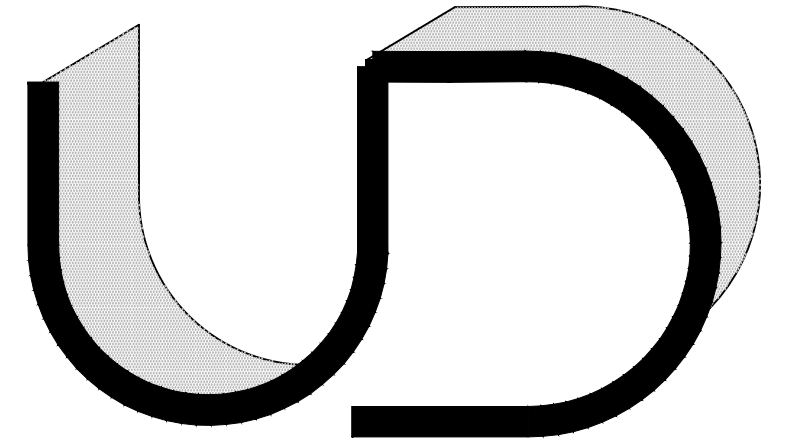




# MOUND Elementary School



Approval:  
X  
Ms. Hollie Dellisanti Date:

## DRAWING INDEX

- T1.0 TITLE SHEET
- PD1.0 PRODUCT DATA
- LS1.0 LIFE SAFETY PLAN
- GN1.0 GENERAL NOTES AND LEGENDS
- GN2.0 TYPICAL DETAILS

### ARCHITECTURAL:

- A1.0 EXIST. / DEMO. FLOOR AND CEILING PLANS
- A2.0 PROPOSED FLOOR AND CEILING PLANS
- A3.0 DOOR SCHEDULE AND DETAILS
- A4.0 FINISH, FURNITURE AND EQUIPMENT FLOOR PLANS
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### ENGINEERING:

- M-1 HVAC DEMOLITION AND NEW FLOOR PLANS
- M-2 MECHANICAL SPECIFICATIONS
- P-1 PLUMBING FLOOR PLANS, SCHEDULES & DETAILS
- E0.1 SYMBOL LEGEND AND LUMINAIRE SCHEDULE
- E1.1 LIGHTING AND POWER DEMOLITION PLAN & LIGHTING AND POWER PLANS
- E2.1 ELECTRICAL SPECIFICATIONS

## METROHEALTH, OHIO DEPT. OF HEALTH AND SCHOOL-BASED HEALTH CENTER ALLIANCE

### NEW HEALTH CARE EXPANSION PROGRAM

#### INTERIOR ALTERATION

5935 ACKLEY ROAD  
CLEVELAND, OH 44105

#### PREPARED FOR:



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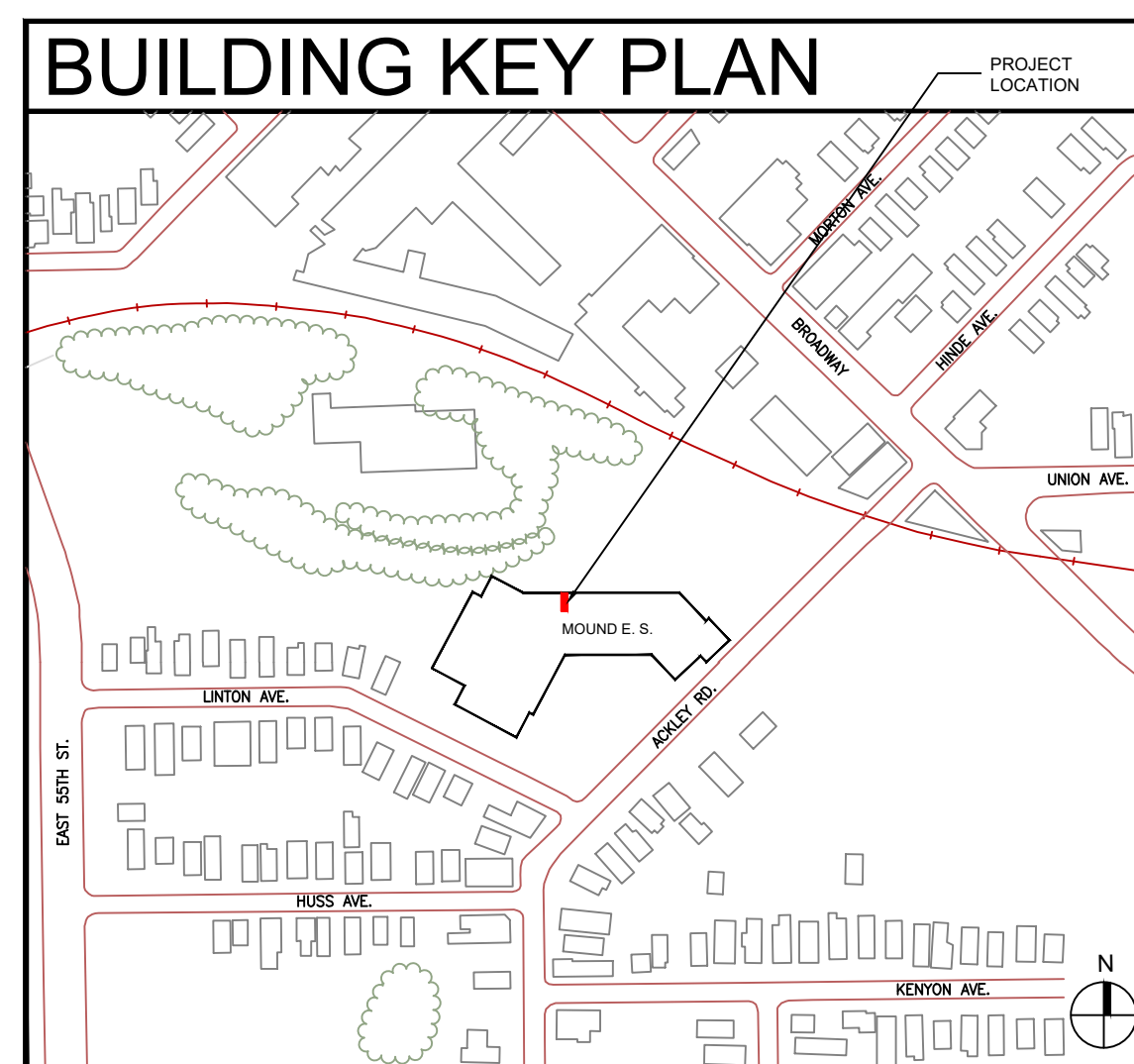
#### PREPARED BY:



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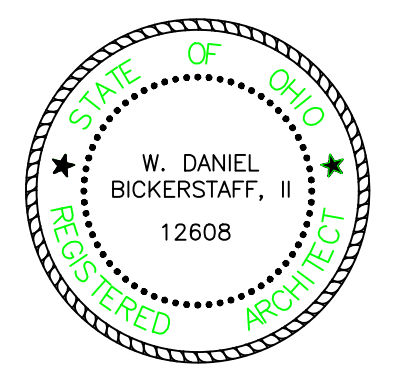


MAIN ENTRANCE



A. PROJECT LOCATION:	MOUND ELEMENTARY SCHOOL 5935 ACKLEY ROAD CLEVELAND, OHIO 44105
B. DESCRIPTION AND USER GROUP CLASSIFICATION OF BLDG:	WE ARE SEEKING TO TRANSFORM AN EXISTING SPECIAL EDUCATION CLASSROOM INTO A NEW COMMUNITY HEALTH BASED CLINIC
C. NATURE OF PROJECT:	INTERIOR ALTERATION
D. USE GROUP:	[E] EDUCATION
E. OCCUPANT LOAD:	N / A
F. PARKING SPACES COUNT:	N / A
G. CONSTRUCTION TYPE:	III-B
H. WORK AREA LIMIT:	FIRST LEVEL ROOM 155 ONLY
I. TYPE OF MECHANICAL:	EXIST. RTU

<b>CODE INFORMATION</b>	
<b>REFERENCED CODES</b>	
IN ALL CASES, IF THERE IS A DISCREPANCY BETWEEN CODE REQUIREMENTS, BETWEEN ANY REFERENCED CODES, THE MORE STRINGENT CODE ALWAYS APPLIES.	
2017 OHIO BUILDING CODE (OBC)	
2017 OHIO MECHANICAL CODE (OMC)	
2017 OHIO PLUMBING CODE (OPC)	
NFPA NATIONAL ELECTRICAL CODE 2017	
LIFE SAFETY CODE, NFPA 101-2017	
2017 NFPA 13 SPRINKLER CODE	
2017 DEPT. OF JUSTICE ADA STANDARDS FOR ACCESSIBLE DESIGN	
2009 ICC/ANSI A117.1	





# SYMBOL LEGEND

	EARTH		SECTION
	POROUS FILL		ELEVATION
	POURED CONCRETE		MATERIAL NOTE
	CONCRETE BLOCK		DOOR NUMBER
	BRICK		ROOM NUMBER
	STEEL		WALL TYPES
	ROUGH WOOD		REVISION NUMBER
	FINISHED WOOD		EXISTING DOORS
	PLYWOOD		NEW DOORS
	RIGID INSULATION		ENLARGED PLAN
	BATT INSULATION		VERTICAL ELEVATION
	GYPSUM BOARD		

# ABBREVIATIONS

A/C	AIR CONDITIONING	FR	FIRE RESISTIVE	PL	PLASTIC LAMINATE
ACT	ACOUSTIC(AL)	FRP	FIBER REINFORCED PANEL	PLBG	PLUMBING
ADD	ADDENDUM	FS	FLOOR SINK	PT	PAINTED(ED)
ADJ	ADJACENT	FT	FOOT, FEET	PSF	POUNDS PER SQUARE FOOT
AFF	ABOVE FINISHED FLOOR	FUT	FUTURE	PSI	POUNDS PER SQUARE INCH
ALUM	ALUMINUM			PVC	POLYVINYL CHLORIDE
ALT	ALTERNATE, ALTERNATIVE	GA	GAUGE	PWD	PLYWOOD
APPROV	APPROVED	GALV	GALVANIZED	QTY	QUANTITY
ARCH	ARCHITECT(URAL)	GB	GRAB BAR		
AUTO	AUTOMATIC	GC	GENERAL CONTRACTOR		
		GRILLE	GRILLE	RAD	RADIUS
BD	BOARD	GWB	GYPSUM WALL BOARD	RE	REFERENCE, REFER TO
BET	BETWEEN	GYP	GYPSUM	REINF	REINFORCEMENT
BLDG	BUILDING			REQ	REQUIRE(ED), (MENT)
BOT	BOTTOM	H	HIGH	RM	ROOM
		HDCP	HANDICAPPED	SAC	SUSPENDED ACOUSTICAL CLG
CAB	CABINET	HDW	HARDWARE	SC	SOLID CORE
CB	CERAMIC BASE	HM	HOLLOW METAL	SCH	SCHEDULE
CFM	CUBIC FEET PER MINUTE	HOR	HORIZONTAL	SEC	SECTION
CG	CORNER GUARD	HR	HOUR	SH	SHELF, SHELIVING
CLG	CEILING	HT	HEIGHT	SHT	SHEET
CLR	CLEAR(ANCE)	HVAC	HEATING/VENTILATING/AC	SIM	SIMILAR
CTR	CENTER			SPEC	SPECIFICATION(S)
COL	COLUMN	IN	INCH(ES)	SQ	SQUARE
CONC	CONCRETE	INCAND	INCANDESCENT	SS	STAINLESS STEEL
CONST	CONSTRUCTION	INCL	INCLUDE(ED), (ING)	STD	STANDARD
CONT	CONTINUE, CONTINUOUS	INFO	INFORMATION	STL	STEEL
CONTR	CONTRACTOR	INS	INSULATION	STOR	STORAGE
COORD	COORDINATE, COORDINATOR	INT	INTERIOR	STRUCT	STRUCTURE, STRUCTURAL
COR	CORRIDOR	JT	JOINT	SUSP	SUSPEND(ED)
CRI	CASH REGISTER INSTALLER	LAM	LAMINATE	SYM	SYMMETRIC(AL)
CT	CERAMIC TILE	LAV	LAVATORY	SV	SHEET VINYL
		LB	POUND(S)	TEN	TENANT
DBL	DOUBLE	LIN	LINEAL	T&G	TONGUE AND GROOVE
DEM	DEMOLISH	LT	LIGHT	TEL	TELEPHONE
DES	DESIGN(ER)			TEMP	TEMPERATURE
DIA	DIAMETER	MAINT	MAINTENANCE	THK	THICK(NESS)
DIM	DIMENSION	MSY	MASONRY	THRU	THROUGH
DN	DOWN	MAX	MAXIMUM	TYP	TYPICAL
DR	DOOR	MC	MILLWORK CONTRACTOR		
DTL	DETAIL	MECH	MECHANICAL	UL	UNDERWRITERS LABORATORY
DWG	DRAWING	MFG	MANUFACTURER	UNFIN	UNFINISHED
		MTL	METAL		
EA	EACH	MIN	MINIMUM	VAR	VARIABLE, VARIES
EC	ELECTRICAL CONTRACTOR	MIR	MIRROR	VERT	VERTICAL
EL	ELEVATION	MISC	MISCELLANEOUS	VIF	VERIFY IN FIELD
ELECT	ELECTRIC, ELECTRICAL	MNT	MOISTURE RESISTANT	VIN	VINYL
ENT	ENTRANCE	NO	NUMBER	W	WIDE
EQ	EQUAL	NOM	NOMINAL	W/	WITH
EQUIP	EQUIPMENT	NTS	NOT TO SCALE	W/O	WITHOUT
EW	ELECTRIC WATER HEATER			WC	WATER CLOSET
EXH	EXHAUST	OC	ON CENTER	WD	WOOD
EXIST	EXISTING	OH	OVERHEAD	WP(G)	WATERPROOF(ING)
EXT	EXTERNAL	OPP	OPPOSITE	WR	WATER RESISTANT
		OWN	OWNER		
FD	FLOOR DRAIN	OZ	OUNCE(S)		
FEC	FIRE EXTINGUISHER CABINET				
FEX	FIRE EXTINGUISHER				
FFE	FINISHED FLOOR ELEVATION				
FIN	FINISHED				
FLUOR	FLUORESCENT				
FLR	FLOOR				
FOS	FACE OF STUD				

NOTE: NOT ALL ABBREVIATIONS AND SYMBOLS ARE USED IN DRAWINGS CONTAINED IN THIS SET

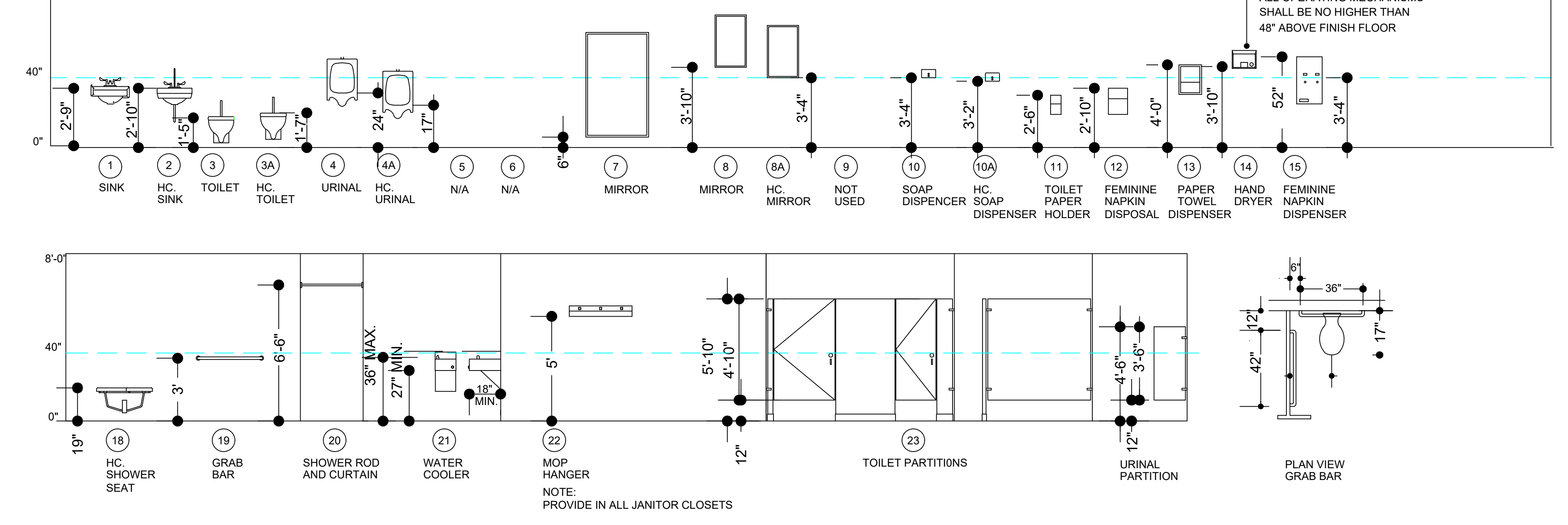
# BUILDING AND CODE INFORMATION

(BASED ON 2017 OHIO BUILDING CODE)

CHAPTER 3-302.1.1	USE AND OCCUPANCY CLASSIFICATION INCIDENTAL USE AREAS STORAGE ROOMS > 100 S.F. - 1 HR. SEPARATION OR AUTO, FIRE EXTINGUISH, SYS. WASTE/LINEN COLLECTION ROOMS > 100 S.F. - 1 HR. SEPARATION OR AUTO, FIRE EXTINGUISH, SYS.
308.3	EXISTING BUILDING: USE GROUP E EDUCATION THE PROJECT AREA IS CONSIDERED AN ACCESSORY OCCUPANCY: USE GROUP B, BUSINESS, OUTPATIENT CLINIC
CHAPTER 4-	SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY N/A
CHAPTER 5-	GENERAL BUILDING HEIGHTS AND AREAS NUMBER OF STORIES TWO
CHAPTER 6-602.2 TABLE 601	TYPE OF CONSTRUCTION TYPE II-A FIRE-RESISTANCE RATINGS STRUCTURAL FRAME 0-HR. (W/ SPRINKLERS) BEARING WALLS 0-HR. (W/ SPRINKLERS) FLOOR CONSTRUCTION 0-HR. (W/ SPRINKLERS) ROOF CONSTRUCTION 1-HR
CHAPTER 7-709.0	FIRE-RESISTANCE-RATED CONSTRUCTION SMOKE BARRIERS TO HAVE 1-HR. FIRE-RESISTANCE RATING, 20 -MIN. RATING FOR OPENING PROTECTIVE, OPP. SWINGING DOORS ACROSS CORRIDORS 715.3 OPENING PROTECTIVE RATINGS PER TABLE 715.3 716.5 SMOKE DAMPER WHERE DUCTS PENETRATE SMOKE BARRIERS
CHAPTER 8-803.5	INTERIOR FINISHES INTERIOR WALL / CEILING FINISH REQUIREMENTS PER TABLE 803.5 805.1 CURTAINS, DRAPERIES, HANGINGS, OTHER DECORATIVE MATERIALS TO BE FLAME RESISTANT; COMBUSTIBLE DECORATIONS SHALL BE FLAME-RETARDANT
CHAPTER 9-903.2.5 903.3 906.1 907.2.6	FIRE PROTECTION SYSTEMS AUTO, SPRINKLER SYSTEM REQUIRED (MODIFY EXISTING) COMPLY WITH NFPA 13 FIRE EXTINGUISHERS REQUIRED MANUAL FIRE ALARM SYSTEM (EXISTING)
CHAPTER 10-1003.2 1003.3.3 1003.4 1004.1 1006.1 1008.1.1	MEANS OF EGRESS 7" MINIMUM CEILING HEIGHT 4" MAX. PROJECTION BETWEEN THE HEIGHTS OF 27" AND 80" SLIP-RESISTANT FLOOR FINISH NUMBER OF OCCUPANTS (PER TABLE 1004.1.2): SEE TITLE SHEET MEANS OF EGRESS ILLUMINATION REQUIRED AT ALL TIMES BUILDING IS OCCUPIED 32" MIN. WIDTH FOR MEANS OF EGRESS DOORS, MAX. WIDTH 48"; DOORS USED FOR EXIT SIGNS REQUIRED, NO POINT IN CORR. > 100" FROM AN EXIT SIGN HABITABLE ROOMS TO HAVE DIRECT ACCESS TO AN EXIT ACCESS TO AN EXIT ACCESS CORRIDOR
1013.2.2	200' MAX. EXIT ACCESS TRAVEL DISTANCE
1015.1	96" CORRIDOR WIDTH WHERE REQUIRED FOR BED MOVEMENT
1016.2	20' MAX. DEAD-END CORRIDOR LENGTH
1016.3	EXIT ACCESS CORRIDORS SHALL NOT SERVE AS AIR DUCTS/PLENUMS
1016.4	
CHAPTER 11-	ACCESSIBILITY COMPLY WITH ACCESSIBILITY GUIDELINES
CHAPTER 12-	INTERIOR ENVIRONMENT COMPLY WITH VENTILATION, TEMP. CONTROL, LIGHTING, DIMENSION REQUIREMENTS
CHAPTER 13-	ENERGY EFFICIENCY COMPLY WITH "ASHRAE ENCY. 1" OR "INTERNATIONAL ENERGY CONSERVATION CODE"
CHAPTER 14-	EXTERIOR WALLS N/A (EXISTING)
CHAPTER 15-	ROOF ASSEMBLIES AND ROOFTOP STRUCTURES N/A (EXISTING)
CHAPTER 16-1607.1 1607.7	STRUCTURAL DESIGN LIVE LOAD- 100 PSF UNIFORM LOAD (CORRIDORS); 50 PSF UNIFORM LOAD (OFFICES) HANDRAILS TO RESIST LOAD OF 50# PER FT., CONCENTRATED LOAD OF 200#; GRAB BARS AND SHOWER SEATS TO RESIST CONCENTRATED LOAD OF 250#
CHAPTER 17-	STRUCTURAL TESTS AND SPECIAL INSPECTIONS N/A
CHAPTER 18-	SOILS AND FOUNDATIONS N/A (EXISTING)
CHAPTER 19-	CONCRETE N/A

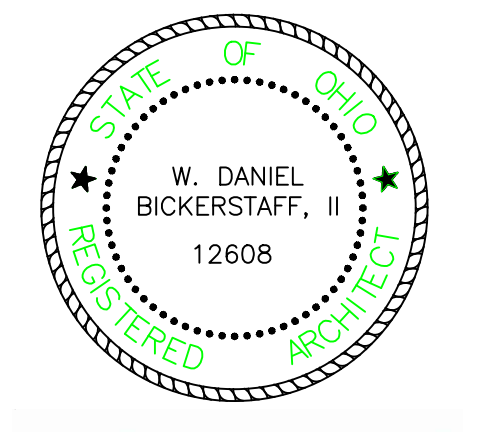
CHAPTER 20-	ALUMINUM N/A
CHAPTER 21-2103.1 2103.7	MASONRY CONC. MASONRY UNITS TO CONFORM TO ASTM C90 MORTAR TO CONFORM TO ASTM C270
CHAPTER 22-	STEEL N/A
CHAPTER 23-2303.2	WOOD FIRE-RETARDANT TREATED WOOD SHALL BEAR I.D. MARK OF AN APPROVED AGENCY
CHAPTER 24-2406	GLASS AND GLAZING COMPLY WITH SAFETY GLAZING REQUIREMENTS
CHAPTER 25-	GYPSUM BOARD AND PLASTER COMPLY WITH REQUIREMENTS OF TABLE 2506.2
CHAPTER 26-2604.1	PLASTIC PLASTIC MATERIALS INSTALLED AS INTERIOR FINISH SHALL COMPLY WITH CHAPTER 8
CHAPTER 27-	ELECTRICAL COMPONENTS, EQUIPMENT, AND SYSTEMS DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH NFPA 70
CHAPTER 28-	MECHANICAL SYSTEMS MECHANICAL EQUIPMENT AND SYSTEMS TO BE IN ACCORDANCE WITH THE MECHANICAL CODE
CHAPTER 29-2902.1	PLUMBING SYSTEMS MINIMUM FACILITIES PER TABLE 2902.1
CHAPTER 30-	ELEVATORS AND CONVEYING SYSTEMS N/A
CHAPTER 31-	SPECIAL CONSTRUCTION N/A
CHAPTER 32-	ENCROACHMENTS INTO THE PUBLIC RIGHT-OF-WAY N/A
CHAPTER 33-	SAFEGUARDS DURING CONSTRUCTION COMPLY WITH SAFEGUARDS, DEMOLITION, SANITARY, FIRE EXTINGUISHER, AND EXIT REQUIREMENTS
CHAPTER 34-	EXISTING STRUCTURES N/A

# GUIDELINES FOR TOILET ROOMS



# Project Team:

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PERMIT ISSUANCE	WDB, II	08.26.2022
ISSUED	BY	DATE

# MOUND ELEMENTARY SCHOOL

## Interior Alteration

## New MetroHealth ODH SBHC Health Care Expansion Program

5935 Ackley Road  
Cleveland, OH 44105

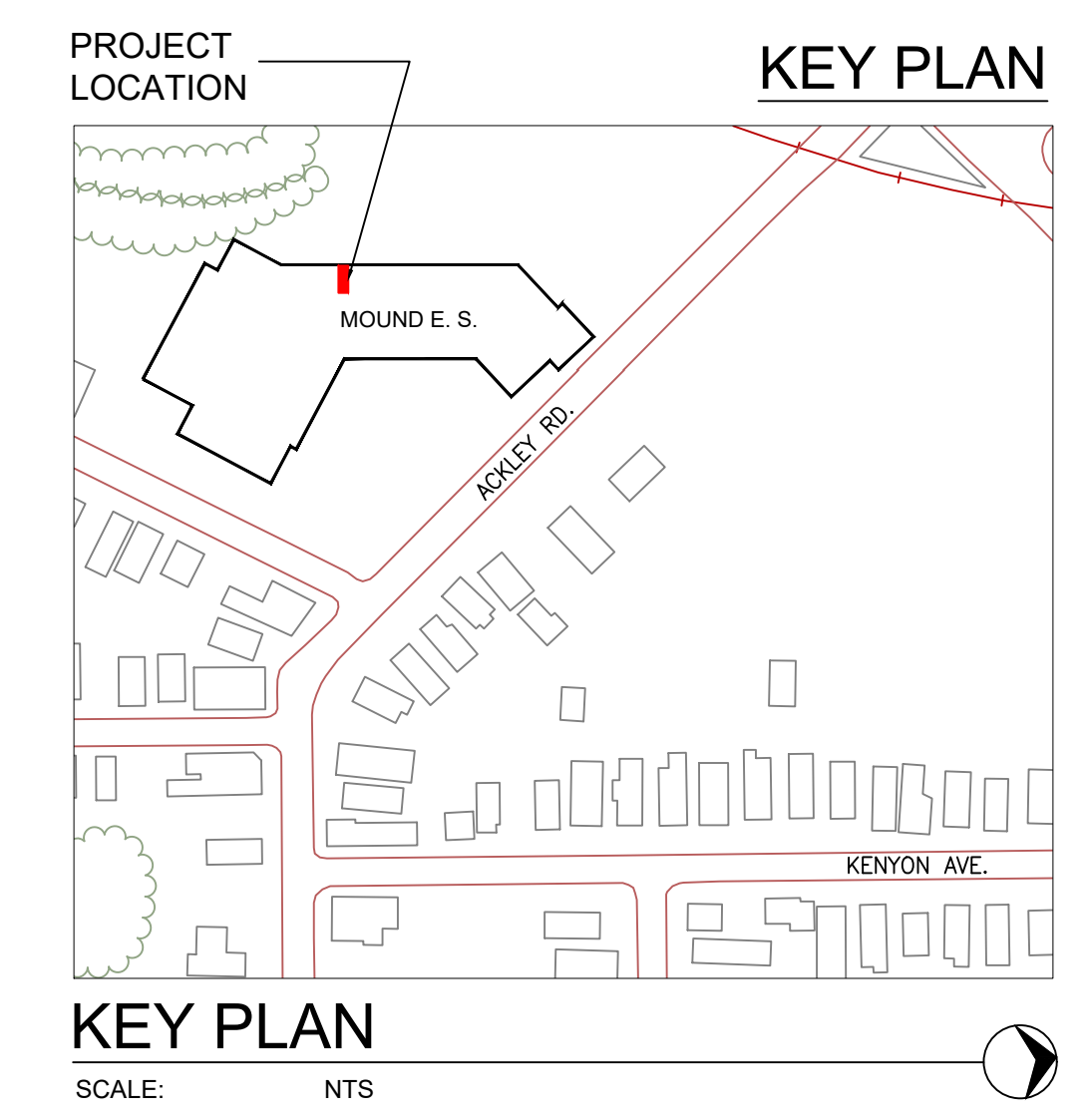
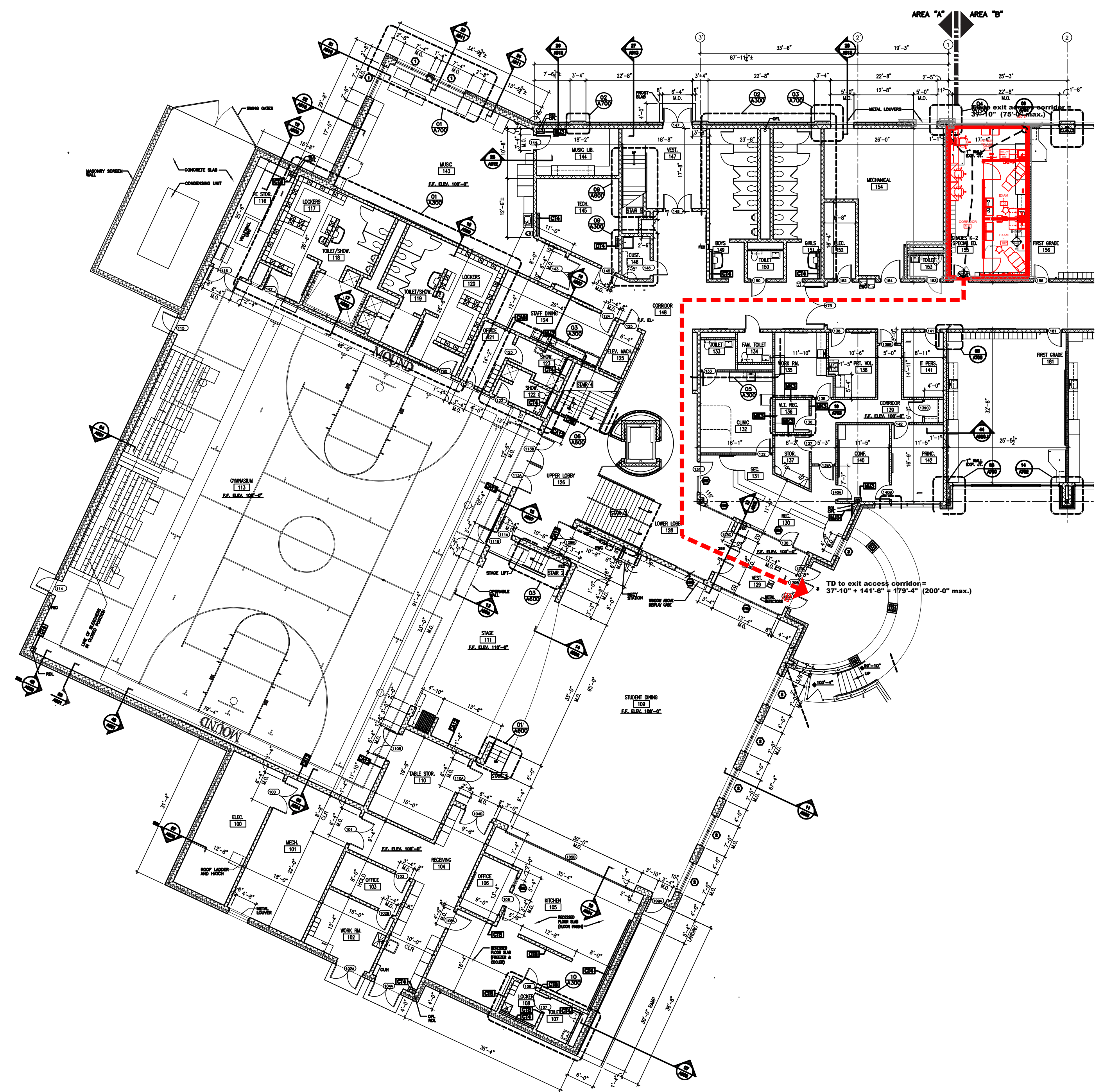


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# PROJECT DATA

Date	08.26.2022
Sheet	PD1.0





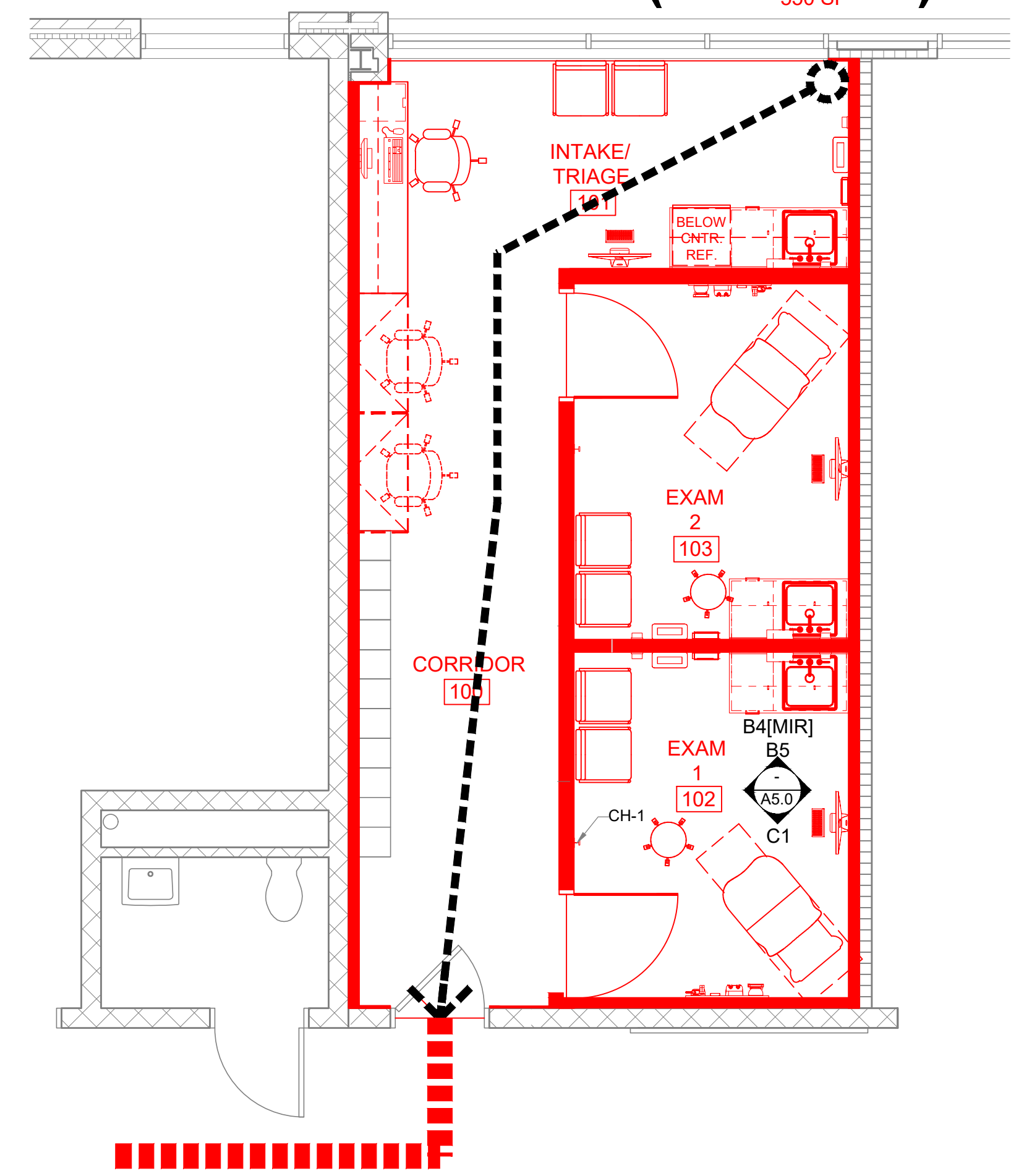
**FIRE PROTECTION LEGEND**

---	LS- 3 HOUR WALL	---	PATH OF EGRESS
---	LS- 2 HOUR WALL	---	EXIT
---	LS- 1 HOUR WALL	---	FEC DRY EXTINGUISHER
---	LS- 1 HOUR FIRE SMOKE	---	RATED DOOR WITH FIRE RATING IN MINUTES
---	LS- SMOKE WALL	---	EXIT SIGN - CEILING MOUNTED
---	LS- SUITE	---	EXIT SIGN - WALL MOUNTED
---	HAZARDOUS AREA	---	FIRE ALARM SPEAKER WITH FLASHING STROBE
---	SUITE/AREA TAG	---	FIRE ALARM PULL STATION
---	HAZARDOUS AREA TAG	---	FIRE EMERGENCY LIGHTS
---		---	FIRE ALARM SMOKE DETECTOR CEILING MOUNTED
---		---	FIRE ALARM (VISUAL ONLY) FLASHING STROBE LIGHT
---		---	INCANDESCENT SURFACE MOUNTED EMERGENCY LIGHTING BATTERY

ALL DEVICES ARE EXIST. TO REMAIN UNLESS NOTED OTHERWISE

**1** BUILDING FIRST FLOOR  
**LIFE SAFETY PLAN**  
SCALE: 1/16" = 1'-0"

**TD to exit access corridor = 44'-8" (75'-0" max.)**



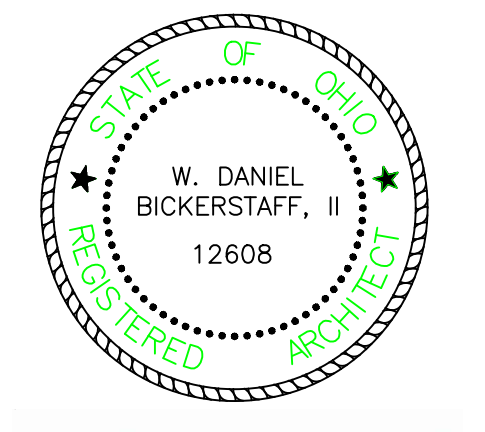
**TD to exit access corridor = 37'-10" + 141'-6" = 179'-4" (200'-0" max.)**

**2** PROJECT AREA  
**LIFE SAFETY PLAN**  
SCALE: 1/4" = 1'-0"



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ISSUED	BY	DATE

**MOUND ELEMENTARY SCHOOL**

Interior Alteration

New MetroHealth  
ODH  
SBHC  
Health Care Expansion Program

5935 Ackley Road  
Cleveland, OH 44105



CDMS Approval	X
Holder: <b>Delbert EDUCATOR, Exec. Dir.</b>	Date
Architectural Projects, Capital Projects	
Drawn by: DB	Checked by: WDB, II

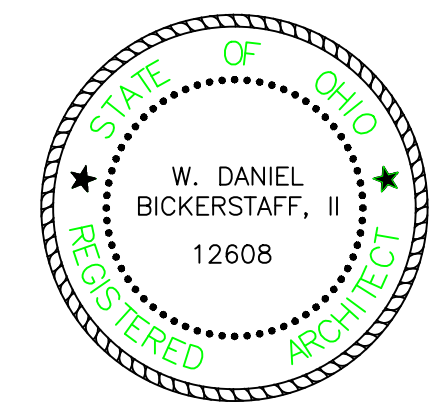
**LIFE SAFETY PLAN**

Scale	Sheet
Date: 08.26.2022	LS1.0



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**MOUND ELEMENTARY SCHOOL**

**Interior Alteration**  
**New MetroHealth ODH SBHC Health Care Expansion Program**

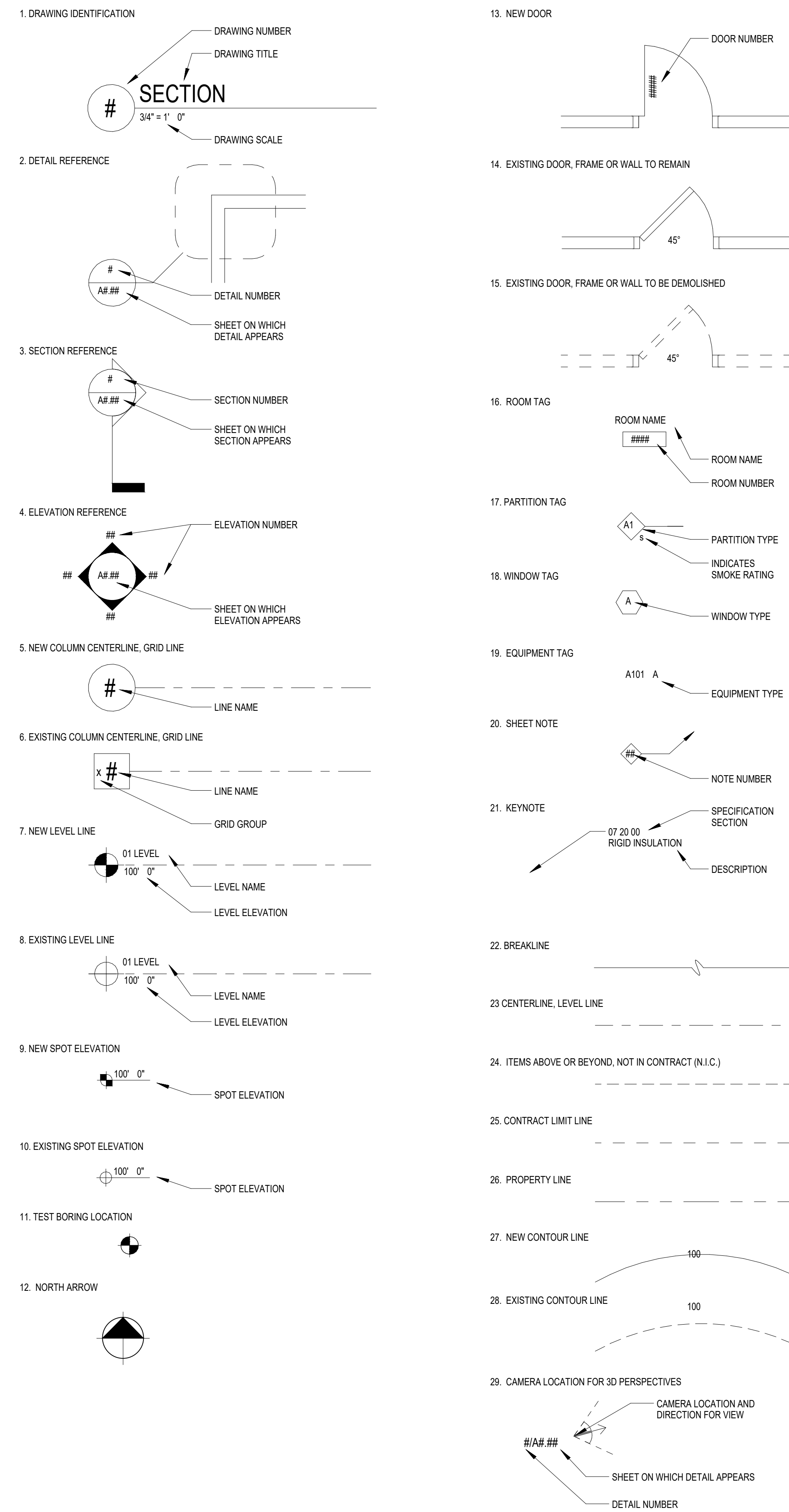
5935 Ackley Road  
 Cleveland, OH 44105



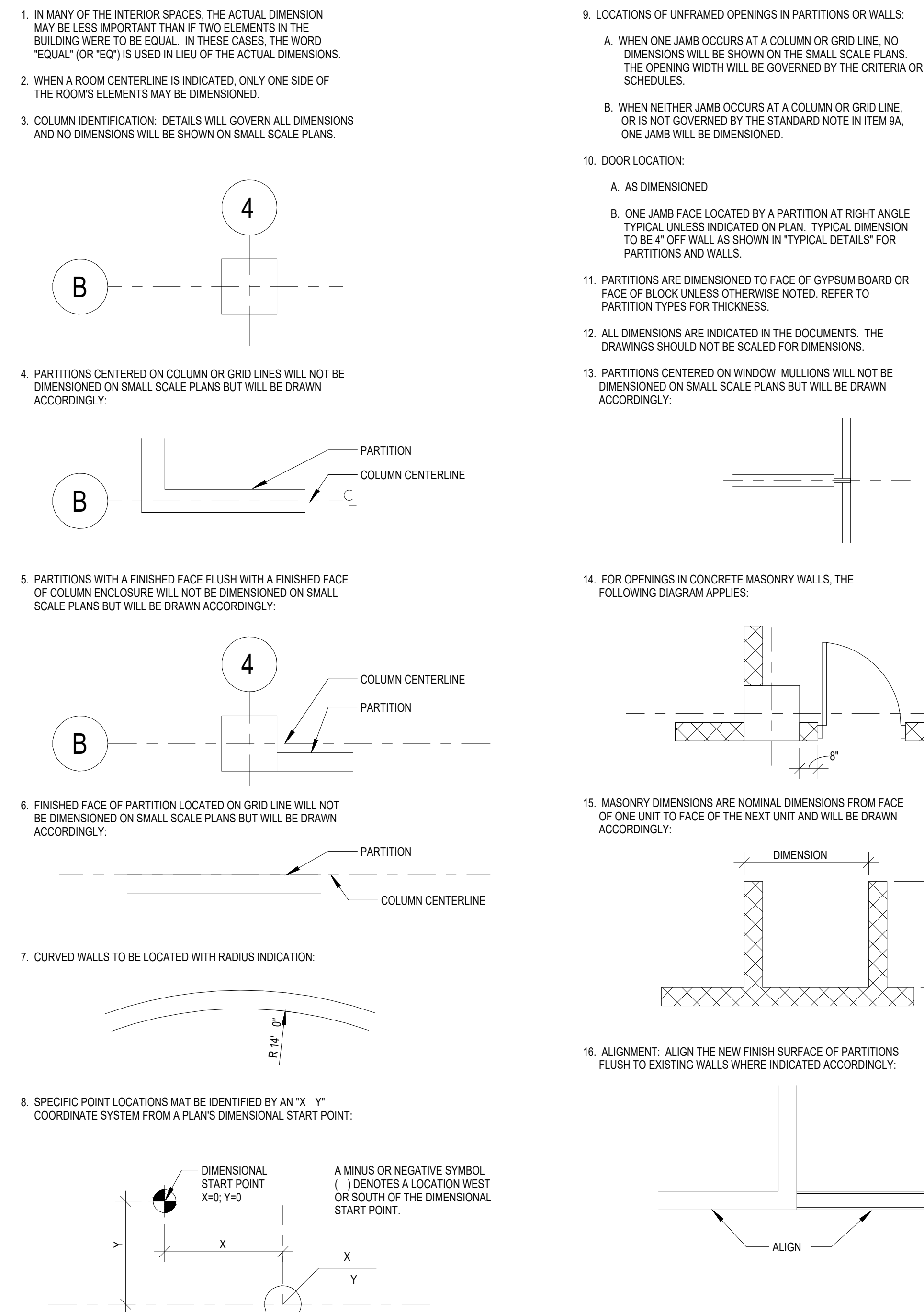
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**GENERAL NOTES AND LEGENDS**

Scale: Sheet: **GN1.0**  
 Date: 08.26.2022



SYMBOLS AND REFERENCES



DIMENSIONING AND BUILDING LAYOUT

	EARTH		ALUMINUM		BATT OR BLANKET INSULATION
	POROUS FILL, STONE OR GRAVEL		STEEL		RIGID INSULATION
	BRICK (COMMON OR FACE)		GLAZING (IN SECTION)		COMPRESSIBLE SEALANT
	CONCRETE MASONRY UNIT (CMU)		GLAZING (IN ELEVATION)		WOOD (FINISHED)
	CAST IN PLACE CONCRETE		GYPSUM BOARD, PLASTER OR GROUT		TERRAZZO
	PRECAST CONCRETE		WOOD (ROUGH AND BLOCKING)		
	STONE (CUT OR CAST)		PLYWOOD		

MATERIAL LEGEND

**DRAWING SET / ARCHITECTURAL GENERAL NOTES**

- THE WORK IS BASED ON A COMPLETE SET OF CONTRACT DOCUMENTS. CONTRACTORS ARE RESPONSIBLE TO COORDINATE INFORMATION CONTAINED IN SITE, ARCHITECTURAL, STRUCTURAL, FIRE SUPPRESSION, PLUMBING, HVAC, ELECTRICAL, TECHNOLOGY, CIVIL, LANDSCAPE DRAWINGS AND REFERENCE DRAWINGS.
- REFER TO OTHER SHEETS, DRAWINGS AND SCHEDULES FOR ADDITIONAL NOTES.
- DRAWINGS ARE DIAGRAMMATIC REPRESENTATIONS OF DESIGN INTENT. DO NOT SCALE DRAWINGS TO DETERMINE DIMENSIONS, SIZES, LOCATIONS AND DETAILING. VERIFY FIT AND CLEARANCES. CONTRACTOR SHALL ADVISE ARCHITECT OF ANY DISCREPANCIES.
- WORK WITH ACTUAL FIELD CONDITIONS.
- REPRESENTATIONS OF EQUIPMENT, FURNISHINGS, ETC. ARE DIAGNOSTIC. CONTRACTOR SHALL COORDINATE ACTUAL SIZES WITH INTENDED LOCATIONS AND VERIFY FIT AND CLEARANCES.
- TYPICAL SECTIONS AND PLAN DETAILS APPLY TO SIMILAR CONDITIONS THAT MAY NOT BE SPECIFICALLY DRAWN.
- FIRST FLOOR GRADE ELEVATION IS DESIGNATED ON ARCHITECTURAL DRAWINGS AS '0'. REFER TO SITE DRAWINGS FOR REFERENCE GRADE.
- ABBREVIATION SYSTEM IDENTIFICATION: SEE BELOW FOR ALL ABBREVIATIONS, IDENTIFICATIONS AND DESCRIPTIONS.
- 'TAGS' ARE ABBREVIATIONS FOLLOWED BY A DASH AND A NUMBER (TAG #). TAGS INDICATE A SPECIFIC FINISH, MATERIAL OR PRODUCT IDENTIFIED ON THE 'FINISH, MATERIAL & PRODUCT LEGEND'.
- THE KEYNOTING SYSTEM CORRELATES THE DRAWINGS TO THE SPECIFICATIONS. THE KEYNOTE SYSTEM IS NOT INTENDED TO COMPLETELY DEFINE OR DELINEATE WORK PROCESS OR SCOPE FOR INDIVIDUAL CONTRACTORS / SUBCONTRACTORS.
- KEYNOTES BEGIN WITH A SPECIFICATION SECTION FOLLOWED BY A PERIOD AND A LETTER. THE LETTER IS FOR INTERNAL USE AND IS TO BE DISREGARDED BY THE CONTRACTOR.
- THIS SHEET INCLUDES TYPICAL REFERENCES, GRAPHICS, ETC. THAT MAY BE (BUT ARE NOT NECESSARILY) FOUND THROUGHOUT THE CONTRACT DOCUMENTS.

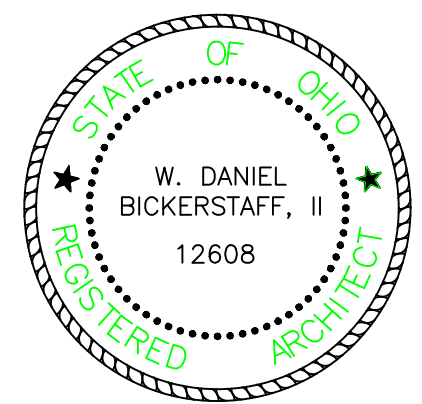
A/C	air conditioning	FA	fire alarm	M	men	S	south
AB	air barrier	FAB	fire alarm fabric	MACH	machine	SBR	support bracket (for countertops)
ACF	access flooring	FABC	fire alarm fabric ceiling system	MAG	masonry	SCD	seat cover dispenser
ACM	aluminum composite material panel	FB	face brick	MAX	maximum	SCHED	schedule
ACOUS	acoustical	FD	floor drain	MB	metal base	SCR	shower curtain rod
AD	acoustical ceiling tile assembly / area drain	FEC	fire extinguisher cabinet	MBD	marker board	SCRPF	static control resilient flooring
ADJ	adjustable	FEX	fire extinguisher	MBH	map and broom holder	SD	storm drain
ADJ	adjustable	FIE	fire extinguisher and equipment	MC	medicine cabinet	SD	soap dish
ADJ	adjustable	FIR	fire extinguisher	MCF	multi-colored finish	SDS	soap dispenser
AES	architecturally exposed structural steel	FLOR	fluorescent	MECH	mechanical	SECT	section
AFF	above finish floor	FLUOR	fluorescent	MEC	mechanic	SFRM	section
AHU	air handling unit	FM	furniture	MFR	manufacturer	SG	security glazing
AL	aluminum	FND	foundation	MH	manhole	SHT	sheet
ALT	alternate	FRG	fire protection rated glazing	MIB	minimum	SIM	similar
ALUM	aluminum	FRP	fiberglass reinforced plastic panel	MIS	miscellaneous	SND	sanitary napkin disposal receptacle
ANOD	anodized	FSM	formed sheet metal, flashing and trim	MO	masonry opening	SNV	sanitary napkin vendor
ARCH	architectural	FT	foot or feet	MOR	mortar	SPEC	specification
ATCS	acoustical tile ceilings	FTD	facial tissue dispenser	MRP	metal roof panels	SO	square
AUTO	automatic	FTC	footing	MT	metal	SS	stainless steel
B.O.S.	Bottom of Steel	FVC	fire valve cabinet for fire department hose connection	MTC	metal ceiling system	SSM	solid surface material
BIO	bottom of	GALV	galvanized	MTL	metal locker	SSV	solid sheet vinyl
BLDG	building	GB	grade beam	MWP	metal wall panel	STD	standard
BR	brick	GB	grab bar	N	north	STF	stone flooring
BRF	brick flooring	GB	grab bar	NIC	not in contract	STRUC	structural
BSMT	basement	GFRC	glass fiber reinforced concrete	NI	number	STL	stone tile
BUR	built-up roofing	GFRP	glass fiber reinforced plaster	NOM	nominal	SWE	swimwater extractor
CAB	cabinet	GMU	glass masonry unit, glass block	NRC	noise reduction coefficient	SWP	sheet wall protection
CAR	sheet carpet	GYP BD	gypsum board	NTS	not to scale	SYM	symmetrical
CB	catch basin	HB	hose bibb	OPH	opposite hand	SYS	system
CCD	chalkboard	HD	hand dryer, electric	OPNG	opening	T	thead
CC	cubic curtain track system	HDWR	hardware	OPP	opposite	T&G	tee and groove
CG	corner guard	HGT	height	OVHD	overhead	T.O.C.	top of curb
CJ	control joint	HLS	horizontal louvers blinds	PC	precast architectural concrete	T.O.M.	top of masonry
CL	center line	HM	hollow metal	PCF	pounds per cubic foot	T.O.S.	top of steel
CLG	ceiling	HOR	horizontal	PCFS	pounds per cubic foot	T10	top of
CMU	concrete masonry unit	HP	high point	PCF	partition mounted child seat	TB	towel bar
COL	column	HPC	high performance coating	PERM	perimeter	TBO	tackboard
CONC	concrete	HTG	heating	PL	property line or plate	TC	toilet compartment
CONST	construction	HSKG	hoseskipping	PLAS	plastic laminate	TEL	telephone
CONT	continuous or continue	HVAC	heating, ventilating, and air conditioning	PLG	plumbing	TERR	terrazzo (portland cement or resinous matrix)
COORD	coordinate	HW	hot water heater	PLG	plastic glazing	TG	tempered glass
CPT	carpet tile	ID	inside diameter	PLW	plywood	TOIL	toilet, or toilet room
CR	crash rail	IG	insulating glass unit	PNT	paint(ed)	TR	traffic coating
CS	concrete sealer	INF	insulating glass unit fireproofing	PREFAB	prefabricated	TRK	transfer track
CSM	cast stone masonry	INCL	included, (eng)	PS	punch shelf	TRN	transition strip
CT	ceramic tile	INSUL	insulate(s), (con)	PSF	pounds per square foot	TTD	toilet tissue dispenser
CTC	ceramitious coatings	INT	interior	PSI	pounds per square inch	TV	television
CTW	combination towel dispenser, waste receptacle	IP	interpenetrant paint	PT	point	TYP	typical
CUH	cabinet unit heater	JAN	janitor	PTD	paper towel dispenser	UCR	under cabinet refrigerator
CWP	cement waterproofing, polymer modified	JS	joint sealant	PTN	partition	UH	unit heater
DCS	diaper changing station	KO	knockout	PTR	paper towel receptacle	UNO	unless noted otherwise
DEFS	direct applied exterior finish system	KS	knee space	PVMT	polyvinyl chloride pavement	US	utility shaft
DEMO	demolish, demolition	L	length	R	riser	VB	vapor barrier
DET	detail	LAV	lavatory	RA	return air	VCT	vinyl composition tile
DIA	diameter	LDG	lead glass, for radiation protection	RP	resilient base (vinyl or rubber)	VERT	vertical
DIAG	diagonal	LG	laminated glass	REF	Reflected Ceiling Plan	VIF	verify in field
DIM	dimension	LH	left hand	RD	roof drain	VT	vertical louvers blinds
DIV	division	LI	linear or linal	RF	reference	VR	vapor retarder
DR	door	LJ	linear joint	REF	reference	VT	vertical vinyl floor tile
DS	downspout	LV	long leg vertical	REF D	required	W	west
DWG	drawing	LVL	laminated veneer lumber	REV	revised	W	women
E	east	LNLM	linoleum flooring	REV	revised	W	without
EF	elastomeric coatings	LP	low point	REX	removing existing	WAF	wood athletic flooring
EF	exhaust fan	LT	light	RF	resilient flooring	WC	wall covering
EF	entrance floor grille	LTR	light (lower(s))	RH	rough opening	WC	water closet
EFG	entrance floor mat	LTV	light	RH	right hand	WD	wood (transparent finish)
EFM	entrance floor mat	LTV	light	RI	room	WDC	wood ceiling
EJ	expansion joint	LO	rough opening	RO	rough opening	WDF	wood flooring
EJC	expansion joint cover	LP	low point	ROW	right of way	WFP	Work Point
EL	elevation	LQ	low quarter	RSA	resident stair accessories	WR	waste receptacle
ELEC	electrical	LS	low slope	RWF	resident sheet flooring	WRF	welded wire fabric
ELEV	elevator cab	LSP	low slope point	RTF	resilient tile flooring		
EMBD	electronic markboard	LTV	light	RWS	roller window shade		
EMER	emergency	LTV	light				
EQ	equipment	LTV	light				
EQU	equipment	LTV	light				
ERC	epoxy resin countertop	LTV	light				
ES	exposed structure	LTV	light				
ETR	existing to remain	LTV	light				
EWC	electric water cooler	LTV	light				
EWH	exhaust	LTV	light				
EXIST	existing	LTV	light				
EXP	exposed	LTV	light				
EXT	exterior	LTV	light				

ABBREVIATIONS

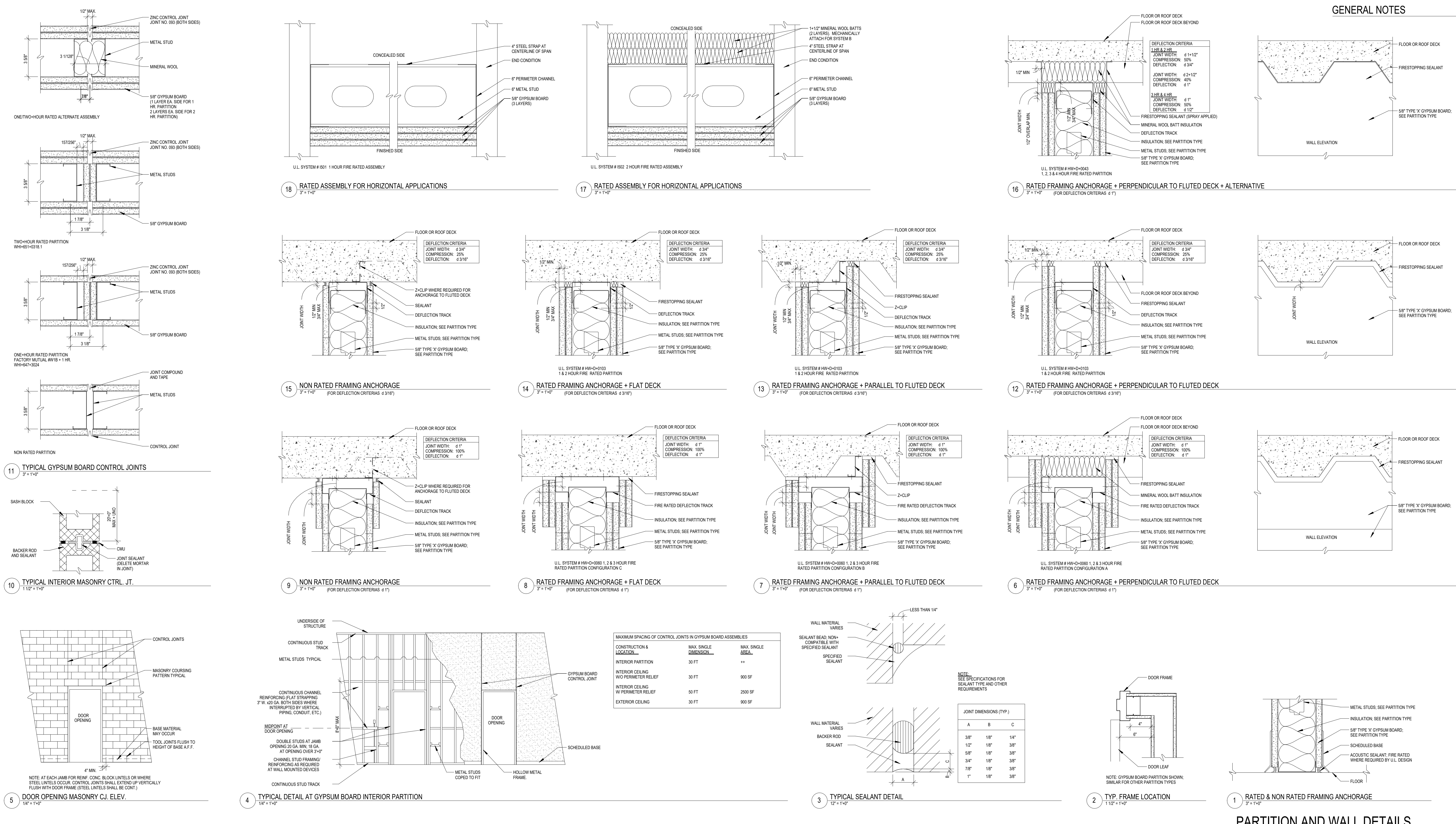


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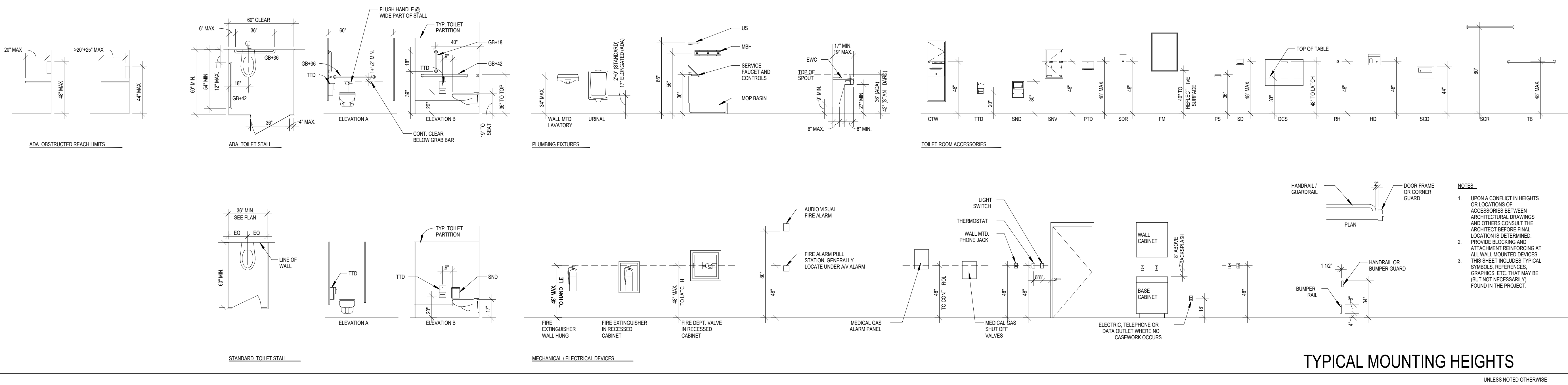


W. Daniel Bickerstaff, II  
 License No. 12608  
 Expiration Date: December 31, 2023



**PARTITION AND WALL DETAILS**

UNLESS NOTED OTHERWISE



PERMIT ISSUANCE	WDB, II	08.26.2022
ISSUED	BY	DATE

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Interior Alteration

New MetroHealth  
 ODH  
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5935 Ackley Road  
 Cleveland, OH 44105

**MetroHealth**  
 MEDICAL CENTER  
 2500 METROHEALTH DR.  
 CLEVELAND, OH 44109

Scale	Sheet
Date	08.26.2022
Drawn by	DB
Checked by	WDB, II

**TYPICAL DETAILS**

GN2.0



**DEMOLITION GENERAL NOTES:**

- SEE FLOOR PLAN GENERAL NOTES ON SHEET A1.1 FOR DESCRIPTION OF REFERENCE "ORTHO LINE".
- DEMOLITION PLAN SHOWS APPROXIMATE LAYOUT OF EXISTING BUILDING AND IS NOT INTENDED TO REPRESENT "AS-BUILT" CONDITIONS. CONTRACTOR SHALL VISIT THE SITE AND OTHERWISE BECOME FAMILIAR WITH ACTUAL CONDITIONS WHEN BIDDING THE WORK. PRIOR TO STARTING OF WORK, CONTRACTOR SHALL VERIFY EXISTING CONDITIONS, DIMENSIONS AND SIZES, ETC. OR ITEMS NOT INDICATED ON DRAWINGS, THAT MAY REQUIRE DEMOLITION BUT NOT DESCRIBED OR SHOWN.
- EXISTING FIRE ALARM OR SPRINKLER MONITORING SYSTEM: MAINTAIN EXISTING SYSTEM IN SERVICE UNTIL NEW SYSTEM IS ACCEPTED. DISABLE SYSTEM ONLY TO MAKE SWITCHOVERS AND CONNECTIONS. NOTIFY AND OBTAIN PERMISSION FROM LANDLORD AND LOCAL FIRE SERVICE IN ADVANCE IN ACCORDANCE WITH AHJ REQUIREMENTS BEFORE PARTIALLY OR COMPLETELY DISABLING SYSTEM. MINIMIZE OUTAGE DURATION. MAKE TEMPORARY CONNECTIONS TO MAINTAIN SERVICE IN AREA ADJACENT TO WORK AREA.
- PRIOR TO ANY DEMOLITION WORK, CONTRACTOR MUST FIELD VERIFY ALL EXISTING MECHANICAL, PLUMBING AND ELECTRICAL WORK LOCATED IN THE TENANT SPACE.
- WALLS, PARTITIONS, DOORS, FRAMES, AND OTHER ITEMS TO BE REMOVED ARE SHOWN DASHED. SERVICES WITHIN WALLS AND PARTITIONS SHALL ALSO BE REMOVED. REPAIR AND PATCH EXISTING WALLS SHOWN TO REMAIN WHERE INTERSECTING WALLS, DOORS, FRAMES, ETC. ARE SHOWN TO BE REMOVED AND WHERE EXISTING CONSTRUCTION WILL NOW BE EXPOSED IN THE NEW CONSTRUCTION.
- EXISTING CONSTRUCTION SHOWN TO REMAIN SHALL BE PROTECTED DURING DEMOLITION. DAMAGE TO EXISTING CONSTRUCTION SHOWN TO REMAIN SHALL BE RESTORED TO MATCH PRE-DAMAGED CONDITION. ALL DAMAGED EXISTING STRUCTURAL FIREPROOFING MATERIAL IS TO BE PATCHED/REPAIRED AS REQUIRED.
- REMOVE ALL EXISTING OBSOLETE MISCELLANEOUS NON-LOADBEARING ITEMS IN THEIR ENTIRETY THROUGHOUT TENANT SPACE, PARTICULARLY WHERE EXISTING ITEMS WILL INTERFERE WITH THE INSTALLATION OF NEW CONSTRUCTION, OR WHERE EXISTING ITEMS WILL BE EXPOSED IN THE NEW CONSTRUCTION, UNLESS SPECIFICALLY SHOWN ELSEWHERE IN THE CONTRACT DOCUMENTS TO REMAIN. REPAIR AND PATCH ALL SURFACES TO REMAIN, WITH MATERIALS MATCHING EXISTING CONSTRUCTION. COORDINATE WITH NEW CONSTRUCTION.
- REMOVE ALL EXISTING OBSOLETE PLUMBING, MECHANICAL, AND ELECTRICAL EQUIPMENT IN THEIR ENTIRETY THROUGHOUT TENANT SPACE PARTICULARLY WHERE EXISTING ITEMS WILL INTERFERE WITH THE INSTALLATION OF NEW CONSTRUCTION, OR WHERE EXISTING ITEMS WILL BE EXPOSED IN THE NEW CONSTRUCTION, UNLESS SPECIFICALLY SHOWN ELSEWHERE IN THE CONTRACT DOCUMENTS TO REMAIN. COORDINATE WITH NEW CONSTRUCTION.
- IN ALL AREAS WHERE DEMOLITION CAUSES UNEVENNESS AND/OR VOIDS IN THE FLOORS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING AND FLOOR LEVELING TO LEVEL FLOOR WITH ADJACENT SURFACES. FLOOR LEVELING MATERIAL SHALL BE COMPATIBLE WITH NEW FLOOR FINISH MATERIALS.
- IN ALL AREAS WHERE DEMOLITION CAUSES UNEVENNESS AND/OR VOIDS IN GYPSUM BOARD WALLS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING AND LEVELING THE WALL WITH ADJACENT SURFACES. APPLY A SKIM COATING TO WALL SURFACES WITH EXTENSIVE VOIDS AND/OR UNEVENNESS.
- ALL BUILDING SERVICES REQUIRED TO MAINTAIN BUILDING OPERATION OF OTHER AREAS SHALL BE MAINTAINED. BUILDING SERVICES IN FINISHED SPACES SHALL BE CONCEALED, UNLESS OTHERWISE INDICATED. BUILDING SERVICES ENCOUNTERED IN DEMOLISHED PARTITIONS AND CEILINGS WHICH ARE TO REMAIN SHALL BE REROUTED AND CONCEALED. THOSE BUILDING SERVICES THAT ARE INDICATED TO BE ABANDONED SHALL BE CAPPED AND CONCEALED IN THE FLOOR, WALL OR CEILING. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ALL SERVICES PRIOR TO REMOVAL AND DISCONNECTION INCLUDING ELECTRICAL, HVAC, PLUMBING, SECURITY, AND TELEPHONE/DATA FOR ADJOINING OCCUPIED SPACES.
- ALL EXISTING CONCRETE FLOORS SHALL BE PREPARED TO RECEIVE NEW FLOOR FINISHES. THIS SHALL CONSIST OF BUT NOT LIMITED TO SCRAPING, GRINDING, APPLYING FLOOR LEVELING MATERIAL, ETC.

**WALL LEGEND**

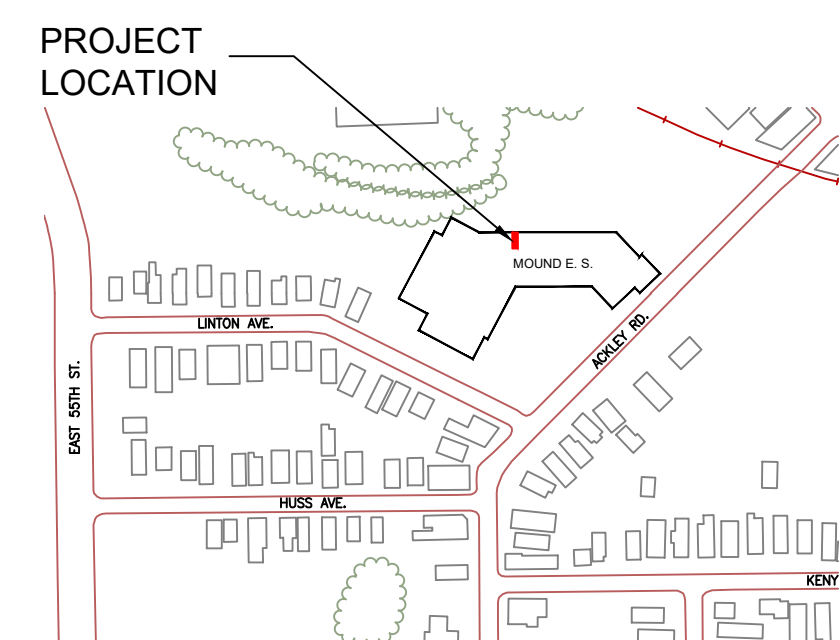
- EXIST. WALLS
- WALLS AND MILLWORK TO BE REMOVED

**PLAN CODED NOTES:**

INDICATED BY

- REMOVE EXIST. PLAM. COUNTER; CONTRACTOR TO SALVAGE
- REMOVE AND SALVAGE EXIST. BASE AND WALL CABINETS
- REMOVE EXIST. SINK AND ASSOC. PIPING TO WITHIN WALL IN PREP. FOR NEW PLUMBING FIXTURES
- EXISTING TALL CABINETS TO BE REMOVED AND SALVAGED; POTENTIAL RE-USE WITHIN SPACE
- REDUCE AND RELOCATE EXIST. CUBBIES
- REMOVE
  - FLOORING
  - WALL BASE
  - ACOUST. CLG. TILES ETC.
  - ADHESIVE
  - CHALK/MARKER BOARDS
  - ACCESSORIES (CLOCKS, MIRRORS, FIRE EXTINGUISHERS)
  - AV TECH. EQUIPMENT
- CMSD SHALL REMOVE ALL FURNISHINGS, DEHUMIDIFIERS, WALL MNTD. POSTERS, AND PAPERS
- REMOVE EXIST. ELEC. OUTLET/DEVICE
- REMOVE EXIST. LIGHTING FIXTURE

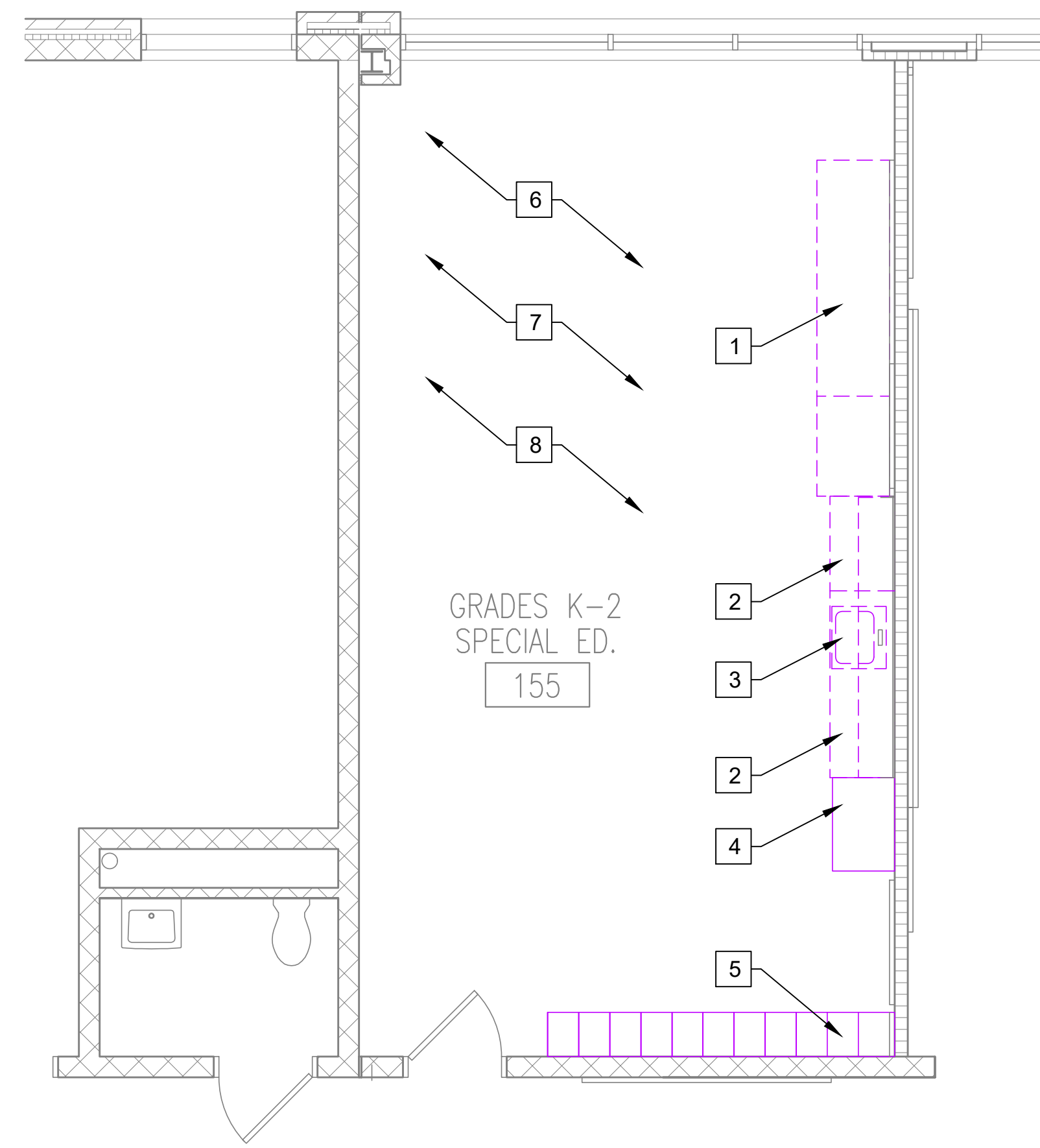
\*SALVAGE ALL ACCESSORIES AND TECH. EQUIP.; CONTRACTOR TO REMOVE AND CMSD SHALL STORE.



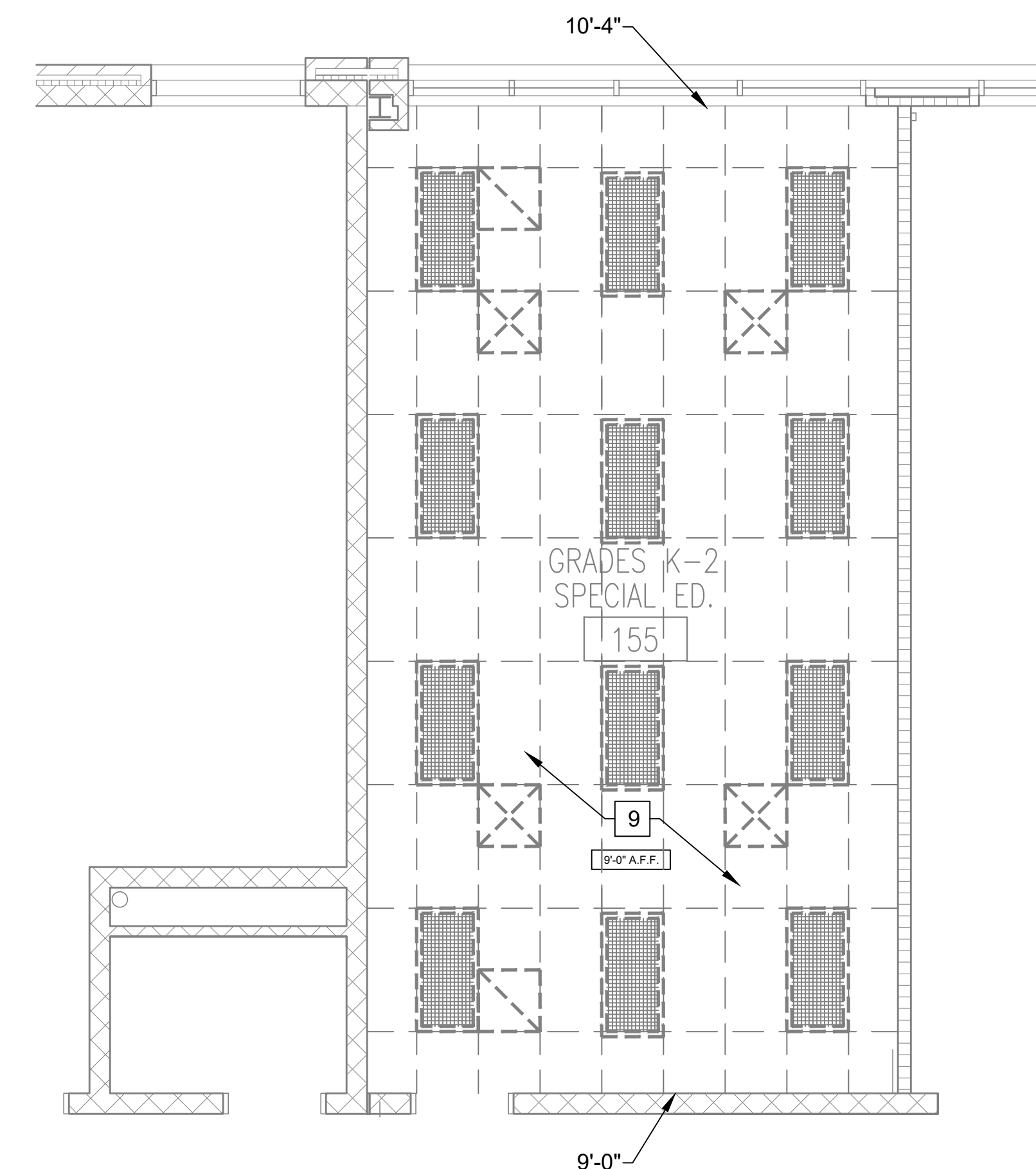
**KEY PLAN**  
SCALE: NTS

**LEGEND**

- EXISTING 2x4' MTL. GRID TO REMAIN; REPLACE CLG. TILES
- EXISTING 2x4' FLUOR. LIGHT FIXTURE TO BE REMOVED; SEE ELEC. PLANS
- EXISTING 1x4' FLUOR. LIGHT FIXTURE TO BE REMOVED; SEE ELEC. PLANS
- EXISTING COMBINATION EXIT/EMERG. LIGHT FIXTURE TO BE REMOVED AND REPLACED; SEE ELEC. PLANS
- EXIST. SMOKE DETECT. TO BE REMOVED
- EXIST. SUPPLY AIR DIFFUSER AND ASSOC. DUCTWORK TO BE REMOVED; SEE MECH. PLANS
- EXIST. RETURN AIR REGISTER TO BE REMOVED; SEE MECH. PLANS
- EXIST. CLG. MNTD. EXHAUST FAN TO BE REMOVE AND/OR REPLACED; SEE MECH. PLANS
- EXIST. SPEAKERS TO BE REMOVED
- INDICATES CEILING HEIGHT



**1**  
**A1.0** **EXIST. / DEMO. FLOOR PLAN**  
SCALE: 1/4" = 1'-0"



**2**  
**A1.0** **EXIST. / DEMO. CEILING PLAN**  
SCALE: 1/4" = 1'-0"



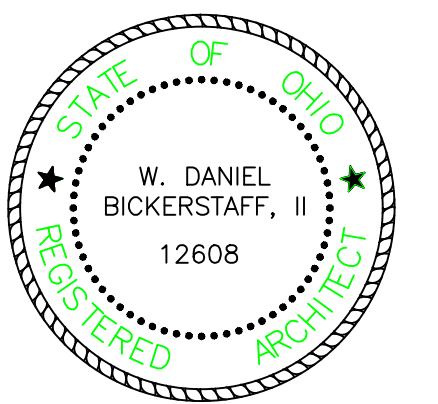
**CLEVELAND METROPOLITAN SCHOOL DISTRICT**

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CMDB Approval

X

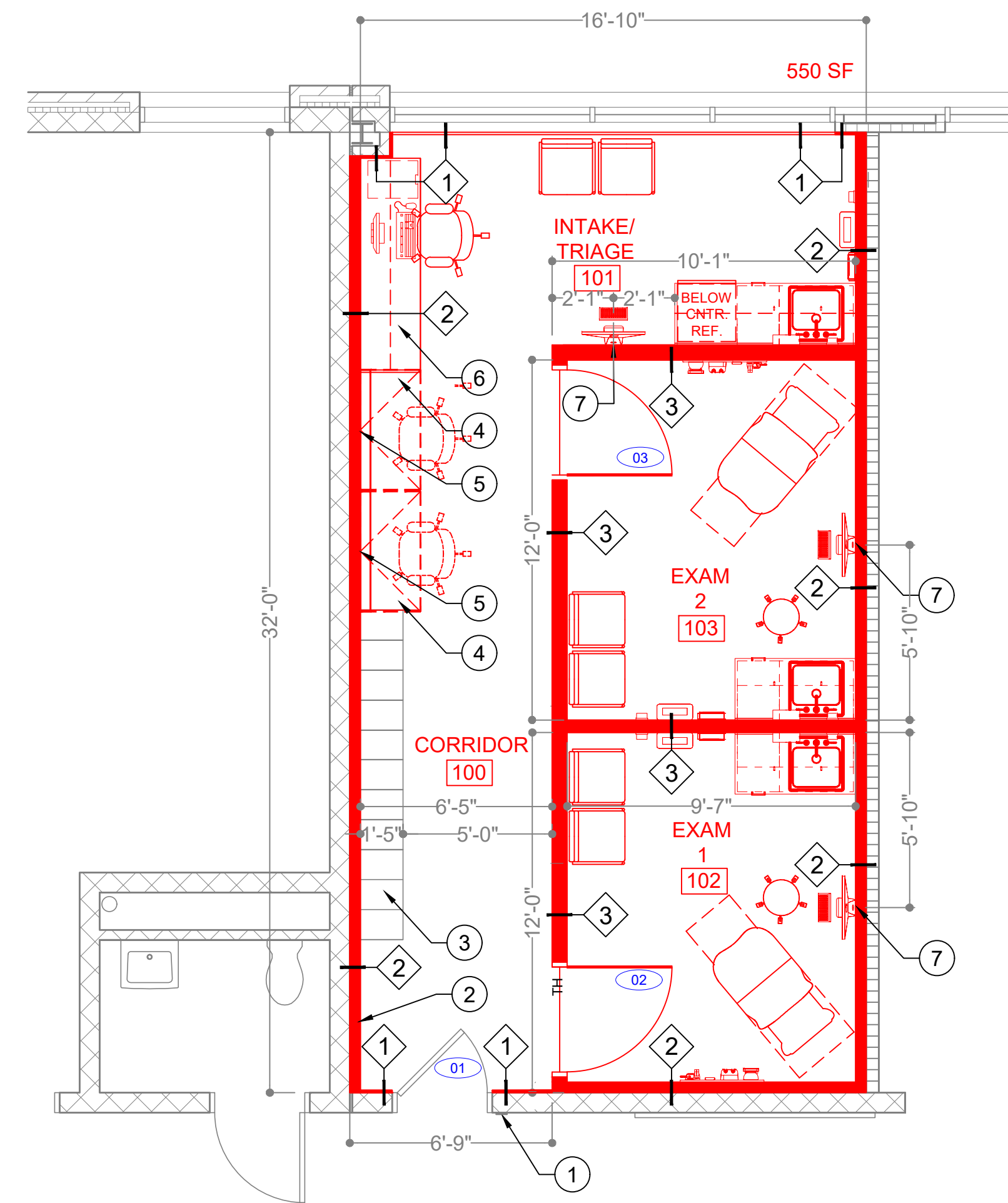
Public Dashboard EDUCATOR, Exec. Dir.  
Architectural Projects, Capital Projects Date

Drawn by: DB Checked by: WDB, II

**EXIST. / DEMO PLANS**

Scale:	Sheet:
08.26.2022	A1.0

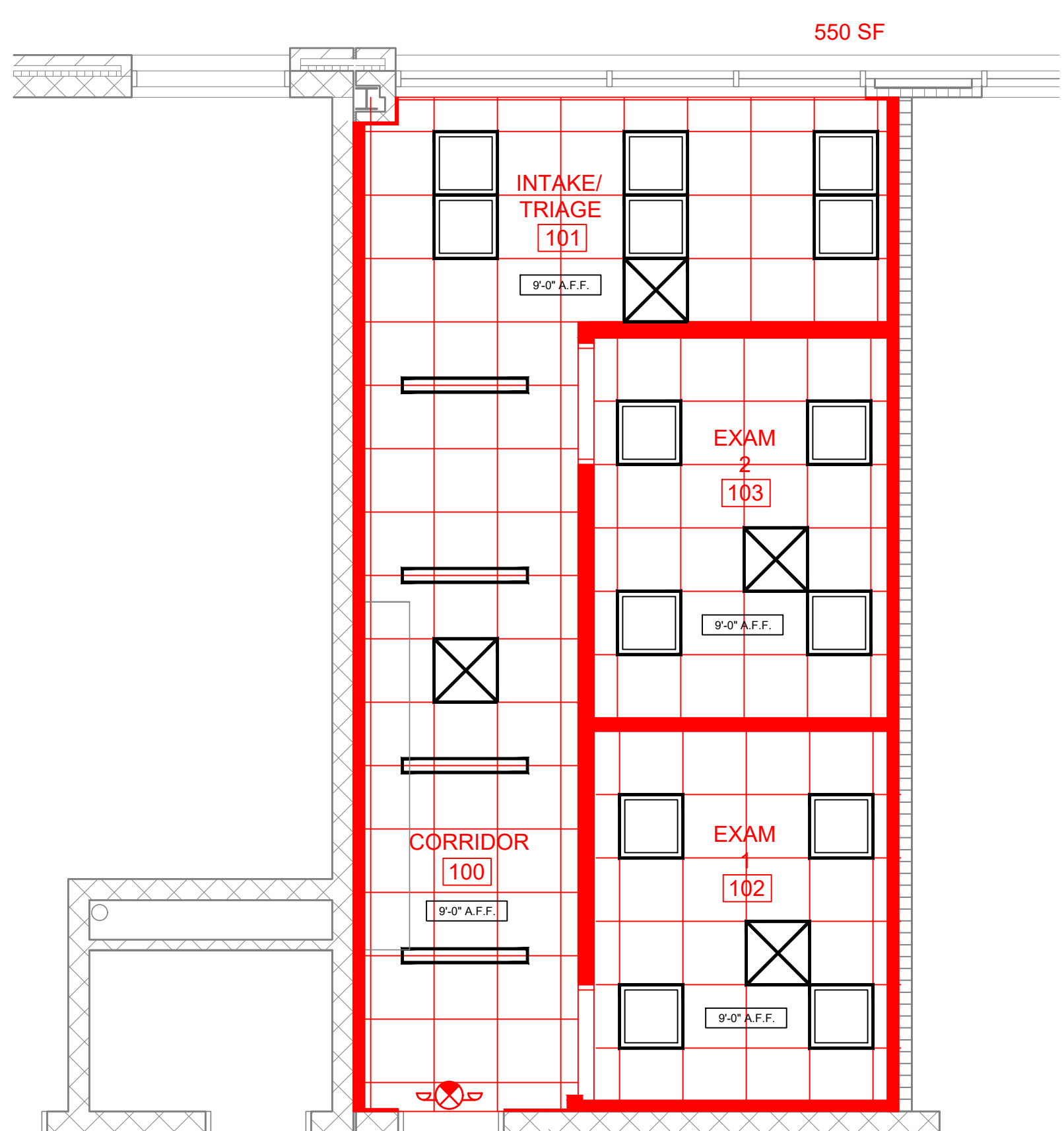




**1**  
A2.0  
**PROPOSED FLOOR PLAN**  
SCALE: 1/4" = 1'-0"

**PLAN KEYED NOTES:**

- INDICATED BY ○
- NEW CARD READER, MAG-LOCKS, DOOR RELEASE BUTTON, AND REX MOTION SENSORS FOR NEW DOORS. HARDWARE PROVIDED BY OWNER'S SECURITY CONTRACTOR.
  - NEW GYP. BD. ON FURRING ON EXIST. MSY. WALL, TYP. SEE WALL TYPES
  - RELOCATED EXIST. WD. CUBBIES
  - NEW WALL MNTD. FOLDING COUNTERS.
  - NEW CONT. BLOCKING AT MOUNTING HEIGHT (36" AFF) AND UPRIGHT LATCH HEIGHT
  - NEW WORK COUNTER WITH PRE-DRILLED GROMMETS
  - PROVIDE BLOCKING FOR WALL MNTD. EQUIP. REFER TO INTERIOR ELEVATIONS ON SHEET AX.0



**2**  
A2.0  
**PROPOSED CEILING PLAN**  
SCALE: 1/4" = 1'-0"

**WALL TYPES**

- 5/8" GYP. BD. ON 1/2" MTL. FURRING @ 16" O.C.
- 5/8" GYP. BD. ON BOTH SIDES OF 3-5/8" MTL. STUDS @ 16" O.C. W/ 3" SOUND INSUL.
- 5/8" M.R. GYP. BD. ON WET. SIDE AND TYP. 5/8" GYP. BD. ON OPP. SIDE OF 3-5/8" MTL. STUDS @ 16" O.C. W/ 3" SOUND INSUL.
- 5/8" GYP. BD. ON ONE SIDE OF 3-5/8" MTL. STUDS @ 16" O.C.

**LEGEND**

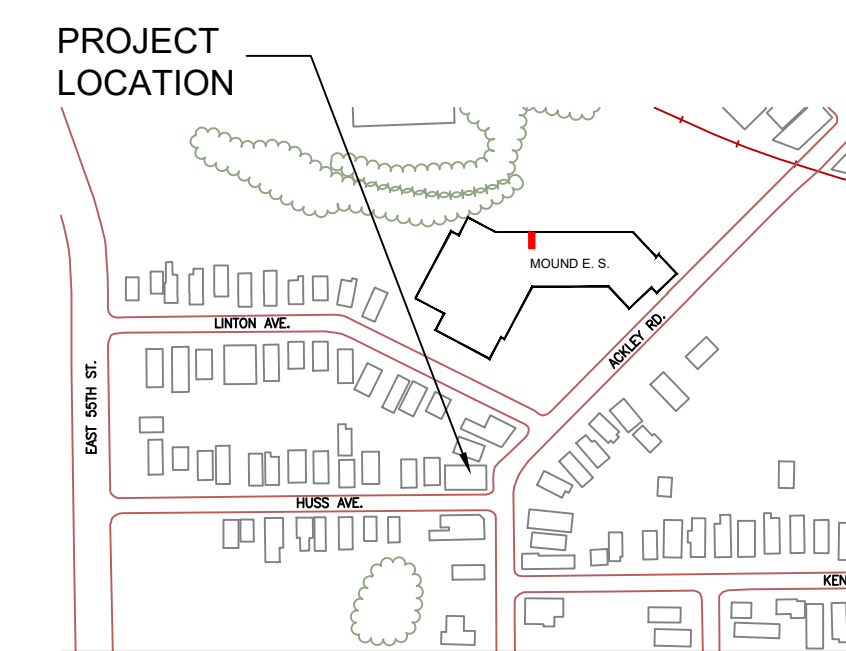
- NEW 2x2' 15/16" WIDE EXPOSED CLG. GRID TEE FLUSH GRID SYSTEM. SUPER WHITE COLOR
- NEW 2x2' LED LIGHT FIXTURE; SEE ELEC. PLANS
- NEW RETURN AIR REGISTER. SEE MECH. PLANS
- NEW SUPPLY GRILLE. SEE MECH. PLANS
- EXHAUST FAN
- NEW SMOKE DETECTOR
- NEW EXIT LIGHT, SEE ELEC. PLANS
- NEW EMERGENCY LIGHT, SEE ELEC. PLANS
- NEW SMOKE DETECTOR
- INDICATES CEILING HEIGHT

**GENERAL NOTES:**

- ALL WORK, ITEMS AND MATERIALS ARE **NEW** UNLESS PRECEDED BY THE WORD "EXISTING".
- PATCHING- ALL EXISTING SURFACES DISTURBED BY RENOVATIONS. WALLS SHALL BE PATCHED TO MATCH EXIST. THEN APPLY NEW FINISHES.
- SOUND- ALL PARTITIONS SHALL INCLUDE SOUND ATTENUATION BATTS AND EXTEND TO UNDERSIDE OF STRUCTURE.
- FURNISHINGS- BY OWNER.
- EQUIP- PER PLAN.
- COMPUTERS- PER PLAN.
- TELEPHONES/DATA- PER OWNER
- CEILINGS- NEW THROUGHOUT; PATCH, SEAL, CLOSE AND RELOCATE ITEMS AS REQUIRED.
- WALLS- PAINT.
- FLOORS- NEW.
- POWER- AS REQUIRED BY PLAN.
- THE METHOD OF ATTACHMENT FOR ALL ITEMS THAT ARE TO BE SUSPENDED ARE TO BE SUSPENDED FROM THE FLR. STRUCT. ABOVE.
- REFERENCE FINISH FLOOR AT 0'-0".
- REFER TO AX.X FOR PARTITION TYPES.
- REFER TO AX.X FOR DOOR SCHEDULE.
- THESE DRAWINGS HAVE BEEN COORDINATED WITH EXISTING CONDITIONS AS THEY ARE BELIEVED TO EXIST. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND NOTIFY THE ARCHITECT/OWNER IN A TIMELY MANNER REGARDING ANY AND ALL DISCREPANCIES BETWEEN THE CONTRACT DOCUMENTS AND ACTUAL CONDITIONS.
- REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL WORK.
- UPON COMPLETE REMOVAL OF EXIST. FLRNG. ARCHITECT AND OWNER TO PERFORM DETAIL REVIEW AND INSPECTION OF EXIST. SUBFLOOR
- NEW WALLS SHALL BE INSTALLED WITH THE INTENT OF PROVIDING ACCESS TO ALL EXIST. OUTLETS AND DEVICES IDENTIFIED AS EXIST. TO REMAIN.
- REFER TO INTERIOR DRAWINGS FOR CASEWORK INFORMATION AND DIMENSIONS

**TYPICAL NOTES**

- ALL WORK SHALL COMPLY WITH ALL APPLICABLE LOCAL AND STATE BUILDING CODES, FIRE SAFETY CODES AND REGULATIONS INCLUDING, BUT NOT LIMITED TO, THE OHIO BUILDING CODE (OBC) AND THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG). ANY CONFLICTS BETWEEN THE WORK INDICATED WITHIN THESE DOCUMENTS AND SAID CODES OR REGULATIONS NOTED BY THE CONTRACTOR SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.
- MAKE ARRANGEMENTS 72 HOURS MINIMUM IN ADVANCE WITH THE OWNER FOR ANY INTERRUPTIONS OF UTILITY SERVICE.
- EACH CONTRACTOR AND VENDOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH ALL CONDITIONS AND CLEARANCES PRIOR TO SUBMITTING A PROPOSAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL PERMITS AND INSPECTIONS AS REQUIRED.
- SHOULD ANY OF THE DETAILED INSTRUCTIONS ON THE DRAWINGS CONFLICT WITH THE NOTES OR SPECIFICATIONS OR WITH EACH OTHER, THE STRICTEST PROVISION SHALL APPLY. ANY SUCH CONFLICT SHALL BE REPORTED TO THE ARCHITECT.
- ALL SECTIONS AND DETAILS SHALL BE CONSIDERED TYPICAL AND APPLY FOR THE SAME AND SIMILAR SITUATIONS THROUGHOUT THE STRUCTURE UNLESS SPECIFICALLY NOTED OTHERWISE.
- THE CONTRACTOR SHALL VERIFY ALL RELEVANT DIMENSIONS, ELEVATIONS ANGLES AND EXISTING CONDITIONS BEFORE PROCEEDING WITH THE AFFECTED WORK AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES IMMEDIATELY.
- INSTALL ALL MATERIALS AND EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
- ALL LOOSE DEBRIS/TRASH SHALL BE DEPOSITED IN A COVERED TRASH RECEPTACLE OR REMOVED FROM THE SITE. NO LOOSE DEBRIS/TRASH SHALL BE LEFT ON ROOFS, SPACES OPEN TO AIRPORT OPERATIONS AREA (AOA), NEAR CONVEYANCE SYSTEMS, OR IN ANY OPEN TRASH CONTAINERS.
- ALL CONTRACTORS AND SUBCONTRACTORS FOR THE WORK OF THIS CONTRACT SHALL BE PROPERLY LICENSED AND REGISTERED IN ACCORDANCE WITH THE REGULATIONS OF CLEVELAND, OHIO.
- AT ALL TIMES WHEN WORK IS IN PROGRESS, A REPRESENTATIVE OF THE CONTRACTOR OR SUB-CONTRACTOR SHALL BE ON SITE AND AUTHORIZED TO ANSWER QUESTIONS OR RECEIVE INSTRUCTIONS FROM THE OWNER OR ARCHITECT.
- ALL UNUSED/ABANDONED FLOOR/WALL OPENINGS SHALL BE SEALED OR FIRE STOPPED.
- DUE TO HEALTH RELATED REASONS, USE OF CHINESE-MADE GYPSUM WALLBOARD IS NOT PERMITTED TO BE USED ON THE PROJECT.
- ALL "LOUD" WORK (CUTTING, CORING, SAWING, ETC.) WILL BE CONDUCTED AT NIGHT WHEN THE CONCOURSE IS NOT OCCUPIED BY PASSENGERS (AFTER 10PM, BEFORE 5AM)
- PROVIDE LOCKS AT ALL CABINETRY DOORS AND DRAWERS

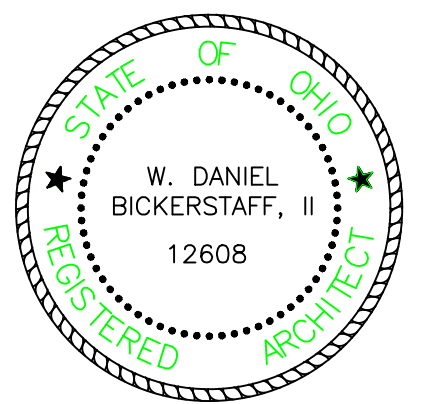


**KEY PLAN**  
SCALE: NTS



**Project Team:**

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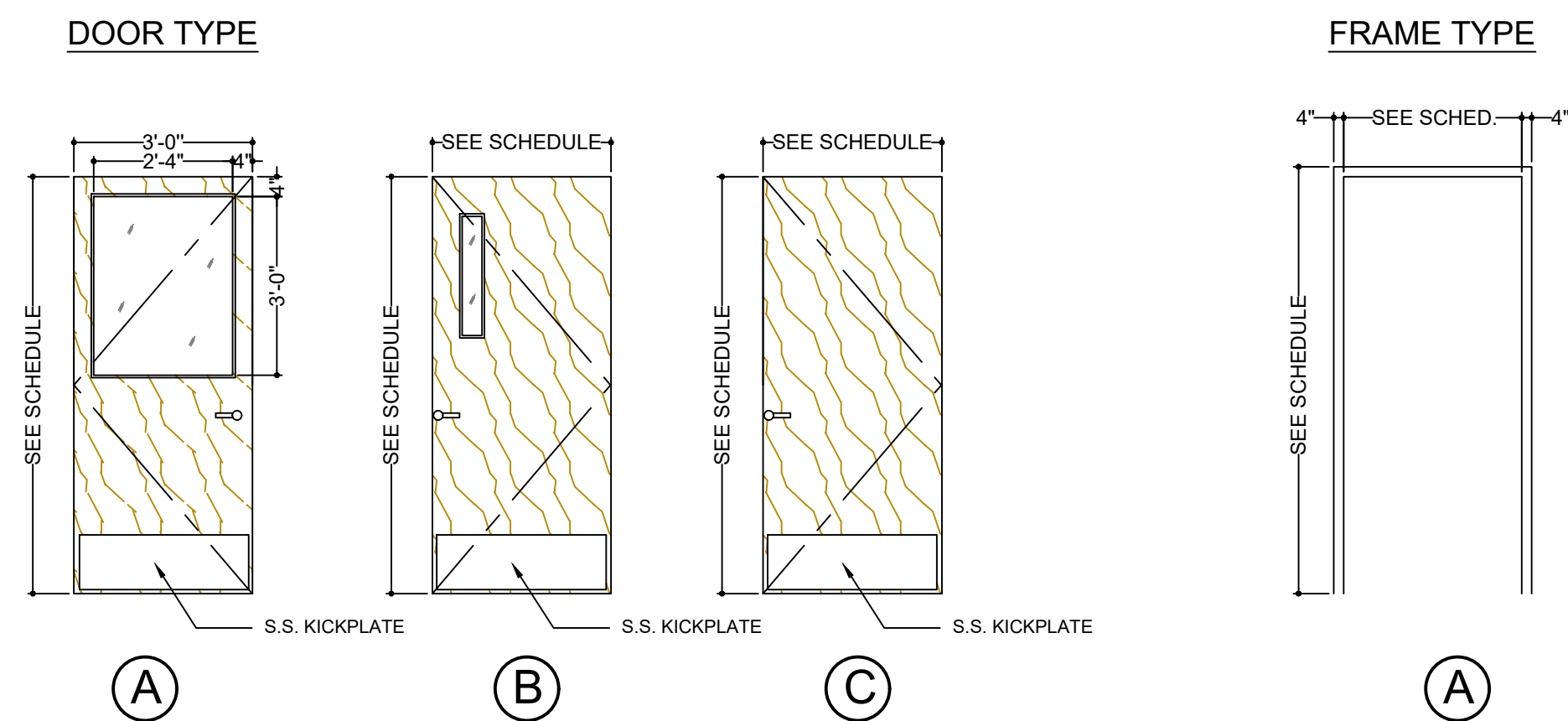
**PROPOSED FLOOR AND CEILING PLANS**

Date: 08.26.2022

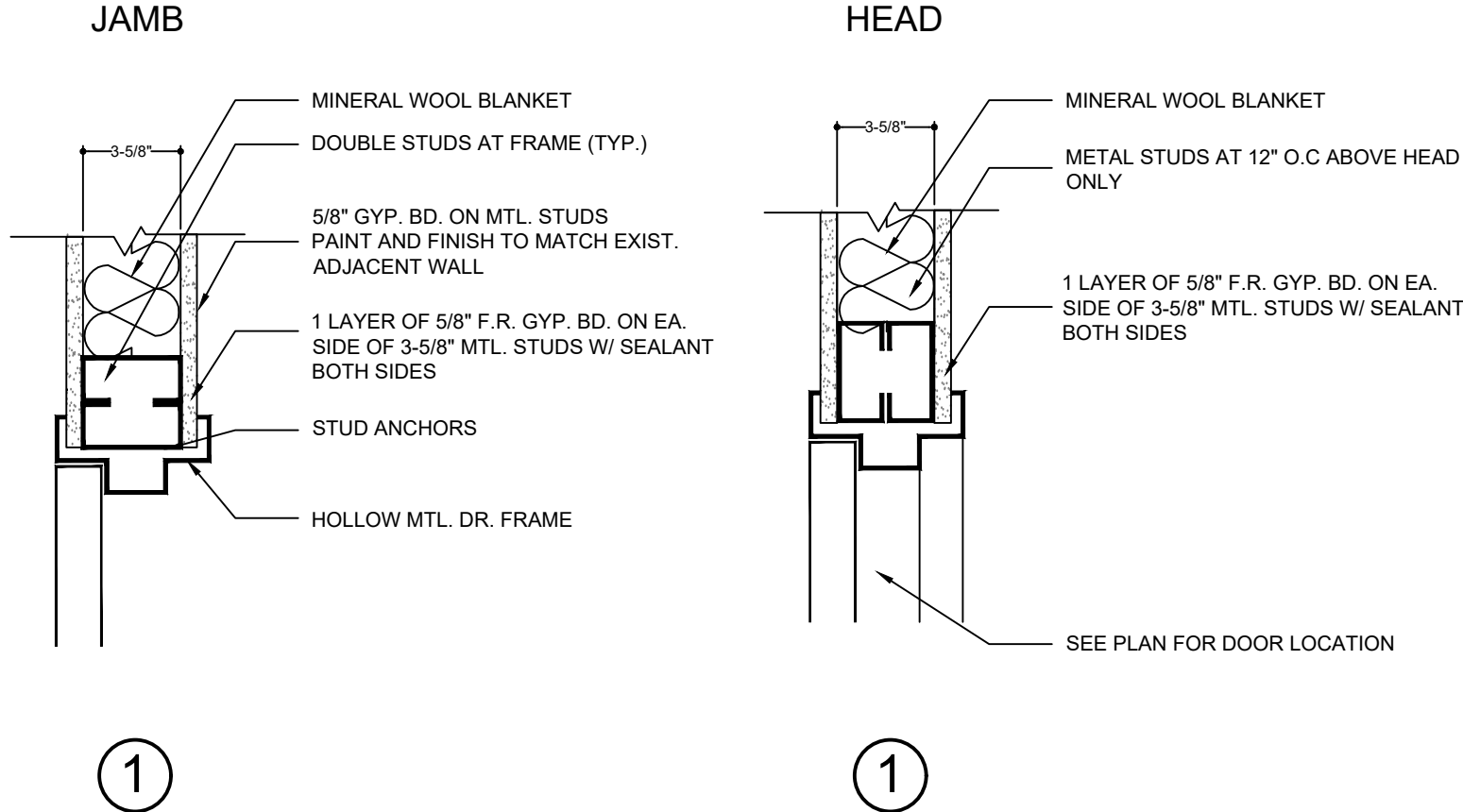


DOOR SCHEDULE												
OPENING						FRAME					RATING	REMARKS
OPEN'G NO.	TYPE	ROOM	WIDTH/HEIGHT/ DOOR THICKNESS	MAT.	GLAZING	ELEV.	MATL.	JAMB	HEAD	SILL		
01	C	EXIST. ENTRANCE	EXIST. 3'-0" x 7'-0" x 1 3/4"	WD.	NO	-	-	-	-	-	1-HR	
02	C	EXAM ROOM 1	3'-0" x 7'-0" x 1 3/4"	WD.	NO	A	HM	1	1	-	-	
03	C	EXAM ROOM 2	3'-0" x 7'-0" x 1 3/4"	WD.	NO	A	HM	1	1	-	-	

**DOOR TYPE AND FRAME**

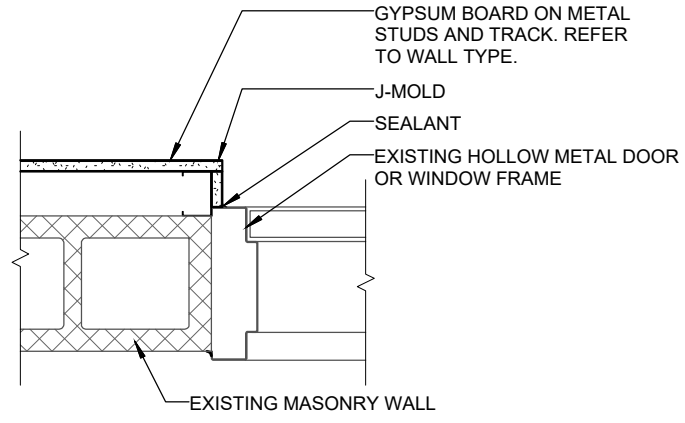
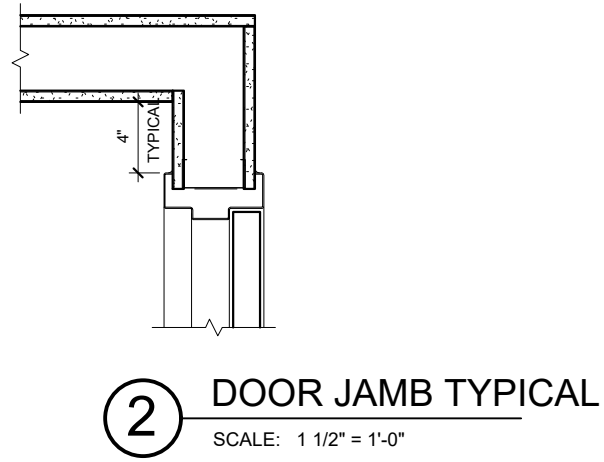


**HEAD AND JAMB DETAILS**



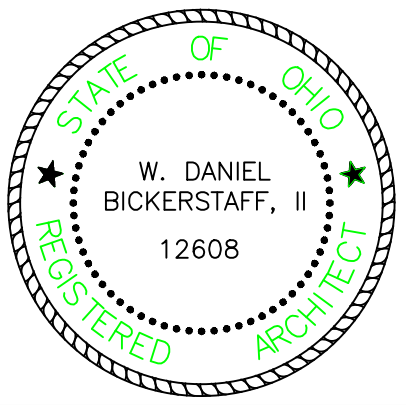
**HARDWARE NOTES**

- ALL DOORS (UNLESS NOTED OTHERWISE) SHALL HAVE LEVER-OPERATED HARDWARE PER SECTION 4.13.9 ADAAG. ALLOWING FOR EASY OPERATION WITHOUT GRASPING PINCHING OR TWISTING OF THE WRIST.
- ALL EGRESS DOORS SHALL BE READILY OPENABLE FROM THE SIDE FROM WHICH EGRESS IS TO BE MADE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT PER 1017.4.1 OBCC
- DOOR OPENING FORCE SHALL COMPLY WITH ANSI A117.1(2009), SECTION 4.13.11
- PROVIDE COSMETIC SEALANT AT JOINT WHERE FRAMES MEET WALL (TYP.). COLOR TO MATCH WALL PAINT



Project Team:

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W. Daniel Bickerstaff, II  
 License No. 12608  
 Expiration Date: December 31, 2023

PERMIT ISSUANCE	WDB, II	08.26.2022
ISSUED	BY	DATE

**MOUND ELEMENTARY SCHOOL**  
 Interior Alteration  
 New MetroHealth  
 ODH  
 SBHC  
 Health Care Expansion Program  
 5935 Ackley Road  
 Cleveland, OH 44105



Checked by	WDB, II
Drawn by	DB

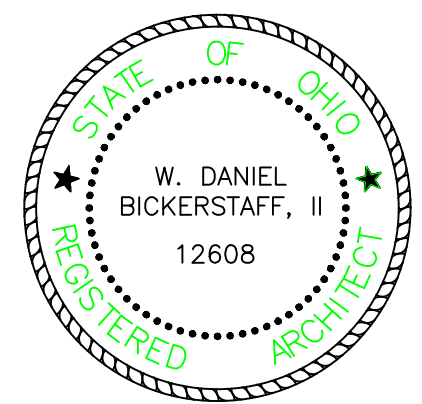
**DOOR SCHEDULE AND DETAILS**

Scale	Sheet
Date	08.26.2022



**Project Team:**

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**MOUND  
ELEMENTARY  
SCHOOL**

Interior Alteration

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ODH  
SBHC  
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5935 Ackley Road  
Cleveland, OH 44105



MEDICAL CENTER  
2500 METROHEALTH DR.  
CLEVELAND, OH 44109

<input checked="" type="checkbox"/> Holler Delaney EDUCATOR, Exec. Dir. Architectural Projects, Capital Programs	Date
Drawn by: DB Checked by: WDB, II	Date

**FINISHES AND  
EQUIPMENT PLANS**

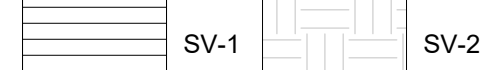
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**GENERAL NOTES**

- A. DO NOT SCALE DRAWINGS.
- B. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO CROSS-CHECK THE INTERIOR DRAWINGS WITH THE ARCHITECTURAL DRAWINGS PRIOR TO THE ORDERING / INSTALLATION OF CASEWORK. ANY DISCREPANCIES BETWEEN THE ARCHITECTURAL AND INTERIOR DRAWINGS SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION FOR IMMEDIATE CLARIFICATION.
- C. COORDINATE THE INSTALLATION WITH OTHER TRADES AS REQUIRED TO ENSURE A NEAT AND ORDERLY INSTALLATION. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES BEFORE STARTING WORK.
- D. GENERAL CONTRACTOR AND SUB-CONTRACTORS SHALL CAREFULLY REVIEW THE CONSTRUCTION DOCUMENTS. INFORMATION REGARDING THE COMPLETE WORK IS DISPERSED THROUGHOUT THE DOCUMENT SET AND CANNOT BE ACCURATELY DETERMINED WITHOUT REFERENCE TO THE COMPLETE DOCUMENT SET.
- E. WHERE THERE MAY BE A CONFLICT IN THE SPECIFICATIONS AND/OR DRAWINGS, THEN THE MORE EXPENSIVE LABOR, MATERIALS AND EQUIPMENT SHALL BE ASSUMED TO BE REQUIRED AND SHALL BE PROVIDED BY THE GENERAL CONTRACTOR TO THE SATISFACTION OF THE TENANT.
- F. WHEN WORK, NOT SPECIFICALLY CALLED OUT, IS REQUIRED TO COMPLETE THE PROJECT, IT SHALL BE PROVIDED BY THE GENERAL CONTRACTOR WITH THE BEST MATERIALS AND WORKMANSHIP.
- G. THE PROPER RECEIPT AND UNLOADING OF ALL NEW MATERIALS AND EQUIPMENT AT THE JOBSITE IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. SECURE AND SAFE STORAGE OF ALL MATERIALS AND EQUIPMENT WILL BE PROVIDED BY THE GENERAL CONTRACTOR. GENERAL CONTRACTOR SHALL ADVISE ARCHITECT & OWNER OF ALL DAMAGED, DEFICIENT OR OVERSHIPMENTS OF OWNER SUPPLIED MATERIALS. GENERAL CONTRACTOR SHALL COMPLETE AND SUBMIT ALL NECESSARY PAPERWORK AND ARRANGE INSPECTIONS OF DAMAGED GOODS AND RETURN AS PER CONSTRUCTION REQUIREMENTS.
- H. FINISHES SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO ORDERING OR INSTALLATION, WHERE DIRECTED IN THE SPECIFICATIONS.
- I. ENSURE THAT ALL SURFACES TO RECEIVE FINISHES ARE CLEAN, TRUE AND FREE OF IRREGULARITIES. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
- J. REFER TO ELEVATIONS FOR FINISHES THAT MAY NOT BE NOTED ON THE FINISH PLAN. TRANSITION IN FLOORING SHALL BE LOCATED AT CENTER OF DOOR OR OPENING UNLESS NOTED OTHERWISE (U.N.O.).
- K. PATCH, SMOOTH AND OTHERWISE PREPARE FLOOR SLAB AS REQUIRED FOR INSTALLATION OF FLOORING MATERIALS.
- L. PROVIDE RESILIENT BASE IN ALL FINISHED FLOORING AREAS UNLESS SCHEDULED OTHERWISE.
- M. DO NOT INSTALL FLOORING MATERIALS OVER EXPANSION JOINTS. PROVIDE EXPANSION JOINT COVERS.
- N. SEE FINISH SCHEDULE, INTERIOR ELEVATIONS AND REFLECTED CEILING PLANS FOR ADDITIONAL FINISH INFORMATION.
- O. CORNER GUARDS TO BE PLACED ON ALL EXTERIOR GYPSUM BOARD CORNERS. REFER TO SPECIFICATION SECTION 10 26 00 FOR ADDITIONAL INFORMATION.
- P. PROVIDE TRANSITION AT ALL CHANGES IN FLOOR MATERIALS, UNO.
- Q. PATCH, SMOOTH AND OTHERWISE PREPARE FLOOR SLAB AS REQUIRED FOR INSTALLATION OF FLOORING MATERIALS.
- R. INSTALL A SOAP DISPENSER AND PAPER TOWEL DISPENSER AT EACH SINK.
- S. THE INTENT OF THESE ELEVATIONS IS TO SHOW LOCATIONS OF MAJOR INTERIOR ELEMENTS. ELEVATIONS MAY NOT SHOW ALL ITEMS IN ALL ROOMS.
- T. SEE TYPICAL MOUNTING HEIGHTS ON SHEET I-201. VERIFY MOUNTING HEIGHTS SHOWN FOR TOILET ACCESSORIES WILL ALLOW FOR FULL OPERATION OF UNITS. NOTIFY ARCHITECT OF ANY POSSIBLE DISCREPANCIES PRIOR TO INSTALLATION.
- U. SEE INTERIOR DETAILS FOR ADDITIONAL CASEWORK INFORMATION.
- V. CASEWORK SHALL HAVE A 4" BACKSPLASH AND/OR SIDESPLASH AND 4" TOE KICK UNLESS NOTED OTHERWISE (U.N.O.).
- W. ALL CASEWORK SHALL LOCK LOCKS WITHIN A GIVEN ROOM SHALL BE KEYED ALIKE UNLESS OTHERWISE DIRECTED BY OWNER. COORDINATE MASTER KEYING AND OVERALL KEYING SCHEDULE WITH OWNER.
- X. WALL CABINETS 24" HIGH SHALL HAVE ONE ADJUSTABLE SHELF. WALL CABINETS 25"-36" HIGH SHALL HAVE TWO ADJUSTABLE SHELVES UNLESS INDICATED OTHERWISE ON ELEVATIONS.
- Y. BASE CABINETS SHALL HAVE ADJUSTABLE SHELVES AS INDICATED ON ELEVATIONS AND DETAILS (MINIMUM OF ONE SHELF).
- Z. CABINET SHELVING SHALL BE FULL DEPTH. DRAWER BOXES SHALL BE FULL HEIGHT. PROVIDE MAXIMUM DRAWER BOX DEPTH AVAILABLE.
- AA. INSTALL CHAIN STOPS IN ALL LOCATIONS WHERE CABINET DOOR IS ADJACENT TO A WALL OR OTHER OBSTRUCTION.
- BB. INSTALL FILLER PANELS WHERE REQUIRED. PROVIDE AT WALL JUNCTION TO ALLOW DOORS TO OPEN COMPLETELY (MINIMUM 100 DEGREES). FILLERS SHALL EXTEND THE FULL DEPTH OF CABINET TO CREATE A FLUSH SURFACE ON TOP AND/OR BOTTOM OF CASE. FILLER FINISH SHALL MATCH ADJACENT CASEWORK.
- CC. BASE AND TALL CABINETS SHALL BE 24" DEEP U.N.O. WALL CABINETS SHALL BE 14"-15" DEEP U.N.O.
- DD. INSTALL HEAVY-DUTY WORKSURFACE SUPPORT BRACKETS AS REQUIRED TO FULLY SUPPORT WORKSURFACE. BRACKETS SHALL BE METAL WITH WIREWAY OPENING (A&M HYBRID BRACKETS OR EQUAL). COLOR TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE.
- EE. INSTALL GROMMETS IN WORKSURFACES FOR ACCESS TO ELECTRIC AND DATA OUTLETS. COLOR TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE.
- FF. ALL FURNITURE AND EQUIPMENT SHALL BE OWNER PROVIDED U.N.O. SHOWN IN PLAN FOR REFERENCE.

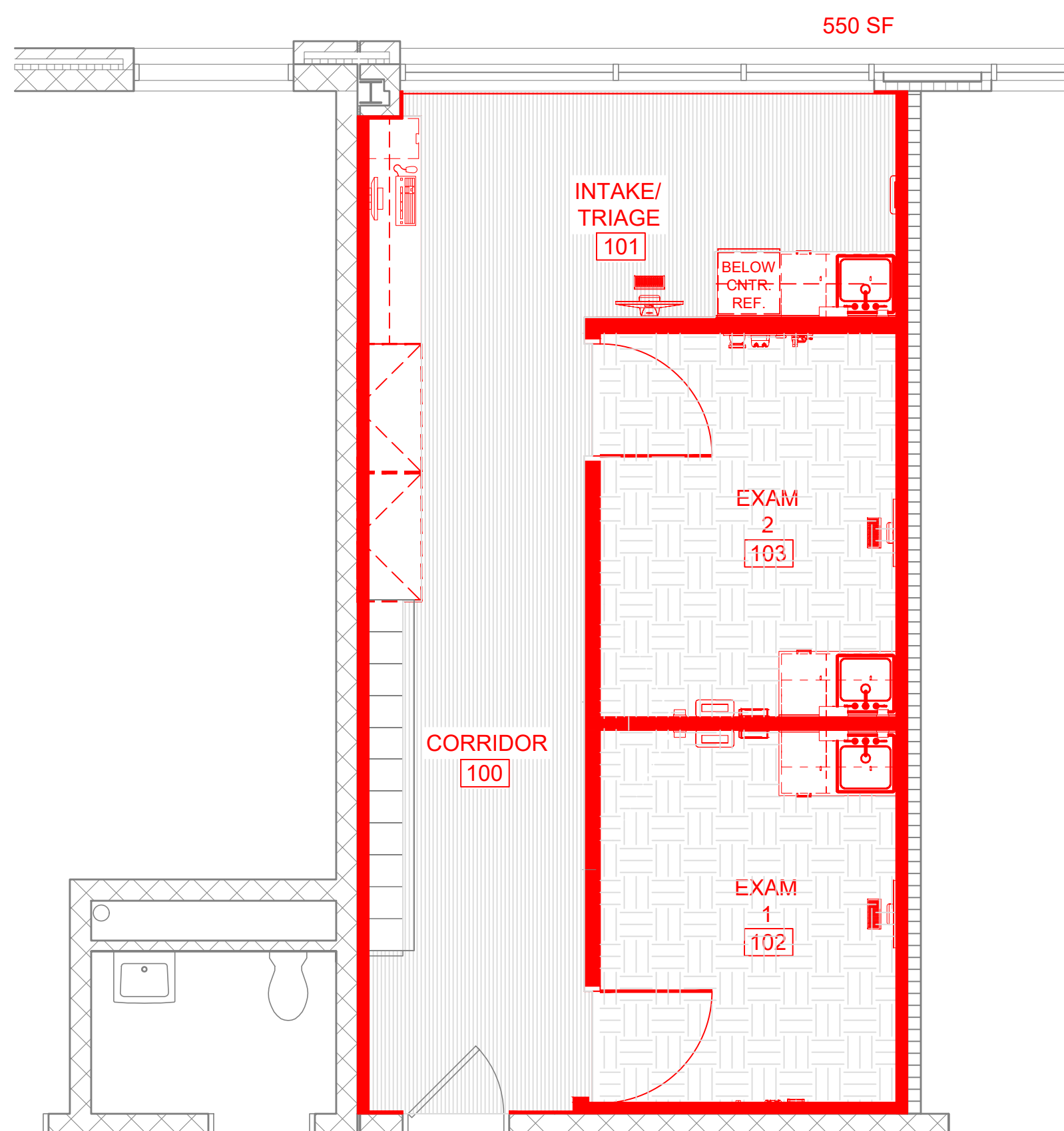
**LEGEND**

SHEET VINYL (HEAT WELDED SEAMS)

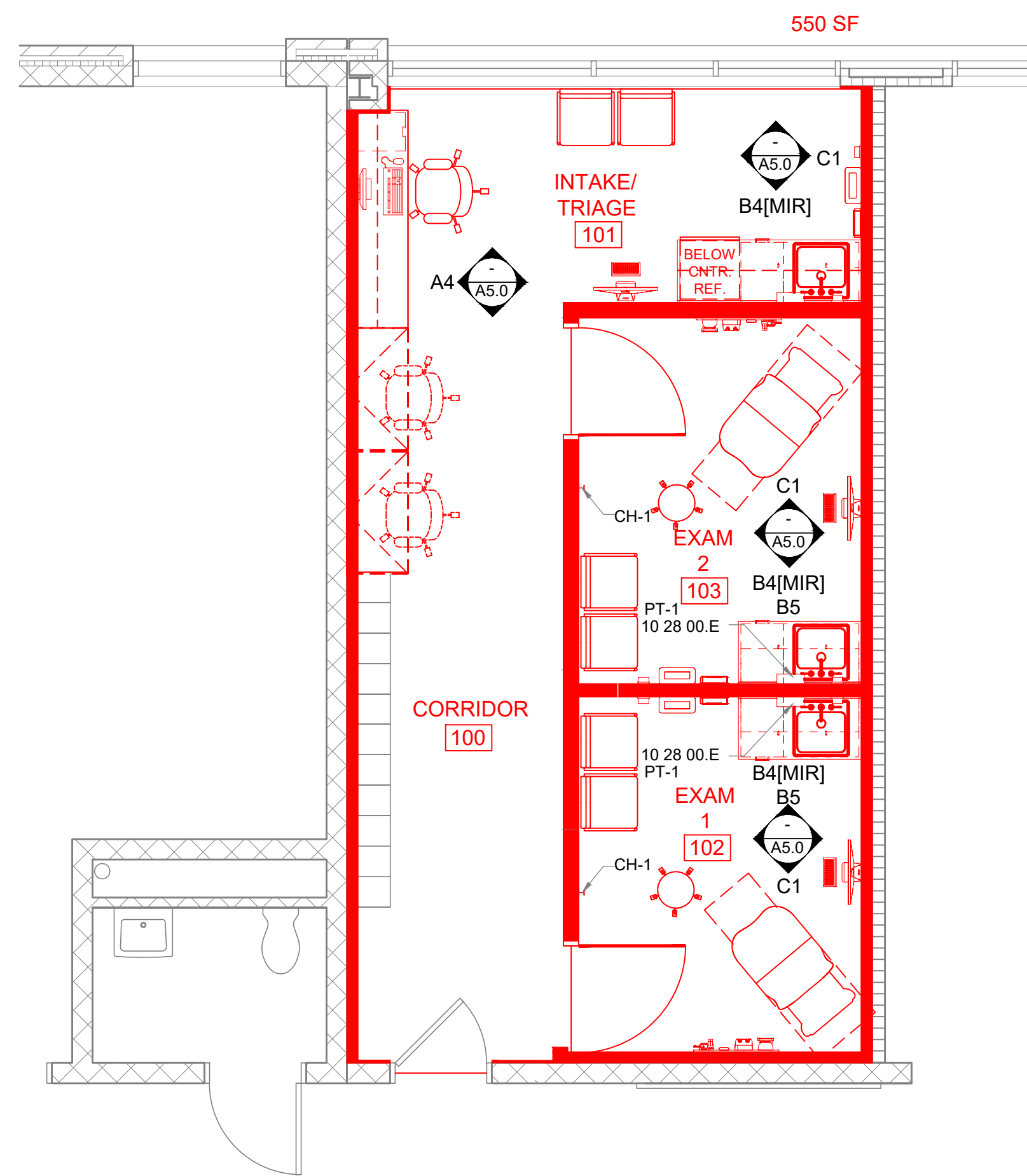


**PLAN KEYED NOTES:**

INDICATED BY ○



**1 FINISH FLOOR PLAN**  
SCALE: 1/4" = 1'-0"

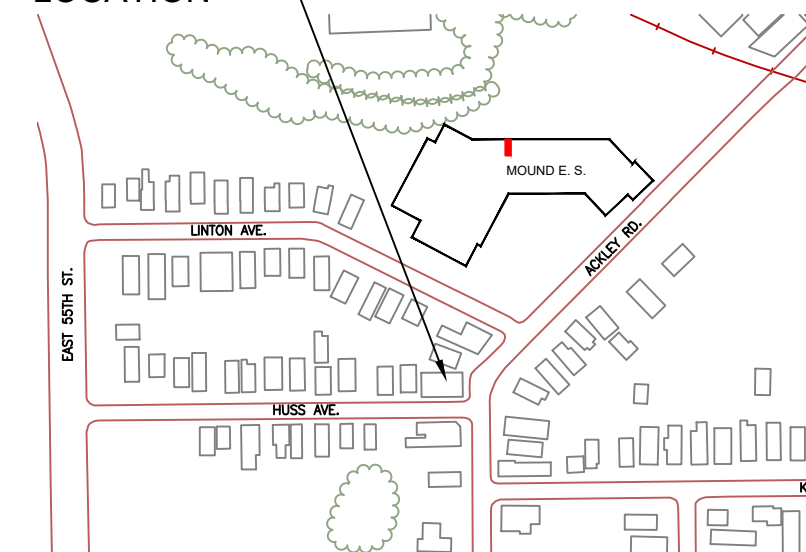


**2 FURNITURE & EQUIPMENT PLAN**  
SCALE: 1/4" = 1'-0"

**ABBREVIATIONS**

- 10-28-00 TOILET ROOM ACCESSORIES
- CH-1 COAT HOOK
- GB-1 GRAB BAR, 36"
- GB-2 GRAB BAR, 42"
- GB-3 GRAB BAR, 18"
- M-1 MIRROR 24"x60"
- PT-1 PAPER TOWEL DISPENSER
- SUD-1 SANITARY UNIT DISPOSAL
- TP-1 TOILET TISSUE DISPENSER
- P-X PAINT COLOR [09 91 23]
- PL-X PLASTIC LAMINATE COLOR

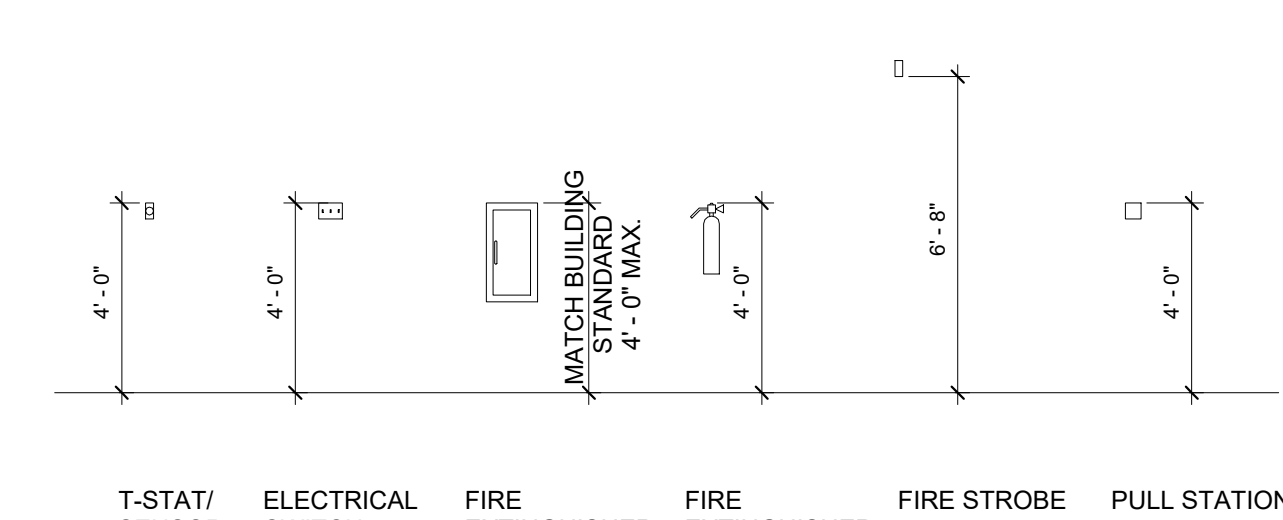
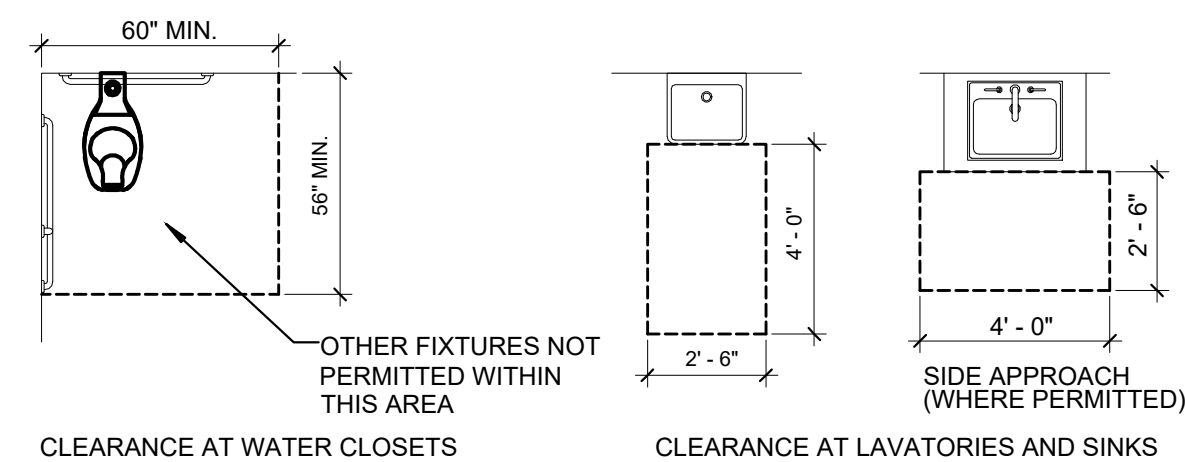
**PROJECT LOCATION**



**KEY PLAN**

SCALE: NTS





MATERIAL SPECIFICATION SCHEDULE						
FINISH TAG	FINISH MATERIAL TYPE	FINISH SPEC SECTION	FINISH MANUFACTURERS	FINISH PRODUCT NAMES	FINISH PRODUCT NUMBERS	FINISH SIZES
<b>FLOORING</b>						
RB-1	RUBBER WALL BASE	096513 RESILIENT BASE AND ACCESSORIES	JOHNSONITE	TRADITIONAL COVED WALL BASE	GATEWAY WG T44	4" HIGH
RB-2	RUBBER WALL BASE	096513 RESILIENT BASE AND ACCESSORIES	JOHNSONITE	TRADITIONAL COVED WALL BASE	GATEWAY WG T44	6" HIGH
SV-1	SHEET VINYL FLOOR	096516 RESILIENT SHEET FLOORING	TARKETT	ACCZENT - ZEN	GREY 82022	
SV-2	SHEET VINYL FLOOR	096516 RESILIENT SHEET FLOORING	TARKETT	ACCZENT - PROSPER	REFLECTION CG 25083.308	
<b>WALL</b>						
P-1	FIELD PAINT	099123 INTERIOR PAINTING	SHERWIN WILLIAMS	N/A	ALABASTER SW7098	
P-2	ACCENT PAINT	099123 INTERIOR PAINTING	SHERWIN WILLIAMS	N/A	SLEEPY HOLLOW SW9145	
P-3	ACCENT PAINT	099123 INTERIOR PAINTING	SHERWIN WILLIAMS	N/A	RECYCLED GLASS SW7747	
P-4	ACCENT PAINT	099123 INTERIOR PAINTING	SHERWIN WILLIAMS	N/A	SMOKY AZURITE SW9148	
P-5	ACCENT PAINT	099123 INTERIOR PAINTING	SHERWIN WILLIAMS	N/A	GRECIAN IVORY SW7541	
P-6	DOOR FRAME PAINT	099123 INTERIOR PAINTING	SHERWIN WILLIAMS	N/A	URBANE BRONZE SW7048	
<b>CASEWORK</b>						
PL-1	PLASTIC LAMINATE	123216 MANUFACTURED PLASTIC LAMINATE CLAD CASEWORK	WILSONART	N/A	PORTICO TEAK 8210K-28 (GLOSS LINE FINISH) N/A	N/A
PL-2	PLASTIC LAMINATE	123216 MANUFACTURED PLASTIC LAMINATE CLAD CASEWORK	WILSONART	N/A	STEEL MESH 4879-38 (FINE VELVET FINISH) N/A	N/A
PL-3	PLASTIC LAMINATE	123216 MANUFACTURED PLASTIC LAMINATE CLAD CASEWORK	WILSONART	N/A	TAILORED LINEN 4992-38 (FINE VELVET FINISH) N/A	N/A
SS-1	SOLID SURFACE COUNTERTOP	123661.16 SOLID SURFACING COUNTERTOP	CORIAN	N/A	VENARO WHITE	N/A

ROOM FINISH SCHEDULE							
ROOM NUMBER	ROOM NAME	FLOOR FINISH	BASE	WALL FINISH- selection by Owner			
				NORTH	SOUTH	EAST	WEST
100	WAITING RM	SV-2	RB-1				
101	CHECK-IN	SV-2	RB-1				
102	TRIAGE / INTAKE	SV-1	RB-1				
103	EXAM / CONSULT RM	SV-2	RB-1				
104	EXAM RM	SV-2	RB-1				
105	EXAM RM	SV-2	RB-1				
106	STAFF BREAKROOM	SV-1	RB-1				
107	CORRIDOR	SV-1	RB-1				
108	STORAGE	SV-2	RB-1				
109	P.O.C. TESTING / MEDS	SV-2	RB-2				
110	ADA TOILET	SV-2	RB-1				
111	STAFF WORKROOM	SV-2	RB-1				

**GENERAL NOTES**

- A. ALL OUTSIDE CORNERS OF GYPSUM BOARD WALLS SHALL RECEIVE CORNER GUARDS. INSTALL CORNER GUARDS AT TOP OF BASE.
- B. PROVIDE TRANSITIONS AT ALL CHANGES IN FLOORING FINISH. U.N.O.
- C. FLOOR MATERIALS AND/OR COLOR CHANGES BETWEEN ROOMS OR SPACES SHALL TRANSITION AT CENTER OF DOOR OR OPENING UNLESS NOTED OTHERWISE (U.N.O.).
- D. ALL CASEWORK, COUNTERTOP, ACCESS PANELS, STRUCTURAL STEEL, ETC. SHALL BE PAINTED TO MATCH WALL OR CEILING U.N.O.
- E. INTERIOR HOLLOW METAL WINDOW FRAMES SHALL BE PAINTED TO MATCH DOOR FRAMES U.N.O.
- F. FINISH SCHEDULE CALLS OUT PAINT COLOR ONLY. SEE SPECIFICATIONS FOR PAINT TYPE AND SHEEN.
- G. SEE INTERIOR PLANS FOR ADDITIONAL ACCENT PAINT COLORS AND LOCATIONS.
- H. SEE INTERIOR PLANS FOR FLOOR PATTERNS AND ACCENT PAINT LOCATIONS.
- I. SEE REFLECTED CEILING PLANS FOR SOFFIT PAINT COLORS.
- J. PAINT INTERIOR DOOR FRAMES AND HOLLOW METAL DOORS P-X U.N.O.
- K. DO NOT INSTALL FLOORING MATERIALS OVER EXPANSION JOINTS. PROVIDE EXPANSION JOINT COVERS.
- L. ALL CASEWORK SHALL LOCK, LOCKS WITHIN A GIVEN ROOM SHALL BE KEYS ALIKE UNLESS OTHERWISE DIRECTED BY OWNER. COORDINATE MASTER KEYING AND OVERALL KEYING SCHEDULE WITH OWNER.
- M. CASEWORK SHALL HAVE A 4" BACKSPLASH AND/OR SIDESPLASH AND 4" TOE KICK UNLESS NOTED OTHERWISE (U.N.O.).
- N. WALL CABINETS 24" HIGH SHALL HAVE ONE ADJUSTABLE SHELF. WALL CABINETS 25"-36" HIGH SHALL HAVE TWO ADJUSTABLE SHELVES UNLESS INDICATED OTHERWISE ON ELEVATIONS.
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- U. INSTALL GROMMETS IN WORKSURFACES FOR ACCESS TO ELECTRIC AND DATA OUTLETS. COLOR TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE.
- V. INSTALL A SOAP DISPENSER AND PAPER TOWEL DISPENSER AT EACH SINK.
- W. THE INTENT OF THESE ELEVATIONS IS TO SHOW LOCATIONS OF MAJOR INTERIOR ELEMENTS. ELEVATIONS MAY NOT SHOW ALL ITEMS IN ALL ROOMS.
- X. ALL FURNITURE AND EQUIPMENT SHALL BE OWNER PROVIDED U.N.O.

**REFERENCED KEYNOTES**

- 09 65 13.A RESILIENT BASE
- 12 32 16.B1A ACCESSIBLE SINK BASE
- 12 32 16.B3 DOOR/DRAWER BASE
- 12 32 16.B4 DRAWER BASE
- 12 32 16.F FILLER PANEL
- 12 32 16.W1 WALL CABINET
- 12 36 61.16.A SOLID SURFACE MATERIAL COUNTERTOP
- 06 40 23 INTERIOR ARCHITECTURAL WOODWORK
- 08 87 00 ARCHITECTURAL WINDOW FILMS
- 09 51 13 ACOUSTICAL PANEL CEILINGS
- 09 65 13 RESILIENT BASE AND ACCESSORIES
- 09 65 16 RESILIENT SHEET FLOORING
- 09 91 23 INTERIOR PAINTING
- 10 26 00 WALL AND DOOR PROTECTION
- 10 29 00 TOILET, BATH, AND LAUNDRY ACCESSORIES
- 12 32 16 MANUFACTURED PLASTIC-LAMINATE CLAD CASEWORK
- 12 36 61.16 SOLID SURFACING COUNTERTOPS

**E2 TYPICAL MOUNTING HEIGHTS**  
1/4" = 1'-0"

**E1 TYPICAL PLUMBING FIXTURE MOUNTING HEIGHTS**  
1/4" = 1'-0"

**D1 WORK SURFACE 12 32 16.A4**  
1/2" = 1'-0"

**C1 TYPICAL EXAM ROOM**  
1/4" = 1'-0"

**B1 P.O.C. TESTING / MEDS**  
1/4" = 1'-0"

**A1 101 CHECK-IN - NORTH**  
1/4" = 1'-0"

**E3 ACCESSIBLE WATER CLOSET**

**E4 ACCESSIBLE LAVATORY**

**D2 DOOR/DRAWER BASE CABINET**  
1/2" = 1'-0"

**C2 CHECK-IN DESK ELEVATION**  
1/4" = 1'-0"

**B2 P.O.C. TESTING / MEDS - SOUTH**  
1/4" = 1'-0"

**A2 102 TRIAGE / INTAKE - NORTH**  
1/4" = 1'-0"

**E5 WALL CABINET 12 32 16.W1**  
1" = 1'-0"

**D3 CHECK-IN DESK SECTION**  
1/2" = 1'-0"

**C3 CHECK-IN DESK ELEVATION**  
1/4" = 1'-0"

**B3 P.O.C. TESTING / MEDS - WEST**  
1/4" = 1'-0"

**A3 102 TRIAGE / INTAKE - SOUTH**  
1/4" = 1'-0"

**E6 ACCESSIBLE STANDARD**

**D4 CHECK-IN DESK SECTION**  
1/2" = 1'-0"

**C4 (3) DRAWER BASE CABINET 12 32 16.B4**  
1/2" = 1'-0"

**B4 TYPICAL EXAM ROOM**  
1/4" = 1'-0"

**A4 106 STAFF BREAKROOM - NORTH**  
1/4" = 1'-0"

**E7 SOLID SURFACE COUNTERTOP DETAIL**  
6" = 1'-0"

**C5 ADA SINK BASE 12 32 16.B1A**  
1/2" = 1'-0"

**B5 TYPICAL EXAM ROOM**  
1/4" = 1'-0"

**A5 CHECK-IN DESK ELEVATION**  
1/4" = 1'-0"

**ABBREVIATIONS**

- P PAINT
- PC POLISHED CONCRETE
- PL PLASTIC LAMINATE
- RB RESILIENT BASE
- SS SOLID SURFACE
- SV SHEET VINYL
- CH-1 COAT HOOK
- GB-1 GRAB BAR, 36"
- GB-2 GRAB BAR, 42"
- GB-3 GRAB BAR, 18"
- M-1 MIRROR 24"x60"
- PT-1 PAPER TOWEL DISPENSER
- SUD-1 SANITARY UNIT DISPOSAL
- TP-1 TOILET TISSUE DISPENSER

**PLAN KEYNOTES**

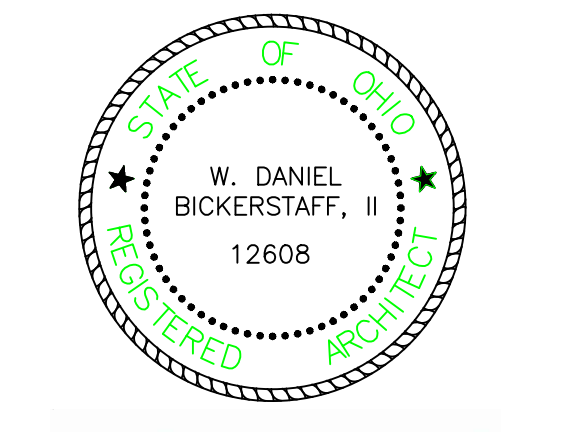
- 1. 1/2 PLYWOOD SUBSTRATE
- 2. 1/2" MILLWORK REVEAL, STAINLESS STEEL MFG: FRY REGLET, OR EQUAL
- 3. 1/2" RADIUS
- 4. 1/2" SOLID SURFACE COUNTER ON PLYWOOD SUBSTRATE
- 5. 4" HIGH (U.N.O.) AND 1/2" THICK BACKSPLASH
- 6. ADJUSTABLE SHELF
- 7. BLOCKING AS REQUIRED
- 8. CABLE TRAY CHASE
- 9. CEILING. REFER TO REFLECTED CEILING PLAN FOR ADDITIONAL INFORMATION
- 10. DRAWERS SIDES SHALL BE FULL HEIGHT WITH INTEGRAL FILE RAILS
- 11. DRAWERS SIDES SHALL BE FULL HEIGHT
- 12. GROMMETS
- 13. METAL SUPPORT BRACKET. MFG: A&M HARDWARE, HYBRID WORKSTATION BRACKET OR EQUAL
- 14. PLUM ENCLOSURE ABOVE WALL CABINET. FACE OF ENCLOSURE SHALL BE FLUSH WITH FRONT AND SIDE OF WALL CABINET AND EXTEND TO UNDERSIDE OF CEILING. PLUM ON 3/4" PLYWOOD, FASTENED TO STUD FRAME WITH CONCEALED FASTENERS
- 15. PROVIDE PROTECTION AT KNEE CLEARANCE. SINK SHALL NOT BE EXPOSED
- 16. PROVIDE STRUCTURAL SUPPORT AS REQUIRED
- 17. REMOVABLE ACCESS PANEL
- 18. RESILIENT BASE
- 19. TACKBOARD
- 20. WORKSURFACE
- 21. FOR WALL FINISH. REFER TO ROOM FINISH SCHEDULE
- 22. PROVIDE 2"-6" CLEAR. COORDINATE WITH OWNER PROVIDED EQUIPMENT
- 23. MITER CORNER TO PROVIDE WATERFALL EDGE



Project Team:

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Holder: **EDUCATOR, Exec. Dir.**  
Architectural Projects, Capital Projects

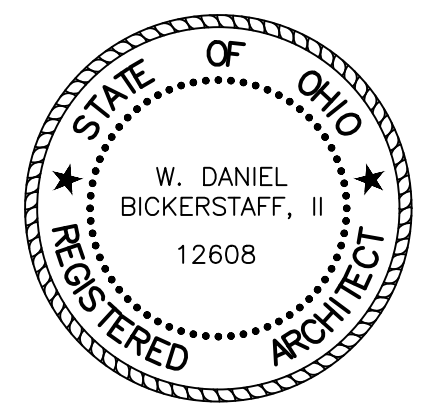
**INTERIOR ELEVATIONS AND SCHEDULES**

Date: 08.26.2022



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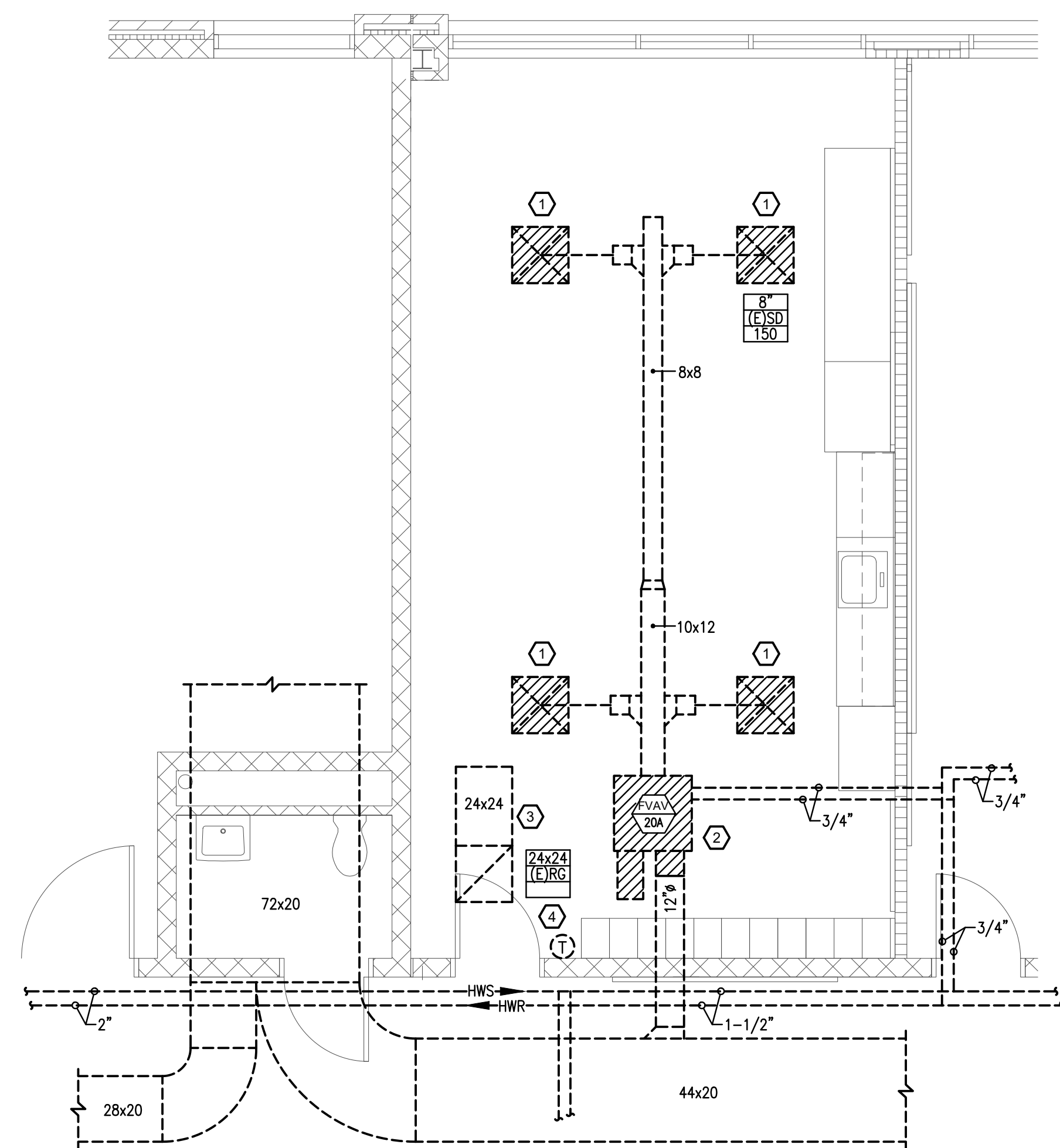
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**GENERAL H.V.A.C. NOTES:**

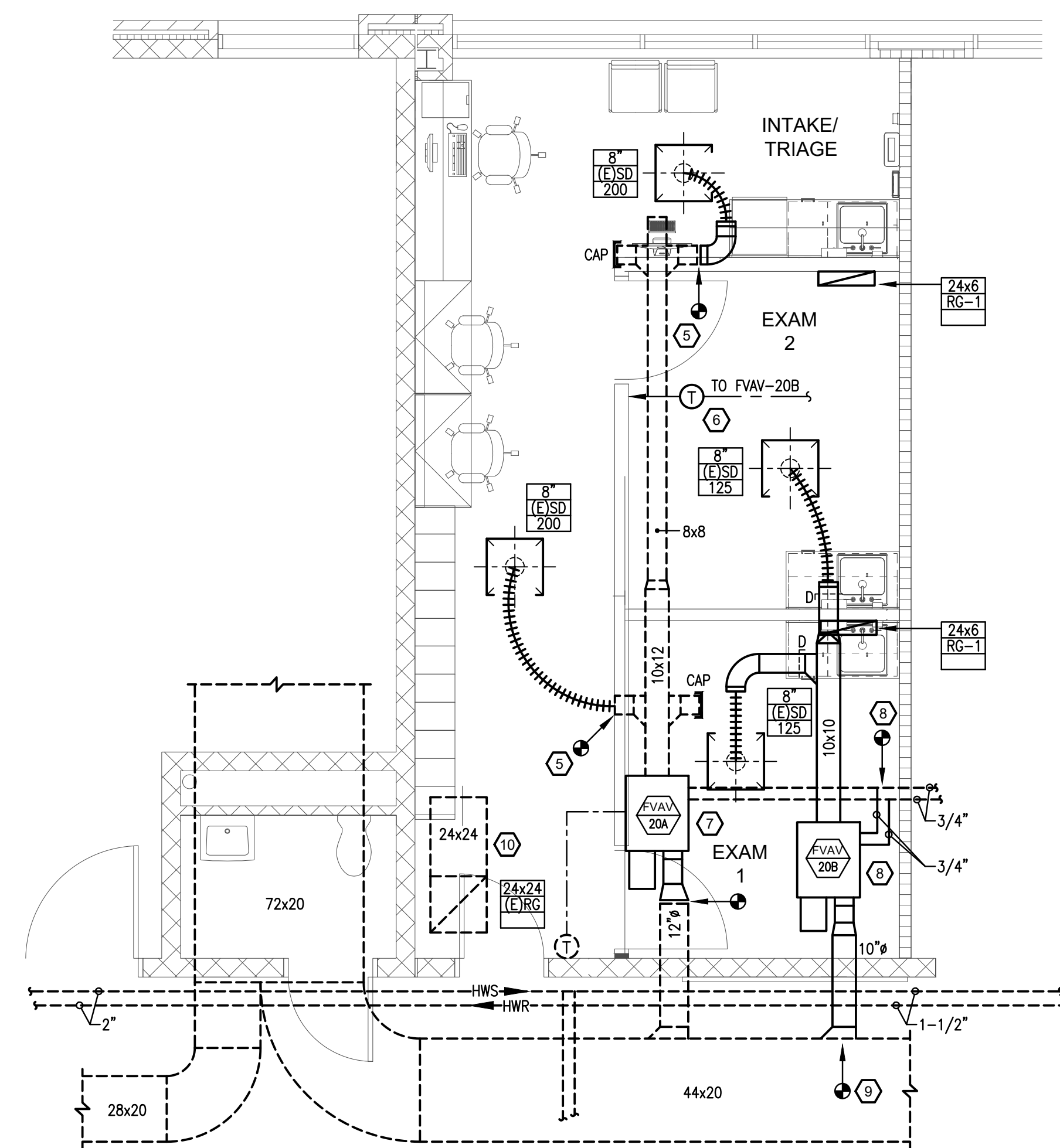
- ALL ROUND BRANCH DUCT CONNECTIONS TO THE MAIN DUCT SHALL BE MADE WITH CONICAL SPIN-IN FITTINGS.
- TRANSITION SA & RA DUCTWORK TO FURNACE AND ALL FAN CONNECTION SIZES. REFER TO PLAN FOR DUCT SIZES.
- PROVIDE TURNING VANES AT ALL SQUARE AND RECTANGULAR DUCT ELBOWS.
- PROVIDE BALANCING DAMPERS IN ALL BRANCH DUCT CONNECTIONS TO GRILLES, REGISTERS AND DIFFUSERS.
- VERIFY LOCATION OF ROOM THERMOSTAT WITH THE OWNER.
- BRANCH DUCTWORK TO DIFFUSERS, GRILLES AND REGISTERS ARE TO BE SAME SIZE AS THE NECK OR INLET OPENINGS.
- RIGID SHEET METAL DUCTWORK IS REQUIRED FOR ALL EXPOSED DUCTWORK.
- INSTALL ALL EQUIPMENT REQUIRING AN ELECTRICAL CONNECTION TO ENSURE THAT PROPER CLEARANCE IS PROVIDED FOR SERVICING IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE.
- USE OF FLEXIBLE DUCTWORK FOR BRANCH RUNOUTS TO DIFFUSERS SHALL BE LIMITED TO 6'-0" LONG.

**PLAN CODED NOTES:**

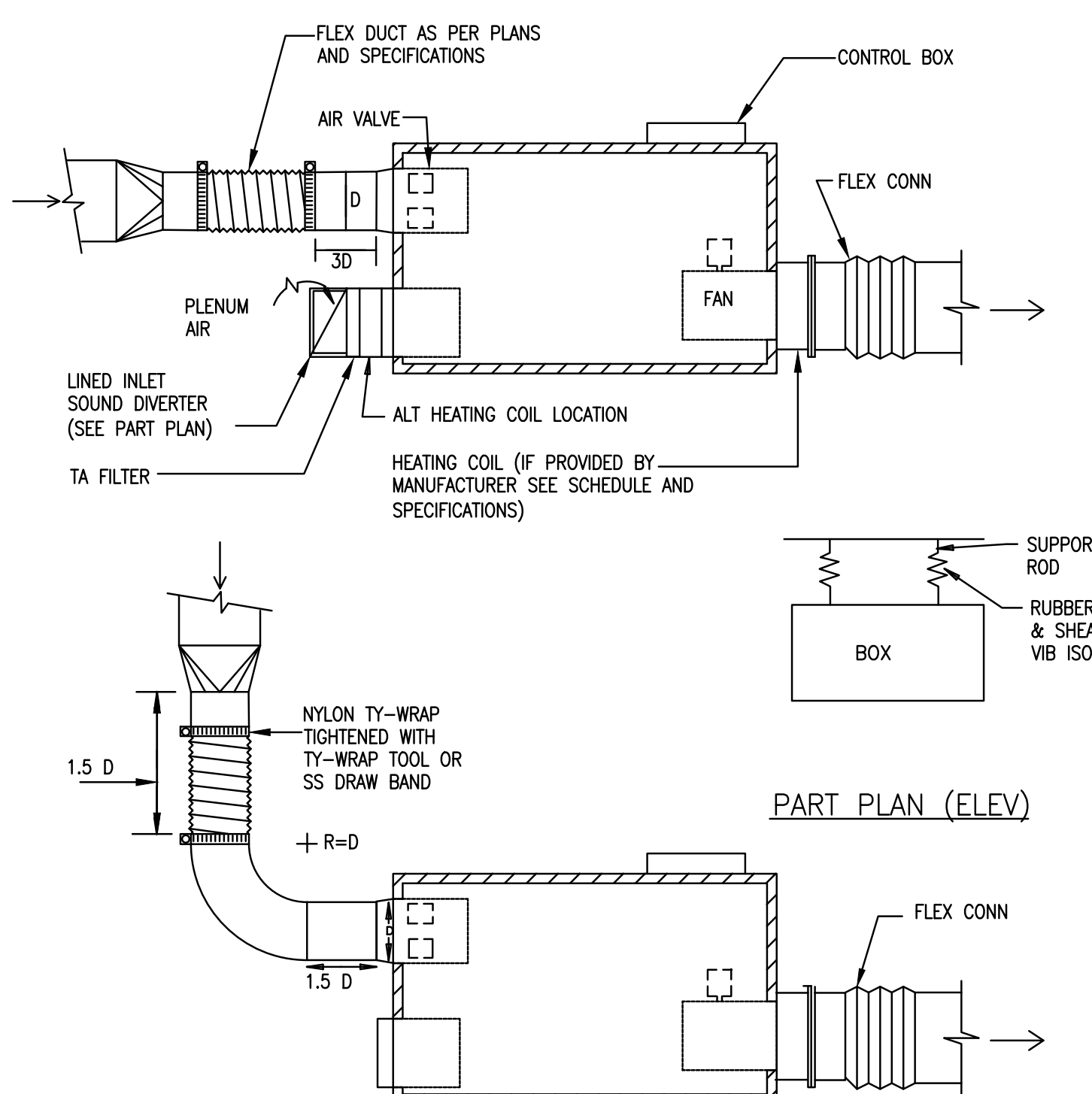
- EXISTING SUPPLY DIFFUSER TO BE REMOVED & RELOCATED.
- EXISTING FAN POWERED VAV BOX TO BE REMOVED. DISCONNECT EXISTING HWS/HWR PIPING & MAIN SYSTEM SUPPLY AIR. PREP FOR NEW FVAV BOX INSTALLATION. REFER TO NEW PLAN.
- EXISTING RETURN AIR DUCT W/ GRILLE TO BE REMOVED & RELOCATED.
- EXISTING THERMOSTAT TO REMAIN.
- NEW 8" SUPPLY DUCT, CONNECT TO EXISTING.
- NEW THERMOSTAT FOR FVAV-20B MOUNTED AT 48" AFF. COORDINATE WITH BUILDING'S EXISTING TEMPERATURE CONTROL SYSTEM & MATCH EXISTING DEVICES.
- NEW FVAV-20A. REFER TO SCHEDULE. RECONNECT MAIN SUPPLY AIR, 10x12 DISCHARGE DUCT & EXISTING HWS/HWR PIPING AS REQ'D.
- NEW FVAV-20B. REFER TO SCHEDULE. CONNECT NEW 3/4" HWS/HWR PIPING TO EXISTING BRANCH PIPING AS REQ'D. REFER TO PIPING DETAIL.
- NEW 10" SUPPLY DUCT TO CONNECT TO EXISTING 44x20 MAIN.
- RELOCATED EXISTING RETURN DUCT & GRILLE.



1 FLOOR PLAN - H.V.A.C. DEMOLITION  
 M-1 SCALE: 1/4"=1'-0" NORTH



2 FLOOR PLAN - NEW H.V.A.C.  
 M-1 SCALE: 1/4"=1'-0" NORTH

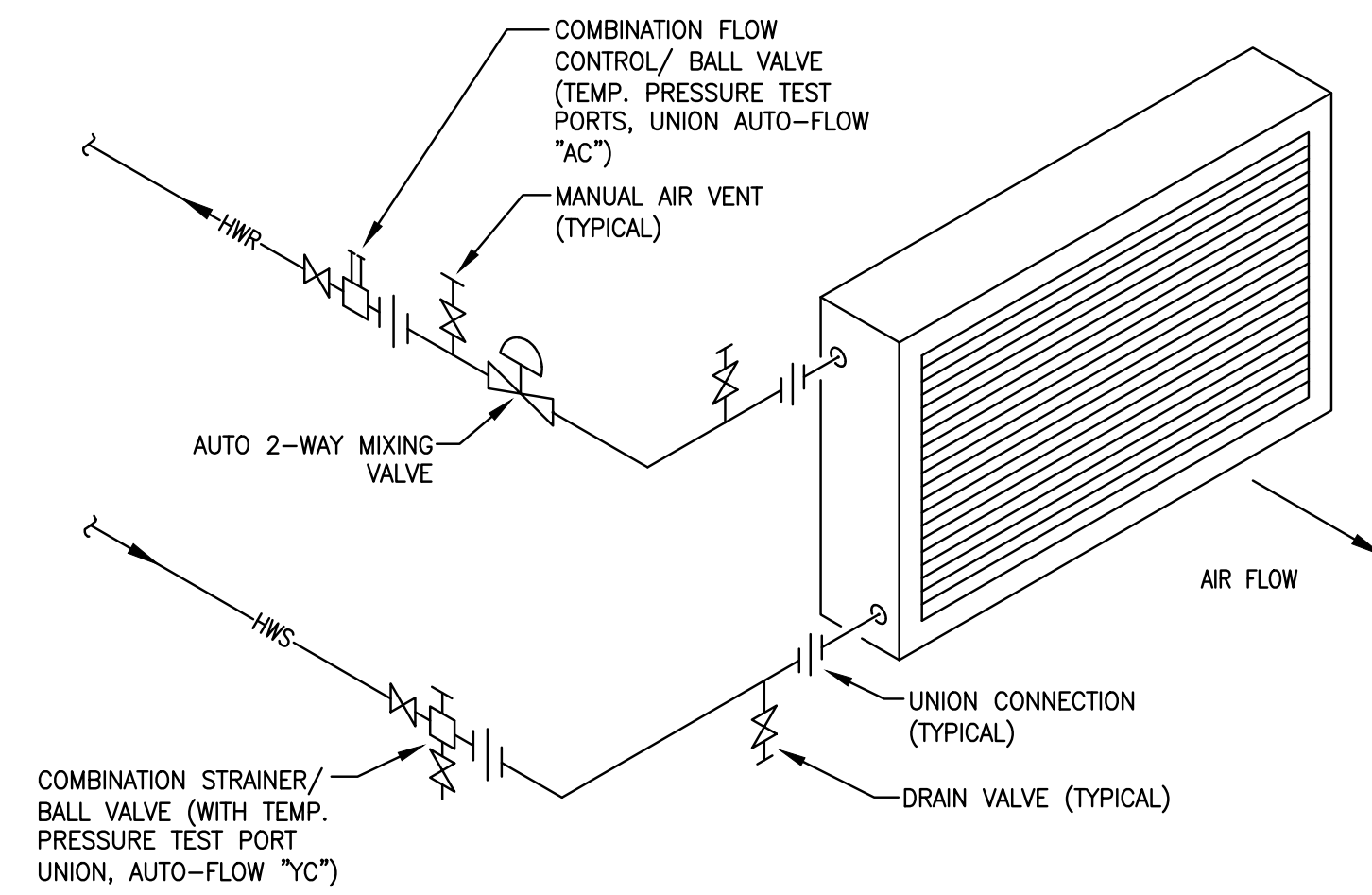


- NOTES:
- BOXES WITH INTERNAL VIBRATION ISOLATORS MUST BE HARD DUCTED.
  - BOX SENSOR SHALL BE ORIENTED IN SAME PLANE AS ELBOW AND BE WITHIN 10' OF HORIZONTAL OR PER MANUFACTURER'S RECOMMENDATION.
  - FOR BOXES WHERE MANUFACTURER CAN NOT PROVIDE INTERNAL VIBRATION ISOLATORS USE FLEX DUCT AS SHOWN. LENGTH OF FLEX DUCT SHALL NOT EXCEED 12'.
  - OFFSETS WITH FLEX DUCT SHALL NOT EXCEED 30" AND SHALL BE GRADUAL. OFFSETS IN EXCESS OF 30" AND SHALL BE HARD DUCTED.
  - FLEX DUCT SHALL NOT HAVE MORE THAN 1/2" SAG.
  - PROVIDE FLOW STRAIGHTENER IF STRAIGHT RUN CANNOT BE MAINTAINED.

SPACE NAME	OCCUPANCY CLASSIFICATION (TABLE 403.3)	SPACE FLOOR AREA (102) (A <sub>s</sub> )	AREA OUTDOOR AIR RATE (CFM/102) (R <sub>o</sub> )	TIME AVG'D OCCUPANCY (PEOPLE) (P <sub>z</sub> )	PEOPLE OUTDOOR AIR RATE (CFM/PERSON) (R <sub>p</sub> )	SPACE OUTDOOR AIR RATE (CFM) (V <sub>oz</sub> )
INTAKE/TRIAGE	EXAM RM	300	0.06	4	5	38
EXAM 1	EXAM RM	115	0.06	2	5	17
EXAM 2	EXAM RM	115	0.06	2	5	17
NOTES:						CALC TOTAL = 72
1. EXISTING AHU-3 IS CONFIGURED TO PROVIDE 70% MIN. OUTSIDE AIR W/ ENERGY RECOVERY SYSTEM.						ACTUAL PROVIDED = 279
2. FVAV-20A MIN CFM SETTING OF 200 CFM @ 70% O.A. = 140 CFM OF O.A.; 38 CFM IS REQ'D.						
3. FVAV-20B MIN CFM SETTING OF 50 CFM @ 70% O.A. = 35 CFM OF O.A.; 34 CFM IS REQ'D.						

MARK	PURPOSE	MANUFACTURER	MODEL	MATERIAL	SURFACE	FACE	MAX NC	NOTES
RG-1	RETURN	PRICE	535	STEEL	LAY-IN	SEE SIZES	25	

REMARKS:  
 1. CONTRACTOR SHALL CONFIRM EXACT LOCATION OF GRILLES WITH GENERAL CONTRACTOR & ARCHITECTURAL REFLECTED CEILING PLAN PRIOR TO ANY WORK.



3 WATER COIL W/ 2-WAY VALVE DETAIL  
 M-1 SCALE: 1/4"=1'-0"

MARK	MANUFACTURER	MODEL NO.	TYPE	INLET SIZE	UNIT SIZE	MIN CFM	MAX CFM	HEATING (MBH)	GPM	EAT/LAT	EWT/LWT	WPD	FAN CFM	FAN ESP	FAN HP	ELEC. V/PH.	NOTES
FVAV-20A	TITUS	DIFS-F	SERIES FVAV	6"	B	50	250	6.0	0.5	63.8/80.7	140/100	0.15	250	0.4	1/8	277/1	1
FVAV-20B	TITUS	DIFS-F	SERIES FVAV	8"	B	200	400	9.0	1.0	64.1/80.1	140/100	0.15	400	0.4	1/8	277/1	1

NOTES:  
 1. INCLUDES INLET VELOCITY SENSOR WITH CENTER AVERAGING, AND 24 VOLT VALVE ACTUATOR.

4 FAN BOX CONNECTIONS (SERIES)  
 M-1 SCALE: 1/4"=1'-0"

PERMIT ISSUANCE WDB, II 08.26.2022

**MOUND ELEMENTARY SCHOOL**

Interior Alteration

New MetroHealth  
 ODH  
 SBHC  
 Health Care Expansion Program

5935 Ackley Road  
 Cleveland, OH 44105



MEDICAL CENTER  
 2500 METROHEALTH DR.  
 CLEVELAND, OH 44109

Checked by: DB  
 Date: WDB, II

**H.V.A.C FLOOR PLANS, SCHEDULES & DETAILS**



200100 GENERAL MECHANICAL REQUIREMENTS

- 1.1 GENERAL NOTE:**  
A. THIS SPECIFICATION SECTION APPLIES TO PLUMBING WORK AND HVAC WORK. CONTRACTOR SHALL USE THESE PARAGRAPHS THAT APPLY TO HIS WORK.
- 1.2 GENERAL CONDITIONS:**  
A. THE REQUIREMENTS OF THE GENERAL CONDITIONS, INSTRUCTIONS TO BIDDERS AND GENERAL REQUIREMENTS ARE A PART OF THIS CONTRACT.
- 1.3 SEQUENCE OF CONSTRUCTION:**  
A. A SEQUENCE OF CONSTRUCTION INDICATING THE MANNER IN WHICH THE WORK IN VARIOUS AREAS WILL BE PERFORMED SHALL BE AS OUTLINED IN THE CONSTRUCTION SCHEDULE PREPARED BY THE ARCHITECT OR AS SHALL BE PREPARED BY THE GENERAL CONTRACTOR.
- 1.4 VISIT THE SITE:**  
A. THIS WORK INVOLVES ACCORD TO EXISTING BUILDING. CONTRACTOR SHALL VISIT THE SITE DURING BIDDING PERIOD AND BECOME FAMILIAR WITH EXISTING CONDITIONS AFFECTING HIS WORK. THE SUBMISSION OF HIS PROPOSAL SHALL BE CONSIDERED AS INDICATING SUCH KNOWLEDGE. NO ADDITIONAL PAYMENT WILL BE MADE ON CLAIMS THAT ARISE OF A LACK OF KNOWLEDGE OF THE EXISTING CONDITIONS.
- 1.5 CODES AND PERMITS:**  
A. INSTALL ALL WORK IN FULL ACCORDANCE WITH CODES, RULES AND REGULATIONS OF MUNICIPAL COUNTY, STATE, PUBLIC UTILITY, AND ALL OTHER AUTHORITIES HAVING JURISDICTION OVER THE PREMISES (I.E. OBC, OHIO PLUMBING CODE, AMERICANS WITH DISABILITIES GUIDELINES, ASHRAE, SMACNA, NFPA, NEC, ETC.)  
B. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND CERTIFICATES OF INSPECTION REQUIRED FOR HIS WORK BY THE FOREGOING AUTHORITIES. ALL SUCH CERTIFICATES SHALL BE DELIVERED TO THE ARCHITECT IN DUPLICATE BEFORE FINAL PAYMENT ON CONTRACT WILL BE ALLOWED.  
C. CONTRACTOR SHALL PROVIDE ALL NECESSARY COMPONENTS AS REQUIRED BY LOCAL CODES TO PROVIDE COMPLETE SYSTEM.
- 1.6 WORK INCLUDED:**  
A. THE WORK REQUIRED UNDER THIS SPECIFICATION SHALL CONSIST OF ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, POWER, TRANSPORTATION, HOISTING IMPLEMENTS, ETC. OF EVERY DESCRIPTION NECESSARY FOR THE ENTIRE COMPLETION OF THE MECHANICAL WORK OF THIS CONTRACT, ALL AS SPECIFIED HEREIN, SHOWN ON THE DRAWINGS OR REASONABLY IMPLIED BY EITHER, COMPLETE IN EVERY RESPECT UNLESS SPECIFICALLY EXCEPTED HEREIN. THE WORK INCLUDED IN THIS CONTRACT SHALL CONSIST OF THE INSTALLATION, TEST AND GUARANTEE OF ALL WORK. AT ALL TIMES KEEP PREMISES AND BUILDING IN NEAT AND ORDERLY CONDITION; FOLLOW EXPLICITLY ANY INSTRUCTIONS OF GENERAL CONTRACTOR IN REGARD TO STORING OF MATERIALS, PROTECTIVE MEASURES AND DISPOSING OF DEBRIS.  
B. CONTRACTOR SHALL EXAMINE THE WORK OF OTHER TRADES THAT COMES IN CONTACT WITH OR IS COVERED BY THIS WORK. CONTRACTOR SHALL IN NO CASE ATTACH TO, COVER UP, OR FINISH AGAINST ANY DEFECTIVE WORK, OR INSTALL HIS WORK IN A MANNER THAT WILL PREVENT PROPER INSTALLATION OF THE WORK OF OTHER TRADES. CONTRACTOR SHALL CONSULT ALL DRAWINGS, SPECIFICATIONS AND DETAILS OF OTHER DIVISIONS OF THE WORK ON THIS PROJECT SHALL CONFORM TO ALL REQUIREMENTS OF SAME AFFECTING HIS WORK. CONTRACTOR SHALL DO ALL PLUMBING, HEATING VENTILATING AND AIR CONDITIONING WORK NECESSARY TO BE DONE IN CONNECTION WITH THE INSTALLATION OF OTHER DIVISIONS OF THE WORK UNLESS SPECIFICALLY OTHERWISE SPECIFIED UNDER THIS DIVISION. LACK OF COORDINATING WORK WILL NOT BE ACCEPTED AS CAUSE FOR ADDITIONAL COMPENSATION.
- 1.7 WORK BY OTHERS:**  
A. ALL WALL AND FLOOR OPENINGS SHALL BE PROVIDED BY THE GENERAL CONTRACTOR, BUT CONTRACTOR SHALL INSTRUCT THE GENERAL CONTRACTOR AS TO THE EXACT SIZE AND LOCATION OF SUCH OPENINGS.  
B. PAINTING SHALL BE WORK OF GENERAL TRADES CONTRACTOR.
- 1.8 LAYOUT OF WORK:**  
A. CONTRACTOR SHALL BE GOVERNED BY THE GENERAL, MECHANICAL, ELECTRICAL AND STRUCTURAL DRAWINGS AND EXISTING CONDITIONS AND SHALL COORDINATE HIS WORK WITH ALL OTHER SUB-TRADES DURING CONSTRUCTION AND PRIOR TO ANY EQUIPMENT INSTALLATION. THE FINAL LOCATIONS OF ALL EQUIPMENT, DIFFUSERS, ETC., ARE SUBJECT TO REASONABLE CHANGES BY THE ARCHITECT OR OWNER BEFORE ROUGHING-IN AT NO ADDITIONAL COST TO THE OWNER.  
B. CONTRACTOR SHALL VERIFY ALL MEASUREMENTS AT THE BUILDING SITE BEFORE STARTING FABRICATION OR DOING ANY WORK IN THE FIELD AND SHALL BE RESPONSIBLE FOR THE CORRECT AND PROPER MEASUREMENTS OF HIS WORK ALONG WITH RESOLUTIONS FOR ANY CONFLICT OF SPACE WITH OTHER TRADES.  
C. EQUIPMENT, PIPING, ETC. SHALL NOT BE SUPPORTED FROM CEILING, OTHER PIPING, CONDUIT OR DUCTWORK, ROOF DECK, OR JOIST BRIDGING. EQUIPMENT SHALL BE SUPPORTED FROM ACCEPTABLE BUILDING STRUCTURE COMPONENTS AS DETERMINED BY THE ARCHITECT AND STRUCTURAL ENGINEER. EQUIPMENT SHALL BE INSTALLED WITH CAREFUL ATTENTION TO FULL ACCESS FOR SERVICE AND REMOVAL OF EQUIPMENT WITHOUT ANY MAJOR INTERRUPTION TO OTHER EQUIPMENT.  
D. CONTRACTOR SHALL PROVIDE ALL PIPE AND EQUIPMENT HANGERS AND SUPPORTS, EQUIPMENT BASES AND SUPPORT, SLEEVES AND SEALS, FLASHING AND SEALING EQUIPMENT AND PIPE STACKS, FIRE STOPPING ACCORDING TO ALL INDUSTRY ACCEPTABLE STANDARDS AND TO ALL APPLICABLE UL TESTING AND RATING METHODS.
- 1.09 RECORD DRAWINGS:**  
A. CONTRACTOR SHALL FURNISH TO OWNER ONE NEW AND COMPLETE SET OF "RECORD" PRINTS. PRINTS SHALL BE GENERATED FROM REvised CAD DRAWINGS PRODUCED BY THE CONTRACTOR. THESE PRINTS SHALL INDICATE EXACT LOCATION OF ALL INSTALLED EQUIPMENT, DUCT AND PIPING AND INCORPORATE ALL CHANGES FROM ORIGINAL CONTRACT DOCUMENTS.
- 1.10 CLEANING UP:**  
A. PROPERLY PROTECT THIS WORK DURING ERECTION. SECURELY CAP OR PLUG ALL PIPE OPENINGS TO PREVENT OBSTRUCTION OR DAMAGE. REMOVE ALL DEBRIS CAUSED BY THIS WORK. CLEAN ALL EXPOSED PIPING, FIXTURES AND APPARATUS AT COMPLETION.
- 1.11 GUARANTEE:**  
A. MECHANICAL CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS FOR A PERIOD OF ONE YEAR AFTER SUBSTANTIAL COMPLETION AND ACCEPTANCE BY THE OWNER. DEMONSTRATE TO THE OWNER'S SATISFACTION THE PROPER OPERATION OF EACH OF THE SYSTEMS COMPRISING THIS CONTRACT BEFORE FINAL PAYMENT.
- 1.12 TESTS:**  
A. ALL TESTS FOR VARIOUS SYSTEMS SHALL BE PERFORMED AS REQUIRED AS FOR GOOD GENERAL PRACTICE AND IN COMPLIANCE WITH JURISDICTIONAL CODES AND AUTHORITIES. PROVIDE PRESSURE TESTS FOR ALL PIPING. REPLACE ALL DEFECTED MATERIAL WITH NEW MATERIAL. ADJUST ALL AIR MOVING EQUIPMENT. ADJUST ALL AUTOMATIC TEMPERATURE CONTROL AND SET TO PROPER OPERATION.

220100 PLUMBING

- 1.1 SERVICES:**  
A. EACH SERVICE (WASTE, VENT, COLD WATER AND HOT WATER) SHALL BE COMPLETE AND EXTENDED AND CONNECTED UP WITH ALL USING FIXTURES AND INSTALLED UNDER ALL DIVISIONS OF WORK ON THIS PROJECT.
- 1.2 INSPECTION AND TESTS**  
A. ALL TESTS SHALL COMPLY WITH THE REQUIREMENTS OF THE GOVERNING AUTHORITY OR SERVING UTILITY AS THE CASE MAY BE. THE OWNER'S REPRESENTATIVE AND THE PLUMBING INSPECTOR SHALL BE NOTIFIED IN ADVANCE OF ALL TESTS AND SHALL BE PRESENT AT SUCH TESTS. NO WORK SHALL BE COVERED UP UNTIL IT IS INSPECTED AND APPROVED.  
B. DRAINAGE SYSTEM – THE NEW DRAINAGE AND VENTING SYSTEM SHALL BE TESTED TO CONFORM WITH OHIO BUILDING CODE OR AS DIRECTED BY THE PLUMBING INSPECTOR.  
C. WATER SYSTEMS – THE NEW WATER PIPING SYSTEM SHALL BE TESTED AT A HYDROSTATIC PRESSURE OF 1-1/2 TIMES THE ACTUAL WORKING PRESSURE BUT NOT LESS THAN 100 PSI GAUGE AND PROVED TIGHT AT THIS PRESSURE FOR NOT LESS THAN 30 MINUTES IN ORDER TO PERMIT INSPECTION OF ALL JOINTS. WHERE A PORTION OF THE WATER PIPING SYSTEM IS TO BE CONCEALED BEFORE COMPLETION, THIS PORTION SHALL BE TESTED SEPARATELY IN A MANNER DESCRIBED FOR THE ENTIRE SYSTEM.
- 1.3 EXCAVATION AND BACKFILL:**  
A. CONTRACTOR SHALL DO ALL EXCAVATING AND BACKFILLING NECESSARY FOR THE INSTALLATION OF HIS WORK.  
B. ALL TRENCHES SHALL BE DUG TO EXACT GRADE AND DEPTH WITH ONLY SUFFICIENT DIRT REMOVED TO PROVIDING WORKING SPACE. TRENCHES DUG BELOW THE REQUIRED DEPTH SHALL BE REFILLED TO PROPER DEPTH WITH AGGREGATE #57. TRENCHES SHALL BE SHORED FOR SHEET PILE, IF NECESSARY, TO PREVENT CAVING AND THE WORK OF OTHER CONTRACTORS, SHALL NOT BE ENDANGERED. THIS SUBCONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR DAMAGE CAUSED BY HIS WORK.  
C. ALL EXCAVATIONS INSIDE THE BUILDING, UNDER WALKS AND DRIVE SHALL BE BACKFILLED WITH PREMIUM BACKFILL SLAG OR LIMESTONE SCREENING THOROUGHLY TAMPED AND FLOODED.
- 1.4 PIPE INSTALLATION:**  
A. ALL PIPING SHALL BE CONCEALED EXCEPT WHERE CALLED FOR OTHERWISE. PIPING SHALL BE INSTALLED WITH PROPER PROVISION FOR EXPANSION AND CONTRACTION AND SO AS NOT TO SAG IN USE.
- 1.5 PIPING MATERIAL:**  
A. ALL MATERIALS SHALL BE NEW AND FOR INTENDED USE AND BE FREE FROM DEFECTS. PIPE AND FITTINGS SHALL BE OF DESIGN TO WITHSTAND 125 LBS. S.W.P.  
B. SANITARY AND STORM SEWERS (UNDERGROUND & INTERIOR) – UNDERGROUND SANITARY AND STORM SEWERS SHALL BE CARLON OR APPROVED EQUAL SCHEDULE 40 PVC SEWER PIPE AND DRAIN FITTINGS, SOLVENT WELDED JOINTS.  
C. SOIL, WASTE AND VENT PIPING – (ABOVE GROUND INTERIOR, BELOW RETURN AIR PLENUM) – SCHEDULE 40 PVC DRAINAGE PIPE AND FITTINGS, JOINTS TO BE SOLVENT WELDED. INSTALL EXPANSION JOINT IN VERTICAL STACK PRIOR TO STACK PENETRATING ROOF.  
D. WATER PIPING (INSIDE BUILDING) – ALL HOT AND COLD WATER PIPING SHALL BE: TYPE "L" HARD COPPER PIPE WITH WROUGHT COPPER SWEAT SOLDER TYPE FITTINGS. SOLDERED JOINTS SHALL BE MADE USING "STAY-SAFE 40" LEAD FREE SOLDER (J.W. HARRIS CO., CINCINNATI, OHIO) OR OTHER LEAD FREE SOLDER AS APPROVED BY THE STATE OF OHIO. COPPER PRESS FITTING MAY BE USED AS AN OPTION  
E. CPVC PIPE AND FITTING, JOINTS TO BE SOLVENT WELD WITH ASTM F493 SOLVENT CEMENT.  
F. POLYETHYLENE PIPE AND FITTINGS, FITTING TO BE PLASTIC INSERT TYPE OR COPPER, JOINTS: MECHANICAL WITH COPPER COMPRESSION RINGS.  
G. WATER HAMMER ARRESTORS – THIS SUBCONTRACTOR SHALL FURNISH AND INSTALL AIR CHAMBERS AT EACH HOT AND COLD WATER FIXTURE CONNECTION. CHAMBERS SHALL BE 18" HIGH AND OF THE SAME DIAMETER AS THE FIXTURE CONNECTION, BUT NOT LESS THAN 1/2".  
H. INSULATING COUPLINGS – V-LINE INSULATING COUPLING AS MANUFACTURED BY VICTALUC OR PERFECTION CORPORATION OR APPROVED EQUAL.  
I. ESCUTCHEONS – ALL PIPE PASSING THROUGH WALLS, FLOORS OR CEILING IN FINISHED ROOMS SHALL BE FITTED WITH STEEL OR BRASS ESCUTCHEONS WITH SET SCREW.  
J. CLEANOUTS – A CLEANOUT SHALL BE INSTALLED AT THE BASE OF EACH SOIL AND WASTE STACK, DOWNSPOUT AND AT NOT MORE THAN 50 FT. INTERVALS ON HORIZONTAL RUNS AND AS REQUIRED BY CODE. CLEANOUTS SHALL BE THE SAME SIZE AS THE PIPE THEY SERVE, EXCEPT THEY NEED NOT BE LARGER THAN 4".
- 1.6 VALVES:**  
A. FURNISH AND INSTALL AS SHOWN ON DRAWINGS VALVES AND AS REQUIRED FOR PROPER OPERATION OF VARIOUS PARTS OF WORK. VALVES SHALL BE AS MANUFACTURED BY POWELL, NIBCO, APOLLO, OR MILWAUKEE.  
B. DRAIN VALVES WITH HOSE CONNECTING ENDS AND PROTECTIVE CAPS SHALL BE INSTALLED AT LOW POINTS ON ALL LINES CARRYING LIQUIDS.  
C. COMPRESSION TYPE VALVES SHALL NOT BE USED FOR DRAIN VALVES.  
D. PROVIDE SHUT-OFF VALVES AT ALL BRANCH CONNECTIONS TO MAIN, AT ALL FIXTURE GROUPINGS, EACH PIECE OF APPARATUS, AND IN MAINS TO SECTIONALIZE THE SYSTEM.  
E. SCHEDULE OF VALVES:
- | WATER VALVE SCHEDULE |                                     |            |        |                      |          |
|----------------------|-------------------------------------|------------|--------|----------------------|----------|
| TYPE                 | NIBCO NO.                           | SIZE       | BODY   | ENDS                 | PRESSURE |
| BALL VALVE           | 5-580-66<br>5-580-66<br>(S.S. BALL) | 2" & UNDER | BRONZE | SOLDERED<br>THREADED | 150 WSP  |
| CHECK                | 413                                 | 2" & UNDER | BRONZE | THREADED             | 125 WSP  |
- S.S. STEM, BRONZE DISC, EP1/CPDM SEAT
- F. WATER HAMMER ARRESTER: SIOUX CHIEF, OR APPROVED EQUAL. HYDRA-RESTER, SHALL BE PRECHARGED AND PERMANENTLY SEALED AT THE FACTORY AND SHALL HAVE A MALE THREADED NIPPLE FOR CONNECTION TO THE WATER SYSTEM. WATER HAMMER ARRESTERS ARE NOTED WAH-X, WHERE THE 'X' DESIGNATES THE P.D.I. SYMBOL DESCRIBED IN P.D.I. STANDARD MANUAL, WH-201.  
G. TEMPERING VALVES: INSTALL AT ALL PUBLIC HAND WASHING LAVS AND SINKS A TEMPERING VALVE THAT MEETS ASSE 1070 SIMILAR TO POWERS THERMOSTATIC MIXING VALVE LMS6M
- 1.7 CLEANOUTS:**  
A. FURNISH ACCESS DOORS FOR WALL OR CEILING CONCEALED CLEANOUTS.  
B. FLOOR CLEAN-OUT: J.R. SMITH, OR APPROVED EQUAL, WITH TAPER THREAD, BRONZE PLUG, SCORATED COVER AND OUTLET AS REQUIRED BY THE PIPING MATERIAL FOR THE FOLLOWING APPLICATIONS:  
C. RECTANGULAR PATTERN TILE FLOORS – 4040 WITH A SQUARE NICKEL BRONZE TOP. FURNISH WITH SCORATED OR TILE RECESS AS REQUIRED BY ARCHITECT.  
D. WALL CLEAN-OUTS – J.R. SMITH, OR APPROVED EQUAL, SERIES 4422-Y WITH TAPER THREAD AND BRONZE PLUG, STAINLESS STEEL COVER AND APPROPRIATE LENGTH SCREW.
- 1.8 INSULATION:**  
A. FURNISH AND INSTALL THE FOLLOWING INSULATION IN FULL ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. ALL PIPING LISTED BELOW WITH REQUIRED INSULATION THICKNESS SHALL BE AS LISTED BELOW.  
B. CLEAN AND DRY SURFACES PRIOR TO INSULATION.  
C. EXTEND INSULATION WITHOUT INTERRUPTION THROUGH WALLS, FLOORS, HANGERS AND SIMILAR PENETRATIONS.  
D. FIBERGLASS ASJ/SSL-11 PIPE INSULATION WITH FACTORY APPLIED JACKET OF A VINYL COATED AND EMBOSSED VAPOR BARRIER LAMINATE. ALL JACKET LAPS TO BE SEALED WITH FACTORY APPLIED SELF-SEALING LAP (SSL). ALL BUTT JOINTS TO BE SEALED WITH FACTORY PROVIDED ASJ BUTT STRIPS. INSULATE FITTINGS WITH MOLDED OR SEGMENTAL INSULATION. A LAYER OF MASTIC, A LAYER OF GLASS CLOTH FITTING TAPE, AND A FINISH LAYER OF MASTIC COMPLETELY COVERING THE FITTING TAPE. FITTING MASTIC ON HOT PIPE TO BE OF TYPE "H", ON COLD TO BE OF TYPE "C". ALL FITTINGS, VALVE BODIES, VALVE BONNETS AND UNIONS ON PLUMBING PIPING SHALL BE INSULATED, IN LIEU OF THE STANDARD METHOD DESCRIBED FOR INSULATING THE FITTINGS THE INSULATION CONTRACTOR HAS THE OPTION OF USING ZESTON'S ONE PIECE PREMOLDED INSULATED FITTINGS, WHEREVER POSSIBLE, PER MANUFACTURER'S RECOMMENDATION. PIPE INSULATION SHALL NOT BE STAPLED.

SERVICE	INSULATION TYPE
1. PLUMBING HOT AND COLD WATER PIPING.	1" REFER TO DESCRIPTION ABOVE.

- E. ALL INSULATION SHALL BE APPLIED IN AN APPROVED MANNER, THE WORKMANSHIP SHALL BE FIRST CLASS AND ALL JOINTS SHALL BE MADE TIGHT. INSULATION SHALL BE OWENS-CORNING, ARMSTRONG, CERTAIN-TEED/SAINTE GOSBAIN, KNAUF OR SCHULLER.
- 1.9 PLUMBING FIXTURES:**  
A. PLUMBING FIXTURES, TRIM AND OTHER EQUIPMENT SHALL BE PROTECTED AGAINST DAMAGE OR INJURY. ALL FIXTURES AND EQUIPMENT DAMAGED BY ANY CAUSE AND ANY TRIM WITH MARRED OR SCRATCHED FINISH SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER. THE FIXTURE PROTECTION SHALL BE REMOVED AT THE COMPLETION OF THE WORK OR FOR FINAL INSPECTION.  
B. SEE DRAWINGS FOR FIXTURE SCHEDULE

230100 HVAC

- 1.1 FAN POWERED VARIABLE VOLUME UNITS**  
A. MANUFACTURERS:  
1. TITUS, PRICE OR DAKIN  
B. PRODUCT DESCRIPTION: VARIABLE AIR VOLUME TERMINALS FOR CONNECTION TO CENTRAL AIR SYSTEMS WITH ELECTRONIC CONTROLS AND HOT WATER HEATING COILS.  
C. IDENTIFICATION: FURNISH EACH AIR TERMINAL UNIT WITH IDENTIFICATION LABEL AND AIRFLOW INDICATOR, INCLUDE UNIT NOMINAL AIRFLOW, MAXIMUM FACTORY-SET AIRFLOW AND MINIMUM FACTORY-SET AIRFLOW AND COIL TYPE.  
D. BASIC ASSEMBLY:  
1. CASINGS: MINIMUM 22 GAGE (0.8 MM) GALVANIZED STEEL.  
2. LINING: MINIMUM 1 INCH (25 MM) THICK NEOPRENE OR VINYL COATED GLASS FIBER INSULATION, 1.5 LB./CU FT (24 G/L) DENSITY, MEETING NFPA 84A REQUIREMENTS AND UL 181 EROSION REQUIREMENTS. FACE LINING WITH EROSION PREVENTION FILM.  
3. PLENUM AIR INLETS: ROUND STUB CONNECTIONS AND S-SLIP AND DRIVE CONNECTIONS FOR DUCT ATTACHMENT.  
4. PLENUM AIR OUTLETS: S-SLIP AND DRIVE CONNECTIONS.  
E. BASIC UNIT:  
1. CONFIGURATION: AIR VOLUME DAMPER ASSEMBLY AND FAN IN SERIES ARRANGEMENT INSIDE UNIT CASING. LOCATE CONTROL COMPONENTS INSIDE PROTECTIVE METAL SHROUD.  
2. VOLUME DAMPER: CONSTRUCT OF GALVANIZED STEEL WITH PERIPHERAL GASKET AND SELF-LUBRICATING BEARINGS; MAXIMUM DAMPER LEAKAGE: 2 PERCENT OF DESIGN AIR FLOW AT 3 INCHES (0.75 KPA) INLET STATIC PRESSURE.  
3. MOUNT DAMPER OPERATOR TO POSITION DAMPER NORMALLY OPEN.  
F. AUTOMATIC DAMPER OPERATOR:  
1. ELECTRIC ACTUATOR: 24 VOLT WITH REMOTE TEMPERATURE READ AND RESET CAPABILITY.  
G. FAN ASSEMBLY  
1. FAN: FORWARD CURVED CENTRIFUGAL TYPE WITH DIRECT DRIVE PERMANENT-SPLIT-CAPACITOR TYPE, THERMALLY PROTECTED MOTOR; PERMANENTLY LUBRICATED BEARINGS.  
2. SPEED CONTROL: INFINITELY ADJUSTABLE WITH ELECTRIC AND ELECTRONIC CONTROLS.  
3. ISOLATION: FAN/MOTOR REMOVABLE ON RUBBER ISOLATORS.  
4. ELECTRICAL CHARACTERISTICS:  
a. AS SHOWN ON DRAWINGS.  
H. ATTENUATION SECTION: LINE ATTENUATION SECTIONS WITH 2 INCH (50 MM) THICK INSULATION.  
I. HOT WATER HEATING COIL:  
1. CONSTRUCTION: 1/2 INCH (13 MM) COPPER TUBE MECHANICALLY EXPANDED INTO ALUMINUM PLATE FINS, LEAK TESTED UNDER WATER TO 200 PSIG (10.380 KPA) PRESSURE, FACTORY INSTALLED.  
2. CAPACITY: BASED ON 180 DEGREE F ENTERING WATER, 150 DEGREE F LEAVING WATER AND PERCENT TOTAL AIR VOLUME AS INDICATED ON DRAWING.  
J. FILTERS: 1" THROUWAY FILTERS AND FILTER FRAME ON PLENUM INLET WITH SLIDING TRACK AND SEALED ACCESS DOOR.  
K. SOUND RATINGS: NOT TO EXCEED 25 NC.  
L. CONTROLS: ELECTRONIC CONTROLS: CONTAIN IN NEMA 1 ENCLOSURE WITH ACCESS PANEL SEALED FROM AIRFLOW AND MOUNTED ON SIDE OF UNIT. FIELD MOUNTED CONTROLS.  
M. TEMPERATURE CONTROL CONTRACTOR SHALL PROVIDE DAMPER OPERATOR AND DDC CONTROL MODULE TO BE FIELD MOUNTED AND TESTED BY TERMINAL BOX MANUFACTURER.  
1. ELECTRONIC CONTROLS: CONTAIN IN NEMA 1 ENCLOSURE WITH ACCESS PANEL SEALED FROM AIR LOW AND MOUNTED ON SIDE OF UNIT. FACTORY MOUNT CONTROLS TO ACCOMPLISH THE FOLLOWING SEQUENCED SEQUENCE OF OPERATION.  
2. ELECTRONIC CONTROL, CENTRAL SYSTEM FAN "ON" \_ OCCUPIED MODE:  
a. WHEN DUCT PRESSURE IS SENSED INDICATING PRIMARY AIR SYSTEM OPERATING, THERMOSTAT AND PRIMARY VOLUME DAMPER PORTIONS AIR FLOW FROM CENTRAL SYSTEM.  
b. AS THERMOSTAT SENSES REDUCED COOLING DEMAND, VOLUME DAMPER CLOSES, AT FIELD ADJUSTABLE POINT, UNIT FAN IS ENERGIZED, AS COOLING DEMAND CONTINUES TO FALL, VOLUME DAMPER CLOSES AND FAN SPEED INCREASES.  
c. IF CENTRAL DUCT SYSTEM PRESSURE VARIES, VOLUME DAMPER MAINTAINS CONSTANT PRIMARY AIR FLOW.  
d. AS THERMOSTAT SENSES NO COOLING REQUIREMENT, CONTROL SYSTEM CLOSES VOLUME DAMPER. BEFORE HEATING IS INITIATED, CONTROL ENTERS FIELD ADJUSTABLE NO LOAD BAND, ON SENSING NEED FOR HEAT, HEATING COIL IS ENERGIZED PROPORTIONALLY.  
3. ELECTRONIC CONTROL, CENTRAL SYSTEM FAN "OFF" \_ UNOCCUPIED MODE:  
a. PROVIDE FIELD ADJUSTABLE TEMPERATURE SETBACK, ON NEED FOR HEAT, TERMINAL UNIT FAN AND HEATING COIL ARE ENERGIZED.  
b. HOLD VOLUME DAMPER CLOSED.  
4. THERMOSTAT: ELECTRONIC TYPE WITH APPROPRIATE MOUNTING HARDWARE.  
N. WIRING:  
1. FIELD MOUNTED AND WIRED CONTROLS. MOUNT ELECTRICAL COMPONENTS IN CONTROL BOX WITH REMOVABLE COVER, INCORPORATE SINGLE POINT ELECTRICAL CONNECTION TO POWER SOURCE.  
2. FIELD MOUNT TRANSFORMER FOR CONTROL VOLTAGE ON ELECTRIC AND ELECTRONIC CONTROL UNITS. FURNISH TERMINAL STRIP IN CONTROL BOX FOR FIELD WIRING OF THERMOSTAT AND POWER SOURCE.  
3. ELECTRICAL CHARACTERISTICS: REFER TO DIV 26.  
4. WIRING TERMINATIONS: WIRE FAN AND CONTROLS TO TERMINAL STRIP. FURNISH TERMINAL LUGS TO MATCH BRANCH-CIRCUIT CONDUCTOR QUANTITIES, SIZES, AND MATERIALS SPECIFIED. ENCLOSE TERMINAL LUGS IN TERMINAL BOX.  
5. DISCONNECT SWITCH: FACTORY MOUNT FUSED DISCONNECT SWITCH IN CONTROL PANEL.
- 1.2 PIPING MATERIALS**  
A. HOT WATER SUPPLY AND RETURN PIPING SHALL BE TYPE "L" HARD COPPER. FITTINGS FOR COPPER PIPE SHALL BE WROUGHT COPPER SOLDER JOINT TYPE.  
B. CONDENSATE: PVC
- 1.3 VALVES**  
A. VALVES IN HOT WATER PIPING SIZE 2" AND UNDER SHALL BE STOCKHAM 285 SERIES BALL VALVES WITH BRONZE BODY, STAINLESS STEEL BALLS AND SCREWED ENDS, 150 LBS. S.W.P. VALVES USED FOR SHUT-OFF AND BALANCING SHALL BE EQUIPPED WITH MEMORY STOP.
- 1.4 PIPE SUPPORT**  
A. HANGERS – ALL HORIZONTAL PIPE SHALL BE SUPPORTED ON ADJUSTABLE SPLIT STEEL RING OR CLEVIS HANGERS AND THREEDED ROODS SPACED NOT OVER 10 FT. O.C. FOR PIPE 1-1/2" AND LARGER AND 6 FT O.C. FOR PIPE 1-1/4" AND SMALLER. CHAIN OR BAND IRON HANGERS AND TRAPEZE HANGERS WILL BE ACCEPTABLE. PIPE HANGERS FOR INSULATED PIPING SYSTEMS SHALL BE SIZED FOR THE GROSS OUTSIDE DIMENSION OF THE PIPE AND INSULATION. SEE INSULATION SPECIFICATIONS FOR INSULATION REQUIREMENTS.
- 1.5 EXHAUST FANS:**  
A. FANS SHALL BE GREENHECK, BROAN, NUTONE, OR COOK WITH ALL ACCESSORIES SHOWN ON DRAWINGS.  
B. PROVIDE BACKDRAFT DAMPER GRAVITY ACTUATED, ALUMINUM MULTIPLE BLADE CONSTRUCTION, FELT EDGED WITH NYLON BEARINGS.  
C. PROVIDE DISCONNECT SWITCH FACTORY WIRED, NON-FUSIBLE, IN HOUSING FOR THERMAL OVERLOAD PROTECTED MOTOR. PROVIDE TIMER SWITCH FOR FAN ON/OFF. FOR FAN/LIGHT COMBINATION PROVIDE SINGLE SWITCH.
- 1.6 SHEET METAL WORK**  
A. ALL DUCTWORK AND FITTINGS SHALL BE FABRICATED, ASSEMBLED AND INSTALLED IN ACCORDANCE WITH THE LATEST REVISION OF SMACNA HVAC DUCT CONSTRUCTIONS STANDARDS.  
B. ALL DUCT SIZES ON DRAWINGS INDICATE FREE INTERNAL DIMENSIONS. ACTUAL SHEET METAL SIZES SHALL INCLUDE AN ALLOWANCE FOR INTERNAL DUCT LINER.  
C. DUCTWORK SHALL BE FABRICATED OF PRIME GRADE MATERIALS FREE FROM ANY IMPERFECTIONS. GALVANIZED SHEET STEEL SHALL BE G 90 ZINC COATED AND MILL PHOSPHATIZED FOR PAINTED APPLICATIONS ON EXPOSED DUCTWORK IN CONDITONED SPACES.  
D. CONSTRUCTION:  
1. GENERAL SUPPLY AIR, RETURN AIR, EXHAUST AIR, RELIEF AIR AND OUTSIDE AIR DUCTWORK WITHIN THE BUILDING SHALL BE 2" SMACNA PRESSURE CLASSIFICATION GALVANIZED STEEL UNLESS NOTED OTHERWISE ON THE DRAWINGS.  
2. INSTALL AND SEAL ALL DUCTWORK IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS – METAL AND FLEXIBLE SEALANT TO BE NON-HARDENING, WATER RESISTANT, FIRE RESISTIVE, COMPATIBLE WITH MATING MATERIALS. UL LISTED DUCT SEALER, SEAL CLASS "B" FOR ALL DUCTWORK UP TO 2" PRESSURE CLASS, SEAL CLASS "A" FOR ALL DUCTWORK ABOVE 2" PRESSURE CLASS. CLOTH BASED DUCT TAPE IS NOT ACCEPTABLE.  
E. ELBOWS OR TURNS IN THE DUCTWORK SHALL BE FABRICATED WITH A CENTER LINE RADIUS OF NOT LESS THAN 15 TIMES THE DUCT WIDTH OR WITH ELBOWS WITH INTEGRAL TURNING VANES. TRANSITIONS AND OFFSETS SHALL BE FABRICATED WITH A MAX ANGULAR TAPER OF 30 DEGREES UNLESS SPACE CONDITIONS PROHIBIT.  
F. FLEXIBLE DUCTWORK SHALL HAVE A FLAMEPROOF VINYL SHEATH WITH SPIRAL WOUND SPRING STEEL AND 1" THICK FIBERGLASS INSULATION WITH A VINYL VAPOR BARRIER EXTERIOR JACKET. FLEXIBLE DUCTWORK INSTALLATION SHALL BE A MAXIMUM OF FIVE FEET IN LENGTH AND NO MORE THAN 1-90 DEG. ELBOW. FLEXIBLE DUCT SHALL BE CONNECTED TO METAL COLLARS WITH PLASTIC LOCKABLE STRAPS. CLOTH BASED DUCT TAPE CONNECTION IS NOT ACCEPTABLE.

- G. DUCTWORK BRANCHES OFF OF MAINS SHALL GENERALLY BE ARRANGED AS FOLLOWS:  
1. RECTANGULAR BRANCHES OFF OF RECTANGULAR MAINS SHALL BE WITH 45 DEGREE SHOE ENTRY TYPE TOP IN FITTINGS.  
2. ROUND BRANCHES OFF OF RECTANGULAR MAINS SHALL BE MADE WITH CONICAL TYPE TOP IN FITTINGS IF THE MAIN IS 4" OR GREATER IN DEPTH THAN THE BRANCH DIAMETER; OTHERWISE, A 45 DEGREE SHOE ENTRY TYPE TOP IN FITTING WITH RECTANGULAR DIMENSIONS OF EQUIVALENT CROSS SECTIONAL AREA TO THE ROUND BRANCH DIAMETER SHALL BE USED IMMEDIATELY FOLLOWED BY A RECTANGULAR TO ROUND TRANSITION.  
3. ROUND BRANCHES OFF OF ROUND MAINS SHALL BE MADE WITH Y-BRANCH, CONICAL TOP, 45 DEGREE SHOE ENTRY TOP, OR TEE FITTINGS AS INDICATED ON THE DRAWINGS.  
4. PROVIDE AT EACH BRANCH AND SPLIT A VOLUME DAMPER FOR AIR BALANCING.
- 1.7 AIR DISTRIBUTION:**  
A. ALL AIR OUTLETS SHALL BE AS MANUFACTURED BY PRICE, TITUS, LIMA OR HART & COOLEY AND SHALL BE OF SIZE SHOWN ON THE DRAWINGS. EACH OUTLET (SQUARE, RECTANGULAR OR ROUND) SHALL BE FURNISHED WITH COMBINATION EQUALIZING DAMPER AND VOLUME CONTROL DAMPER IN EXTENSION COLLAR OF OUTLET. ALL OUTLETS IN FINISHED CEILING SHALL HAVE OFF-WHITE BAKED ENAMEL FINISH. OUTLETS IN LAY-IN CEILINGS SHALL HAVE NOMINAL PANEL SIZES TO FIT CEILING GRID SYSTEM.
- 1.8 INSULATION:**  
A. FURNISH AND INSTALL THE FOLLOWING INSULATION IN FULL COMPLIANCE WITH MANUFACTURER'S RECOMMENDATIONS:

SERVICE	INSULATION TYPE
2. ALL SUPPLY DUCTS.	INSULATE WITH 1 1/2" THICK FIBERGLAS FACED DUCT WRAP TYPE ED75 WITH FLAME RETARDANT FACING (FRK). WRAP INSULATION TIGHTLY ON THE DUCT WITH ALL JOINTS BUTTED. ADHERE INSULATION WITH 4" STRIPS OF BONDING ADHESIVE AT 8" O.C. TAPE ALL JOINTS WITH 4" WIDE TAPE ADHERED WITH VAPOR BARRIER ADHESIVE.

- B. ALL INSULATION SHALL BE APPLIED IN AN APPROVED MANNER, THE WORKMANSHIP SHALL BE FIRST CLASS AND ALL JOINTS SHALL BE MADE TIGHT. INSULATION SHALL BE OWENS-CORNING, ARMSTRONG, CERTAIN-TEED/SAINTE GOSBAIN, KNAUF OR MANVILLE.
- 1.9 TESTS AND ADJUSTMENTS:**  
A. PERFORM TESTS AND ADJUSTMENTS UNDER CONTRACTOR'S SUPERVISION AND REPORT TO ARCHITECT. DURING TESTING PERIOD, MAINTAIN ON JOB A COMPETENT ENGINEER THOROUGHLY FAMILIAR WITH ALL PHASES FOR AS LONG A PERIOD AS REQUIRED TO THOROUGHLY ADJUST ALL SYSTEMS AND DEMONSTRATE TO ARCHITECT THAT THEY ARE FUNCTIONING PROPERLY.  
B. FOR AIR HANDLING AND AIR DISTRIBUTION SYSTEMS, PROCURE SERVICES OF AN INDEPENDENT AGENCY THAT SPECIALIZES IN TESTING AND BALANCING OF SUCH SYSTEMS. ALL WORK BY THIS AGENCY TO BE DONE UNDER DIRECT SUPERVISION OF A QUALIFIED HEATING AND VENTILATING ENGINEER. INDEPENDENT AGENCY SHALL BE A MEMBER OF AMBC OR NEBB.  
C. TESTING ADJUSTING AND BALANCING WORK SHALL BE DONE IN ACCORDANCE WITH AMBC, NEBB OR ASHRAE RECOMMENDATIONS.  
D. THE TEST AND BALANCE AGENCY SHALL PERFORM TESTS AND MAKE ALL ADJUSTMENTS AS REQUIRED TO BALANCE THE HVAC SYSTEMS TO THE FOLLOWING CRITERIA:  
1. ALL FANS SHALL PERFORM "EQUAL TO" OR "10% IN EXCESS OF" THE DESIGN VOLUME.  
2. MINIMUM OUTDOOR AIR REQUIREMENTS SHALL BE WITHIN 5% ABOVE OR BELOW THE DESIGN VOLUME.  
3. SUPPLY DIFFUSERS AND REGISTERS SHALL BE WITHIN 10% ABOVE OR 5% BELOW THE DESIGN VOLUME.  
4. RETURN AND EXHAUST GRILLES SHALL BE WITHIN 5% ABOVE OR 10% BELOW THE DESIGN VOLUME.
- 1.10 FIRESTOPPING:**  
A. PROVIDE FIRESTOPPING AT PENETRATIONS REQUIRED FOR THE PASSAGE OF A DUCT, CABLE, CABLE TRAY CONDUIT, PIPING, ELECTRICAL BUSWAYS AND RACEWAYS THROUGH FIRE-RATED VERTICAL BARRIERS(WALLS AND PARTITIONS), HORIZONTAL BARRIERS(FLOOR/CEILING ASSEMBLIES),AND VERTICAL SERVICE SHAFT WALLS AND PARTITIONS.  
B. QUALITY ASSURANCE

1. A MANUFACTURER'S DIRECT REPRESENTATIVE (NOT DISTRIBUTOR OR AGENT) TO BE ON-SITE DURING INITIAL INSTALLATION OF FIRESTOP SYSTEM TO TRAIN APPROPRIATE CONTRACTOR PERSONNEL IN PROPER SELECTION AND INSTALLATION PROCEDURES. THIS WILL BE DONE PER MANUFACTURERS WRITTEN RECOMMENDATIONS PUBLISHED IN THEIR LITERATURE AND DRAWING DETAILS.  
2. FIRESTOP SYSTEM INSTALLATION MUST MEET REQUIREMENTS OF ASTM E-814 OR UL1479 TESTED ASSEMBLIES THAT PROVIDE A FIRE RATING EQUAL TO THAT OF THE CONSTRUCTION BEING PENETRATED.  
3. PROPOSED FIRESTOP MATERIALS AND METHODS SHALL CONFORM TO APPLICABLE GOVERNING CODES HAVING LOCAL JURISDICTION.  
4. FIRESTOP SYSTEM DOES NOT RE-ESTABLISH THE STRUCTURAL INTEGRITY OF LOAD BEARING PARTITIONS/ASSEMBLIES, OR SUPPORT LIVE LOADS AND TRAFFIC. INSTALLER SHALL CONSULT STRUCTURAL ENGINEER PRIOR TO PENETRATING ANY LOAD BEARING ASSEMBLY.  
5. FOR THOSE FIRESTOP APPLICATIONS THAT EXIST FOR WHICH NO UL SYSTEM IS AVAILABLE THROUGH ANY MANUFACTURER, A MANUFACTURER'S ENGINEERING JUDGMENT DERIVED FROM SIMILAR UL SYSTEM DESIGNS OR OTHER TESTS WILL BE SUBMITTED TO LOCAL AUTHORITIES HAVING JURISDICTION FOR THEIR REVIEW AND APPROVAL PRIOR TO INSTALLATION. ENGINEER JUDGMENT DRAWINGS MUST FOLLOW REQUIREMENTS SET FORTH BY THE INTERNATIONAL FIRESTOP COUNCIL (SEPTEMBER 7, 1994).  
6. ENGAGE AN EXPERIENCED INSTALLER WHO IS CERTIFIED, LICENSED, OR OTHERWISE QUALIFIED BY THE FIRESTOPPING MANUFACTURER AS HAVING THE NECESSARY EXPERIENCE, STAFF AND TRAINING TO INSTALL MANUFACTURER'S PRODUCTS PER SPECIFIED REQUIREMENTS. A MANUFACTURER'S WILLINGNESS TO SELL ITS FIRESTOPPING PRODUCTS TO THE CONTRACTOR OR TO THE INSTALLER ENGAGED BY THE CONTRACTOR DOES NOT IN ITSELF CONFER QUALIFICATIONS ON THE BUYER.
- C. PRODUCTS**  
1. USE ONLY FIRESTOP PRODUCTS THAT HAVE BEEN ASTM E-814 OR UL 1479 TESTED AND APPROVED FOR SPECIFIC FIRE-RATED CONSTRUCTION ASSEMBLY TYPE, PENETRATING ITEM TYPE, ANNUAL SPACE REQUIREMENTS AND FIRE-RATING INVOLVED FOR EACH SEPARATE INSTANCE.  
2. ACCEPTABLE MANUFACTURERS: HILTI, 3M, METACALK, NELSON

- 1.11 TEMPERATURE CONTROL:**  
A. CONTRACTOR SHALL PROVIDE ALL THERMOSTATS, RELAYS, CONTROL WIRING AND ALL ACCESSORIES REQUIRED TO COMPLETE ALL TEMPERATURE CONTROL WORK.  
B. ALL WIRING SHALL BE DONE PER NEC, STATE AND LOCAL CODE.  
C. FURNISH OWNER WITH THREE (3) SETS OF OPERATING INSTRUCTIONS.  
D. CONTROLS:  
1. FAN POWERED VAV TERMINAL UNITS:  
MATCH CONTROLS AND SEQUENCE OF OPERATION AS ESTABLISHED WITH EXISTING BUILDING TEMPERATURE CONTROL SYSTEM. COORDINATE WITH BUILDING OPERATIONS.



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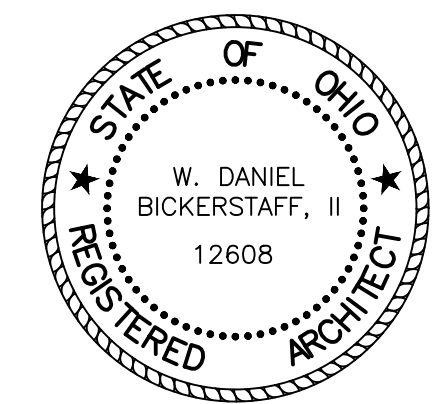
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MOUND ELEMENTARY SCHOOL

Interior Alteration

New MetroHealth ODH SBHC Health Care Expansion Program

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Cleveland, OH 44105



MEDICAL CENTER  
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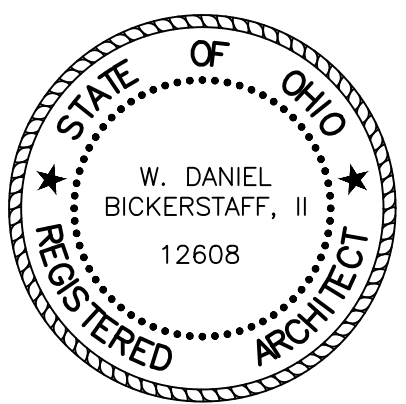
MECHANICAL SPECIFICATIONS

Scale	Sheet
Date 07.13.2022	MP-1



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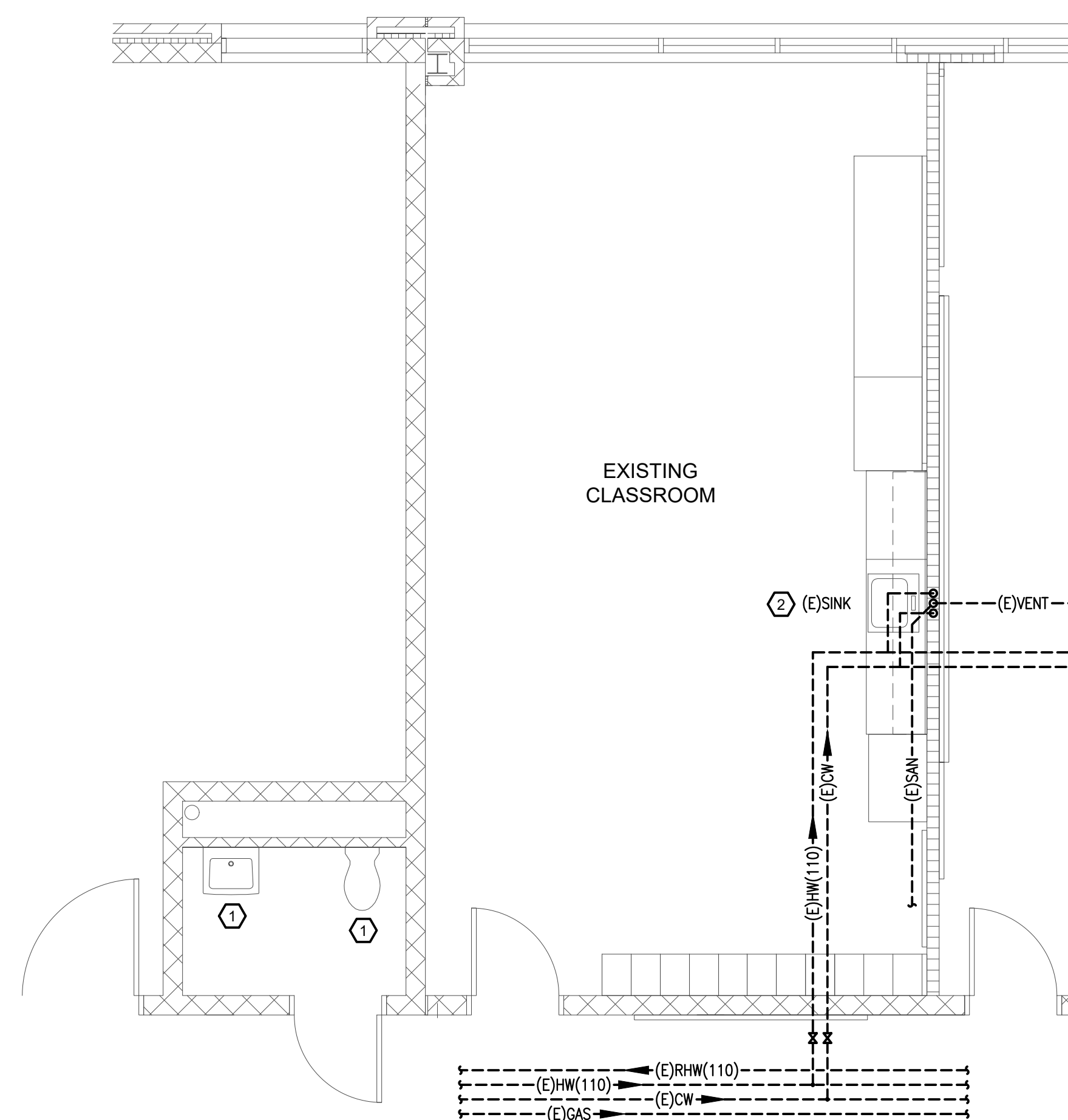
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**GENERAL PLUMBING NOTES:**

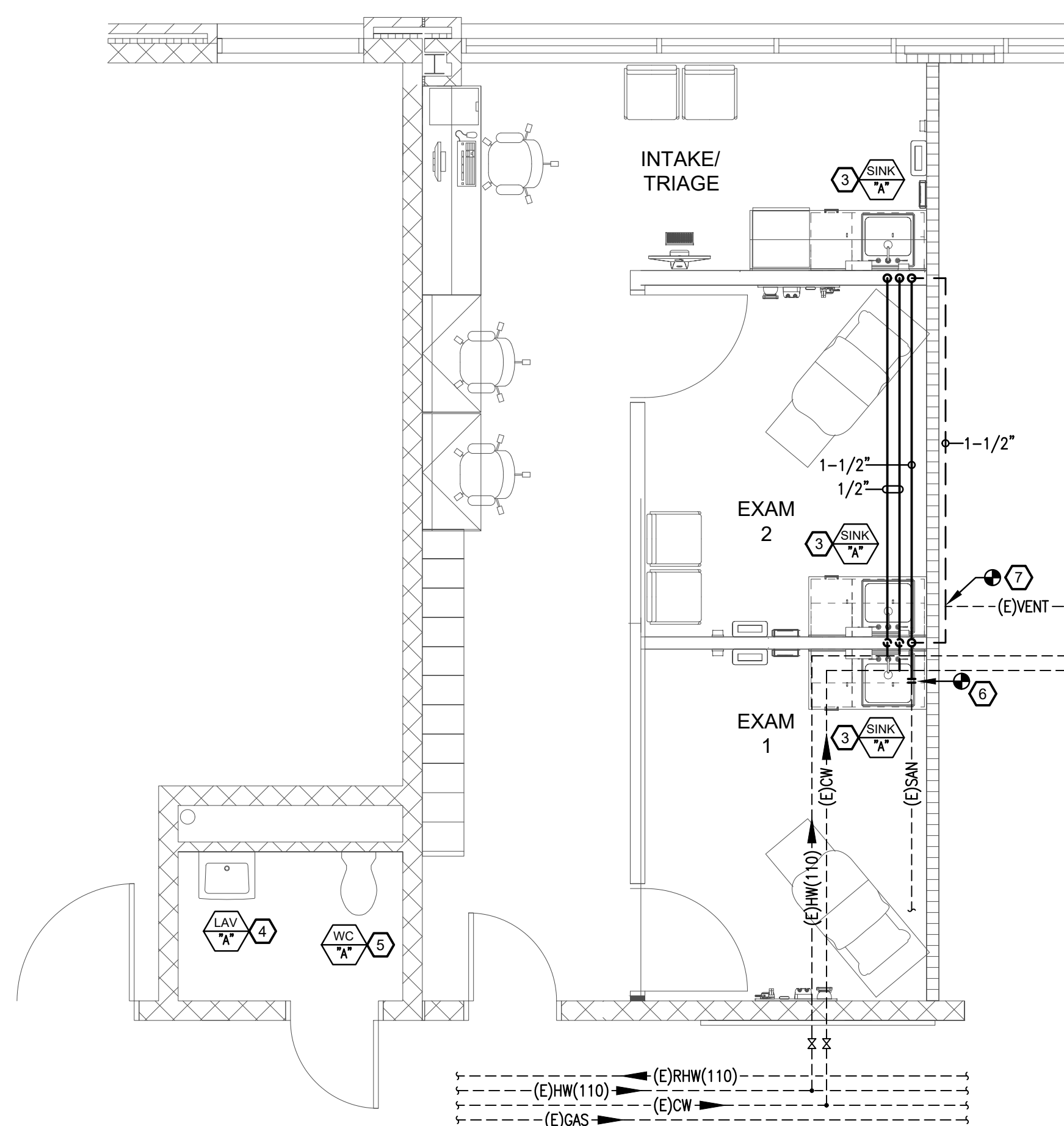
1. THE CONTRACTOR SHALL FIELD VERIFY CONDITIONS PRIOR TO CONSTRUCTION.
2. CONTRACTOR SHALL VERIFY & CONFIRM SANITARY MAIN LOCATION, ROUTING & SIZE IN FIELD.
3. SANITARY SEWERS 2 1/2" & SMALLER SHALL BE PITCHED @ 2% SLOPE. 3" & LARGER SHALL BE PITCHED @ 1% SLOPE.
4. MINIMUM SANITARY SEWER SIZE LOCATED BELOW FLOOR "BURIED" SHALL BE 2" SIZE AND SHALL BE INSTALLED WITH 2% SLOPE ON DRAIN LINE.
5. PLUMBING SYSTEM PIPING SHALL BE TESTED AND INSPECTED FOR COMPLIANCE WITH STATE CODE.
6. POTABLE WATER SYSTEM SHALL BE PURGED & DISINFECTED PRIOR TO OWNER & OR TENANT USE. METHOD TO COMPLY W/ STATE CODE.
7. WATER HAMMER ARRESTORS SHALL BE FURNISHED AND INSTALLED AS DIRECTED BY STATE AT ALL FLUSH VALVE ACTUATED FIXTURE GROUPINGS AND AT ALL QUICK CLOSING FAUCETS.
8. ANY PIPING PASSING THRU RATED WALLS OR FLOORS SHALL BE FIRESTOPPED IN METHOD COMPLIANT WITH STATE CODE.
9. ALL PUBLIC LAVATORIES SHALL INCLUDE COST & INSTALLATION OF A THERMOSTATIC MIXING VALVE.

**PLAN CODED NOTES:**

- ① - EXISTING LAV & WC TO BE REMOVED. PREP FOR NEW FIXTURE INSTALLATIONS. REPLACE WC CARRIER AS REQ'D FOR NEW FIXTURE.
- ② - EXISTING SINK TO BE REMOVED. CUT EXISTING CW, HW, SAN, & VENT AS REQ'D. PREP FOR EXTENDING LINES TO NEW FIXTURE LOCATIONS.
- ③ - NEW SINK A: 1/2" CW/HW & 1-1/2" SAN/VENT. SINK TO BE PROVIDED W/ THERMOSTATIC MIXING VALVE, REFER TO DETAIL.
- ④ - NEW LAV A: CONNECT TO EXISTING FIXTURE ROUGH-IN. PROVIDE NEW WATER STOPS & FAUCET SUPPLY LINES. LAV TO BE PROVIDED W/ THERMOSTATIC MIXING VALVE, REFER TO DETAIL.
- ⑤ - NEW WC A: CONNECT TO EXISTING FIXTURE ROUGH-IN.
- ⑥ - NEW 1-1/2" SAN TO CONNECT TO EXISTING SAN BELOW FLOOR.
- ⑦ - NEW 1-1/2" VENT TO CONNECT TO EXISTING VENT ABOVE CEILING.



1 FLOOR PLAN - PLUMBING DEMOLITION  
 P-1 SCALE: 1/4" = 1'-0" NORTH



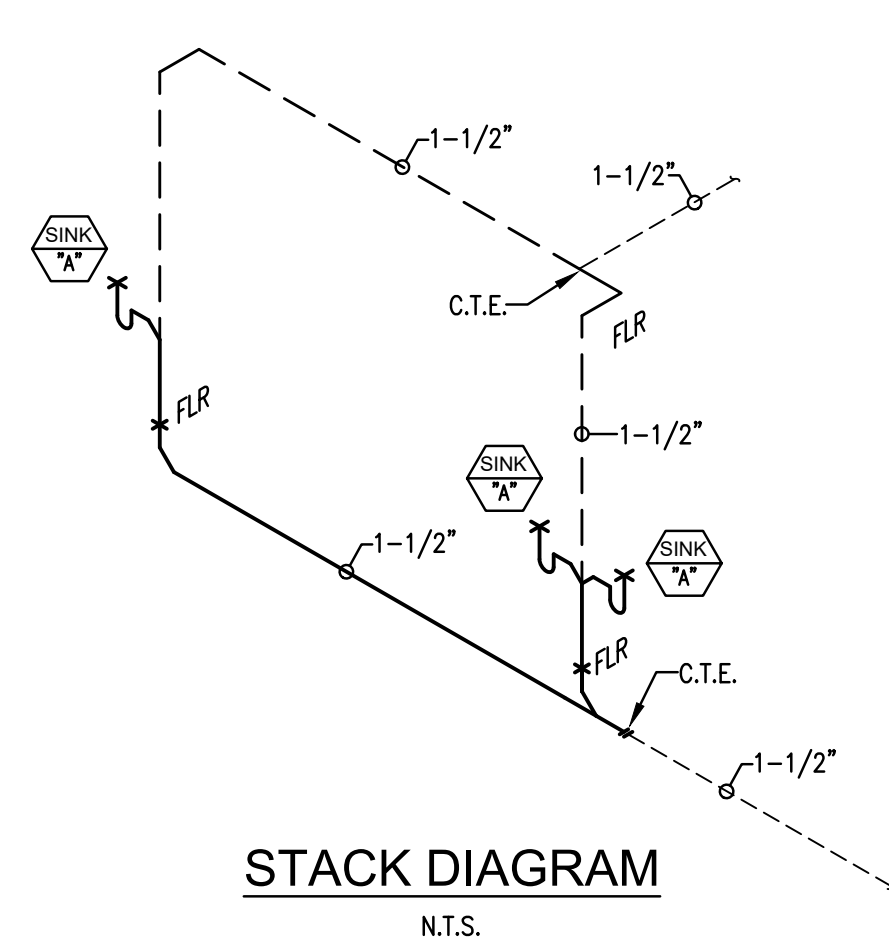
2 FLOOR PLAN - NEW PLUMBING  
 P-1 SCALE: 1/4" = 1'-0" NORTH

PLUMBING LEGEND	
EXISTING PIPING	-----
PIPING TO BE REMOVED	-----
SANITARY DRAIN	SAN
VENT PIPING	V
STORM DRAIN	ST
KITCHEN WASTE DRAIN	KW
COLD WATER	CW
HOT WATER	HW
HOT WATER RETURN	HWR
SHUT OFF VALVE	SV
CHECK VALVE	CV
PIPE UNION	
CLEANOUT	C.O.
FLOOR DRAIN	F.D.
INDIRECT WASTE	I.W.
VENT THRU ROOF	V.T.R.
CONNECT TO EXISTING	C.T.E.
NOT TO SCALE	N.T.S.
ABOVE FINISHED FLOOR	A.F.F.
FAN COIL UNIT	F.C.U.
GALLONS PER MINUTE	G.P.M.
CUBIC FEET PER HOUR	C.F.H.

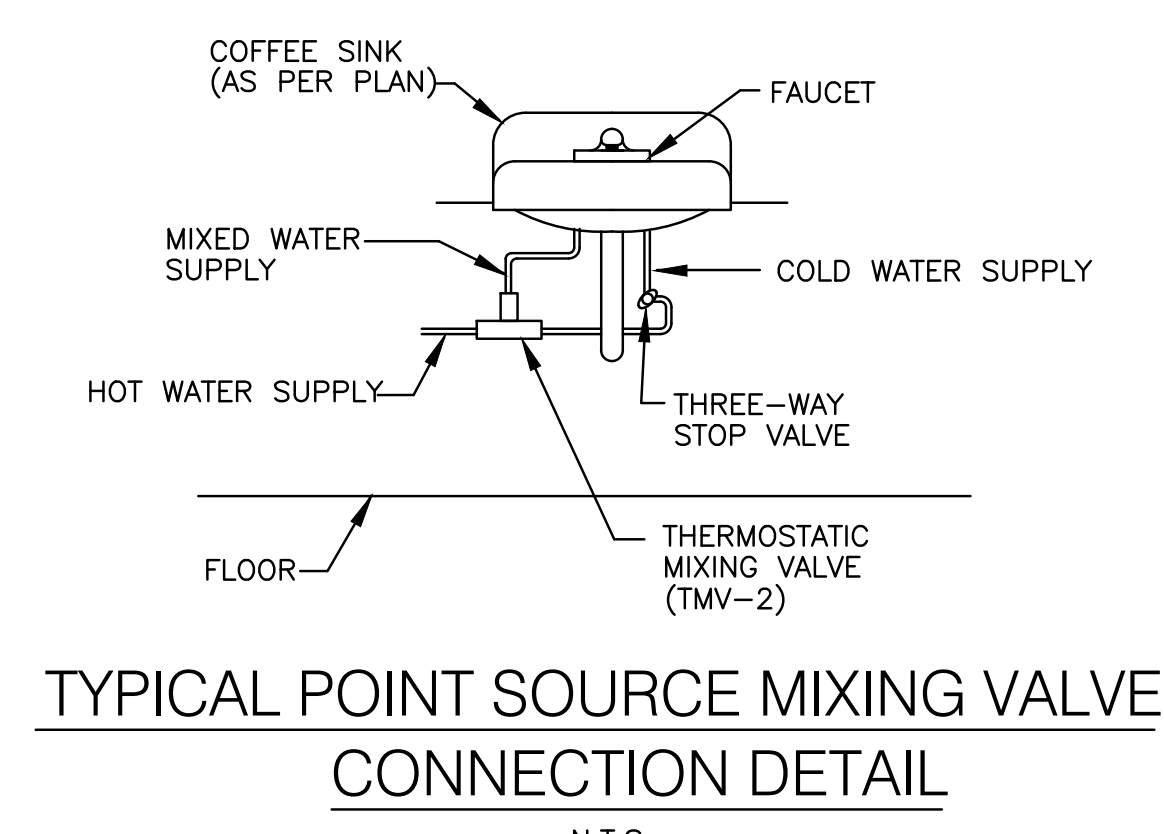
**PLUMBING FIXTURE SCHEDULE**

WC	AMERICAN STANDARD & SLOAN WATER CLOSET: AMERICAN STANDARD MODEL 2294-011EC: WALL-MOUNTED ELONGATED WATER CLOSET WITH 1-1/2" TOP INLET SPUD. PROVIDE WITH SLOAN MODEL #8259400 BATTERY OPERATED SENSOR 1.6 GPF FLUSH VALVE WITH 1" I.P.S. INLET. PROVIDE WITH AMERICAN STANDARD MODEL 5901.1100SS ELONGATED TOILET SEAT WITH SELF-SUSTAINING HINGE.
LAV	AMERICAN STANDARD & SLOAN LAVATORY: AMERICAN STANDARD MODEL LUCERNE 6356-621 VITREOUS CHINA HUNG LAVATORY. ADA COMPLIANT, 20"x18" WITH SINGLE HOLE FAUCET. FAUCET: SLOAN MODEL EAF-150-BAT-CP-0.35GPM-MM-R-IG-FIC. PROVIDE ASSE 1070 COMPLIANT MIXING VALVE, ZURN MODEL 21231-79 WALL CARRIER, FLAT GRID STRAINER, 1-1/4" OFFSET TAILPIECE AND SUPPLY WRAP PER CODE.
SINK	ELKAY & CHICAGO ADA SINK: ELKAY MODEL LMD22195S LUSTERSTONE STAINLESS STEEL SINGLE BOWL DROP-IN ADA SINK, DIMENSIONS 22"x19" AND 5-1/2" DEEP. FAUCET: CHICAGO MODEL 785-E29-KXCP FAUCET WITH 4" WRISTBLADE HANDLES WITH 8" CENTERS, AND GOOSENECK SPOUT WITH 2.2 GPM LAMINAR FLOW OUTLET. PROVIDE ASSE 1070 COMPLIANT MIXING VALVE, WALL SUPPLIES WITH STOP, FLAT GRID STRAINER, P TRAP, AND SUPPLY WRAP PER CODE.
FD	J.R. SMITH #2010-A, WITH 6" ROUND STRAINER AND NICKLE BRONZE TOP. PROVIDE WITH "SURE-SEAL" INLINE FLOOR DRAIN TRAP SEAL.

- NOTE:**
1. EACH INDIVIDUAL PLUMBING FIXTURE SHALL BE INSTALLED WITH ITS OWN SHUT-OFF VALVE ON RESPECTIVE COLD WATER SUPPLY & / OR HOT WATER SUPPLY LINES. ALL FLUSH VALVE OPERATED FIXTURES AND SHOWER VALVES SHALL BE FURNISHED WITH SCREWDRIVER BAR-CHEK ANGLE STOPS.
  2. INSTALL EACH FIXTURE WITH TRAP, EASILY REMOVABLE FOR SERVICING AND CLEANING.
  3. PROVIDE CHROME PLATED, RIGID OR FLEXIBLE SUPPLIES TO FIXTURES W/ HANDLE OR LOOSE KEY STOPS, REDUCERS AND ESCHICHONS.
  4. INSTALL AND SECURE FIXTURES IN PLACE WITH WALL SUPPORTS, FLOOR SUPPORTS, WALL CARRIERS AND BOLTS.



STACK DIAGRAM  
 N.T.S.



TYPICAL POINT SOURCE MIXING VALVE CONNECTION DETAIL  
 N.T.S.

**EQUIPMENT & FIXTURE CONNECTION SCHEDULE**

FIXTURE	DRAWING DESIGNATION	SAN.	VENT	C.W.	H.W.
HAND SINK	SINK	1 1/2"	1 1/2"	1/2"	1/2"
WATER CLOSET	WC	3"	1 1/2"	1/2"	---
LAVATORY	LAV	1 1/2"	1 1/2"	1/2"	1/2"

- NOTES:**
1. "EQ" = INDICATES EQUIPMENT FURNISHED BY OWNER.
  2. WATER DISPENSER & ICE MAKER SHALL HAVE AN AIR GAP OF 2" PER CODE & LOCAL HEALTH DEPT.
  3. ADA FIXTURES WITH EXPOSED TRAP AND/OR SUPPLIES ARE REQUIRED TO HAVE INSULATION KIT INCLUDED AND INSTALLED, UNLESS ARCHITECT IS PROVIDING A REMOVABLE PANEL BELOW FIXTURE.

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**MOUND ELEMENTARY SCHOOL**

Interior Alteration

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5935 Ackley Road  
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Checked By: DB  
 Date: WDB, II

**PLUMBING FLOOR PLANS, SCHEDULES & DETAILS**

Date: 07.13.2022 Sheet: P-1

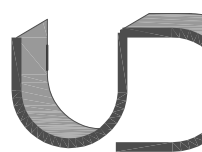




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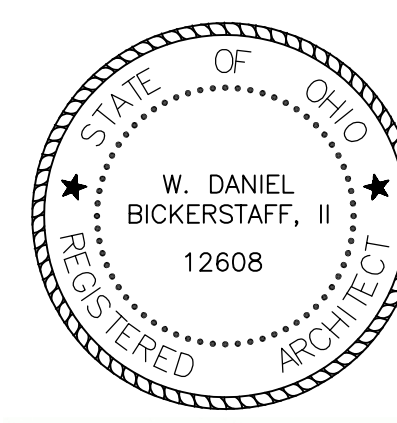
Project Team:

Architect



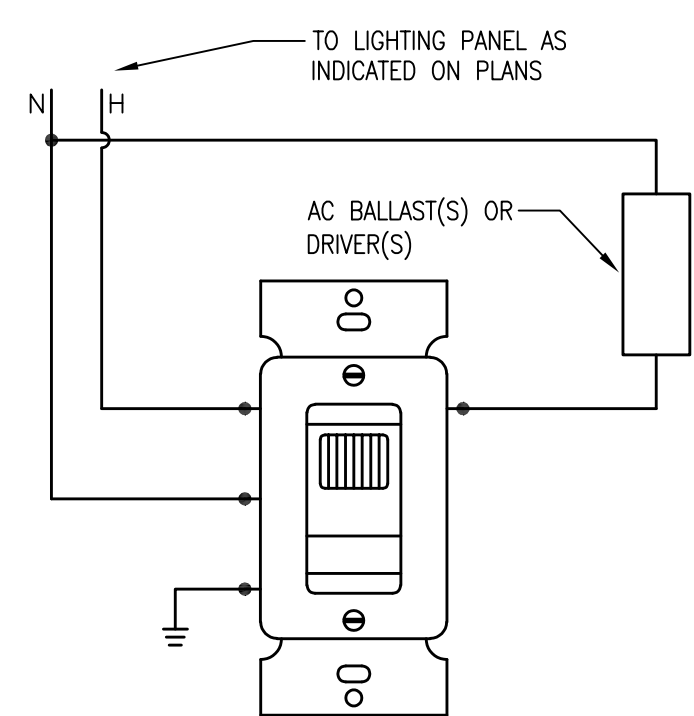
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VACANCY SENSOR SWITCH 'VS' WIRING DIAGRAM

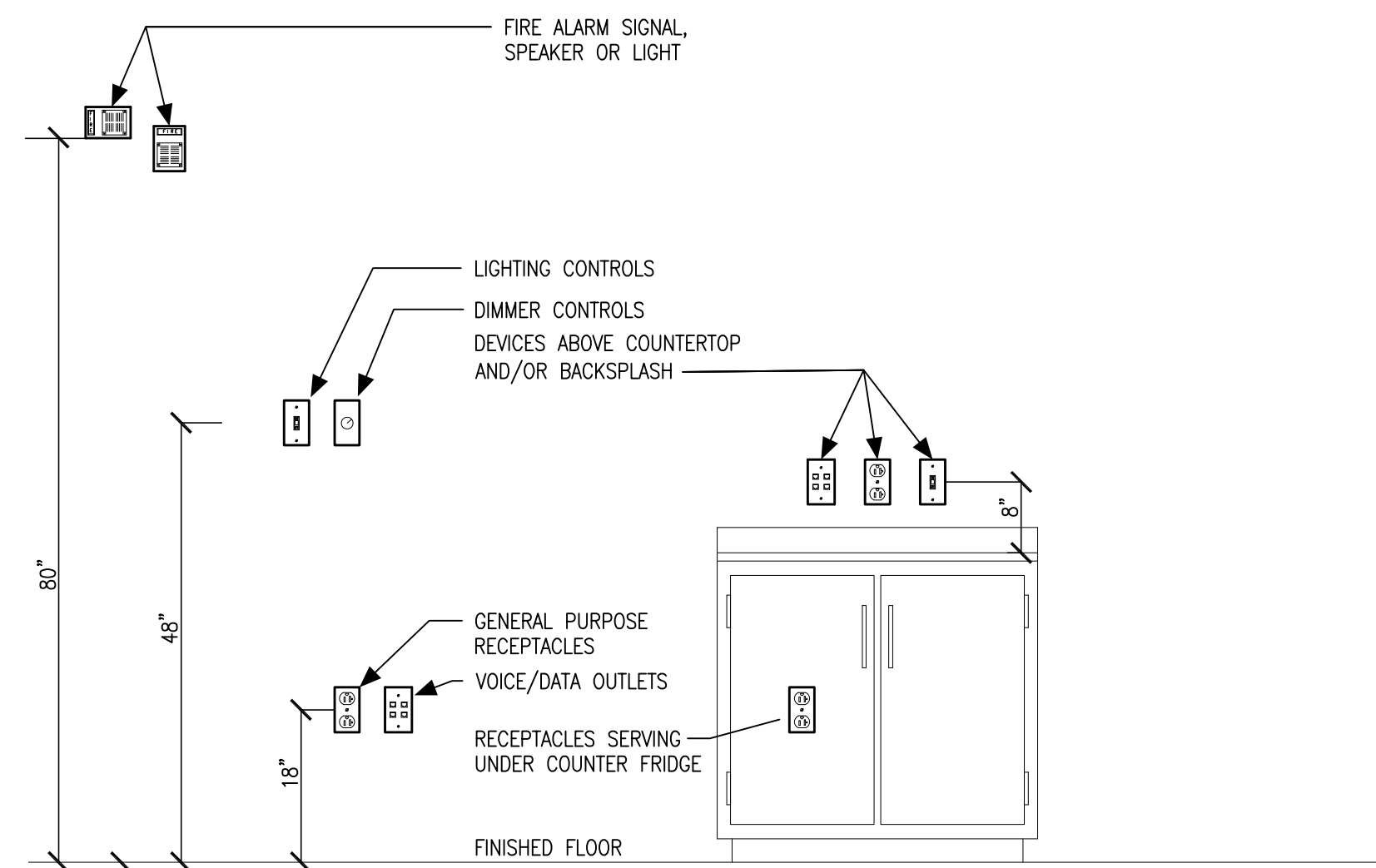
NOTES:

- ALL LOW VOLTAGE WIRING AND TERMINATIONS TO BE BY ELECTRICAL CONTRACTOR.
- VACANCY SENSOR SHALL BE "SENSOR SWITCH" WSX-PDT-SA OR APPROVED EQUAL.
- CONTRACTOR TO VERIFY AND MATCH LOAD TYPE AND WATTAGE.

ELECTRICAL SYMBOL/ABBREVIATION LEGEND				
SYMBOL	DESCRIPTION	MTG. HGT. (U.N.O.)	ABBREVIATION	DESCRIPTION
⊕ / ⊕ / ⊕ CLG-CEILING MOUNTED	SINGLE / DUPLEX / DOUBLE DUPLEX RECEPTACLE / G-GROUND FAULT	18"	AFF	ABOVE FINISHED FLOOR
⊕ u	COMBINATION 120VAC, USB 5 VDC, 3.1A CHARGER PORT & RECEPTACLE		AHJ	AUTHORITY HAVING JURISDICTION
⊕ c	GROUND FAULT DUPLEX RECEPTACLE, AC-MOUNTED ABOVE COUNTER		ECH	ELECTRIC CABINET HEATER
⊕ s	LIGHT SWITCH, SINGLE POLE, 20 AMP, 120/277 VOLT. LOWER CASE LETTER INDICATES LUMINAIRE CONTROLLED.		EX	EXISTING
⊕ v	WALLBOX VACANCY SENSOR, SEE DETAIL THIS DRAWING		EUH	EXISTING UNIT HEATER
⊕ c	CEILING MOUNTED OCC SENSOR WITH POWER PACK, SEE DETAIL THIS DRAWING		ERTU	EXISTING ROOF TOP UNIT
⊕	JUNCTION BOX		EF	EXHAUST FAN
⊕	IT DEVICE, PROVIDE BOX WITH 3/4" CONDUIT TO CEILING SPACE, SEE IT DRAWINGS	18"	NIC	NOT IN CONTRACT
⊕	PLAN CODED NOTE		SER	SERVICE ENTRANCE RATED
⊕	DISCONNECT SWITCH GENERAL PURPOSE, 240V, 2-P NON-FUSED, OR AS NEEDED		SW	SWITCH
⊕	DISCONNECT SWITCH GENERAL PURPOSE, 240V, 2-P FUSED, OR AS NEEDED		TYP	TYPICAL
⊕	PANELBOARD 208/120 VOLT		UC	UNDER COUNTER
⊕	WALL MOUNTED FIRE ALARM HORN STROBE DEVICE.	80"	UNO	UNLESS NOTED OTHERWISE
⊕	WALL MOUNTED FIRE ALARM VISUAL DEVICE.		XFMR	TRANSFORMER

1. COORDINATE WITH ARCHITECT AND INDICATE MOUNTING HEIGHTS OF DEVICES.

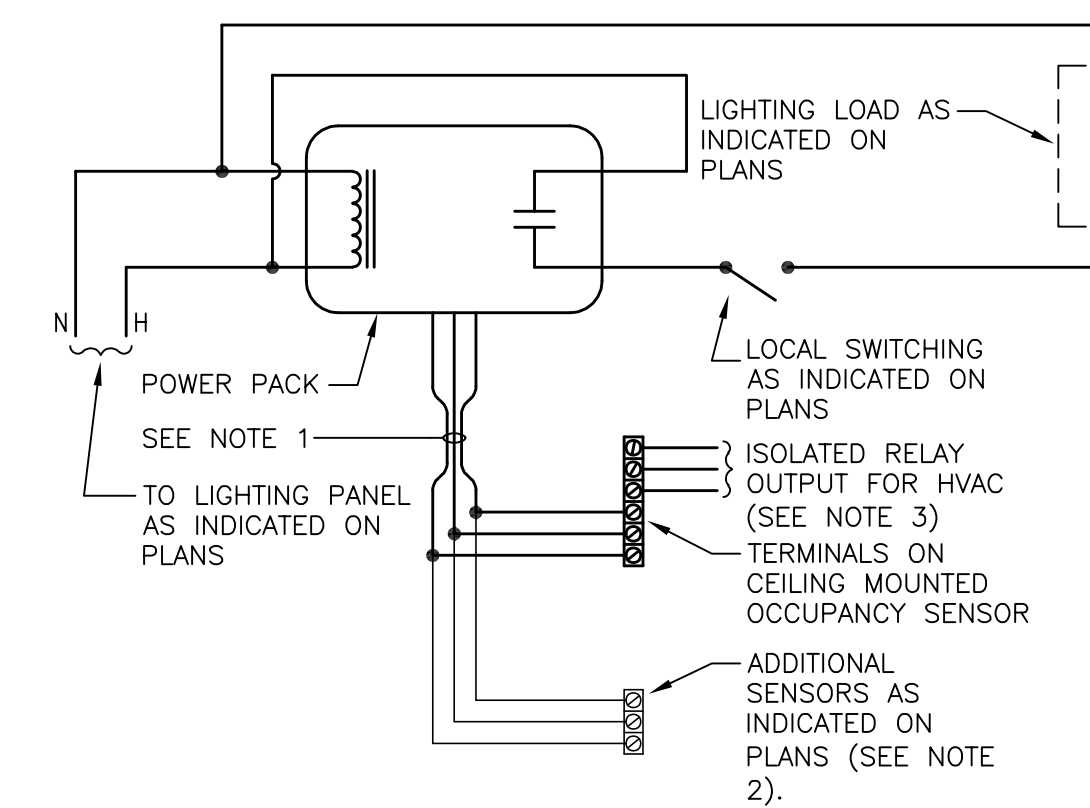
LUMINAIRE SCHEDULE FINAL SELECTIONS BY OWNER - 35K TEMP						
SYMBOL	TYPE	SOURCE	VOLTS	TOTAL WATTS	DESCRIPTION	CATALOG NO.
□	A1	LED	UNV	26	2X2 RECESSED MOUNTED FLAT PANEL LED LUMINAIRE.	COLUMBIA LIGHTING CFP22-3335-HE OR APPROVED EQUAL
□	A2	LED	UNV	25	2X2 RECESSED MOUNTED FLAT PANEL LED LUMINAIRE.	COLUMBIA LIGHTING CFP22-2835 OR APPROVED EQUAL
□	B	LED	UNV	26	4' LED RECESSED LUMINAIRE.	NEO-RAY LIGHTING S124DR-S-1020DR35-FTG4FD-1-2-DD-F OR APPROVED EQUAL
⊕	X1	LED	120V		UNIVERSAL MOUNTED COMBINATION EXIT SIGN/ EMERGENCY LIGHT WITH THERMOPLASTIC HOUSING, RED LETTERING AND BATTERY BACK UP.	LITHONIA LHQM-LED-R
⊕	X1	LED	120V		UNIVERSAL MOUNTED EXIT SIGN WITH THERMOPLASTIC HOUSING, RED LETTERING AND BATTERY BACK UP.	LITHONIA LHQM-LED-R-HO
⊕	EM	LED	120V		EMERGENCY BATTERY PACK WITH THERMOPLASTIC CONSTRUCTION AND BATTERY PACK.	LITHONIA ELM2L-UVOLT



TYPICAL DEVICE MOUNTING DETAIL N.T.S.

NOTES:

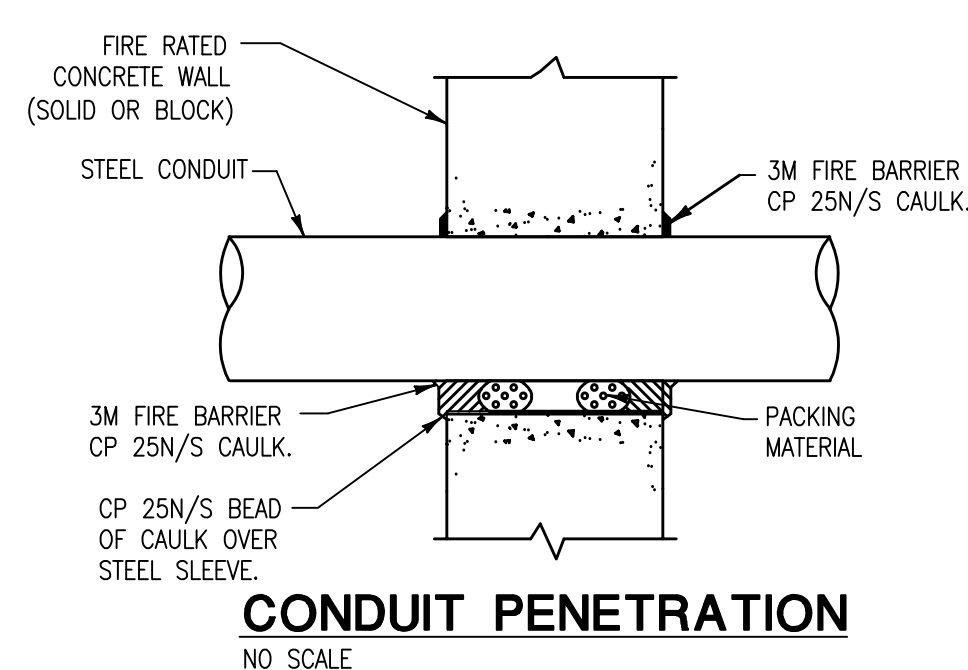
- ALL MOUNTING HEIGHTS SHALL BE MEASURED FROM FINISHED FLOOR TO THE CENTERLINE OF DEVICE.
- NO WIRING DEVICES OR OUTLET BOXES SHALL BE MOUNTED BACK TO BACK.
- ALL MOUNTING DEVICES SHALL BE INSTALLED AT MOUNTING HEIGHTS AS INDICATED ON THIS DETAIL UNLESS OTHERWISE NOTED.
- FOR ALL ELEVATIONS (WHERE APPLICABLE), CASEWORK DETAILS, FIRE WALLS, SMOKE WALLS, LOCATION OF COUNTERTOP RECEPTACLES, LUMINAIRE SWITCHES, TELEPHONE OUTLETS, EQUIPMENT ROUGH-INS, HEADWALLS, ETC., SEE ARCH DRAWINGS. WHERE NO ARCHITECTURAL ELEVATIONS OR DETAILS OCCUR, THE ELECTRICAL CONTRACTOR SHALL USE MEANS AND METHODS AS WELL AS THEIR FIELD KNOWLEDGE TO SPOT DEVICES IN THE BEST LOCATIONS FOR THE PROJECT.



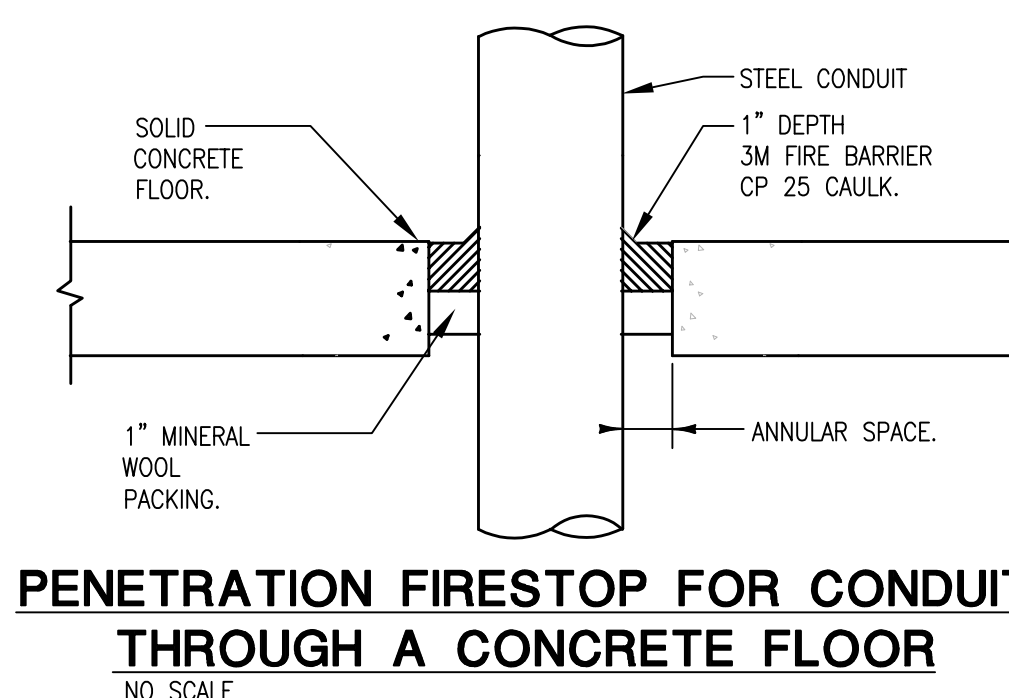
OCCUPANCY SENSOR WIRING DIAGRAM SCALE: NOT TO SCALE

NOTES:

- ALL LOW VOLTAGE WIRING AND TERMINATIONS TO BE BY ELECTRICAL CONTRACTOR.
- MAXIMUM NUMBER OF SENSORS PER POWER PACK IS DEPENDANT ON MANUFACTURER. COORDINATE QUANTITY OF POWER PACKS WITH MANUFACTURER.
- AUXILIARY RELAY IS ENERGIZED DURING 'UNOCCUPIED' STATE.
- OCCUPANCY SENSOR SHALL BE DUAL TECHNOLOGY "SENSOR SWITCH" CM-PDT-10 OR APPROVED EQUAL. ALL EXPOSED CONTROL WIRING SHALL BE IN CONDUIT.
- UNITS DENOTED WITH AN 'H' SHALL BE HALLWAY COVERAGE TYPE CM-PDT-11 OR APPROVED EQUAL.
- CONTRACTOR TO VERIFY AND MATCH LOAD TYPE AND WATTAGE.



CONDUIT PENETRATION NO SCALE



PENETRATION FIRESTOP FOR CONDUIT THROUGH A CONCRETE FLOOR NO SCALE

PERMIT ISSUANCE WDB, II 08.01.2022

ISSUED BY DATE

MOUND ELEMENTARY SCHOOL

Interior Alteration

New MetroHealth ODH SBHC Health Care Expansion Program

5935 Ackley Road Cleveland, OH 44105



MEDICAL CENTER 2500 METROHEALTH DR. CLEVELAND, OH 44109

CMDB Approval

X

Public Health and EDUCATOR, Exec. Dir. Architectural Projects, Capital Projects

Date

Considered Project #

DB

Drawn by

WDB, II

Checked by

WDB, II

Scale:

Sheet

Date:

07.13.2022

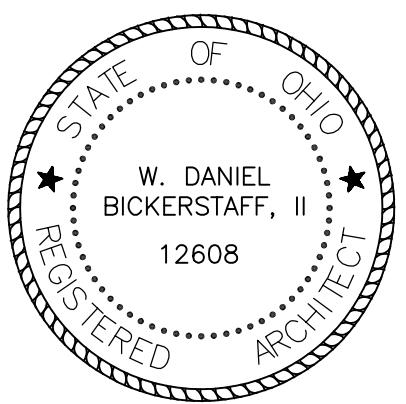
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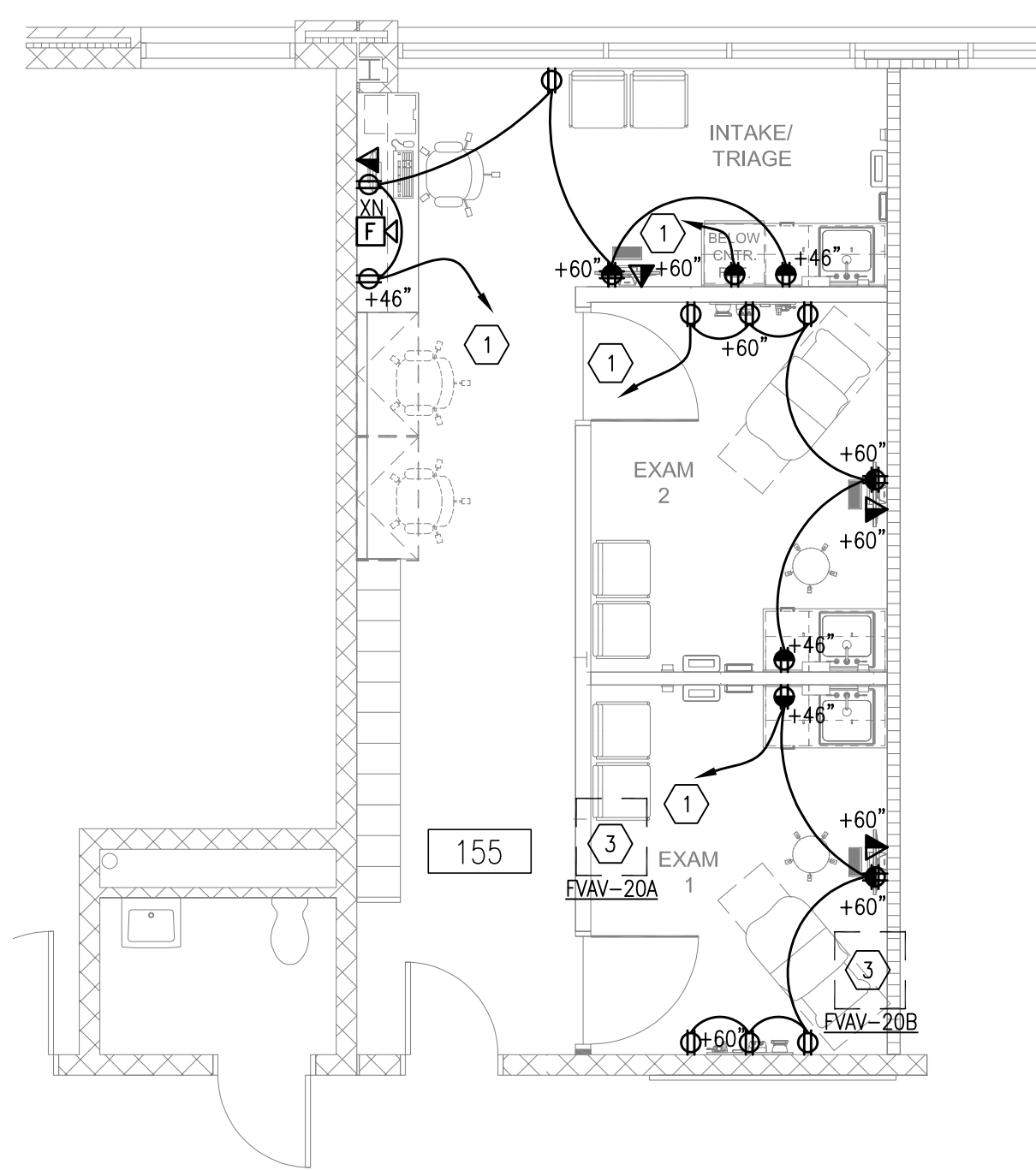
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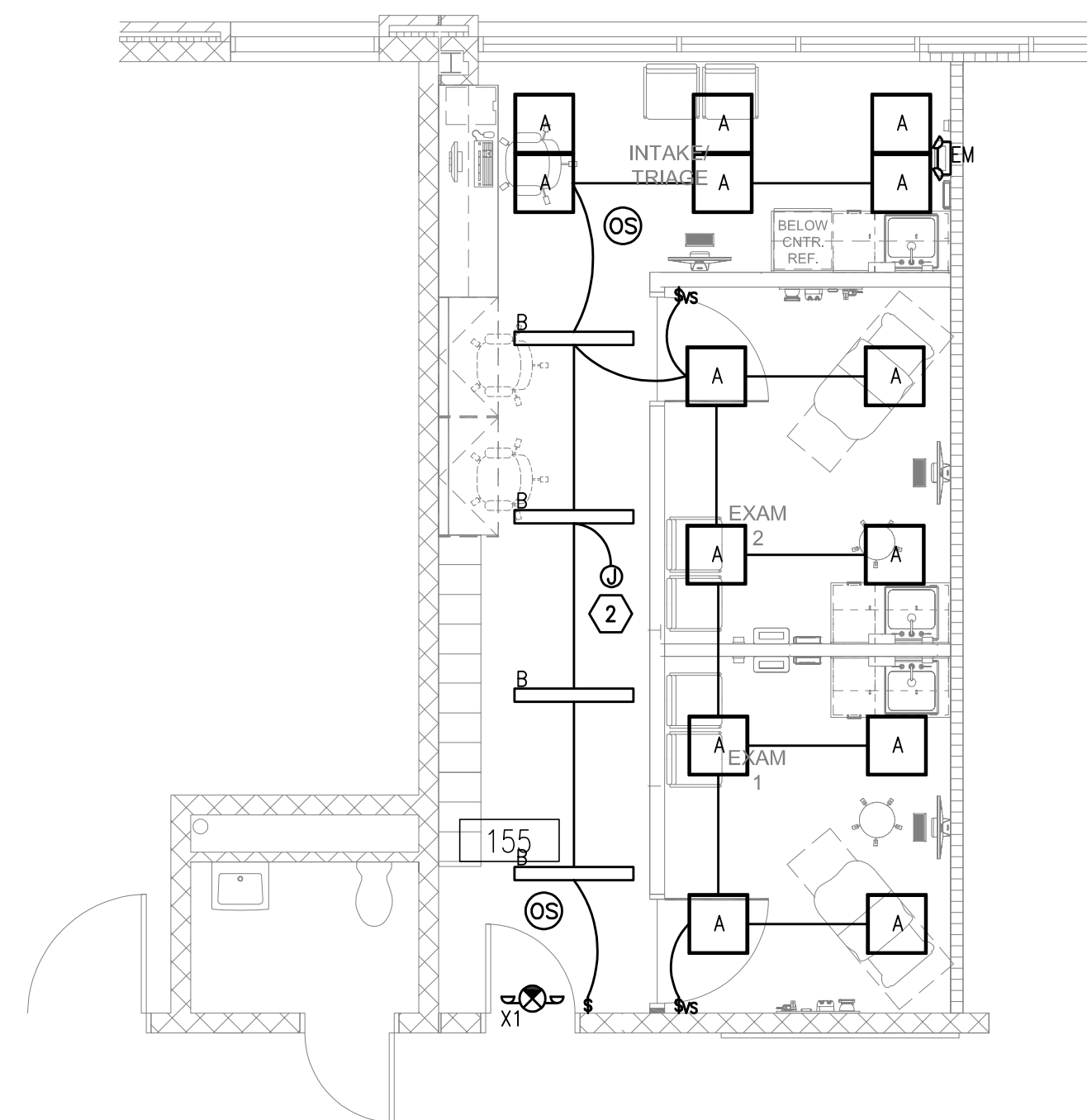


*W. Daniel Bickerstaff, II*  
W. Daniel Bickerstaff, II License No. 12608  
Expiration Date: December 31, 2023

ANNOTATION LEGEND	
"XR"	DENOTES NEW LOCATION OF EXISTING RELOCATED ("XR") DEVICE/EQUIPMENT. REWORK ALL BRANCH CIRCUIT WIRING, CONDUIT, ETC. TO NEW LOCATION AS REQUIRED.



2 FIRST FLOOR PARTIAL POWER PLAN  
E1.1 SCALE: 3/16" = 1'-0"



1 FIRST FLOOR PARTIAL LIGHTING PLAN  
E1.1 SCALE: 3/16" = 1'-0"

**GENERAL NOTES:**

- ALL DEVICES, EQUIPMENT, LUMINAIRES, ETC., MUST BE GROUNDED BY USE OF A PROPERLY SIZED GROUNDING CONDUCTOR. MECHANICAL/ELECTRICAL BONDS OF THE METALLIC RACEWAY SYSTEM SHALL ALSO BE MAINTAINED.
- BRANCH CIRCUIT WIRE SIZES (AND CONDUITS) SHALL BE INCREASED FROM THOSE INDICATED ON THE PLANS TO PREVENT EXCESSIVE VOLTAGE DROP. BRANCH CIRCUITS SHALL BE INSTALLED WITH WIRES OF SUFFICIENT SIZE SO THAT VOLTAGE DROP BETWEEN THE PANEL AND THE LOADS DOES NOT EXCEED A LIMIT OF 3%.
- CIRCUITS MAY BE COMBINED IN CONDUIT PROVIDED WIRE IS PROPERLY DE-RATED AND CONDUIT SIZED PER CODE. UNDER NO CIRCUMSTANCES SHALL MORE THAN NINE (9) CURRENT CARRYING CONDUCTORS BE RUN IN A SINGLE CONDUIT.
- ALL CONDUITS SHALL CONTAIN A GROUND WIRE SIZED PER NEC TABLE #250-122, WHERE CIRCUIT CONDUCTORS ARE INCREASED IN SIZE FOR VOLTAGE DROP, THE GROUND WIRE SIZE SHALL BE INCREASED PROPORTIONATELY (ACCORDING TO CIRCULAR MIL AREA) FROM THE SIZE REQUIRED BY NEC TABLE #250-122.
- EXPOSED CONDUITS, WHERE PERMITTED, SHALL BE RUN PARALLEL TO OR AT RIGHT ANGLES TO BUILDING STRUCTURAL MEMBERS.
- ALL DEVICES SHALL BE WHITE WITH MATCHING COVERPLATES, UNLESS NOTED OTHERWISE.
- ALL EXIT SIGNS, EMERGENCY LIGHTING BATTERY PACKS, EMERGENCY LUMINAIRES (ON GENERATOR OR EMERGENCY LIGHTING BATTERY PACKS INTEGRAL TO LUMINAIRE), AND NIGHT LIGHTS (DENOTED "NL") SHALL BE CONNECTED TO THE LOCAL LIGHTING CIRCUIT AHEAD OF ANY CONTROLS SUCH AS: SWITCHES (DEVICE), OCCUPANCY SENSORS AND/OR RELAY CONTROLS.

**KEYED NOTE SCHEDULE**

- CONNECT TO SPARE CIRCUIT MADE AVAILABLE PER DEMOLITION, E.G. SHALL CONFIRM ALL CIRCUITS IN FIELD AND ADJUST AS REQUIRED. CIRCUITS FROM PANEL "RCP1B".
- CONNECT TO EXISTING LIGHTING CIRCUIT FROM PANEL LP2A-13. CONNECT EXISTING LIGHTING CONTROL DEVICES.
- CONNECT FVAV BOX TO MAINTAINED BRANCH FROM DEMO OF VAV BOX.

CONTRACTOR SHALL PROVIDE CERTIFIED FIRE ALARM DRAWINGS AS STATED IN THE SPECIFICATIONS, STAMPED BY A STATE CERTIFIED NICET DESIGNER DENOTING SCOPE OF WORK SHOWN AND ANY MODIFICATIONS REQUIRED TO MEET CODE REQUIREMENTS, REFER TO SPECIFICATION SECTION 1.12 PARAGRAPH A.17 FOR FURTHER INFORMATION. A COMPLETE, CODE COMPLIANT SYSTEM SHALL BE PROVIDED BASED ON THE NICET CERTIFIED DESIGNER DOCUMENTS AND AHJ REQUIREMENTS.

**KEYED NOTE SCHEDULE**

- DISCONNECT EXISTING LIGHTING FIXTURES AND POWER DEVICES MAINTAIN BRANCH CIRCUIT WIRING FOR FUTURE CONNECTION OF NEW EQUIPMENT. LIGHTING AND POWER ARE FED FROM PANEL "11C". (TOTAL OF 5 CIRCUITS)
- DISCONNECT AND REMOVE EXISTING MECHANICAL EQUIPMENT BRANCH CIRCUIT WIRING. COMPLETE BACK TO SOURCE FOR REMOVAL BY OTHERS. MAINTAIN CIRCUITS FOR FUTURE CONNECTION.

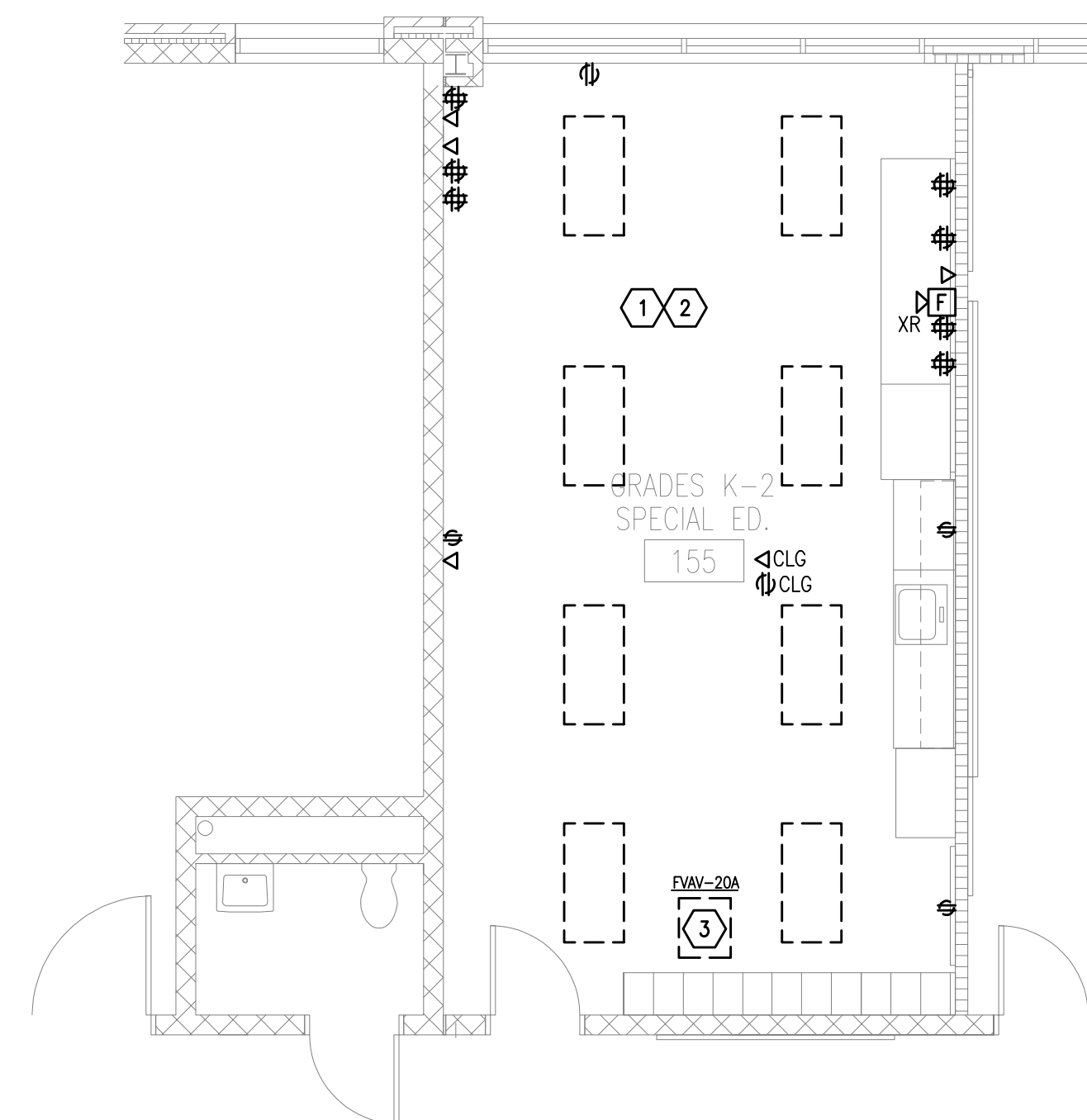
**KEYED NOTE SCHEDULE (DEMO)**

- DISCONNECT EXISTING LIGHTING FIXTURES AND POWER DEVICES MAINTAIN BRANCH CIRCUIT WIRING FOR FUTURE CONNECTION OF NEW EQUIPMENT. LIGHTING AND POWER ARE FED FROM PANEL "RCP1B". (TOTAL OF 5 CIRCUITS)
- MAINTAIN EXISTING LIGHTING CIRCUIT AND LIGHTING CONTROL DEVICES FOR CONNECTION TO NEW LIGHTING FIXTURES.
- DISCONNECT AND REMOVE EXISTING MECHANICAL EQUIPMENT BRANCH CIRCUIT WIRING FOR REMOVAL BY OTHERS. MAINTAIN CIRCUITS FOR FUTURE CONNECTION.

DEMOLITION ANNOTATION LEGEND	
"XR"	DENOTES EXISTING DEVICE/EQUIPMENT TO BE DISCONNECTED, REMOVED AND RELOCATED TO NEW LOCATION SHOWN ON POWER PLAN.

**DEMOLITION NOTES:**

- PERFORM ALL DEMOLITION OF EXISTING ELECTRICAL SYSTEMS AS INDICATED ON ELECTRICAL AND ARCHITECTURAL PLANS OR NECESSARY FOR THE PROJECT. REMOVE FROM SITE AND PROPERLY DISPOSE OF ALL MATERIAL AND DEBRIS FROM THIS WORK.
- DEMOLITION DRAWINGS ARE GENERAL IN NATURE SHOWING THE SCOPE OF DEMOLITION WORK. CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE QUANTITY OF LUMINAIRES, OUTLETS, ETC. REMOVE ALL EQUIPMENT AND DEVICES NO LONGER REQUIRED FOR FINISHED CONSTRUCTION. REMOVE CONDUITS BEYOND NEW SURFACES. REMOVE ALL EXISTING WIRE FROM CONDUIT BACK TO POINT OF COMMON USE OR TO PANELS.
- FOR ALL DEVICES AND LUMINAIRES BEING REMOVED, REMOVE RELATED CONDUIT AND WIRING TO SOURCE. RE-LABEL EXISTING CIRCUIT BREAKERS AS "SPARE" WHEN LOAD IS COMPLETELY REMOVED OR REVERSE LABEL ON PANEL DIRECTORY APPROPRIATELY AND SET BREAKER TO THE "OFF" POSITION.
- PATCH ALL SURFACES TO MATCH SURROUNDING FOR DEVICES BEING REMOVED FROM EXISTING WALLS TO BE MAINTAINED. ALL CIRCUITS WHICH ARE REQUIRED TO REMAIN ACTIVE SHALL BE MAINTAINED OR REWORKED AS REQUIRED. ANY EXISTING CIRCUITS OR CABLING SYSTEMS SERVING AREAS NOT AFFECTED BY DEMOLITION SHALL BE MAINTAINED.
- ALL CIRCUITS SHALL BE VERIFIED WITH EXISTING DRAWINGS AND ACTUAL FIELD CONDITIONS PRIOR TO BEGINNING DEMOLITION.
- THE OWNER RESERVES THE RIGHT OF SALVAGE FOR ALL EXISTING ELECTRICAL EQUIPMENT PRIOR TO DEMOLITION. THE CONTRACTOR SHALL REVIEW ALL MATERIALS AND DELIVER TO THE OWNER THOSE REQUIRED IN THEIR EXISTING CONDITION. ALL OTHER MATERIAL SHALL BE REMOVED BY THIS CONTRACTOR.
- DISCONNECT AND REMOVE ALL EXISTING DATA, PHONE AND SECURITY WIRING FROM SPACE. REMOVE AND DISPOSE OF ALL DEVICES ASSOCIATED WITH THESE SYSTEMS UNLESS NOTED OTHERWISE.
- EXISTING FIRE ALARM SYSTEM TO BE MAINTAINED IN PLACE DURING CONSTRUCTION AND MODIFIED PER DRAWINGS. EXISTING WIRING TO REMAIN SHALL BE SUPPORTED FROM STRUCTURE BEFORE CEILING REMOVAL.
- ALL WORK SHOWN LIGHT IS EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
- ALL WORK SHOWN DARK OR DARK/DASHED SHALL BE DISCONNECTED AND REMOVED IN ITS ENTIRETY UNLESS NOTED OTHERWISE.



3 FIRST FLOOR PARTIAL ELECTRICAL DEMOLITION PLAN  
E1.1 SCALE: 3/16" = 1'-0"

PERMIT ISSUANCE	WDB, II	08.01.2022
ISSUED	BY	DATE

**MOUND  
ELEMENTARY  
SCHOOL**

Interior Alteration  
  
New MetroHealth  
ODH  
SBHC  
Health Care Expansion Program

5935 Ackley Road  
Cleveland, OH 44105

**MetroHealth**  
MEDICAL CENTER  
2500 METROHEALTH DR.  
CLEVELAND, OH 44109

DESIGN APPROVAL		
X	Public Health and EDUCATOR, Exec. Dir. Architectural Projects, Capital Projects	Date
Considered Project #	Drawn by: DB	Checked by: WDB, II

**LIGHTING, POWER  
AND DEMOLITION  
PLANS**

Scale:	Sheet:
Date: 07.13.2022	E1.1

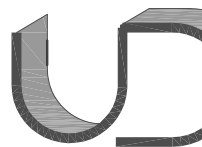




**CLEVELAND  
METROPOLITAN  
SCHOOL DISTRICT**

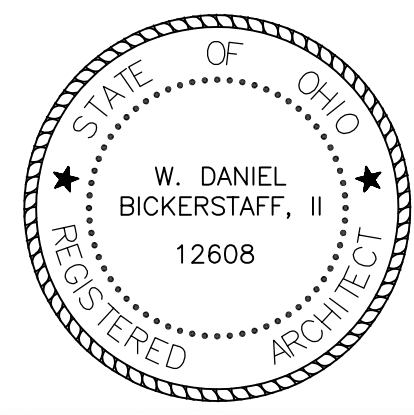
**Project Team:**

**Architect**



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Expiration Date: December 31, 2023

**ELECTRICAL SPECIFICATIONS**

**SECTION 260100 - GENERAL REQUIREMENTS**

- 1.1 GENERAL
  - A. THE ARCHITECTURAL AND MECHANICAL EQUIPMENT AND ANY EQUIPMENT AND SPECIFICATIONS ARE HEREBY INCORPORATED INTO AND BECOME A PART OF THE ELECTRICAL CONTRACT DOCUMENTS. THIS CONTRACTOR SHALL EXAMINE ALL SUCH DRAWINGS AND SPECIFICATIONS AND BECOME FAMILIAR WITH PROVISIONS CONTAINED THEREIN.
  - B. IT IS THE PURPOSE OF THE ELECTRICAL DRAWINGS TO INDICATE THE APPROXIMATE LOCATIONS OF ALL EQUIPMENT, OUTLETS, FIXTURES, ETC. ASCERTAIN EXACT LOCATIONS AND ARRANGE WORK ACCORDINGLY. THE FINAL LOCATIONS ARE SUBJECT TO REASONABLE CHANGE BY THE ARCHITECT OR OWNER PRIOR TO ROUGH-IN AT NO ADDITIONAL COST. DIMENSIONS GIVEN ON THE PLANS SHALL BE VERIFIED IN THE FIELD. DRAWINGS SHALL NOT BE SCALED TO OBTAIN EXACT DIMENSIONS.
  - C. THE DRAWINGS SHOW DIAGRAMMATICALLY THE LOCATIONS OF THE VARIOUS ELECTRICAL DEVICES, EQUIPMENT, FIXTURES, AND THE METHOD OF CONNECTING AND CONTROLLING THEM. THEY ARE NOT INTENDED TO SHOW EVERY CONNECTION IN DETAIL, NOR ALL FITTINGS REQUIRED FOR A COMPLETE SYSTEM. MATERIAL OR LABOR WHICH IS NOT SHOWN ON THE DRAWINGS OR INCLUDED IN THE SPECIFICATIONS BUT IS NECESSARY TO COMPLETE THE WORK, SHALL BE PROVIDED.
  - D. THE DRAWINGS, AS PREPARED, ARE DIAGRAMMATIC, BUT SHALL BE FOLLOWED AS CLOSELY AS ACTUAL OPERATION OF BUILDING AND WORK OF OTHER TRADES WILL PERMIT. ALL CHANGES FROM THESE DRAWINGS, NECESSARY TO MAKE THE WORK CONFORM TO THE BUILDING AS CONSTRUCTED, AND TO FIT THE WORK OF OTHER TRADES OR TO CONFORM TO THE RULES AND REGULATIONS OF THE STATE, MUNICIPAL AND LOCAL BODIES HAVING JURISDICTION, SHALL BE MADE BY THIS CONTRACTOR, AT HIS OWN EXPENSE.
  - E. ALL BIDDERS ARE REQUIRED TO VISIT THE SITE OF WORK AND BECOME FAMILIAR WITH THE CONDITIONS AFFECTING INSTALLATION. SUBMISSION OF A PROPOSAL SHALL PRESUPPOSE KNOWLEDGE OF SUCH CONDITIONS AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED WHERE EXTRA LABOR OR MATERIALS ARE REQUIRED BECAUSE OF IGNORANCE OF THESE CONDITIONS.
  - F. IT IS THE INTENT OF THESE SPECIFICATIONS THAT EQUIPMENT SPECIFIED AS AN EXTENSION TO OR AN INTERFERENCE WITH AN EXISTING SYSTEM BE COMPLETELY COMPARABLE WITH THE EXISTING SYSTEM. THE CONTRACTOR SHALL DETERMINE CHARACTERISTICS OF THE EXISTING SYSTEMS AND COORDINATE WITH SUPPLIERS OF NEW EQUIPMENT TO PROVIDE COMPLETE AND PROPERLY OPERATING SYSTEMS.
- 1.2 WORK INCLUDED
  - A. ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED FOR A COMPLETE AND OPERATING ELECTRICAL INSTALLATION.
  - B. ALL PERMITS AND INSPECTIONS REQUIRED FOR ELECTRICAL WORK.
  - C. TEMPORARY ELECTRICAL SERVICE, GFI PROTECTED, LIGHTING AND WIRING FOR CONSTRUCTION.
  - D. CONCRETE WHERE REQUIRED BY ELECTRICAL WORK.
  - E. CUTTING, PATCHING AND FIREPROOFING WHERE REQUIRED FOR ELECTRICAL WORK.
  - F. FEEDER AND BRANCH CIRCUIT WIRING.
  - G. GROUNDING SYSTEM.
  - H. LIGHTING FIXTURES AND LAMPS.
  - I. ALL LIGHTING FIXTURES, HANGERS, SUPPORTS, LAMPS AND CONTROL DEVICES INSTALLED AND CONNECTED IN COMPLETE WORKMANSHIP, GFI PROTECTED, LIGHTING AND WIRING FOR CONSTRUCTION.
  - J. EMERGENCY LIGHTING SYSTEM AND EXIT SIGNS.
  - K. RECEPTACLE OUTLETS, DISCONNECT SWITCHES AND EQUIPMENT CONNECTIONS.
  - L. OUTLET BOXES, CABLEING AND PLYWOOD BACKSHIELDS IF REQUIRED FOR MOUNTING TELEPHONE AND DATA CABLEING.
  - M. PANELBOARDS.
  - N. PROVIDE CONSTRUCTION POWER AND LIGHTING, INCLUDING GFI PROTECTION FOR ALL TRADES. ASSIST OTHER TRADES.
- 1.3 MATERIALS NOT PROVIDED BY THIS CONTRACTOR, BUT SUBJECT TO HIS WIRING
  - A. MOTORS AND MOTOR CONTROLS PROVIDED BY OTHER CONTRACTORS UNDER OTHER SECTIONS OF SPECIFICATIONS.
  - B. UNLESS OTHERWISE INDICATED ON THE DRAWING, THE MECHANICAL CONTRACTOR PROVIDES TEMPERATURE CONTROL, COMPONENTS AND ALL RELATED CONDUIT AND WIRING.
  - C. SECURITY SYSTEM AND WIRING BY OWNER.
- 1.4 REQUIREMENTS OF REGULATORY AGENCIES
  - A. ALL WORK SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF ALL APPLICABLE FEDERAL, STATE, LOCAL AND REGIONAL CODES, RULES, REGULATIONS, AND STANDARDS, INCLUDING THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE AS INTERPRETED BY THE LOCAL INSPECTION DEPARTMENT.
  - B. SECURE AND PAY FOR ALL PERMITS AND INSPECTIONS REQUIRED FOR ELECTRICAL WORK AND GIVE THE PROPER AUTHORITIES NOTICES AS REQUIRED BY LAW. COMPLY WITH REGULATIONS REGARDING TEMPORARY ENCLOSURES, OBSTRUCTIONS, EXCAVATIONS, AND PAY FOR ALL LEGAL FEES INVOLVED. COPIES OF ALL INSPECTION REPORTS SHALL BE MADE AVAILABLE TO THE ARCHITECT ON REQUEST. THE ELECTRICAL CONTRACTOR SHALL FURNISH THREE (3) COPIES OF THE APPROVED FINAL INSPECTION REPORT BEFORE REQUEST FOR FINAL PAYMENT.
  - D. ALL CONDITIONS AND REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) SHALL BE FOLLOWED THROUGHOUT THE CONSTRUCTION OF THIS PROJECT. THIS PROJECT, WHEN COMPLETE, SHALL MEET OR EXCEED THE CONDITIONS AND REQUIREMENTS FOR SAFETY AS ESTABLISHED BY THE OCCUPATIONAL SAFETY AND HEALTH ACT.

- 1.5 SUBMITTALS
  - A. SUBMIT DRAWINGS, CATALOG SHEETS AND/OR WIRING DIAGRAMS FOR THE FOLLOWING EQUIPMENT AND SYSTEMS AS SPECIFIED IN DIVISION 1.
    1. WIRING DEVICES AND COVER PLATES. SUBMIT COLOR SAMPLES.
    2. PANELBOARDS, DISCONNECT SWITCHES, FUSED & NON-FUSED, STARTERS.
    3. LIGHTING FIXTURES & EMERGENCY LIGHTING.
  - B. THE SUBMITTALS WILL BE REVIEWED BY THE ENGINEER FOR GENERAL COMPLIANCE WITH CONTRACT DOCUMENTS ONLY, AND NOT FOR DIMENSIONS, QUANTITIES, ETC.
  - C. THE SUBMITTALS RETURNED MARKED "REVIEWED" OR "FURNISH AS CORRECTED" SHALL BE USED FOR PROCUREMENT; HOWEVER, THE RESPONSIBILITY FOR CORRECT PROCUREMENT REMAINS SOLELY WITH THE CONTRACTOR. ANY SUBMITTALS RETURNED MARKED "REVISE AND RESUBMIT" OR "REJECTED" SHOULD BE RESUBMITTED AS NOTED.
  - D. DISPOSITION OF SUBMITTALS SHALL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY FOR DEVIATIONS FROM DRAWINGS OR SPECIFICATIONS, UNLESS HE HAS SUBMITTED IN WRITING A LETTER ITEMIZING OR CALLING ATTENTION TO SUCH DEVIATIONS AT TIME OF SUBMISSION AND SECURED WRITTEN APPROVAL FROM THE ARCHITECT. NOR SHALL SUCH DISPOSITION OF SUBMITTALS RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS IN SUBMITTALS.

- 1.6 SUBSTITUTIONS
  - A. THESE SPECIFICATIONS SHALL ESTABLISH THE QUALITY AND STANDARD FOR MATERIALS AND EQUIPMENT TO BE FURNISHED. ITEMS SPECIFIED BY MANUFACTURER, TRADE NAME, OR CATALOG NUMBER SHALL BE FURNISHED AS SPECIFIED.
  - B. WHERE MORE THAN ONE MANUFACTURER IS SPECIFIED FOR AN ITEM OR SYSTEM, THE CONTRACTOR MAY FURNISH ANY ITEM OR SYSTEM SPECIFIED.
  - C. WHERE THE EQUIPMENT OF ONE MANUFACTURER IS SPECIFIED AND OTHER MANUFACTURERS ARE LISTED AS "ALTERNATE MANUFACTURERS", THE CONTRACTOR MAY FURNISH THE EQUIPMENT OF THE SPECIFIED MANUFACTURER OR OF ANY OF THE LISTED ALTERNATE MANUFACTURERS. HOWEVER, THE DRAWINGS ARE BASED ON THE EQUIPMENT OF THE SPECIFIED MANUFACTURER ONLY. IF THE CONTRACTOR ELECTS TO FURNISH EQUIPMENT OF AN ALTERNATE MANUFACTURER, ANY CHANGES TO THE WORK SHOWN ON THE DRAWINGS REQUIRED ACCORDING TO VARIATIONS OF THE ALTERNATE EQUIPMENT IN DIMENSIONS, CHARACTERISTIC, ACCESS, ETC. FROM THE SPECIFIED EQUIPMENT INCLUDING WORK OF OTHER CONTRACTORS SHALL BE INCLUDED IN THIS CONTRACTOR'S BID.
  - A. AS-BUILT DRAWINGS
    1. PROVIDE AS-BUILT DRAWINGS ON MEDIA REQUIRED BY ARCHITECT. AS WORK PROGRESSES, RECORD ANY DEVIATION FROM CONTRACT DRAWINGS. NOTATIONS SHALL BE NEAT AND LEGIBLE WITH ANY ADDITIONAL EXPLANATORY DRAWINGS OR SKETCHES NECESSARY. KEEP ON SITE A CURRENT SET AND SUBMIT AT COMPLETION OF PROJECT.

- 1.7 TEMPORARY LIGHTING AND WIRING
  - A. PROVIDE TEMPORARY ELECTRICAL SERVICE, COMMENCEMENT OUTLETS GFI PROTECTED, LIGHTING AND POWER AS REQUIRED FOR USE OF ALL TRADES DURING CONSTRUCTION.
- 1.8 GUARANTEE
  - A. GUARANTEE ALL WORKMANSHIP AND MATERIALS FURNISHED UNDER THE CONTRACT FOR ONE YEAR AFTER ACCEPTANCE BY OWNER. REPAIR OR REPLACE ANY DEFECT DURING THE GUARANTEE PERIOD, WITHOUT COST TO OWNER.

- 1.10 MATERIALS AND EQUIPMENT
  - A. ALL EQUIPMENT AND MATERIAL SHALL BE NEW, OF CURRENT MANUFACTURE AND MEET OR EXCEED STANDARDS SPECIFIED BY UL, NEMA, ANSI, AND IEEC WHEREVER SUCH STANDARDS HAVE BEEN ESTABLISHED AND SHALL BEAR THE UNDERWRITER'S LABORATORIES LABEL. ALL MATERIALS SUPPLIED OF ONE TYPE OR OF ONE SYSTEM SHALL BE BY THE SAME MANUFACTURER.
  - B. EQUIPMENT AND MATERIAL SHALL BE PROTECTED BY AND BE THE RESPONSIBILITY OF CONTRACTOR UNTIL FORMALLY ACCEPTED BY THE OWNER.

- 1.20.208 VOLT, 3 PHASE, 4 WIRE
  - PHASE A - BLACK
  - PHASE B - RED
  - PHASE C - BLUE
  - NEUTRAL - WHITE
  - GROUND - GREEN

- 1.11 SUPPORTING DEVICES
  - A. PROVIDE ALL HARDWARE, SUPPORTS, HANGERS, ANGLE IRON, CHANNELS, RODS, CLAMPS, ETC., FOR INSTALLATION OF ELECTRICAL EQUIPMENT AND LIGHT FIXTURES AS REQUIRED TO SUIT CONDITIONS AND APPLICATION. ALL SUPPORTING DEVICES SHALL BE GALVANIZED OR CADMIUM PLATED STEEL OR OTHER SUITABLY CORROSION-RESISTANT MATERIAL.
  - B. SUPPORTING DEVICES SHALL INCLUDE:
    1. INDIVIDUAL STEEL RING OR CLEVIS TYPE HANGERS.
    2. MALLEABLE IRON C-CLAMP AND RETAINING CLIPS FOR ATTACHMENT TO STEEL BEAMS.
    3. RING AND TURNBUCKET ATTACHMENT FOR STEEL PIPE.
    4. TRAFFEZE HANGERS WITH CLAMPS AND HANGER.
    5. CONCRETE INSERTS RATED PER LOAD FOR ATTACHMENT TO CONCRETE.
- 1.12 WORKMANSHIP
  - A. JOURNEYMEN ELECTRICIANS UNDER THE DIRECT SUPERVISION OF A COMPETENT FOREMAN SHALL INSTALL ELECTRICAL WORK. WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE BEST PRACTICES OF THE TRADE.
- 1.13 EQUIPMENT CONNECTIONS
  - A. SERVE AND CONNECT ELECTRICAL EQUIPMENT FURNISHED BY OTHERS AS SCHEDULED ON DRAWINGS. COORDINATE ALL OUTLET LOCATIONS AND CONNECTION REQUIREMENTS WITH THE CONTRACTOR FURNISHING THE EQUIPMENT. BEFORE CONNECTING ANY PIECE OF EQUIPMENT, CHECK THE NAMEPLATE RATING AGAINST THE INFORMATION SHOWN ON THE DRAWINGS AND CALL ANY DISCREPANCIES TO THE ATTENTION OF THE ARCHITECT. CAREFULLY STUDY ALL EQUIPMENT MANUFACTURER'S WIRING DIAGRAMS AND MAKE CONNECTIONS ACCORDINGLY.

- 1.14 CUTTING AND PATCHING
  - A. AVOID CUTTING AND PATCHING OF NEW CONSTRUCTION BY USING SLEEVES, INSERTS, AND CHASES AS REQUIRED. OPENINGS FOR THE PASSAGE OF DUCTS AND CONDUITS THROUGH WALLS AND FLOORS, CHASES, ETC., IN NEW CONSTRUCTION WILL BE PROVIDED BY THE GENERAL CONTRACTOR. THIS CONTRACTOR SHALL OVE THE GENERAL CONTRACTOR COMPLETE INFORMATION AS TO THE EXACT SIZE AND LOCATION OF SUCH OPENINGS AT THE PROPER TIME.
  - B. PROVIDE ALL CUTTING AND PATCHING REQUIRED FOR INSTALLATION OF ELECTRICAL WORK IN EXISTING CONSTRUCTION. STRUCTURAL MEMBERS SHALL NOT BE CUT UNLESS APPROVED BY ARCHITECT.

- 1.15 TESTS AND INSPECTIONS
  - A. TEST ALL CIRCUITS EQUIPMENT AND SYSTEMS SPECIFIED FOR GROUNDS, SHORTS AND PROPER PHASING BEFORE ENERGIZING. TEST ALL DEVICES, EQUIPMENT AND LIGHT FIXTURES FOR PROPER FUNCTIONING. CHECK LOAD BALANCE ON PANELS AND SERVICE.
  - B. CONDUCT ANY TESTS REQUIRED BY CODE, LISTING AGENCY, MANUFACTURER, INSPECTOR, BUILDING DEPARTMENT, FIRE DEPARTMENT OR ANY OTHER AUTHORITY HAVING JURISDICTION.
  - C. THE CONTRACTOR SHALL CONDUCT TESTS OF THE SYSTEM IN THE PRESENCE OF THE ARCHITECT/ENGINEER OR HIS AGENT. THE CONTRACTOR SHALL TURN OVER SYSTEM WIRING DIAGRAMS AND MAINTENANCE DATA TO THE ARCHITECT/ENGINEER.

- 1.16 FIELD QUALITY CONTROL AND COORDINATION
  - A. CONSULT PLANS, FIELD LAYOUTS AND SHOP DRAWINGS COVERING WORK OF THE VARIOUS OTHER TRADES AND PLAN LAYOUT OF ELECTRICAL WORK ACCORDINGLY.
  - B. KEEP FULLY INFORMED OF THE PROGRESS OF THE GENERAL CONSTRUCTION, AND INSTALL WORK THAT IS TO BE CONCEALED WITHIN THE BUILDING CONSTRUCTION IN SUFFICIENT TIME TO SECURE PROPER LOCATION WITHOUT DELAY TO WORK OF OTHER TRADES.
  - C. ALL CONDUIT AND OUTLET BOXES CONCEALED IN MASONRY CONSTRUCTION SHALL BE INSTALLED DURING WALL CONSTRUCTION. OUTLET BOXES SHALL LINE UP WITH EITHER TOP OR BOTTOM OF MASONRY COURSES. ATTEND THE ELECTRICAL WORK DURING PROGRESS OF BUILDING-IN TO PREVENT MISALIGNMENT.
  - D. EXAMINE WORK OF OTHER TRADES WHERE THEIR WORK COMES IN CONTACT WITH OR IS COVERED BY ELECTRICAL WORK. DO NOT ATTACH TO, COVER UP, OR FINISH AGAINST ANY DEFECTIVE WORK OR INSTALL ELECTRICAL WORK IN A MANNER, WHICH WILL PREVENT PROPER INSTALLATION OF THE WORK OF OTHER TRADES.
  - E. TAKE ALL FIELD MEASUREMENTS NECESSARY AND ASSUME RESPONSIBILITY FOR THEIR ACCURACY.
  - F. BEFORE INSTALLING ANY WORK, SEE THAT IT DOES NOT INTERFERE WITH ARCHITECTURAL, STRUCTURAL AND MECHANICAL WORK. REPORT ANY INTERFERENCE BETWEEN THIS WORK AND THAT OF ANY OTHER CONTRACTOR TO THE ARCHITECT AS SOON AS THEY ARE DISCOVERED.
- 1.17 EQUIPMENT INSTALLATION AND SUPPORT
  - A. ALL EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S AND U.L. LABELING INSTRUCTIONS.
  - B. ALL ELECTRICAL WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATING, SERVICING, MAINTAINING AND REPAIRING.
  - C. ELECTRICAL WORK SHALL BE SUPPORTED FROM BUILDING STRUCTURAL ELEMENTS ONLY, AND NOT FROM BUILDING SUB-SYSTEMS SUCH AS MECHANICAL DUCTS OR PIPES OR ROOF DECK.

**SECTION 261000 - BASIC METHODS AND MATERIALS**

- CONDUITS SHALL BE:
  1. RIGID OR INTERMEDIATE GRADE GALVANIZED STEEL CONDUIT IN WET LOCATIONS, CONCRETE, EXTERIOR MASONRY WALLS AND EXPOSED LOCATIONS SUBJECT TO DAMAGE.
  2. GALVANIZED STEEL ELECTRICAL METALIC TUBING IN DRY LOCATIONS, INTERIOR PARTITIONS, AND CEILING SPACE.
  3. FLEXIBLE METAL CONDUIT FOR FINAL CONNECTIONS TO TRANSFORMERS, MOTORS AND EQUIPMENT. LIQUIDTIGHT FLEXIBLE METAL CONDUIT IN WET AND DAMP LOCATIONS.
  4. FLEXIBLE METALLIC TUBING FROM OUTLET BOX TO RECESSED LIGHT.
  5. FIXTURES IN SUSPENDED CEILING - SIX FOOT MAXIMUM LENGTH.
- B. RACEWAYS SHALL BE SIZED IN ACCORDANCE WITH N.E.C. TABLES OR AS NOTED ON DRAWINGS, WHICHEVER IS LARGER. MINIMUM CONDUIT SIZE SHALL BE ONE HALF INCH.
- C. CONDUIT FITTINGS FOR RIGID CONDUIT SHALL BE THREADED CAST FERROUS ALLOY WITH GASKETS AND COVERS WHERE REQUIRED. CONDUIT FITTINGS FOR EMT SHALL BE SET SCREW OR COMPRESSION TYPE. LOCATIONS SHALL BE OF THE SANDING TYPE THAT BITES INTO THE METAL OF THE BOX. BUSHINGS SHALL BE OF THE INSULATING TYPE.
- D. METAL CONDUITS SHALL BE COUPLED AND SECURED TO ALL BOXES IN A MANNER THAT PROVIDES AN ELECTRICALLY CONTINUOUS GROUND PATH FROM POINT OF SERVICE TO ALL OUTLETS.
- E. RIGID CONDUITS SHALL BE TERMINATED IN SHEET STEEL WITH DOUBLE LOCKNUTS AND AN INSULATING BUSHING. EMPTY CONDUITS STUBBED SHALL BE THREADED AND CAPPED.
- F. NYLON PULL LINE SHALL BE INSTALLED IN ALL EMPTY CONDUITS.
- G. CONDUIT ROUTING INDICATED ON THE DRAWINGS IS DIAGRAMMATIC ONLY AND IS NOT NECESSARILY THE INTENDED ACTUAL CONDUIT RUN. CONTRACTOR SHALL CHECK AND BE RESPONSIBLE FOR THE ACTUAL INSTALLATION WITH REGARD TO AVAILABLE SPACE AND SHALL COOPERATE WITH OTHER TRADES.
- H. ALL CONDUITS SHALL BE SIZED AND INSTALLED SO THAT THE REQUIRED NUMBER OF CONDUCTORS MAY BE PULLED IN WITHOUT HAULY OR STRAIN.
- I. CONDUIT RUNS SHALL BE LOCATED TO AVOID EQUIPMENT AND ACCESS TO EQUIPMENT OF OTHER TRADES.
- J. CONDUITS IN FINISHED AREAS SHALL BE RUN CONCEALED IN WALLS AND ABOVE FINISHED CEILINGS. CONDUITS MAY BE RUN EXPOSED ONLY IN MECHANICAL ROOM.
- K. EXPOSED CONDUITS, WHERE PERMITTED SHALL BE RUN WITH ALL RUNS PARALLEL TO OR AT RIGHT ANGLES TO BUILDING STRUCTURAL MEMBERS.
- L. CONDUIT SUPPORTS SHALL BE ATTACHED TO BUILDING STRUCTURAL MEMBERS ONLY, AND NOT TO ANY BUILDING SUB-SYSTEMS SUCH AS SUSPENDED CEILINGS, MECHANICAL DUCTS OR PIPES.
- M. ENDS OF EACH CONDUIT SHALL BE CAPPED WITH AN APPROVED CAP OR DISC TO PREVENT THE ENTRANCE OF FOREIGN MATERIALS DURING CONSTRUCTION.
- N. CONDUITS THAT PASS THROUGH FIRE OR SMOKE RATED WALLS, CEILINGS, OR DECKS SHALL BE INSTALLED SO AS TO MAINTAIN THE FIRE OR SMOKE RATING.
- O. EXPANSION FITTINGS SHALL BE INSTALLED AT ALL POINTS WHERE CONDUITS CROSS BUILDING EXPANSION JOINTS.
- P. CONDUIT ENTRIES INTO BUILDING SHALL BE MADE WATERTIGHT. ALL UNDERGROUND JOINTS SHALL BE SEALED.

- 1.2 600 VOLT FEEDER AND BRANCH CIRCUIT CONDUCTORS
  - A. FEEDER AND BRANCH CIRCUIT CONDUCTORS SHALL BE U.L. LABELED, 95% CONDUCTIVITY COPPER STAMPED AT 2 FT. INTERVALS WITH CONDUCTOR SIZE AND INSULATION TYPE.
  - B. FEEDER CIRCUIT CONDUCTORS SHALL BE TYPE "THINW" OR "XHHW", 600 VOLT, STRANDED COPPER.
  - C. BRANCH CIRCUIT CONDUCTORS SHALL BE TYPE "THINW/THINW", 600 VOLT, COPPER. WIRE SIZES #8 AWG AND LARGER SHALL BE STRANDED. MINIMUM WIRE SIZE SHALL BE #12 AWG OR LARGER AS REQUIRED TO LIMIT VOLTAGE DROP AT FURTHEST OUTLET TO 3%.
  - D. COLOR CODE BRANCH CIRCUIT AND FEEDER CONDUCTORS AS FOLLOWS:

- E. COLOR CODING SHALL BE CONTINUOUS ON INSULATION FOR #8 AWG OR SMALLER CONDUCTORS AND CONTINUOUS OR MARKED WITH COLORED TAPE AT ALL CONNECTIONS FOR CONDUCTORS LARGER THAN #8 AWG.
- F. WIRE AND CABLE SHALL BE PULLED INTO CONDUIT USING IDEAL INDUSTRIES "YELLOW 77" OR EQUAL. MECHANICAL MEANS MAY BE USED TO PULL #4 AWG AND LARGER CONDUCTORS, SIX INCHES OF FREE WIRE SHALL BE PROVIDED AT ALL OUTLETS FOR WIRING DEVICE CONNECTION.
- G. ALL MECHANICAL WIRE AND CABLE TERMINATIONS SHALL BE TIGHTENED WITH TORQUE WRENCH OR SCREWDRIVER TO MANUFACTURER'S RECOMMENDED TORQUE VALUES.
- H. JOINTS IN #10 AWG AND SMALLER WIRE SHALL BE MADE WITH 3M "SCOTCH" LOCKS OR EQUIVALENT INSULATED CONNECTORS.
- I. JOINTS IN #8 AWG AND LARGER WIRE SHALL BE MADE WITH PRESSURE RISE TYPICAL MECHANICAL CONNECTORS AND INSULATED WITH ELECTRICAL TAPE OR HEAT SHRINK INSULATION TO 150% OF THE INSULATING VALUE OF THE CONDUCTOR INSULATION.
- J. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO CONNECT ALL SINGLE-PHASE, (120 AND 208) VOLT LOADS TO THE 3-PHASE BUS SYSTEM IN ORDER TO BALANCE THE LOADING ON THE PHASE DISTRIBUTION.

- SECTION 265000 - LIGHTING
  - 1.1 LIGHT FIXTURES
    - A. ALL LIGHT FIXTURES SHALL BE SECURELY SUPPORTED FROM BUILDING STRUCTURAL MEMBERS WITH APPROVED HANGERS AS REQUIRED. RECESSED GRID TRIFTERS SHALL BE FASTENED TO CEILING T-BARS WITH APPROVED CLIPS AND T-BARS SHALL BE PROVIDED WITH WIRE HANGERS AT FOUR CORNERS OF FIXTURES. COORDINATE THIS REQUIREMENT WITH CEILING CONTRACTOR.
    - B. COORDINATE LIGHTING FIXTURE AM REQUIREMENTS TYPES WITH ARCHITECT BEFORE ORDERING FIXTURES.
  - 1.2 LAMPS
    - A. LED, 3500K, 86 CR, WITH DRIVER & WATTAGES AS NOTED ON PLAN.
  - 1.3 INSTALLATION
    - A. FURNISH AND INSTALL ALL NECESSARY HANGERS, SUPPORTS, FRAMING, FITTINGS, ETC., TO SUPPORT FIXTURES AND FIXTURE OUTLETS. ALL FIXTURE SUPPORTS SHALL BE SECURELY ANCHORED TO THE CEILING AND/OR BUILDING CONSTRUCTION AND SHALL BE CAPABLE OF SUPPORTING THE FIXTURE IN QUESTION PLUS 100% ADDITIONAL WEIGHT.
    - B. WHERE INSTALLING CHAIN MOUNTED FIXTURES, THE CONTRACTOR SHALL PROVIDE ADDITIONAL SUPPORTING CHANNELS AS REQUIRED.
    - C. PROVIDE THERMAL PROTECTION ON RECESSED INCANDESCENT FIXTURES WHERE REQUIRED.
  - 1.4 EMERGENCY
    - A. EGRESS EMERGENCY LIGHTING 90 MINUTES BATTERY BACK-UP UNIT.

**SECTION 267000 - COMMUNICATION SYSTEMS**

- 1.1 TELEPHONE, DATA & CATV CABLEING SYSTEMS
  - A. PROVIDE ALL CONDUIT, BOXES, AS REQUIRED FOR THE INSTALLATION OF TELEPHONE/DATA CABLEING SYSTEMS BY THIS CONTRACTOR, CABLEING, JACKS, WALL PLATES, ETC. BY THIS CONTRACTOR. E.C. SHALL COORDINATE WITH OWNER & SYSTEM PROVIDER.
- FIRE ALARM SYSTEM
  - A. GENERAL REQUIREMENTS
    1. FURNISH AND INSTALL NEW FIRE ALARM DEVICES AS NOTED AND CONNECT TO SYSTEM. PROVIDE ALL COMPONENTS AS REQUIRED FOR A COMPLETE WORKING SYSTEM.
  - B. DESCRIPTION
    1. PROVIDE ALL HARDWARE, SOFTWARE, RACEWAYS AND INTERCONNECTING WIRING REQUIRED FOR EXTENSION OF EXISTING SYSTEM.
    2. INCLUDE ALL HARDWARE, SOFTWARE, RACEWAYS AND INTERCONNECTING WIRING REQUIRED.
    3. SMOKE SENSORS SHALL REPORT DIRTY TROUBLE CONDITIONS AUTOMATICALLY
    4. EACH DEVICE ADDRESS SHALL BE SET ELECTRONICALLY.
    5. HORN/STROBE AND VISUAL DEVICES.

**SECTION 264000 - SERVICE AND DISTRIBUTION**

- 1.1 ELECTRIC AND TELEPHONE SERVICES
  - A. THE ELECTRICAL SERVICE IS NEW, E.C. SHALL PROVIDE & INSTALL NEW EQUIPMENT AS NOTED. COORDINATE WITH FOR INCOMING SERVICES WITH LOCAL PROVIDER.
  - B. EXTEND NEW TELEPHONE/CATV SERVICE AS REQUIRED. COORDINATE WITH OWNER & LOCAL SERVICE PROVIDER.
- 1.2 BRANCH CIRCUIT PANELBOARDS
  - A. BRANCH CIRCUIT PANELBOARDS ARE DEAD FRONT CIRCUIT BREAKER TYPE, WITH VOLTAGE, AMPERAGE, MAIN CIRCUIT BREAKER OR MAIN LUGS ONLY, AS NOTED ON DRAWINGS. ALL PANELBOARDS SHALL BE PROVIDED WITH SOLID NEUTRALS AN A GROUNDING BUS WITH LUGS.
  - B. CIRCUIT BREAKERS SHALL BE THERMAL MAGNETIC, MOLDED CASE, BOLT-ON TYPE WITH QUANTITY, AMPERAGE, AND POLES AS NOTED ON THE PANEL SCHEDULES. SHORT CIRCUIT INTERRUPTING CAPACITY SHALL BE 25,000 AMPERES SYMMETRICAL. MAIN, TWO AND THREE POLE BREAKERS SHALL BE COMMON TRIP. AUTOMATIC TRIPPING SHALL BE INDICATED BY THE OPERATING HANDLE ASSUMING A MID-POSITION BETWEEN ON AND OFF.
  - C. PANELBOARDS ENCLOSURES SHALL BE GENERAL PURPOSE, SURFACE OF FLUSH, MOUNTED AS NOTED ON PLANS WITH GALVANIZED BODYKIT AND PAINTED. FRONT WITH LOCKABLE DOOR. A GLAZED DIRECTORY FRAME SHALL BE PROVIDED INSIDE DOOR AND SHALL BE OF SUFFICIENT SIZE TO GIVE DESCRIPTION OF EACH CIRCUIT, ALL SECTIONS OF MULTI-SECTION PANELS SHALL BE SAME SIZE.
  - D. TWO KEYS SHALL BE PROVIDED WITH EACH PANEL AND ALL PANELS SHALL SCREW FASTENED.
  - E. HANDLE LOCK-ON DEVICES SHALL BE PROVIDED ON BRANCH CIRCUIT BREAKERS FOR EMERGENCY, EXIT, SECURITY AND NIGHT LIGHTS.
  - F. BRANCH CIRCUIT PANELBOARDS SHALL BE SQUARE D, SIEMENS OR CUTLER HAMMER.
- 1.3 DISCONNECT SWITCHES
  - A. ALL MOTOR DRIVEN EQUIPMENT SHALL BE PROVIDED WITH THE PROPERLY SIZED AND RATED DISCONNECT SWITCHES TO COMPLY WITH NEC REQUIREMENTS WHETHER INDICATED ON DRAWINGS OR NOT.
  - B. DISCONNECT SWITCHES FOR ALL THREE PHASE MOTORS AND SINGLE PHASE MOTORS OVER 1/4 HORSEPOWER SHALL BE GENERAL DUTY, SINGLE THROW SAFETY SWITCHES. SWITCHES SHALL BE FUSIBLE OR NON-FUSIBLE, AS INDICATED ON DRAWINGS WITH AMPERAGE, POLES AND NEUTRAL, AS SHOWN ON DRAWINGS SWITCHES SHALL BE PROVIDED WITH QUICK-MAKE, QUICK-BREAK OPERATING MECHANISM, FULL COVER INTERLOCK AND INDICATOR HANDLE. PROVISIONS FOR PADLOCKING OFF, UL CLASS R REJECTION TYPE FUSE CLIPS, NEMA 1 ENCLOSURE FOR DRY LOCATIONS AND NEMA 3R ENCLOSURE.
  - C. DISCONNECT SWITCHES SHALL BE SQUARE D, SIEMENS OR CUTLER HAMMER.
- 1.4 DRYTYPE TRANSFORMER
  - A. TRANSFORMERS SHALL BE GENERAL PURPOSE, VENTILATED, DRY TYPE, WITH 480 VOLT, 3 PHASE, 3 WIRE DELTA PRIMARY, 120/208 VOLT, 3 PHASE, 4 WIRE, WYE SECONDARY, AND KVA AS NOTED ON THE DRAWINGS. TRANSFORMERS SHALL BE DESIGNED AND MANUFACTURED IN ACCORDANCE WITH ANSI C89.2 FOR KVA RATINGS OF 500 KVA AND BELOW.
  - B. INSULATION SYSTEM SHALL BE CLASS F (115 DEGRESS C. TEMPERATURE RISE) FOR 15 KVA AND BELOW, AND CLASS H (150 DEGRESS C. TEMPERATURE RISE) FOR 30 KVA AND ABOVE. COILS SHALL BE WOUND WITH COPPER OR ALUMINUM. THE ENCLOSURE TEMPERATURE SHALL NOT EXCEED 35 DEGREES C. ABOVE AMBIENT.
  - C. SOUND LEVELS SHALL NOT EXCEED NEMA STANDARDS.
  - D. TWO 5K FULL CAPACITY TAPS BELOW NOMINAL VOLTAGE SHALL BE PROVIDED FOR 15 KVA AND BELOW, AND SIX 2.5K FULL CAPACITY TAPS, 2 ABOVE AND 4 BELOW NOMINAL VOLTAGE, SHALL BE PROVIDED FOR 30 KVA AND ABOVE.
  - E. TRANSFORMERS SHALL BE SQUARE D, SIEMENS OR CUTLER HAMMER.

- 1.5 EQUIPMENT IDENTIFICATION
  - A. PROVIDE NEW NAMEPLATES WITH BLACK FACE AND WHITE LETTERS (MINIMUM HEIGHT 1/8" HIGH) ON ALL ELECTRICAL DISTRIBUTION AND CONTROL EQUIPMENT. LETTERING SHALL BE AS FOLLOWS: LINE 1 - NAME OF EQUIPMENT AND IDENTIFICATION NUMBER USED ON DRAWINGS; LINE 2 - AMPERAGE AND VOLTAGE RATING; LINE 3 - IDENTIFICATION OF UPSTREAM OVERCURRENT PROTECTION DEVICE.
- 1.6 GROUNDING SYSTEM
  - A. THIS CONTRACTOR SHALL VERIFY THAT THERE IS A COMPLETE SYSTEM OF GROUNDING FOR ALL EQUIPMENT. A GOOD MECHANICAL AND ELECTRICAL CONNECTION SHALL BE MADE WITH APPROVED GROUNDING CONNECTORS.
  - B. ELECTRICAL SYSTEM AND EQUIPMENT GROUNDS SHALL COMPLY WITH ALL LOCAL, STATE AND N.E.C. CODES AND REGULATIONS. BONDING JUMPERS SHALL BE INSTALLED AT ALL LOCATIONS REQUIRED BY NEC.
  - C. PROVIDE GROUNDING AS REQUIRED FOR ALL COMMUNICATION SYSTEM EQUIPMENT.

- SECTION 265000 - LIGHTING
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  - B. INSULATION SYSTEM SHALL BE CLASS F (115 DEGRESS C. TEMPERATURE RISE) FOR 15 KVA AND BELOW, AND CLASS H (150 DEGRESS C. TEMPERATURE RISE) FOR 30 KVA AND ABOVE. COILS SHALL BE WOUND WITH COPPER OR ALUMINUM. THE ENCLOSURE TEMPERATURE SHALL NOT EXCEED 35 DEGREES C. ABOVE AMBIENT.
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PERMIT ISSUANCE	WDB, II	08.01.2022
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ISSUED	BY	DATE
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**MOUND  
ELEMENTARY  
SCHOOL**

**Interior Alteration**

**New MetroHealth  
ODH  
SBHC  
Health Care Expansion Program**

5935 Ackley Road  
Cleveland, OH 44105



SMBD Approval		
X		
Public Delivery EDUCATOR, Exec. Dir. Architectural Projects, Capital Projects	Date	
Considered Project #	Drawn by	Checked by
DB		WDB, II

**ELECTRICAL  
SPECIFICATIONS**

Scale:	
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