

ELLSWORTH COMMUNITY SCHOOL
ELEMENTARY SCHOOL REMODELING
AND PARTIAL REROOFING

ELLSWORTH, MICHIGAN

BUILDING DATA

SITE ADDRESS:
ELLSWORTH COMMUNITY SCHOOL
9467 PARK STREET
ELLSWORTH, MI 49729

APPLICABLE CODES:
2021 MICHIGAN REHABILITATION CODE
2021 MICHIGAN BUILDING CODE
2021 MICHIGAN COMMERCIAL ENERGY CODE
2021 MICHIGAN PLUMBING CODE
2021 MICHIGAN MECHANICAL CODE
2023 NATIONAL ELECTRICAL CODE
2023 MICHIGAN PART 6, ELECTRICAL CODE RULES
2012 NFPA 101 LIFE SAFETY CODE

USE AND OCCUPANCY CLASSIFICATION:
EXISTING USE GROUP E – UNCHANGED

CONSTRUCTION TYPE:
EXISTING MBC TYPE 2B, NFPA TYPE II-000

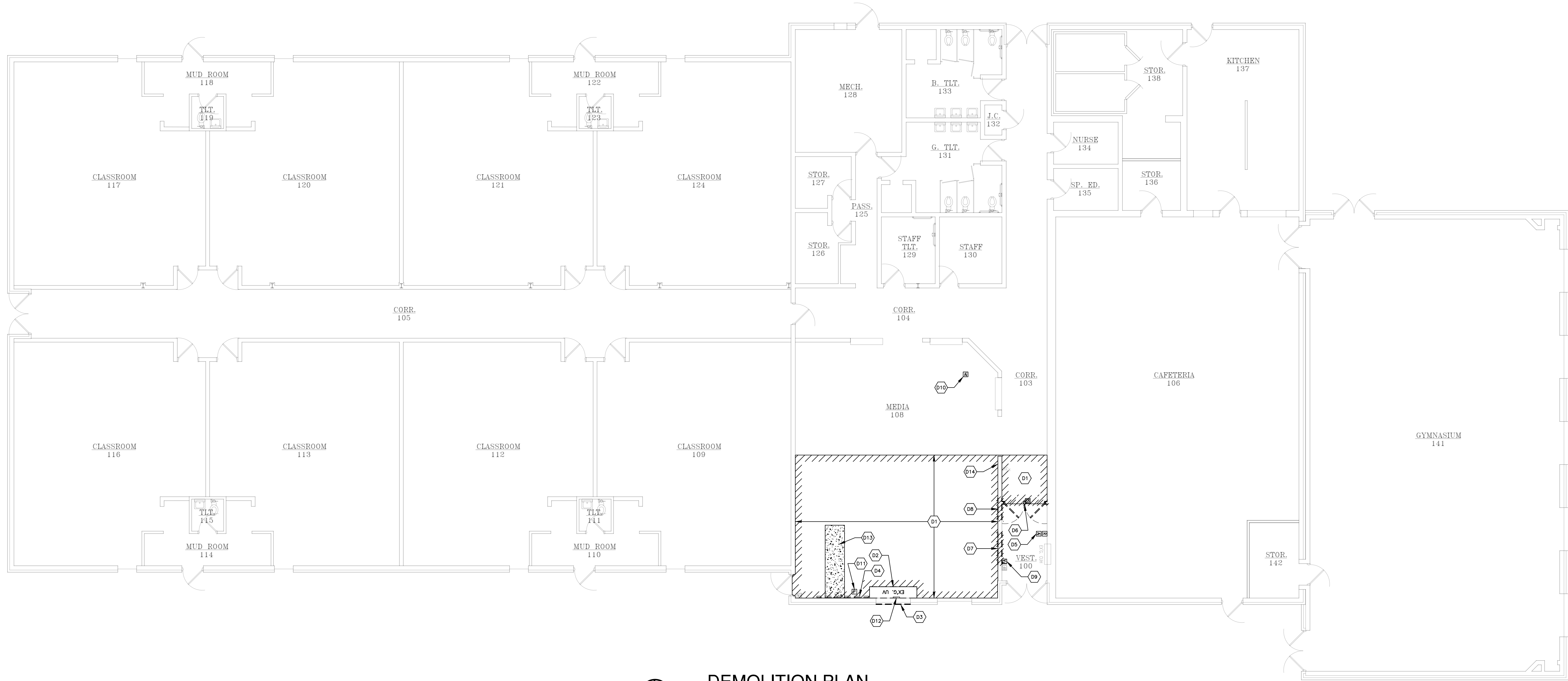
CLASSIFICATION OF WORK:
BUILDING REMODELING – LEVEL 2 ALTERATION
PARTIAL REROOFING – LEVEL 1 ALTERATION

EXISTING BUILDING AREA:
TOTAL BUILDING – 19,845 sf
REMODELING WORK AREA – 734 sf
REROOFING WORK AREA – 9,761 sf

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DEMOLITION PLAN

SCALE:

1/8" = 1'-0"

GENERAL DEMOLITION NOTES

REMOVE EX'G ASSEMBLIES TO THE EXTENT REQUIRED FOR THE INSTALLATION OF NEW WORK, AND TO ALLOW FOR CONNECTION OF NEW WORK TO EX'G ADJACENT CONSTRUCTION. KEYED DEMOLITION NOTES ARE GENERAL IN NATURE. ALL EX'G CONDITIONS ARE TO BE FIELD VERIFIED. CONTRACTOR SHALL MAKE NECESSARY ADJUSTMENTS TO DEMOLITION AS REQ'D TO ACHIEVE THE OVERALL DESIGN INTENT.

CONTRACTOR SHALL REMOVE EX'G FLOORING FINISHES AS REQ'D TO ALLOW FOR NEW CONSTRUCTION AND/OR THE INSTALLATION OF NEW FINISHES AS NOTED.

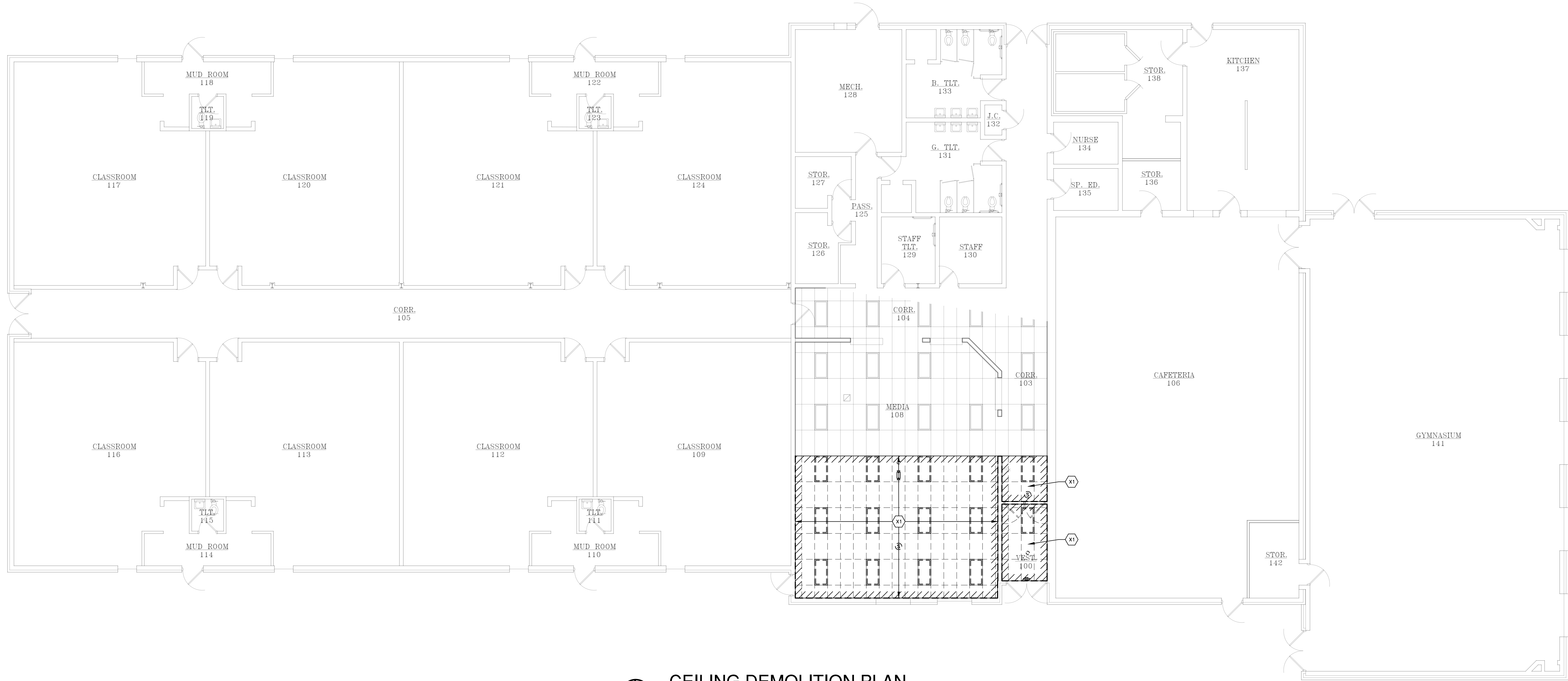
MODIFICATION OF BUILDING STRUCTURAL LOAD BEARING MEMBERS EXCEPT AS DESCRIBED HEREIN OR APPROVED BY THE ARCHITECT IN WRITING IS STRICTLY PROHIBITED. STRUCTURAL MODIFICATIONS DEPICTED HEREIN ARE BASED UPON INFORMATION DERIVED FROM THE OWNERS RECORD. CONTRACTOR SHALL REMOVE FINISHES FROM FRAMING AND SHALL CONSULT ARCHITECT FOR DIRECTION ON MODIFICATION OR REMOVAL OF LOAD BEARING STRUCTURAL ITEMS (WALLS, COLUMNS, BEAMS, JOISTS, AND TRUSSES) NOT SPECIFICALLY INDICATED HEREIN.

KEYED DEMOLITION NOTES

- D1 REMOVE EX'G. TILE CARPETING, WALL BASE, AND RESILIENT TRANSITIONS. SALVAGE TILE CARPETING FOR PATCHING. TURN OVER EXCESS TO OWNER.
- D2 EX'G. UNIT VENTILATOR TO BE REMOVED - SEE MECH.
- D3 EX'G. U.V. INTAKE GRILLE TO BE REMOVED - SEE MECH.
- D4 SALVAGE AND REMOVE EX'F MARKER BOARD FOR RELOCATION/REINSTALLATION - SEE FLOOR PLAN
- D5 SALVAGE AND REMOVE EX'G AIPHONE CAMERA FOR RELOCATION/REINSTALLATION - SEE FLOOR PLAN AND DOOR SCHEDULE.
- D6 SALVAGE AND REMOVE EX'G FRAME, DOORS, AND HARDWARE INC. ACCESS CONTROL CARD READER FOR RELOCATION/REINSTALLATION. REMOVE EX'G. GYP. BD. PARTITION FULL HEIGHT - SEE FLOOR PLAN AND DOOR SCHEDULE.
- D7 CONSTRUCT NEW OPENING IN EX'G. GYP. BD. PARTITION FOR BORROWED LITE. SUPPLEMENT LIGHT GAUGE MTL. FRAMING AS REQ'D. - SEE FLOOR PLAN AND DOOR SCHEDULE.
- D8 CONSTRUCT NEW DOOR OPENING IN EX'G. GYP. BD. PARTITION. SUPPLEMENT LIGHT GAUGE MTL. FRAMING AS REQ'D. - SEE FLOOR PLAN AND DOOR SCHEDULE.
- D9 EX'G. FIRE ALARM PULL STATION TO BE REMOVED AND RELOCATED - SEE ELEC.
- D10 SALVAGE AND REMOVE EX'G AIPHONE DESKTOP INTERFACE FOR RELOCATION/REINSTALLATION - SEE FLOOR PLAN.
- D11 EX'G. PROJECTOR TO BE REMOVED AND RELOCATED - SEE ELEC.
- D12 EX'G. CLOCK AND ADAPTER PANEL TO BE REMOVED (CLOCK TO BE RELOCATED).
- D13 SAWCUT AND REMOVE EX'G CONCRETE SLAB FOR NEW SANITARY SEWER. COORDINATE SIZE REQ'D AND ROUTING W/ MECH. TRADES.
- D14 SALVAGE AND REMOVE EX'G. EPIPEN BOX, DEFIBRILATOR CABINET, LOCK BOX, AND ROOM SIGN FOR RELOCATION.

ANCILLIARY COMPONENTS LEGEND

- D1 ACCESS CONTROL CARD READER
- D2 ELECTRIFIED STRIKE
- D3 AIPHONE SYSTEM COMPONENT
- D4 PROJECTOR
- D5 FA PULL STATION
- D6 BARRIER FREE AUTO DOOR OPENER BUTTON



KEYED DEMOLITION NOTES

(X1) TEMPORARILY SUPPORT CEILING MOUNTED ITEMS TO REMAIN AND REMOVE EX'G. SUSPENDED ACOUSTICAL TILE CEILING INC. PADS, GRID, WALL ANGLE AND HANGERS. SALAVAGE EX'G. SAT FOR INSTALLATION IN EXTENDED CEILING AREAS. REFER TO MEP FOR MECH. AND ELEC. DEMOLITION NOTES.



CEILING DEMOLITION PLAN

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

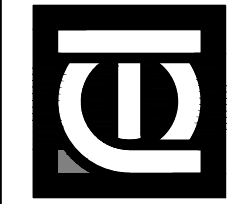
SHEET
D2.1

DATE
MAY 9, 2025

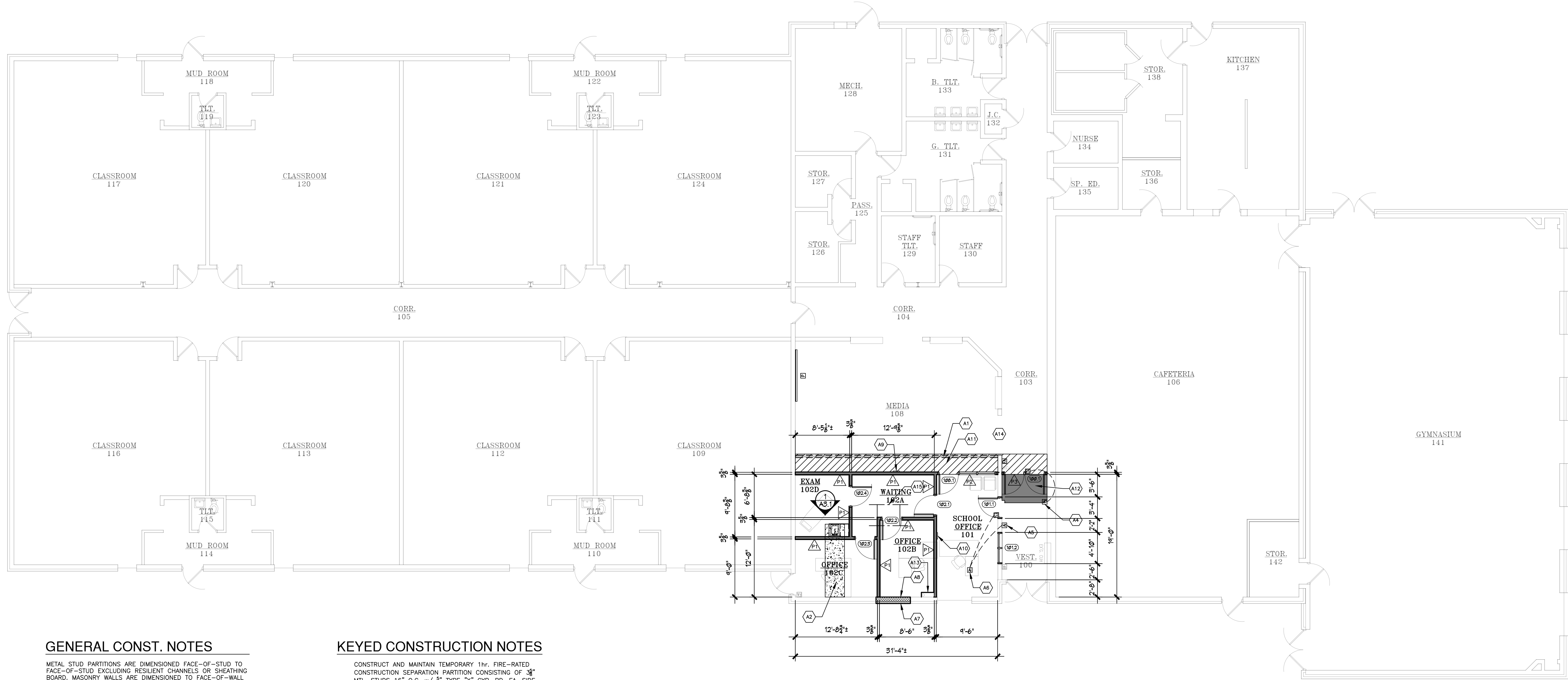
PROJECT NO.
298-25

PROJECT TITLE
ELLSWORTH COMMUNITY SCHOOL
ELEMENTARY SCHOOL REMODELING AND PARTIAL REROOFING
ELLSWORTH, MICHIGAN

DRAWING TITLE
CEILING DEMOLITION PLAN



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GAYLORD, MICHIGAN 49734
TELEPHONE: (989) 732-0585



GENERAL CONST. NOTES

METAL STUD PARTITIONS ARE DIMENSIONED FACE-OF-STUD TO FACE-OF-STUD EXCLUDING RESILIENT CHANNELS OR SHEATHING BOARD. MASONRY WALLS ARE DIMENSIONED TO FACE-OF-WALL AND ARE NOMINAL.

DRAWINGS ARE DIAGRAMATIC AND DEPICT THE OVERALL DESIGN INTENT. CONTRACTORS ARE TO INCLUDE INCIDENTAL CUTTING, FITTING, PATCHING AND EXTENDING TO INCORPORATE NEW WORK INTO EXISTING CONDITIONS AS REQUIRED TO MEET THE OVERALL DESIGN INTENT. FIELD VERIFY EXISTING MATERIALS, FINISHES, AND EXTENT.

KEYED CONSTRUCTION NOTES

- A1 CONSTRUCT AND MAINTAIN TEMPORARY 1hr. FIRE-RATED CONSTRUCTION SEPARATION PARTITION CONSISTING OF 3/8" MTL. STUDS 16" O.C. w/ 8" TYPE "X" GYP. BD. EA. SIDE. PARTITION TO EXTEND FROM FINISH FLOOR TO UNDERSIDE OF ROOF DECK ABOVE. CONSTRUCTION SEPARATION SHALL REMAIN IN PLACE DURING NORMAL SCHOOL OPERATIONS UNTIL NEW CONSTRUCTION IS APPROVED FOR OCCUPANCY BY AUTHORITY HAVING JURISDICTION.
- A2 INFILL SLAB CUT w/ FIBER REINFORCED CONCRETE DOWELED AND BONDED TO EXISTING SLAB.
- A3 RELOCATE EXISTING SALVAGED FRAME, DOORS AND HARDWARE (INC. EX'G. ACCESS CONTROL) TO NEW OPENING. EXISTING AIPHONE SYSTEM ASSOCIATED WITH EXISTING INTERIOR VESTIBULE DOOR WILL BE RELOCATED TO DOOR 101.1.
- A4 RELOCATE EXISTING CARD READER PREVIOUSLY ASSOCIATED WITH INTERIOR VESTIBULE DOOR.
- A5 RELOCATE EXISTING AIPHONE CAMERA PREVIOUSLY ASSOCIATED WITH EXISTING INTERIOR VESTIBULE DOOR.
- A6 RELOCATE EXISTING AIPHONE DESKTOP INTERFACE PREVIOUSLY ASSOCIATED WITH EXISTING INTERIOR VESTIBULE DOOR. COORDINATE LOCATION w/ OWNER.
- A7 INFILL EX'G. O.A. INTAKE OPENING w/ 8" CMU AND FACE BRICK MATCHING EX'G.
- A8 PATCH EX'G. OPENING IN CMU w/ NEW FACE SHELL.
- A9 RELOCATED CLOCK.
- A10 NEW CLOCK TO MATCH EXISTING.
- A11 EXTEND EXISTING TILE CARPET FLOORING TO NEW CONSTRUCTION USING SALVAGED TILE CARPET. INSTALL NEW WALL BASE MATCHING EXISTING ON NEW WALLS AND EXTEND TO EXISTING WALL BASE TO REMAIN ON EXISTING WALLS.
- A12 EXTEND EXISTING FLUID APPLIED FLOORING TO NEW CONSTRUCTION. INSTALL NEW WALL BASE MATCHING EXISTING ON NEW WALLS AND EXTEND TO EXISTING WALL BASE TO REMAIN ON EXISTING WALLS.
- A13 BOX-OUT FRAMING AND GYPSUM BOARD AT EX'G. ROOF DRAIN TO REMAIN. COORDINATE FRAMING w/ MECH. TRADES FOR INSTALLATION OF NEW CLEAN-OUT ORIENTATION.
- A14 RELOCATE/REINSTALL EPIPEN BOX, DEFIBRILLATOR CABINET, LOCK BOX, AND ROOM SIGN. CONSULT OWNER FOR LOCATION(S).
- A15 NEW RTU SUPPORT FRAME FABRICATED FROM 14x4x1/2" FRAMING BEARING ON TOP OF TOP CHORD OF EX'G. JOIST. COORDINATE SIZE AND LOCATION w/ MECHANICAL.



ANCILLIARY COMPONENTS LEGEND

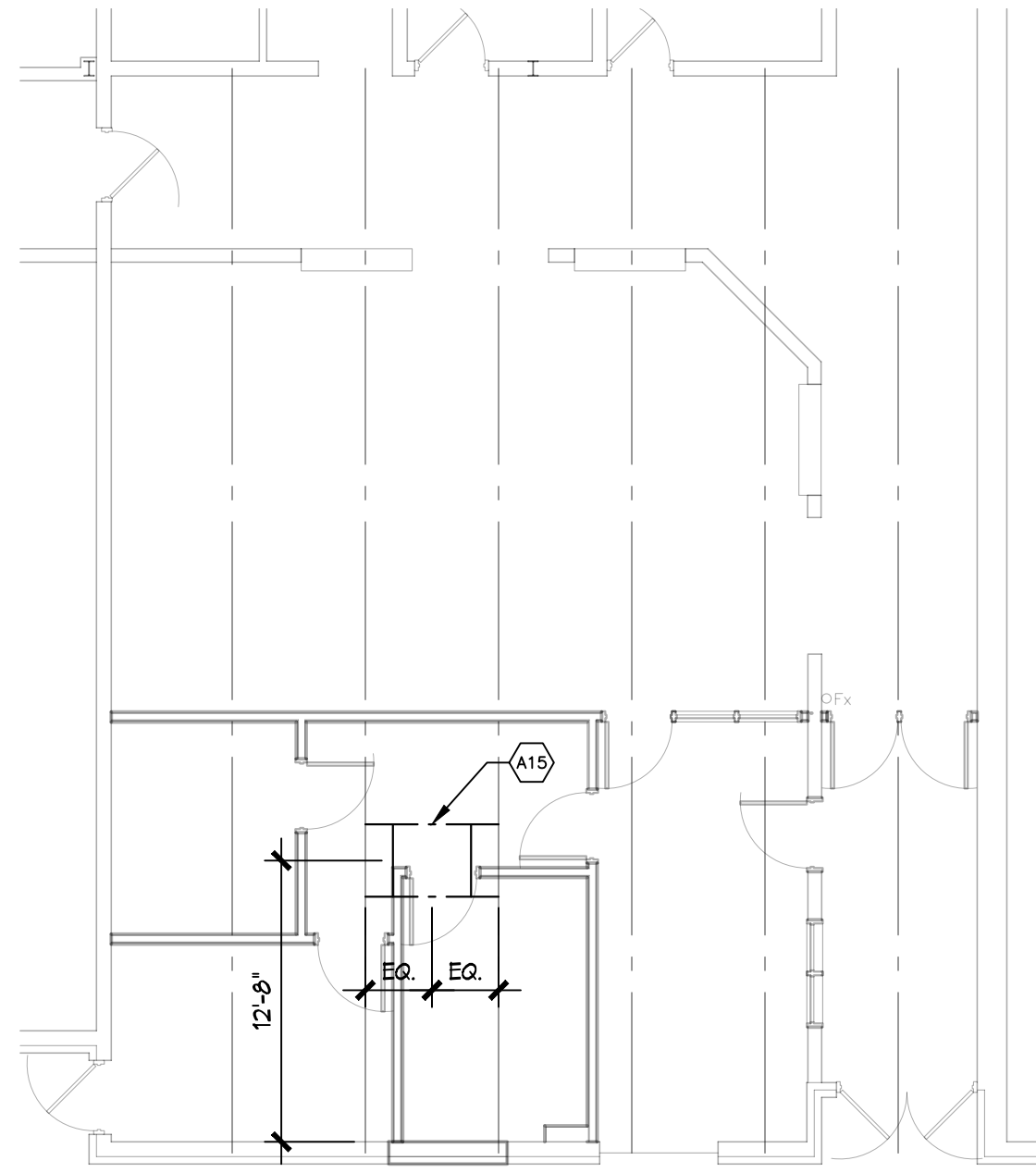
- AC ACCESS CONTROL CARD READER
ES ELECTRIFIED STRIKE
AS AIPHONE SYSTEM COMPONENT
PR PROJECTOR
FA FA PULL STATION
BF BARRIER FREE AUTO DOOR OPENER BUTTON

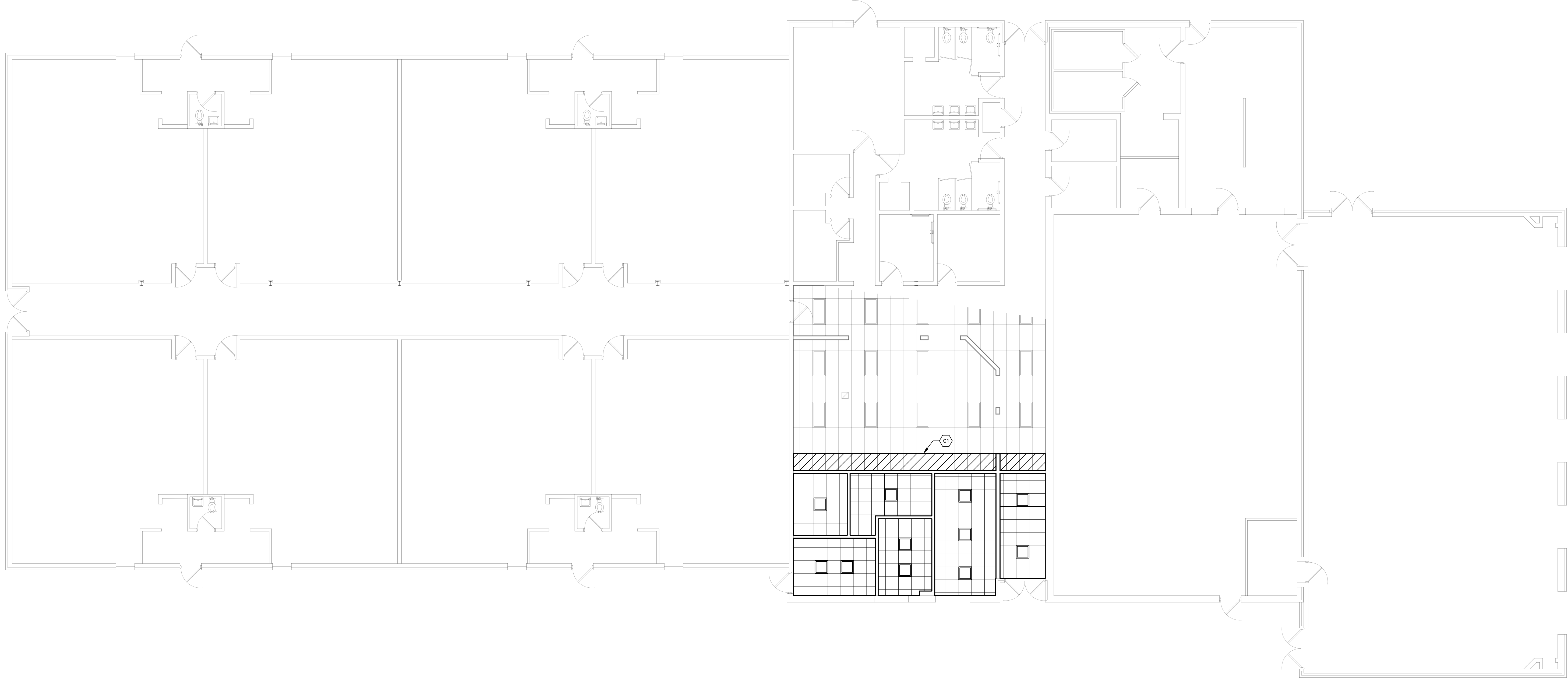
PARTITION SCHEDULE

- P1 MTL. STUDS AT 16" O.C. w/ RC-1 RESILIENT CHANNELS AT 16" O.C. HORIZ. ON TAG SIDE, 3" ACOUSTICAL INSULATION, AND 8" GYP. BD. EA. SIDE. EXTEND FRAMING, GYP. BD. AND ACOUSTICAL INSULATION TO UNDERSIDE OF DECK ABOVE (12'-5"± AFF). SOUND TRANSMISSION CLASSIFICATION (STC) - 54.
- P2 MTL. STUDS AT 16" O.C. w/ 3" ACOUSTICAL INSULATION AND 8" GYP. BD. EA. SIDE. EXTEND FRAMING, INSULATION AND GYP. BD. TO UNDERSIDE OF DECK ABOVE (12'-5"± AFF).
- P3 MTL. STUDS AT 16" O.C. w/ 8" GYP. BD. EA. SIDE. EXTEND FRAMING TO DECK ABOVE (12'-5"± AFF). EXTEND GYP. BD. TO 4" ABOVE SUSPENDED CEILING (9'-4"± AFF).



PARTIAL ROOF FRAMING PLAN





KEYED CEILING CONST'N. NOTES

⬡ EXTEND EXISTING CEILING GRID TO NEW WALL WITH NEW MATERIALS. INSTALL SALVAGED EX'G. SAT PADS REMOVED DURING DEMOLITION.



SCALE:

CEILING PLAN

$\frac{1}{8}" = 1'-0"$

SHEET

A2.1

DATE

MAY 9, 2025

PROJECT NO.

298-25

PROJECT TITLE

ELLSWORTH COMMUNITY SCHOOL
ELEMENTARY SCHOOL REMODELING AND PARTIAL REROOFING
ELLSWORTH, MICHIGAN

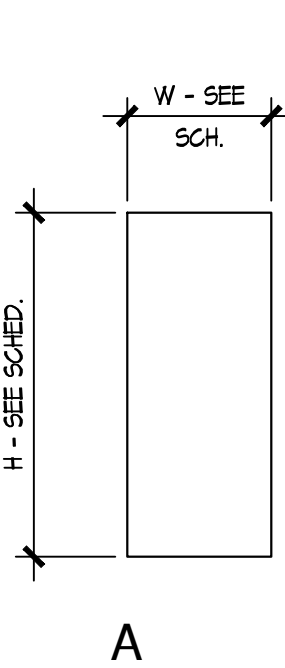
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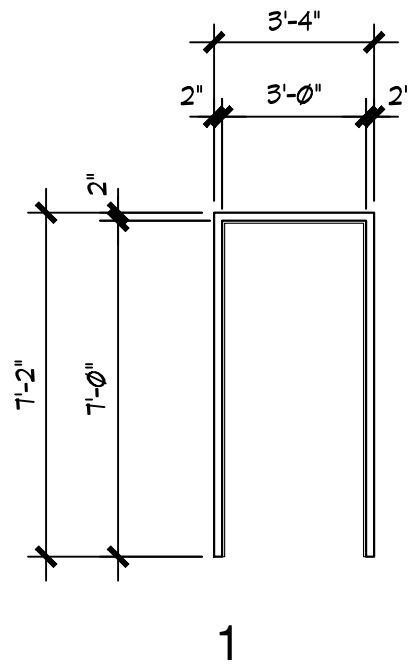
DOOR, FRAME AND HARDWARE SCHEDULE																	
DOOR NO.	DOOR SIZE	DOOR DATA			FRAME DATA				DETAILS			ASSEMBLY FIRE RATINGS			HDWE GROUP	REMARKS	
		MAT.	ELEV.	GLAZING	MAT.	ELEV.	THROAT	GLAZING	HEAD	JAMB	SILL	DOOR	SIDELIGHT	WINDOW			
100.1	(2) 3'-0"x7'-0"	WD	ETR	-	HM	ETR	4 ³ / ₈ "	-	H1	J1	-	-	-	-	1	RELOCATE ALL EX'G.	
101.1	3'-0"x7'-0"	WD	A	-	HM	1	7 ¹ / ₂ " (F.V.)	-	H1 (SIM)	J1 (SIM)	-	-	-	-	2	RELOCATE EX'G. AIRPHONE	
101.2	-	-	-	-	HM	2	7 ¹ / ₂ " (F.V.)	SAFETY	H1 (SIM)	J1 (SIM)	S1	-	-	-	-	BORROWED LITE	
102.1	3'-0"x7'-0"	WD	A	-	HM	1	5 ³ / ₈ "	-	H1 (SIM)	J1 (SIM)	-	-	-	-	3		
102.2	3'-0"x7'-0"	WD	A	-	HM	1	5 ³ / ₈ "	-	H1 (SIM)	J1 (SIM)	-	-	-	-	4		
102.3	3'-0"x7'-0"	WD	A	-	HM	1	5 ³ / ₈ "	-	H1 (SIM)	J1 (SIM)	-	-	-	-	4		
102.4	3'-0"x7'-0"	WD	A	-	HM	1	5 ³ / ₈ "	-	H1 (SIM)	J1 (SIM)	-	-	-	-	5		
100.1	3'-0"x7'-0"	WD	A	-	HM	3	4 ³ / ₈ "	SAFETY	H1	J1	-	-	-	-	3		
DOOR SCHEDULE NOTES:												DOOR AND FRAME MATERIAL ABBREVIATIONS:					
1. PAINT NEW HM FRAME'S IPS-2.												CT CERAMIC TILE (WALL FINISH) HM HOLLOW METAL WD WOOD					



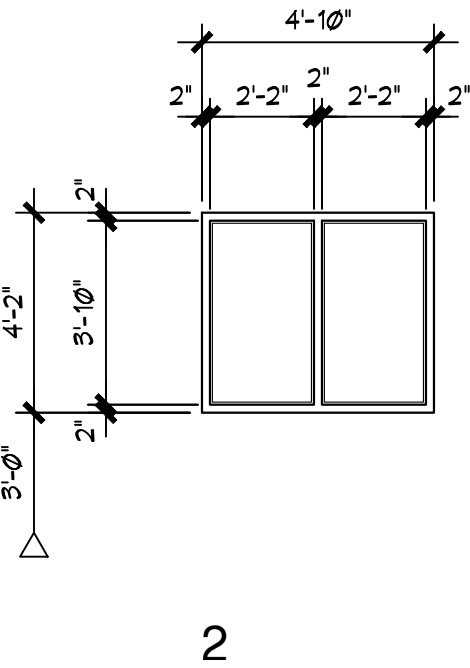
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DOOR ELEVATIONS

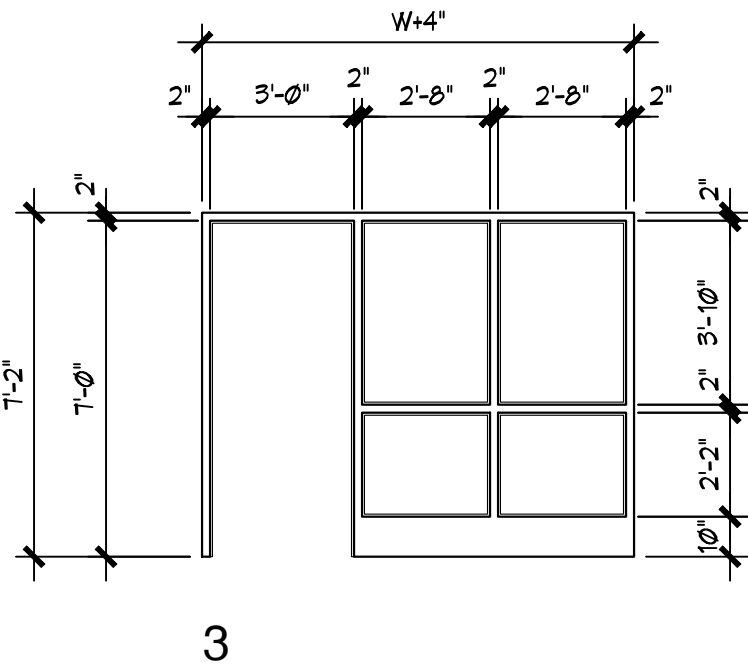
SCALE: 1/4" = 1'-0"



1



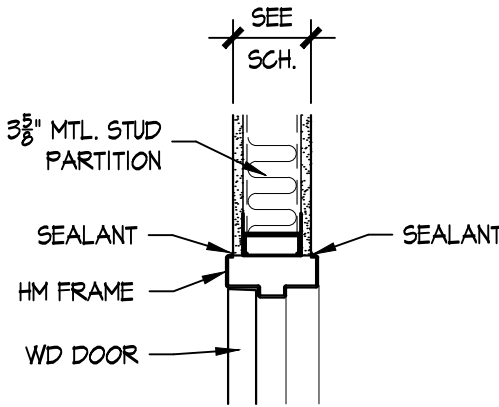
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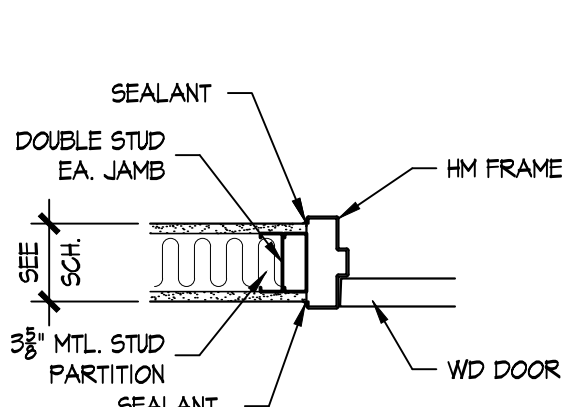
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DOOR FRAME ELEVATIONS

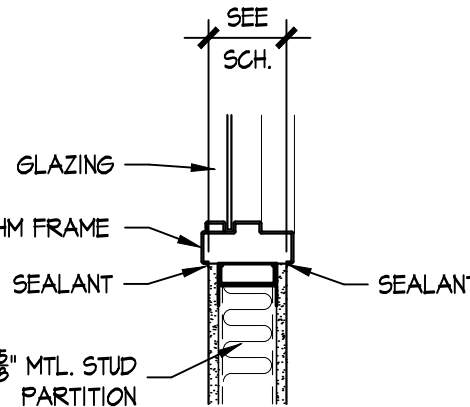
SCALE: 1/4" = 1'-0"



H1



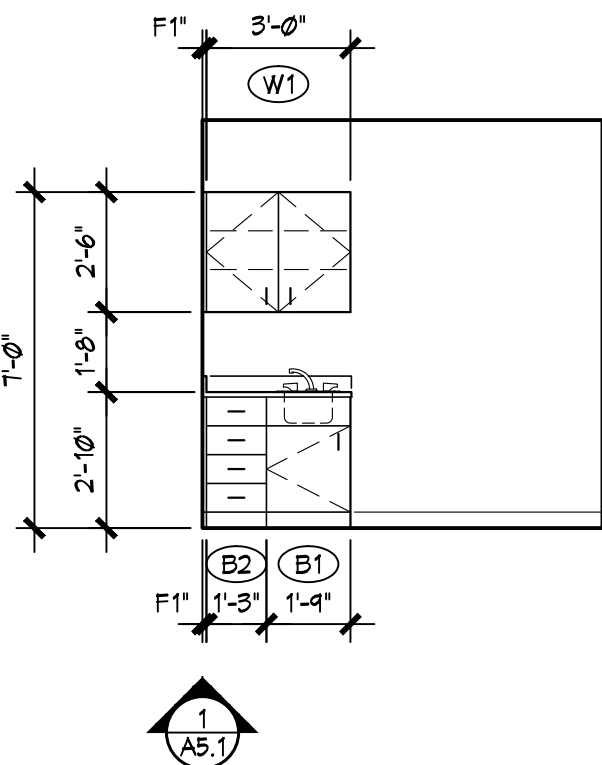
J1



S1

HEAD, JAMB AND DETAILS

SCALE: 1" = 1'-0"

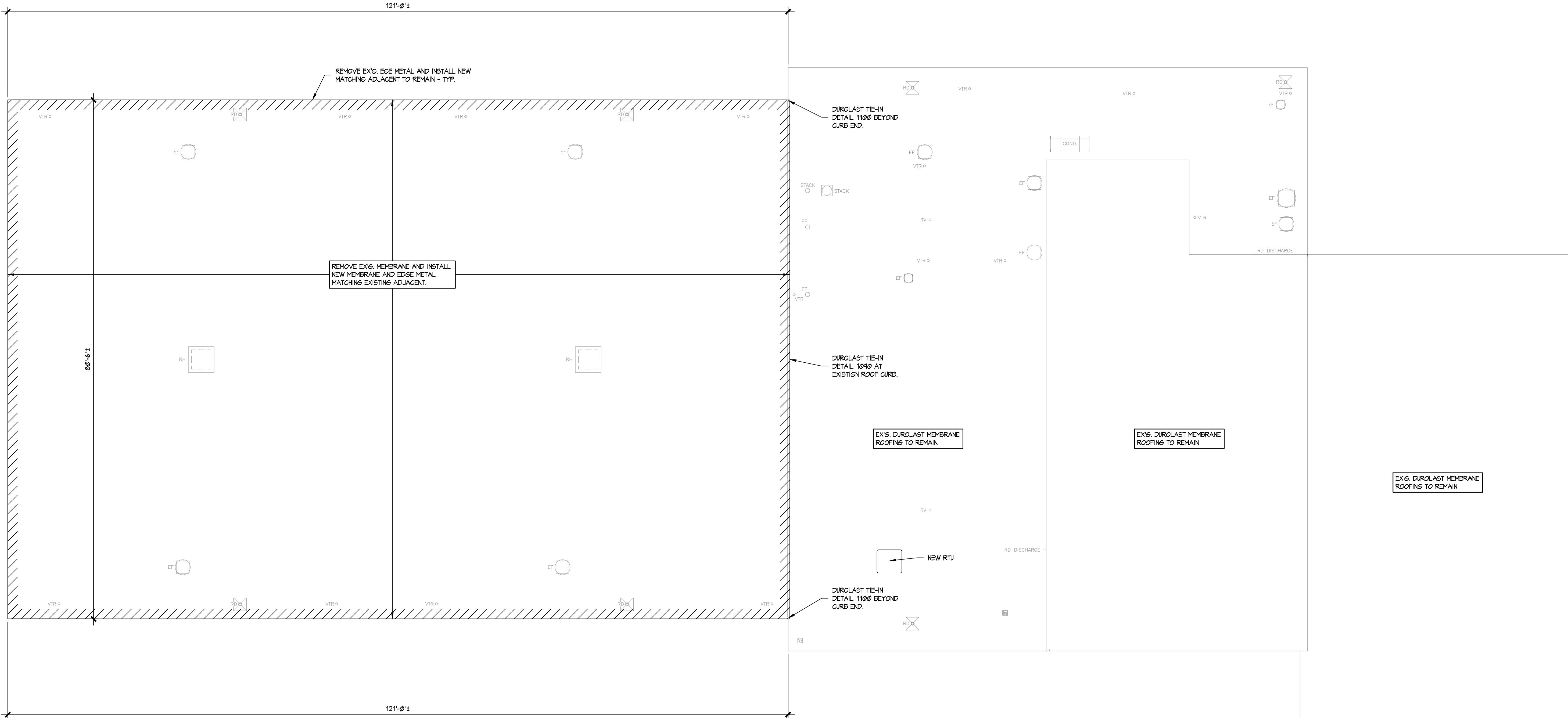


INTERIOR ELEVATIONS

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

ROOM FINISH SCHEDULE										
ROOM NO.	ROOM NAME	FLOOR MAT.	WALL BASE	WALL MATERIAL / FINISH (PRIMARY SUBSTRATE / FINISH)				CEILING FINISH		REMARKS
				NORTH	EAST	SOUTH	WEST	MATERIAL / FINISH	HEIGHT	
100	VESTIBULE	E FAF SEE NOTE 1	E 4" V SEE NOTE 2	E GB (P) / IPS-1 SEE NOTE 3	GB / IPS-1	E CMU (P) / IPS-1 SEE NOTE 5	E GB (P) / ETR	SAT-1	9'-0"	
103	CORRIDOR	E TC SEE NOTE 4	E 4" V SEE NOTE 2	E GB (P) / ETR	-	E GB (P) / ETR	GB / IPS-1	E SAT SEE NOTE 5	9'-0"±	
101	SCHOOL OFFICE	TC	4" V	GB / IPS-1	GB / IPS-1	E CMU (P) / IPS-1 SEE NOTE 3	E CMU (P) / IPS-1 SEE NOTE 6	SAT-1	9'-0"	
102A	WAITING	TC	4" V	GB / IPS-1	GB / IPS-1	GB / IPS-1	GB / IPS-1	SAT-1	9'-0"	
102B	OFFICE	TC	4" V	GB / IPS-1	GB / IPS-1	GB / IPS-1	(B) CMU (P) / IPS-1 SEE NOTE 3	SAT-1	9'-0"	
102C	OFFICE	TC	4" V	E CMU (P) / IPS-1 SEE NOTE 6	GB / IPS-1	GB / IPS-1	(B) CMU (P) / IPS-1 SEE NOTE 3	SAT-1	9'-0"	
102D	EXAM	VCT	4" V	E CMU (P) / IPS-1 SEE NOTE 6	GB / IPS-1	GB / IPS-1	GB / IPS-1	SAT-1	9'-0"	
108	MEDIA	E TC SEE NOTE 4	E 4" V SEE NOTE 2	E GB (P) / ETR	GB / IPS-1	E CMU (P) / ETR	E GB (P) / ETR	E SAT SEE NOTE 5	9'-0"±	
KEYED ROOM FINISH NOTES:				ROOM FINISH SCHEDULE ABBREVIATIONS:						
1. EXTEND EXG. FLUID APPLIED FLOORING TO NEW CONSTRUCTION - SEE PLAN.				CMU CONCRETE MASONRY UNITS						
2. EXTEND EXG. RESILIENT WALL BASE ON NEW WALLS WITH 4" V BASE MATCHING EXISTING.				E EXG EXISTING						
3. PATCH (FIELD VERIFY EXTENT), PREP AND PAINT NEW AND EXG. WALL SURFACES.				ETR EXISTING TO REMAIN						
4. EXTEND EXG. TILE CARPETING TO NEW CONSTRUCTION w/ TILE CARPET REMOVED FROM DEMOLITION AREAS.				FAF FLUID APPLIED FLOORING						
5. EXTEND EXG. SUSPENDED CEILING TO NEW CONSTRUCTION w/ NEW GRID AND SALVAGED EXG. SAT PADS.				GB GYPSUM BOARD						
6. PATCH (FIELD VERIFY EXTENT), PREP AND PAINT EXG. WALL SURFACES.				IPS-# INTERIOR PAINT SYSTEM						
GENERAL ROOM FINISH NOTES				P PAINT						
A. PAINT ALL NEW HOLLOW METAL DOOR FRAMES IPS-2 (COLOR TO MATCH EXG.)				TC TILE CARPETING						
				SAT-# SUSPENDED ACOUSTICAL CEILING						
				V VINYL WALL BASE						
				VCT VINYL COMPOSITE (RESILIENT) TILE						
				SCHEDULE CONVENTIONS - EXAMPLES:						
				FLOORING AND WALL BASE = SCHEDULED MATERIAL OR FINISH						
				ETR (T) = EXISTING TO REMAIN - TERRAZZO						
				TC = TILE CARPETING (NEW)						
				WALL MATERIAL / FINISH = MATERIAL OR SUBSTRATE / APPLIED FINISH						
				E CMU (P) / IPS-# = EXISTING CMU (PAINTED) / NEW FINISH IPS AS SCHEDULED.						
				E CMU (P) / ETR = EXISTING CMU (PAINTED) / ETR NO NEW APPLIED FINISH.						
				CEILING MATERIAL / FINISH = MATERIAL OR SUBSTRATE / APPLIED FINISH						
				E EXP. DECK (P) / ETR = EXISTING EXPOSED DECK (PAINTED) / ETR NO NEW APPLIED FINISH.						
				SAT-1 = NEW SUSPENDED ACOUSTICAL CEILING AS SCHEDULED.						
				HEIGHTS LISTED IN SCHEDULE FOR ROOMS WITH EXPOSED DECK ARE AVERAGE DECK HEIGHT ±.						

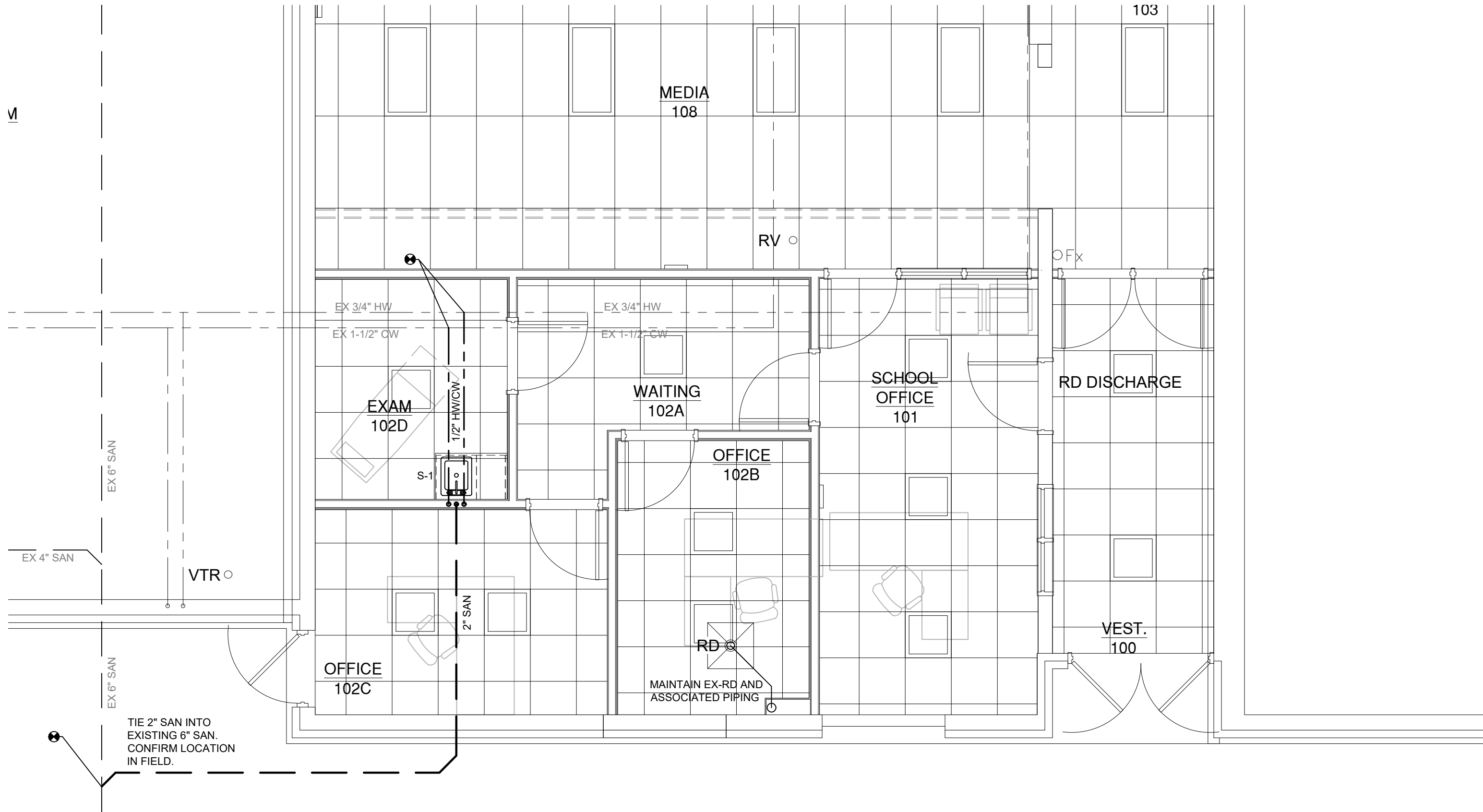
CASEWORK SCHEDULE					
MARK	DESCRIPTION	DIMENSIONS SIZE (HxDxW)	DOORS	DRAWERS	SHELVES
B1	SINGLE DOOR SINK BASE	34x24x21	1 LOCKING	1 FALSE	0
B2	FOUR DRAWER STORAGE	34x24x15	0	4 LOCKING	1
W1	STORAGE w/ DOORS	30x12x36	2 LOCKING	0	2
NOTES: 1. NONE					



NORTH
SCALE: $\frac{1}{8}'' = 1'-0''$

ROOF PLAN

SHEET	DATE	PROJECT NO.	PROJECT TITLE	DRAWING TITLE	ARCHITECT
A4.1	MAY 9, 2025	298-25	ELLSWORTH COMMUNITY SCHOOL ELEMENTARY SCHOOL REMODELING AND PARTIAL REROOFING ELLSWORTH, MICHIGAN	ROOF PLAN	ANTHONY P. ESSON ARCHITECT PO BOX 479 GAYLORD, MICHIGAN 49734 TELEPHONE: (989) 732-0585



PLUMBING PARTIAL FLOOR PLAN

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

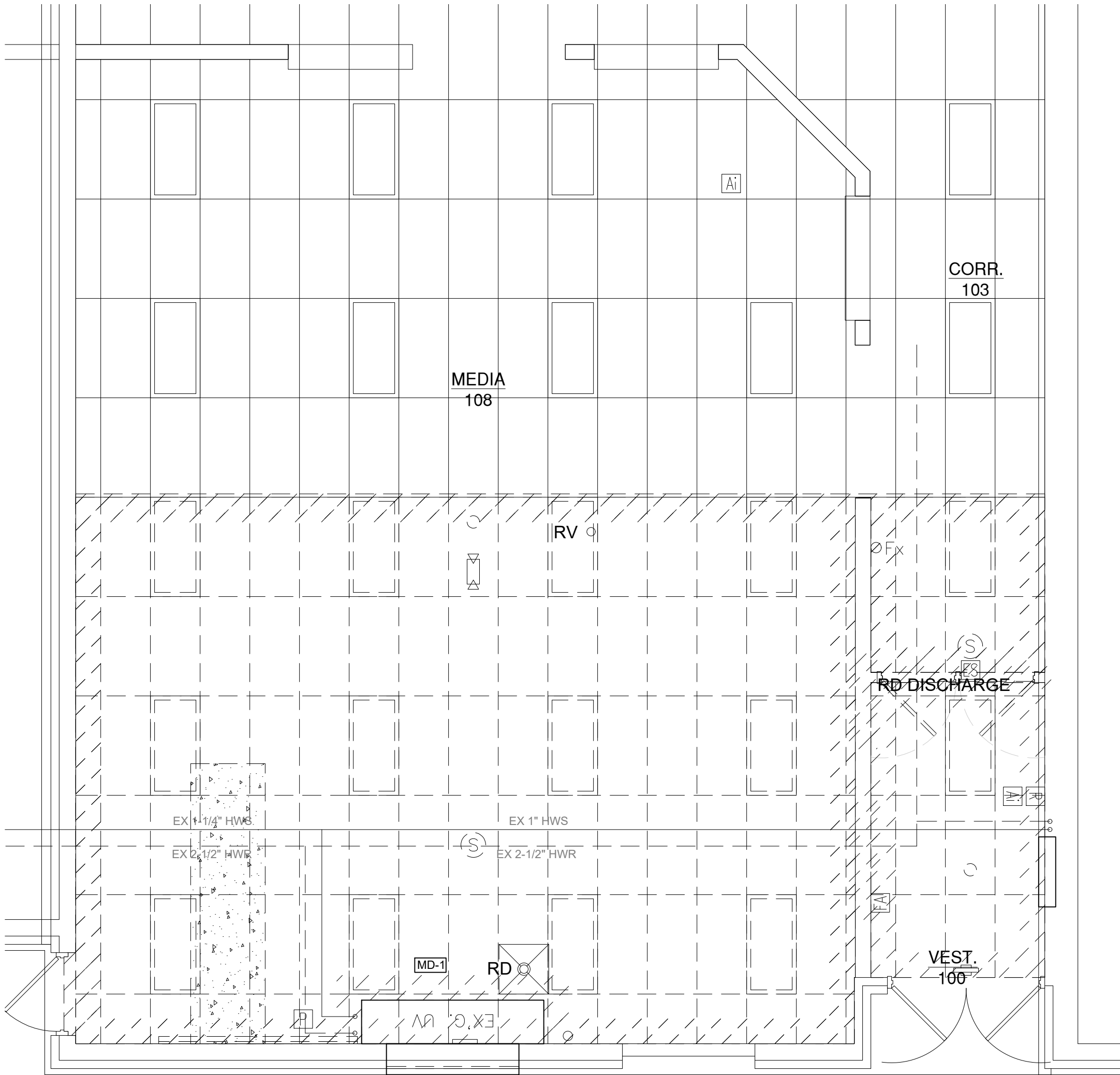


KEY PLAN
NO SCALE

PLUMBING FIXTURE SCHEDULE									
TAG	DESCRIPTION	MANUFACTURER	MODEL	ROUGH-IN SIZE (INCHES)				TRIM	REMARKS
				CW	HW	WASTE	VENT		
S-1	1-COMP SINK, 15" x 17-1/2" 6-1/2" DEEP, ADA, 18 GA	ELKAY	LRAD151765	1/2"	1/2"	1-1/2"	1-1/2"	FAUCET: CHICAGO FAUCETS 526-317ABCP W/ SS REMOVABLE STRAINER	FURNISH WITH TMV - ①
①	PROVIDE MIXING VALVE TO MEET ADA REQUIREMENTS. EQUAL TO ZURN ZW3870XLT. MOUNT UNDER LAV.								

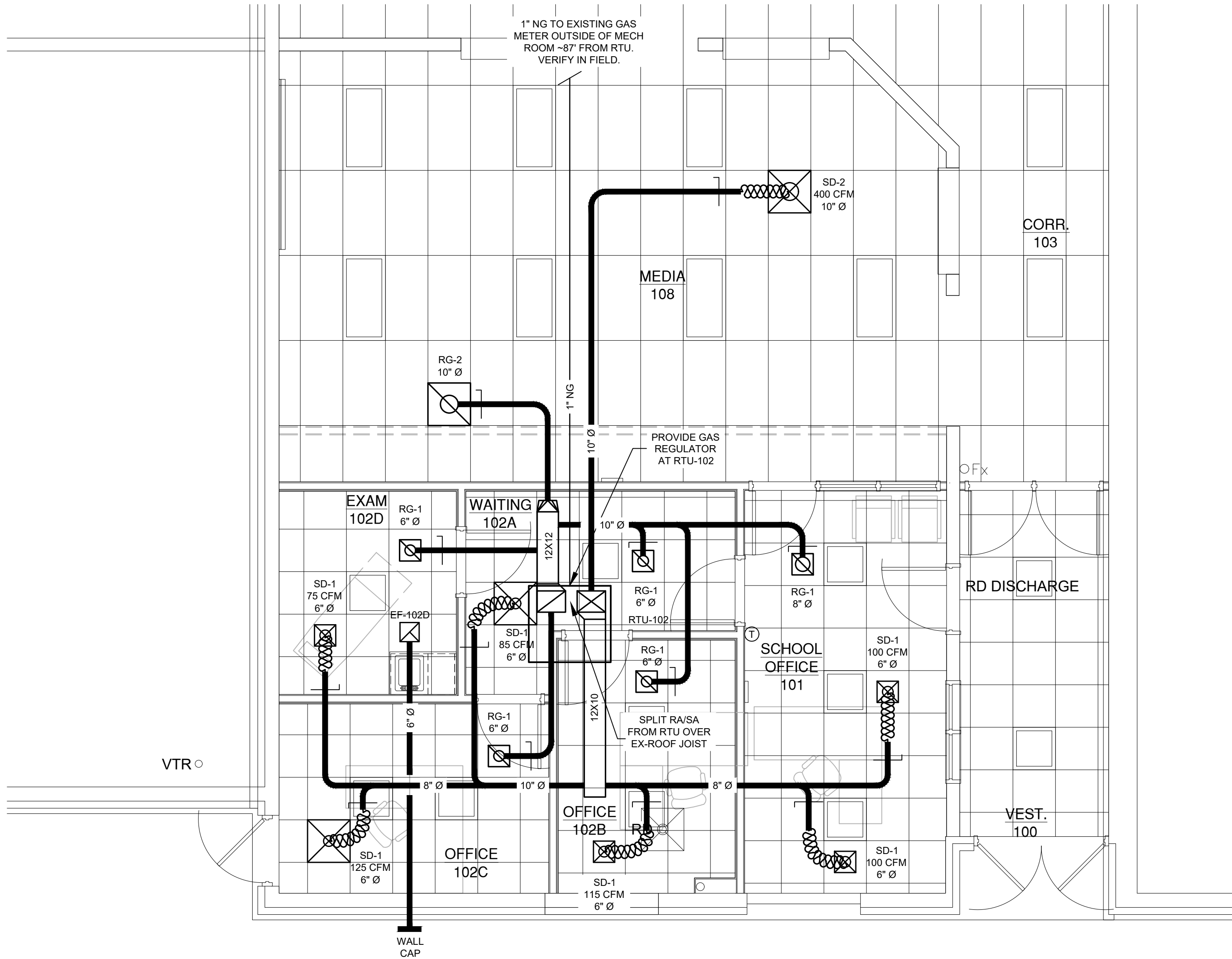
DEMOLITION KEYED NOTES

MD-1 REMOVE EXISTING UNIT VENTILATOR AND ASSOCIATED PIPING, DUCTWORK, WALL SLEEVE AND LOUVER. COORDINATE ELECTRICAL DEMO WITH E.C. AND WALL INFILL WITH GC.



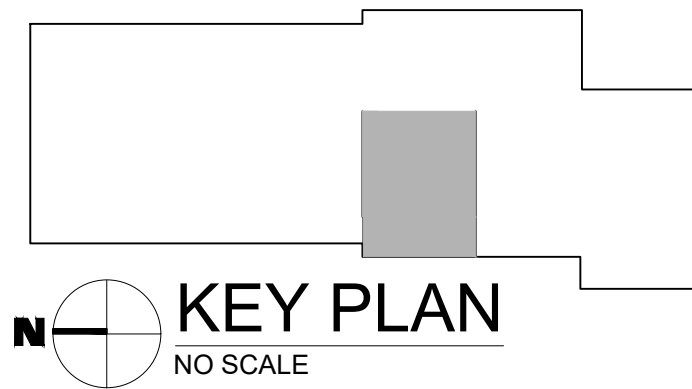
MECHANICAL DEMOLITION PARTIAL FLOOR PLAN

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

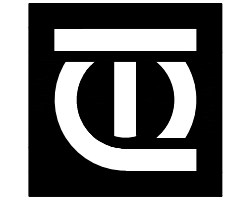


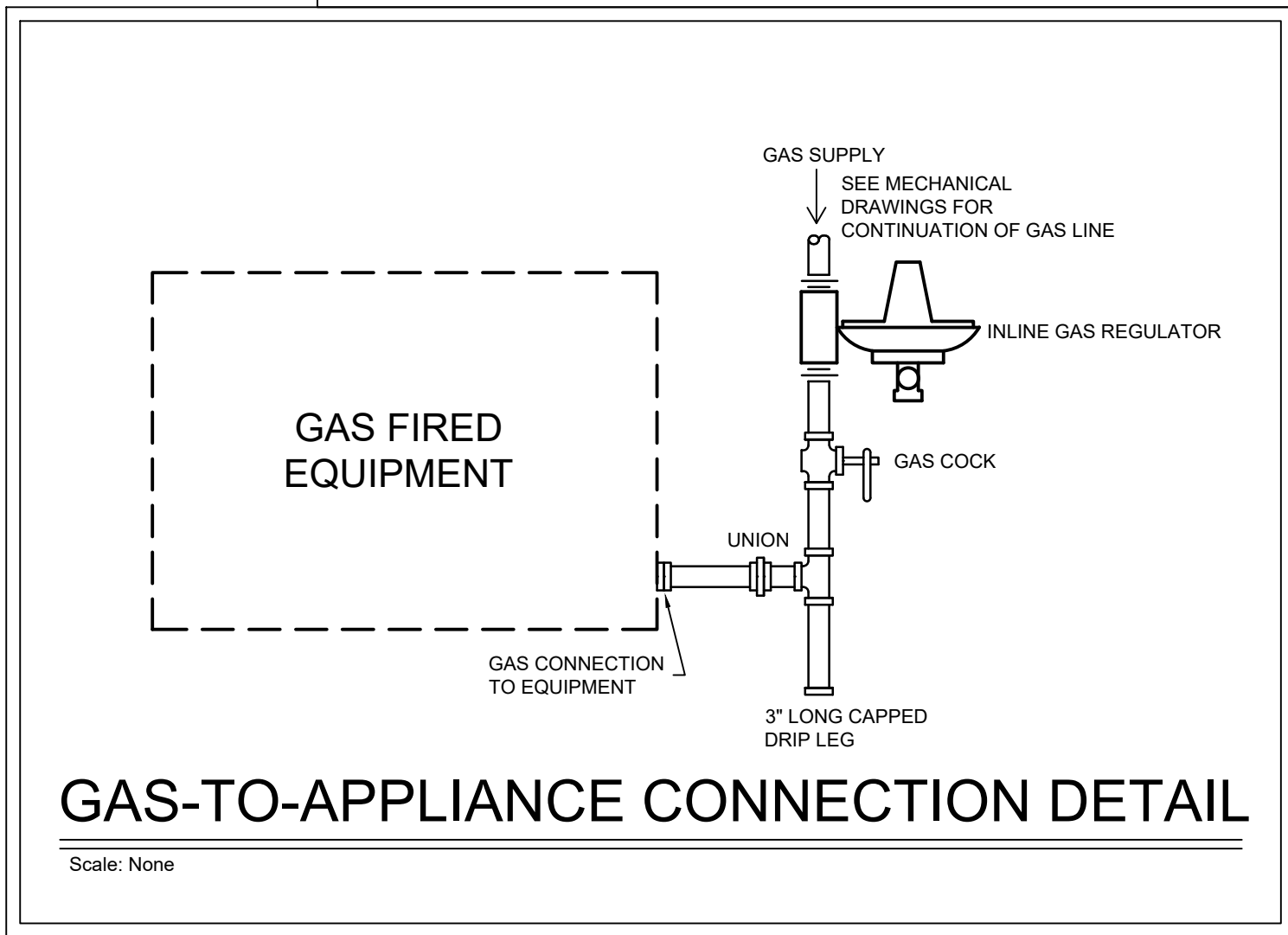
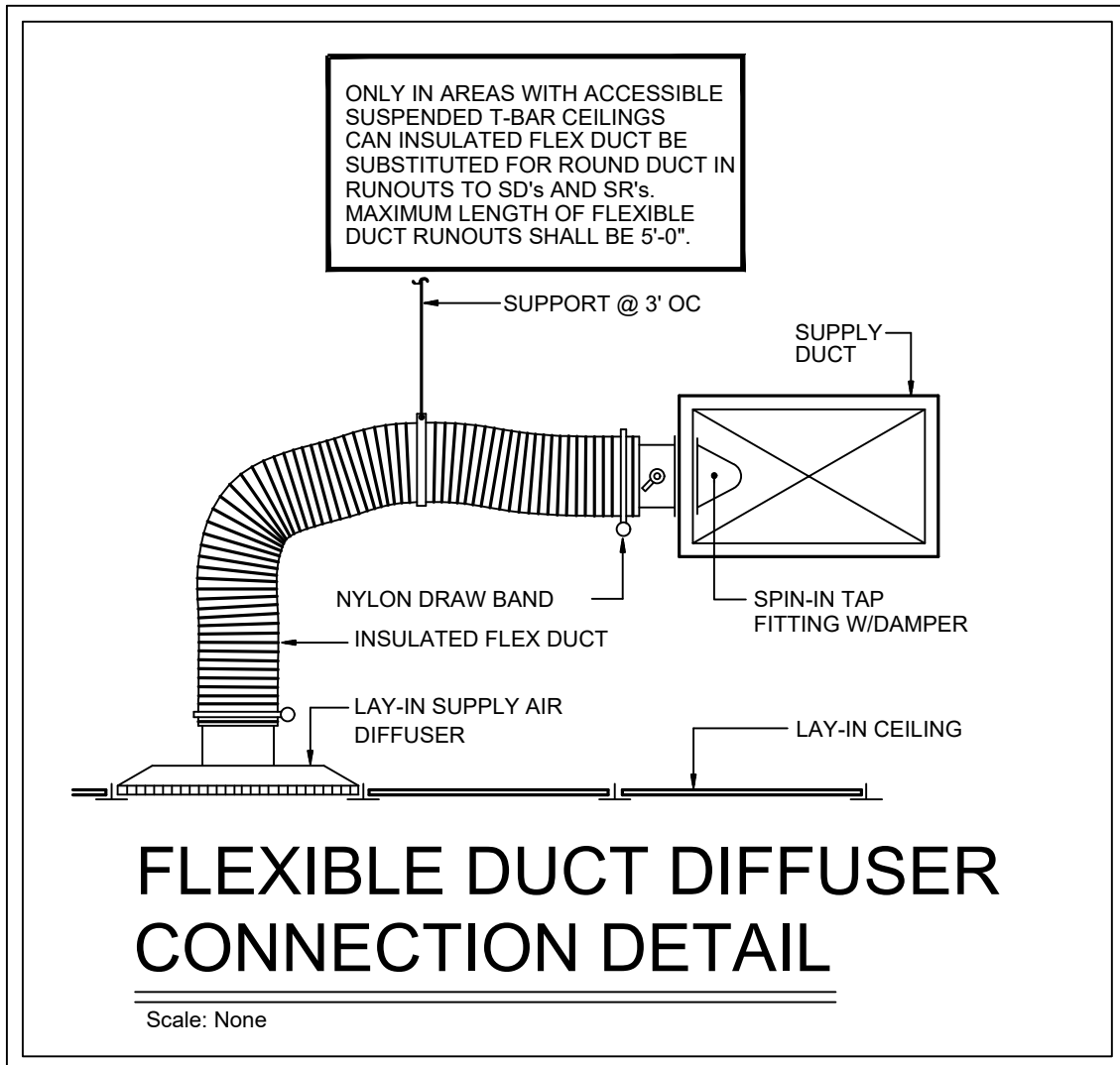
MECHANICAL PARTIAL FLOOR PLAN

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



KEY PLAN
NO SCALE



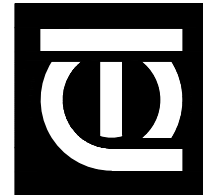


ROOF TOP UNIT SCHEDULE																						
TAG	MANUFACTURER & MODEL NO.	NOMINAL AIRFLOW (CFM)	% OA	E.S.P. (IN W.G.)	DRIVE	HEATING DATA					COOLING DATA				ELECTRICAL DATA				OPTIONS	REMARKS		
						INPUT (MBH)	OUTPUT (MBH)	EDB (°F)	LDB (°F)	FUEL	GAS CONN.	TC (MBH)	EDB (°F)	LDB (°F)	EER	VOLTAGE	HP	MCA			MFS	
RTU-102	TRANE SY CC4030A 1070A 2.5-TON	1000	25	0.5	DIRECT	70	56.7	52.5	104	NG	1/2"	28400	75	49.2	11	208/230 1ø	1/2	21	30			
BASED ON DAIKIN, TRANE, CARRIER ARE APPROVED EQUALS.																						

EXHAUST FAN SCHEDULE										
TAG	MANUFACTURER & MODEL NO.	LOCATION	AIRFLOW (CFM)	E.S.P. (IN W.G.)	SOUND LEVEL (SONES)	ELECTRICAL			CONTROL DATA	OPTIONS
						VOLTAGE	W	MCA		
EF-1	WHISPER GREEN SELECT FV-0511VKS3	EXAM 102D	110	0.25	0.3	115/60/1ø	12.1	0.36	WALL SWITCH	

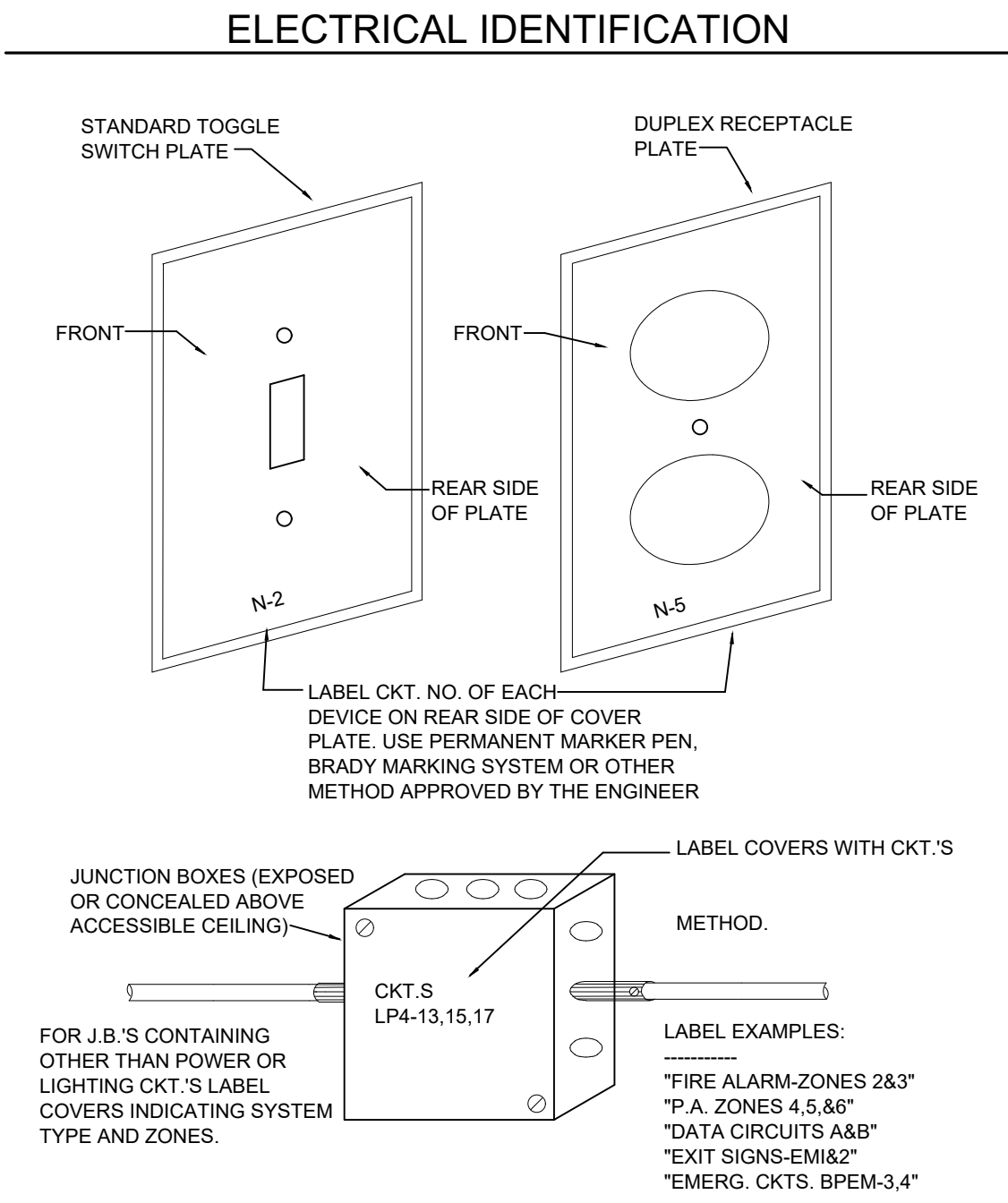
DIFFUSER AND GRILLE SCHEDULE							
TAG	DESCRIPTION	MANUFACTURER & MODEL	SIZE (INCHES)	VOLUME DAMPER (TYPE, LOCATION)	MATERIAL	COLOR AND FINISH	ACCESSORIES/NOTES
SD-1	SUPPLY AIR DIFFUSER 4-WAY THROW, PLAQUE STYLE SURFACE MOUNT FRAME	TITUS OMNI	12X12 NECK SIZE ON PLANS	EXTERNAL	STEEL	#26 WHITE	-
SD-2	SUPPLY AIR DIFFUSER 4-WAY THROW, PLAQUE STYLE SURFACE MOUNT FRAME	TITUS OMNI	24X24 NECK SIZE ON PLANS	EXTERNAL	STEEL	#26 WHITE	
RG-1	RETURN AIR GRILLE EGGRATE STYLE STANDARD CORE (1/2"x1/2"x1/2") LAY-IN FRAME	TITUS 50F	12X12	EXTERNAL	ALUMINUM	#26 WHITE	
RG-2	RETURN AIR GRILLE EGGRATE STYLE STANDARD CORE (1/2"x1/2"x1/2") LAY-IN FRAME	TITUS 50F	24X24	EXTERNAL	ALUMINUM	#26 WHITE	
BASED ON TITUS, TITUS, TUTTLE & BAILEY AND PRICE ARE APPROVED EQUALS.							

SYSTEM TAG: RTU-102		MECHANICAL VENTILATION OUTDOOR AIRFLOW RATE SUMMARY											
ZONE INPUT						ZONE CALCULATIONS							
1	2	3	4	5	6	7	8	9	10	11	12	13	14
ZONE NAME & TAG	OCCUPANCY CLASSIFICATION (TABLE 403.3)	NET OCCUPIABLE FLOOR AREA, A_z (ft^2)	TOTAL DESIGN SUPPLY AIRFLOW TO ZONE, V_{dz} (cfm)	PERCENT AIRFLOW TO ZONE AT CONDITION ANALYZED, D_z	AIR DISTRIBUTION EFFECTIVENESS, S_z	PEOPLE OUTDOOR AIRFLOW RATE, R_p (cfm/person)	AREA OUTDOOR AIRFLOW RATE, R_a (cfm/ ft^2)	DEFAULT OCCUPANT DENSITY (#/1000 ft^2)	ZONE POPULATION, P_z (people)	BREATHING ZONE OUTDOOR AIRFLOW, V_{bz} (cfm)	ZONE OUTDOOR AIRFLOW RATE, V_{oz} (cfm)	PRIMARY OUTDOOR AIR FRACTION, Z_p	ZONE VENTILATION EFFICIENCY, E_{vz} ($1+X_p-Z_p$)
101 School Office	Office Spaces (OFFICE)	180	200	100%	0.8	5	0.06	5	1	15	19	0.10	1.05
102a Waiting	Reception Areas (OFFICE)	95	85	100%	0.8	5	0.06	30	3	20	25	0.29	0.86
102b Office	Office Spaces (OFFICE)	98	115	100%	0.8	5	0.06	5	0	8	10	0.09	1.06
102c Office	Office Spaces (OFFICE)	113	125	100%	0.8	5	0.06	5	1	10	12	0.10	1.05
102d Exam	Office Spaces (OFFICE)	80	75	100%	0.8	5	0.06	5	0	7	9	0.11	1.04
108 Media	Media Center (EDUCATION)	472	400	100%	0.8	10	0.12	25	12	175	218	0.55	0.60
SYSTEM CALCULATIONS										SYSTEM SUMMARY			
TOTAL SYSTEM POPULATION, P_s	SYSTEM POPLUATION DIVERSITY, D	TOTAL AREA SERVED BY SYSTEM, A_s (ft^2)	SYSTEM PRIMARY AIRFLOW, V_{ps} (cfm)	UNCORRECTED OUTDOOR AIR INTAKE, V_{ou} (cfm)	UNCORRECTED OUTDOOR AIR INTAKE FRACTION, X_s	MAX ZONE (Z_p)	ASHRAE 62.1 SYSTEM VENTILATION EFFICIENCY, E_v (Appendix A)	2015 MMC SYSTEM VENTILATION EFFICIENCY, E_v (Table 403.3.1.1.2.3.2)	UTILIZED SYSTEM VENTILATION EFFICIENCY, E_v	REQUIRED OUTDOOR AIR INTAKE FLOW, V_{ot} (cfm)	REQUIRED OUTDOOR AIR INTAKE PERCENTAGE	TOTAL DESIGN OUTDOOR AIR INTAKE FLOW, (cfm)	DESIGN MEETS CODE?
7	0.41	1,038	1,000	150	0.15	0.55	0.60	0.60	0.60	250	25.0%	250	YES



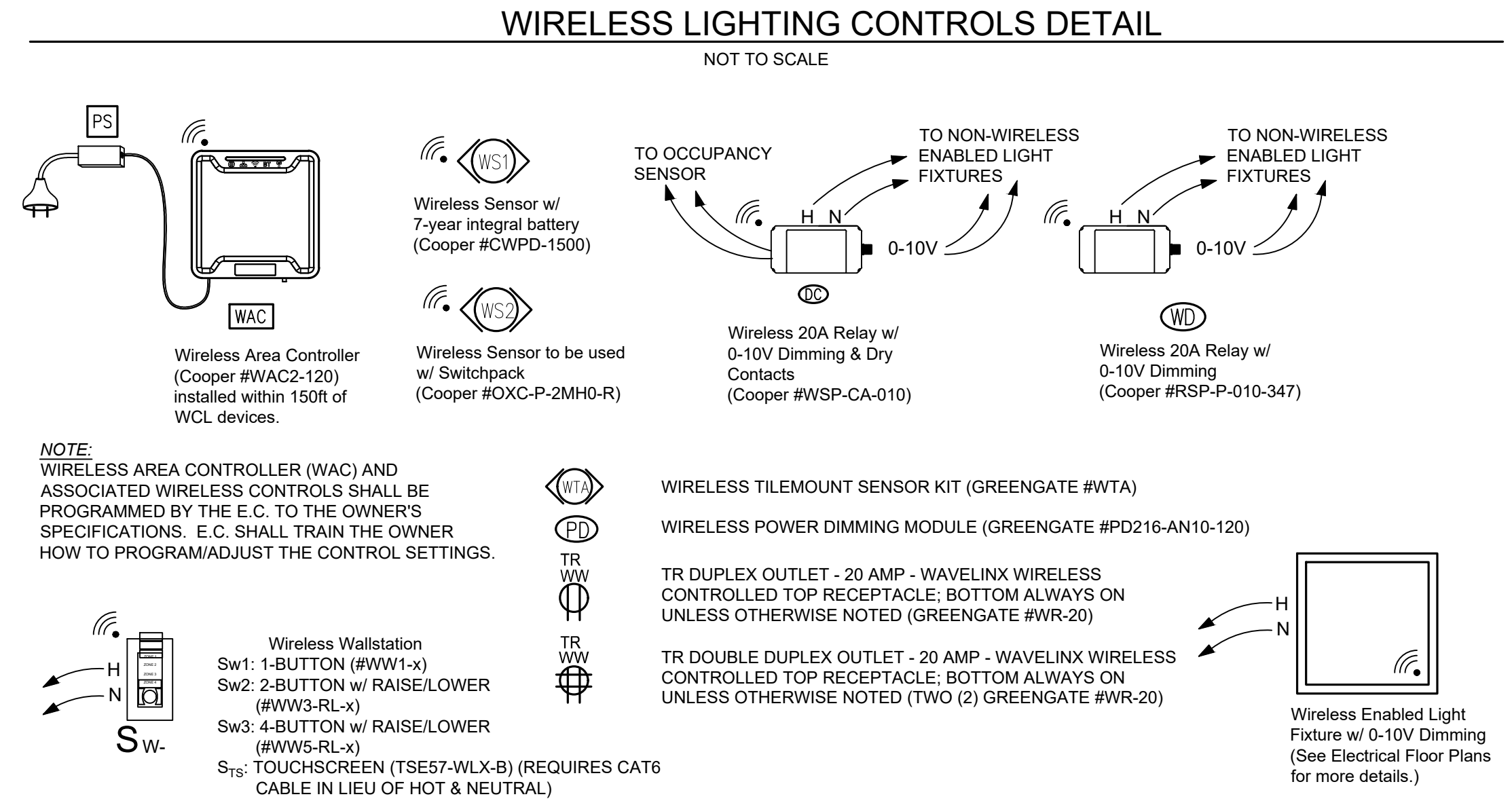
ELECTRICAL SYMBOL LEGEND		
SYMBOL	DESCRIPTION	NOTES
	SINGLE POLE TOGGLE SWITCH	
	PASSIVE INFRARED OCCUPANCY SENSOR (GREENGATE #VNW-P-1001-MV-X)	MOUNT @ 44" A.F.F. TO BOTTOM OF BOX, UNLESS OTHERWISE NOTED
	WAVELINX WIRELESS WALLSTATION, TYPE X	MOUNT @ 44" A.F.F. TO BOTTOM OF BOX, UNLESS OTHERWISE NOTED. SEE WIRELESS LIGHTING CONTROLS DETAIL ON THIS SHEET FOR TYPES
	OCCUPANCY SENSOR, EXISTING	
	WAVELINX WIRELESS AREA CONTROLLER	MOUNTED BELOW AN ACCESSIBLE CEILING. SEE WIRELESS LIGHTING CONTROLS DETAIL ON THIS SHEET FOR TYPES
	WALL MOUNTED FIXTURE, EXISTING	
	2x2' FIXTURE, TYPE X	SEE LIGHTING FIXTURE SCHEDULE FOR TYPES
	2x4' FIXTURE, EXISTING	
	EXIT SIGN, EXISTING	
	EXIT SIGN	SEE LIGHTING FIXTURE SCHEDULE FOR TYPES
	EMERGENCY ONLY FIXTURE, EXISTING	
	TAMPER RESISTANT DUPLEX OUTLET - 20 AMP	MOUNT @ 16" A.F.F. TO BOTTOM OF BOX, UNLESS OTHERWISE NOTED
	ISOLATED GROUND DOUBLE (2) DUPLEX OUTLET - 20 AMP	
	TAMPER RESISTANT DUPLEX RECEPTACLE WITH GROUND FAULT (GFCI) PROTECTION - 20 AMP	
	TAMPER RESISTANT DUPLEX RECEPTACLE WITH WAVELINX WIRELESS CONTROLLED TOP RECEPTACLE; BOTTOM ALWAYS ON - 20 AMP	
	TAMPER RESISTANT CEILING MOUNTED DUPLEX RECEPTACLE - 20 AMP	
	ADA ACCESSIBLE DOOR OPERATOR PUSH BUTTON LOCATION	
	SINGLE PHASE SPECIAL PURPOSE OUTLET	
	1-PHASE MOTOR CONNECTION	
	1-PHASE FUSED OR NON-FUSED DISCONNECT	
	MOTOR TOGGLE SWITCH WITH THERMAL OVERLOAD AND LOCKOUT	SQUARE D #CLASS 2510 FGJ5P (SINGLE POLE)
	3-PHASE ELECTRICAL PANELBOARD	REFER TO RISER DIAGRAM
	SECURITY SYSTEM INTERIOR CAMERA LOCATION	
	SECURITY SYSTEM CARD READER LOCATION	SEE SHEET E3 FOR DETAIL
	SECURITY SYSTEM ELECTRIC STRIKE LOCATION	SEE SHEET E3 FOR DETAIL
	PROJECTOR OUTLET	E.C. TO PROVIDE AND INSTALL TWO (2) 4" SQ. x 2-1/8" DEEP BOX WITH SINGLE GANG PLASTER RING AT CEILING. ONE (1) WITH ONE (1) 1" CONDUIT STUBBED TO ABOVE THE NEAREST ACCESSIBLE (LAY-IN) CEILING, AND ONE (1) WITH A DUPLEX RECEPTACLE, UON, DIV. 27 CONTRACTOR TO PROVIDE AND INSTALL ONE (1) CAT6A CABLE FROM FIRST JUNCTION BOX TO NEAREST MDF/IDF, ACCORDING TO DIV. 27 SPECIFICATIONS.
	CEILING SPEAKER	EXISTING SPEAKER TO BE REPURPOSED AND INSTALLED IN A NEW LOCATION
	NEW CEILING SPEAKER	NEW CEILING MOUNTED SPEAKER TO MATCH THE EXISTING SPEAKERS AND BE CONNECTED WITH APPROPRIATE CABLING TO THE EXISTING CAREHAWK BELL/PAINTERCOM SYSTEM. CONTACT ASCMNORTH (231-938-2230) FOR MORE DETAILS.
	WALL MOUNTED SPEAKER	
	ELECTRIC BELL	
	WIRELESS CLOCK	MOUNT @ 96" A.F.F., UNLESS OTHERWISE NOTED. BATTERY OPERATED.
	LOW VOLTAGE OUTLET WITH A MINIMUM OF ONE (1) CAT6a CABLE TERMINATION, UNLESS OTHERWISE NOTED WITH A QUANTITY OF "X" CABLES.	x DENOTES THE NUMBER OF CAT6A CABLES TO BE RUN FROM THE OUTLET TO THE NEAREST EXISTING IDF/MDF. E.C. TO PROVIDE AND INSTALL 4" SQ. x 2-1/8" DEEP BOX WITH SINGLE GANG PLASTER RING @ 16" AFF AND 1" CONDUIT STUBBED ABOVE NEAREST ACCESSIBLE CEILING. DIVISION 270000 CONTRACTOR TO PROVIDE AND INSTALL QUANTITY OF CAT6A CABLES AND TERMINATE ACCORDING TO SPEC. 271007.
	TELEVISION MONITOR LOCATION	E.C. TO PROVIDE AND INSTALL TWO (2) 4" SQ. x 2-1/8" DEEP BOX WITH 2" DEEP PLASTER RING @ 84" AFF. ONE (1) FOR A DUPLEX RECEPTACLE AND ONE (1) WITH A 1" CONDUIT STUBBED ABOVE THE NEAREST ACCESSIBLE (LAY-IN) CEILING. UNLESS OTHERWISE NOTED, DIV. 27 CONTRACTOR TO PROVIDE AND INSTALL ONE (1) CAT6A CABLE FROM SECOND JUNCTION BOX TO NEAREST MDF/IDF ACCORDING TO DIV. 27 SPECIFICATIONS
	WIRELESS ACCESS POINT	
	THERMOSTAT	
	BLUE LOCK DOWN LIGHT	EXISTING TO REMAIN
	FIRE ALARM CONTROL PANEL	EXISTING TO REMAIN
	FIRE ALARM BOOSTER PANEL	
	FIRE ALARM REMOTE ANNUNCIATOR	MOUNT @ 44" A.F.F.
	FIRE ALARM PULL STATION	MOUNT @ 44" A.F.F.
	FIRE ALARM VISUAL CEILING MTD DEVICE	
	FIRE ALARM CEILING MOUNTED SPEAKER/STROBE DEVICE	
	FIRE ALARM SMOKE DETECTOR	
	DEMO HATCH	
	0-10V LOW VOLTAGE WIRES	

ELECTRICAL ABBREVIATIONS			
1-21	PANEL 1, CIRCUIT 21	KCMIL	THOUSAND CIRCULAR MILS
A	AMPERES	KVA	KILOVOLT-AMPERES
AC	ABOVE COUNTER	KW	KILOWATTS
ACL	ABOVE CEILING	MC	MECHANICAL CONTRACTOR
AFF	ABOVE FINISH FLOOR	MCB	MAIN CIRCUIT BREAKER
AFG	ABOVE FINISH GRADE	MDP	MAIN DISTRIBUTION PANEL
BC	BELOW COUNTER	MLO	MAIN LUG ONLY
BCL	BELOW CEILING	NL	NIGHT LIGHT
C	CONDUIT	NTS	NOT TO SCALE
C/B, CB	CIRCUIT BREAKER	P	PUMP
CM	CEILING MOUNT	PNL	PANEL
DED	DEDICATED	PS	PRIMARY SWITCH
DF	DEAD FRONT	PT	PRIMARY TRANSFORMER
DWG	DRAWING	PVC	POLYVINYL CHLORIDE
E	EXISTING TO REMAIN	RGS	RIGID GALVANIZED STEEL
EC	ELECTRICAL CONTRACTOR	SM	SURFACE MOUNT
EF	EXHAUST FAN	TR	TAMPER RESISTANT
EGC	EQUIPMENT GROUNDING CONDUCTOR	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
EH	ELECTRIC HEATER	UGRD or U/G	UNDERGROUND
EMT	ELECTRICAL METALLIC TUBING	UON	UNLESS OTHERWISE NOTED
ERV	ENERGY RECOVERY VENTILATOR	V	VOLT
EWC	ELECTRIC WATER COOLER	VFD	VARIABLE FREQUENCY DRIVE
EWB	ELECTRIC WATER HEATER	W	WIRE
G	GROUND	WG	WIREGUARD
GEC	GROUNDING ELECTRODE CONDUCTOR	WP	WEATHERPROOF
GFI	GROUND FAULT CIRCUIT INTERRUPTER	XFMR	TRANSFORMER
GTD	GENERATOR TRANSFER DEVICE	x	EXISTING
HORZ	HORIZONTAL	xR	EXISTING (TO BE) RELOCATED



WIRE SIZE REQUIREMENTS										
NOTE: BASED ON A MAXIMUM OF 3.6-VOLT DROP (3%) ON 120V CIRCUITS. WIRES FOR RUNS OVER 100'-0" SHALL BE DETERMINED ON THIS A MAXIMUM OF A 3% DROP ALLOWED.										
BRANCH CIRCUIT AMPS	LENGTH OF RUN - FROM PANEL TO FIRST CONNECTION - FEET									
AMPS	50'	60'	70'	80'	90'	100'	110'	120'	130'	
15	#12	#12	#12	#10	#10	#10	#10	#10	#8	
20	#12	#10	#10	#10	#10	#8	#8	#8	#8	
30	#10	#10	#8	#8	#8	#6	#6	#6	#6	

Type	Mount	Ceiling	Description	Lumen	Temp	CRI	Watts	Volt	Dim	Manufacturer	Catalog #	Notes
A	Recessed	Grid	2x2 Recessed LED Troffer with Wavelinx Wireless Controls	3,997	3500	80	28.5	UNV	0-10v	Metalux	22CZ2-39HE-UNV-L835-CD1-WPS-U	
AE	Recessed	Grid	2x2 Recessed LED Troffer with Wavelinx Wireless Controls	3,997	3500	80	28.5	UNV	0-10v	Metalux	22CZ2-39HE-UNV-EL7W-L835-CD1-WPS-U	Fixture includes a 90 minute, 7 watt emergency battery backup.
A1	Recessed	Grid	2x2 Recessed LED Troffer with Wavelinx Wireless Controls	5,530	3500	80	39.4	UNV	0-10v	Metalux	22CZ2-55VHE-UNV-L835-CD1-WPS-U	
A1E	Recessed	Grid	2x2 Recessed LED Troffer with Wavelinx Wireless Controls	5,530	3500	80	39.4	UNV	0-10v	Metalux	22CZ2-55VHE-UNV-EL7W-L835-CD1-WPS-U	Fixture includes a 90 minute, 7 watt emergency battery backup.
EX	Top/End/Back	Various	Exit/Em Combo	184	--	--	5w	120v	--	Isolite	RLP-R-U-WH-MTEB-SD	

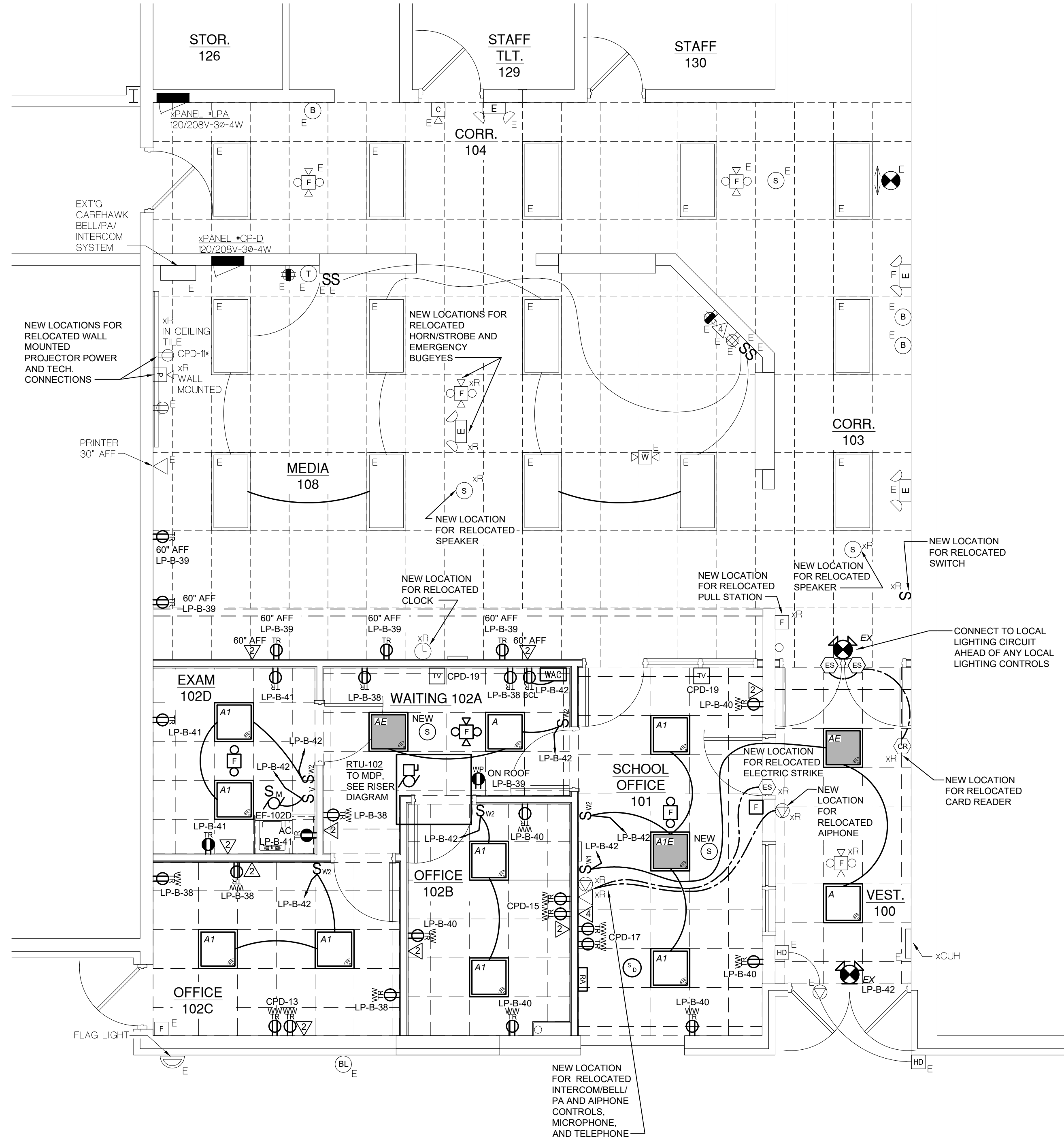
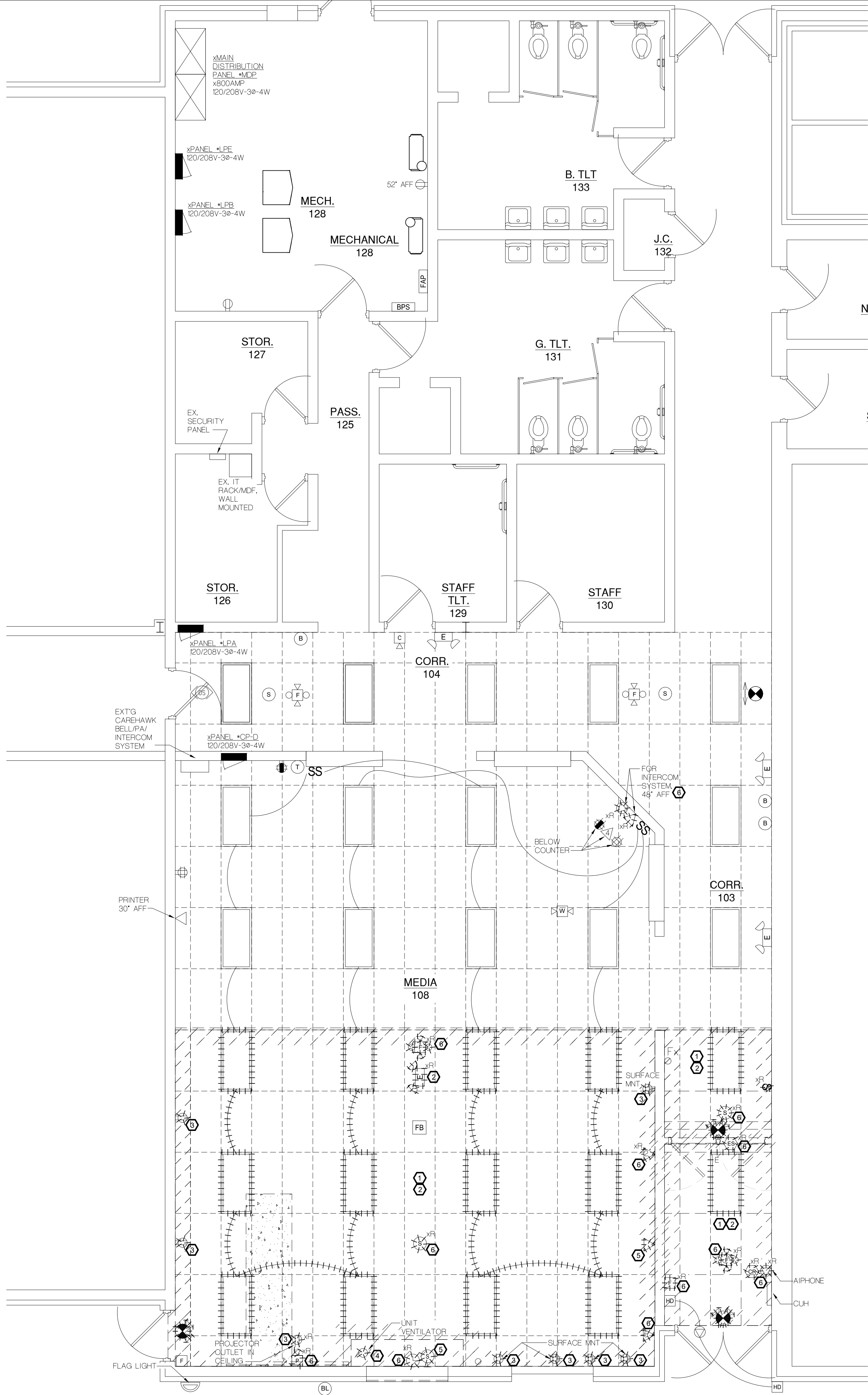


GENERAL ELECTRICAL DEMOLITION NOTES

- SEE THIS SHEET FOR ELECTRICAL DEMOLITION KEY NOTE LEGEND.
- ELECTRICAL CONTRACTOR (E.C.) SHALL REMOVE ALL LIGHT FIXTURES AS INDICATED ON DRAWINGS. IF ANY LIGHT FIXTURE BALLASTS ARE FOUND TO CONTAIN PCB'S THE ELECTRICAL CONTRACTOR SHALL REMOVE BALLAST FROM LIGHT FIXTURES AND DISPOSE OF IN APPROVED DISPOSAL CONTAINERS PROVIDED BY THE OWNER. THE OWNER SHALL BE RESPONSIBLE FOR PROPER DISPOSAL PER LOCAL, STATE AND FEDERAL LAWS AND PAY FOR ALL ASSOCIATED COSTS OF DISPOSAL.
- E.C. SHALL BE RESPONSIBLE FOR DISPOSAL OF REMAINING LUMINAIRE PARTS & ANY NON-PCB FIXTURES PER LOCAL, STATE, AND FEDERAL REGULATIONS AND PAY FOR ALL ASSOCIATED COSTS OF DISPOSAL.
- CAUTION!!!!**
E.C. SHALL DISCONNECT AND REMOVE ALL ELECTRICAL EQUIPMENT, (WHICH INCLUDES BUT IS NOT LIMITED TO DEVICES, FIXTURES, WIRING (CIRCUITRY), CABLING, CONDUIT, ETC.), AS DESCRIBED AND SHALL GIVE THE OWNER AN OPPORTUNITY TO KEEP DEMOLISHED ELECTRICAL EQUIPMENT PRIOR TO THEM BEING DISCARDED.
- EXISTING ELECTRICAL AND LOW VOLTAGE DEVICES SHOWN ON PLANS WITH AN "X" ARE TO BE RELOCATED, AS INDICATED. REUSE EXISTING CIRCUITRY (WIRING) AND CONDUIT AND PROVIDE NEW AS REQUIRED TO CONNECT TO ELECTRICAL AND LOW VOLTAGE DEVICES PER THE NEW ELECTRICAL FLOOR PLANS. PROVIDE BLANK COVER PLATES FOR EMPTY GANG BOXES.
- EXISTING ELECTRICAL AND LOW VOLTAGE DEVICES SHOWN ON PLANS WITH AN "XRP" ARE TO BE REPLACED WITH NEW DEVICES, AS INDICATED. REUSE EXISTING CIRCUITRY (WIRING) AND CONDUIT AND PROVIDE NEW AS REQUIRED TO CONNECT TO ELECTRICAL AND LOW VOLTAGE DEVICES PER THE NEW ELECTRICAL FLOOR PLANS. PROVIDE BLANK COVER PLATES FOR EMPTY GANG BOXES.
- DEVICES SHOWN ON PLANS WITH AN "E" NEXT TO IT, INDICATE THE DEVICE IS EXISTING FROM OLD DRAWINGS OR A TAKEOFF. E.C. IS TO VERIFY ACTUAL DEVICE LOCATIONS WHICH ARE TO REMAIN.

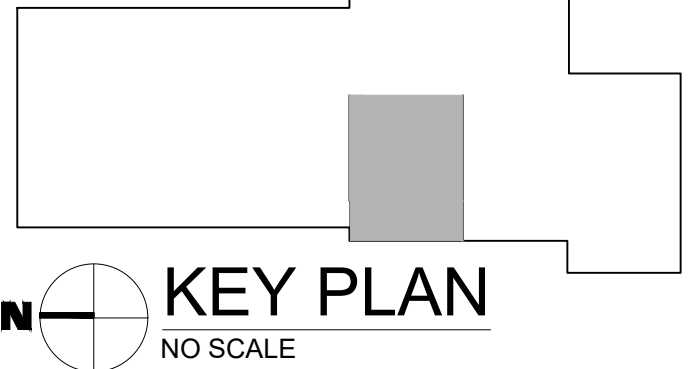
ELECTRICAL DEMOLITION KEY NOTES

- DISCONNECT AND REMOVE ELECTRICAL DEVICE(S) WHICH WILL INTERFERE WITH THE DEMOLITION AND REMOVAL OF WALLS, FLOORING, AND/OR CEILING AS DESCRIBED IN THE ARCHITECTURAL DEMOLITION PLANS. REMOVE EXISTING CIRCUITRY (WIRING) AND CONDUIT BACK TO SOURCE OR PANEL AND DISCARD.
- DISCONNECT AND REMOVE ALL EXISTING LIGHTS AND LIGHTING CONTROLS IN THIS AREA, AS INDICATED. REMOVE EXISTING CIRCUITRY (WIRING) AND CONDUIT BACK TO PANEL OR SOURCE AND DISCARD. PROVIDE BLANK COVER PLATES FOR EMPTY GANG BOXES.
- DISCONNECT AND REMOVE OR RELOCATE ALL EXISTING RECEPTACLES AND POWER DEVICES IN THIS AREA, AS INDICATED. REMOVE EXISTING CIRCUITRY (WIRING) AND CONDUIT BACK TO PANEL OR SOURCE AND DISCARD. PROVIDE BLANK COVER PLATES FOR EMPTY GANG BOXES.
- DISCONNECT AND REMOVE EXISTING ELECTRICAL CONNECTIONS TO EXISTING MECHANICAL EQUIPMENT WHICH IS TO BE REMOVED. COORDINATE DISCONNECTION WITH MECHANICAL CONTRACTOR. REMOVE CIRCUITRY (WIRING) AND CONDUIT BACK TO PANEL OR SOURCE AND DISCARD.
- DISCONNECT AND REMOVE ALL EXISTING DATA, TELEPHONE/PAGING, TELEVISION, FIRE ALARM SYSTEMS, SECURITY SYSTEMS & A/V SYSTEM DEVICES WIRING AND EQUIPMENT, AS INDICATED. REMOVE EXISTING WIRING AND CONDUIT BACK TO SOURCE AND DISCARD. PROVIDE BLANK COVER PLATES FOR EMPTY GANG BOXES.
- DISCONNECT AND REMOVE EXISTING DATA, TELEPHONE/PAGING, TELEVISION, FIRE ALARM SYSTEMS, SECURITY SYSTEMS & A/V SYSTEM DEVICES, WIRING AND EQUIPMENT, AS INDICATED, WHICH ARE TO BE RELOCATED. EXTEND AND/OR RE-CONFIGURE EXISTING CABLING, WIRING, AND/OR RACEWAYS AS REQUIRED TO RE-CONNECT TO THE RELOCATED EXISTING DEVICES AS EQUIPMENT. PROVIDE BLANK COVER PLATES FOR EMPTY GANG BOXES.



ELECTRICAL DEMOLITION PARTIAL FLOOR PLAN
SCALE: 1/4" = 1'-0"

ELECTRICAL PARTIAL FLOOR PLAN
SCALE: 1/4" = 1'-0"



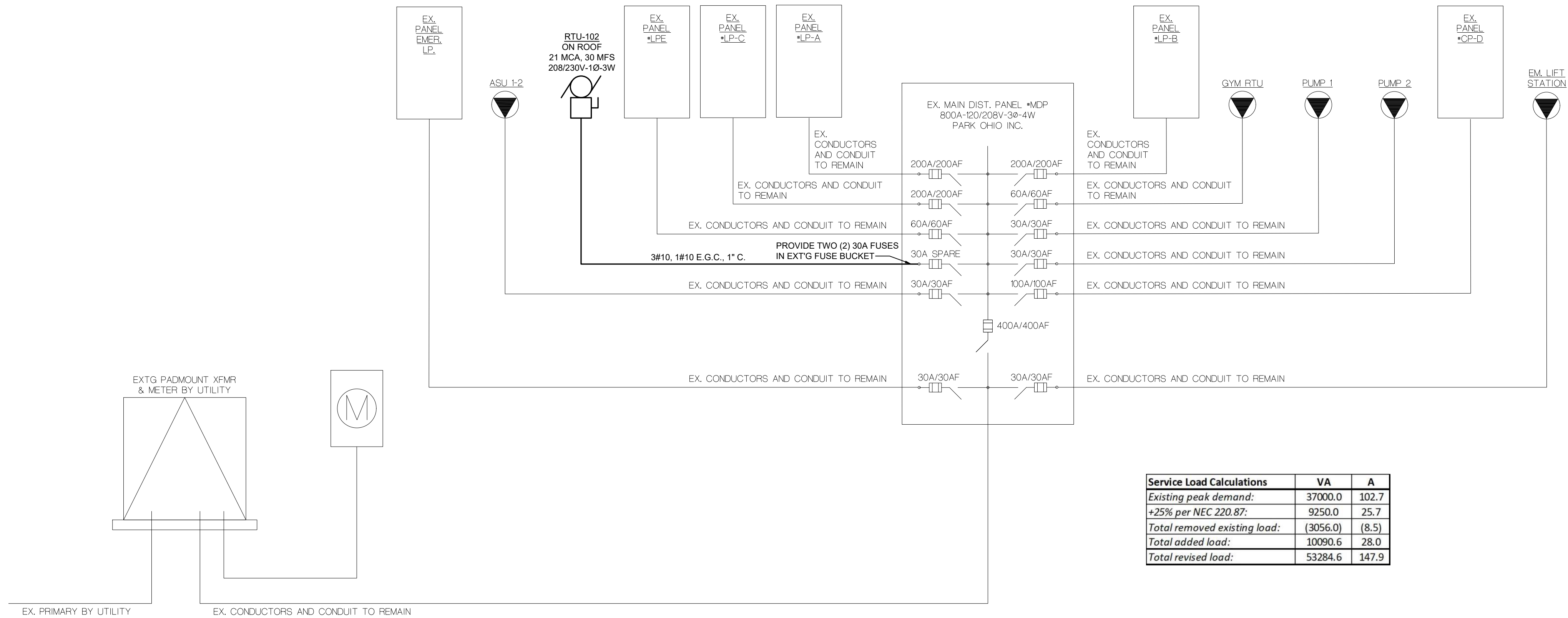
NOTES:

- CAUTION !!!!!!!
E.C. SHALL VERIFY ALL ROUGH-IN ELEVATIONS, LOCATIONS AND/OR HEIGHTS OF ALL LIGHT FIXTURES, RECEPTACLE OUTLETS, TV, COMPUTER, CLOCK OUTLETS, ETC. WITH ARCHITECT/ENGINEER. FAILURE TO DO SO WILL REQUIRE E.C. TO RELOCATE RESPECTIVE ITEMS AT THE E.C.'S EXPENSE.

COMMUNICATION OUTLET LOCATIONS SHALL BE COORDINATED WITH OWNER AND OWNER FURNITURE PLAN.
- THE LIGHTS THAT ARE SHADED REPRESENT LIGHTS THAT HAVE EMERGENCY LIGHTING AND SHALL OPERATE AT A LOSS OF NORMAL POWER, BY HAVING A DIRECT (HOT) CONNECTION TO THE EMERGENCY BATTERY.
- CONNECT ALL EXIT SIGNS AHEAD OF THE LOCAL AREA LIGHTING'S CONTROL DEVICE (I.E., HAVING A DIRECT (HOT) CONNECTION TO THE BATTERY).
- COORDINATE LOCATIONS AND MOUNTING HEIGHTS OF LIGHT FIXTURES WITH THE INTERIOR ELEVATIONS AND REFLECTED CEILING PLANS.
- ALL 2"x4" AND LARGER FIXTURES SHALL BE SECURELY HUNG FROM THE BUILDING STRUCTURE, REGARDLESS OF BEING RECESSED, SURFACE OR PENDANT MOUNTED.
- FEEDS TO NEW POWER, LIGHTING, LOW VOLTAGE AND FIRE ALARM DEVICES SHALL BE ATTEMPTED IN EVERY WAY TO BE INSTALLED FLUSH-MOUNT (RECESSED BEHIND THE WALL SURFACE).
- E.C. SHALL FIELD VERIFY THAT ALL ADDITIONS AND CHANGES SHALL NOT OVERLOAD EXISTING CIRCUITS, PANELS OR TOTAL SERVICE.
- ANY NEW CONDUIT PENETRATIONS THROUGH WALLS SHALL BE APPROPRIATELY FIRE-STOPPED, SMOKE-STOPPED OR CAULKED WHEN PENETRATION SIZE EXCEEDS CONDUIT SIZE.
- OWNER RESERVES THE RIGHT TO ADJUST LOCATIONS OF DEVICES A MAXIMUM OF 6' FROM WHERE SHOWN ON PLANS.
- CIRCUITS SHOWN ON PLANS WITH AN * AFTER IT, INDICATE THE CIRCUIT NUMBER FROM OLD DRAWINGS OR A TAKEOFF. E.C. IS TO VERIFY ACTUAL CIRCUIT AND USE IT IF DIFFERENT THAN CIRCUIT INDICATED.
- FIRE RATED CONSTRUCTION:
E.C. TO VERIFY ALL FIRE RATED CONSTRUCTION LOCATIONS AND REQUIREMENTS WITH ARCHITECTURAL DRAWINGS.

ELECTRICAL RISER DIAGRAM

NOT TO SCALE



Service Load Calculations	VA	A
Existing peak demand:	37000.0	102.7
+25% per NEC 220.87:	9250.0	25.7
Total removed existing load:	(3056.0)	(8.5)
Total added load:	10090.6	28.0
Total revised load:	53284.6	147.9

EX. PANEL #LP-B						200A M.L.O., 120/208V-3PH - 4W					
CIR.	CB/P	DESCRIPTION	LOAD	P	LOAD	DESCRIPTION	CB/P	CIR.			
1	20/1	LIGHTS - BOILER ROOM	---	A	---	LIGHTS - GYM	15/1	2			
3	20/1	WAER HEATER PUMP	---	B	---	LIGHTS - GYM	15/1	4			
5	20/1	LIGHTS - BOILER ROOM	---	C	---	LIGHTS - GYM	15/1	6			
7	20/1	LIGHTS - OUTSIDE, TIME CLOCK	---	A	---	LIGHTS - GYM	15/1	8			
9	20/1	RECEPTACLES - GYM	---	B	---	LIGHTS - GYM	15/1	10			
11	20/1	CLASS ROOM U.H.	---	C	---	LIGHTS - GYM	15/1	12			
13	20/1	CLASS ROOM U.H.	---	A	---	LIGHTS - GYM	20/1	14			
15	20/1	CLASS ROOM U.H.	---	B	---	LIGHTS - GYM	20/1	16			
17	20/1	CLASS ROOM U.H.	---	C	---	LIGHTS - GYM	20/1	18			
19	20/1	PROGRAM CLOCK	---	A	---	LIGHTS - GYM	20/1	20			
21	20/1	BATHROOM & JANITOR ROOM	---	B	---	LIGHTS - PARKING LOT	20/1	22			
23	20/1	OFFICE FANS	---	C	---	CONTROLS TCI	20/1	24			
25	20/1	RECEPTACLES - ROOM 20,21 & COPY MACH.	---	A	---	FIRE ALARM	20/1	26			
27	20/1	PRINCIPAL OFFICE	---	B	---	BOILER 1	20/1	28			
29	20/1	LIGHTS - OFFICE	---	C	---	BOILER 2	20/1	30			
31	20/1	TEACHER ROOM 19	---	A	---	UNKNOWN	20/1	32			
33	20/1	COMBUSTION AIR	---	B	---	UNKNOWN	20/1	34			
35	20/1	MECHANICAL ROOM UNIT HEATER	---	C	---	UNKNOWN	20/1	36			
37	20/1	UNKNOWN	---	A	---	EXTG SPARE	15/3	40			
39	---	SPACE	---	B	---			42			
41	---	SPACE	---	C	---						

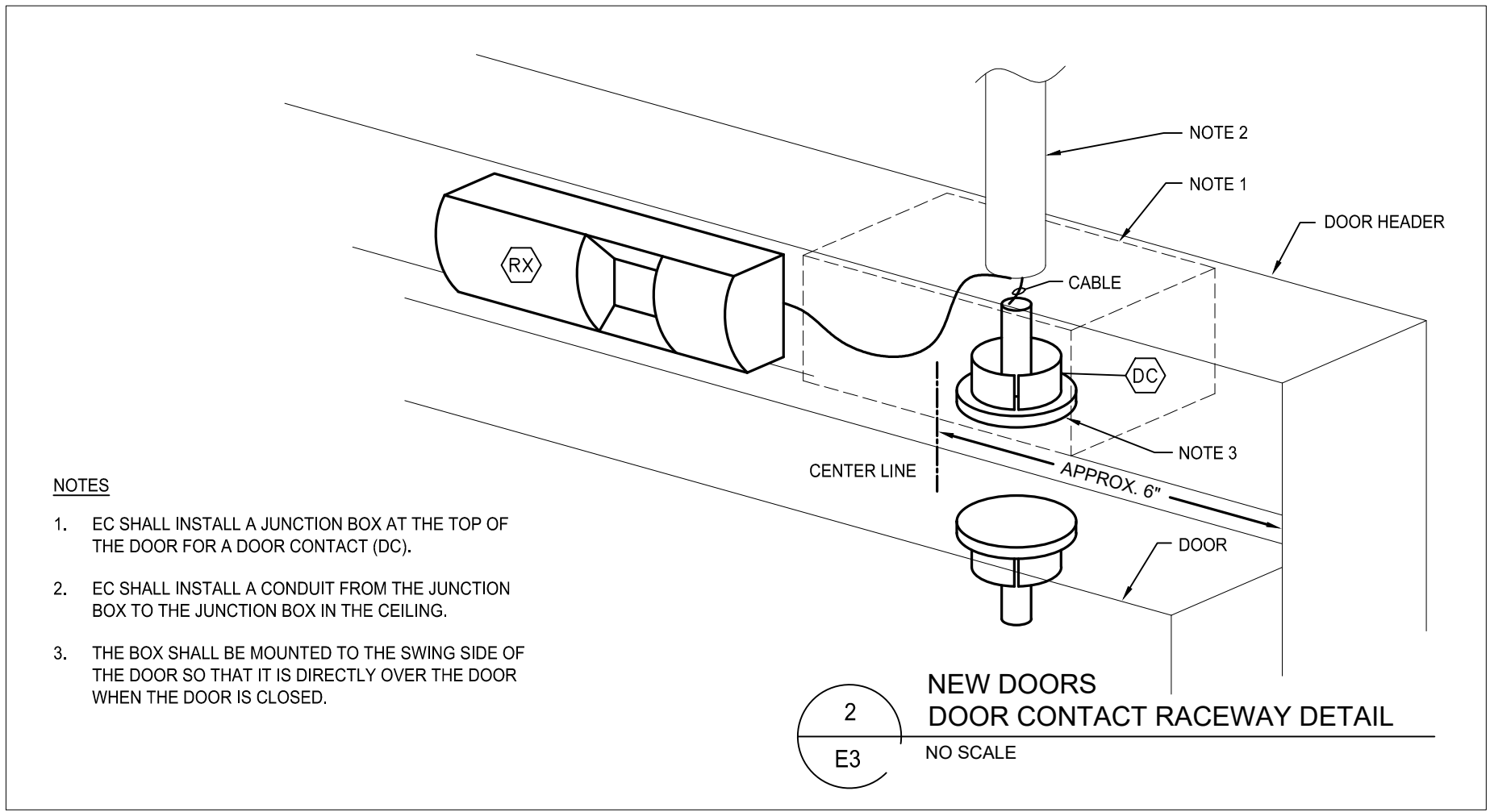
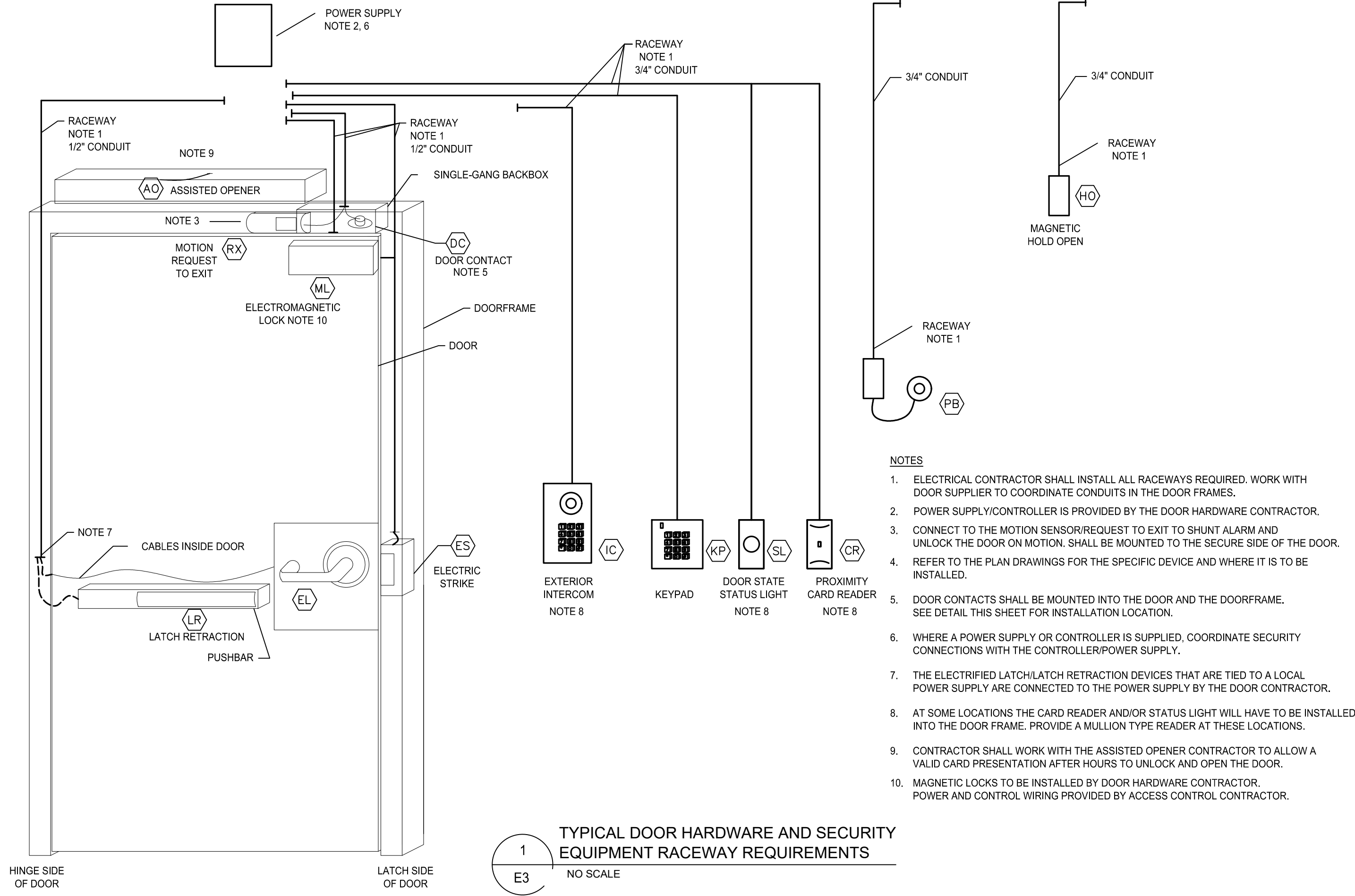
REVISED PANEL #LP-B						200A M.L.O., 120/208V-3PH - 4W					
CIR.	CB/P	DESCRIPTION	LOAD	P	LOAD	DESCRIPTION	CB/P	CIR.			
1	20/1	LIGHTS - BOILER ROOM	---	A	---	LIGHTS - GYM	15/1	2			
3	20/1	WAER HEATER PUMP	---	B	---	LIGHTS - GYM	15/1	4			
5	20/1	LIGHTS - BOILER ROOM	---	C	---	LIGHTS - GYM	15/1	6			
7	20/1	LIGHTS - OUTSIDE, TIME CLOCK	---	A	---	LIGHTS - GYM	15/1	8			
9	20/1	RECEPTACLES - GYM	---	B	---	LIGHTS - GYM	15/1	10			
11	20/1	CLASS ROOM U.H.	---	C	---	LIGHTS - GYM	15/1	12			
13	20/1	CLASS ROOM U.H.	---	A	---	LIGHTS - GYM	20/1	14			
15	20/1	CLASS ROOM U.H.	---	B	---	LIGHTS - GYM	20/1	16			
17	20/1	CLASS ROOM U.H.	---	C	---	LIGHTS - GYM	20/1	18			
19	20/1	PROGRAM CLOCK	---	A	---	LIGHTS - GYM	20/1	20			
21	20/1	BATHROOM & JANITOR ROOM	---	B	---	LIGHTS - PARKING LOT	20/1	22			
23	20/1	OFFICE FANS	---	C	---	CONTROLS TCI	20/1	24			
25	20/1	RECEPTACLES - ROOM 20,21 & COPY MACH.	---	A	---	FIRE ALARM	20/1	26			
27	20/1	PRINCIPAL OFFICE	---	B	---	BOILER 1	20/1	28			
29	20/1	LIGHTS - OFFICE	---	C	---	BOILER 2	20/1	30			
31	20/1	TEACHER ROOM 19	---	A	---	UNKNOWN	20/1	32			
33	20/1	COMBUSTION AIR	---	B	---	UNKNOWN	20/1	34			
35	20/1	MECHANICAL ROOM UNIT HEATER	---	C	---	UNKNOWN	20/1	36			
37	20/1	UNKNOWN	---	A	1080	RECEPS - WAITING 102A, OFFICE 102C	20/1 N	38			
39	20/1 N	RECEPTACLES - MEDIA 108, RTU	1080	B	1080	RECEPTACLES - OFFICES 102B, 101	20/1 N	40			
41	20/1 N	RECEPTACLES - EXAM 102D	720	C	682.6	LTS-100,101,102A&B,102C,102D; EF-102D; WAC	20/1 N	42			

EX. PANEL #CPD						100A MLO, 120/208V-3PH - 4W					
CIR.	CB/P	DESCRIPTION	LOAD	P	LOAD	DESCRIPTION	CB/P	CIR.			
1	20/1	RECEPTACLES - 125, 128	---	A	---	RECEPTACLES - 137, 132	20/1	2			
3	20/1	RECEPTACLES - 140, 129	---	B	---	RECEPTACLES - 136, 133	20/1	4			
5	20/1	RECEPTACLES - MEDIA CENTER	---	C	---	RECEPTACLES - MEDIA CENTER	20/1	6			
7	20/1	COMPUTERS, SOUTH WALL	---	A	---	UNKNOWN	20/1	8			
9	20/1	COMPUTERS, WEST WALL	---	B	---	UNKNOWN	20/1	10			
11	15/1	MEDIA PROJECTOR	---	C	---	UNKNOWN	20/1	12			
13	---	SPACE	---	A	---	UNKNOWN	20/1	14			
15	---	SPACE	---	B	---	SPACE	---	16			
17	---	SPACE	---	C	---	SPACE	---	18			
19	---	SPACE	---	A	---	SPACE	---	20			
21	---	SPACE	---	B	---	SPACE	---	22			
23	---	SPACE	---	C	---	SPACE	---	24			
25	---	SPACE	---	A	---	SPACE	---	26			
27	---	SPACE	---	B	---	SPACE	---	28			
29	---	SPACE	---	C	---	SPACE	---	30			

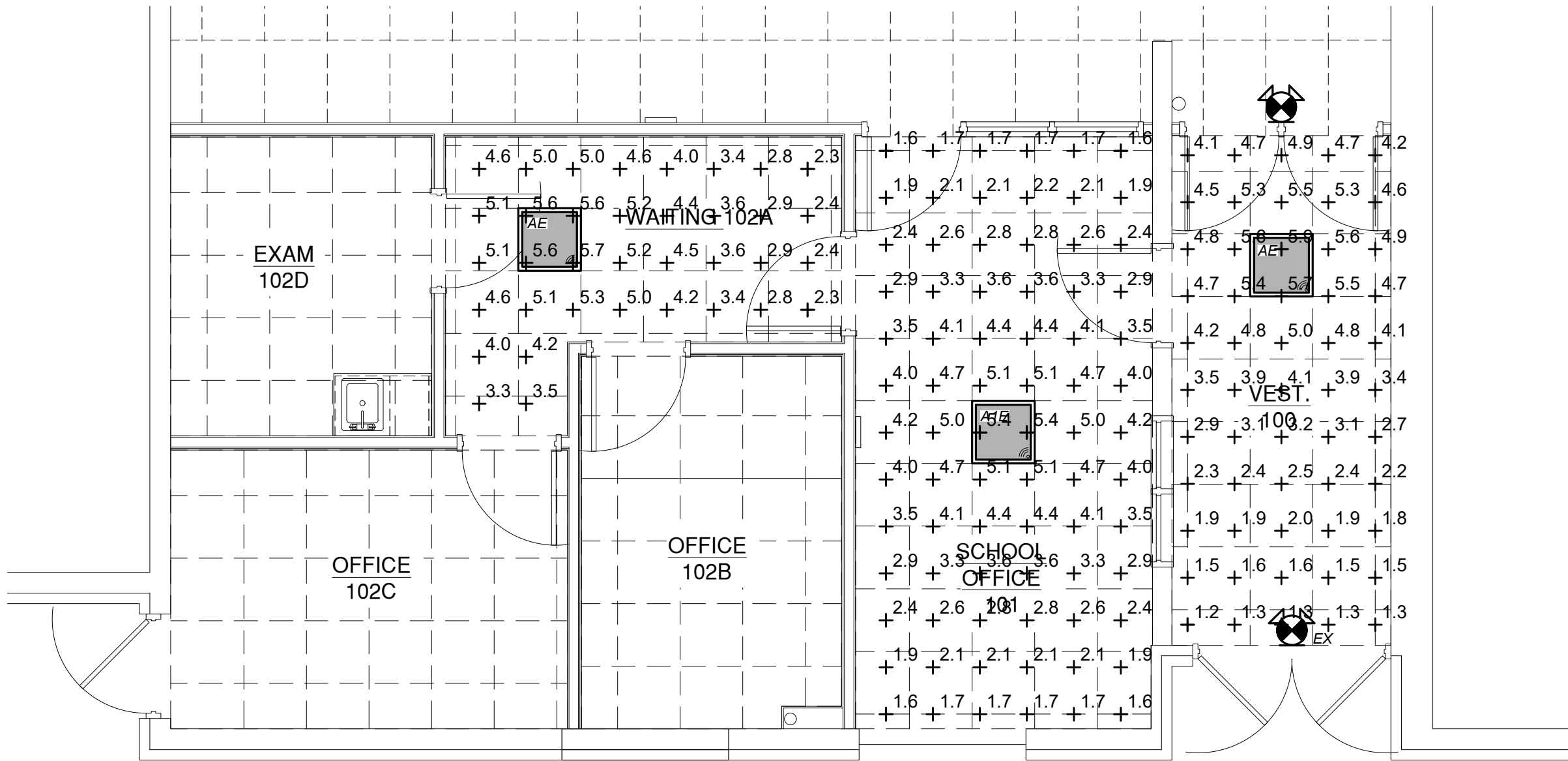
REVISED PANEL #CPD						100A MLO, 120/208V-3PH - 4W					
CIR.	CB/P	DESCRIPTION	LOAD	P	LOAD	DESCRIPTION	CB/P	CIR.			
1	20/1	RECEPTACLES - 125, 128	---	A	---	RECEPTACLES - 137, 132	20/1	2			
3	20/1	RECEPTACLES - 140, 129	---	B	---	RECEPTACLES - 136, 133	20/1	4			
5	20/1	RECEPTACLES - MEDIA CENTER	---	C	---	RECEPTACLES - MEDIA CENTER	20/1	6			
7	20/1	COMPUTERS, SOUTH WALL	---	A	---	UNKNOWN	20/1	8			
9	20/1	COMPUTERS, WEST WALL	---	B	---	UNKNOWN	20/1	10			
11	15/1	MEDIA PROJECTOR	---	C	---	UNKNOWN	20/1	12			
13	20/1 N	RECEPTACLES - DESKS 102C	360	A	---	UNKNOWN	20/1	14			
15	20/1 N	RECEPTACLES - DESKS 102B	360	B	---	SPACE	---	16			
17	20/1 N	RECEPTACLES - DESKS 101	360	C	---	SPACE	---	18			
19	20/1 N	TVs - 101, 102A	360	A	---	SPACE	---	20			
21	---	SPACE	---	B	---	SPACE	---	22			
23	---	SPACE	---	C	---	SPACE	---	24			
25	---	SPACE	---	A	---	SPACE	---	26			
27	---	SPACE	---	B	---	SPACE	---	28			
29	---	SPACE	---	C	---	SPACE	---	30			

PANEL SCHEDULE KEY NOTES	
N DENOTES THAT A NEW CIRCUIT BREAKER IS REQUIRED, SIZED AS NOTED	
NOTE: PROVIDE GFCI PROTECTION FOR ALL RECEPTACLES AND FOR ALL EQUIPMENT IN LOCATIONS AND AS SPECIFICALLY NOTED IN NEC 210.8(B). CONFIRM EQUIPMENT CONNECTION REQUIREMENTS WITH EQUIPMENT CUT SHEETS.	

	ACCESS CONTROL SYSTEM DETAILS	ACCESS CONTROL RACEWAY NOTES - NEW DOORS
	CARD READER - INSTALL TO THE BOX OR IN THE MULLION COORDINATE IN FIELD PRIOR TO ORDERING. WIRE TO SECURITY SYSTEM	CARD READER - INSTALL A SINGLE-GANG BACKBOX AT 46" AFF WITH A 1/2" CONDUIT TO THE CEILING AREA, WHERE CR IS IN THE DOOR MULLION, INSTALL A 1/2" CONDUIT DOWN LATCH SIDE OF DOOR
	DOOR CONTACT - INSTALL THE DEVICE TO THE TOP OF THE DOORFRAME. WIRE TO SECURITY SYSTEM.	DOOR CONTACT - SEE DETAIL, INSTALL A SINGLE-GANG BACKBOX FACING DOWN ABOVE THE DOOR. INSTALL A 1/2" CONDUIT FROM THE BOX TO AN ACCESSIBLE CEILING.
 	ELECTRIFIED LATCH / LATCH RETRACTOR - THIS DEVICE IS INSTALLED BY THE DOOR HARDWARE PROVIDER AND IS LOCATED IN THE LATCH. WIRE FROM THE POWER SUPPLY/CONTROLLER OF THIS DEVICE TO THE SECURITY SYSTEM.	ELECTRIFIED LATCH / LATCH RETRACTOR - INSTALL A 1/2" CONDUIT FROM THE TRANSFER DEVICE AT THE HINGE SIDE OF THE DOOR TO AN ACCESSIBLE CEILING. ROUTE CLOSE TO THE POWER SUPPLY.
	ELECTRIC STRIKE - STRIKE IS BY THE DOOR HARDWARE SUPPLIER. CONTRACTOR SHALL INSTALL WIRE FROM THE ELECTRIC STRIKE TO THE SECURITY PANEL.	ELECTRIC STRIKE - INSTALL A 1/2" CONDUIT FROM THE ELECTRIC STRIKE LOCATION ON THE LATCH SIDE OF THE DOOR TO AN ACCESSIBLE CEILING.
	MOTION SENSOR REQUEST TO EXIT - MOUNT ABOVE THE DOOR. WHEN MOTION IS SENSED THE DOOR CONTACT SHALL SHUNT. WIRE TO SECURITY SYSTEM.	MOTION SENSOR REQUEST TO EXIT - USE THE BACKBOX FACING DOWN AND ASSOCIATED CONDUIT THAT IS USED FOR THE DC FOR ROUTING OF THIS CABLE
	PUSH BUTTON - THIS SHALL TRIGGER A SINGLE EVENT OR SERIES OF EVENTS IN THE SECURITY SYSTEM WHEN DEPRESSED.	PUSH BUTTON - INSTALL A 1/2" CONDUIT FROM THE ACCESSIBLE CEILING TO A BACKBOX LOCATED AT THE PUSHBUTTON LOCATION.
	ASSISTED OPENER - THIS IS INSTALLED BY THE DOOR HARDWARE INSTALLER. COORDINATE LOCKS AND ALARMS WITH THIS OPENER AND ASSOCIATED OPENER BUTTONS.	ASSISTED OPENER - THIS IS INSTALLED BY THE DOOR HARDWARE INSTALLER. INSTALL A 1/2" CONDUIT FROM THE CONTROL DEVICE OF THE AO TO AN ACCESSIBLE CEILING.
	KEYPAD - INSTALL A KEYPAD AND CONNECT TO THE SECURITY SYSTEM. THE KEYPAD SHALL CONTROL THE DOOR CONTACTS AND LOOKS ON AN OWNER SPECIFIED SET OF DOORS.	KEYPAD - INSTALL A 1/2" CONDUIT FROM A LOCATION AT 46" AFF AND INSTALL A BACKBOX.
	INTERCOM - THIS SHALL BE A POINT TO POINT CONNECTION OF THE EXTERIOR INTERCOM TO THE INTERIOR INTERCOM AS WELL AS A CONNECTION FROM THE INTERCOM TO THE SECURITY SYSTEM. A BUTTON PUSH ON THE INTERIOR INTERCOM SHALL MOMENTARILY RELEASE THE LOCK ON THE FRONT DOOR AND THE INTERIOR DOOR	EXTERIOR INTERCOM -INSTALL A SINGLE-GANG BACKBOX AT 46" AFG. EXTEND A 1" CONDUIT TO AN ACCESSIBLE CEILING. INTERIOR INTERCOM -ROUTE THE CABLE THROUGH AN EXISTING DATA CONDUIT AND BACKBOX TO CONNECT TO THE INTERIOR INTERCOM
	HOLD OPEN - THE HOLD OPEN IS BY THE DOOR HARDWARE SUPPLIER. WIRE FROM THIS TO THE ACCESS CONTROL PANEL. PROVIDE 24 VOLT POWER IN THE PANEL TO POWER THE HOLD OPEN.	HOLD OPEN - INSTALL A SINGLE-GANG BACKBOX AT 6" AFF AND ABOUT 8" IN FROM THE EDGE OF THE OPEN DOOR. INSTALL A 3/4" CONDUIT TO AN ACCESSIBLE CEILING.
	DOOR STATE STATUS LIGHT - THIS RED/GREEN LIGHT IS WIRED TO THE ACCESS CONTROL SYSTEM BY THE LOW VOLTAGE CONTRACTOR. IT SHALL DRAW POWER FROM THE 24V STRIKE POWER SUPPLY.	DOOR STATE STATUS LIGHT - THIS RED/GREEN LIGHT IS WIRED TO THE ACCESS CONTROL SYSTEM BY THE LOW VOLTAGE CONTRACTOR. IT SHALL DRAW POWER FROM THE 24V STRIKE POWER SUPPLY.
	MAGNETIC LOCK - THE MAG LOCK IS BY THE DOOR HARDWARE SUPPLIER. WIRE FROM THIS TO THE ACCESS CONTROL PANEL. PROVIDE 24 VOLT POWER IN THE PANEL TO POWER THE MAG LOCK.	MAGNETIC LOCK - THE MAG LOCK IS BY THE DOOR HARDWARE SUPPLIER. WIRE FROM THIS TO THE ACCESS CONTROL PANEL. PROVIDE 24 VOLT POWER IN THE PANEL TO POWER THE MAG LOCK.



EMERGENCY LIGHTING CALCULATION SUMMARY						
Room	Calc Type	Units	Average	Maximum	Minimum	Max/Min
VESTIBULE 100	ILLUMINANCE	FC	3.50	5.90	1.20	4.90
SCHOOL OFFICE 101	ILLUMINANCE	FC	3.20	5.40	1.60	3.40
WAITING 120A	ILLUMINANCE	FC	4.10	5.70	2.30	2.50



EMERGENCY LIGHTING CALCULATIONS
PARTIAL FLOOR PLAN
SCALE: 1/4" = 1'-0"