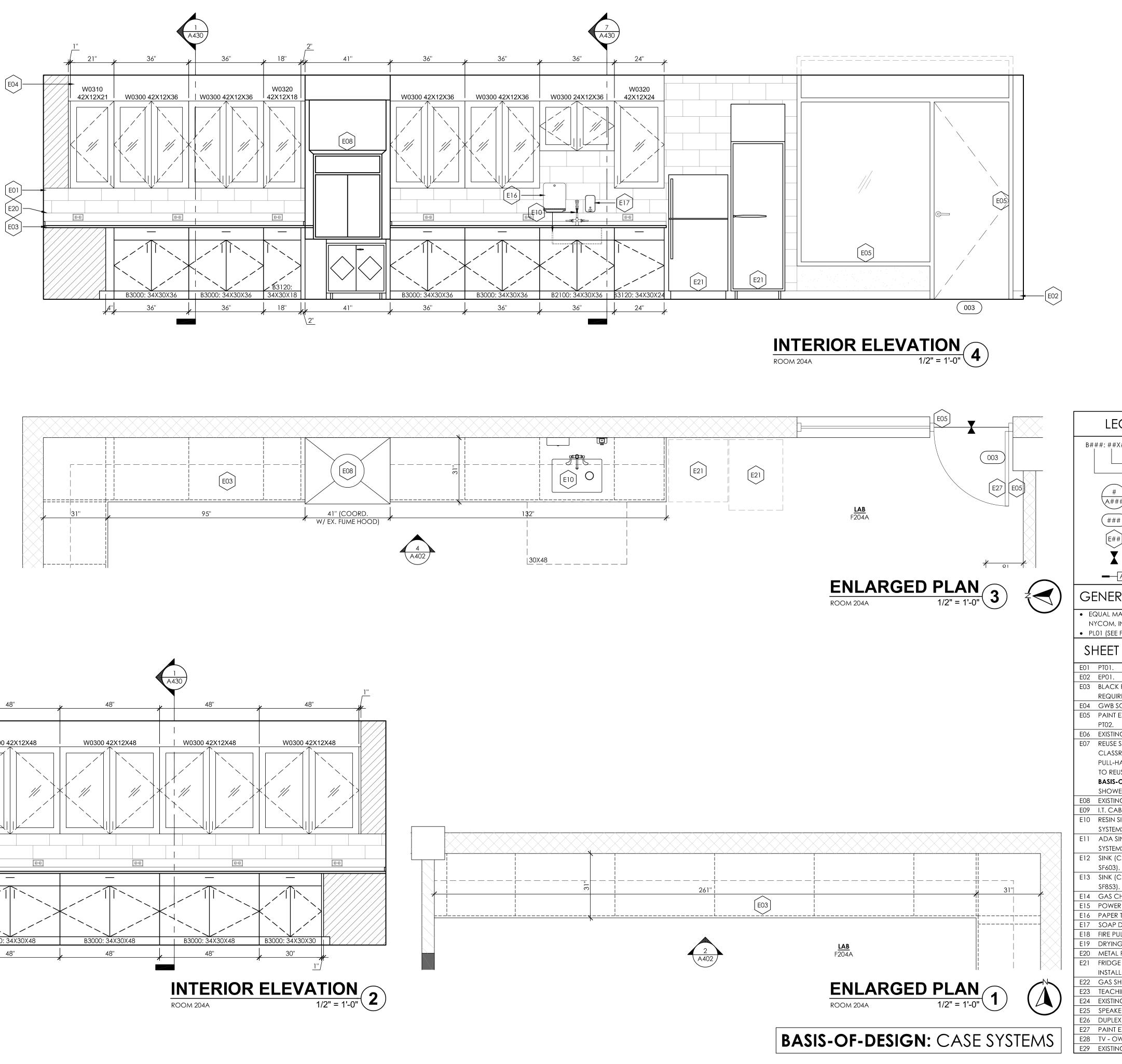


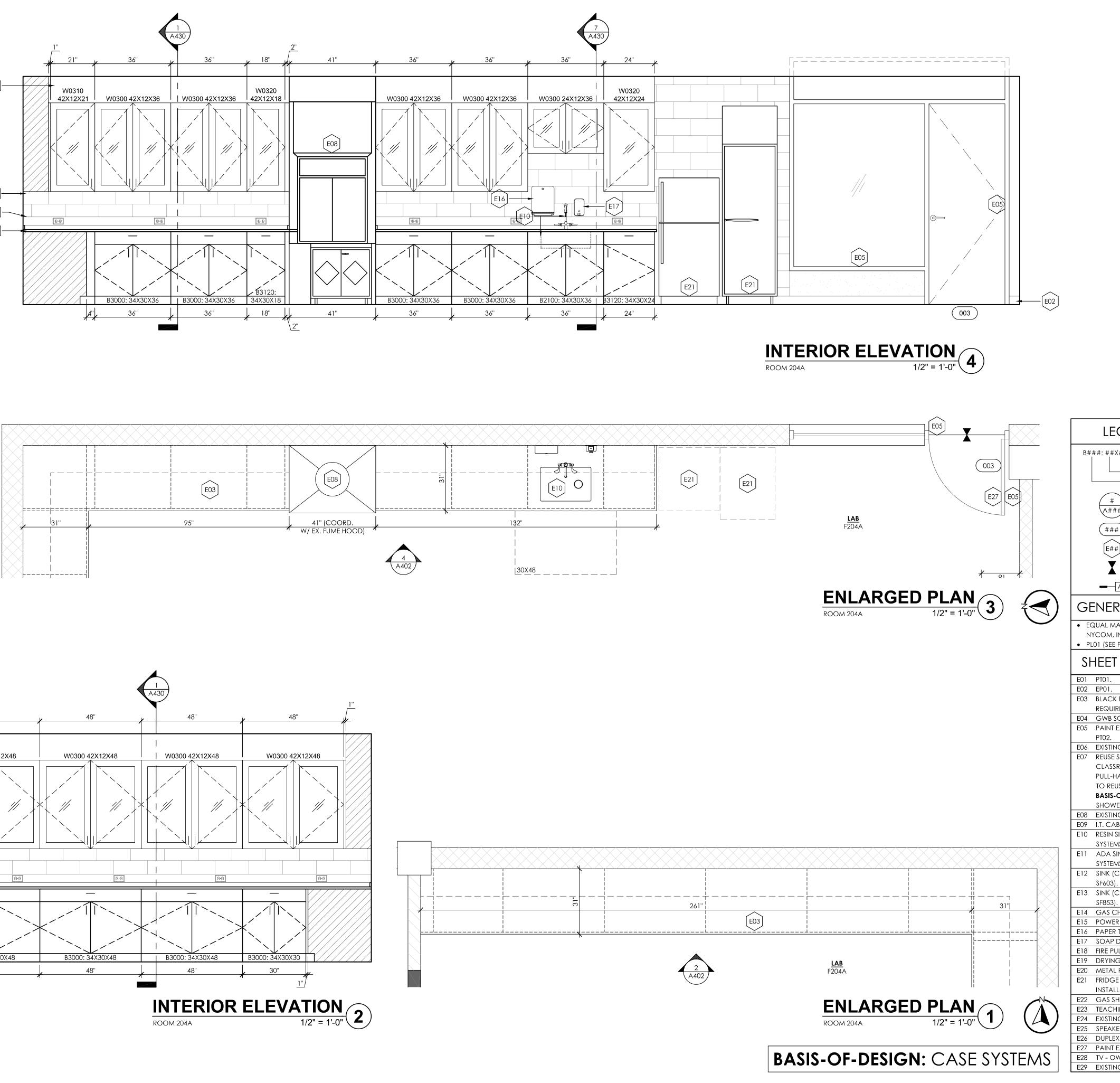


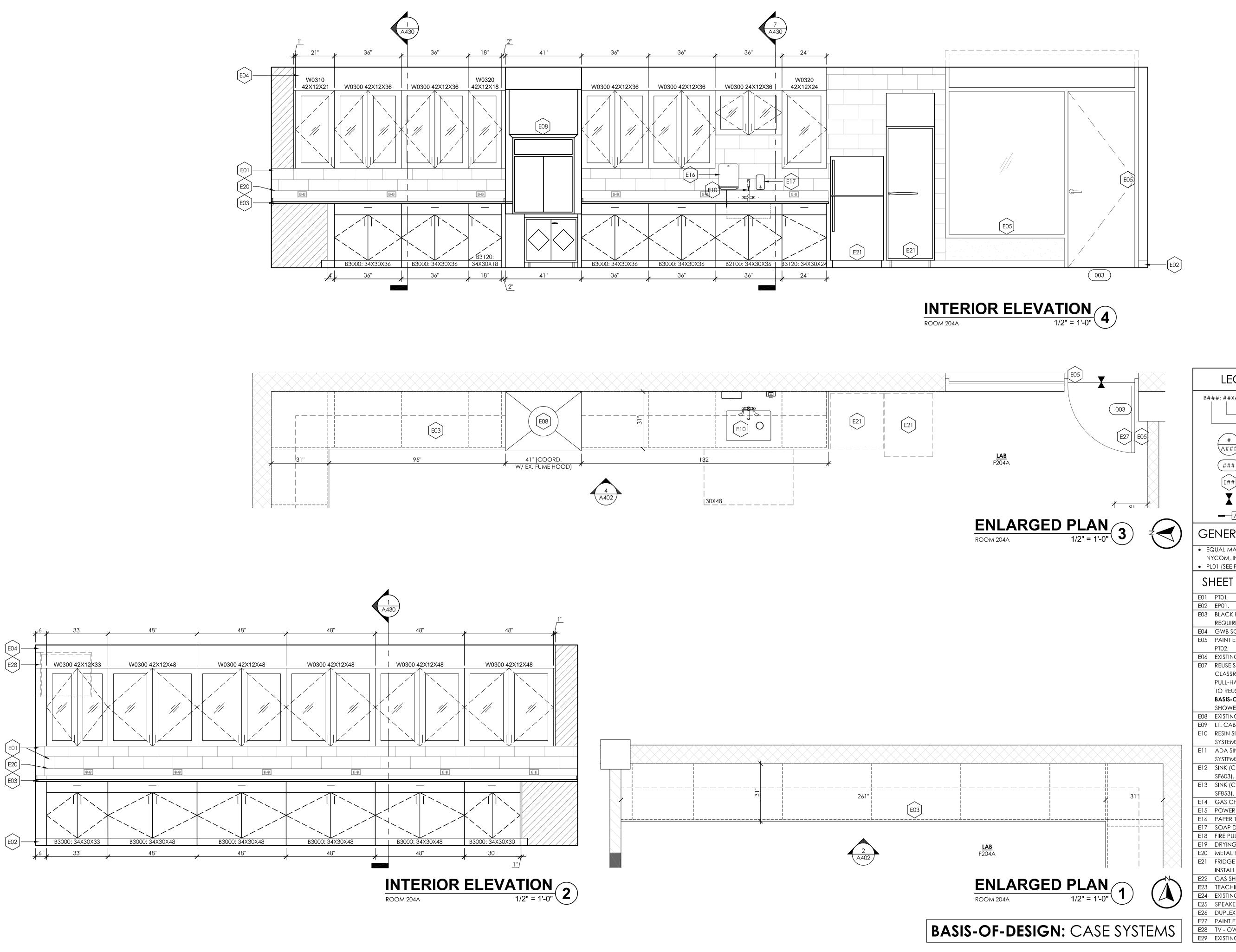
SHEET NAME: LAB 201 - ENLARGED PLANS & INTERIOR ELEVATIONS PHASE: BID SET

ISSUE DATE: 19 SEP 2024 PROJECT #: 23030 DRAWN BY: KNG

SHEET NUMBER A40 ·







	LEGEND - ELEVATIONS
B##	##: ##X##X## WIDTH DEPTH HEIGHT MODEL #
	# DETAIL NUMBER
	### DOOR TAG
	E## RENOVATION NOTE TAG
	TRANSITION STRIP
	A WALL TYPE
GE	ENERAL NOTES - PLANS/ELEV
	QUAL MANUFACTURER'S FOR CASEWORK: KEWAUNNE, YCOM, INC.
	.01 (SEE FINISH SCHEDULE) FOR ALL CASEWORK FACES.
SF	HEET NOTES - PLANS & ELEV.
E01	PT01.
E02 E03	EP01. BLACK RESIN COUNTERTOP & BACKSPLASH (WHERE
	REQUIRED).
E04	
E05	PAINT EXISTING/NEW DOOR &/OR WINDOW FRAME; PT02.
E06	EXISTING WHITE BOARD. CLEAN AFTER INSTALL.
E07	REUSE SHOWER/EYEWASH STATION FROM CLASSROOM 204B. PROVIDE NEW SHOWER PULL-HANDLE BE NO MORE THAN 48" A.F.F. IF UNABLE TO REUSE EXISTING PROVIDE (ADD ALTERNATE): BASIS-OF-DESIGN: BRADLEY: COMBINATION DRENCH SHOWER & EYE/FACE WASH UNIT \$19-312.
E08	EXISTING FUME HOOD UNIT.
E09	I.T. CABINET. REMOVE ALL SHELVES.
E10	RESIN SINK (CASE SYSTEMS: SS520) & FAUCET (CASE SYSTEMS: SF853).
E11	ADA SINK (ELKAY ELUHAD211545PD) & FAUCET (CASE SYSTEMS: SF853).
E12	SINK (CASE SYSTEMS: SS510) & FAUCET (CASE SYSTEMS: SF603).
E13	SINK (CASE SYSTEMS: SS510) & FAUCET (CASE SYSTEMS: SF853).
E14	GAS CHECK VALVE (CASE SYSTEMS: SF022).
E15	POWER TOMBSTONE W/ USB.
E16	PAPER TOWEL DISPENSER.
E17 E18	SOAP DISPENSER. FIRE PULL STATION.
E19	DRYING RACK (OWNER PROVIDED & INSTALLED).
E20	METAL POWER RACEWAY.
E21	FRIDGE &/OR FREEZER (OWNER PROVIDED & INSTALLED).
E22	GAS SHUT OFF (SEE PLUMBING).
E23	TEACHING STATION.
E24	EXISTING FIRE EXTINGUISHER.
E25	SPEAKER (OWNER PROVIDED & INSTALLED).
E26	DUPLEX OUTLET & DATA OUTLET.
E27	PAINT EXTERIOR SIDE OF EXTERIOR DOOR; PT03.
E28	TV - OWNER PROVIDED & INSTALLED.

E28 TV - OWNER PROVIDED & INST E29 EXISTING GAS SHUT-OFF.



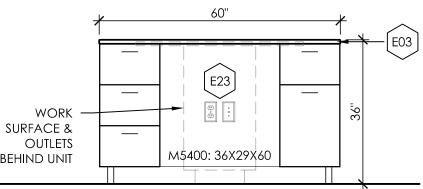


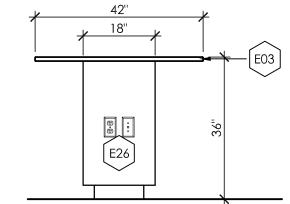
REVISIONS:												
#	description:	DATE										

SHEET NAME: LAB 204A - ENLARGED PLANS & INTERIOR ELEVATIONS PHASE: **BID SET** 

ISSUE DATE: 19 SEP 2024 PROJECT #: 23030 DRAWN BY: KNG



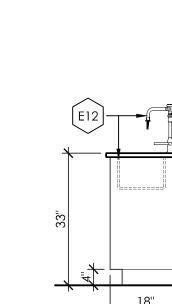


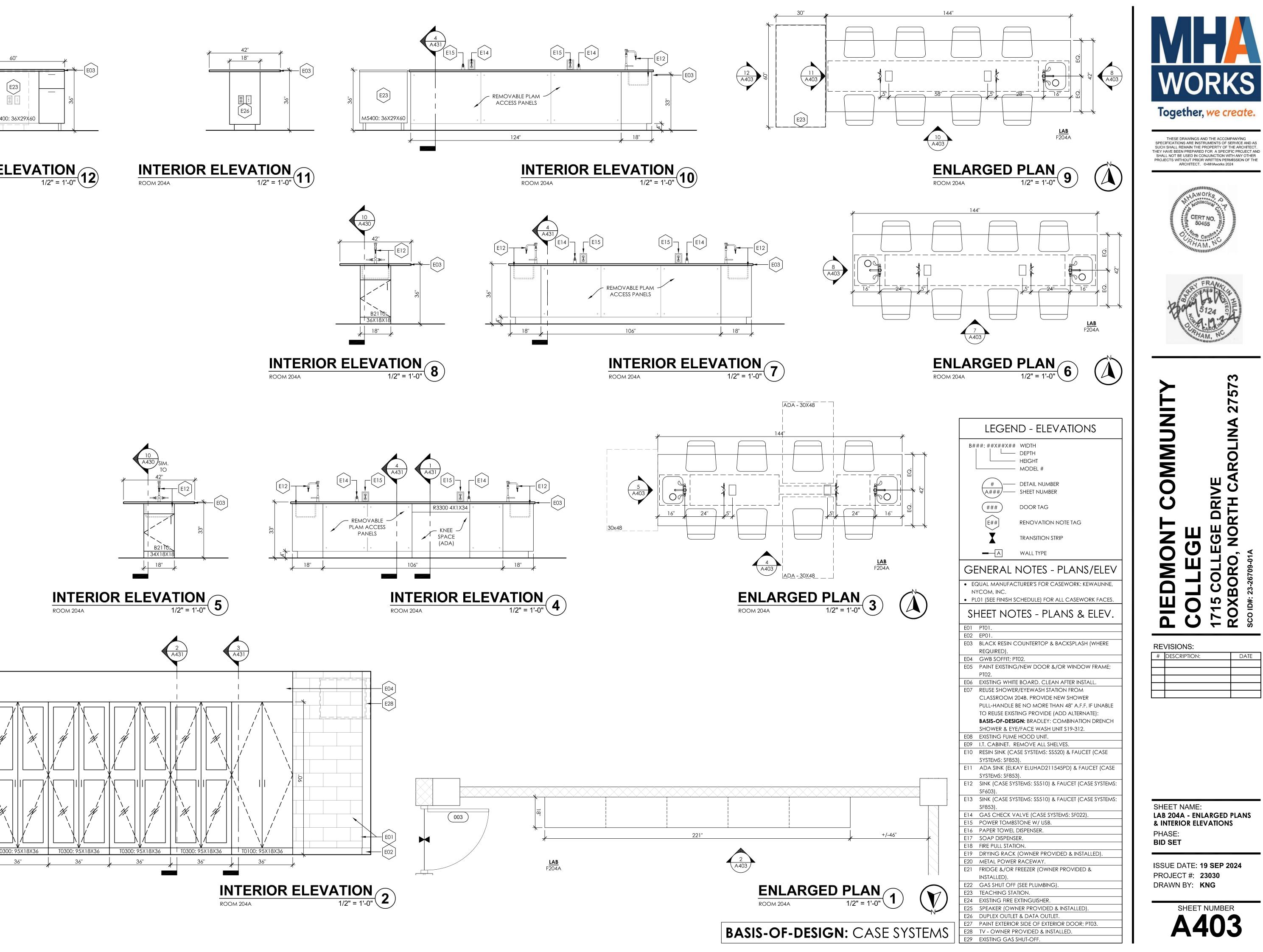


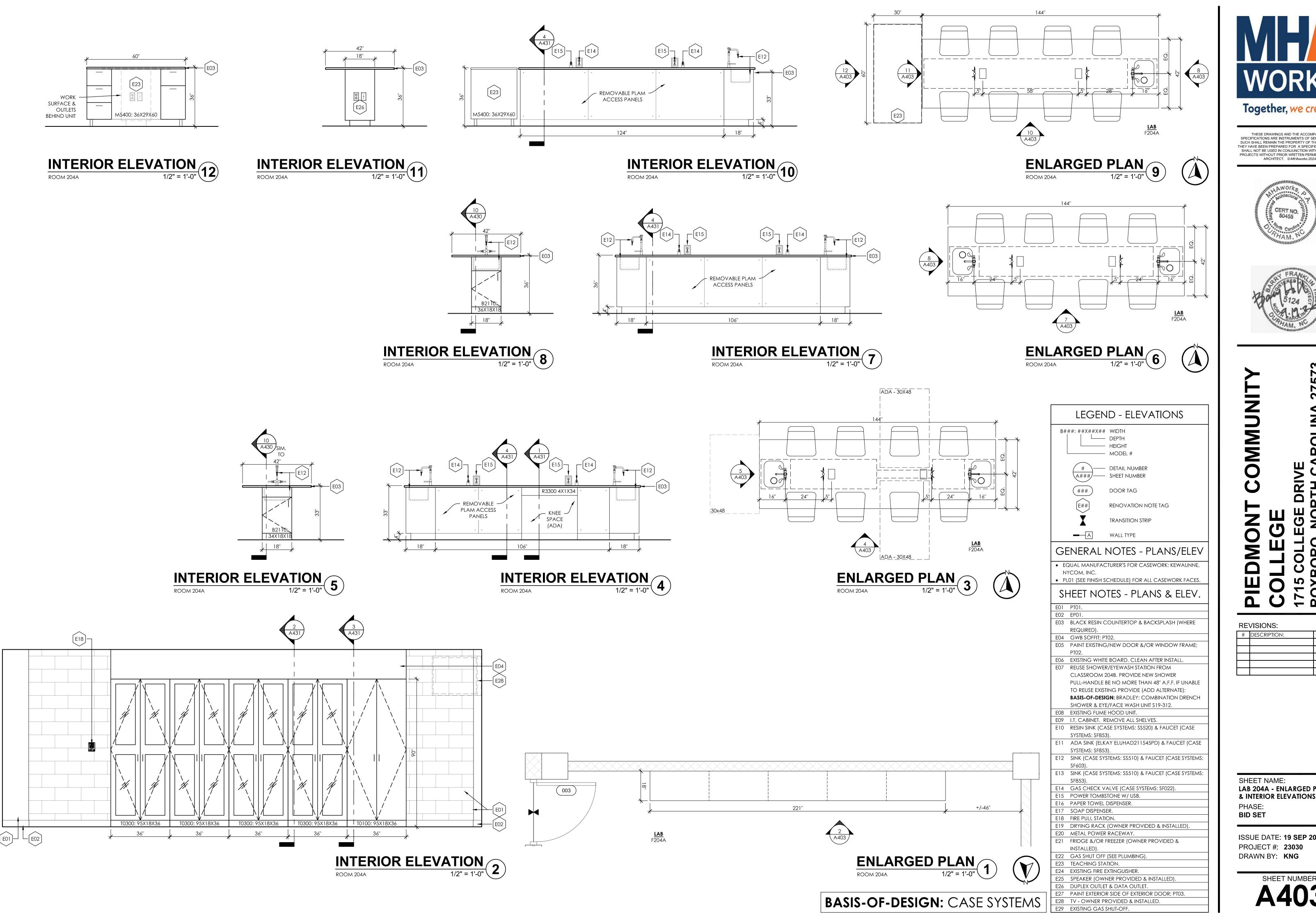




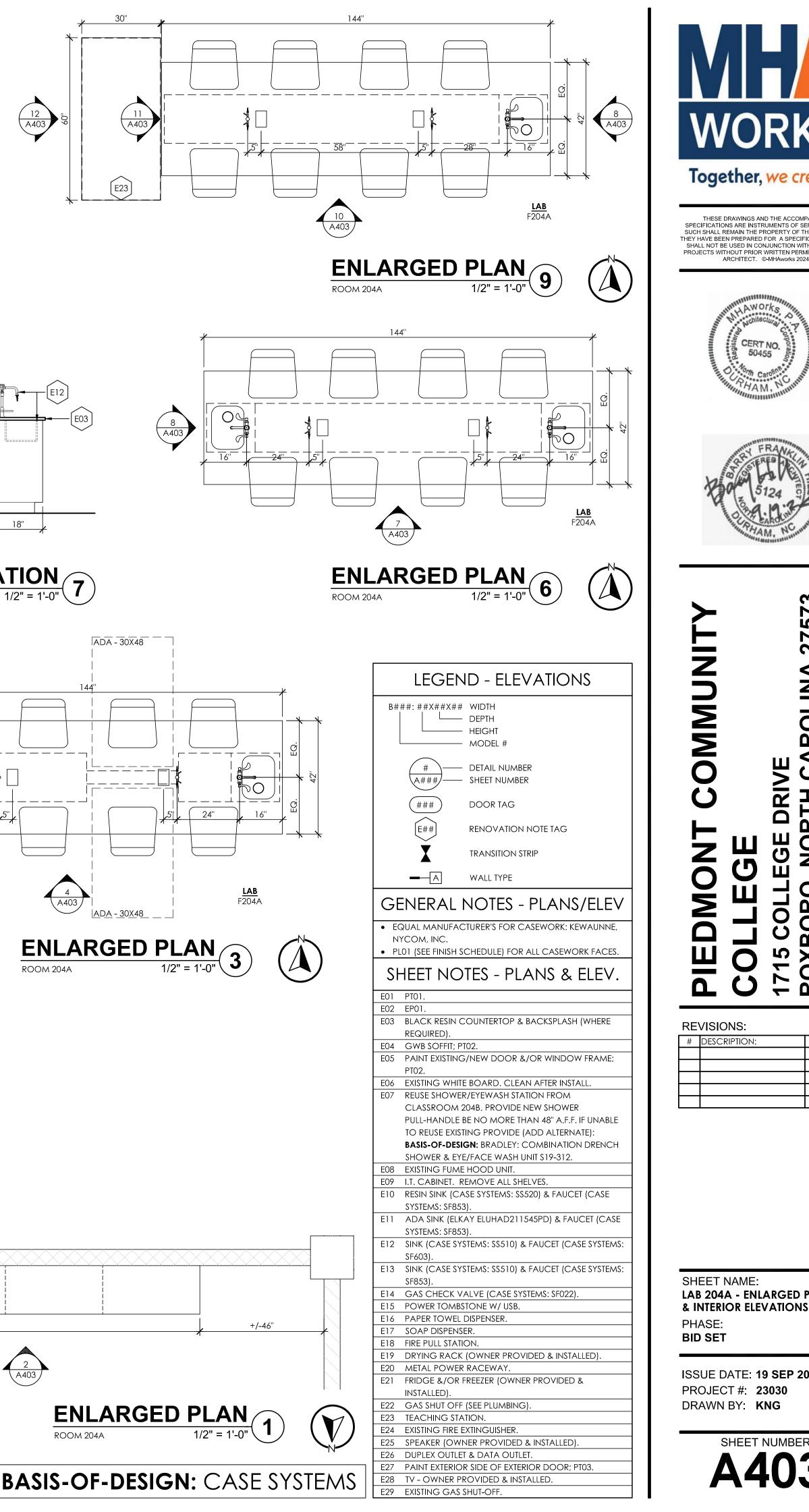






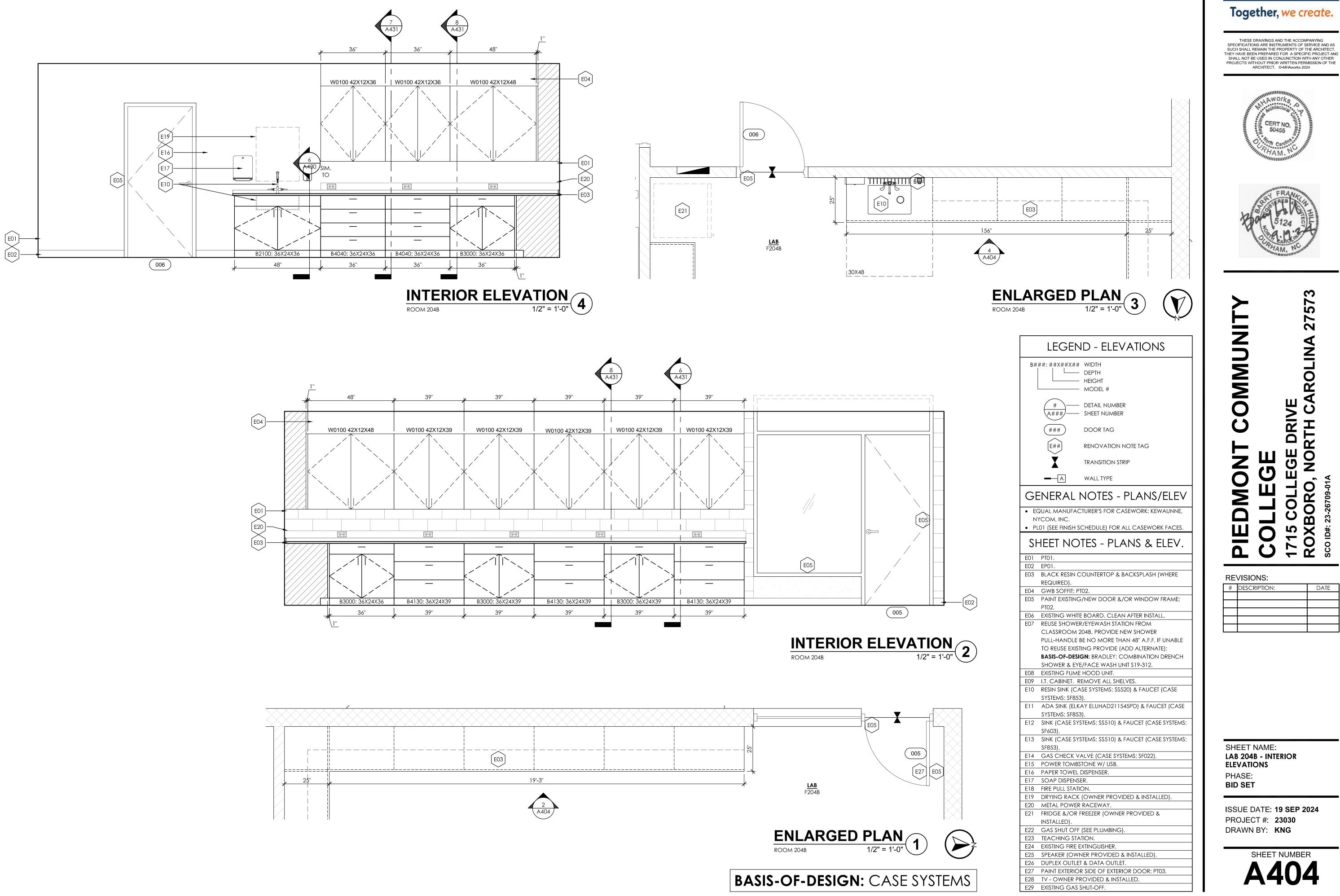


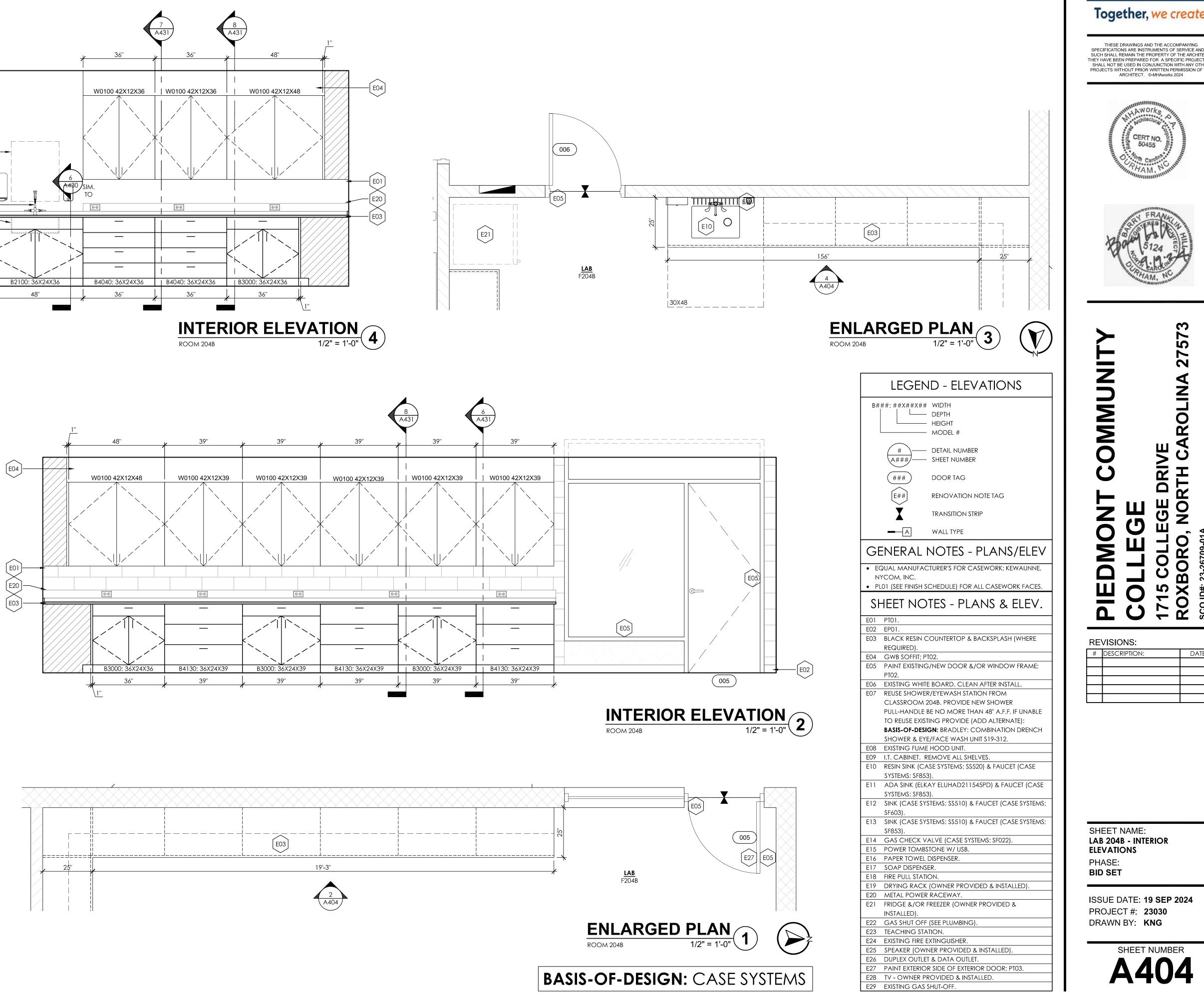


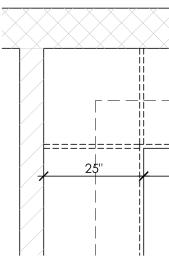


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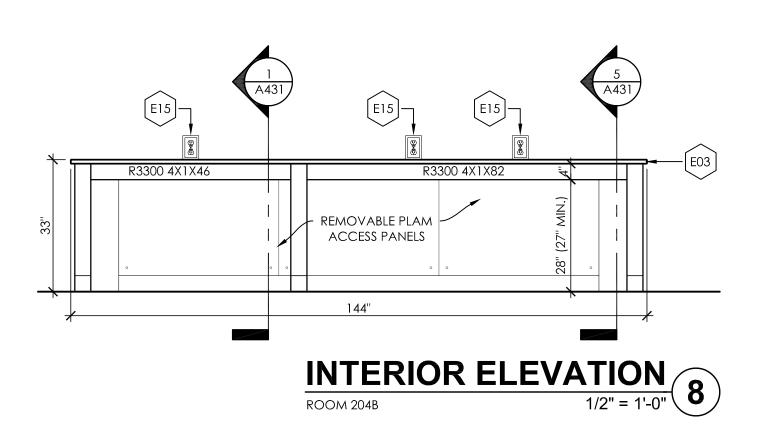
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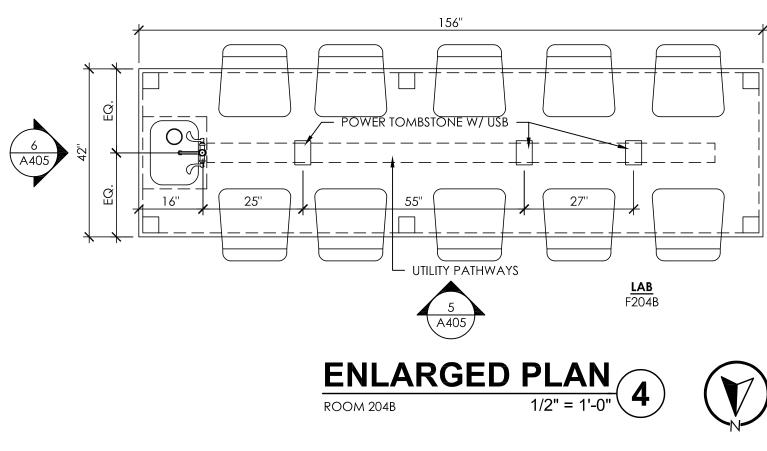


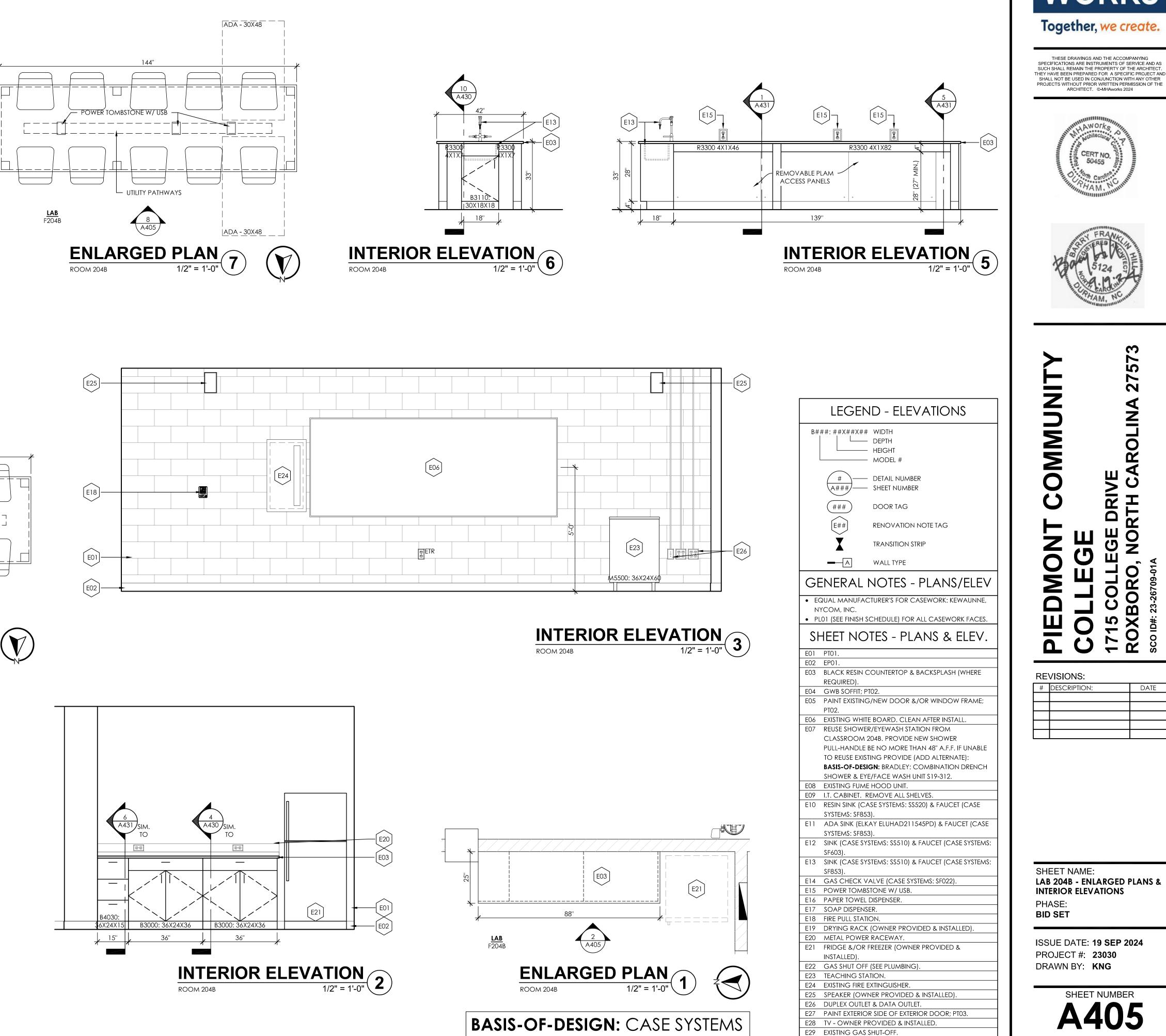


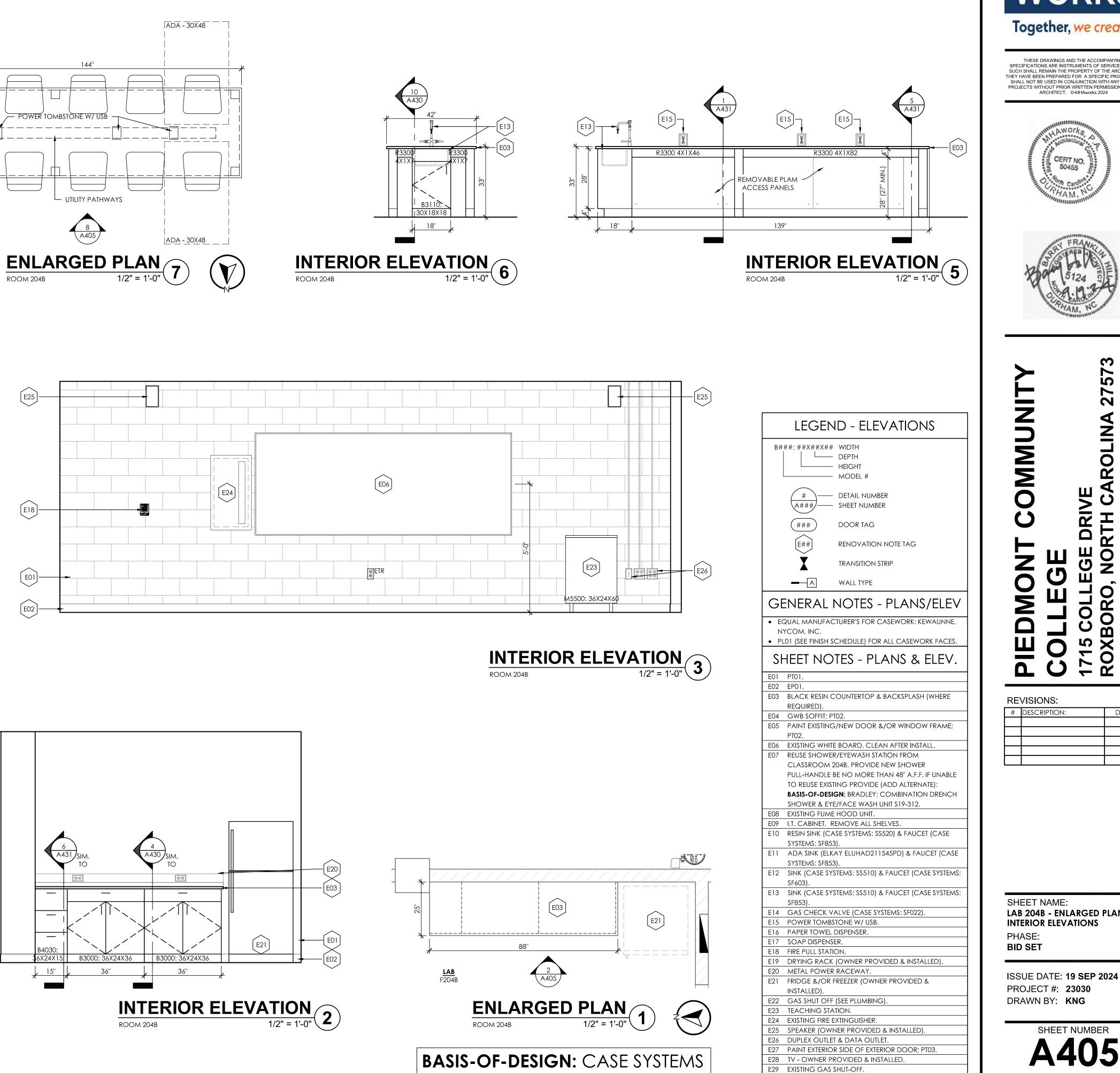


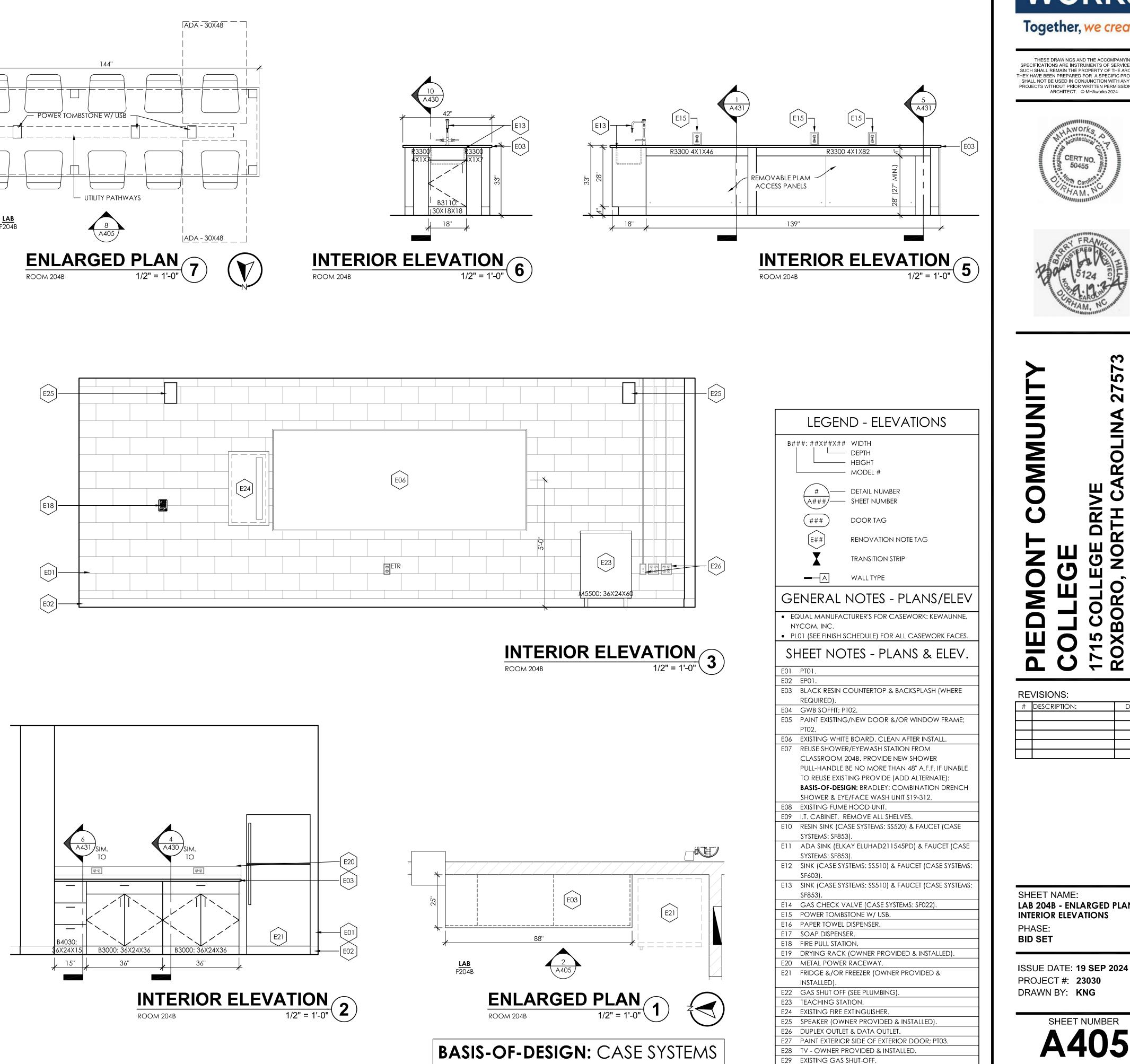










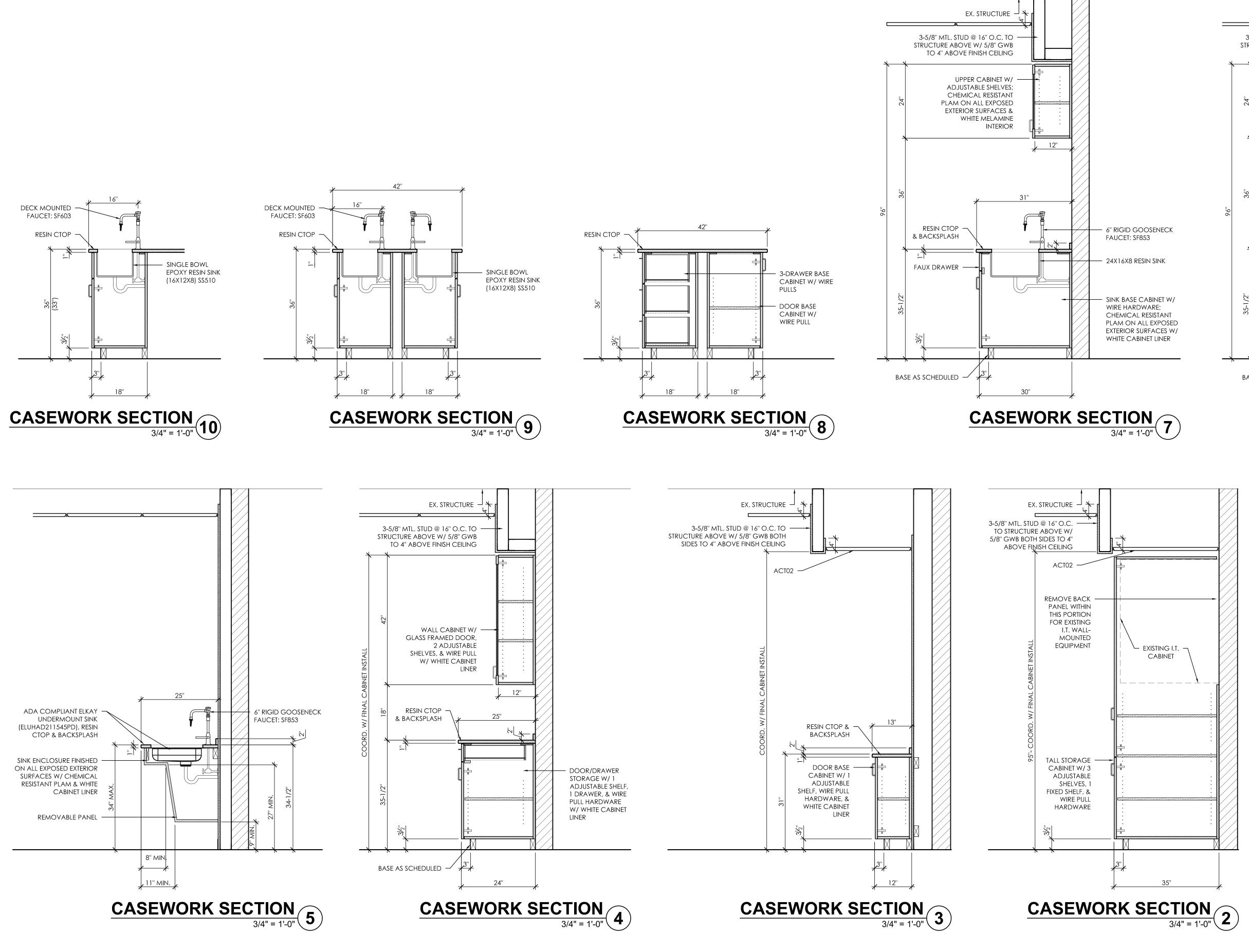




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DATE

LAB 204B - ENLARGED PLANS & INTERIOR ELEVATIONS

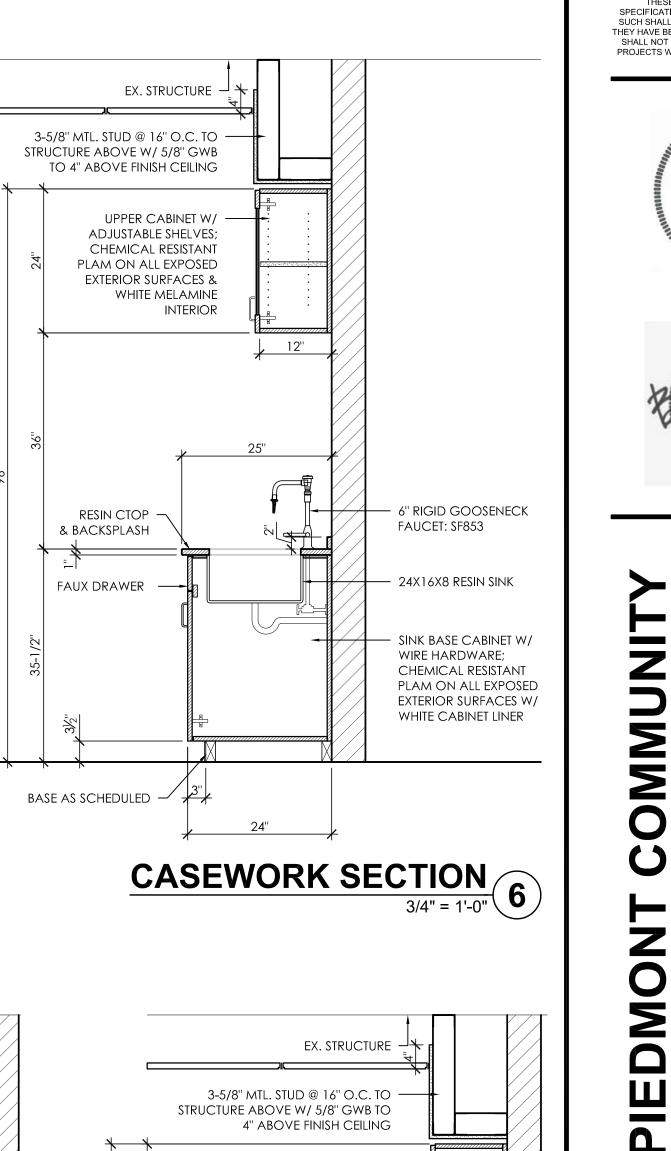


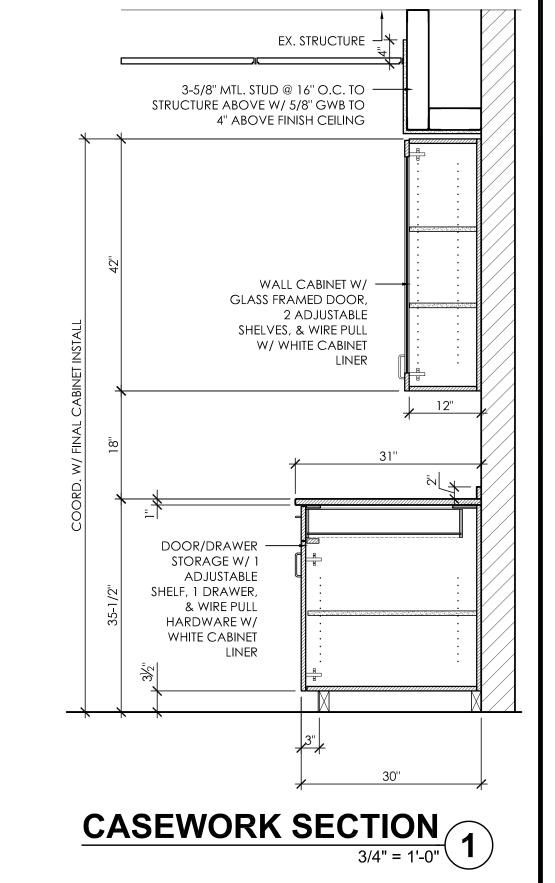


ISSUE DATE: 19 SEP 2024 PROJECT #: 23030 DRAWN BY: KNG

PHASE: **BID SET** 

SHEET NAME: CASEWORK SECTIONS







Together, we create.

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> CERT NO. 50455

> > 27573

IVE CAROLINA

EGE DRIV NORTH

1715 COLLEC ROXBORO, N sco ID#: 23-26709-01A

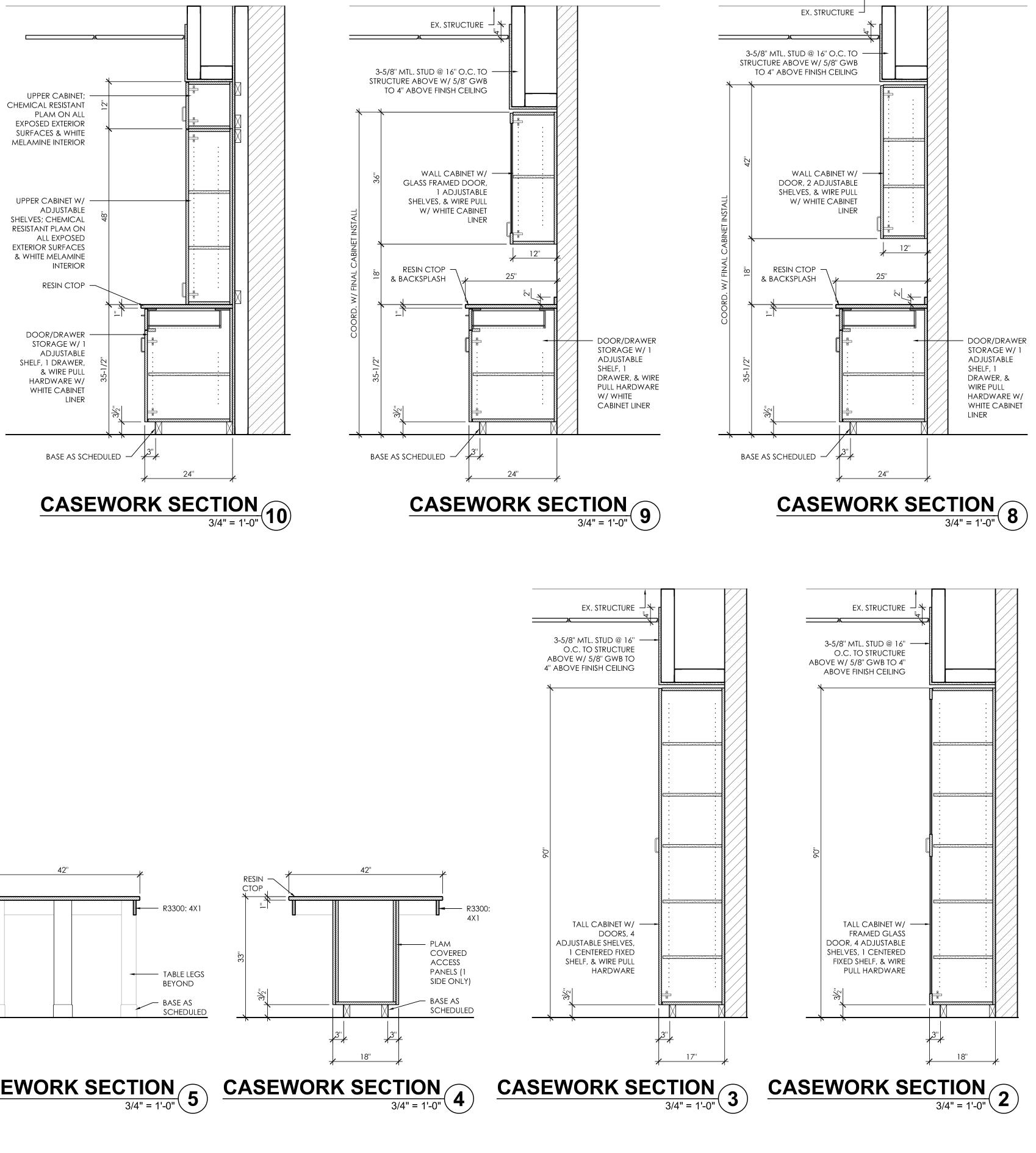
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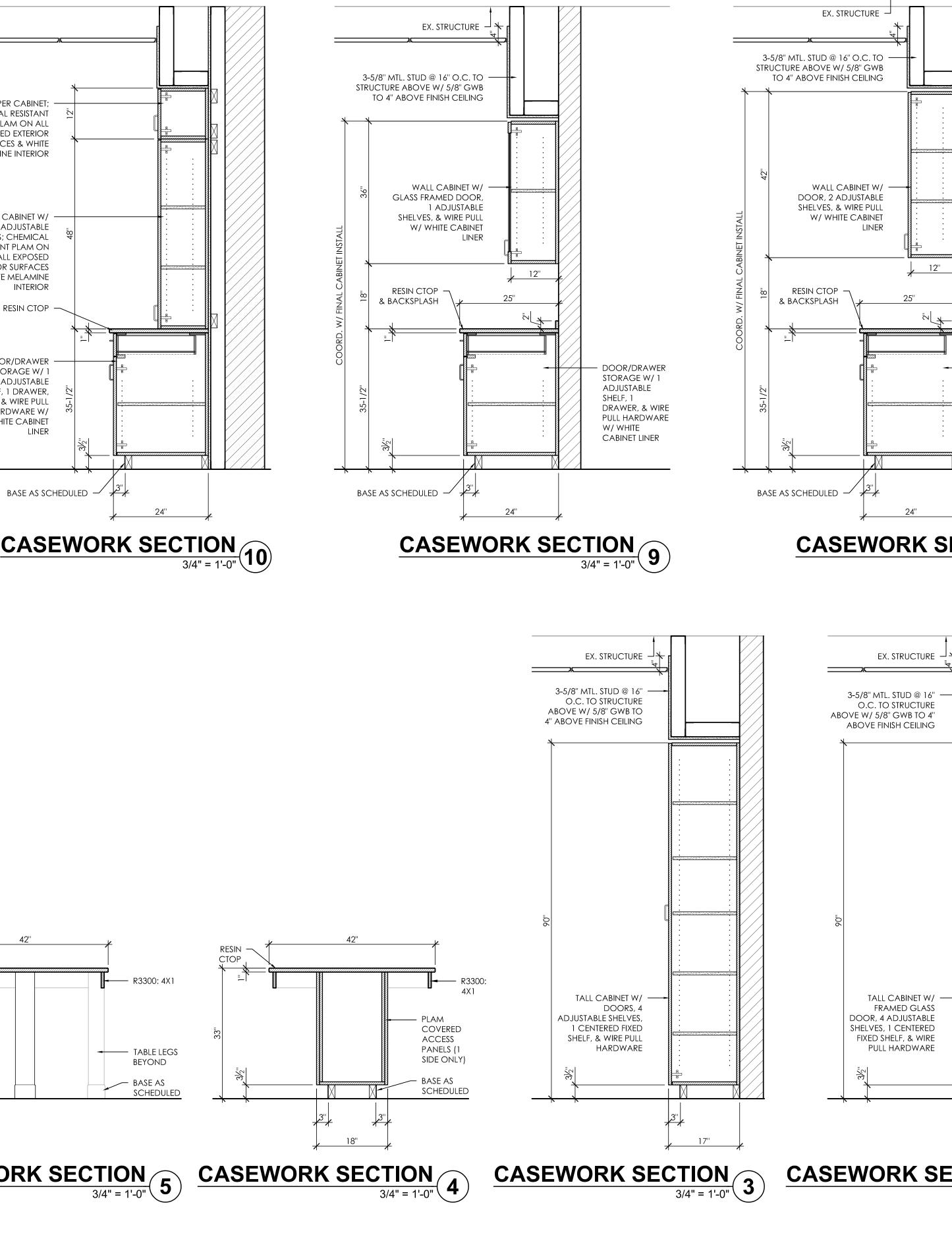
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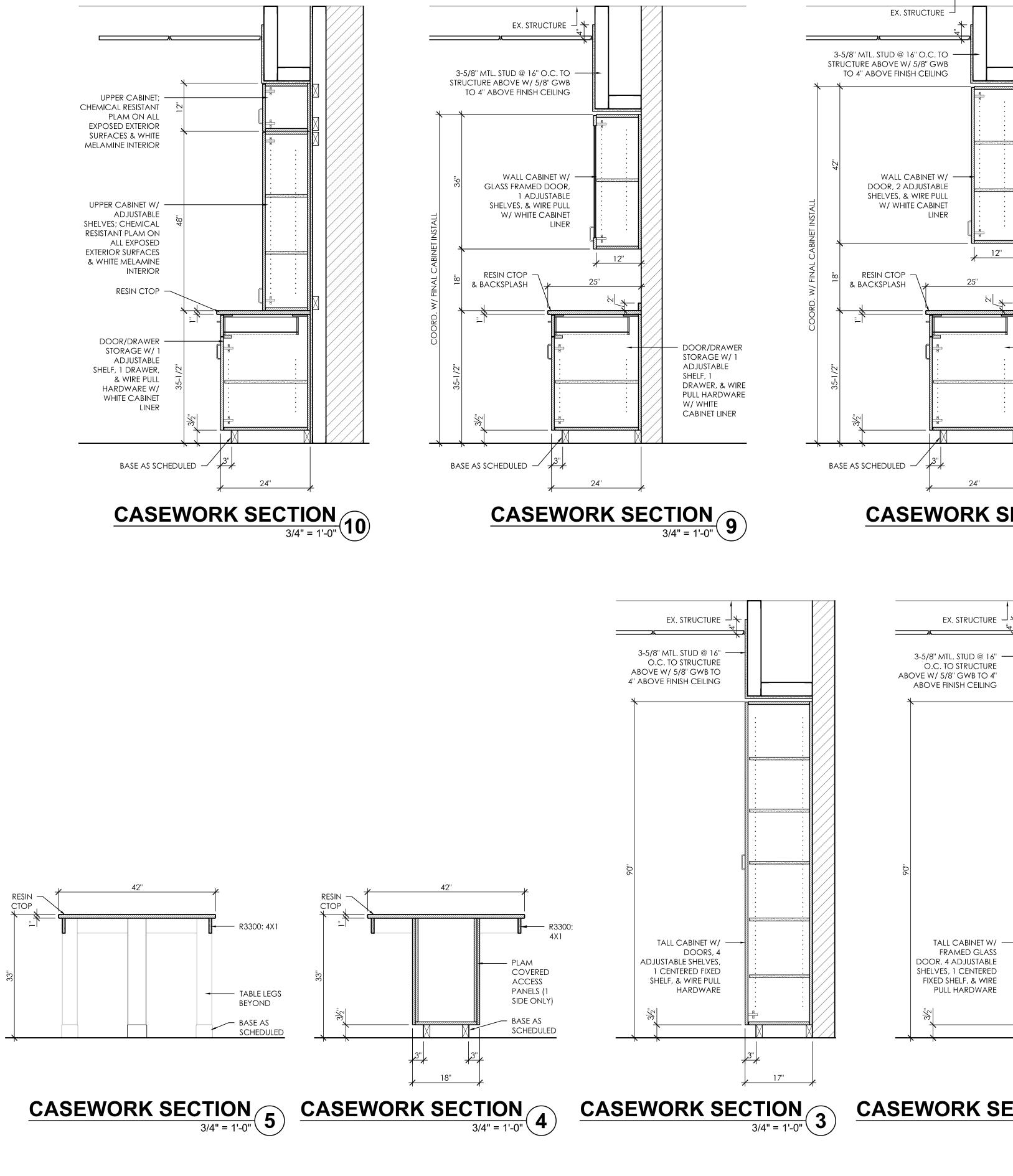
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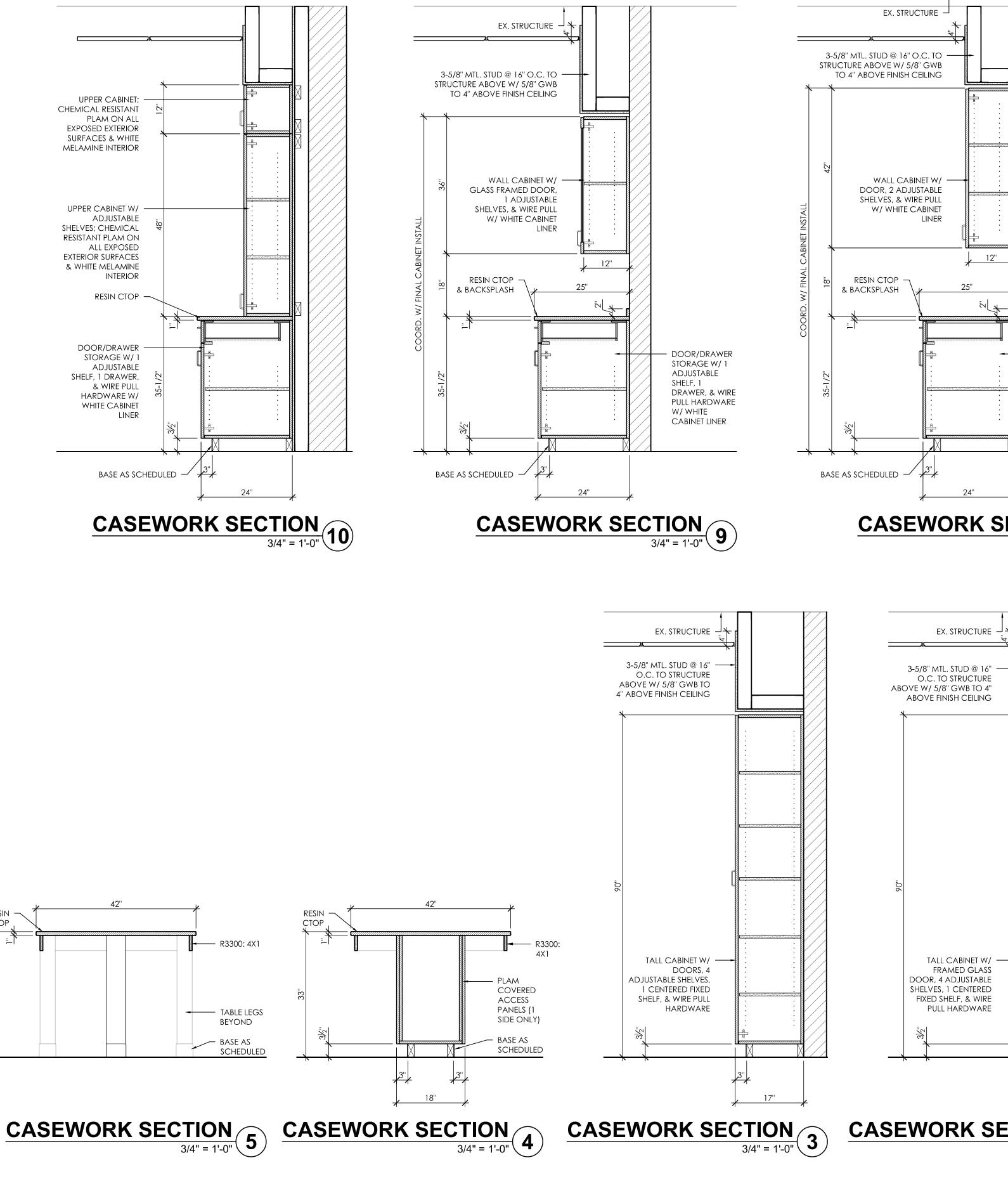
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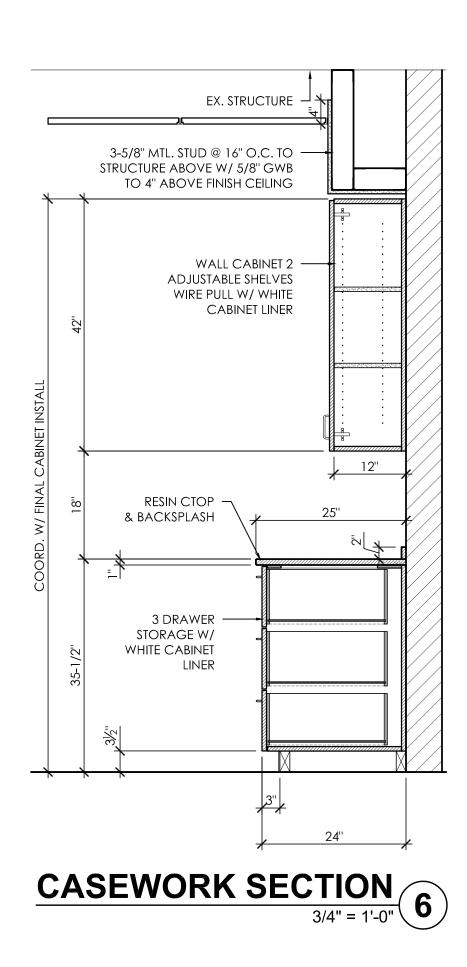
**REVISIONS:** # DESCRIPTION:









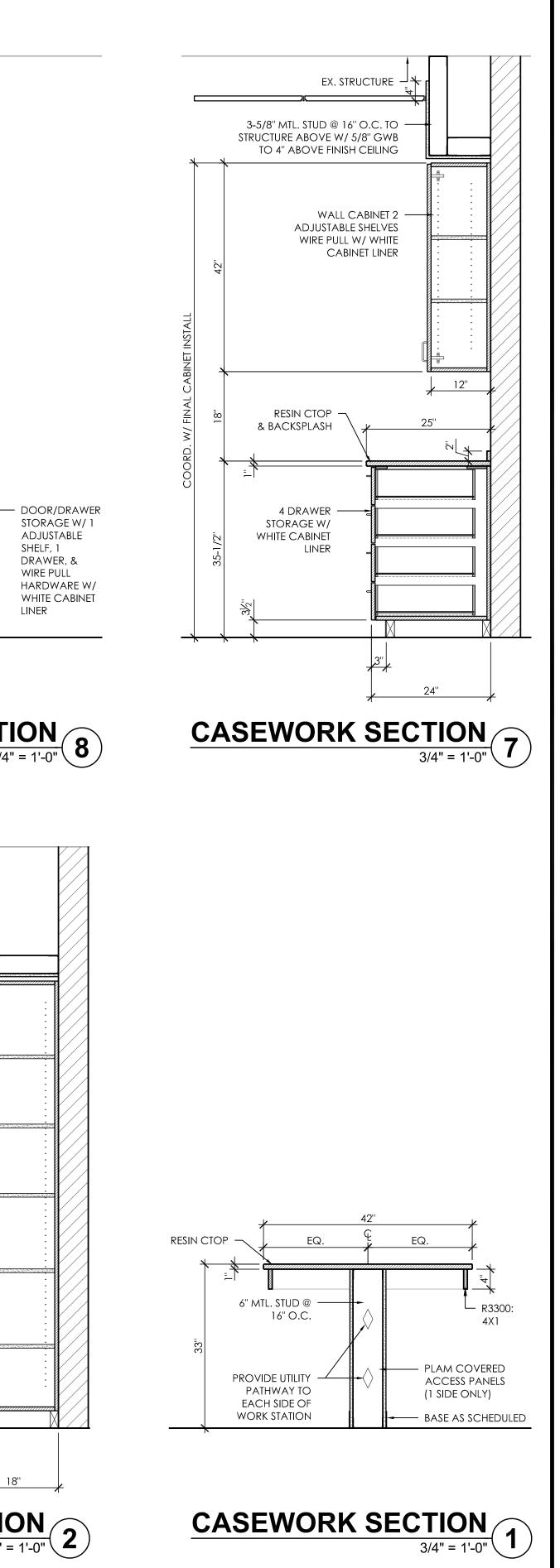




ISSUE DATE: 19 SEP 2024 PROJECT #: 23030 DRAWN BY: KNG

PHASE: **BID SET** 

SHEET NAME: CASEWORK SECTIONS



573 27 LINUMMO **AROLINA** Z M C ⊿ EGE DRIV NORTH C PIEDMONT Ш С 1715 COLLEC ROXBORO, N sco ID#: 23-26709-01A Ш Ö

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DATE

**REVISIONS:** 

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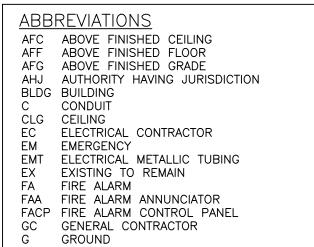
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WORKS

Together, we create.

THESE DRAWINGS AND THE ACCOMPANYING SPECIFICATIONS ARE INSTRUMENTS OF SERVICE AND AS SUCH SHALL REMAIN THE PROPERTY OF THE ARCHITECT. THEY HAVE BEEN PREPARED FOR A SPECIFIC PROJECT AND SHALL NOT BE USED IN CONJUNCTION WITH ANY OTHER PROJECTS WITHOUT PRIOR WRITTEN PERMISSION OF THE ARCHITECT. ©-MHAworks 2024

FIRE ALARM SYSTEM												SYSTEM OUTPUTS																
IN	NPUT/OUTPUT MATRIX										FACP ANNUNCIATION						DN		NO	ON	REQUIRED FIRE SAFETY CONTR							
						AR	ARM	ALINA	LE COLORIZACIÓN LE COLORIZ COLORIZ COLORIZ COLORIZ COLORIZ COLORIZ COLORIZ COLORIZ COLORIZ COL	A SIGN	ALL SICH	JUCAT MAL SMAL SWOOD	SR INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA INDICA	OR LESS	A SIGNAL	A A A A A A A A A A A A A A A A A A A	CENT CENT	20000000000000000000000000000000000000	ENTRAL ENTRAL ENTRAL ENTRAL ENTRAL ENTRAL	STATISTA STATISTA STATISTA STATISTA STATISTA STATISTA	N 101 101 100 100 100 100 100 100 100 100	PEC PEC	ALL CAS	OOR ONE ONE ONE	EVAT	OR ORS IN HAY	ALLAND ALLAND ALLAND	EQUENEEN SHUTTER
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1	FIRE ALARM SYSTEM AC POWER FAILURE					•	-																				1	-
2																											2	-
3		_					•		-																		3	-
4			-			•	•																				4	-
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6	BUILDING MANUAL PULL STATIONS																			•							6	-
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9	HVAC AIR DUCT SMOKE DETECTORS	-																				•	•	•			9	-
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14	SPRINKLER WATER FLOW IN ELEV EQUIP RM OR SHAFT														•			-	-	•						_	14	-
15 16	ELEV EQUIP RM AREA SMOKE DETECTOR ELEV SHAFT AND ELEV EQUIP RM HEAT DETECTORS														•		•	•	•	•		-					<u>15</u> 16	-
17																	-	-	-								17	-
18	ELEV LOBBY SMOKE DETECTOR - RECALL FLOOR		<b>—</b>					•	_	•				•		•			•	•		-		•		_	18	-
19	ELEV CONTROLLER POWER SHUNT TRIP STATUS	┽╸	┢	•	•	$\vdash$	-	•			-						-		-	-	-+	-	-	-	-		19	1
20	FIRE PUMP POWER FAILURE/PHASE REVERSAL		1	•		1												-+	+			-+					20	1
20	FIRE PUMP RUNNING	•	•		Ť			•	•	•	•				•					•		-+					21	1
22	FIRE PUMP SYSTEM NOT IN AUTOMATIC	+	Ť		•			Ō	<u> </u>	-	<u> </u>							-+	-	-		$\dashv$					22	1
23	LEGALLY REQUIRED GENERATOR SYSTEM LOW FUEL		1		•	1		•				•							-+			-+					23	1
24	LEGALLY REQUIRED GENERATOR NOT IN AUTOMATIC		1	•	•	1	$\mathbf{T}$	•				•							-+	+		-+					24	1
25	AREA OF REFUGE TWO-WAY COMMUNICATIONS STATUS		1	•	-		$\mathbf{T}$	•	1			•							$\neg \uparrow$	+		$\neg \uparrow$					25	1
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IMC INTERMEDIATE METAL CONDUIT JB JUNCTION BOX

NA NOT APPLICABLE NAC NOTIFICATION APPLIANCE CIRCUIT

NCSBC NORTH CAROLINA STATE BUILDING CODE NEC NATIONAL ELECTRICAL CODE

NEMA NATIONAL ELECTRICAL MANUFACTURER'S ASSOC.

NFPA NATIONAL FIRE PROTECTION ASSOCIATION

NIC NOT IN CONTRACT NTS NOT TO SCALE

MC MECHANICAL CONTRACTOR

R RELOCATED SLC SIGNAL LINE CIRCUIT

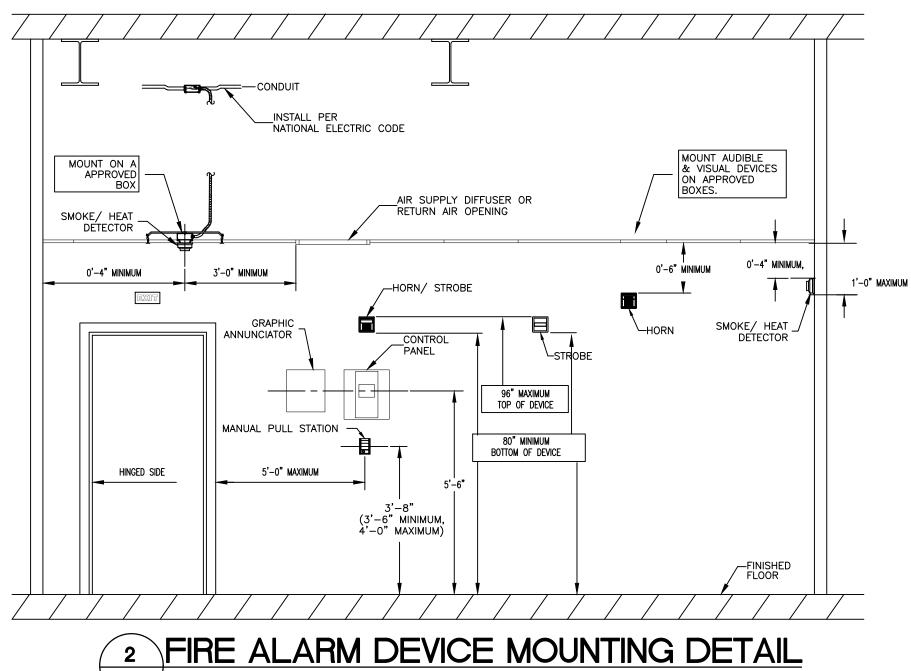
UL UNDERWRITER'S LABORATORIES

UON UNLESS OTHERWISE NOTED

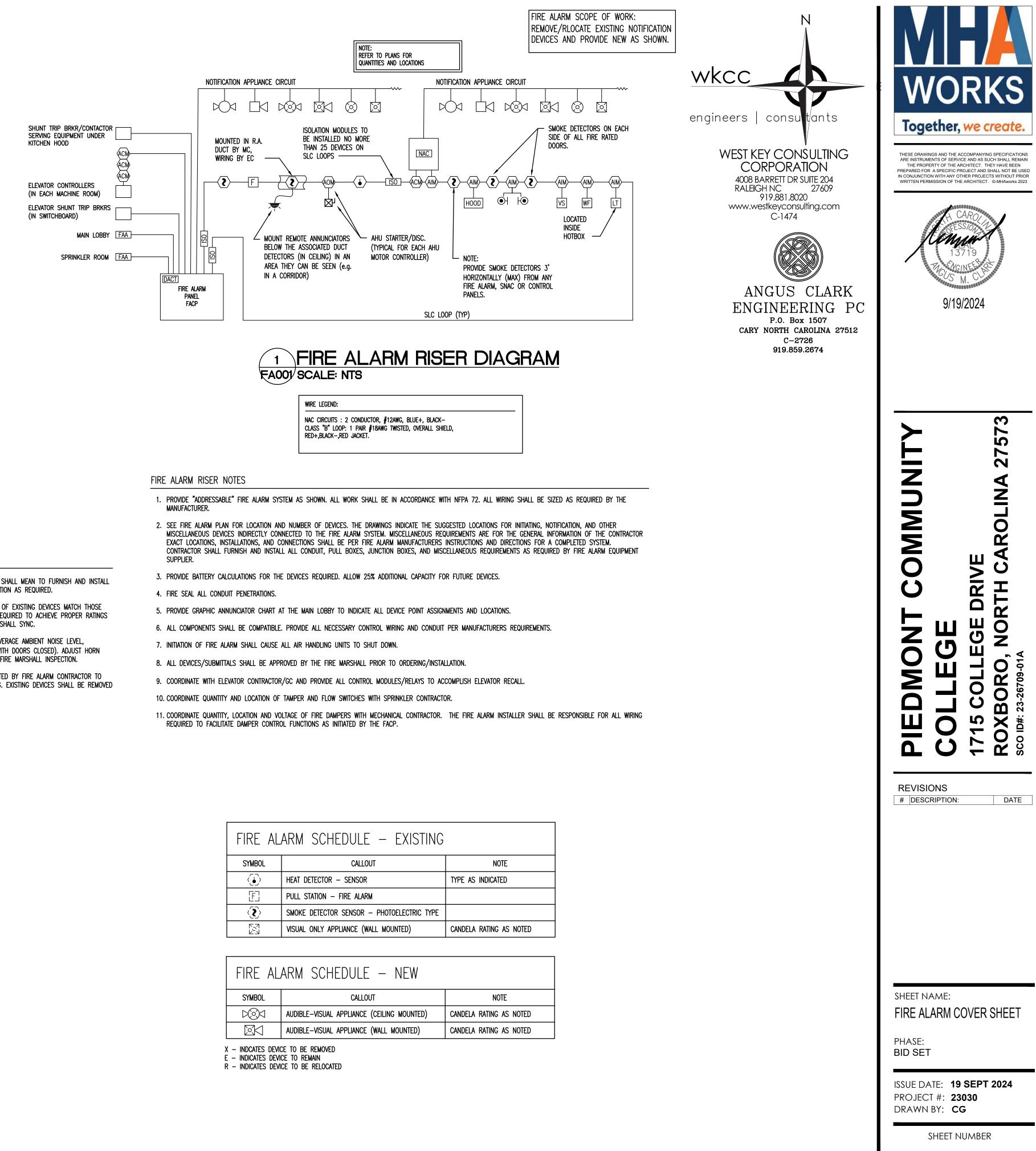
W WIRE W/ WITH

W/O WITHOUT WP WEATHERPROOF

NFPA 72 AND ADA DEVICE INSTALLATION REQUIREMENTS



FA001/SCALE: NTS



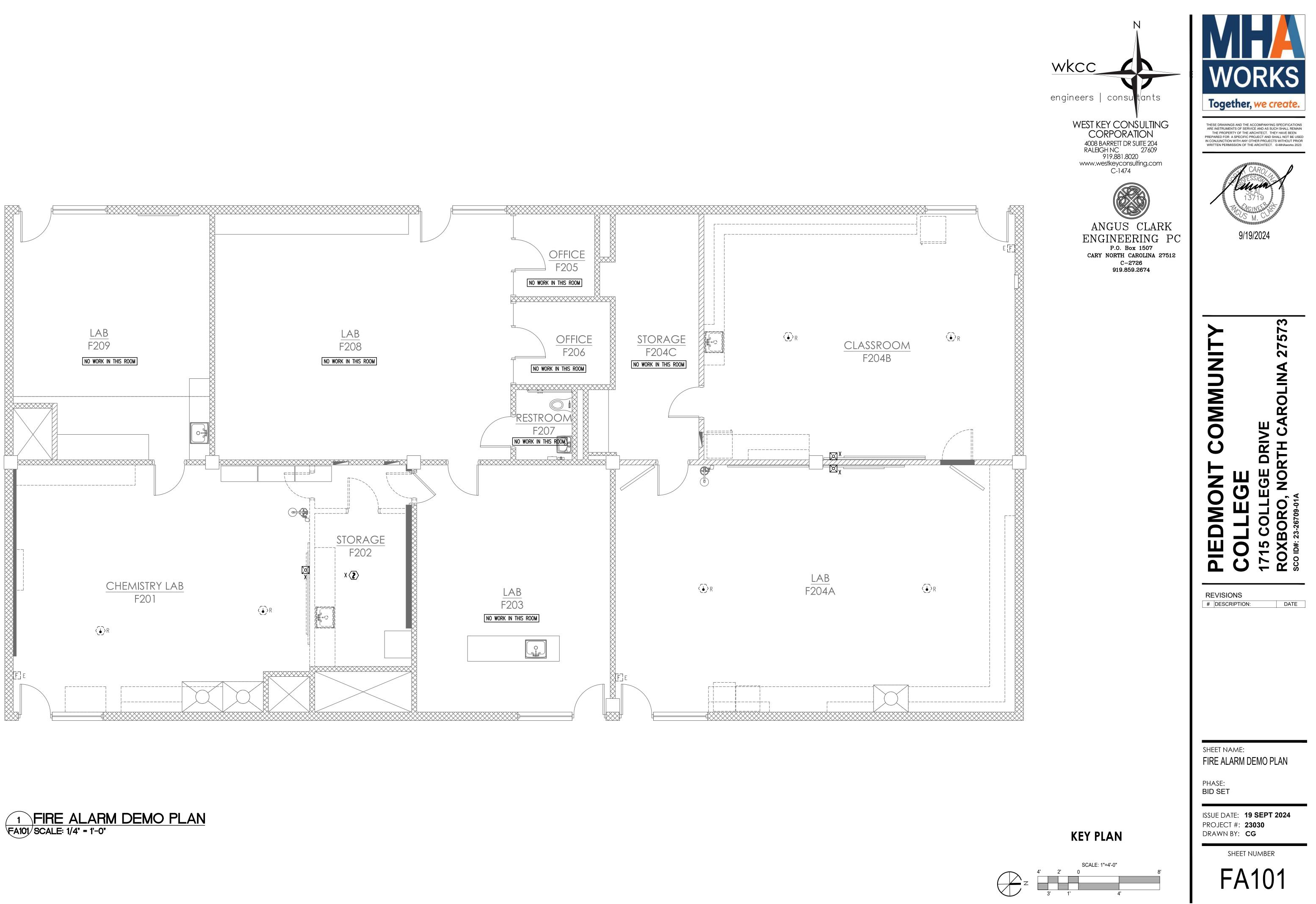
FIRE AL	ARM SCHEDULE – EXISTING	
SYMBOL	CALLOUT	
$\langle \bullet \rangle$	HEAT DETECTOR - SENSOR	TYPE AS
	PULL STATION – FIRE ALARM	
$\langle \tilde{\boldsymbol{z}} \rangle$	SMOKE DETECTOR SENSOR - PHOTOELECTRIC TYPE	

SYMBOL	CALLOUT	
	AUDIBLE-VISUAL APPLIANCE (CEILING MOUNTED)	CANDELA
Image: Second se	AUDIBLE-VISUAL APPLIANCE (WALL MOUNTED)	CANDELA

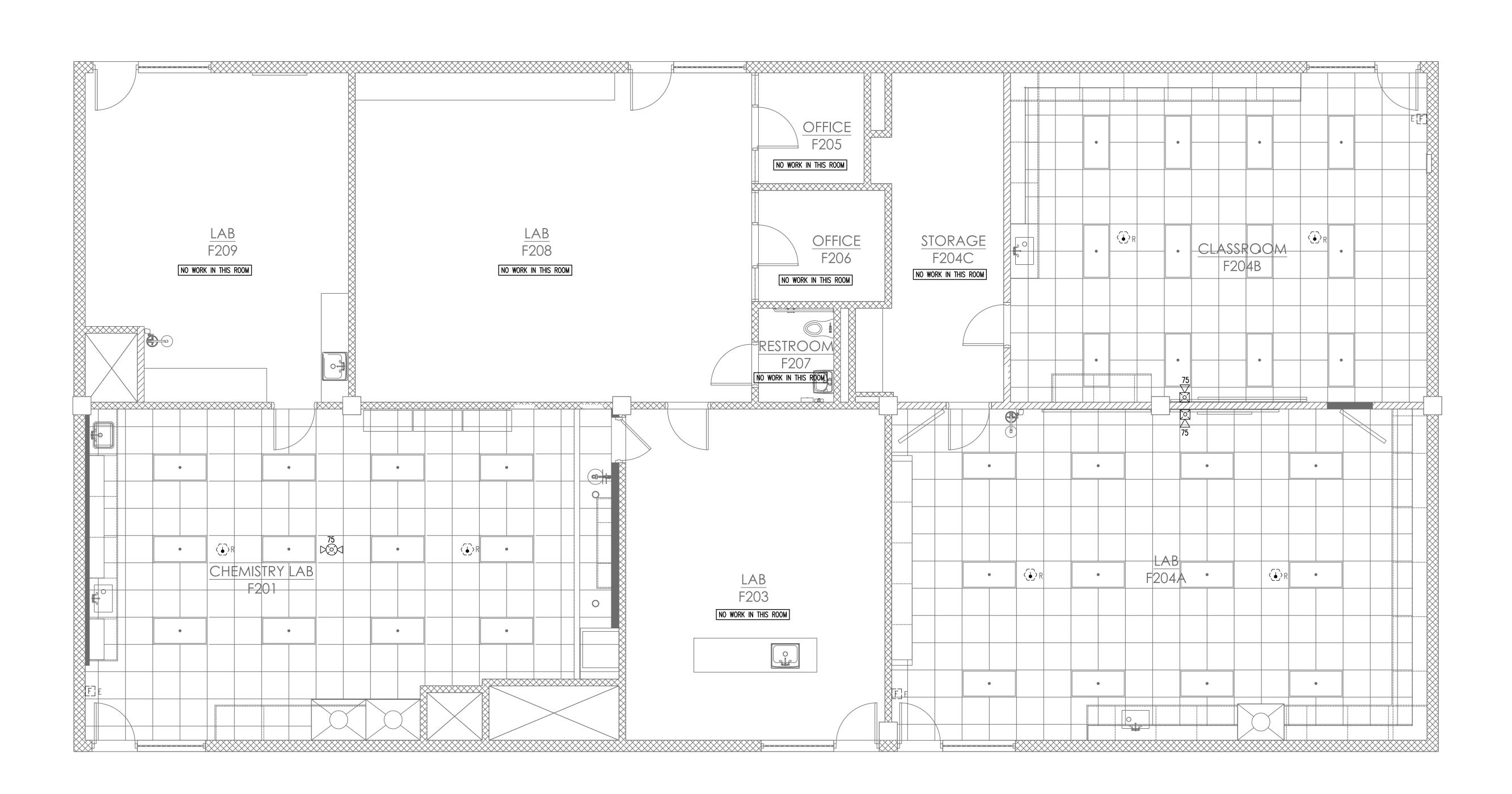
### FIRE ALARM GENERAL NOTES

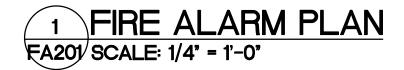
- 1. AS USED ON THESE DOCUMENTS, THE WORD "PROVIDE" SHALL MEAN TO FURNISH AND INSTALL THE ITEM OR EQUIPMENT AND MAKE THE FINAL CONNECTION AS REQUIRED.
- 2. FIRE ALARM CONTRACTOR TO ENSURE CANDELA RATINGS OF EXISTING DEVICES MATCH THOSE INDICATED. ADJUST OR REPLACE EXISTING DEVICES AS REQUIRED TO ACHIEVE PROPER RATINGS AND COVERAGE. ALL FIRE ALARM NOTIFICATION DEVICES SHALL SYNC.
- 3. A SOUND PRESSURE LEVEL OF 75db or 15dB ABOVE AVERAGE AMBIENT NOISE LEVEL, WHICHEVER IS GREATER, IS REQUIRED IN ALL ROOMS (WITH DOORS CLOSED). ADJUST HORN OUTPUT LEVELS TO MEET THIS REQUIREMENT PRIOR TO FIRE MARSHALL INSPECTION.
- 4. EXISTING NOTIFICATION DEVICES SHALL BE FIELD INSPECTED BY FIRE ALARM CONTRACTOR TO ENSURE SYNCHRONIZATION CAPABILITY PRIOR TO PRICING. EXISTING DEVICES SHALL BE REMOVED & REPLACED AS REQUIRED.

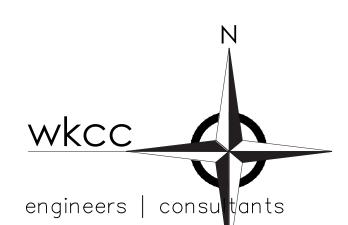
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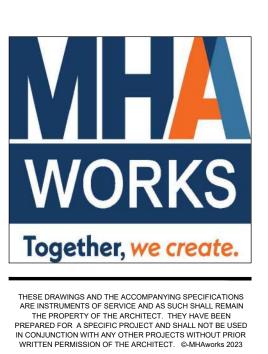


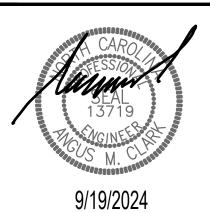


WEST KEY CONSULTING CORPORATION 4008 BARRETT DR SUITE 204 RALEIGH NC 27609 919.881.8020 www.westkey.consulting.com C-1474



ANGUS CLARK ENGINEERING PC P.O. Box 1507 CARY NORTH CAROLINA 27512 C-2726 919.859.2674





3 57 COMMUNIT N ROLINA GE EGE DRIVE , NORTH CA G PIEDMON O C **m** % Ο 15 ROX sco ID#: 17 C

REVISIONS # DESCRIPTION:

DATE

sheet name: FIRE ALARM PLAN

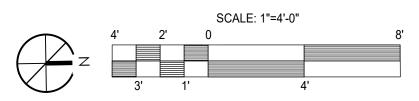
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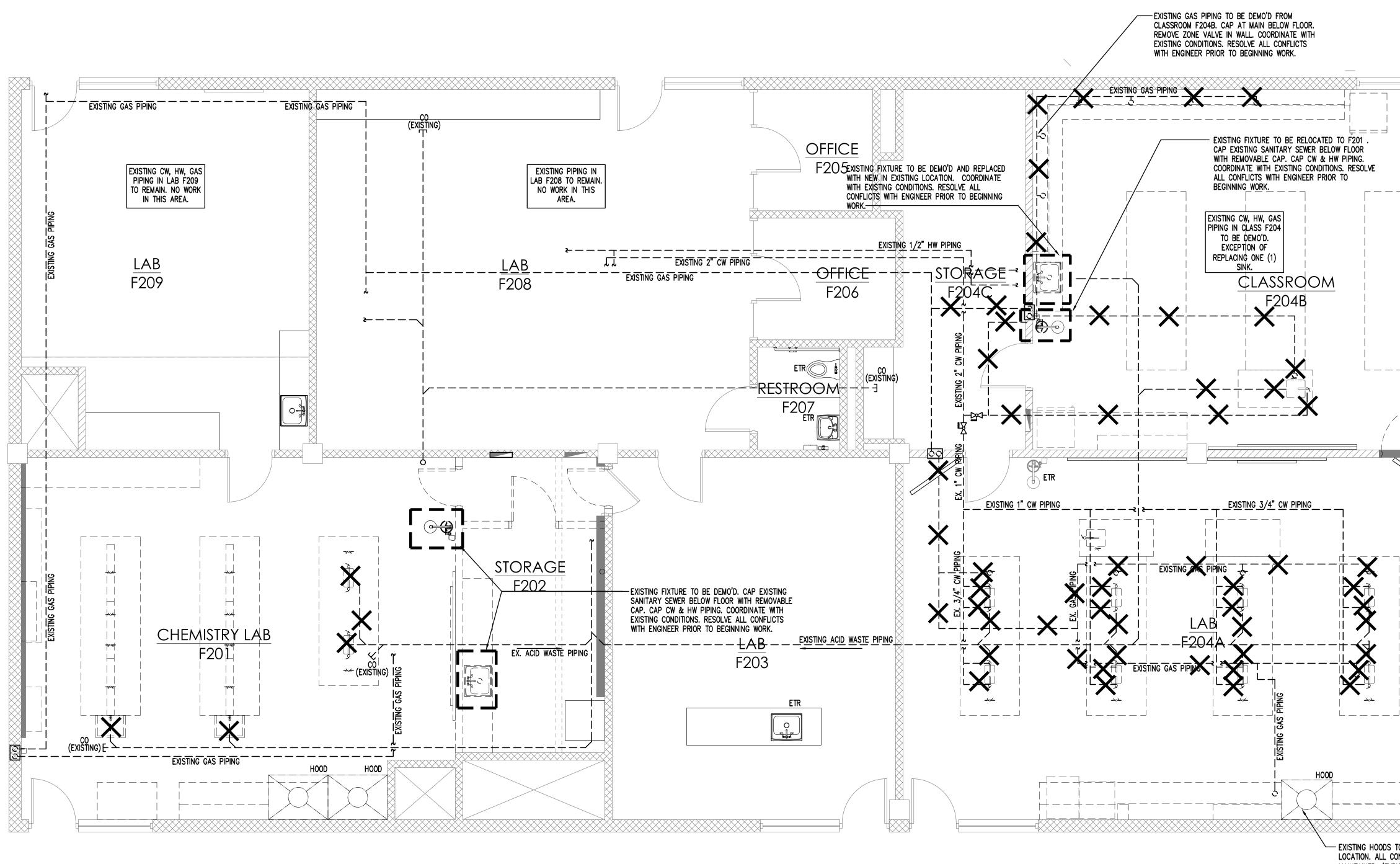
ISSUE DATE: **19 SEPT 2024** PROJECT #: **23030** DRAWN BY: **CG** 

SHEET NUMBER

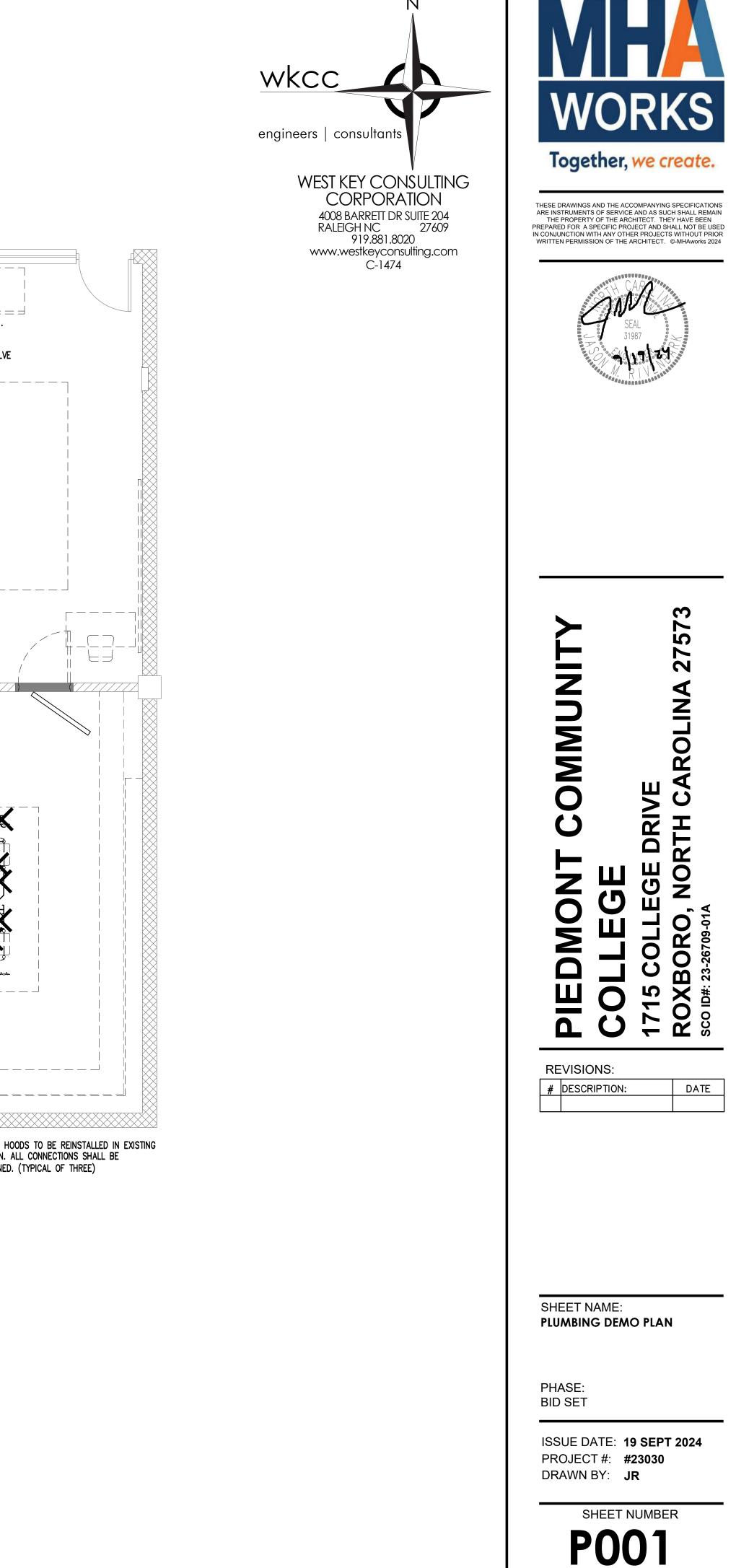
FA201

## KEY PLAN

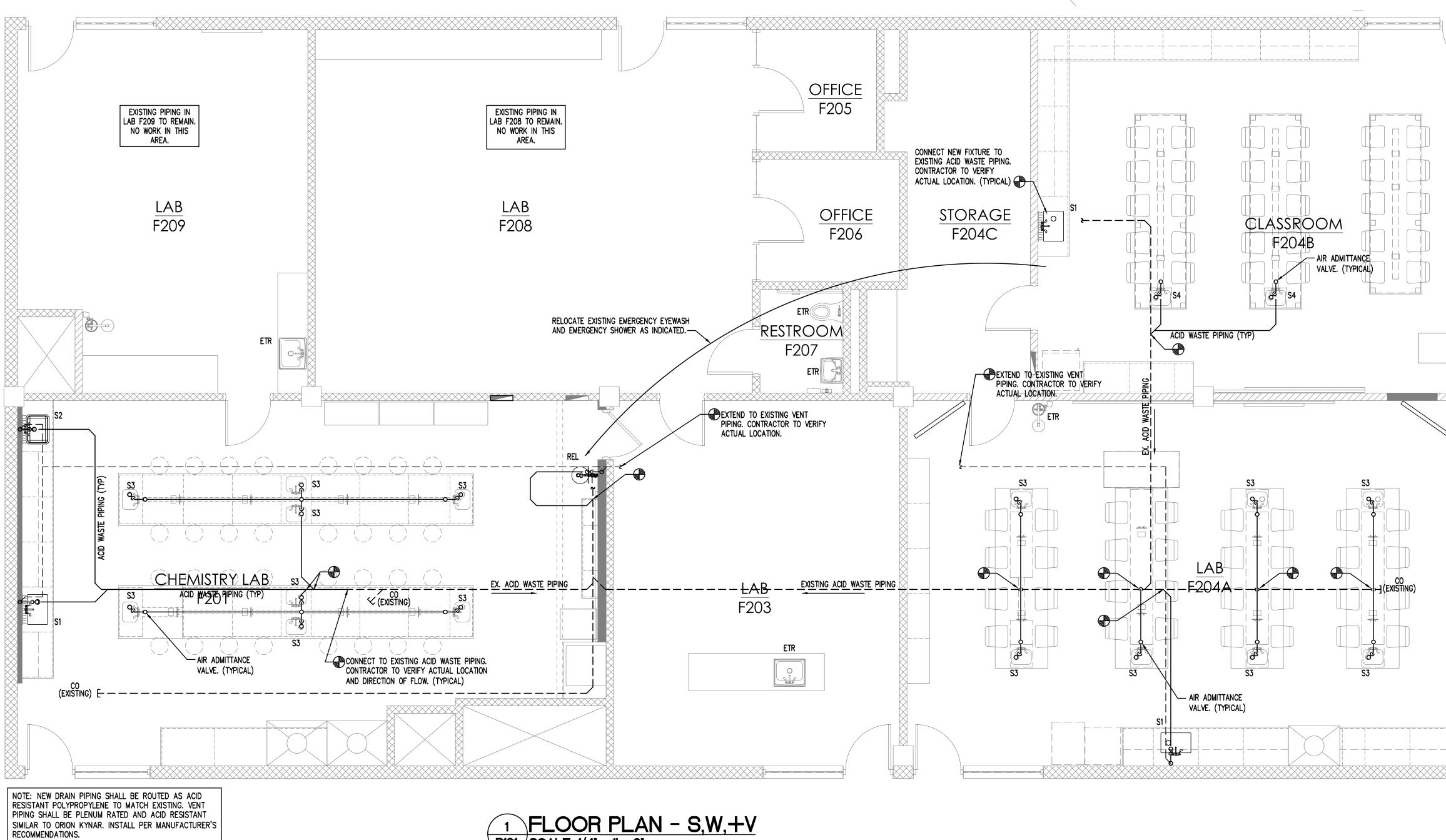




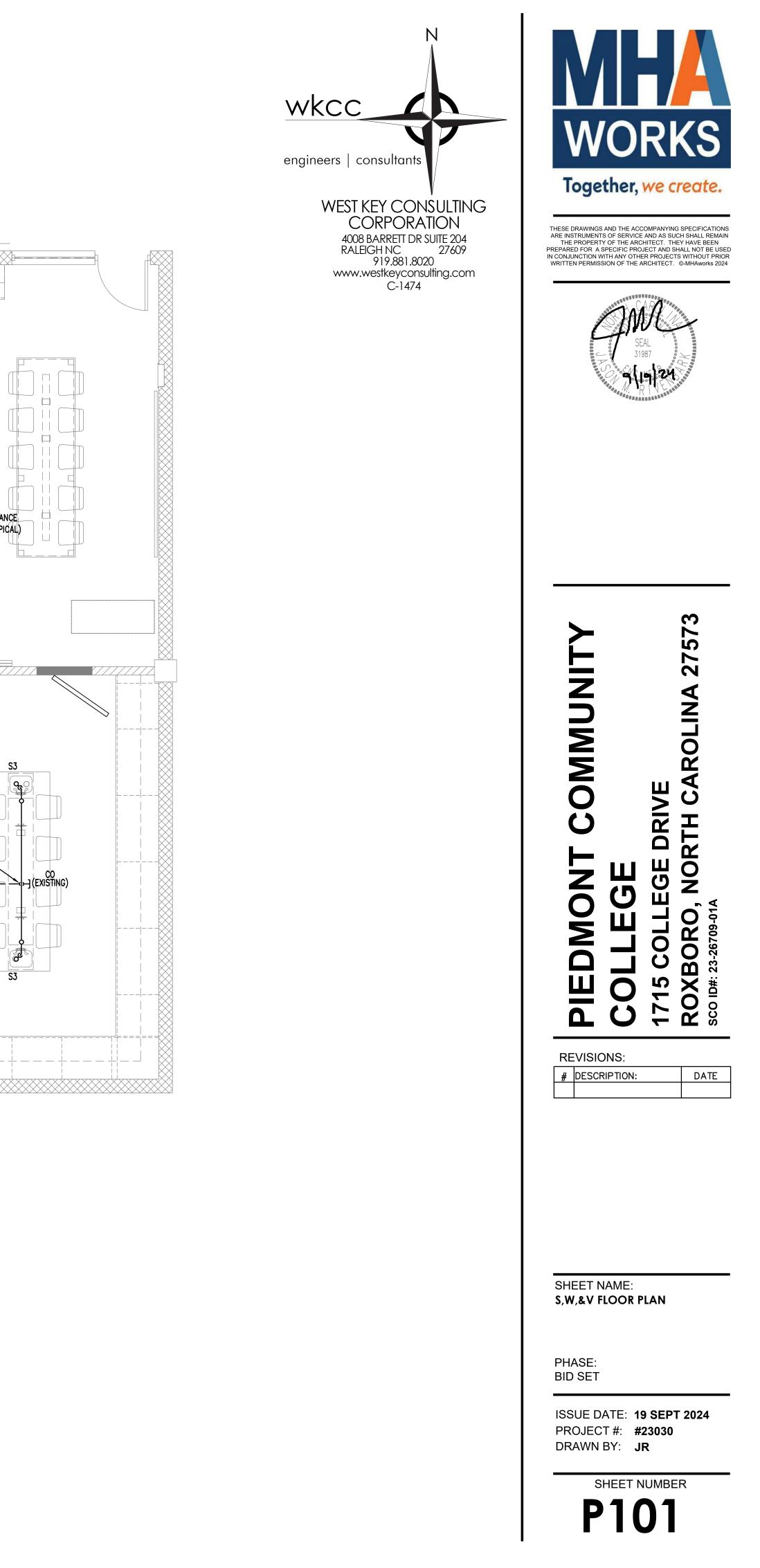
1 DEMO PLAN - PLUMBING P001 SCALE: 1/4" = 1' - 0"

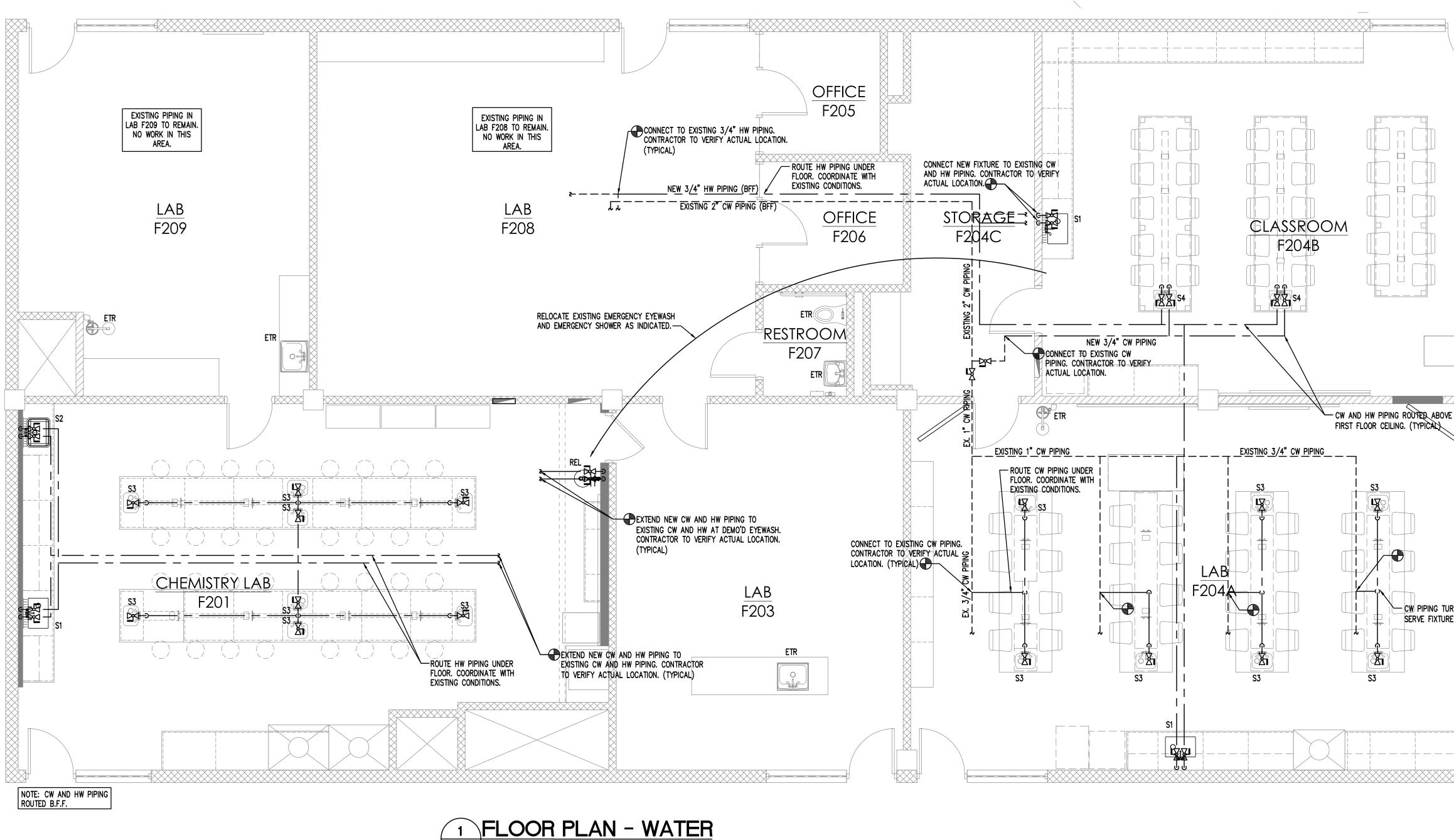


- EXISTING HOODS TO BE REINSTALLED IN EXISTING LOCATION. ALL CONNECTIONS SHALL BE MAINTAINED. (TYPICAL OF THREE)

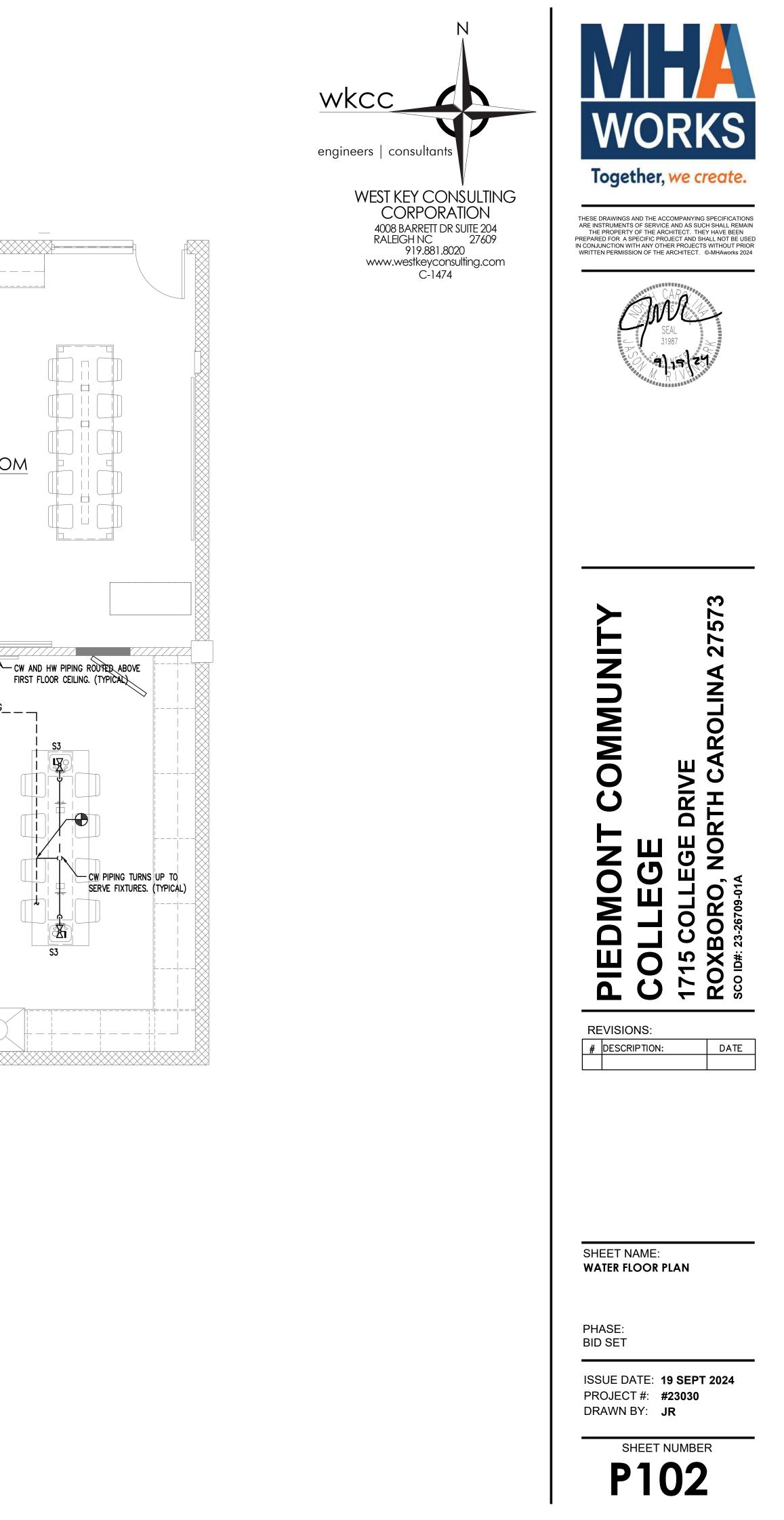


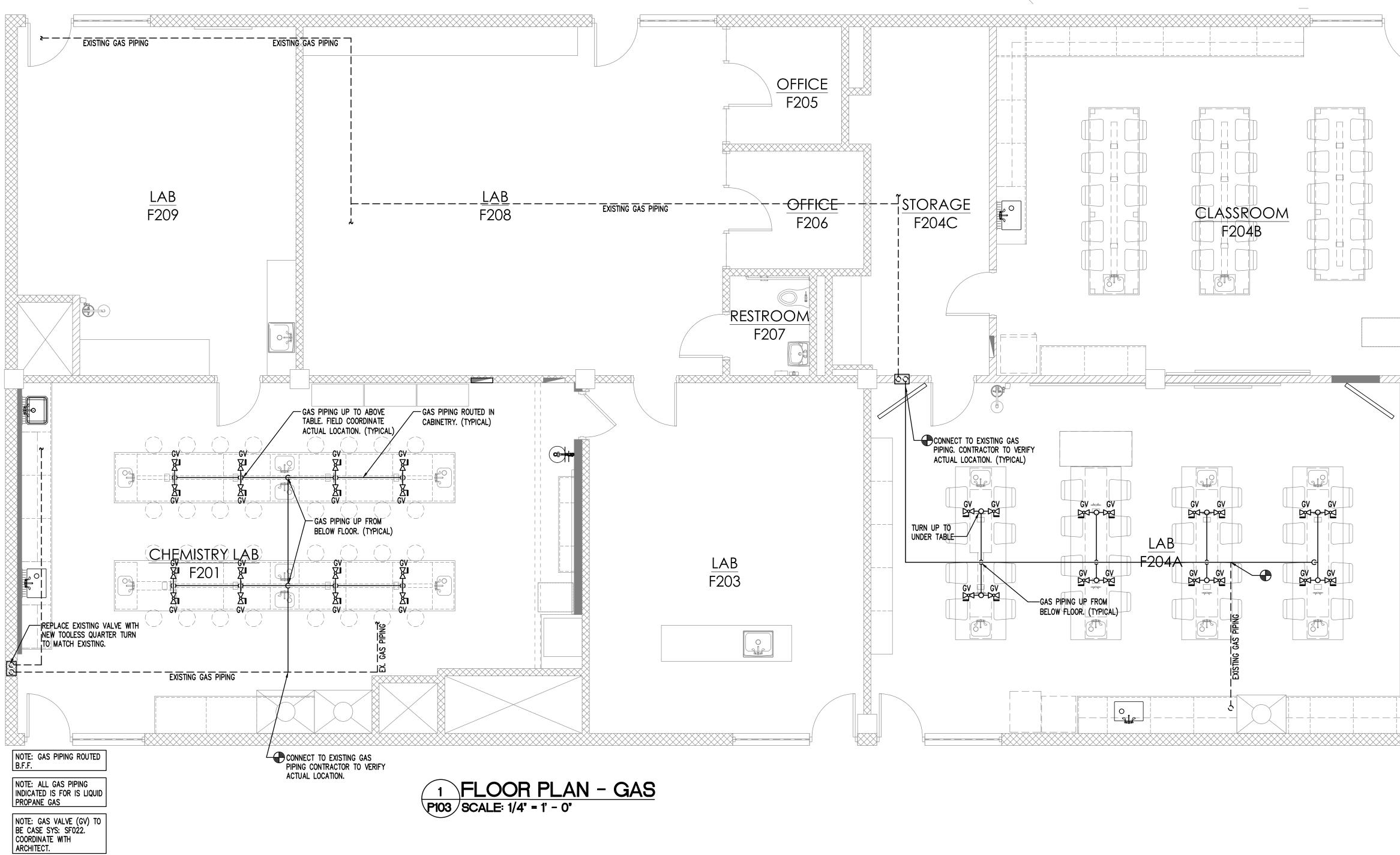
1 FLOOR PLAN - S,W,+V P101 SCALE: 1/4" = 1' - 0"

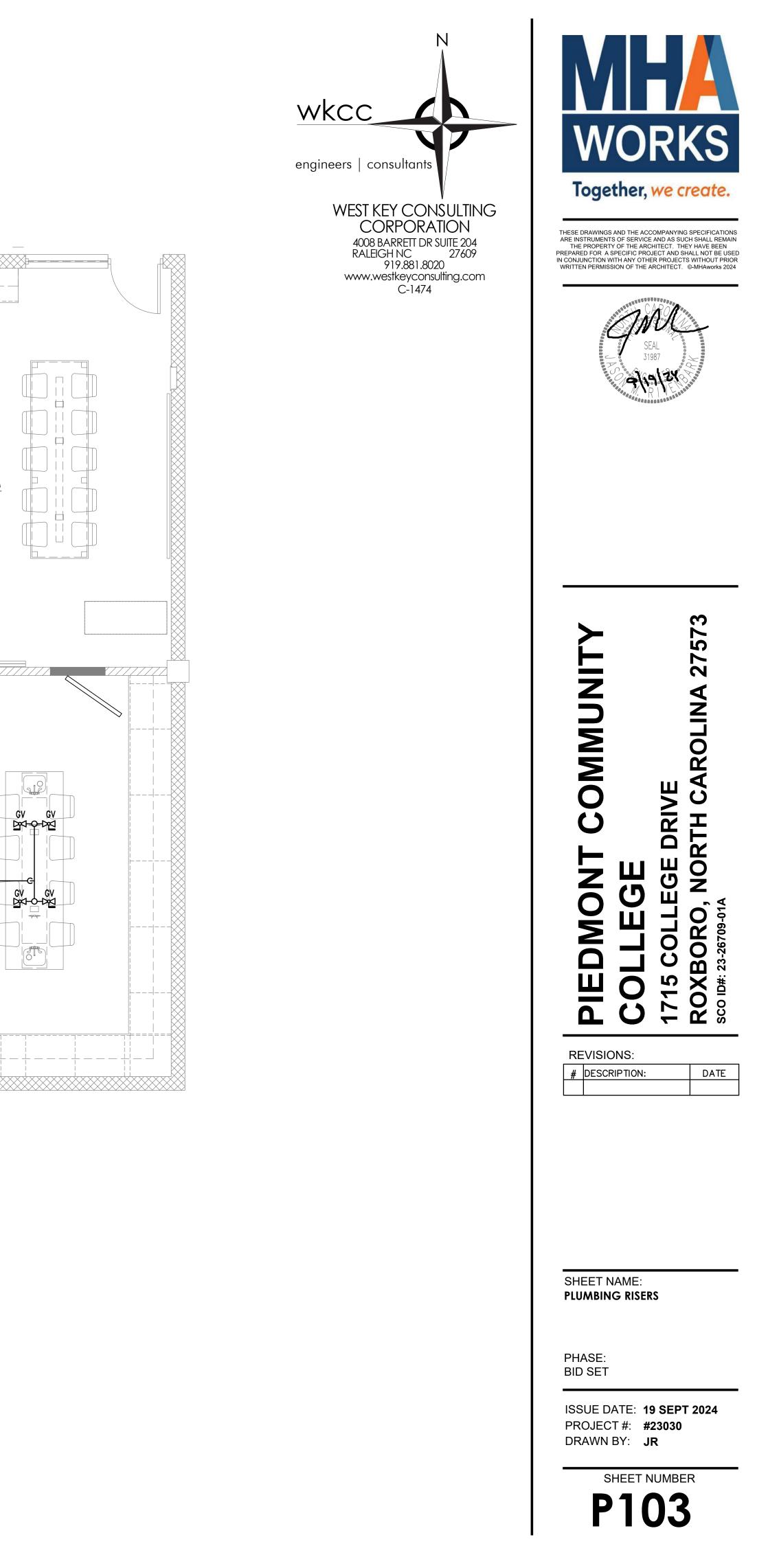


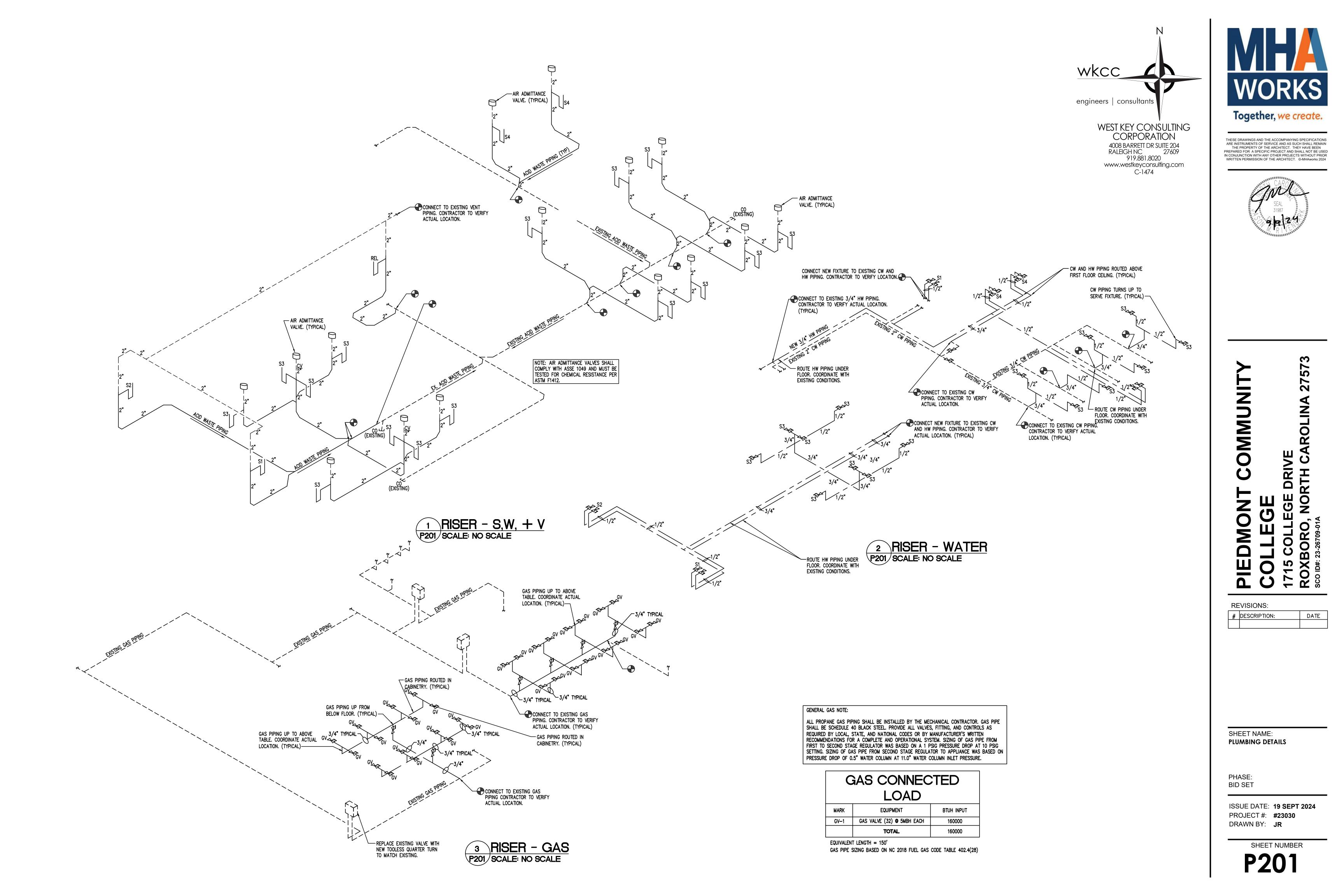


P102 SCALE: 1/4" = 1' - 0"









## PLUMBING SPECIFICATIONS

PLUMBING SPECIFICATIONS:

1.) THE ENTIRE PLUMBING SYSTEM SHALL BE IN ACCORDANCE WITH 2018 NORTH CAROLINA PLUMBING CODE AND LOCAL PLUMBING INSPECTOR. 2.) ALL WORK SHALL BE COORDINATED WITH ALL OTHER TRADES PRIOR TO INSTALLATION. CONTRACTOR SHALL COORDINATE ROUTING OF ALL PIPING

WITH EXISTING CONDITIONS AND SHALL PROVIDE ANY NECESSARY OFFSETS, REROUTING, ETC. REQUIRED FOR A COMPLETE AND COORDINATED INSTALLATION.

3.) THESE PLANS ARE DIAGRAMMATIC. CONTRACTOR SHALL PROVIDE ALL NECESSARY OFFSET, TEES, ELBOWS, ETC. FOR A COMPLETE WORKING PLÚMBING SYSTEM.

4.) THE CONTRACTOR SHALL OBTAIN AND PAY ALL FEES RELATED TO PERMITTING, INSPECTIONS, TAPS, ETC.

5.) CONTRACTOR SHALL COORDINATE ANY PLUMBING SYSTEM REQUIRING SHUTDOWN WITH THE OWNER 48 HOURS PRIOR TO BEGINNING WORK.

6.) ALL DOMESTIC WATER PIPING SHOWN IS ABOVE CEILING/WITHIN WALLS UNLESS NOTED OTHERWISE.

7.) ALL DOMESTIC WATER PIPING (ABOVE SLAB) SHALL BE TYPE "L" COPPER WITH 95/5 LEAD FREE SOLDER. ABOVE SLAB, OUTSIDE OF PLENUM SPACES, PEX PIPING IS ACCEPTABLE. ALL WATER PIPING (BELOW SLAB) SHALL BE TYPE "K" SOFT COPPER. COMPLY W/ ASTM B-88-88A.

8.) ALL WATER PIPING SHALL BE INSULATED WITH CLOSED CELL (ARMAFLEX) TYPE INSULATION WITH THE FLAME DENSITY RATING NOT EXCEEDING 25 & THE SMOKE DENSITY RATING NOT EXCEEDING 50. THICKNESS FOR COLD WATER PIPING SHALL BE 1/2" THICK. THICKNESS FOR HOT WATER & RETURN PIPING SHALL BE 1" THICK.

9.) ALL BRANCH LINES SHALL HAVE SHUT-OFF VALVES. ALL DOMESTIC WATER BALL VALVES SHALL BE BRASS BODY. FULL PORT, CHROME PLATED BALL, TEFLON SEATS, 150# WSP, FOR SIZES 1/2" THRU 2". SIZES ABOVE 2" SHALL BE BRONZE GATE VALVE, NRS SOLID DISC, SCREW OVER BONNET, 125# WSP. PROVIDE VALVE HANDLE EXTENSIONS AS REQUIRED FOR INSULATION.

10.) ALL PLUMBING FIXTURES AND KITCHEN EQUIPMENT SHALL HAVE A PISTON TYPE WATER HAMMER ARRESTOR SIZED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS & PDI STANDARDS.

11.) ALL SANITARY SEWER PIPING SHOWN IS BELOW SLAB/WITHIN WALLS UNLESS NOTED OTHERWISE. ALL SANITARY VENT PIPING SHOWN IS ABOVE CEILING/WITHIN WALLS UNLESS NOTED OTHERWISE.

12.) ALL WASTE & VENT PIPING (ABOVE SLAB) SHALL BE PVC-DWV WITH PIPING AND FITTINGS CONFORMING TO ASTM D-2665. PLENUM SPACE WASTE & VENT PIPING (ABOVE SLAB) SHALL BE SERVICE WEIGHT CAST IRON WITH NO-HUB FITTINGS CONFORMING TO CISPI 301. JOINTS SHALL BE ONE-PIECE NEOPRENE GASKET WITH STAINLESS STEEL BAND AND BOLTS CONFORMING TO ASTM C564-85.

13.) ALL WASTE & VENT PIPING (BELOW SLAB) SHALL BE PVC-DWV WITH PIPING AND FITTINGS CONFORMING TO ASTM D-2665.

14.) ALL PIPING SYSTEMS SHALL BE SUPPORTED AS REQUIRED BY 2018 NORTH CAROLINA PLUMBING CODE & MANUFACTURER'S RECOMMENDATIONS.

15.) ALL PIPING PENETRATIONS THRU NEW/EXISTING WALLS/FLOORS SHALL BE SEALED TO EQUAL THE RATING OF THE NEW/EXISTING WALL OR FLOOR. 16.) ALL PLUMBING SYSTEMS SHALL BE TESTED AS REQUIRED BY 2018 NORTH CAROLINA PLUMBING CODE.

17.) THE PLUMBING CONTRACTOR SHALL COORDINATE ALL UNDERSLAB PLUMBING PIPING WITH ALL STRUCTURAL FOUNDATIONS. P.C. SHALL COORDINATE ALL UNDERSLAB PLUMBING PIPING ELEVATION INVERTS WITH SITE UTILITY ELEVATION INVERTS.

18.) P.C. SHALL COORDINATE ALL KITCHEN EQUIPMENT REQUIRING PLUMBING CONNECTIONS WITH KITCHEN EQUIPMENT VENDOR. PROVIDE ALL NECESSARY P-TRAPS, SUPPLY STOPS, INDIRECT PIPING, ETC. REQUIRED FOR COMPLETE HOOK-UP OF KITCHEN EQUIPMENT REQUIRING PLUMBING CONNECTIONS.

19.) THE BACKFLOW PREVENTION DEVICE SHALL BE INSTALLED AS REQUIRED PER LOCAL AUTHORITY.

20.) THE ENTIRE DOMESTIC WATER SYSTEM SHALL BE DISINFECTED IN ACCORDANCE WITH 2018 NORTH CAROLINA PLUMBING CODE.

21.) ALL VENT THRU THE ROOF PENETRATIONS SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR AND SHALL BE CONCEALED BEHIND ROOF RIDGE WHERE POSSIBLE. P.C. SHALL PROVIDE ALL FLASHING MATERIAL REQUIRED FOR VENT THRU ROOF. ALL VTR'S SHALL BE LOCATED A MINIMUM OF 10'-0" FROM ALL OUTSIDE AIR INTAKES.

22.) ALL GAS PIPING AND GAS FLUE TO GAS WATER HEATER BY PLUMBING CONTRACTOR.

23.) PLUMBING CONTRACTOR SHALL HAVE RECEIVED APPROVED SHOP DRAWINGS FROM THE ENGINEER PRIOR TO BEGINNING NEW WORK.

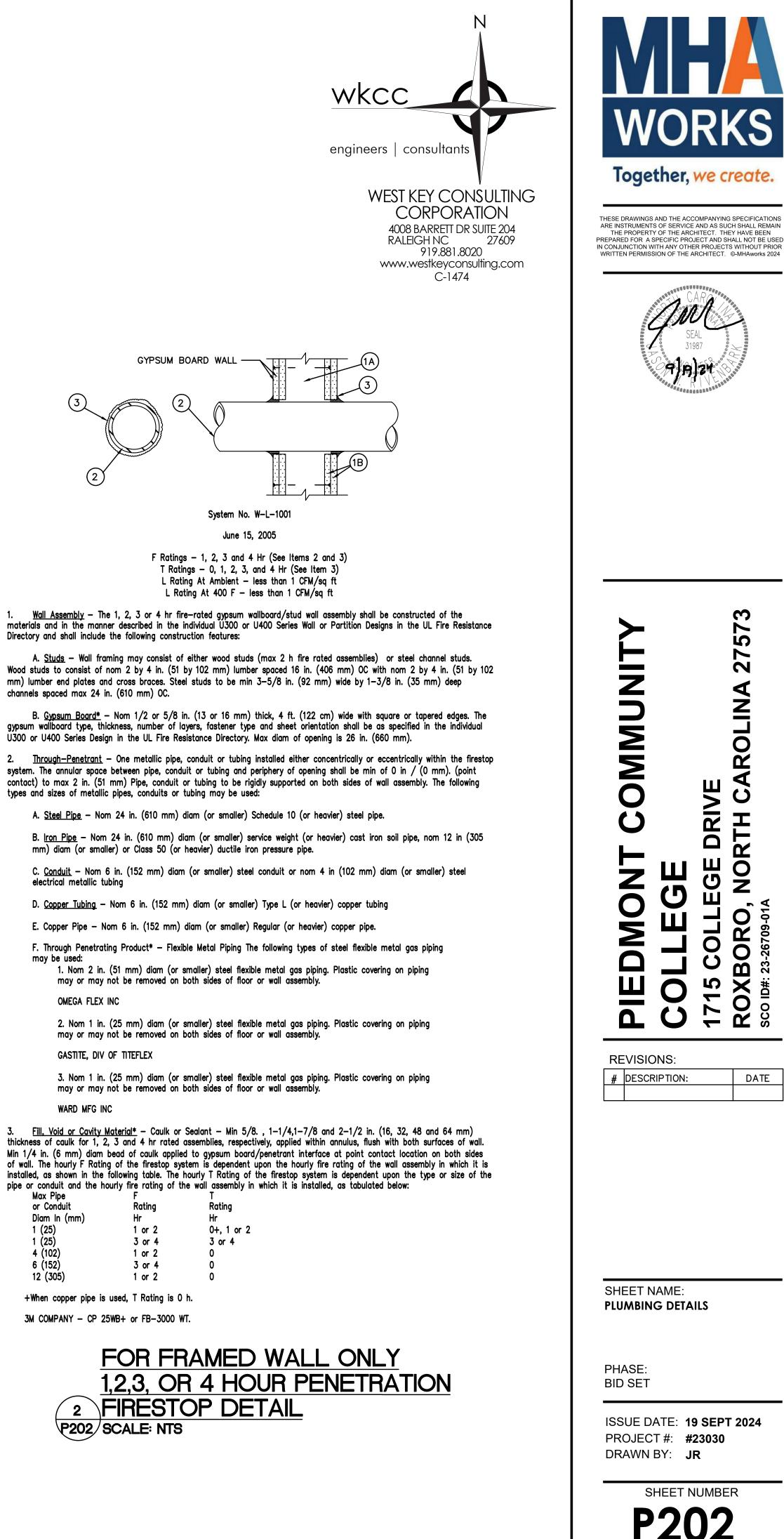
PLUMBING LEGEND A	ND ABBREVIATIONS
	SANITARY SEWER PIPING (W) VENT PIPING (V) COLD WATER PIPING (CW) HOT WATER PIPING (HW) HOT WATER RETURN PIPING (HWR) ELL TURNS UP ELL TURNS DOWN CHECK VALVE
──────────	BALL VALVE
──────────	GATE VALVE IN HORIZONTAL POSITION
$\overline{\odot}$	CLEANOUT IN GROUND (GCO)
$\odot$	CLEANOUT IN FLOOR OR SLAB (FCO)
A.F.F.	ABOVE FINISH FLOOR
FD – A	FLOOR DRAIN - TYPE ( SEE SCHEDULE )
H.B.	HOSE BIBB
FPWH	FREEZE PROOF WALL HYDRANT
H.D.	HUB DRAIN
INV. ELEV. OR I.E.	INVERT ELEVATION
P.C.	PLUMBING CONTRACTOR
V.T.R.	VENT THROUGH ROOF
<u>CV</u>	COMMON VENT
EOCV	END OF CIRCUIT VENT
BOCV	BEGINNING OF CIRCUIT VENT 1 HOUR RATED BARRIER/PARTITION/WALL 2 HOUR RATED BARRIER/PARTITION/WALL 3 HOUR RATED BARRIER/PARTITION/WALL
$\bullet$	CONNECT TO EXISTING

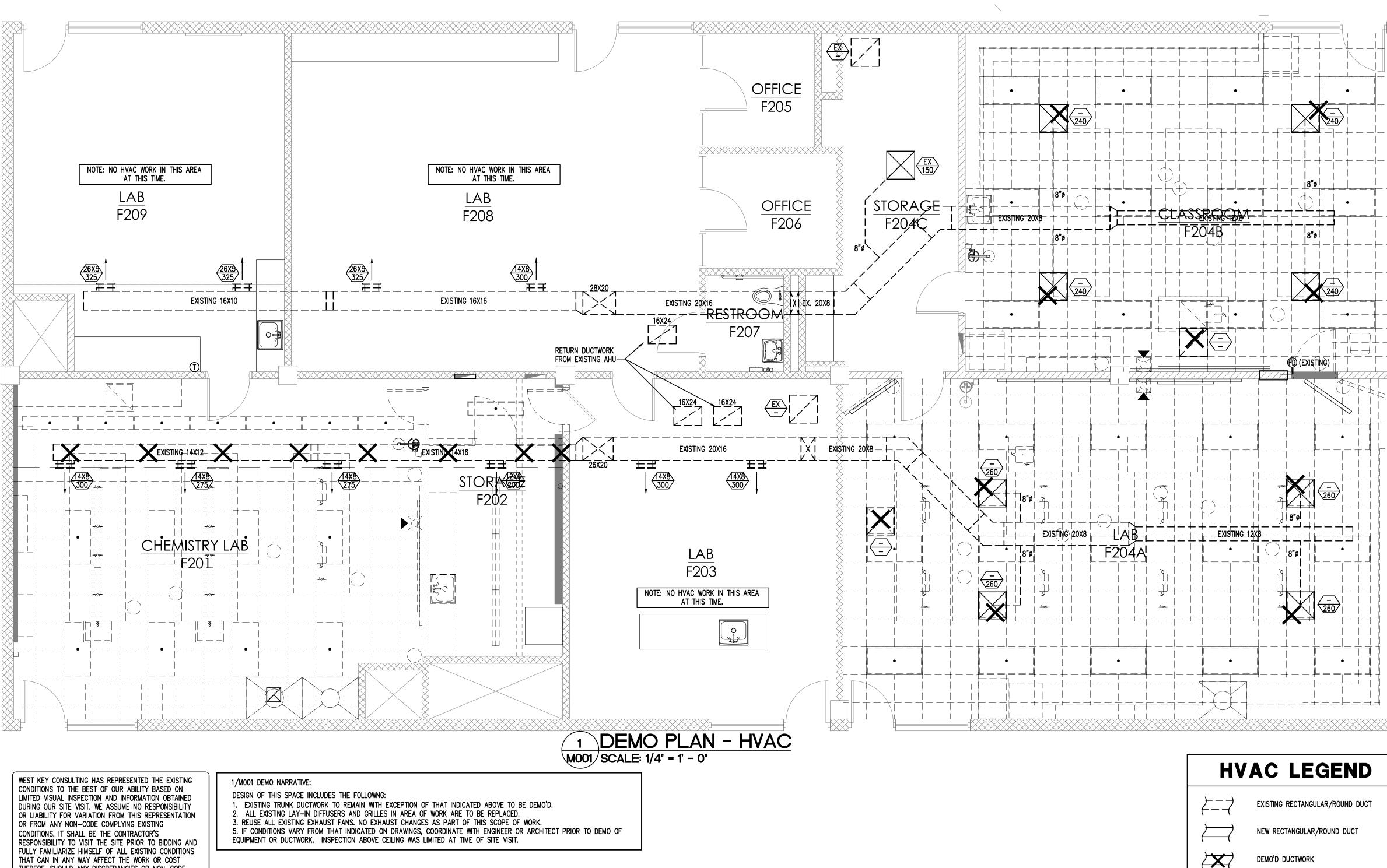
	PI
IARK	DESCRI
S1	Sink Single Bowl Table MTD.
S2	SINK Single Bowl Ctr. Mtd.
S3	SINK Single Bowl Ctr. Mtd.
S4	SINK SINGLE BOWL CTR. MTD.
GV	GAS VALVE
ETR	EXISTING TO REMAIN
REL	RELOCATED FIXTURE

PLUMBING FIXTURES AND EQUIPMENT				
	PIPE S	ERVICE A	ND CONN. SIZE	
DESCRIPTION	CW	HW	WASTE	FIXTURE SPECIFICATIONS
NK NGLE BOWL \BLE MTD.	1/2"	1/2"	1-1/2"	CASE SYSTEMS SS520 EPOXY RESIN, UNDERMOUNTED, DIM. 24" X 16" X 8" DEEP. <u>TRAP &amp; SUPPLIES:</u> ACID-RESISTANT STRAINER WITH 1–1/2" X 4" TAILPIECE. 1–1/2" P–TRAP AND NIPPLE. <u>FAUCET:</u> CASE SYSTEMS SF853 DECK MOUNTED ONE HOLE MIXER WITH ADA FRIENDLY BLADE HANDLES, VACUUM BREAKER GOOSENECK AND DETACHABLE NOZZLE SUPPLIED BY MILLWORK PROVIDER.
NK NGLE BOWL R. MTD.	1/2"	1/2"	1-1/2"	ELKAY ELUHAD211545PD 304 STAINLESS STEEL, 18 GAUGE, UNDERMOUNTED, DIM. 21" x 15" x 4-1/2" DEEP. <u>TRAP &amp; SUPPLIES:</u> ACID-RESISTANT STRAINER WITH 1-1/2" X 4" TAILPIECE. 1-1/2" P-TRAP AND NIPPLE. 3/8"x12" FLEX RISER ANGLE SUPPLY STOPS. <u>FAUCET:</u> CASE SYSTEMS SF853 DECK MOUNTED ONE HOLE MIXER WITH ADA FRIENDLY BLADE HANDLES, VACUUM BREAKER 6" GOOSENECK AND DETACHABLE NOZZLE SUPPLIED BY MILLWORK PROVIDER.
NK NGLE BOWL IR. MTD.	1/2"	-	1–1/2"	CASE SYSTEMS SS510 EPOXY RESIN, UNDERMOUNTED, DIM. 16" X 12" X 8" DEEP. <u>TRAP &amp; SUPPLIES:</u> ACID-RESISTANT STRAINER WITH 1-1/2" X 4" TAILPIECE. 1-1/2" P-TRAP AND NIPPLE. 3/8"x12" FLEX RISER ANGLE SUPPLY STOPS. <u>FAUCET:</u> CASE SYSTEMS SF603 DECK MOUNTED ONE HOLE MIXER WITH ADA FRIENDLY BLADE HANDLE, VACUUM BREAKER 6" GOOSENECK AND DETACHABLE NOZZLE SUPPLIED BY MILLWORK PROVIDER.
NK NGLE BOWL IR. MTD.	1/2"	1/2"	1-1/2"	CASE SYSTEMS SS510 EPOXY RESIN, UNDERMOUNTED, DIM. 16" X 12" X 8" DEEP. <u>TRAP &amp; SUPPLIES:</u> ACID-RESISTANT STRAINER WITH 1-1/2" X 4" TAILPIECE. 1-1/2" P-TRAP AND NIPPLE. 3/8"x12" FLEX RISER ANGLE SUPPLY STOPS. <u>FAUCET:</u> CASE SYSTEMS SF853 DECK MOUNTED ONE HOLE MIXER WITH ADA FRIENDLY BLADE HANDLES, VACUUM BREAKER 6" GOOSENECK AND DETACHABLE NOZZLE SUPPLIED BY MILLWORK PROVIDER.
AS VALVE				CASE SYSTEMS GAS VALVE MODEL SF022
KISTING TO EMAIN				EXISTING PLUMBING FIXTURE TO REMAIN
ELOCATED XTURE				RELOCATED EXISTING PLUMBING FIXTURE.

may be used:

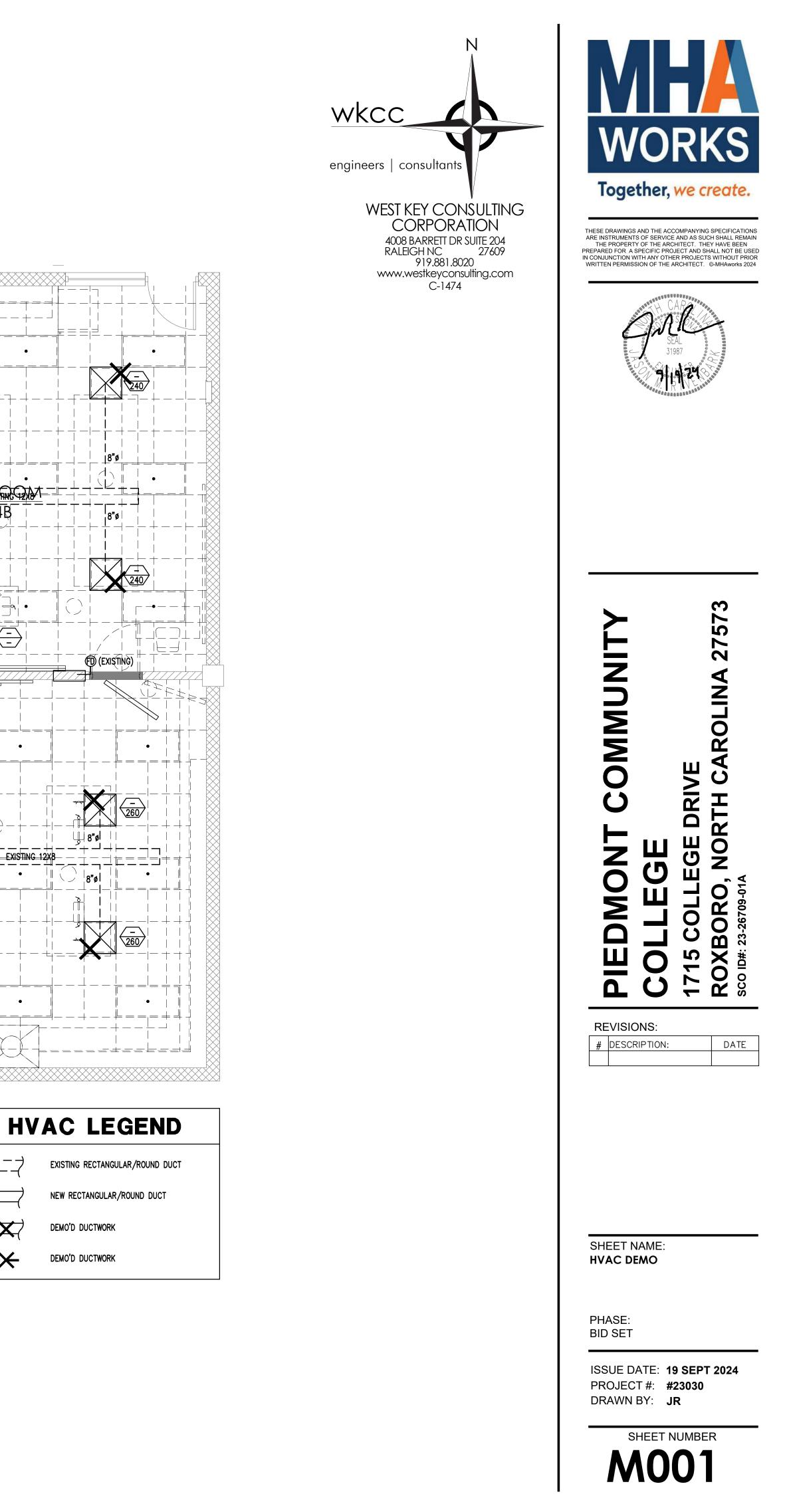
Max Pipe or Conduit Diam In (mm) 1 (25) 1 (25) 4 (102) 6 (152) 12 (305)



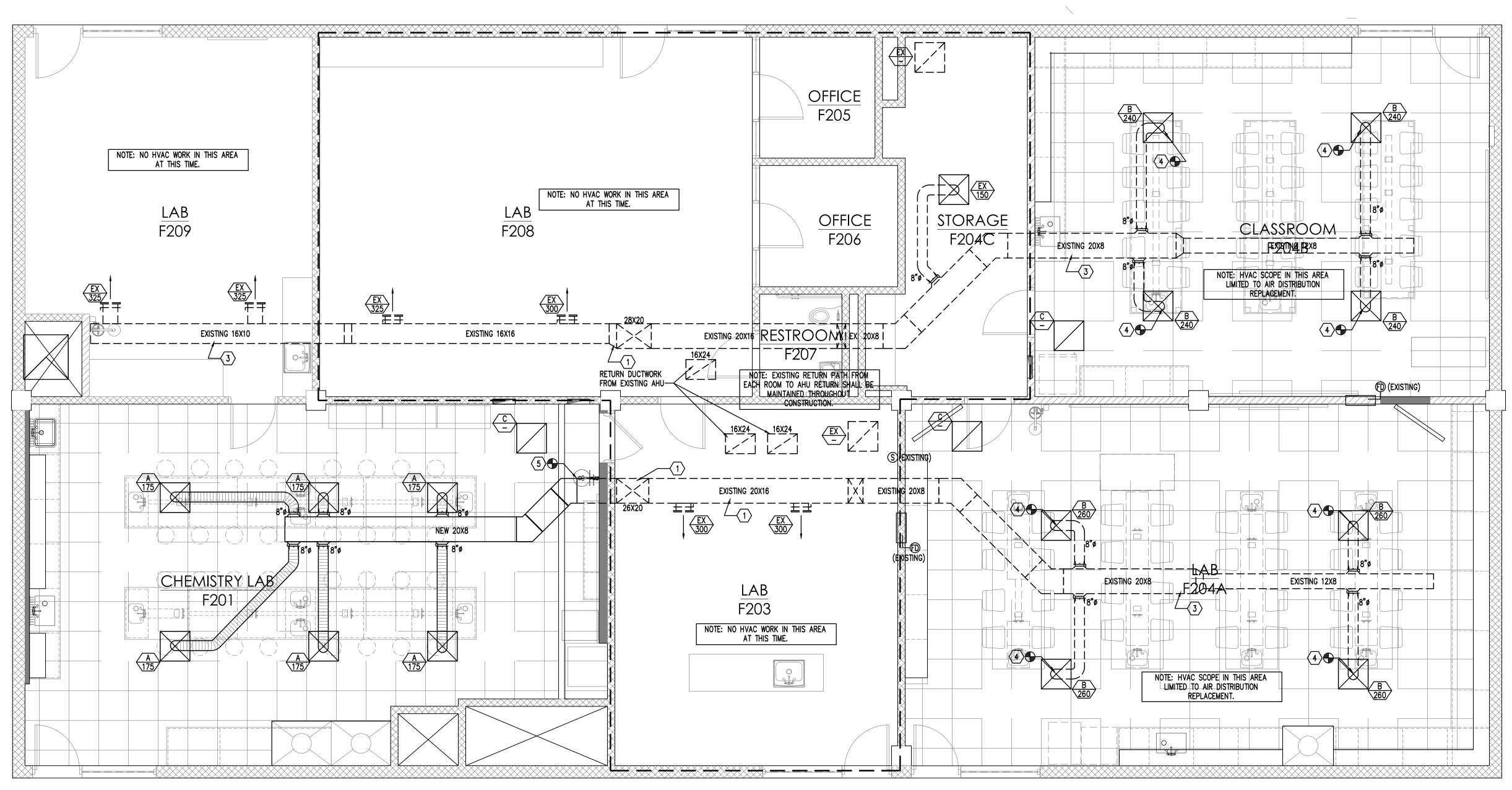


THAT CAN IN ANY WAY AFFECT THE WORK OR COST THEREOF. SHOULD ANY DISCREPANCIES OR NON-CODE COMPLYING ISSUES BE FOUND, THE CONTRACTOR SHALL NOTIFY WEST KEY CONSULTING AT ONCE IN WRITING PRIOR TO SUBMITTING BID. LACK OF SUCH NOTIFICATION SHALL BE CONSTRUED TO INDICATE NO DISCREPANCIES OR CODE CONFLICTS. ADDITIONAL COMPENSATION WILL NOT BE GRANTED AFTER AWARD OF CONTRACT FOR ANY WORK REQUIRED TO COMPLY WITH THESE REQUIREMENTS.

CONTRACTOR SHALL PROVIDE VOLUME DAMPER AT DUCT TAP WHERE POSSIBLE AND ACCESSIBLE. WHERE NOT ACCESSIBLE, PROVIDE ADJUSTABLE OPPOSED BLADE DAMPER AT DIFFUSER/GRILLE. FIELD COORDINATE LOCATIONS AND SIZES. (TYPICAL)



 $\rightarrow$ 



(	1
	<b>M10</b>

	AIR DISTRIBUTION SCHEDULE						
MARK	TYPE	PANEL SIZE	CEILING	NECK SIZE	TYPE	REMARKS	
A	STEEL, PLAQUE FACE, ROUND NECK, W/ OBD	24X24	LAY-IN CEILING	8"ø	SUPPLY	COLOR: WHITE MAX NC: 32 MAX P.D. (IN H2O): 0.15	
₿	STEEL, PLAQUE FACE, ROUND NECK, W/ OBD	24X24	LAY-IN CEILING	10 <b>"</b> ø	SUPPLY	COLOR: WHITE MAX NC: 32 MAX P.D. (IN H2O): 0.15	
©	STEEL, PERFORATED, CONFIGURE FOR PLENUM RETURN	24X24	LAY-IN CEILING	22X22	RETURN	COLOR: WHITE MAX NC: 32 MAX P.D. (IN H2O): 0.10	
Ø	EXISTING DIFFUSER/GRILLE TO REMAIN						

## 1 FLOOR PLAN - HVAC 101 SCALE: 1/4" = 1' - 0"

GENERAL NOTES: 1) ANY NEW OR EXISTING DUCT (INCLUDING SUPPLY AND RETURN DUCTS) PENETRATING A FIRE RATED WALL SHALL BE EQUIPPED WITH A FIRE RATED DAMPER. MECHANICAL CONTRACTOR TO VERIFY THAT THE EXISTING SUPPLY AND RETURN DUCT IS OPEN BACK TO THE RETURN AIR OPENING ON THE AIR HANDLING UNIT. CONTRACTOR SHALL INCLUDE ALL FIRE DAMPERS (IF APPLICABLE) REQUIRED IN BASE PRICE. 2) ALL EXISTING MAIN SUPPLY DUCTS ARE TO BE REUSED UNLESS INDICATED OTHERWISE.

3) NOTE NOT USED. 4) EXISTING AIR HANDLING UNITS ARE TO BE REUSED. VERIFY DUCT INSTALLED SMOKE DETECTOR IN RETURN DUCT. REBALANCE AIR DISTRIBUTION SYSTEM AS SHOWN.

5) REBALANCE OUTSIDE AIR ON EACH OF THE AIR HANDLING UNITS WHICH SERVE THIS AREA TO PROVIDE OUTSIDE AIR CAPACITIES TO THE VAV BOXES SHOWN IN SCHEDULE. PROVIDE OUTSIDE AIR KITS FOR EXISTING UNIT AS REQUIRED. 6) PRIOR TO BIDDING, MECHANICAL CONTRACTOR IS TO VISIT SITE TO FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS. 7) SUPPLY AIR DIFFUSERS ARE TO BE ADJUSTED SUCH THAT THE DIFFUSER WILL NOT BLOW AIR DIRECTLY ON THE ROOM OCCUPANT'S DESK. DIFFUSERS IN EXTERIOR ROOMS ARE TO DIRECT SUPPLY AIR TOWARDS THE WINDOWS AND

THE CENTER OF THE ROOMS AWAY FROM THE OCCUPANT. 8) ALL ZONES AFFECTED BY CONSTRUCTION SHALL BE REBALANCED IN THEIR ENTIRETY. 9) CONTRACTOR TO CAP ALL UNUSED EXISTING DUCT TAKE-OFFS AND SEAL AIRTIGHT. 10) MECHANICAL CONTRACTOR SHALL VERIFY THAT ALL EXISTING DUCTWORK IS INSULATED IN COMPLIANCE WITH N.C. ENERGY CODE.

11) PROVIDE RETURN BOOTS FOR ALL UN-DUCTED RETURN GRILLES. COORDINATE OTHER RETURN BOOT LOCATIONS WITH TENANT PRIOR TO ORDER. 12) MECHANICAL CONTRACTOR SHALL INCLUDE ROOF PATCHING AND REPAIR AS PART OF HIS CONTRACT. ROOFING

CONTRACTOR TO BE APPROVED BY BUILDING OWNER. 13) COORDINATE FINAL ZONE SENSOR LOCATIONS WITH GENERAL CONTRACTOR AND TENANT PRIOR TO INSTALLATION.



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## PLAN KEY NOTES: 🕢

1. EXISTING DUCTWORK ROUTED FROM EXISTING AIR HANDLING UNIT TO REMAIN.

2. CONNECT NEW DUCTWORK TO EXISTING DUCTWORK AS INDICATED. COORDINATE WITH EXISTING CONDITIONS. CONFIRM SIZE PRIOR TO BEGINNING WORK. (TYPICAL)

3. EXISTING PRIMARY SUPPLY DUCTWORK TO REMAIN. COORDINATE WITH EXISTING CONDITIONS. (TYPICAL)

4. CONNECT NEW SUPPLY DIFFUSER TO EXISTING DUCTWORK AS INDICATED. TRANSITION AS REQUIRED. COORDINATE WITH EXISTING CONDITIONS. (TYPICAL) 5. CONNECT NEW DUCTWORK TO EXISTING DUCTWORK AS INDICATED. NEW DUCTWORK TO BE ROUTED ABOVE NEW CEILING. COORDINATE WITH EXISTING CONDITIONS. CONFIRM SIZE PRIOR TO BEGINNING WORK. (TYPICAL)

> NOTE: REFERENCE ARCHITECTURAL PLANS FOR WALL RATINGS.

NOTE: MECHANICAL CONTRACTOR SHALL COORDINATE DUCTWORK INSTALLATION WITH GENERAL CONTRACTOR PRIOR TO BEGINNING WORK. (TYPICAL)

CONTRACTOR TO VERIFY ALL EQUIPMENT CLEARANCES REQUIRED BY CODE AND RECOMMENDED BY MANUFACTURERS FOR ALL EQUIPMENT.

NOTE: MAINTAIN A MINIMUM OF 10 FEET CLEAR FROM ALL VENT/EXHAUST DISCHARGES TO NEAREST OUTSIDE AIR INTAKE.

NOTE: COORDINATE ALL EQUIPMENT LOCATIONS WITH GENERAL CONTRACTOR AND OWNER PRIOR TO BEGINNING WORK.

NOTE: ALL WORK SHALL BE COORDINATED BETWEEN TRADES PRIOR TO BEGINNING WORK.

NOTE: COORDINATE FINAL THERMOSTAT LOCATIONS WITH TENANT PRIOR TO BEGINNING WORK. COORDINATE WITH WALL SWITCHES.

CONTRACTOR SHALL PROVIDE VOLUME DAMPER AT DUCT TAP WHERE POSSIBLE AND ACCESSIBLE. WHERE NOT ACCESSIBLE, PROVIDE ADJUSTABLE OPPOSED BLADE DAMPER AT DIFFUSER/GRILLE. FIELD COORDINATE LOCATIONS AND SIZES. (TYPICAL)

NOTE: CONTRACTOR SHALL VERIFY ALL EXISTING RETURN AIR TRANSFERS REMAIN THROUGHOUT CONSTRUCTION.





THE PROPERTY OF THE ARCHITECT. THEY HAVE BEEN PREPARED FOR A SPECIFIC PROJECT AND SHALL NOT BE USED

IN CONJUNCTION WITH ANY OTHER PROJECTS WITHOUT PRIOR WRITTEN PERMISSION OF THE ARCHITECT. ©-MHAworks 2024



SHEET NAME:
HVAC FLOORPLAN

PHASE: BID SET

ISSUE DATE: **19 SEPT 2024** PROJECT #: **#23030** DRAWN BY: JR

SHEET NUMBER **M**1

GENERAL NOTES:

1. THE HEATING AND AIR CONDITIONING CONTRACTOR (THE CONTRACTOR) SHALL PROVIDE ALL SPECIFIED AND MISCELLANEOUS MATERIAL AND LABOR AS REQUIRED FOR A COMPLETE AND OPERATING SYSTEM AS DESCRIBED BY THESE PLANS AND SPECIFICATIONS.

2. NOT USED.

3. PROVIDE AN ELECTRONIC PROGRAMMABLE THERMOSTAT FOR EACH AIR HANDLING UNIT. TTHE HIGHEST OPERATING COMPONENT OF THE THERMOSTAT SHALL BE MOUNTED AT 48" MAX. A.F.F. AND IN COMPLIANCE WITH NC ACCESSIBILITY CODE.

4. THE MECHANICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF THE OTHER TRADES PRIOR TO THE INSTALLATION OF ANY OF HIS EQUIPMENT, DUCTWORK, OR PIPING.

5. ALL EQUIPMENT, MATERIALS, AND INSTALLATION OF SUCH SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, AND NATIONAL CODES. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS. IF THERE IS A CONFLICT IN THE ABOVE REQUIREMENTS, THE MORE STRINGENT SHALL BE USED. ACCESS TO ALL EQUIPMENT SHALL BE PROVIDED IN COMPLIANCE WITH CHAPTER 3 OF THE NORTH CAROLINA MECHANICAL CODE.

6. THE MECHANICAL CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES, AND INSPECTIONS REQUIRED FOR HIS WORK.

7. WORKMANSHIP SHALL BE FIRST-CLASS AND PERFORMED BY EXPERIENCED AND SKILLED CRAFTSMEN.

8. REFER TO ARCHITECTURAL PLANS FOR FLOOR PLAN DIMENSIONS, DO NOT SCALE THESE DRAWINGS.

9. COORDINATE EXACT LOCATION OF ALL DIFFUSERS WITH LIGHTS, SPRINKLER HEADS, AND OTHER CEILING MOUNTED DEVICES.

10. THE MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL HIS OWN SUPPORT EQUIPMENT. LOCATIONS SHALL BE COORDINATED WITH ALL CONTRACTORS PRIOR TO INSTALLATION.

11. ALL EQUIPMENT SHALL BE LOCATED AND INSTALLED TO PROVIDE MAXIMUM SPACE FOR MAINTENANCE AND SERVICE. ALL EQUIPMENT INSTALLATIONS SHALL ALLOW FOR ALL CODE AND MANUFACTURER REQUIRED CLEARANCES.

12. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL POWER CONNECTIONS TO THE EQUIPMENT PROVIDED UNDER HIS CONTRACT.

13. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONTROL WIRING FOR HIS EQUIPMENT.

14. ALL OUTSIDE AIR SUPPLY AND EXHAUST DUCTWORK, FANS, AND EXTERIOR OPENINGS SHALL BE PROVIDED WITH CLASS I MOTORIZED DAMPERS IN COMPLIANCE WITH SECTION C403.2.4.3 OF THE NC ENERGY CONSERVATION CODE. GRAVITY DAMPERS MAY BE PERMITTED IN BUILDING LESS THAN 3 STORIES IN HEIGHT OR FOR EXHAUST AIRFLOW OF 300 CFM OR LESS.

15. FOR SPACES LARGER THAN 500 SQUARE FEET, THE CONTRACTOR SHALL PROVIDE CO2 SENSORS AND MOTORIZED DAMPERS ON ALL HVAC SYSTEMS TO PROVIDE DEMAND CONTROLLED VENTILATION IN COMPLIANCE WITH SECTION C403.2.6 OF THE NC ENERGY CONSERVATION CODE UNLESS OTHERWISE NOTED.

16. NOT USED

17. DUCTWORK AS SHOWN ON THE DRAWINGS IS STRICTLY DIAGRAMMATIC. ALL DUCT SIZES SHOWN ARE FREE AREA. COORDINATE EXACT LOCATION OF ALL DUCTWORK WITH THE BUILDING STRUCTURE AND OTHER TRADES.

18. IT WILL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO ENSURE THAT ITEMS TO BE FURNISHED UNDER HIS CONTRACT WILL FIT THE SPACE AVAILABLE. HE SHALL MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS, INCLUDING THOSE FOR CONNECTIONS AND SERVICE CLEARANCES, AND SHALL FURNISH AND INSTALL SUCH SIZES AND SHAPES OF EQUIPMENT THAT ARE THE TRUE INTENT AND MEANING OF THESE DRAWINGS AND SPECIFICATIONS.

19. PROVIDE BALANCING DAMPERS IN ALL DUCTS WHERE REQUIRED FOR SYSTEM BALANCING AS SHOWN ON PLANS OR AS REQUIRED.

20. INSTALL FLEXIBLE DUCT CONNECTIONS AT THE SUPPLY AND RETURN DUCTWORK CONNECTIONS OF ALL AIR HANDLING UNITS FOR VIBRATION ISOLATION.

21. PROVIDE FIRE DAMPERS AT ALL DUCT PENETRATIONS THROUGH THE FIRE-RATED WALLS AS SHOWN ON PLANS OR AS REQUIRED. PROVIDE RADIATION DAMPERS AT ALL DIFFUSERS/GRILLES MOUNTED IN FIRE-RATED CEILINGS AND CEILING ASSEMBLIES AS SHOWN ON PLANS OR AS REQUIRED.

22. PROVIDE ACCESS PANELS IN THE DUCTWORK FOR ALL FIRE DAMPERS OR OTHER DUCT MOUNTED EQUIPMENT. LOCATE ACCESS PANEL SO THAT ACCESS TO EQUIPMENT IS EASILY ATTAINED.

23. CONTRACTOR SHALL PROVIDE ENTHALPY CONTROLLED ECONOMIZERS FOR ANY AIR CONDITIONING UNIT OVER 65,000 BTHU OF COOLING UNLESS OTHERWISE NOTED. ECONOMIZER SHALL CONFORM TO REQUIREMENTS OF SECTION C403.3 OF THE NC ENERGY CONSERVATION CODE.

24. PRIOR TO BIDDING, MECHANICAL CONTRACTOR IS TO VISIT SITE TO FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS AND RESOLVE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND THESE PLANS WITH THE ENGINEER.

25. NOT USED

26. CONTRACTOR SHALL FURNISH A BOUND SET OF OPERATING AND MAINTENANCE MANUALS FOR ALL EQUIPMENT TO THE OWNER UPON COMPLETION OF PROJECT. MANUALS SHALL INCLUDE ALL ITEMS AS SPECIFIED IN SECTION C408.2.5 OF THE NORTH CAROLINA ENERGY CONSERVATION CODE.

27. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL SYSTEM COMMISSIONING REQUIREMENTS AS REQUIRED PER SECTION C408 OF THE NC ENERGY CONSERVATION CODE. ARCHITECT AND ENGINEER CAN PROVIED STATEMENT OF SYSTEM COMMISSIONING (APPENDIX C1) AS REQUIRED IN SECTION 503.2.9.3 OF THE NORTH CAROLINA ENERGY CONSERVATION CODE. UPON NOTIFICATION THAT ALL REQUIREMENTS HAVE BEEN MET BY CONTRACTOR.

28. OUTSIDE AIR INTAKES SHALL BE LOCATED A MINIMUM OF 10 FEET FROM ALL EXHAUST DISCHARGE AND PLUMBING VENTS.

29. INSTALL ESCUTCHEONS IN ALL PLACES WHERE PIPING PENETRATES A WALL IN AN EXPOSED LOCATION.

30. REPLACE ALL FILTERS JUST PRIOR TO ACCEPTANCE BY THE OWNER.

31. THE MECHANICAL CONTRACTOR SHALL PROVIDE SMOKE DETECTORS PER SECTION 606 OF N.C. MECHANICAL CODE IN THE RETURN OF EACH UNIT TO DE-ENERGIZE UNIT IN THE EVENT OF FIRE. SMOKE DETECTORS SHALL BE U.L. LISTED FOR DUCT INSTALLATION. SUPERVISION OF DUCT DETECTOR SHALL BE PER SECTION 606.4.1. MECHANICAL CONTRACTOR SHALL PROVIDE VISUAL AND AUDIBLE ALARM FOR EACH DETECTOR.

32. MOUNT AIR HANDLING UNIT IN SUCH A WAY THAT ADEQUATE SLOPE IS PROVIDED FOR ALL DRAIN LINES. PIPE CONDENSATE FROM COIL AND DRAIN PAN FULL SIZE TO AN APPROVED PLACE OF DISPOSAL IN COMPLIANCE WITH NCMC, SECTION 307. PROVIDE FLOAT SWITCH IN CONDENSATE PANS TO STOP FAN UPON ACCUMULATION OF CONDENSATE IN PAN.

33. THE MECHANICAL CONTRACTOR SHALL MAKE A COMPLETE REVIEW OF THE MECHANICAL PLANS, INCLUDING THE SCHEDULES AND DETAILS PRIOR TO INSTALLATION OF ANY MECHANICAL SYSTEMS AND SHALL RESOLVE ANY CONFLICTS WITH THE ENGINEER.

34. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES. ALL DRAWINGS INDICATE THE GENERAL ARRANGEMENT DESIRED. THE EXACT LOCATIONS AND DETAILS OF CONSTRUCTION MAY BE SUCH THAT VARIANCES ARE REQUIRED. THE DRAWINGS DO NOT SHOW ALL BENDS, OFFSETS, AND FITTINGS THAT MAY BE REQUIRED FOR THE COMPLETE EXECUTION OF THIS CONTRACT. SUCH VARIANCES AND CONTINGENCIES SHALL BE ALLOWED FOR IN THE CONTRACTOR'S BID AND SHALL BE ACCOMPLISHED WITHOUT ADDITIONAL COST TO THE OWNER. PRIOR TO ORDERING EQUIPMENT, THE CONTRACTOR SHALL PREPARE COORDINATION DRAWINGS SHOWING HOW HIS EQUIPMENT IS TO BE LOCATED IN THE SPACE INDICATED. THIS DRAWING SHALL SHOW THE NEW AND EXISTING WORK OF ALL OTHER TRADES. THE CONTRACTOR SHALL CONTACT THE OTHER CONTRACTORS INVOLVED FOR DIMENSIONS, LOCATIONS, AND REQUIRED CLEARANCES OF THE EQUIPMENT THEY INTEND TO PROVIDE FOR THIS JOB. THE AFOREMENTIONED COORDINATION DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

35. ALL MATERIALS USED SHALL BE NEW AND FREE OF DEFECTS. IF TRADE NAMES ARE MENTIONED, THEY ARE GIVEN AS A REFERENCE TO THE QUALITY OF THE APPARATUS REQUIRED. ALL MATERIALS AND EQUIPMENT SHALL BEAR THE UL LABEL OR EQUIVALENT WHERE APPLICABLE THE CONTRACTOR SHALL SUBMIT A COMPLETE LIST OF MATERIALS AND EQUIPMENT PROPOSED FOR USE IN THIS CONTRACT TO THE ENGINEER WITHIN TEN DAYS FOLLOWING THE AWARD OF CONTRACT. IF SUCH LIST IS NOT SUBMITTED, THE CONTRACTOR SHALL SUPPLY THE MATERIALS AND EQUIPMENT SPECIFIED OR AS DIRECTED BY THE ENGINEER.

36. NOT USED

37. NOT USED.

38. IF FIRE ALARM SYSTEM IS PROVIDED IN BUILDING, THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND WIRE ALL SMOKE DETECTORS. IF FIRE ALARM SYSTEM IS NOT PROVIDED IN BUILDING, THE MECHANICAL CONTRACTOR SHALL PROVIDE AND WIRE SMOKE DETECTORS. REGARDLESS OF WHO PROVIDES DETECTOR, IT SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO INSTALL THE SMOKE DETECTORS IN THE RETURN OF REQUIRED UNITS TO DE-ENERGIZE UNIT IN THE EVENT OF FIRE. SMOKE DETECTORS SHALL BE U.L. LISTED FOR DUCT INSTALLATION. ELECTRICAL CONTRACTOR AND MECHANICAL CONTRACTOR SHALL COORDINATE SMOKE DETECTOR REQUIREMENTS FOR SYSTEM PRIOR TO INSTALLATION.

39. PRIOR TO BEGINNING WORK, CONTRACTOR SHALL PROVIDE A PRE-WORK TEST AND BALANCE FOR SYSTEMS IN THE AREA OF WORK TO VERIFY AIRFLOW IN AREAS SERVED BY COMMON SYSTEMS ARE NOT ADVERSELY IMPACTED BY THIS SCOPE OF WORK. UPON COMPLETION OF THE WORK, A TEST AND BALANCE SHALL BE PERFORMED IN ACCORDANCE WITH "AABC" REQUIREMENTS. AIR FLOW AND STATIC PRESSURE SHALL BE MEASURED AND RECORDED FOR ALL OUTLETS ON FACH SYSTEM ONE WEEK AFTER THE OWNER HAS OCCUPIED THE BUILDING AND

OUTLETS ON EACH SYSTEM. ONE WEEK AFTER THE OWNER HAS OCCUPIED THE BUILDING AND OPENED FOR BUSINESS, THE CONTRACTOR SHALL RE-BALANCE THE SYSTEM ACCORDING TO THE NEEDS OF THE OCCUPANTS. PROVIDE A COMPLETE TEST AND BALANCE REPORT TO THE ENGINEER. ACCEPTABLE TOLERANCE FOR AIR SIDE WORK: +/-10%.

40. AS APPLICABLE, THE CONTRACTOR SHALL VERIFY THE OPERATION OF ALL EXISTING MECHANICAL EQUIPMENT IN THE AREA OF WORK. ALL MEASUREMENTS SHALL BE RECORDED NECESSARY TO ASCERTAIN THE PROPER OPERATION OF THE EQUIPMENT INCLUDING, BUT NOT LIMITED TO, AMPERAGE, GPM FLOW, INLET AND OUTLET TEMPERATURES, AIR FLOW, AND INLET AND OUTLET STATIC PRESSURES. ANY DEFICIENCY IN THE RATED OUTPUT OF THE EQUIPMENT SHALL BE REPORTED TO THE ENGINEER AND BUILDING OWNER. IN ANY CASE, SAID REPORT SHALL BE SUBMITTED TO THE ENGINEER UPON REQUEST.

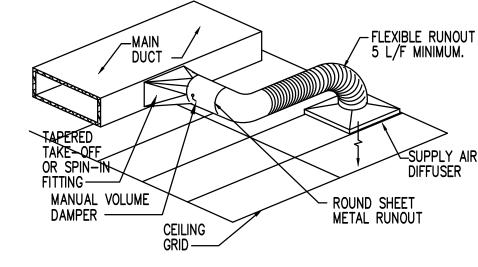
41. THE CONTRACTOR SHALL, AT THE COMPLETION OF THE WORK, CLEAN, POLISH, AND/OR WASH ALL EXPOSED ITEMS OF MATERIALS, EQUIPMENT, AND FIXTURES IN HIS CONTRACT TO LEAVE SUCH ITEMS BRIGHT AND CLEAN. THE CONTRACTOR SHALL KEEP THE PREMISES CLEAR OF DEBRIS FROM HIS WORK DURING CONSTRUCTION AND LEAVE THE AREA AND BUILDING CLEAN AT COMPLETION OF THE CONTRACT.

42. MECHANICAL AND ELECTRICAL EQUIPMENT SHALL OPERATE WITHOUT OBJECTIONABLE NOISE OR VIBRATION, AS DETERMINED BY THE ENGINEER. IF SUCH OBJECTIONABLE NOISE OR VIBRATION SHOULD BE PRODUCED AND TRANSMITTED TO OCCUPIED PORTIONS OF THE BUILDING, THE CONTRACTOR SHALL MAKE THE NECESSARY CHANGES TO CORRECT THE NOISE OR VIBRATION WITHOUT ADDITIONAL COST TO THE OWNER.

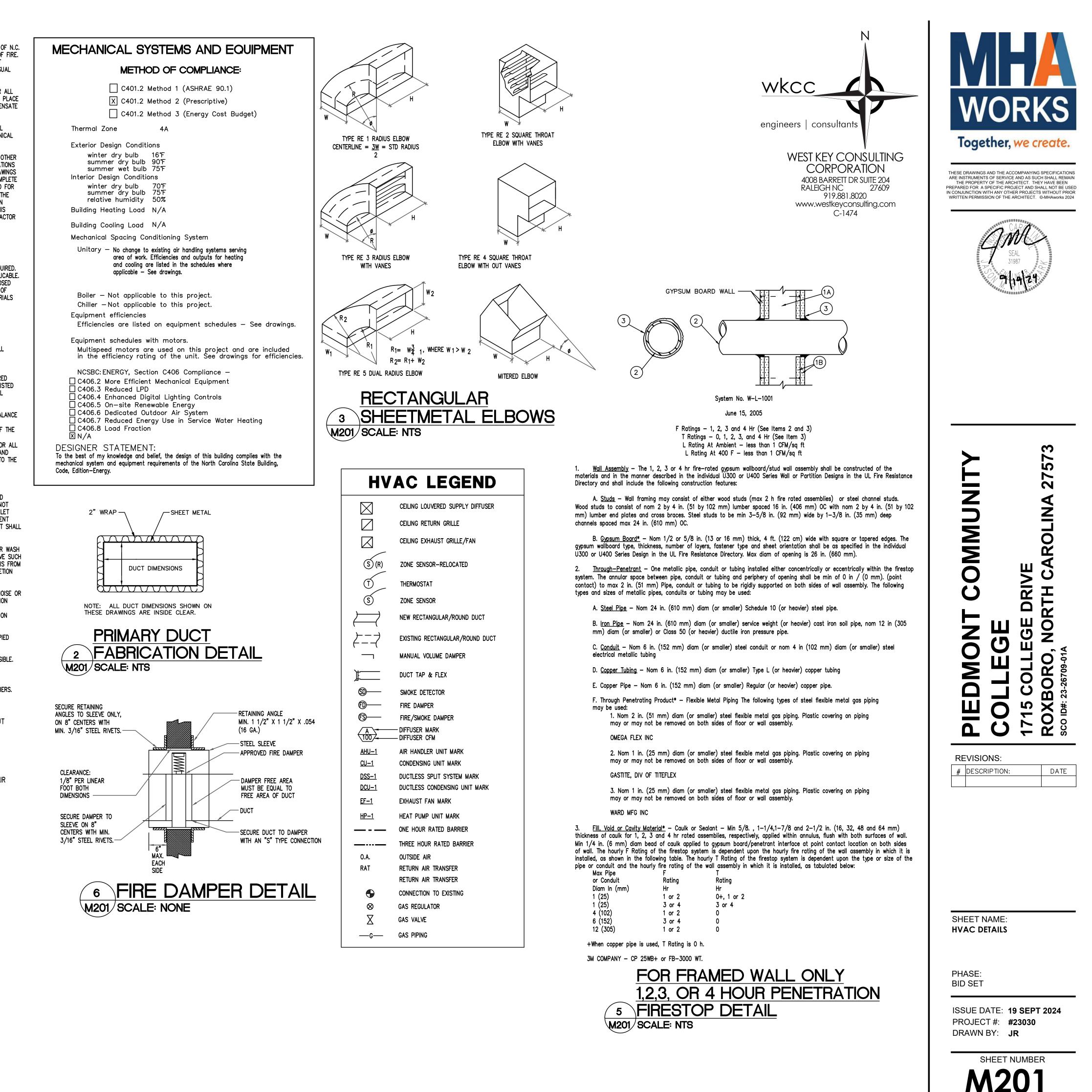
43. ALL AIR HANDLING UNIT SUPPLY FANS SHALL OPERATE CONTINUOUSLY DURING OCCUPIED HOURS.

44. MECHANICAL CONTRACTOR SHALL CONCEAL ALL EXTERIOR PENETRATIONS WHERE POSSIBLE. COORDINATE ALL EXTERIOR PENETRATIONS WITH BUILDING OWNER (TENANT) AND GENERAL CONTRACTOR.

45. ENGINEER SHALL NOT BE RESPONSIBLE FOR MISMATCHED OR INACCURATE PART NUMBERS. COORDINATE CLOSELY WITH ALL TRADES PRIOR TO MATERIAL/EQUIPMENT ORDERING.

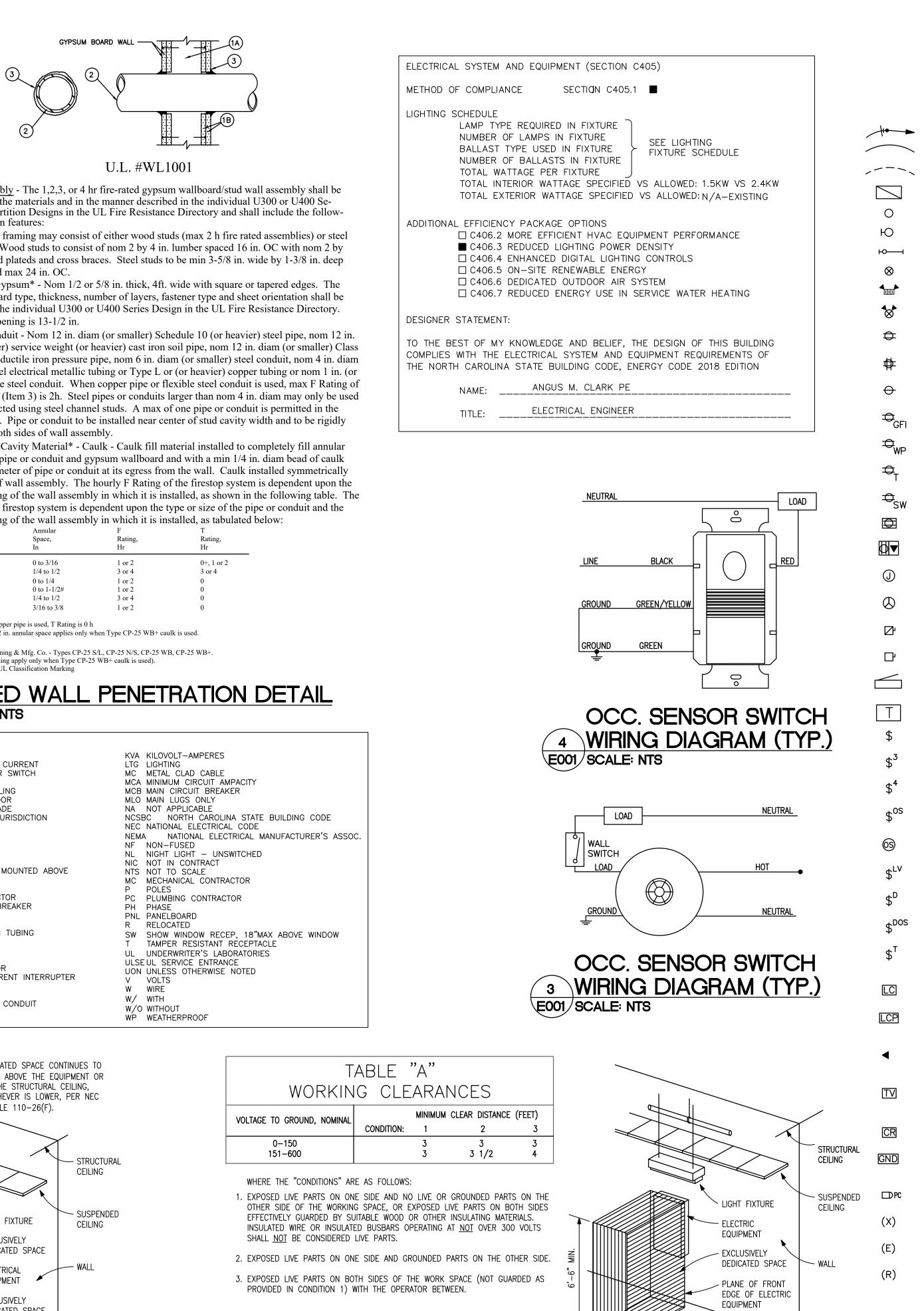


SUPPLY DIFFUSER **INSTALLATION DETAIL** M201/SCALE: NTS

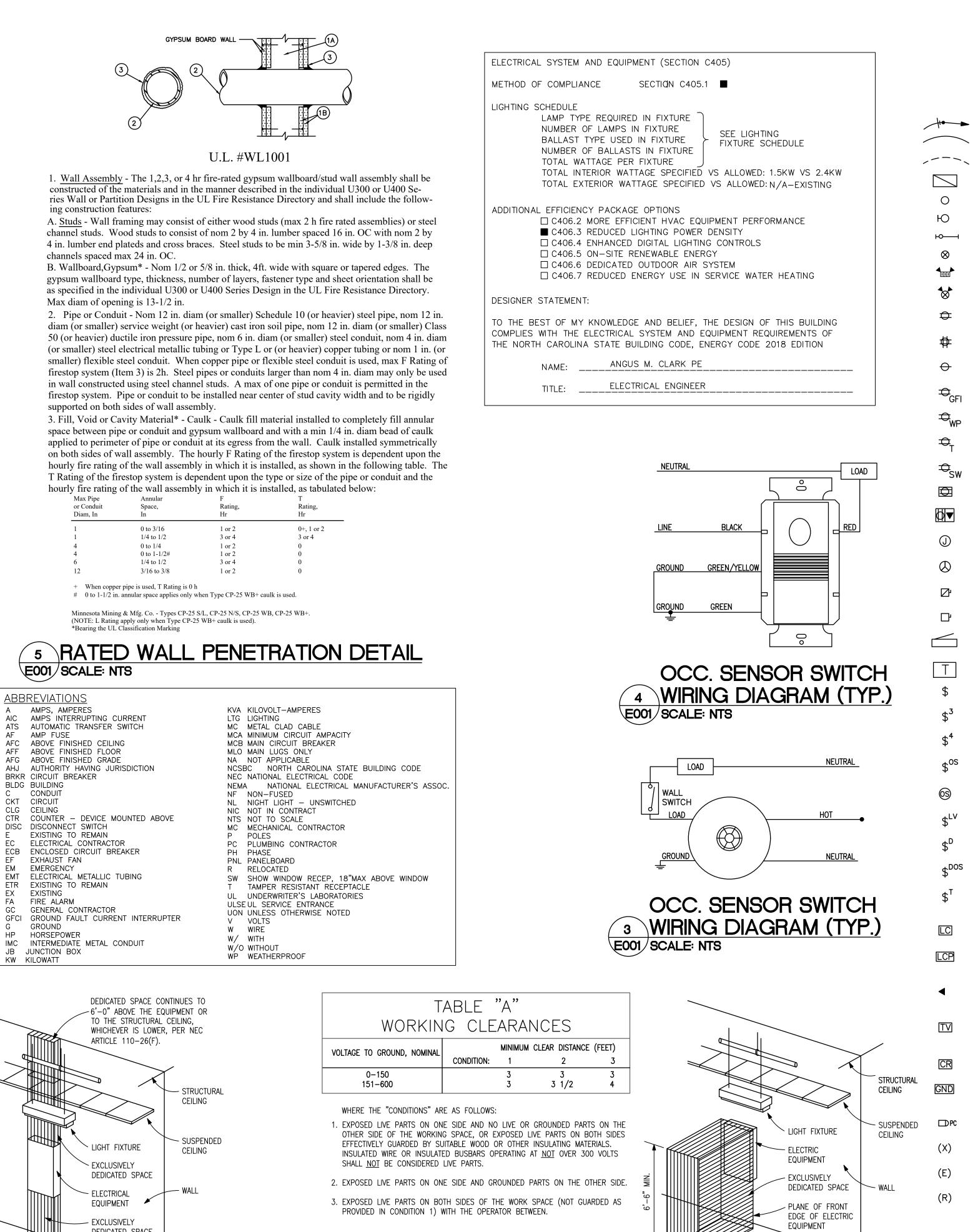


## GENERAL NOTES AND REQUIREMENTS.

- 1. WORKMANSHIP SHALL CONFORM TO NECA PUBLICATION "STANDARDS OF INSTALLATION"
- INSTALLATION SHALL COMPLY WITH NATIONAL ELECTRICAL CODE, STATE BUILDING CODE, STATE CONSTRUCTION OFFICE ELECTRICAL GUIDELINES, THE ELECTRICAL SPECIFICATIONS, AND ALL REQUIREMENTS OF THE LOCAL INSPECTOR (FURNISH INSPECTION CERTIFICATE). ALL WORK SHALL BE BY LICENSED ELECTRICAL CONTRACTOR FOR PROJECTS INVOLVING STATE AGENCIES INCLUDING THIS PROJECT, THE STATE CONSTRUCTION OFFICE HAS ELECTRICAL INSPECTION RESPONSIBILITY, AS NOTED IN NCGS 143-341(3)D. NO PROJECT IS EXEMPT FROM ELECTRICAL INSPECTION(S), REGARDLESS OF DOLLAR VALUE OR FUNDING SOURCE. ALL SCHEDULING OF ELECTRICAL INSPECTIONS WITH THE SCO ELECTRICAL INSPECTOR SHALL BE MONDAY THROUGH FRIDAY UNLESS SPECIFICALLY EXEMPTED AND APPROVED BY SCO.
- 3. ALL MOUNTING HEIGHTS ARE GIVEN TO THE CENTERLINE OF THE DEVICE UNLESS OTHERWISE NOTED. RECEPTACLES, DATA AND TELEPHONE OUTLET TO BE MOUNTED 18"AFF UNLESS OTHERWISE NOTED. LIGHT SWITCHES TO BE MOUNTED 48"AFF UNLESS OTHERWISE NOTED.
- 4. THE LOCATION OF ALL WALL MOUNTED DEVICES, INCLUDING MOUNTING HEIGHTS, SHALL BE FIELD VERIFIED WITH THE ENGINEER PRIOR TO INSTALLATION.
- 5. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY DISCONNECTS, SWITCHES, AND RECEPTACLES UNDER THE ELECTRICAL BID AND SHALL INCLUDE ALL NECESSARY CIRCUITS TO AND FINAL CONNECTIONS TO THE EQUIPMENT PROVIDED BY ALL SUPPLIERS.
- 6. ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED SO THAT ALL CODE-REQUIRED AND MANUFACTURER-RECOMMENDED SERVICING CLEARANCES ARE MAINTAINED. INSTALLATIONS SHALL FULLY COMPLY WITH NEC 110-26 FOR CLEARANCE REQUIREMENTS.
- 7. COORDINATE LOCATIONS OF ALL LIGHT FIXTURES WITH THE REFLECTED CEILING PLANS. LIGHT FIXTURES INSTALLED IN MECHANICAL AREAS SHALL AVOID MECHANICAL PIPING, EQUIPMENT, DUCTWORK, ETC.
- 8. GROUND SHALL BE PER N.E.C. PROVIDE SEPARATE GROUNDING CONDUCTOR FOR ALL CIRCUITS. PROVIDE DRIVEN AND COLD WATER GROUND FOR MAIN SERVICE.
- 9. THE ELECTRICAL CONTRACTOR SHALL PATCH ANY WALL, CEILING, OR FLOOR OPENING AND PENETRATIONS RESULTING FROM DEMOLITION OR NEW WORK IN EXISTING AREAS.
- 10. ALL WIRING SHALL BE CONCEALED IN METALLIC CONDUIT.
- 11. ALL CIRCUITS SHALL BE TESTED WITH 500 VOLT TESTER PRIOR TO ENERGIZING.
- 12. CONDUIT SHALL BE LABELED EVERY TEN FEET.
- 13. ALL RECEPTACLE AND SWITCH PLATES SHALL BE LEGIBLY MARKED WITH LABEL MARKER TO CLEARLY INDICATE PANELBOARD ORIGIN AND CIRCUIT NUMBER. VERIFY IF LABEL SHOULD BE ON THE INSIDE OR OUTSIDE FACE OF COVERPLATE WITH OWNER/TENANT.
- 14. PROVIDE PHENOLIC LABELS ON ALL MAJOR EQUIPMENT INCLUDING SWITCHBOARDS. MOTOR CONTROL CENTERS. PANELBOARDS, INDIVIDUAL STARTERS, SAFETY SWITCHES, AND TRANSFORMERS. PROVIDE ENGRAVED THREE-LAYER LAMINATED PLASTIC, WHITE LETTERS ON BLACK BACKGROUND.
- 15. ALL CIRCUIT BREAKERS IN PANEL SHALL BE SERIES RATED WITH MAIN BREAKER OR FULLY RATED FOR THE SYSTEM.
- 16. CONTRACTOR SHALL PROVIDE ENGINEER A MINIMUM OF 3 COPIES OF SHOP DRAWINGS FOR ALL ELECTRICAL COMPONENTS.
- 17. AS USED ON THESE DOCUMENTS, THE WORD "PROVIDE" SHALL MEAN TO FURNISH AND INSTALL THE ITEM OR EQUIPMENT AND MAKE THE FINAL CONNECTION AS REQUIRED.
- 18. OPERABLE DEVICES SHALL BE ACCESSIBLE IN COMPLIANCE WITH ANSI A117.1, SECTION 309, OPERABLE PARTS. WHERE GFI RECEPTACLES ARE NOT ACCESSIBLE, PROVIDE GFI BREAKER.
- 19. UPON PROJECT COMPLETION, THE EC SHALL PROVIDE TYPED CIRCUIT DIRECTORIES FOR ALL NEW AND ALTERED PANELBOARDS WITH CIRCUIT DESIGNATIONS COMPLYING WITH THE REQUIREMENTS OF NEC 408.4(A). 20. ALL ELECTRICAL MATERIALS, DEVICES, APPLIANCES AND EQUIPMENT SHALL BE LABELED AND LISTED BY A
- THIRD PARTY AGENCY. THE THIRD PARTY AGENCY SHALL BE AMONG THOSE ACCEPTABLE TO THE NC BUILDING CODE COUNCIL TO LABEL ELECTRICAL AND MECHANICAL EQUIPMENT.



Annular Space, In	F Rating, Hr
0 to 3/16	1 or 2
1/4 to 1/2	3 or 4
0 to 1/4	1 or 2
0 to 1-1/2#	1 or 2
1/4 to 1/2	3 or 4
3/16 to 3/8	1 or 2
	Space, In 0 to 3/16 1/4 to 1/2 0 to 1/4 0 to 1-1/2# 1/4 to 1/2



BBREVIATIONS

A	AMPS,	AMPERES	
ΔIC		INTERRUPTING	CURREN

ATS AUTOMATIC TRANSFER SWITCH						• · · · - ·
	ATS	AUTOMA	TIC 1	FRANS	SFER	SWITC

١F	AMP FUSE	
		0

- AFG ABOVE FINISHED GRADE

BLDG BUILDING

- EC
- EF EXHAUST FAN

- FA FIRE ALARM
- G
- JB JUNCTION BOX

DEDICATED SPACE THIS FIGURE ILLUSTRATES THE ADDITIONAL EXCLUSIVELY DEDICATED SPACE REQUIRED OVER AND UNDER THE ELECTRICAL EQUIPMENT FOR THE CABLES, RACEWAYS, ETC ... TO AND FROM THE ELECTRICAL EQUIPMENT REQUIRED BY



SECTION 110.26(F) OF THE NATIONAL ELECTRICAL CODE.

NOTE: THIS FIGURE ILLUSTRATES THE WORKING SPACE IN FRONT OF ELECTRIC EQUIPMENT REQUIRED BY SECTION 110.26 OF THE NATIONAL ELECTRICAL CODE.

30" MINIMUM OR WIDTH OF EQUIPMENT

2 WORKING CLEARANCE FOR ELECTRICAL EQUIPMENT E001/SCALE: NTS

## ELECTRICAL LEGEND

(ALL SYMBOLS MAY NOT BE USED ON THIS PROJECT)

HOMERUN TO POWER SOURCE, 2#12,#12G 1/2"C UON BRANCH CIRCUIT WIRING CONCEALED IN WALLS AND CEILINGS BRANCH CIRC WIRING CONCEALED UNDER FLOOR OR GRND RECESSED LIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE DOWNLIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE WALL MOUNTED LIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE SURFACE MOUNTED LIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE EXIT SIGN, DIRECTIONAL ARROWS AS INDICATED. REFER TO SCHEDULE EMERGENCY LIGHT, REFER TO LUMINAIRE SCHEDULE

EXIT/EMERGENCY LIGHT COMBINATION, REFER TO LUMINAIRE SCHEDULE DUPLEX RECEPTACLE

QUADRUPLEX RECEPTACLE

SIMPLEX RECEPTACLE, AMP RATING AS NOTED, OR MATCH BRKR SIZE GFCI RECEPTACLE

WEATHERPROOF WHILE N USE GFCI RECEPTACLE

TAMPER RESISTANT RECEPTACLE

SHOW WINDOW RECEPTACLE MOUNTED 18"MAX ABOVE WINDOW

FLUSH MOUNTED FLOOR RECEPTACLE, CLOSED COVER WHILE-IN-USE

FLUSH MOUNTED RECEPTACLE AND DATA, CLOSED COVER WHILE-IN-USE

JUNCTION BOX FOR POWER CONNECTION

EQUIPMENT POWER CONNECTION

FUSED DISCONNECT SWITCH

NON-FUSED DISCONNECT SWITCH

PANELBOARD

DRY TYPE TRANSFORMER

SINGLE POLE SWITCH

THREE WAY SWITCH

FOUR WAY SWITCH

WALL MOUNTED DUAL TECH OCCUPANCY SENSOR SWITCH (LINE VOLTAGE)

CEILING OR WALL MOUNTED DUAL TECH OCCUPANCY SENSOR (LINE VOLTAGE)

LOW VOLTAGE LIGHTING CONTROL SWITCH

DIMMER SWITCH. 1500W SLIDER TYPE

DIMMER SWITCH WITH DUAL TECHNOLOGY OCCUPANCY SENSOR

WALL MOUNTED DECORATOR DIGITAL TIMER SWITCH WITH ON/OFF BUTTON, 48"AFF, 120/277V PROGRAMMABLE . INTERMATIC E1400 SERIES OR EQUAL.

LIGHTING CONTACTOR, MECHANICALLY HELD

LIGHTING CONTROL PANEL

COMBINATION TELEPHONE/DATA OUTLET, EMPTY SINGLE GANG BOX WITH 3/4"C STUBBED ABOVE CEILING.

CABLE TV OUTLET, EMPTY SINGLE GANG BOX WITH 3/4"C STUBBED ABOVE CEILING. COORDINATE EXACT MOUNTING HEIGHT WITH GC PRIOR TO ROUGH-IN.

CARD READER ROUGH-IN, WITH EMPTY 3/4"C STUBBED ABOVE CEILING

BUILDING GROUND CONNECTION POINT, 3/8" COPPER STUD WITH #6G WIRE ROUTED TO GROUND BUS AT SERVICE DISCONNECT

PHOTOCELL, MOUNT WITH SENSOR FACING NORTH, EXACT LOCATION TO BE DETERMINED

EXISTING EQUIPMENT TO BE REMOVED

EXISTING EQUIPMENT TO REMAIN

EXISTING EQUIPMENT TO BE RELOCATED



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THESE DRAWINGS AND THE ACCOMPANYING SPECIFICATION THE ACCOMPANY INCOMENTING AND AS SUCH SHALL REMAIL THE PROPERTY OF THE ARCHITECT. THEY HAVE BEEN REPARED FOR A SPECIFIC PROJECT AND SHALL NOT BE USE IN CONJUNCTION WITH ANY OTHER PROJECTS WITHOUT PRIOR WRITTEN PERMISSION OF THE ARCHITECT. @-MHAworks 2023



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REVISIONS # DESCRIPTION:

DATE

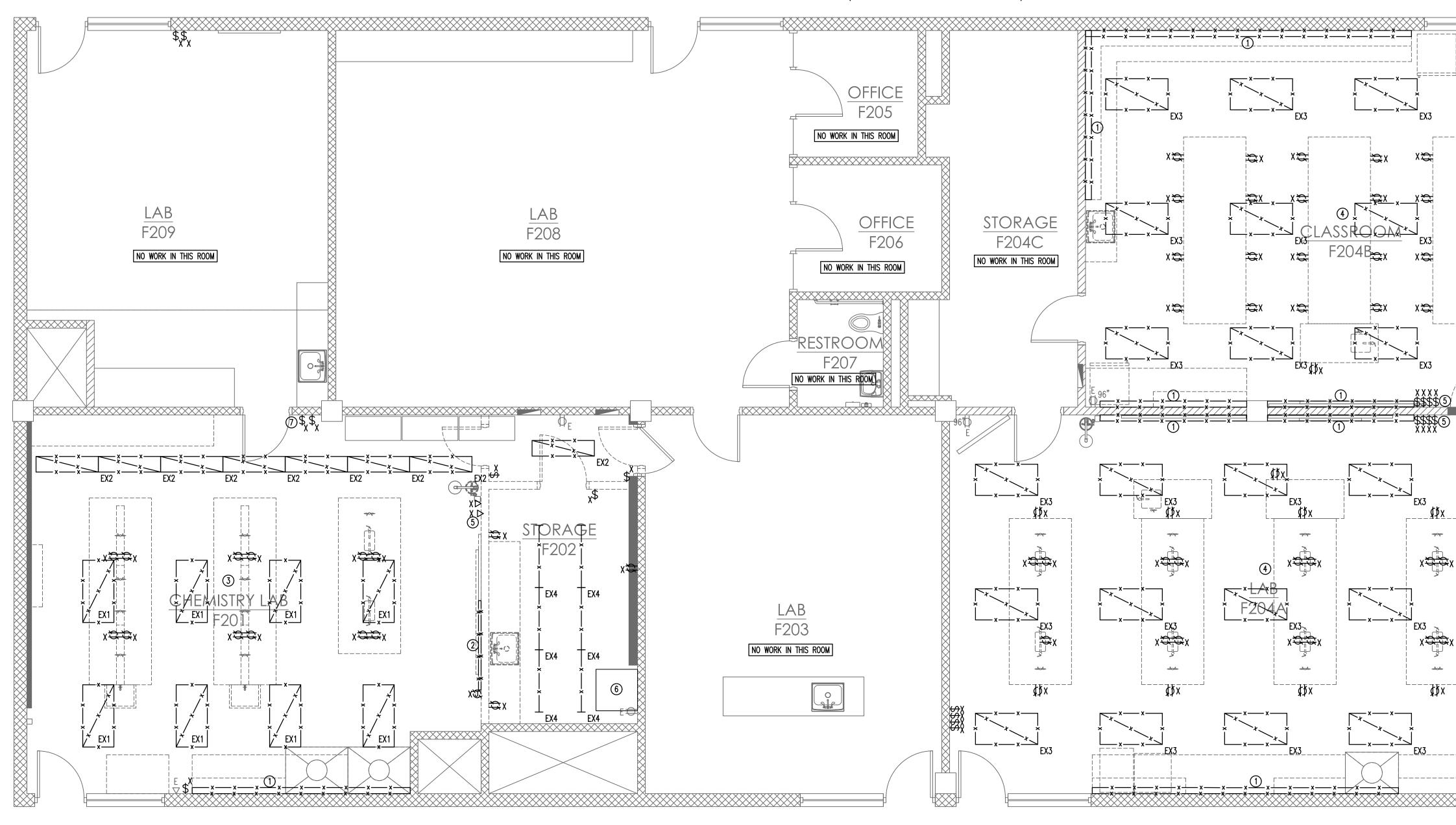
SHEET NAME: ELECTRICAL COVER SHEET

PHASE: BID SET

ISSUE DATE: **19 SEPT 2024** PROJECT #: 23030 DRAWN BY: CG

SHEET NUMBER

EUU"

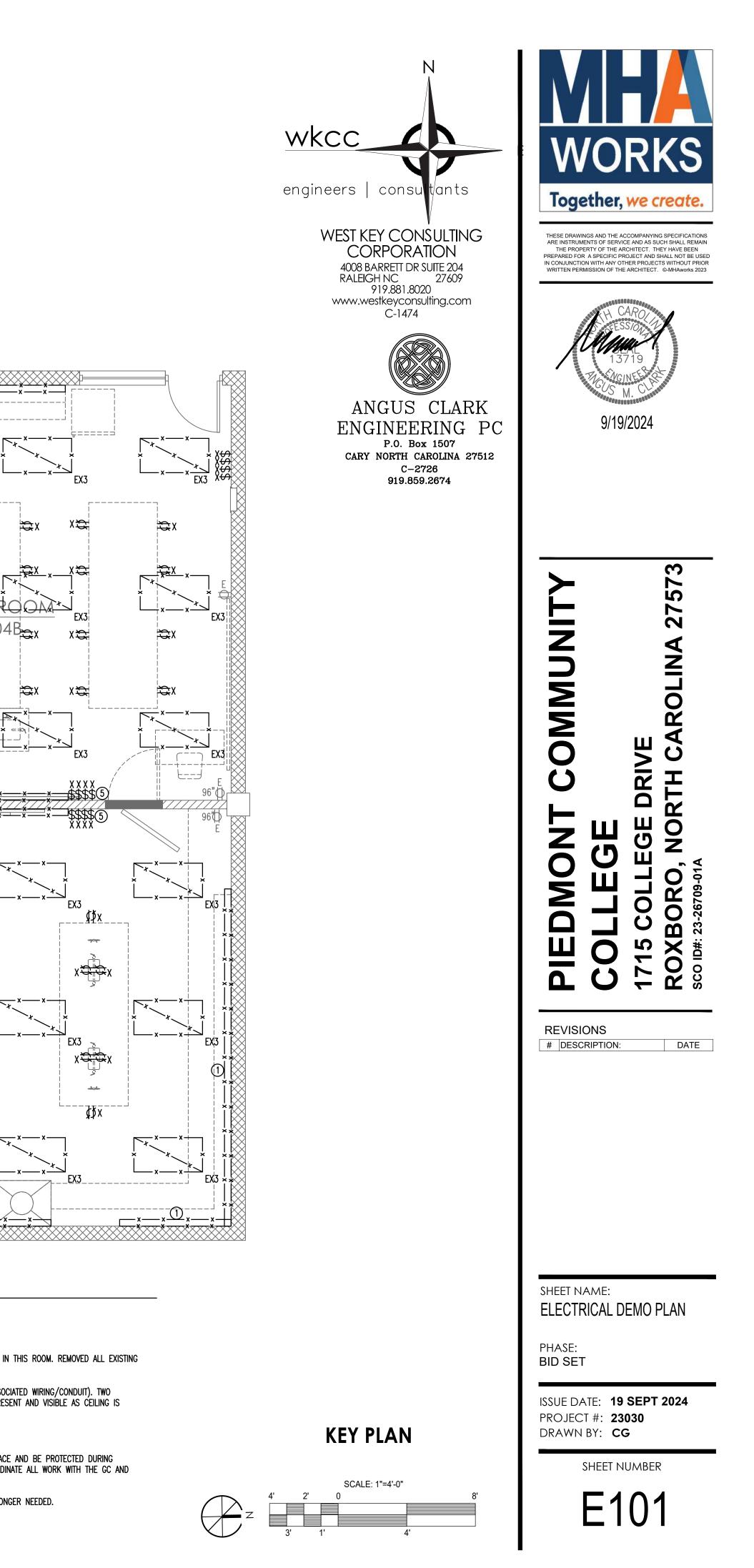




THE EXISTING INFORMATION SHOWN IS BASED ON PREVIOUS AS-BUILT DOCUMENTS AND FIELD INVESTIGATION. THERE ARE SOME ADDITIONAL DEVICES AND EQUIPMENT THAT IS EXISTING TO REMAIN. THE EC SHALL FIELD VERIFY EXISTING CONDITIONS AND EXISTING EQUIPMENT WITH OWNER PRIOR TO REMOVAL PROCESS. (TYPICAL FOR ALL LIGHTING AND POWER COMPONENTS)

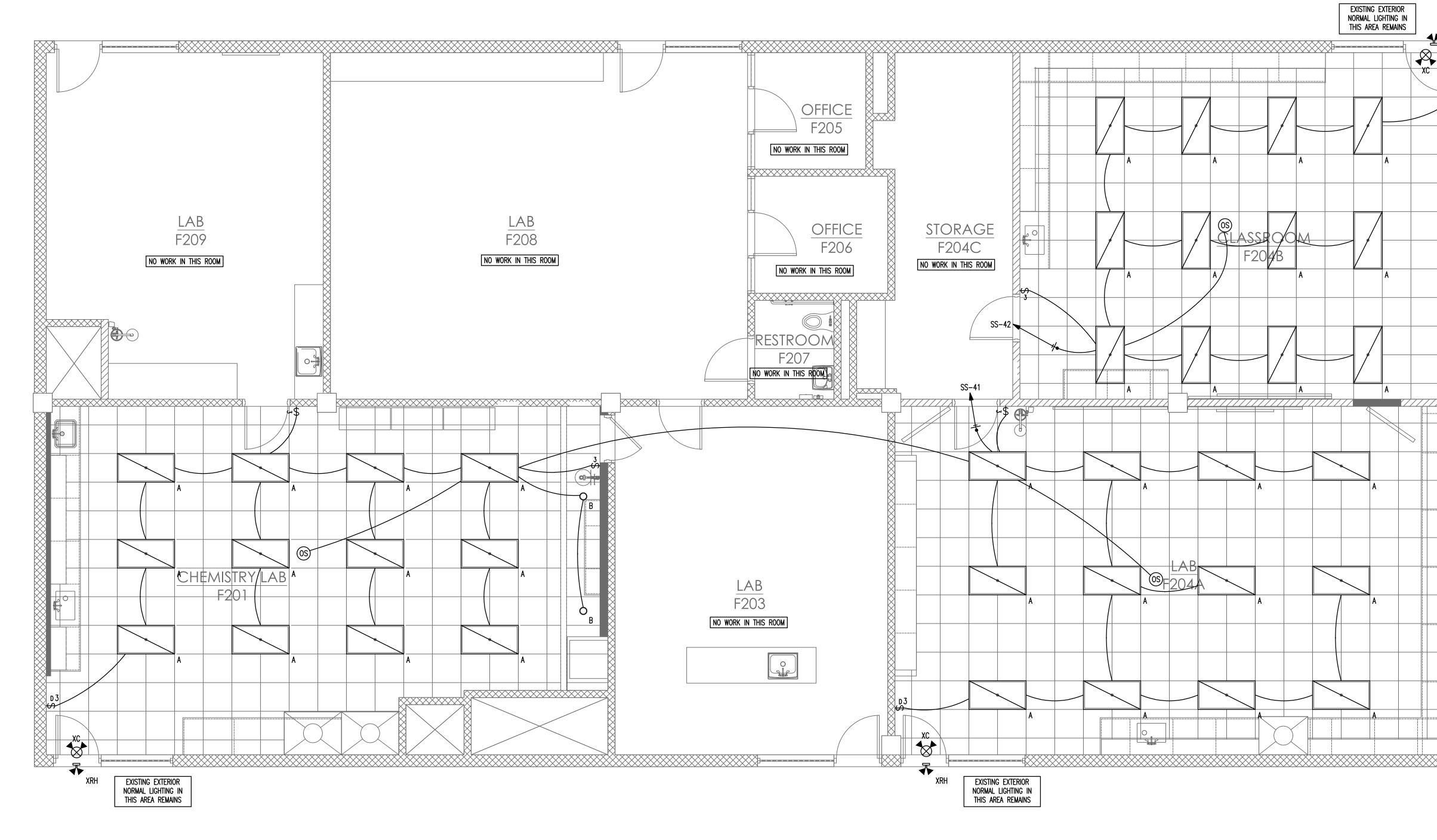
## KEY NOTES:

- (1) DEMOLISH EXISTING SURFACE DIVIDED RACEWAY (POWER/COMM).
- (2) DEMOLISH EXISTING PLUGMOLD.
- (3) DEMOLISH 20 EXISTING ABANDONED 4' FLUORESCENT STRIP LIGHTS ABOVE EXISTING LAY-IN CEILING IN THIS ROOM. REMOVED ALL EXISTING ABANDONED DEVICES, CONDUIT AND WIRING BACK TO SOURCE.
- (4) REMOVE ALL EXISTING RECEPTACLES ABOVE EXISTING LAY-IN CEILING IN THIS ROOM (INCLUDING ASSOCIATED WIRING/CONDUIT). TWO RECEPTACLES WERE FOUND DURING NON-INVASIVE FIELDWORK, BUT ADDITIONAL DEVICES MAY BE PRESENT AND VISIBLE AS CEILING IS REMOVED.
- (5) EXISTING GAS ALARM IN THIS LOCATION REMAINS, INCLUDING ASSOCIATED WIRING/CONDUIT.
- 6 EXISTING DATA CABINET, CABLE TRAY & ASSOCIATED COMM. CONDUITS/CABLES SHALL REMAIN IN PLACE AND BE PROTECTED DURING CONSTRUCTION. ATTACH THE CABLE TRAY TO THE STRUCTURE ABOVE DURING DEMOLITION AND COORDINATE ALL WORK WITH THE GC AND OWNER TO ENSURE NO WIRING, CONDUIT OR EQUIPMENT IS DAMAGED DURING CONSTRUCTION.
- (7) CONFIRM IF EXISTING MOTOR CONTROL SWITCH LOCATED NEAR CEILING IS IN USE. REMOVE IF NO LONGER NEEDED.

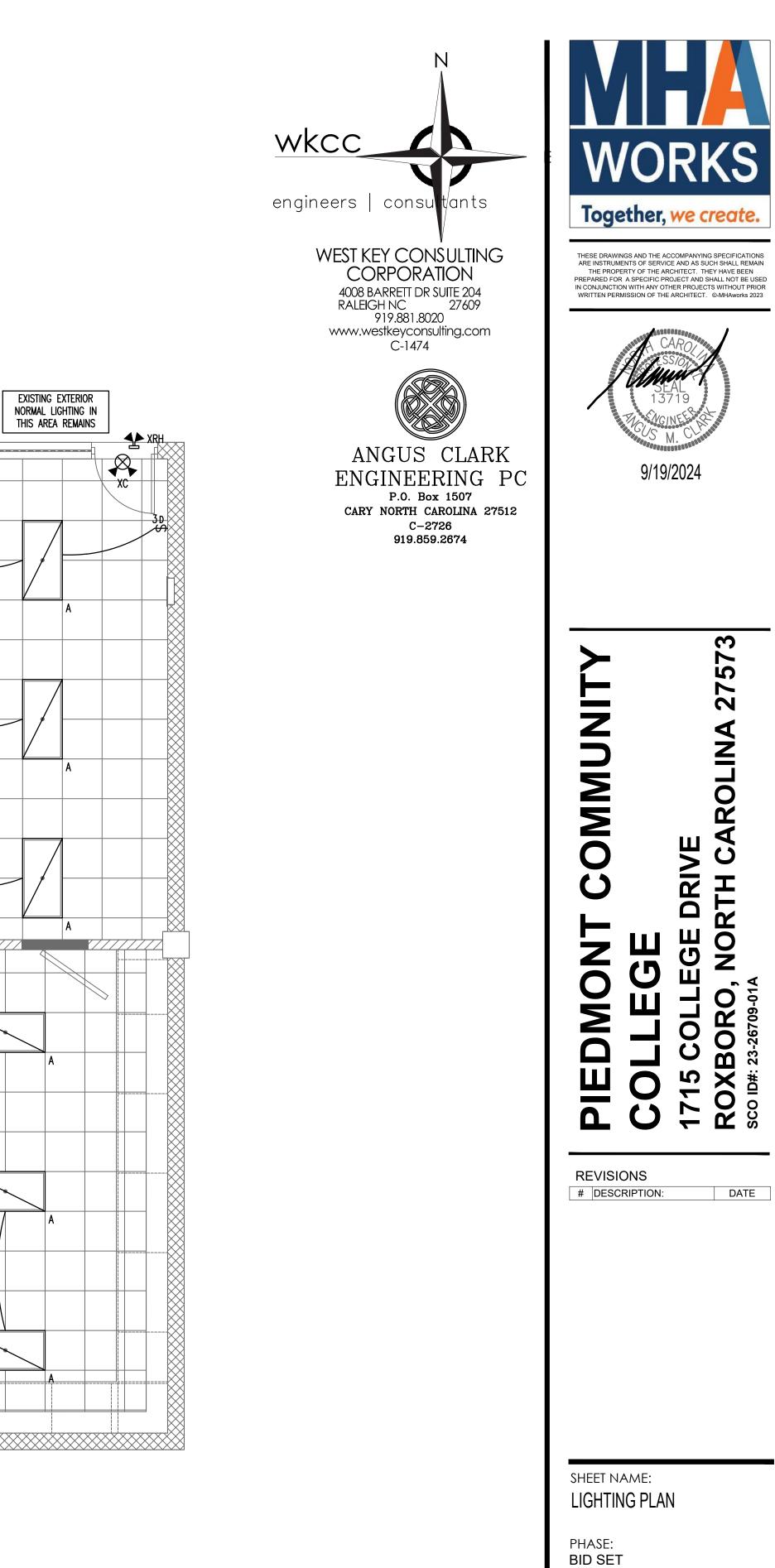


GENERAL NOTES:

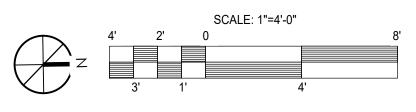
1. EXIT, EMERGENCY AND NIGHT LIGHTS (NL) SHALL BE CONNECTED "UNSWITCHED" TO LIGHTING CIRCUIT SERVING ROOM WHERE THEY ARE LOCATED (TYPICAL)







**KEY PLAN** 



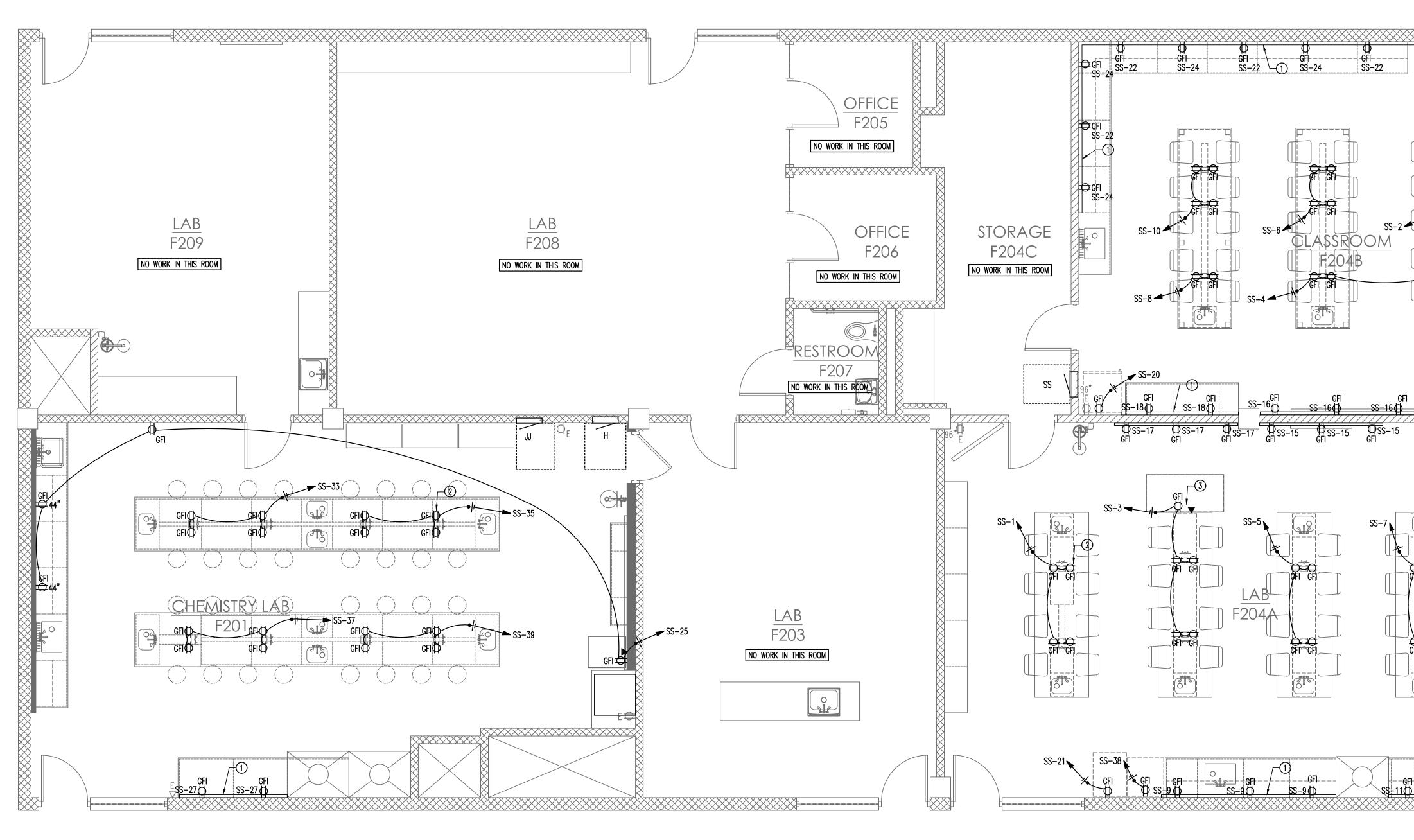
DRAWN BY: **CG** SHEET NUMBER

ISSUE DATE: 19 SEPT 2024

PROJECT #: 23030







1. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT OF ALL DEVICES WITH OWNER PRIOR TO ROUGH-IN (TYPICAL).

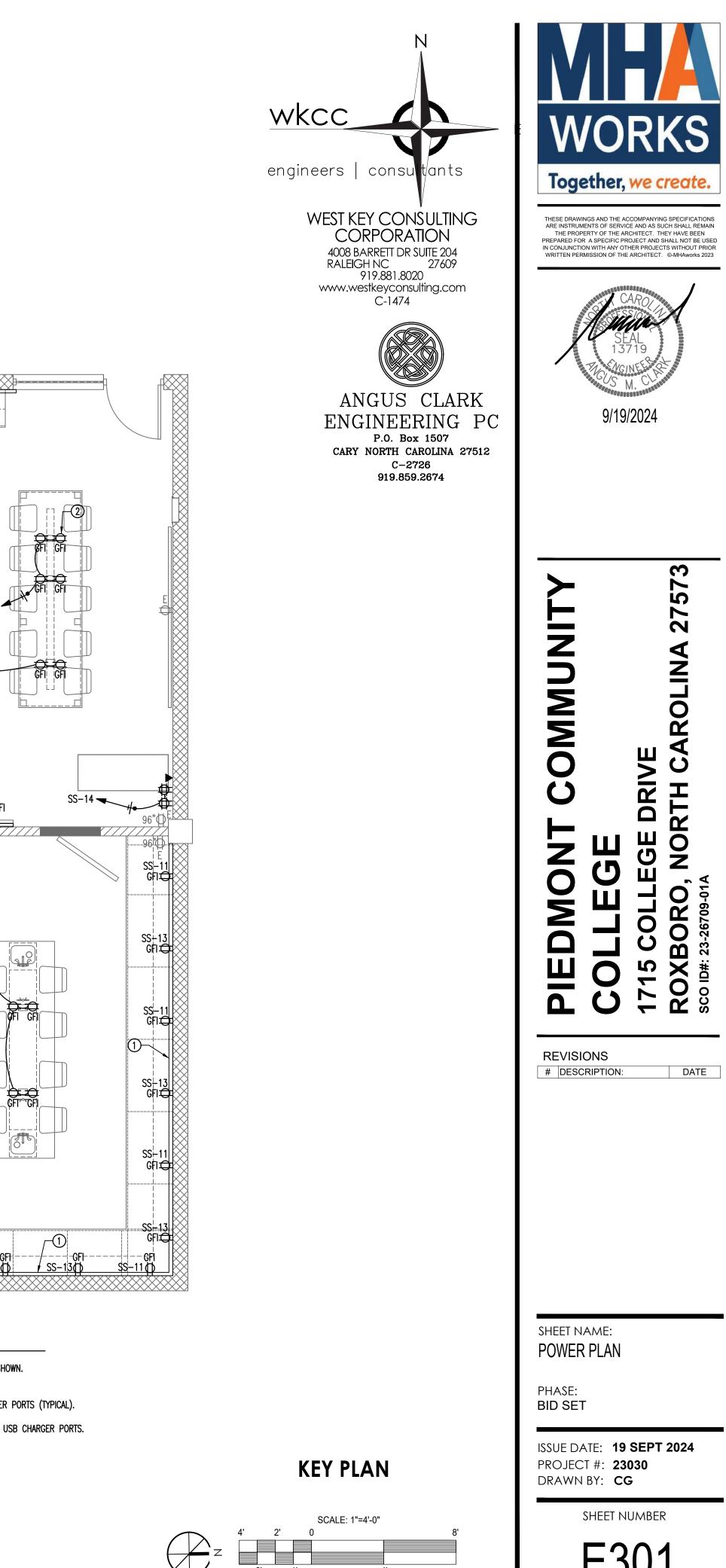
GENERAL NOTES:

KEY NOTES:

(1) SURFACE METAL POWER RACEWAY, 2.75"HIGH X 1.5"DEEP X (LENGTH AS SHOWN), WHITE FINISH, STEEL, WITH RECESSED RECEPTACLES AS SHOWN. (WIREMOLD 3000 SERIES, OR EQUAL BY THOMAS & BETTS, OR HOFFMAN).

2 RECEPTACLES AT LAB TABLES SHALL BE MOUNTED ON TOP OF TABLES, TOMBSTONE TYPE, GFI DUPLEX RECEPTACLES WITH TWO USB CHARGER PORTS (TYPICAL).

(3) DEVICES AT END OF LAB TABLES SHALL BE RECESS MOUNTED IN CASEWORK (TYPICAL). RECEPTACLE SHALL BE GFI DUPLEX TYPE WITH TWO USB CHARGER PORTS.



E301

LUMINAI	RE SCHEDULE								
CALLOUT	SYMBOL	DESCRIPTION	MODEL	LAMP BALLAST		MOUNTING	INPUT WATTS	VOLTS	NOTE 1
A		2'x4' ARCHITECTURAL TROFFER	COLUMBIA #LCAT24-35-ML-G-ED-U, LITHONIA AVANTE #2AVL4-50LSE-MDR-GZ10-LP835, WILLIAMS#DIGS24-L50-8-35	(1) LED		RECESSED	39	120V 1P 2W	
В	0	6" ROUND LED DOWNLIGHT	PRESCOLITE #LFR-6RDS-M-15L-35K-8-MD-DM01-S-WT-H, LITHONIA #LDN615LM-SWW1-35K-L06-AR-LSS-MVOLT-UGZ, WILLIAMS #6DR-TL-L15-8-35K-DIM1-UNV-0-M-OF-CS-MWT-N-F1	(1) LED		RECESSED	19	120V 1P 2W	
EX1		EXISTING 2'x4' LENSED TROFFER	EXISTING TO BE REMOVED	(2) T12 F40		RECESSED	85	MULTIPLE	
EX2		1' LENSED TROFFER	EXISTING TO BE REMOVED	(2) T12 F40		RECESSED	85	MULTIPLE	
EX3		EXISTING 2'x4' PARABOLICD TROFFER	EXISTING TO BE REMOVED	(4) T8 F32		RECESSED	128	MULTIPLE	
EX4	<b> </b>	4' STRIP LIGHT	EXISTING TO BE REMOVED	(2) T12 F40		RECESSED	85	MULTIPLE	
XC		EXIT / EMERGENCY LIGHT	COMPASS #CCR, LITHONIA #LHQMLEDRM6, PROGRESS LIGHTING #PECUEUR30	LED	BATTERY	WALL/CEILING	4	MULTIPLE	UNSWITCHED
XRH	¥	EMERGENCY LIGHT (REMOTE HEAD)	COMPASS #CORD, LITHONIA #EREGYTWPRD, PROGRESS LIGHTING #PERHDBID30	LED	BATTERY	WALL/CEILING	2	MULTIPLE	UNSWITCHED, COMPATIBLE WITH & CONNECTED TO INTERIOR UNIT

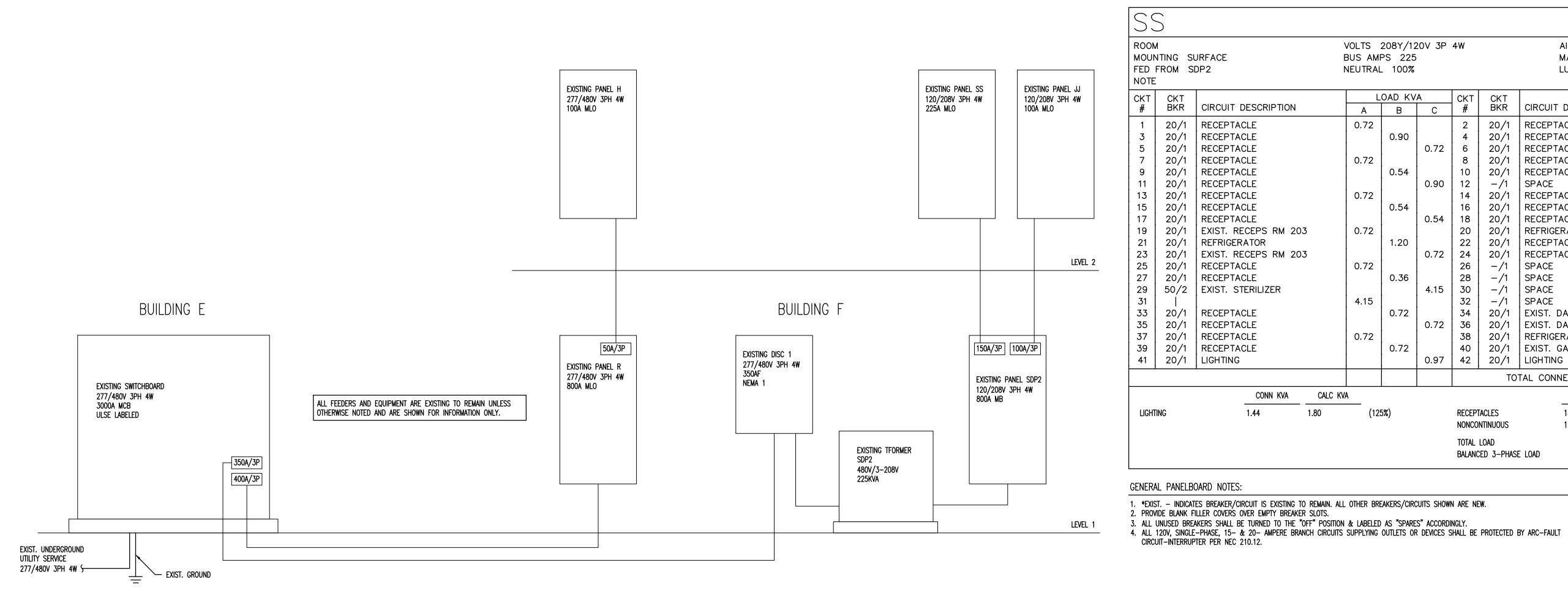
GENERAL LIGHTING FIXTURE SCHEDULE NOTES:

1. FIXTURES OF EQUAL QUALITY MAY BE SUBMITTED. ALL FINAL FIXTURE TYPES, FINISHES AND ANY SUBSTITUTIONS SHALL BE REVIEWED/APPROVED

BY ARCHITECT PRIOR TO RELEASE. 2. ALL EXIT, EMERGENCY & NIGHT LIGHTS (NL) SHALL BE CONNECTED "UNSWITCHED" TO LIGHTING CIRCUIT SERVING ROOM WHERE THEY ARE

LOCATED. 3. COORDINATE EXACT LOCATION & MOUNTING HEIGHT WITH PLUMBING & MECHANICAL CONTRACTORS SO THAT FIXTURE IS SUSPENDED BELOW

PIPING & DUCTWORK. 4. SEE ARCHITECTURAL ELEVATIONS & COORDINATE WITH GC FOR MOUNTING HEIGHTS.



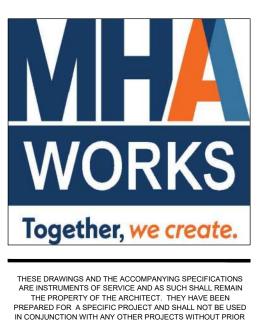
1 PARTIAL RISER DIAGRAM E401 SCALE: NTS



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WRITTEN PERMISSION OF THE ARCHITECT. @-MHAworks 2023

9/19/2024

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REVISIONS # DESCRIPTION:

DATE

SHEET NAME: RISER, SCHEDULES & DETAILS

PHASE: BID SET

ISSUE DATE: **19 SEPT 2024** PROJECT #: 23030 DRAWN BY: CG

SHEET NUMBER

E401

VOLTS 208Y/120V 3P 4WAIC EXISTINGBUS AMPS 225MAIN BKR MLONEUTRAL 100%LUGS STANDARD											
	LOAD KVA CKT				СКТ			LOAD KVA			
	А	В	С	#	BKR	CIRCUIT	DESCRIPTION	A	В	С	
	0.72			2	20/1	RECEPTACLE			0.72		
		0.90		4	20/1	RECEPTACLE				0.72	
			0.72	6	20/1	4					0.72
	0.72	0.54		8	20/1	4	RECEPTACLE				
		0.54	0.90	10 12	20/1	RECEPT	ACLE			0.72	
	0.72		0.90	14	-/1 20/1	RECEPT			0.72		0.00
	0.72	0.54		16	20/1				0.72	0.54	
		0.01	0.54	18	20/1	RECEPT					0.36
	0.72			20	20/1	REFRIGE			1.20		
		1.20		22	20/1	RECEPT	ACLE			0.72	İ İ
			0.72	24	20/1	RECEPT	ACLE				0.72
	0.72			26	-/1	SPACE		0.00			
		0.36		28	-/1	SPACE			0.00		
			4.15	30	-/1	SPACE				0.00	
	4.15	0.70		32	-/1	SPACE		0.00			
		0.72		34	20/1	4	ATA RACK I		0.18	0.10	
	0.72		0.72	36 38	20/1 20/1	REFRIGE	ATA RACK I	1.20	ŀ	0.18	
	0.72	0.72		40	20/1	4	GAS ALARM	1.20	0.20		
		0.72	0.97	42	20/1				0.20	0.47	
						2	12.67	8.06	11.17		
					10	TAL CONF	IECTED KVA		12.07	0.00	11.17
C KVA							CONN KVA	CALC KVA			
(125%)			RECEPTACLES			18.36	14.18	(50%>	•		
				NONCONTINUOUS 12.10			12.10	12.10	(100%	5)	
TOTAL				TOTAL	L LOAD 28.08						
BAL					BALANCED 3-PHASE LOAD 77.95 A						

NOTE: UPON PROJECT COMPLETION, THE EC SHALLL PROVIDE TYPED CIRCUIT DIRECTORIES FOR ALL NEW AND ALTERED PANELBOARDS WITH CIRCUIT DESIGNATIONS COMPLYING WITH THE REQUIREMENTS OF NEC 408.4(A).