

# URBANDALE HIGH AND WEBSTER ELEMENTARY RENOVATION

URBANDALE COMMUNITY SCHOOL DISTRICT

711 Aurora Ave  
Urbandale, IA 50323

12955 Aurora Ave  
Urbandale, IA 50323

## COMBINED CONTRACT

### INDEX OF DRAWINGS

MARCH 25, 2019

GENERAL		ELECTRICAL	
0.0	COVER SHEET	E0.1	ELECTRICAL NOTES AND SYMBOLS
0.1	SYMBOLS AND ABBREVIATIONS	E1.1HS	ELECTRICAL PLANS, FIRST LEVEL
		E1.2HS	ELECTRICAL OVERALL PLAN, FIRST LEVEL
		E1.1ES	ELECTRICAL PLANS, FIRST LEVEL
		E1.2ES	ELECTRICAL PLANS, FIRST LEVEL
		E2.1	ELECTRICAL DETAILS AND SCHEDULES
ARCHITECTURAL			
CP1.1ES	CODE PLAN, LEVEL 1 - ES		
CP1.1HS	CODE PLAN, LEVEL 1 - HS		
A1.1ES	PLANS AND DOOR SHCHEDULE, LEVEL 1 - ES		
A1.1HS	PLANS AND DOOR SHCHEDULE, LEVEL 1 - HS		

DESIGN DEVELOPMENT SUBMITTAL  
NOT FOR CONSTRUCTION



C:\Realt\1-18101-30\_UrbandaleHS\_Reno\_Alt\_2018.mpsal.mxd  
3/20/2019 8:58:09 AM

ABBREVIATIONS

#	NUMBER	EWC	ELECTRIC WATER COOLER	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION	UR	URINAL
&	AND	EXIST	EXISTING	NIC	NOT IN CONTRACT	US	UTILITY SHELF
@	AT	EXP	EXPANSION	NOM	NOMINAL	UTIL	UTILITY
		EXP	EXPOSED	NTS	NOT TO SCALE		
AB	ANCHOR BOLT	EXT	EXTERIOR	NWC	NORMAL WEIGHT CONCRETE	VB	VAPOR BARRIER
AB	AIR BARRIER					VB	VINYL BASE
ABS	ASBESTOS	F	FABRIC	O to O	OUT TO OUT	VCB	VENTED COVE BASE
ACC	ADA ACCESSIBLE	F.O.	FACE OF	OA	OVERALL	VERT	VERTICAL
ACR	ACRYLIC	F.V.	FIELD VERIFY	OC	ON CENTER	VEST	VESTIBULE
AD	ACCESS DOOR	FAB	FABRICATED	OFFC	OWNER FURNISHED CONTRACTOR INSTALLED	VF	VINYL FLOOR
ADA	AMERICANS WITH DISABILITY ACT	FB	FACE BRICK	OFF	OFFICE	VOC	VOLATILE ORGANIC COMPOUND
ADDN	ADDITION OR ADDITIONAL	FD	FLOOR DRAIN	OFOI	OWNER FURNISHED OWNER INSTALLED	VOL	VOLUME
ADJ	ADJUSTABLE	FDN	FOUNDATION	OPG(S)	OPENING(S)	VP	VENEER PLASTER
ADJT	ADJACENT	FE	FIRE EXTINGUISHER	OPP	OPPOSITE	VT	VINYL TILE
ADMIN	ADMINISTRATION	FEC	FIRE EXTINGUISHER CABINET	OTB	OPERATIONAL SAFETY AND HEALTH ADMINISTRATION	VWC	VINYL WALL COVERING
AEC	AUTOMATED EXTERNAL DEFIBRILLATORS	FF	FINISH FLOOR	OTB	OPEN TO BELOW		
AFF	ABOVE FINISHED FLOOR	FH	FIRE HYDRANT	OVFL	OVERFLOW	W	WEST
AFG	ABOVE FINISHED GRADE	FHC	FIRE HOSE CABINET	OVHD	OVERHEAD	W	WIDE
AHJ	AUTHORITY HAVING JURISDICTION	FIG	FIGURE	P	PAINT	W	WITH
AL	ALUMINUM	FIN	FINISHED	PAN B	PANIC BOLT	W/O	WITHOUT
ALT	ALTERNATE	FX	FIXTURE	PAR	PARALLEL	WB	WALL BASE
ALUM	ALUMINUM	FL	FLOOR	PAR	PARALLEL	WC	WATER CLOSET
ANCH	ANCHOR	FLASH	FLASHING	PB	PARTICLE BOARD	WC	WALL COVERING
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	FLEX	FLEXIBLE	PC	PRECAST CONCRETE	WCL	WATER CLOSET/LAVATORY COMBINATION
AP	ACCESS PANEL	FLG	FLOORING	PCD	PAPER CUP DISPENSER	WD	WOOD
APC	ACOUSTIC PANEL CEILING	FLM	FULL LENGTH MIRROR	PCT	PORCELAIN CERAMIC TILE	WDF	WOOD FLOORING
APPROX	APPROXIMATE	FLUOR	FLUORESCENT	PD	PANIC DEVICE	WOW	WINDOW
ARCH	ARCHITECTURAL	FO	FINISH OPENING	PENT	PENTHOUSE	WG	POLISHED WIRE GLASS
ASPH	ASPHALT	FOC	FACE OF CONCRETE	PERF	PERFORATED	WI	WROUGHT IRON
AUTO	AUTOMATIC	FOR	FACE OF FINISH	PERP	PERPENDICULAR	WOM	WALK OFF MAT
AVG	AVERAGE	FOM	FACE OF MASONRY	PG	PATTERN GLASS	WR	WASTE RECEPTACLE
AWP	ACOUSTIC WALL PANEL	FOS	FACE OF STUD	PIC	PORTABLE INSTRUMENT CONNECTION	WRB	WEATHER RESISTANT BARRIER
		FOV	FACE OF WALL	PIG	PATTERN INSULATING GLASS	WW	WARM WHITE
B.O.	BOTTOM OF	FP	FIREPROOFING	PL	PLATE	WWF	WELDED WIRE FABRIC
BCS	BABY CHANGING STATION	FR	FIRE RESISTANT	PL	PROPERTY LINE		
BD	BOARD	FRP	FIBERGLASS-REINFORCED PANEL	PL	PLASTIC LAMINATE	YD	YARD
BLDG	BUILDING	FRT	FIRE RESISTANCE TREATED	PLAM	PLASTIC LAMINATE		
BLK	BLOCK	FS	FLOOR SINK	PLBG	PLUMBING		
BLKG	BLOCKING	FSS	FOLDING SHOWER SEAT	PLYWD	PLYWOOD		
BLKHD	BULKHEAD	FT	FEET	PR	PAIR		
BM(S)	BEAMS	FTG	FOOTING	PREFAB	PREFABRICATED		
BOT	BOTTOM	FUT	FUTURE	PROJ	PROJECT(OR) (ION)		
BRDG	BRIDGING	PVC	FIRE VALVE CABINET	PS	PROJECTION SCREEN		
BRG	BEARING	FWC	FABRIC WALL COVERING	PT	POINT		
BRKT	BRACKET			PTD	PAPER TOWEL DISPENSER		
BSMT	BASEMENT	G	GROUT	PTDR	COMBINATION TOWEL DISPENSER/RECEPTACLE		
BT	BATHTUB	GA	GAUGE	PTN	PARTITION		
BTWN	BETWEEN	GAL	GALLON	PVC	POLYVINYL CHLORIDE		
		GALV	GALVANIZED	PWL	SOUND POWER LEVEL		
C	CHANNEL	GB	GRAB BAR	QT	QUARRY TILE		
CAB	CABINET	GC	GENERAL CONTRACTOR	QTR RND	QUARTER ROUND		
CANT	CANTILEVER	GD	GARBAGE DISPOSAL	QTY	QUANTITY		
CAP	CAPACITY	GEN	GENERAL				
CBD	CHALKBOARD	GFA	GROSS FLOOR AREA	RAD	RADIUS		
CER	CERAMIC	GL	GLUE LAMINATED	RB	RUBBER BASE		
CF	CUBIC FEET	GMP	GUARANTTED MAXIMUM PRICE	RC	REMOTE CONTROL		
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED	GOVT	GOVERNMENT	RCP	REFLECTED CEILING PLAN		
CFSF	COLD-FORMED STEEL FRAMING	GR	GUARD RAIL	RD	ROOF DRAIN		
CG	CLEAR FLOAT GLASS	GR	GRADE	REF	REFERENCE		
CI	CAST IRON	GRS	GALVANIZED RIGID STEEL	REF	REFLECTED		
CG	CLEAR INSULATING GLASS	GWB	GYPSUM WALL BOARD	REM	REMOVABLE		
CIP	CAST IN PLACE	GYP	GYPSUM	REQ(D)	REQUIRE(D)		
CJ	CONTROL JOINT			RESIL	RESILIENT		
CJA	CONTROL JOINT ABOVE	H	HEIGHT	REV	REVISION(S)		
CL	CENTER LINE	HC	HOLLOW CORE	RF	RESILIENT FLOORING		
CLG	CEILING	HD	HAND DRYER	RF	RUBBER FLOOR		
CLOS	CLOSET	HDBD	HARDBOARD	RFM	RECESSED FLOOR MAT		
CLR	CLEAR	HDR	HEADER	RH	ROBE HOOK		
CMU	CONCRETE MASONRY UNIT	HDMW	HARDWOOD	RHC	ROUGH IN AND CONNECT		
COL	COLUMN	HDMW	HARDWOOD	RND	ROUND		
COM	COMMON	HM	HOLLOW METAL				
COMB	COMBINATION	HORIZ	HORIZONTAL	S	SOUTH		
COMM	COMMUNICATIONS	HR	HOUR	S	SINK		
COMPR	COMPRESSIBLE	HS	HANDRAIL	SAT	SPRAYED ACOUSTIC TREATMENT		
CONC	CONCRETE	HS	HARDWARE SET	SAW	SOUND ABSORBING WALL UNITS		
CONF	CONFERENCE	HSS	HOLLOW STRUCTURAL SHAPE	SB	SPLASH BLOCK		
CONFIG	CONFIGURATION	HVAC	HEATING VENTILATING AND AIR CONDITIONING	SC	SOLID CORE		
CONN(S)	CONNECTION(S)			SC	SHOWER CURTAIN		
CONST	CONSTRUCTION	IA	THAT IS	SCD	SEAT COVER DISPENSER		
CONT	CONTINUOUS	IBC	IN ACCORDANCE WITH	SCH	SHOWER CURTAIN HOOK		
CONTR	CONTRACT (OR)	ID	INSIDE DIAMETER	SCHED	SCHEDULE		
CORR	CORRIDOR	IF	INSIDE FACE	SCR	SHOWER CURTAIN ROD		
CP	COVER PLATE	IJ	ISOLATION JOINT	SD	SOAP DISPENSER		
CPT	CARPET	IS	IN JOIST SPACE	SECT	SECTION		
CR	CHAIR RAIL	INC	INCLUDE(ING)	SECY	SECRETARY		
CS	COUNTERSINK	INSUL	INSULATION	SG	SPANDREL GLASS		
CSTJ	CONSTRUCTION JOINT	INT	INTERIOR	SH	SINGLE		
CSWK	CASEWORK	JAN	JANITOR	SHT	SHEET		
CT	CERAMIC TILE	JCT	JUNCTION	SIM	SIMILAR		
CTG	CLEAR TEMPERED FLOAT GLASS	JFB	JOINT FILLER BOARD	SLNT	SEALANT		
CTR	CENTER	JST	JOIST	SM	SHEET METAL		
CU	COPPER	JT	JOINT	SND	SANITARY NAPKIN DISPOSAL		
CU	CUBIC	KCJ	KEYED CONSTRUCTION JOINT	SNV	SANITARY NAPKIN VENDOR		
CU	CUBIC	KD	KNOCKDOWN	SPEC	SPECIFICATION(S)		
CU	COMBINATION UNIT	KIT	KITCHEN HOOD	SPL	SOUND PRESSURE LEVEL		
CV	CONDOM VENDOR			SQ	SPECIAL		
CY	CUBIC YARD	L	ANGLE	SS	SQUARE		
CYL	CYLINDER	LAB	LABORATORY	SS	STAINLESS STEEL		
		LAM	LAMINATED	SSA	SOLID SURFACE		
D	DEPTH	LAV	LAVATORY	SSS	STAINLESS STEEL SHELF		
DB	DECIBEL	LBS(S)	POUND(S)	ST	STONE		
DBL	DOUBLE	LBR	LUMBER	ST	STAIR		
DC	DUST COLLECTOR	LDG	LOADING	STAGD	STAGGERED		
DEG	DEGREE	LF	LINEAR FOOT	STC	SOUND TRANSMISSION CLASS		
DEMO	DEMOLISH OR DEMOLITION	LG	LENGTH (LONG)	STD	STANDARD		
DEPR	DEPRESSION(ED)	LG	LAMINATED GLASS	STGR	STRINGER		
DEPT	DEPARTMENT	LIN	LINEAR	STL	STEEL		
DET	DETAIL	LINO	LINOLEUM	STOR	STORAGE		
DET	DETENTION	LKR	LOOKER	STRUCT	STRUCTURAL		
DF	DRINKING FOUNTAIN	LOC	LOCATION	SUBFL	SUBFLOOR		
DG	DOOR GRILLE	LONG	LONGITUDINAL	SURF	SURFACE		
DIA	DIAMETER	LSC	LIFE SAFETY CODE	SUSP	SUSPENDED		
DIAG	DIAGONAL	LTG	LIGHTING	SV	SHEET VINYL		
DM	DIMENSION	LV	LOUVER	SYM	SYMETRICAL		
DM	SPECIFICATION DIVISION	LVT	LUXURY VINYL TILE				
DN	DOWN	LWC	LIGHT WEIGHT CONCRETE	T	TREAD		
DPFG	DAMPPOFFING	M	THOUSAND	T&G	TONGUE AND GROOVE		
DR	DOOR	MAG	MAGNETIC	T.O.	TOP OF		
DSN	DOWNSPOUT NOZZLE	MAINT	MAINTENANCE	TAN	TANGENT		
DW	DISHWASHER	MAN	MANUAL	TB	TOWEL BAR		
DWG(S)	DRAWING(S)	MAS	MASONRY	TBD	TACK BOARD		
DWL(S)	DOWEL(S)	MATL	MATERIAL	TCF	TOILET COMPARTMENT PARTITION		
DWR	DRAWER	MAX	MAXIMUM	TEMP	TEMPORARY		
		MB	MOB BASH	TEMP	TEMPORARY		
E	EAST	MBD	MARKER BOARD	TERR	TERRAZZO		
EA	EACH	MBH	MOPIBROOM HOLDER	TG	TINTED FLOAT GLASS		
EA	EACH FACE	MC	MEDICINE CABINET	TH	THRESHOLD		
EB	EXPANSION BOLT	MECH	MECHANICAL	TI	TENANT IMPROVEMENT		
EC	ELECTRICAL CONTRACTOR	MEMB	MEMBRANE	TIG	TINTED INSULATING GLASS		
EE	EACH END	MEZZ	MEZZANINE	TMR	TILT MIRROR UNIT		
EEW	EMERGENCY EYE WASH	MFR	MANUFACTURER	TOP	TOP OF PAVING		
EEWS	EMERGENCY EYE WASH SHOWER	MH	MANHOLE	TRANS	TRANSVERSE		
EFF	EFFICIENCY	MIN	MINIMUM	TT	TERRAZZO TILE		
EJ	EXPANSION JOINT	MISC	MISCELLANEOUS	TTD	TOILET TISSUE DSPENSER		
EJ	ELEVATION	MRS	MIRROR WITH SHELF	TTG	TINTED TEMPERED FLOAT GLASS		
EL	ELASTOMERIC	MTD	MOUNTED	TTIG	TINTED TEMPERED INSULATING GLASS		
ELEC	ELECTRICAL	MTG	MOUNTING	TW	TACK WALL		
ELEV	ELEVATOR	MUL	MULLION	TYF	TYPICAL		
EMER	EMERGENCY	N	NORTH	UL	UNDERWRITERS LABORATORIES		
ENCL	ENCLOSURE	NA	NOT APPLICABLE	UNEX	UNEXCAVATED		
ENG	ENGINEER	NC	NOISE CRITERIA	UNFIN	UNFINISHED		
ENR	ENTRANCE			UNO	UNLESS NOTED OTHERWISE		
EQ	EQUAL						
EQUIP	EQUIPMENT						
EQUIV	EQUIVALENT						
EPF	EPOXY RESIN FLOORING						
EUI	ENERGY USE INTENSITY						
EW	EACH WAY						

GENERAL SYMBOLS

	DETAIL NUMBER		EARTH
	CROSS REFERENCE		GRAVEL
	SHEET NUMBER		SAND
	SIMILAR OR TYPICAL REFERENCE		CONCRETE
	WALL SECTION		PRECAST CONCRETE
	DETAIL REFERENCE		STEEL
	BUILDING SECTION		GYM FLOOR
	BUILDING ELEVATION		WOOD (CONTINUOUS BLOCKING)
	INTERIOR ELEVATION		WOOD (NON-CONTINUOUS BLOCKING)
	CASEWORK ELEVATION		WOOD (TRIM FINISH)
	KEYNOTE		GLASS
	COLUMN GRID LINE		STONE
	ROOM NUMBER/NAME		SHINGLES
	DOOR NUMBER / INTERIOR WINDOW		CONCRETE MASONRY UNIT
	EXTERIOR WINDOW NUMBER		BRICK VENEER
	WALL TYPE		STEEL (LARGE SCALE)
	REVISION NUMBER		PLYWOOD (LARGE SCALE)
	DESCRIPTION		GYPSUM WALL BOARD
			BATT INSULATION
			RIGID INSULATION
			SPRAY FOAM INSULATION
			FIRE SAFING INSULATION
			PROTECTION BOARD
			CARPET (LARGE SCALE)
			ACOUSTIC TILE (LARGE SCALE)
			TILE (LARGE SCALE)

SITE SYMBOLS

	PROPERTY LINE		AREA INLET
	LOT LINE		CURB INLET
	EASEMENT LINE		MANHOLE
	BUILDING LINE, EXISTING		OBSERVATION RISER
	BUILDING LINE, NEW		HEAD WALL
	OPENING AND STRUCTURAL STOOP		FLARED END
	PRIMARY CONTOUR, EXISTING		CLEAN OUT
	PRIMARY CONTOUR, NEW		CAP
	SECONDARY CONTOUR, EXISTING		THRUST BLOCK
	SECONDARY CONTOUR, NEW		VALVE
	SLOPE, PAVEMENT		POST INDICATOR VALVE
	DRAINAGE DITCH OR SWALE		REDUCER
	STREET CENTERLINE		MAGNESIUM ANODE
	CURB, THICKENED EDGE		DIELECTRIC COUPLING
	CURB, EXISTING		CATHODIC TEST STATION
	CURB, NEW		FIRE HYDRANT
	PAVING CONSTRUCTION JOINT		POWER POLE
	PAVING KEYED CONSTRUCTION JOINT		LIGHT POLE
	PAVING TIED CONSTRUCTION JOINT		TELEPHONE MANHOLE
	PAVING EXPANSION JOINT		TELEPHONE BOX
	FENCE, SECURITY		SPRINKLER HEAD, 360°
	FENCE, BARBED WIRE		SPRINKLER HEAD, 270°
	FENCE, CHAIN LINK		SPRINKLER HEAD, 180°
	FENCE, WOOD		SPRINKLER HEAD, 90°
	SEED LIMIT		QUICK COUPLING
	SOD LIMIT		TREE, EXISTING DECIDUOUS
	STORM DRAIN		TREE, EXISTING CONIFER
	SUBDRAIN		SHADE TREE
	SUBDRAIN, PERFORATED		ORNAMENTAL TREE
	SANITARY SEWER		DECIDUOUS TREE
	FORCE MAIN		SHRUB
	WATER		CLIPPED SHRUB
	FIRE		
	GAS		
	HIGH PRESSURE STEAM		
	MEDIUM PRESSURE STEAM		
	LOW PRESSURE STEAM		
	UNDERGROUND ELEC/TELEPHONE		
	OVERHEAD POWER		
	LAWN SPRINKLER HOT LINE		
	LAWN SPRINKLER LATERAL		



C:\Revel1\18101-30\_Urbnd\ WebsterES\_AR\_2018\_1.mxd  
3/20/2019 1:37:47 PM

SYMBOL LEGEND

- ###

- OCCUPANCY LOAD
- ##B

- ACCESSORY USE AREA  
(OCCUPANCY LOAD IS NOT INCLUDED IN LOADS BEYOND THIS ROOM)
- 0

0

- COMBINED OCCUPANT LOAD AT A GIVEN DOOR OR STAIR  
- TOTAL EXIT CAPACITY OF DOOR OR STAIR  
(THE CAPACITY OF DOORS ARE DETERMINED AS FOLLOWS:  
CLEAR OPENING WIDTH IN INCHES DIVIDED BY 0.2  
THE CAPACITY OF STAIRS ARE DETERMINED AS FOLLOWS  
WIDTH IN INCHES DIVIDED BY 0.3)
- 0

0

- COMBINED OCCUPANT LOAD AT A GIVEN DOOR. (SUM OF THESE EQUALS TOTAL OCCUPANT LOAD)  
- TOTAL EXIT CAPACITY OF DOOR  
(THE CAPACITY OF DOORS ARE DETERMINED AS FOLLOWS:  
CLEAR OPENING WIDTH IN INCHES DIVIDED BY 0.2)
- PD

- PANIC DEVICE
- XX MIN

- DOOR FIRE RATING

WALL SEPARATION LEGEND

WALL HOURLY RATING		WALL FIRE RATING TYPE
0 = 0 HOUR		C = CORRIDOR
1/2 = 1/2 HOUR		EW = EXTERIOR WALL
1 = 1 HOUR		FB = FIRE BARRIER
2 = 2 HOUR		FP = FIRE PARTITION
3 = 3 HOUR		FSB = FIRE/SMOKE BARRIER
SP = SMOKE PARTITION		FW = FIRE WALL
SW = SMOKE WALL		HK = HORIZONTAL EXIT
		SB = SMOKE BARRIER
		VS = VERTICAL SHAFT
		VK = VERTICAL EXIT
		XP = EXIT PASSAGEWAY

SEPARATION LEGEND

2-HOUR FIRE WALL (2-FW) (-2-FW--2-FW-)

A. 2-HOUR FIRE-RESISTIVE SEPARATION CONTINUOUS FROM EXTERIOR WALL TO EXTERIOR WALL AND EXTENDING A MINIMUM OF 18 INCHES BEYOND THE EXTERIOR WALL. WALL SHALL HAVE SUFFICIENT STRUCTURAL STABILITY UNDER FIRE CONDITIONS TO ALLOW COLLAPSE OF CONSTRUCTION ON EITHER SIDE WITHOUT COLLAPSE OF THE WALL FOR THE DURATION OF THE TIME INDICATED BY THE FIRE RESISTANCE RATING OF THE WALL (FIRE WALL ONLY. SEE 708.5 FOR EXCEPTIONS). WITH 1-1/2 HOUR LABELED AUTOMATIC CLOSING OR SELF-CLOSING OPENING PROTECTION. AUTOMATIC CLOSING DOORS AND ALL LABELED ROLL-UP DOORS LOCATED IN CORRIDOR WALLS. LABELED SWINGING DOORS LOCATED IN FW AND FB CORRIDOR WALLS AND FB AND FW USED AS A HORIZONTAL EXIT SHALL HAVE S-D-A MAGNETIC HOLD-OPEN DEVICES OR SHALL BE SELF-CLOSING. 1-1/2 HOUR RATED S-D-A SMOKE DAMPER REQUIRED AT ALL DUCT PENETRATIONS SERVING BOTH SIDES OF FB AND FW. ALL S-D-A AUTOMATIC CLOSING DOORS AND SMOKE DAMPERS SHALL BE ACTIVATED BY ACTUATION OF ANY FIRE ALARM DEVICE OR SPRINKLER SYSTEM AND POWER FAILURE.

B. DOORS MAY HAVE 100 SQUARE-INCH LABELED 1/4-INCH LAMINATED WIRE GLASS PANELS WITH A MAXIMUM SIDE DIMENSION PER DOOR MANUFACTURER'S TEST.

C. SEAL AROUND ALL DUCTS WITHOUT FIRE AND/OR SMOKE DAMPERS, PIPES AND CONDUIT PENETRATIONS WITH UL CLASSIFIED FIRE STOP SYSTEM (SAFING INSULATION AND SEALANT). FIRE AND/OR SMOKE DAMPERS AT DUCT PENETRATIONS SHALL BE MOUNTED AND SEALED IN WALL WITH FACTORY FABRICATED SLEEVES AND PERIMETER MOUNTING ANGLES. SEAL TOP OF WALL TO FLOOR OF ROOF DECK WITH UL CLASSIFIED FIRESTOP SYSTEM (SAFING INSULATION WITH CONTINUOUS SEALANT AT JOINTS AS DETAILED AND AS SPECIFIED IN SECTION 078413 PENETRATION FIRESTOPPING).

APPLICABLE CODES

THE BUILDING SYSTEMS WILL BE DESIGNED IN ACCORDANCE WITH THE CURRENT APPLICABLE CODES AS FOLLOWS:

- INTERNATIONAL BUILDING CODE - 2012 (IBC)
- INTERNATIONAL EXISTING BUILDING CODE - 2012 (IEBC)
- INTERNATIONAL FIRE CODE - 2012 (IFC)
- INTERNATIONAL MECHANICAL CODE - 2015 (IMC)
- NATIONAL ELECTRICAL CODE - 2014 (NEC)
- INTERNATIONAL PLUMBING CODE - 2012 (IPC) WITH IOWA PROVISIONS FOR 2012 UPC
- IOWA ADMINISTRATIVE CODE 841-25
- INTERNATIONAL ENERGY CONSERVATION CODE - 2012

STATE CODES

IOWA STATE BUILDING CODE, IAC 861-CHAPTER 301 (2006)  
(APPLICABLE ONLY FOR STATE OWNED CONSTRUCTION, PROJECTS FUNDED WITH STATE FUNDS AND WHERE LOCAL JURISDICTIONS HAVE FORMALLY ADOPTED.)

STATE OF IOWA ACCESSIBILITY RULES AND REGULATIONS, IAC CHAPTER 302 (2006)

STATE OF IOWA FIRE SAFETY RULES, IAC 861-CHAPTER 200

STATE OF IOWA BUILDING CODE THERMAL AND LIGHTING EFFICIENCY STANDARDS - IAC 861 CHAPTER 303

STATE OF IOWA MINIMUM TOILET FACILITY STANDARD, IAC 841-CHAPTER 25

ENFORCED BY THE OFFICE OF STATE FIRE MARSHAL AND DEPARTMENT OF PUBLIC HEALTH.

AMERICANS WITH DISABILITIES ACT (ADA)

ADA IS APPLICABLE TO THIS BUILDING UNDER TITLE II AS A PUBLIC ENTITY. TITLE II OF THE ADA SPECIFICALLY REFERS TO ANY STATE OR LOCAL GOVERNMENT SERVICES. THEREFORE, A SCHOOL IS CONSIDERED A "PUBLIC ENTITY".

AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDING AND FACILITIES - 2010 (ADA)

(THESE REGULATIONS ARE ENFORCED BY THE U.S. JUSTICE DEPARTMENT)

OCCUPANT LOAD FACTORS:

OFFICES	100 SF PER OCCUPANT (GROSS)
STORAGE/MECHANICAL	300 SF PER OCCUPANT (GROSS)
EXERCISE ROOMS	50 SF PER OCCUPANT (GROSS)
LOCKER ROOMS	50 SF PER OCCUPANT (GROSS)

BUILDING DATA: NO CHANGE TO BUILDING DATA IN THIS PROJECT  
NO CHANGE TO OCCUPANCY, USE, CONSTRUCTION,  
FIRE PROTECTION, OR EXITING

NAME OF BUILDING: WEBSTER ELEMENTARY SCHOOL  
ADDRESS: 12955 AURORA AVE., URBANDALE, IOWA 50023  
USE: ELEMENTARY SCHOOL  
CODE ENFORCEMENT JURISDICTION: CITY OF URBANDALE

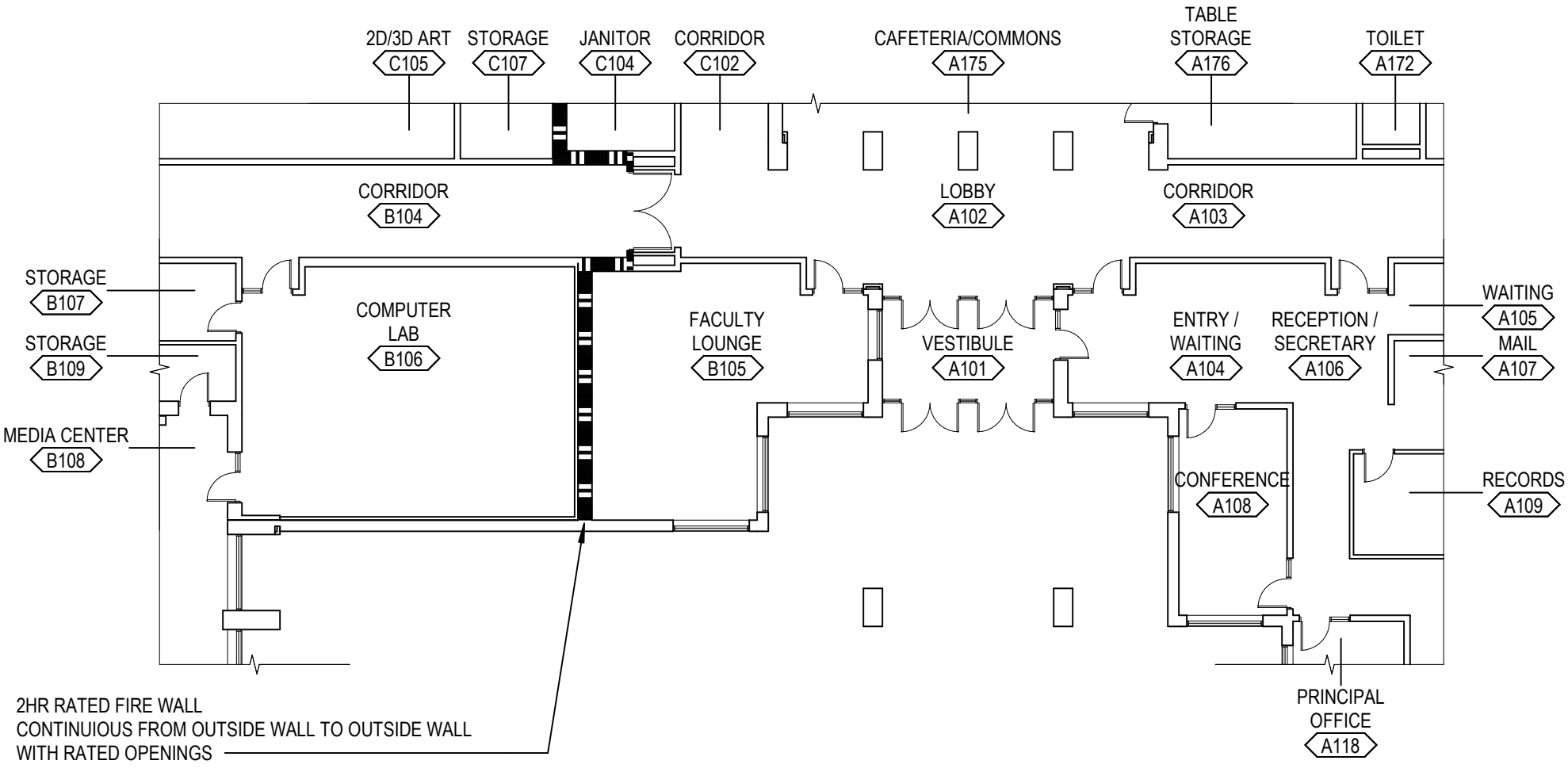
OCCUPANCY GROUP: EDUCATIONAL, E  
MIXED USE: UNSEPARATED  
AUTOMATIC SUPPRESSION: SPRINKLED THROUGHOUT  
CONSTRUCTION TYPE: UNPROTECTED, NON-COMBUSTIBLE, TYPE 2B

FIRE RESISTANCE RATINGS FOR BUILDING ELEMENTS	HOURS
STRUCTURAL FRAME	0
BEARING WALLS - EXTERIOR	0
BEARING WALLS - INTERIOR	0
NON-BEARING WALLS - EXTERIOR	0
NON-BEARING - INTERIOR	0
FLOOR CONSTRUCTION	0
ROOF CONSTRUCTION	0

BUILDING HEIGHT / STORIES: 31'-4", 1 STORY

LIFE SAFETY SYSTEMS: EMERGENCY LIGHTING AND EXIT SIGNAGE  
FIRE ALARM SYSTEM, NFPA 72  
FIRE EXTINGUISHERS, NFPA 10  
AUTOMATIC SPRINKLER SYSTEM, NFPA 13

EXITING REQUIREMENTS	DEAD END CORRIDOR MAXIMUM CONDITION COMMON PATH OF TRAVEL MAX DISTANCE MAXIMUM TRAVEL DISTANCE EGRESS WIDTH FACTOR PER OCCUPANT 0.2 INCHES PER PERSON (2012 IBC, SECTION 1005.3.2)	50 FEET 75 FEET 250 FEET
----------------------	---	--------------------------------



CODE PLAN, LEVEL 1  
SCALE: 1/16" = 1'-0"



-

WALL HOURLY RATING		WALL FIRE RATING TYPE
0 = 0 HOUR		C = CORNER
1/2 = 1/2 HOUR		EW = EXTERIOR WALL
1 = 1 HOUR		FB = FIRE BARRIER
2 = 2 HOUR		FP = FIRE PARTITION
3 = 3 HOUR		FSSB = FIRE/SMOKE BARRIER
SP = SMOKE PARTITION		FW = FIRE WALL
SW = SMOKE WALL		HX = HORIZONTAL EXIT
		SB = SMOKE BARRIER
		VS = VERTICAL SHAFT
		VX = VERTICAL EXIT
		XP = EXIT PASSAGEWAY

THE BUILDING SYSTEMS WILL BE DESIGNED IN ACCORDANCE WITH THE CURRENT APPLICABLE CODES AS FOLLOWS:

INTERNATIONAL BUILDING CODE - 2012 (IBC)  
INTERNATIONAL EXISTING BUILDING CODE - 2012 (IEBC)  
INTERNATIONAL FIRE CODE - 2012 (IFC)  
INTERNATIONAL MECHANICAL CODE - 2015 (IMC)  
NATIONAL ELECTRICAL CODE - 2014 (NEC)  
INTERNATIONAL PLUMBING CODE - 2012 (IPC) WITH IOWA PROVISIONS FOR 2012 UPC  
IOWA ADMINISTRATIVE CODE 641-25  
INTERNATIONAL ENERGY CONSERVATION CODE - 2012

STATE CODES

IOWA STATE BUILDING CODE, IAC 681-CHAPTER 301 (2006)  
(APPLICABLE ONLY FOR STATE OWNED CONSTRUCTION, PROJECTS FUNDED WITH STATE FUNDS AND WHERE LOCAL JURISDICTIONS HAVE FORMALLY ADOPTED.)

STATE OF IOWA ACCESSIBILITY RULES AND REGULATIONS, IAC IAC-CHAPTER 302 (2006)

STATE OF IOWA FIRE SAFETY RULES, IAC 661-CHAPTER 200

STATE OF IOWA BUILDING CODE THERMAL AND LIGHTING EFFICIENCY STANDARDS - IAC 661 CHAPTER 303

STATE OF IOWA MINIMUM TOILET FACILITY STANDARD, IAC 641-CHAPTER 25

ENFORCED BY THE OFFICE OF STATE FIRE MARSHAL AND DEPARTMENT OF PUBLIC HEALTH.

AMERICANS WITH DISABILITIES ACT (ADA)

ADA IS APPLICABLE TO THIS BUILDING UNDER TITLE II AS A PUBLIC ENTITY. TITLE II OF THE ADA SPECIFICALLY REFERS TO ANY STATE OR LOCAL GOVERNMENT SERVICES. THEREFORE, A SCHOOL IS CONSIDERED A "PUBLIC ENTITY".

AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDING AND FACILITIES - 2010 (ADA)

(THESE REGULATIONS ARE ENFORCED BY THE U.S. JUSTICE DEPARTMENT)

OFFICES	100 SF PER OCCUPANT (GROSS)
STORAGE/MECHANICAL	300 SF PER OCCUPANT (GROSS)
EXERCISE ROOMS	50 SF PER OCCUPANT (GROSS)
LOCKER ROOMS	50 SF PER OCCUPANT (GROSS)

NO CHANGE TO BUILDING DATA IN THIS PROJECT  
NO CHANGE TO OCCUPANCY, USE, CONSTRUCTION,  
FIRE PROTECTION, OR EXITING

NAME OF BUILDING	URBANDALE HIGH SCHOOL
ADDRESS	7111 AURORA AVE., URBANDALE, IOWA 50322
USE	HIGH SCHOOL
CODE ENFORCEMENT JURISDICTION	CITY OF URBANDALE

OCCUPANCY GROUP	EDUCATIONAL E
MIXED USE	UNSEPARATED
AUTOMATIC SUPPRESSION	SPRINKLED THROUGHOUT
CONSTRUCTION TYPE	UNPROTECTED, NON-COMBUSTIBLE, TYPE 2

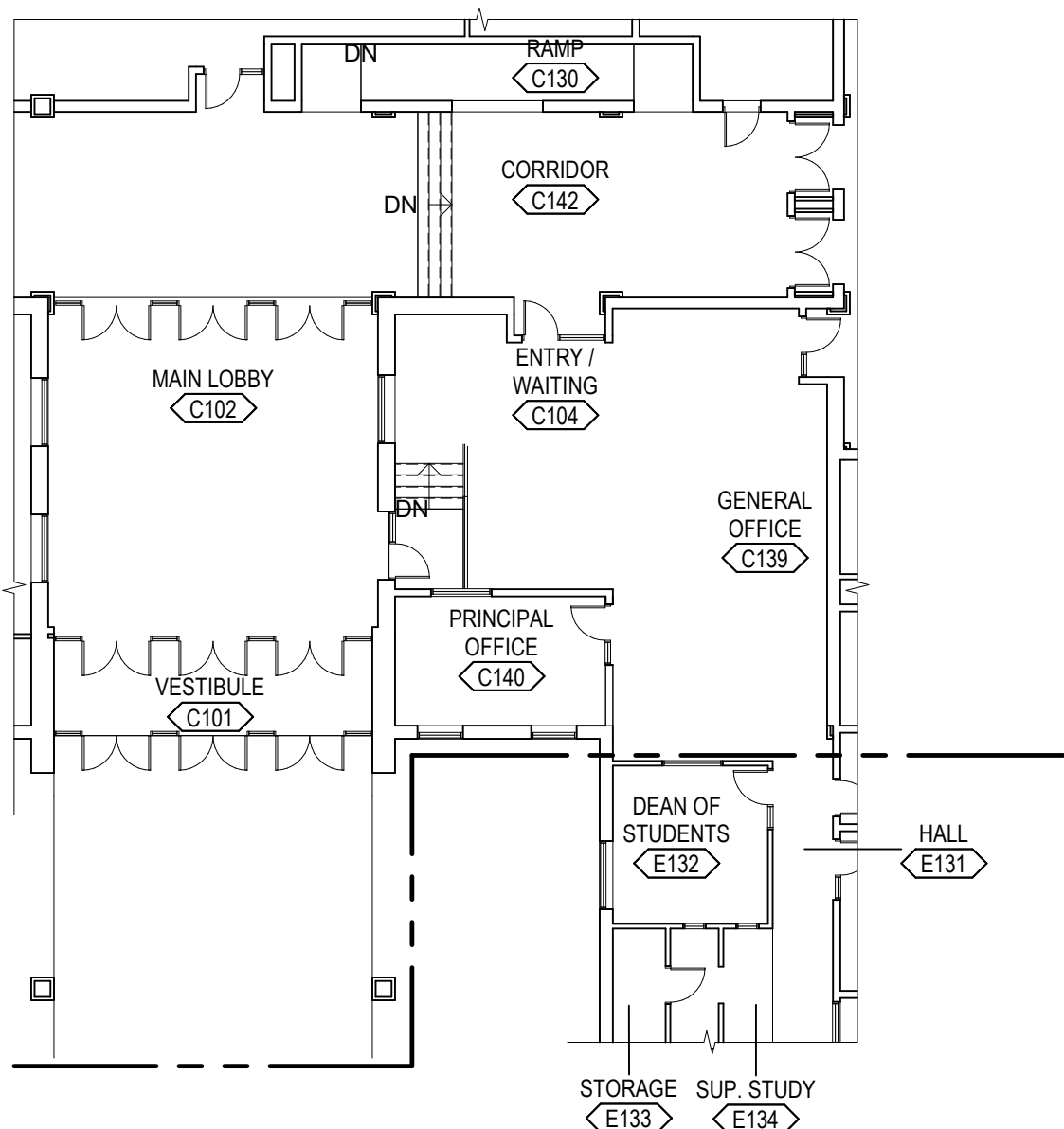
FIRE RESISTANCE RATINGS FOR BUILDING ELEMENTS	HOURS
STRUCTURAL FRAME	0
BEARING WALLS - EXTERIOR	0
BEARING WALLS - INTERIOR	0
NON-BEARING WALLS - EXTERIOR	0
NON-BEARING - INTERIOR	0
FLOOR CONSTRUCTION	0
ROOF CONSTRUCTION	0

BUILDING HEIGHT / STORIES	32'-8", 2 STORIES
---------------------------	-------------------

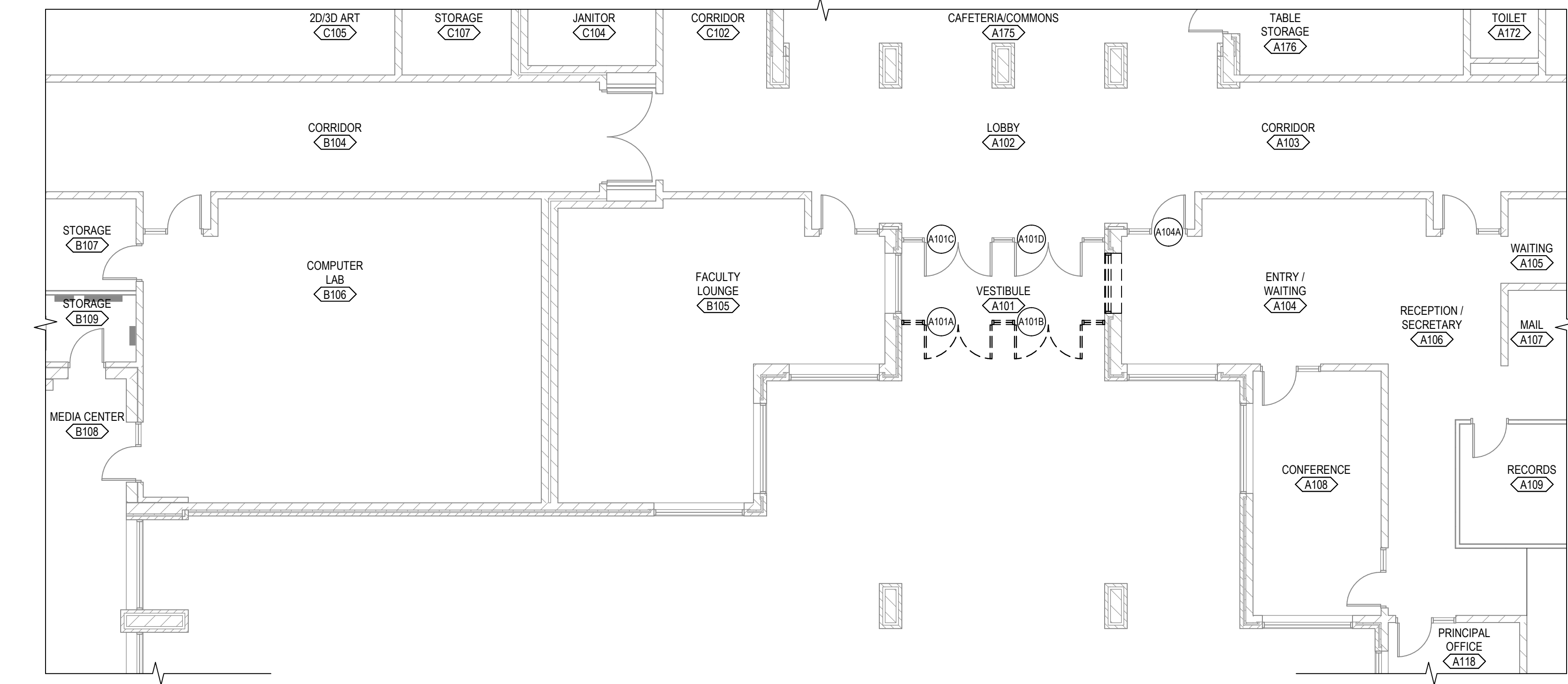
LIFE SAFETY SYSTEMS

EMERGENCY LIGHTING AND EXIT SIGNAGE  
FIRE ALARM SYSTEM, NFPA 72  
FIRE EXTINGUISHERS, NFPA 10  
AUTOMATIC SPRINKLER SYSTEM, NFPA 13

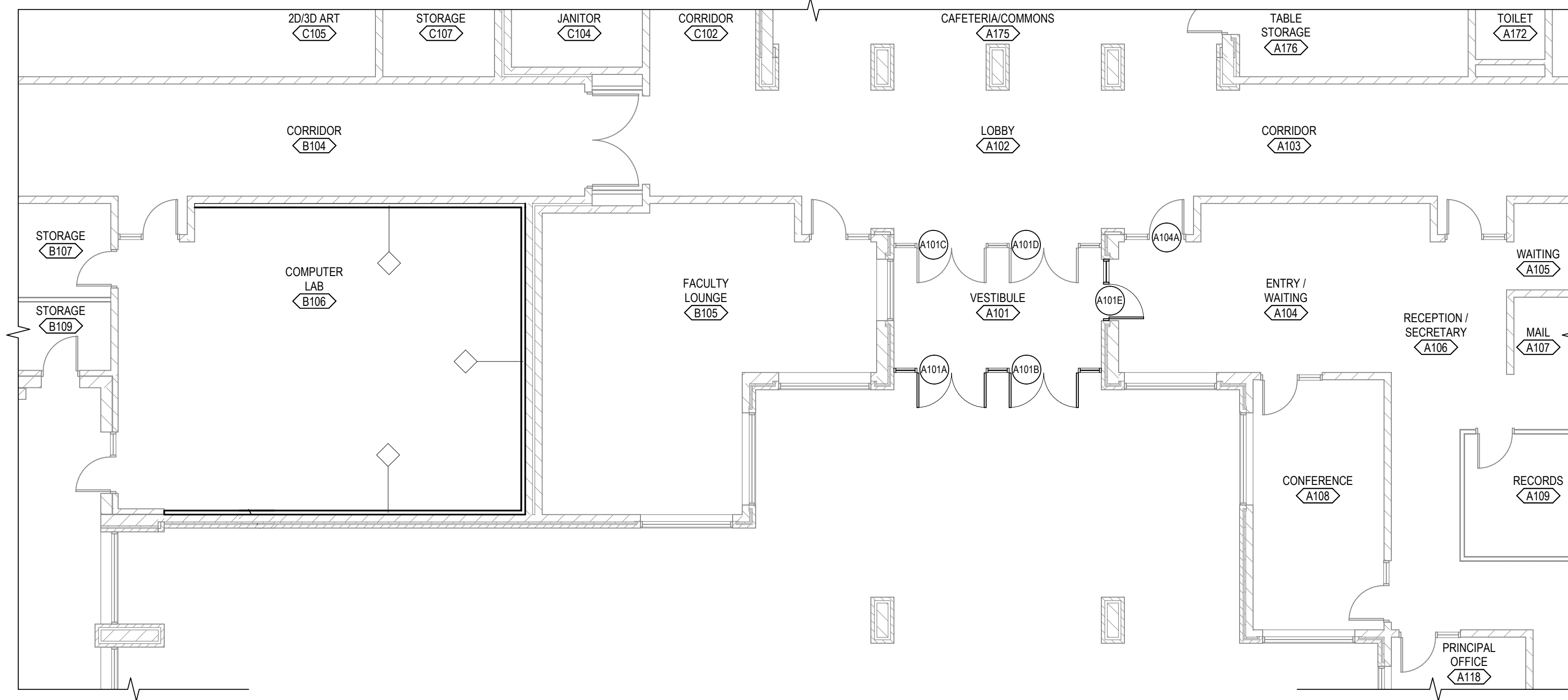
EXITING REQUIREMENTS	DEAD END CORRIDOR MAXIMUM CONDITION	50 FEET
	COMMON PATH OF TRAVEL MAX DISTANCE	75 FEET
	MAXIMUM TRAVEL DISTANCE	250 FEET
	EGRESS WIDTH FACTOR PER OCCUPANT	
	0.2 INCHES PER PERSON	
	(2012 IBC, SECTION 1006.3.2)	







DEMO PLAN, LEVEL 1 - ES  
SCALE: 1/8" = 1'-0"



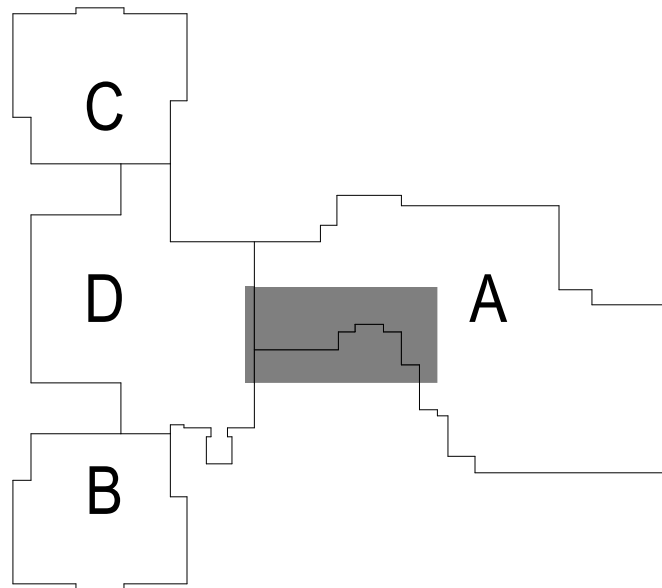
FLOOR PLAN, LEVEL 1 - ES  
SCALE: 1/8" = 1'-0"

_DOOR AND FRAME SCHEDULE_																		
NUMBER	NO. OF PANELS	WIDTH	PANEL					FRAME				FIRE RATING	HARDWARE SET	DETAILS				COMMENTS
			HEIGHT	THICKNESS	MATERIAL	GLASS	TYPE	DEPTH	MATERIAL	TYPE	HEAD			JAMB LEFT	JAMB RIGHT	SILL		
A101A	2	3'-0"	7'-0"	2"	GLASS (1)			4 1/2"	ALUM									
A101B	2	3'-0"	7'-0"	2"	GLASS (1)			4 1/2"	ALUM									
A101C	2	3'-0"	7'-0"	2"	GLASS (1)			4 1/2"	ALUM									
A101D	2	3'-0"	7'-0"	2"	GLASS (1)			4 1/2"	ALUM									
A101E	1	3'-0"	7'-0"	1 3/4"	HM			5 3/4"	HM									
A104A	1	3'-0"	7'-0"	1 3/4"	HM			5 3/4"	HM									

DOOR AND FRAME SCHEDULE  
GENERAL NOTES

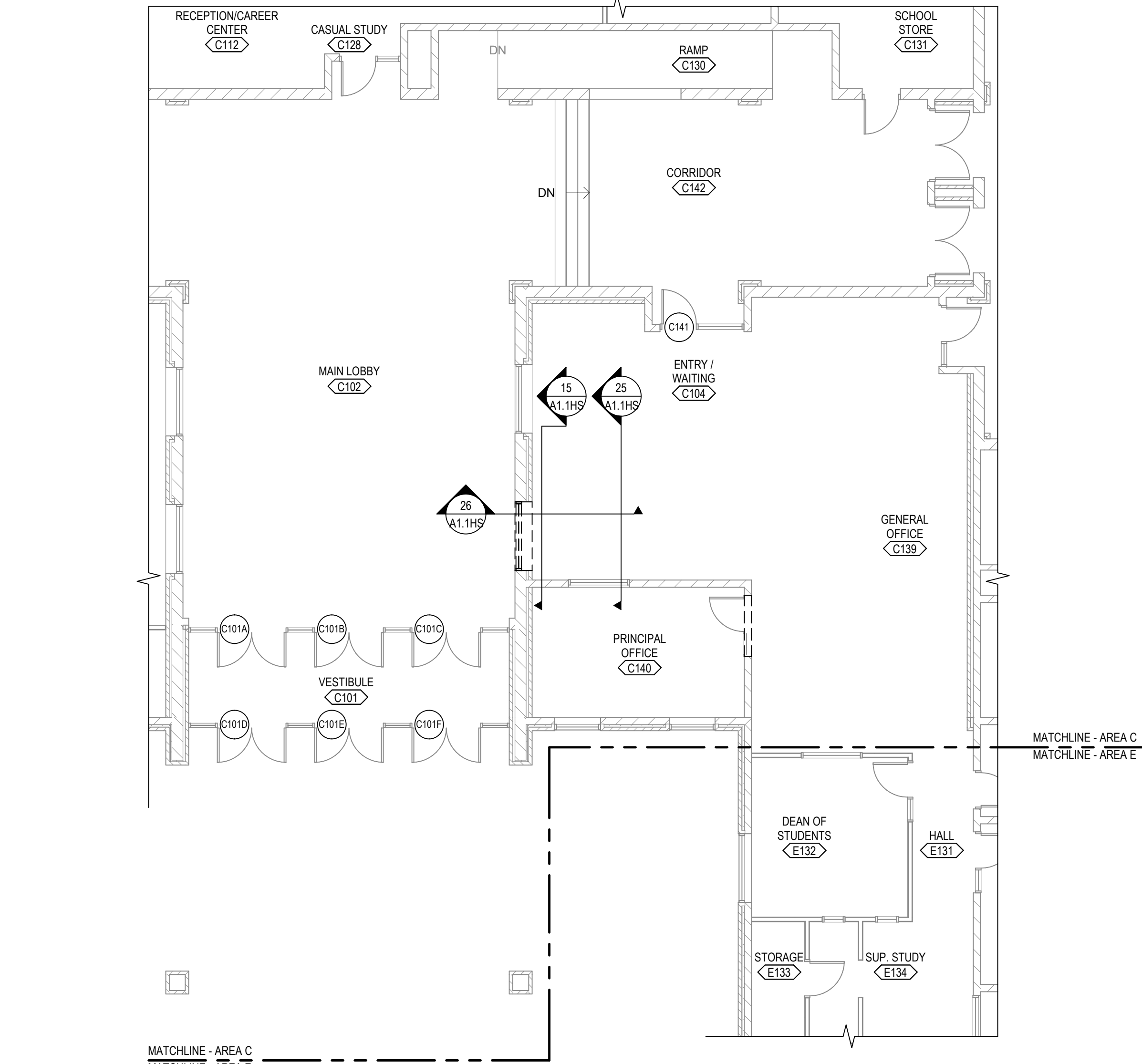
- ALL HOLLOW METAL FRAMES SET IN MASONRY AND CONCRETE WALLS SHALL BE GROUTED SOLID. SEE DETAIL XX/AX.X FOR GROUTING EXTERIOR DOOR FRAMES WITH SECURITY/ACCESS CONTROL HARDWARE AND SPECIFICATION SECTION 081113 FOR FURTHER REQUIREMENTS.
- ALL HOLLOW METAL FRAMES SET IN METAL STUD WALLS SHALL BE FILLED WITH MINERAL WOOL BLANKET INSULATION.
- ALL EXTERIOR FRAMES SHALL BE INSTALLED WITH 1/4" SHIM AND SEALANT AROUND PERIMETER OF FRAME.
- MASONRY LINTELS AND STEEL LINTELS ARE SHOWN ON STRUCTURAL DRAWINGS.
- GLASS TYPES FOR DOORS ARE INDICATED IN THE DOOR GLAZING COLUMN OF THE DOOR AND FRAME SCHEDULE. GLASS TYPES FOR FRAMES ARE INDICATED ON THE FRAME ELEVATIONS OR IN THE SPECIFICATIONS.
- EXTERIOR FRAME TYPES ARE INDICATED WITH THE HEXAGON SYMBOL.
- FOR COILING DOORS, GRILLES AND SECTIONAL DOORS, WIDTH AND HEIGHT DIMENSIONS SHOWN IN DOOR AND FRAME SCHEDULE REPRESENT FINISHED OPENING SIZE. CONTRACTOR TO COORDINATE EXACT SIZE OF DOOR WITH MANUFACTURER.
- FRAME MANUFACTURER SHALL COORDINATE LOCATIONS OF ALL CONCEALED CONDUIT AND J-BOXES REQUIRED FOR SECURITY SYSTEM HARDWARE PRIOR TO MANUFACTURING OF HOLLOW METAL FRAMES AND COORDINATE WITH SECURITY HARDWARE AND DEVICES.
- PROVIDE HEAD RECEIVERS AT ALUMINUM STOREFRONTS AND CURTAIN WALLS AS REQUIRED FOR STRUCTURAL DEFLECTION ALLOWANCE.
- SEE SPECIFICATIONS HARDWARE SECTION FOR HARDWARE SETS NOTED IN DOOR AND FRAME SCHEDULE.

KEY PLAN

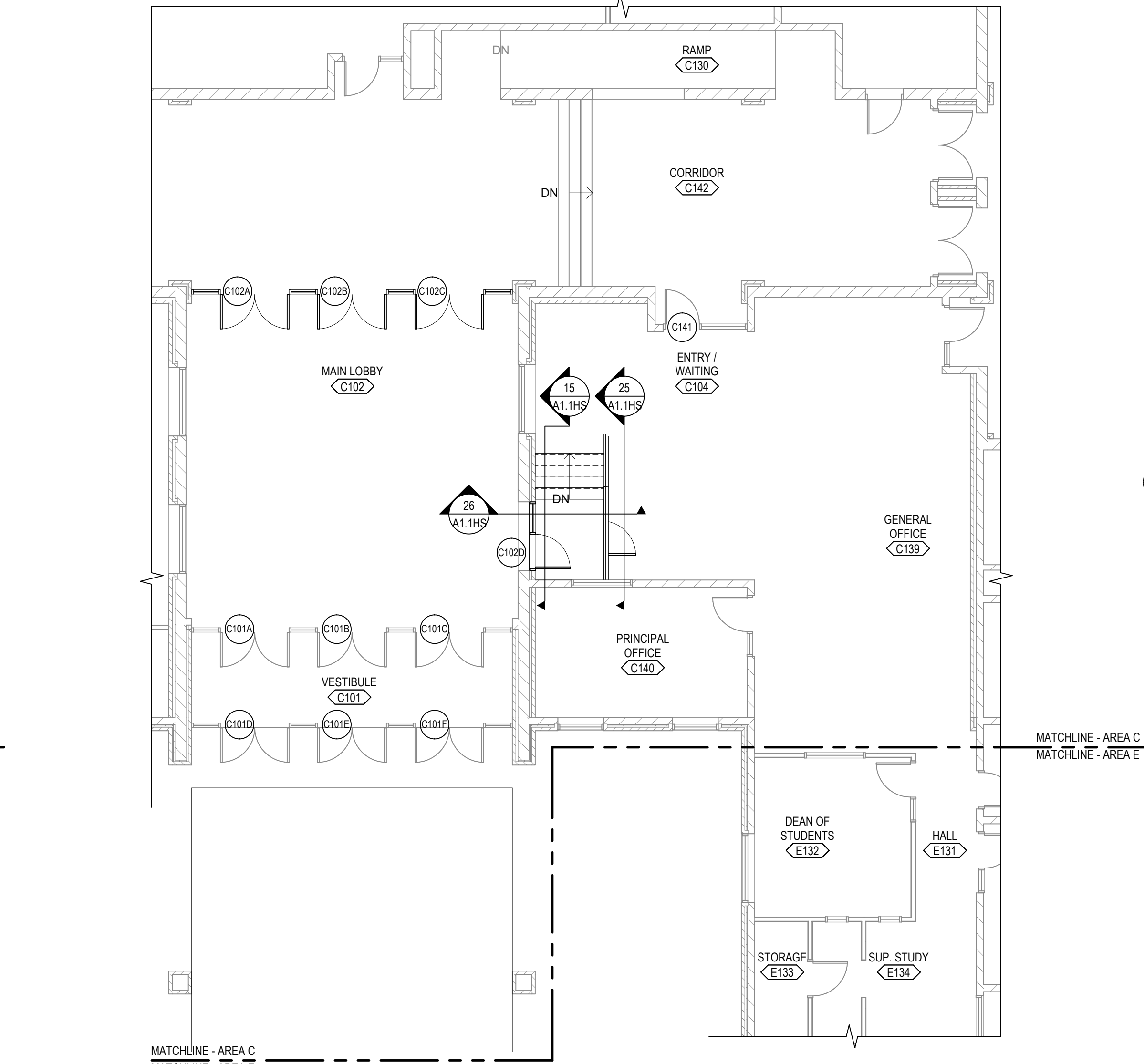


SHADED REGION SHOWN IN PLAN

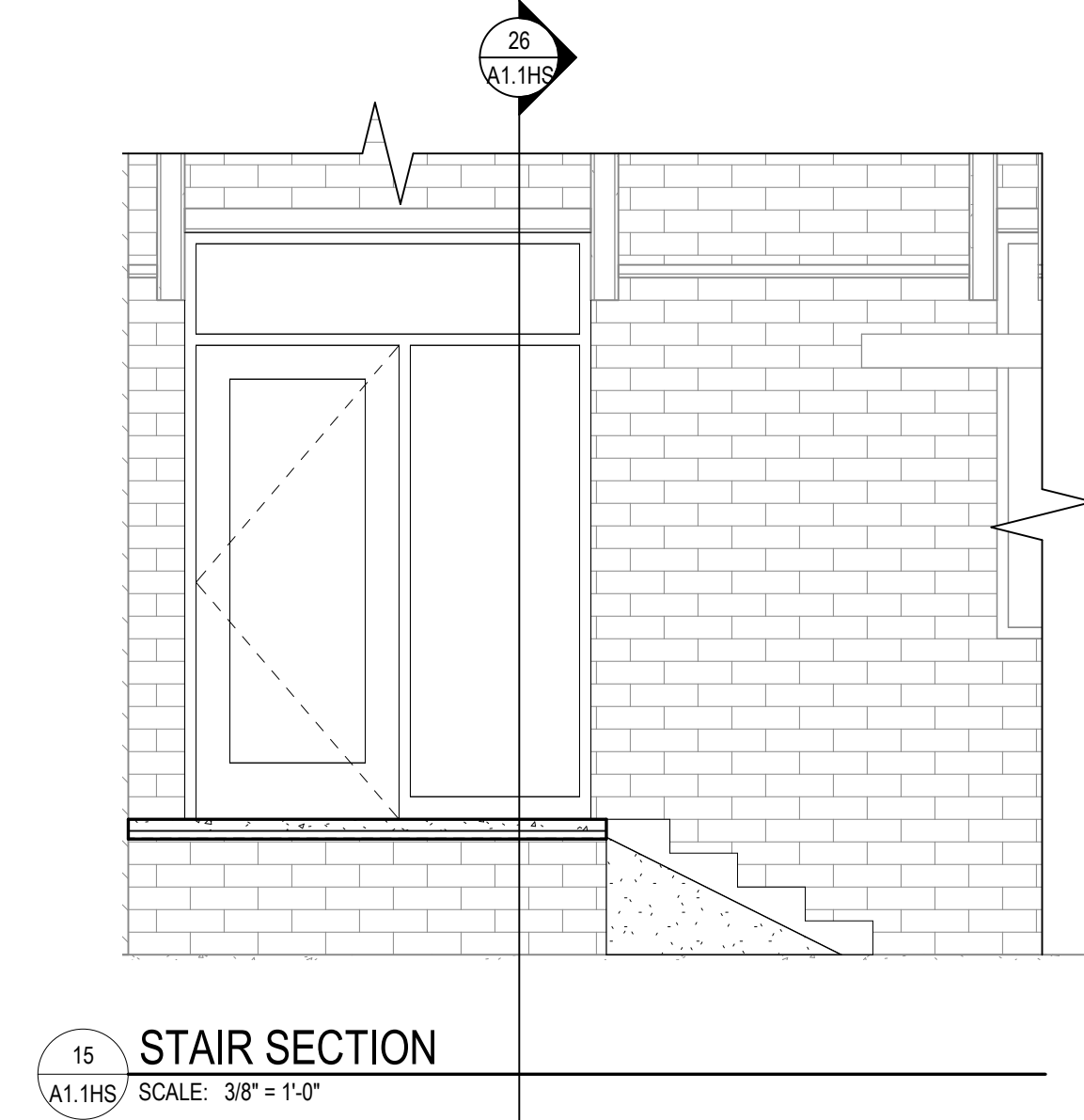




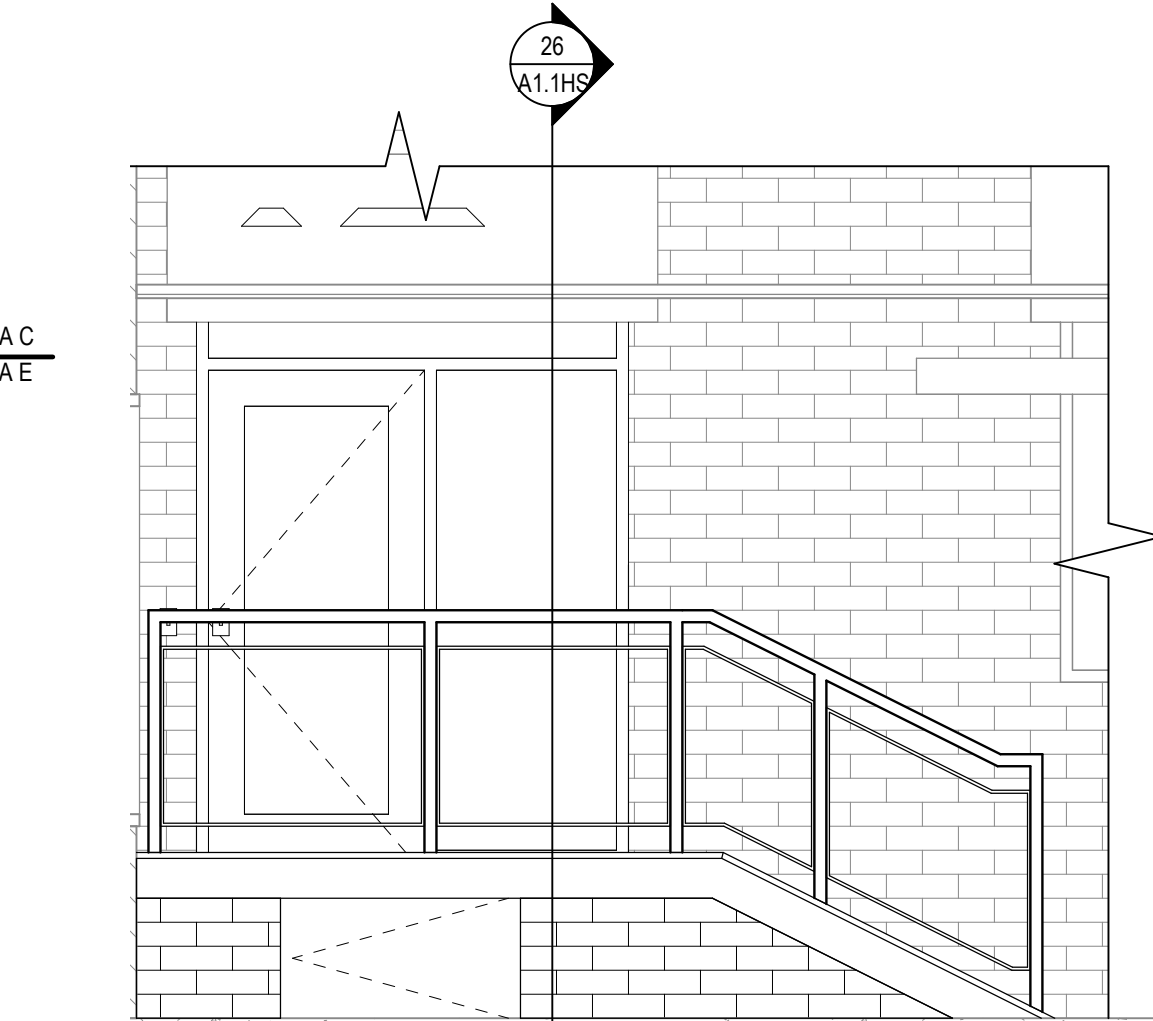
DEMO PLAN, LEVEL 1 - HS  
SCALE: 1/8" = 1'-0"



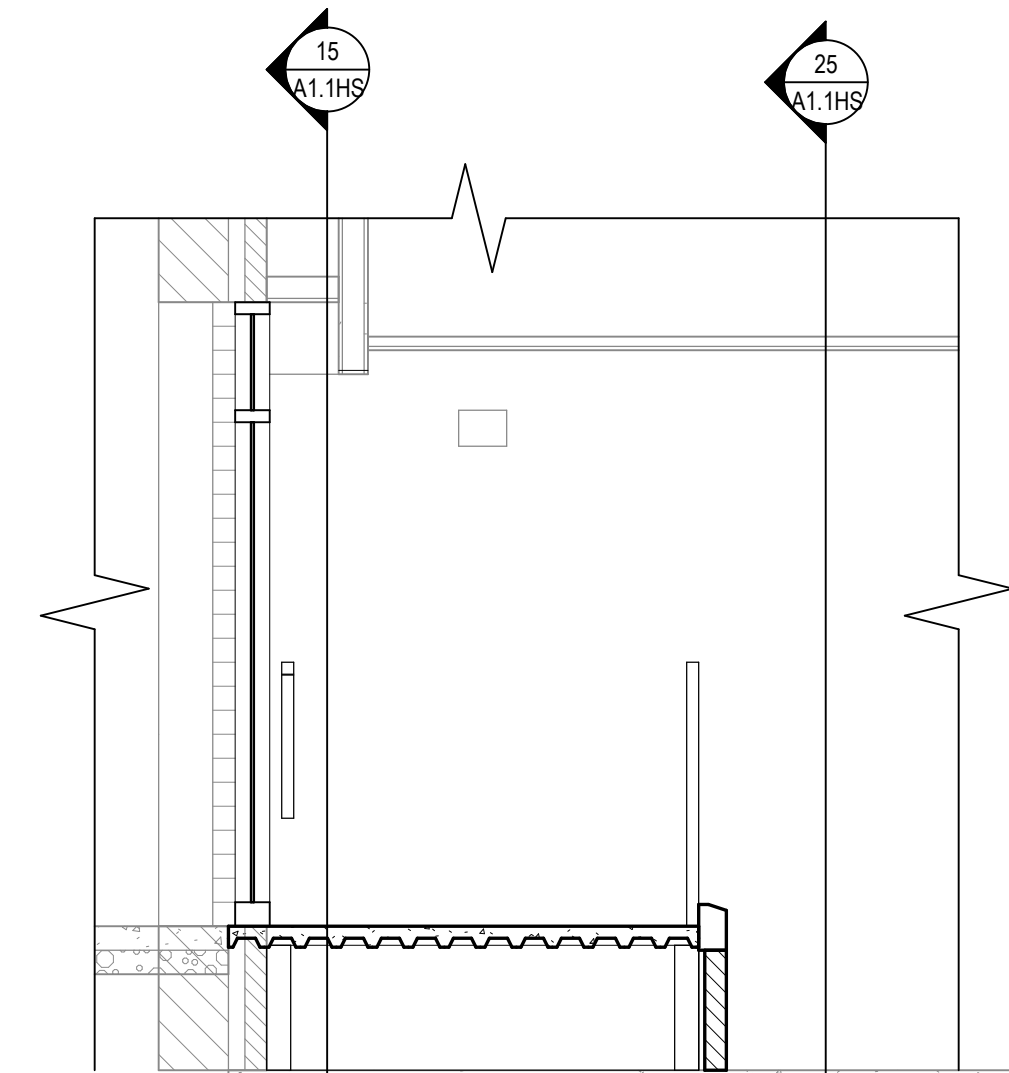
FLOOR PLAN, LEVEL 1 - HS  
SCALE: 1/8" = 1'-0"



15  
A1.1HS / SCALE: 3/8" = 1'-0"



25  
A1.1HS / SCALE: 3/8" = 1'-0"

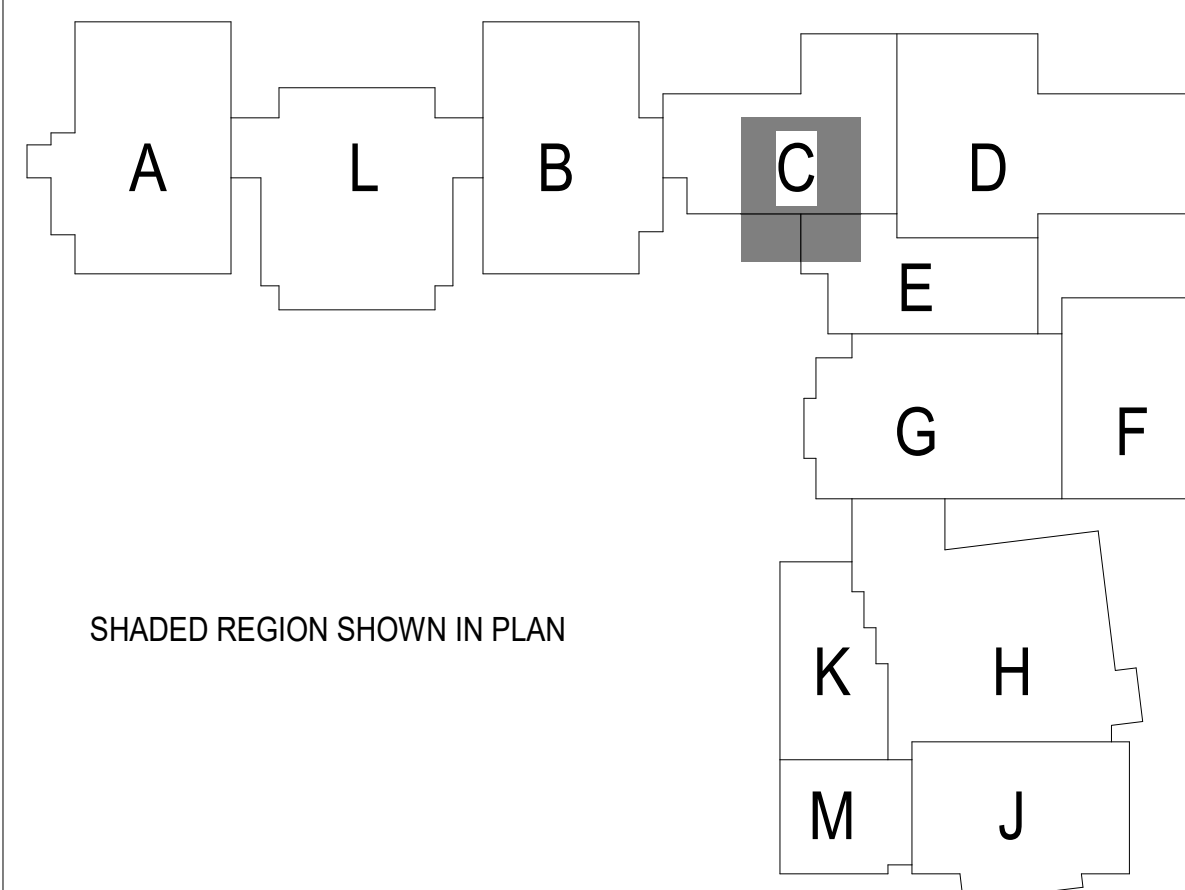


25  
A1.1HS / SCALE: 3/8" = 1'-0"

### DOOR AND FRAME SCHEDULE GENERAL NOTES

- ALL HOLLOW METAL FRAMES SET IN MASONRY AND CONCRETE WALLS SHALL BE GROUTED SOLID. SEE DETAIL XXIX.A.X FOR GROUTING EXTERIOR DOOR FRAMES WITH SECURITY/ACCESS CONTROL HARDWARE AND SPECIFICATION SECTION 081113 FOR FURTHER REQUIREMENTS.
- ALL HOLLOW METAL FRAMES SET IN METAL STUD WALLS SHALL BE FILLED WITH MINERAL WOOL BLANKET INSULATION.
- ALL EXTERIOR FRAMES SHALL BE INSTALLED WITH 1/4" SHIM AND SEALANT AROUND PERIMETER OF FRAME.
- MASONRY LITELS AND STEEL LITELS ARE SHOWN ON STRUCTURAL DRAWINGS.
- GLASS TYPES FOR DOORS ARE INDICATED IN THE DOOR GLAZING COLUMN OF THE DOOR AND FRAME SCHEDULE. GLASS TYPES FOR FRAMES ARE INDICATED ON THE FRAME ELEVATIONS OR IN THE SPECIFICATIONS.
- EXTERIOR FRAME TYPES ARE INDICATED WITH THE HEXAGON SYMBOL.
- FOR COILING DOORS, GRILLES AND SECTIONAL DOORS: WIDTH AND HEIGHT DIMENSIONS SHOWN IN DOOR AND FRAME SCHEDULE REPRESENT FINISHED OPENING SIZE. CONTRACTOR TO COORDINATE EXACT SIZE OF DOOR WITH MANUFACTURER.
- FRAME MANUFACTURER SHALL COORDINATE LOCATIONS OF ALL CONCEALED CONDUIT AND J-BOXES REQUIRED FOR SECURITY SYSTEM HARDWARE PRIOR TO MANUFACTURING OF HOLLOW METAL FRAMES AND COORDINATE WITH SECURITY HARDWARE AND DEVICES.
- PROVIDE HEAD RECEIVERS AT ALUMINUM STOREFRONTS AND CURTAIN WALLS AS REQUIRED FOR STRUCTURAL DEFLECTION ALLOWANCE.
- SEE SPECIFICATIONS HARDWARE SECTION FOR HARDWARE SETS NOTED IN DOOR AND FRAME SCHEDULE.

### KEY PLAN



SHADED REGION SHOWN IN PLAN

DOOR AND FRAME SCHEDULE																	
NUMBER	NO. OF PANELS	PANEL					FRAME				FIRE RATING	HARDWARE SET	DETAILS				COMMENTS
		WIDTH	HEIGHT	THICKNESS	MATERIAL	GLASS	TYPE	DEPTH	MATERIAL	TYPE			HEAD	JAMB LEFT	JAMB RIGHT	SILL	
C101A	2	3'-0"	7'-0"	2"	GLASS (1)			4 1/2"	ALUM								
C101B	2	3'-0"	7'-0"	2"	GLASS (1)			4 1/2"	ALUM								
C101C	2	3'-0"	7'-0"	2"	GLASS (1)			4 1/2"	ALUM								
C101D	2	3'-0"	7'-0"	2"	GLASS (1)			4 1/2"	ALUM								
C101E	2	3'-0"	7'-0"	2"	GLASS (1)			4 1/2"	ALUM								
C101F	2	3'-0"	7'-0"	2"	GLASS (1)			4 1/2"	ALUM								
C102A	2	3'-0"	7'-0"	2"	GLASS (1)			4 1/2"	ALUM								
C102B	2	3'-0"	7'-0"	2"	GLASS (1)			4 1/2"	ALUM								
C102C	2	3'-0"	7'-0"	2"	GLASS (1)			4 1/2"	ALUM								
C102D	1	3'-0"	7'-0"	1 3/4"	WD			5 3/4"	HM								
C102E	1	3'-0"	1'-8"	1 3/4"	ALUM			4 1/2"	ALUM								
C141	1	3'-0"	7'-0"	1 3/4"	WD			5 3/4"	HM								



## ABBREVIATIONS

2W 2-WIRE  
3W 3-WIRE  
4W 4-WIRE

AM AMPERE  
AC ABOVE COUNTER  
AIC AMPERE INTERRUPTING CAPACITY  
AIF AMP FRAME (CIRCUIT BREAKER)  
AFF ABOVE FINISHED FLOOR  
AFG ABOVE FINISHED GRADE  
AIA AUTHORITY HAVING JURISDICTION  
AL ALUMINUM  
AWG AMERICAN WIRE GAGE  
C CABLE  
CAN CABLE NETWORK (FOR WIRELESS NETWORK)  
AT AMP TRIP (CIRCUIT BREAKER / FUSE)  
ATS AUTOMATIC TRANSFER SWITCH  
AV

BAC BUILDING AUTOMATION CONTROLLER  
BAS BUILDING AUTOMATION SYSTEM  
BFF BELOW FINISHED FLOOR  
BFI FINISHED JUMPER  
BKR BREAKER  
BLM BUILDING  
BMS BUILDING MANAGEMENT SYSTEM

C CONDUIT  
CB CIRCUIT BREAKER  
CATV CABLE TELEVISION  
CCTV CLOSED CIRCUIT TELEVISION  
CR CIRCUIT  
CLO CLOTHING  
CR CORREL  
CSWK CASEWORK  
CU COPPER

DB DECEBEL  
DC DIRECT CURRENT  
DC DROP CORD  
DD DIRECT DIGITAL CONTROLS (BMS)  
DISC DISCOUNT  
DIV DISTRIBUTION DIVISION  
DPS DISTRIBUTION PANELBOARD  
DW DOWNSPUR

EA EACH  
ECS ELECTRICAL CONTRACTOR  
EES EMERGENCY COMMUNICATIONS SYSTEM  
ELEC ELECTRICAL  
ELC ELECTRIC LOAD  
EMD EXISTING MAXIMUM DEMAND  
EP EXPLOSION PROOF  
EQ EQUIVALENT  
EQ EQUIPMENT  
ER EXISTING TO BE RELOCATED (ALSO RRR)  
EWC EXISTING WATER CLOSET  
EWC ELECTRICAL WATER COOLER  
EX EXTERIOR

FA FIRE ALARM  
FAA FIRE ALARM ANNUNCIATOR  
FACP ACCESS POINT CONTROL PANEL  
FB FLOOR-BOX  
FC FOOT CANDLE  
FLC FULL LOAD AMPS  
FLUOR FLUORESCENT  
FS FLOOR SWITCH  
FSD FIRE SMOKE DAMPER  
FT FEET / FOOT

G EQUIPMENT GROUNDING CONDUCTOR  
GC GENERAL CONTRACTOR  
GEN GENERATOR  
GFI GROUND FAULT CIRCUIT INTERRUPTER  
GFCI GROUND FAULT CIRCUIT INTERRUPTER  
GND EQUIPMENT GROUNDING CONDUCTOR

HH HANDHOLE  
HOA HAND-OFF-AUTO SELECTOR SWITCH  
HOA HAND-OFF

IC INTERCOM  
IG ISOLATED GROUND  
IN INCH / INCHES  
INT INTERIOR  
IT INFORMATION TECHNOLOGY (TELECOM)  
IO INFORMATION (IT) OUTLET

JB JUNCTION BOX

KA THOUSAND AMPERE INTERRUPTING CURRENT  
KVA KILOVOLT-AMPERES  
KILOWATT

KV KILOVOLT-AMPERES  
KILOWATT

LED LIGHT-EMITTING DIODE  
LM LUMENS  
LT LIGHT  
LTG LIGHTING

MAX MAXIMUM  
MCA MINIMUM CIRCUIT AMPACITY  
MCB MAIN CIRCUIT BREAKER  
MCC MOTOR CONTROL CENTER  
MC MECHANICAL CATCH  
MECH MECHANICAL  
MFR MECHANICAL  
MH MANHOLE  
MIN MINIMUM  
MLO MAIN LUGS ONLY  
MOPC MAXIMUM OVERCURRENT PROTECTION  
MRT MOTOR RATED TOGGLE SWITCH  
MSB MOUNTING (VIDEO) PROJECTION SCREEN  
MSB MAIN SWITCHBOARD  
MT MOUNTED  
MTG MOUNTING  
MTS MANUAL TRANSFER SWITCH  
MW MICROWAVE OVEN

N NEUTRAL  
NAC NOTIFICATION APPLANCE CIRCUIT (FA)  
NOC NORMAL CLOSING WHEN DE-ENERGIZED  
NOR NORMAL OPEN (WHEN DE-ENERGIZED)  
NEC NEC EXCEPTED PANEL (FA)  
NEP NOT USED  
NIC NOT IN CONTRACT  
NTO NOT TO SCALE

OFCSI OWNER FURNISHED / CONTRACTOR INSTALLED OVERHEAD  
O

P POLE / POLES  
PA PUBLIC ADDRESS  
PB PUSH-BUTTON  
PH PHASE  
PIV POST INDICATOR VALVE  
PNL PANEL  
PWR POWER

RECEP RECEIPT  
RRR REMOVE AND REINSTALL

SCOR SD SHORT CIRCUIT CURRENT RATING  
SD SMOKE DAMPER  
SEC SECONDARY  
SIL SIGNAL  
SLC SIGNALING LINE CIRCUIT (FA)  
SP SURGE PROTECTION DEVICE  
SPEC SPECIFICATION  
SWB SWITCHBOARD

TBB TELECOM BONDING BACKBONE  
TC TIME CLOCK  
TC TEMPERATURE CONTROL CONTRACTOR  
TCB TELECOM BACKBONE  
TMSB TELECOM MAIN GROUNDING SUBSTRATE  
TO TELECOM (IT) OUTLET  
TR TRAFFIC ROOM / TECH EQUIP ROOM  
TS TAMPER SWITCH  
TV TELEVISION (VIDEO) DISPLAY  
TV TELEVISION

UG UNDERGROUND  
UNG UNDERGROUND ELECTRICAL  
UNO UNLESS NOTED OTHERWISE  
UNO UNLESS NOTED OTHERWISE

V VOLT  
VA VOLT-AMPERE  
VFD VARIABLE FREQUENCY (TV)  
VFD VARIABLE FREQUENCY DRIVE  
VFD VIDEO PROJECTOR

W WATTS  
WA (TELECOM) WORK AREA  
WAP WIRELESS NETWORK ACCESS POINT  
WGRD WIREGRAD  
WPR WEATHER-PROOF (NEMA 3R)

XFMR TRANSFORMER

## NOTES

## GENERAL ELECTRICAL NOTES

(TYPICAL ALL SHEETS)

- [illegible]

## GENERAL LIGHTING NOTES

(TYPICAL ALL LIGHTING SHEETS)

1. SEE LIGHTING FIXTURE SCHEDULE OR SYMBOLS LEGEND FOR FIXTURE TYPES, MOUNTING HEIGHTS, ETC. UNLESS NOTED OTHERWISE.
2. EXTEND AN UNSWITCHED LEG OF THE DESIGNATED BRANCH CIRCUIT TO END SIGNS FOR 247 OPERATION. ALL OTHER EMERGENCY LIGHTING FIXTURES ARE TO BE CONTROLLED (ON/OFF/DIMMING) AS INDICATED.
3. FIXTURES NOTED WITH LOWER CASE LETTERS SHALL BE CONTROLLED BY SWITCHES DENOTED WITH THE SAME LOWER CASE LETTER IN EACH ROOM.
4. LIGHT SWITCHES/CONTROL STATIONS SHALL BE MOUNTED ON THE LATCH SIDE OF THE DOOR WITHIN 12" OF THE DOOR FRAME (OR SWEIGHT), LIGHT SWITCHES LOCATED ADJACENT TO DOOR SWEIGHTS SHALL BE POSITIONED 5" FROM THE DOOR SWING AND WITHIN 12" OF THE DOOR IN ITS OPENED POSITION.
5. DO NOT FASTEN FIXTURES TO (OR SUSPEND FIXTURES FROM) METAL DECKING, UNLESS OTHERWISE INDICATED, SPAN THE TOP CORNER OF STRUCTURAL JOISTS USING U-CHANNEL, (UNISTRUT) FROM WHICH TO SUSPEND OR FASTEN FIXTURES.
6. IN FINISHED SPACES, SUCH AS CORRIDORS AND COMMONS - EXPOSED FIXTURE WIRPS ARE NOT ALLOWED. RUN EMT WHEN EXPOSED WIRING FROM CEILING TO GELING TYPES. PUNT TO MATCH SURROUNDING SURFACE.

## GENERAL SYSTEMS NOTES

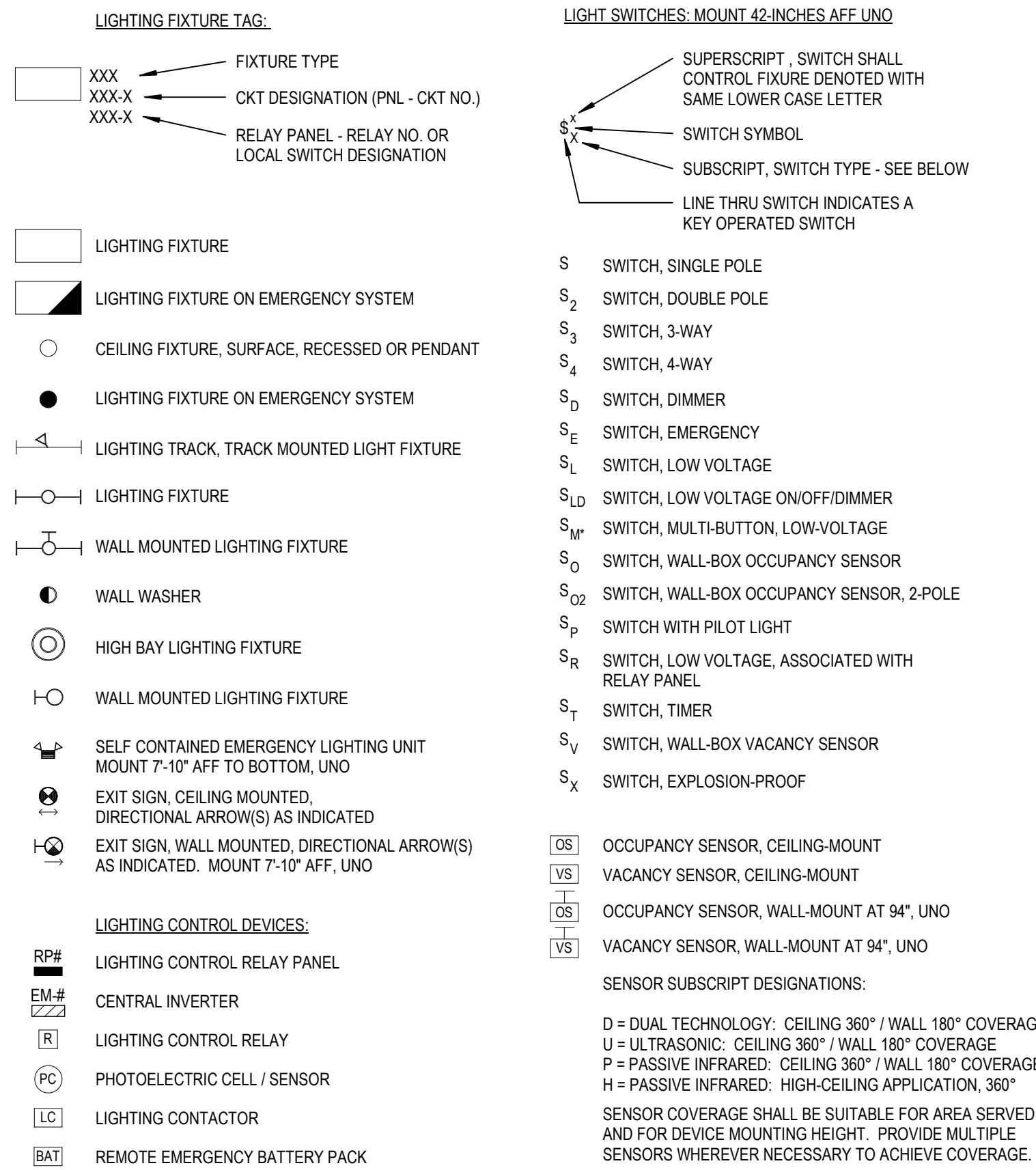
#### DIVISION 26 WORK

(TYPICAL ALL SPECIAL SYSTEMS SHEETS)

1. TELECOMMUNICATIONS OUTLETS PROVIDE TWO-GANG BOX (2-5" DEEP MINIMUM) WITH SINGLE-GANG STRAP MOUNT PLASTER OR CONCRETE CONDUIT STUBBED INTO ACCESSIBLE SPACE ABOVE FINISHED CEILING.
2. TELECOMMUNICATIONS OUTLET INDICATED AS ROUGH IN ONLY NO SUBSCRIPTS) INSTALL PER NOTE AND ABOVE WITH BLANK 302SS SINGLE-GANG WALLPLATE.
3. MISCELLANEOUS LOW VOLTAGE OUTLETS (CALL STATIONS, HANDSETS, VOLUME CONTROL, MICROPHONE OUTLETS, SURFACE MOUNTED TELEPHONE HANDSETS, ETC.) PROVIDE SINGLE-GANG BOX WITH 3/4-INCH CONDUIT STUBBED INTO ACCESSIBLE SPACE ABOVE FINISHED CEILING.
4. INSULATED BUSINGS PROVIDE BUSINGS ON ALL CONDUIT SUBS OR SUB-OUTS INCLUDING BUT NOT LIMITED TO, OUTLETS FOR TELECOMMUNICATIONS, FIRE ALARM, SECURITY, ACCESS CONTROL, ETC. PROVIDE 1/2" CONDUIT ADDRESS ALL LOW VOLTAGE INTERCOMMUNICATIONS AND UNUSED SUBS (OR SUBS) INDICATED FOR FUTURE USE).
5. FLOOR BOXES CONTAINING TELECOMMUNICATIONS OUTLETS FOR EACH LOW VOLTAGE COMPARTMENT, ROUTE 1-1/4 INCH CONDUIT WITH ACCESSIBLE SPACE ABOVE FINISHED CEILING, LABEL CONDUIT END FLOOR BOX.
6. PROVIDE ADDITIONAL CONDUIT, BOXES, CONDUCTORS AND OVERCURRENT PROTECTION FOR 120-VOLT BRANCH CIRCUITS NOT OTHERWISE COVERED BY SECTION 26.20 WORK, BUT REQUIRED TO COMPLETE DIVISION 08 AND 26 WORK. DEVICES SHALL INCLUDE BUT NOT BE LIMITED TO, POWER SPLICES FOR DOOR HARDWARE, ACCESS CONTROL, FIRE ALARM, AND VIDEO SURVEILLANCE.
7. CABLE READERS: PROVIDE RECESSED SINGLE-GANG BOX WITH 1/2-INCH CONDUIT COVERED PLATE AND ENTRY 1-INCH CONDUIT STUBBED INTO NEAREST T.E. EQUIPMENT ROOM OR ACCESSIBLE SPACE ABOVE ACCESSIBLE CEILING. LABEL CONDUIT END CABLE READER.
8. PROVIDE WATERFALL DROPOUTS AT ALL CABLE TRAY LOCATIONS ABOVE WALL/FLOOR MOUNTED RACKS AND EQUIPMENT ENCLOSURES.
9. DO NOT MOUNT DEVICES BACK-TO-BACK IN WALLS. MAINTAIN 6" SEPARATION HORIZONTALLY IN RATED WALLS AND 24" SEPARATION HORIZONTALLY IN NON-RATED WALLS.
10. PRIOR TO THE FINAL PUNCH, THIS CONTRACTOR SHALL PROVIDE BLANK STAINLESS STEEL OVERPLATES ON ANY NON-ACTIVATED TELECOMMUNICATIONS WORK. PROVIDE LABEL THAT DO NOT RECEIVE BLANK WORKSTATION FACELATES.
11. ALL DEVICES INSTALLED IN THE CEILING GRID SHALL BE CENTERED IN THE TILE. CORRIDOR DEVICES SHALL BE MOUNTED IN A STRAIGHT LINE, UNLESS OTHERWISE INDICATED.
12. ALL LOW-VOLTAGE CABLEING (50-VOLTS AND LESS) SHALL BE ENTIRELY CONCEALED, EXCEPT IN DEDICATED NETWORK EQUIPMENT RACKS OR RACKS. CONCEAL CABLEING IN WALLS, CEILING, OR IN RACEWAY. EXCEPT WHERE IT IS PLENUMATED AND PROPERLY SUPPORTED OPEN, YET ENTIRELY CONCEALED, ABOVE SUSPENDED CEILING. CONCEAL CABLEING ACTUAL CONDUIT IN ANY CONTINUOUS RUN OF CONDUIT THAT EXCEEDS 20'-FEET IN LENGTH.
13. UTILIZE SLEEVES AND FLOOR SLEEVES AT RATED WALLS PROVIDED UNDER DIVISION 26 FOR INSTALLATION OF ALL LOW VOLTAGE CABLEING. FOLLOW INDUSTRY STANDARDS TO MAINTAIN 4% FILL REQUIREMENTS IN ALL SLEEVES (SUSPENSES NEC. DO NOT FILL WITH GROUT). FOLLOW INDUSTRY STANDARDS FOR SLEEVES MEETING DIVISION 26 REQUIREMENTS AS REQUIRED.
14. ALL FIRE-STOPPING SHALL BE PROVIDED BY THIS CONTRACTOR WHEREVER CABLES AND/OR CONDUITS ARE INSTALLED THROUGH FIRE WALLS BY THIS CONTRACTOR. COORDINATE INSPECTIONS OF CONTRACTORS WORK WITH LOCAL AUTHORITY HAVING JURISDICTION. 2-HOUR FIRE WALLS (2-FM) AND 1-HOUR FIRE BARRIERS (1-FB) ARE IDENTIFIED ON THE CODE PLANS.
15. VINYL, TIE STRAPS ARE PROHIBITED THROUGHOUT. UTILIZE VELCRO TIE STRAPS TO BIND CABLES THROUGHOUT THE FACILITY. VELCRO TIE VINYL TIE STRAPS FOR ANY REASON, TEMPORARY OR OTHERWISE.

## SYMBOLS

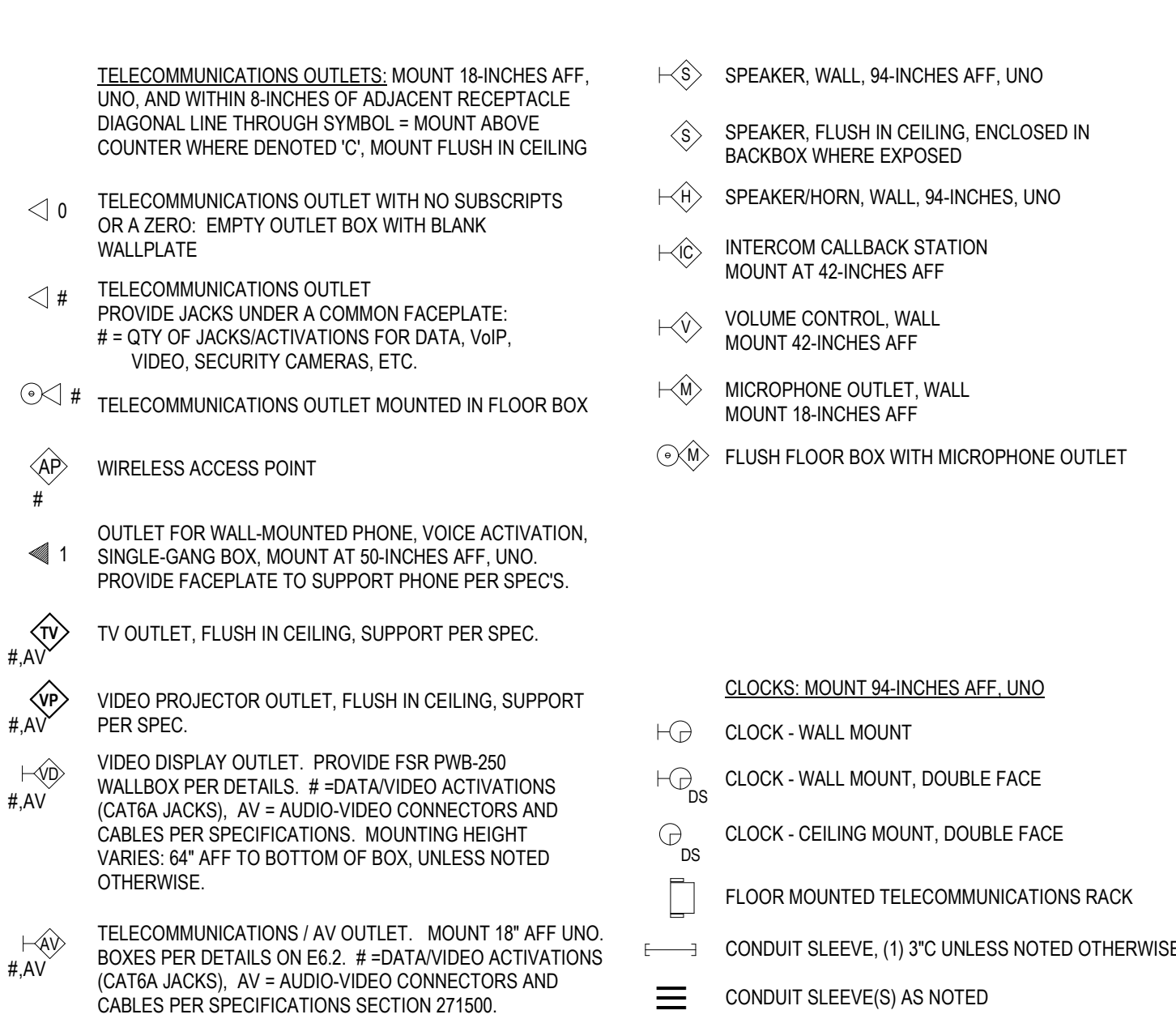
## LIGHTING



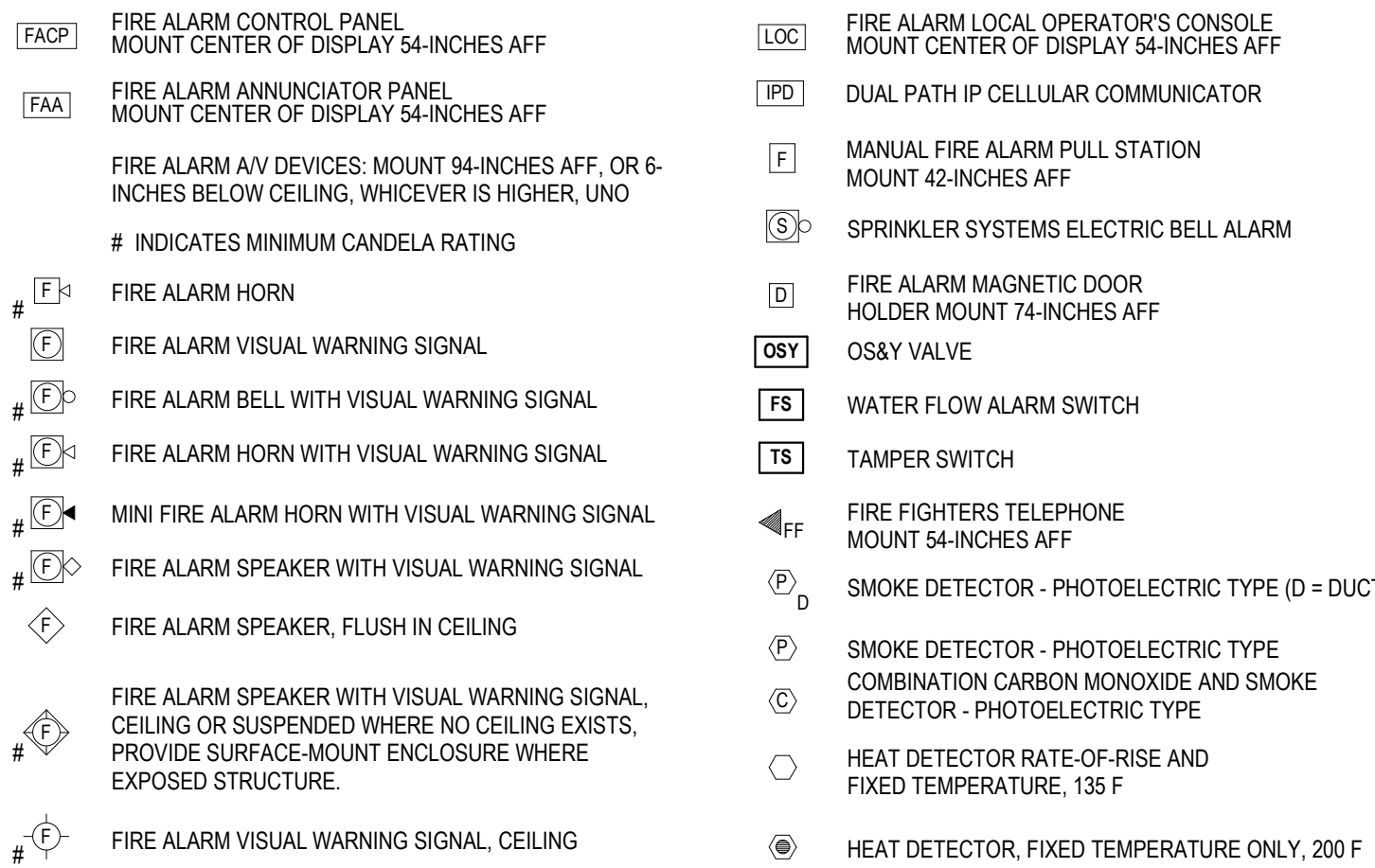
POWER



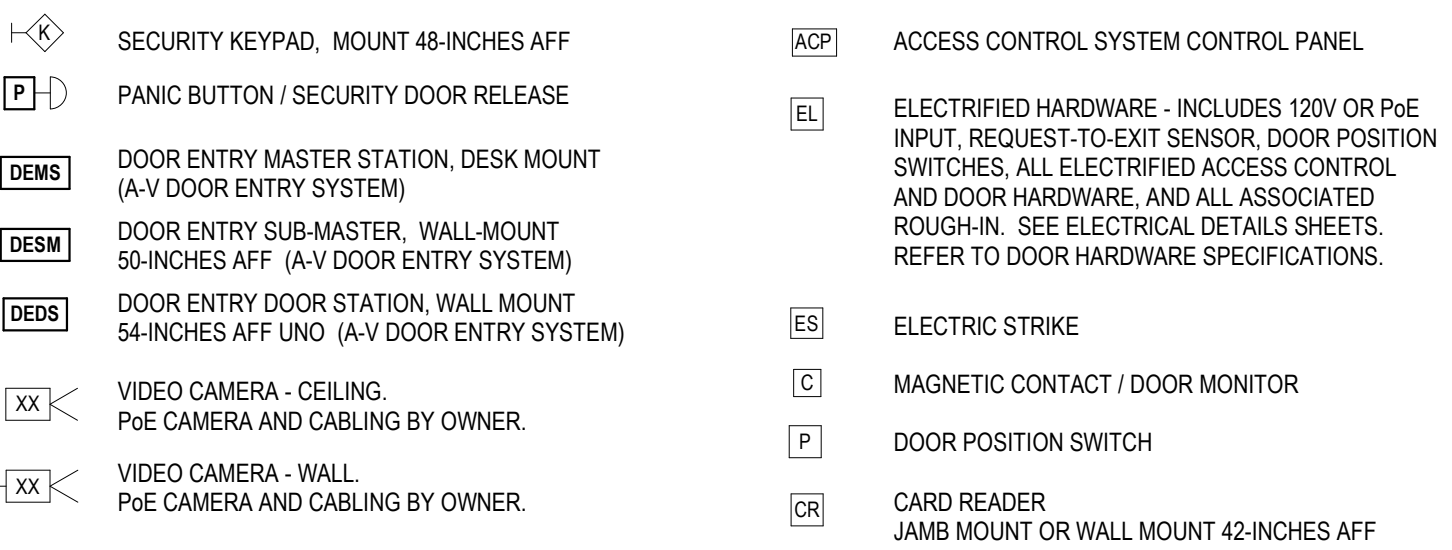
## COMMUNICATION SYSTEMS



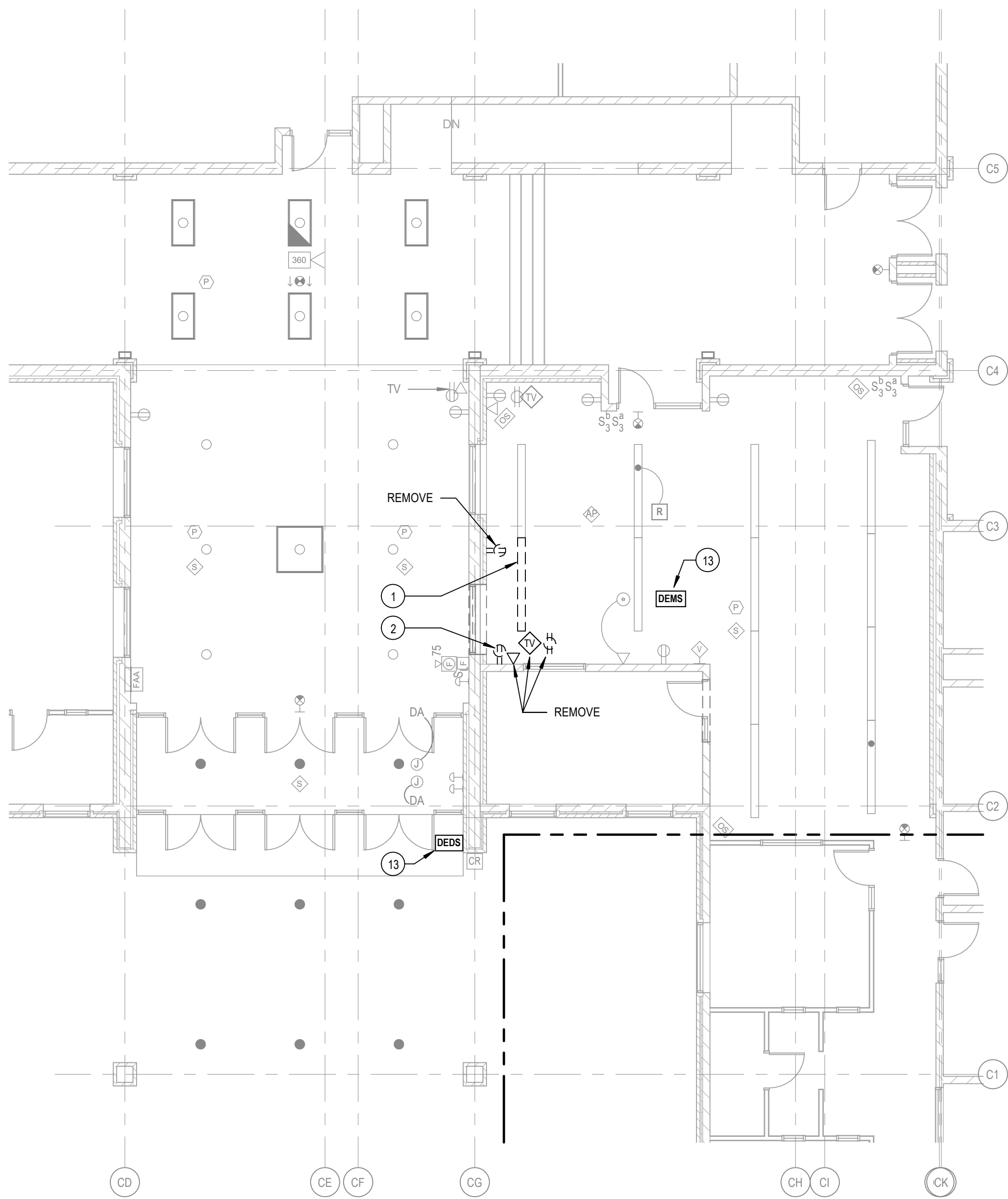
## SAFETY



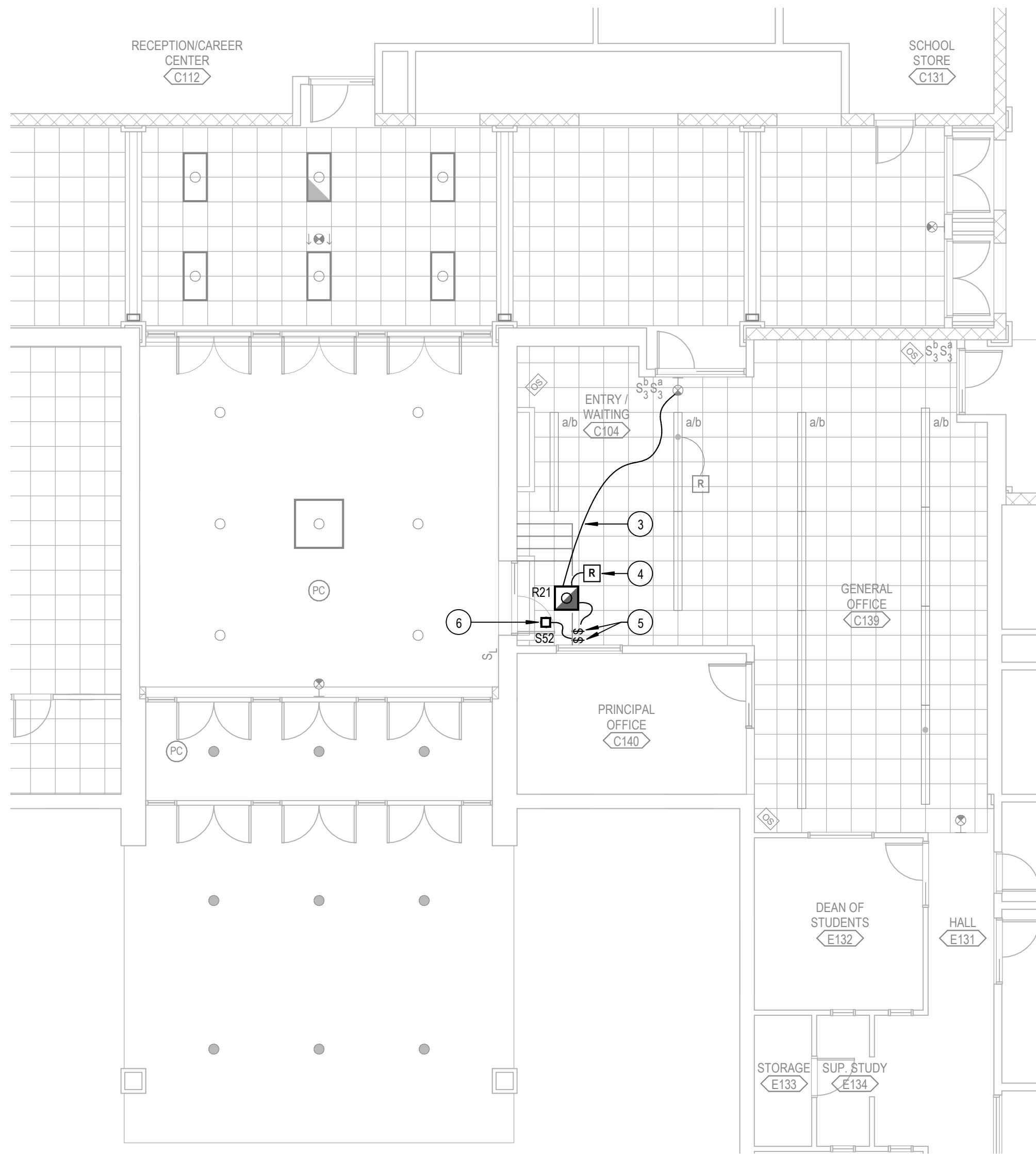
## SECURITY



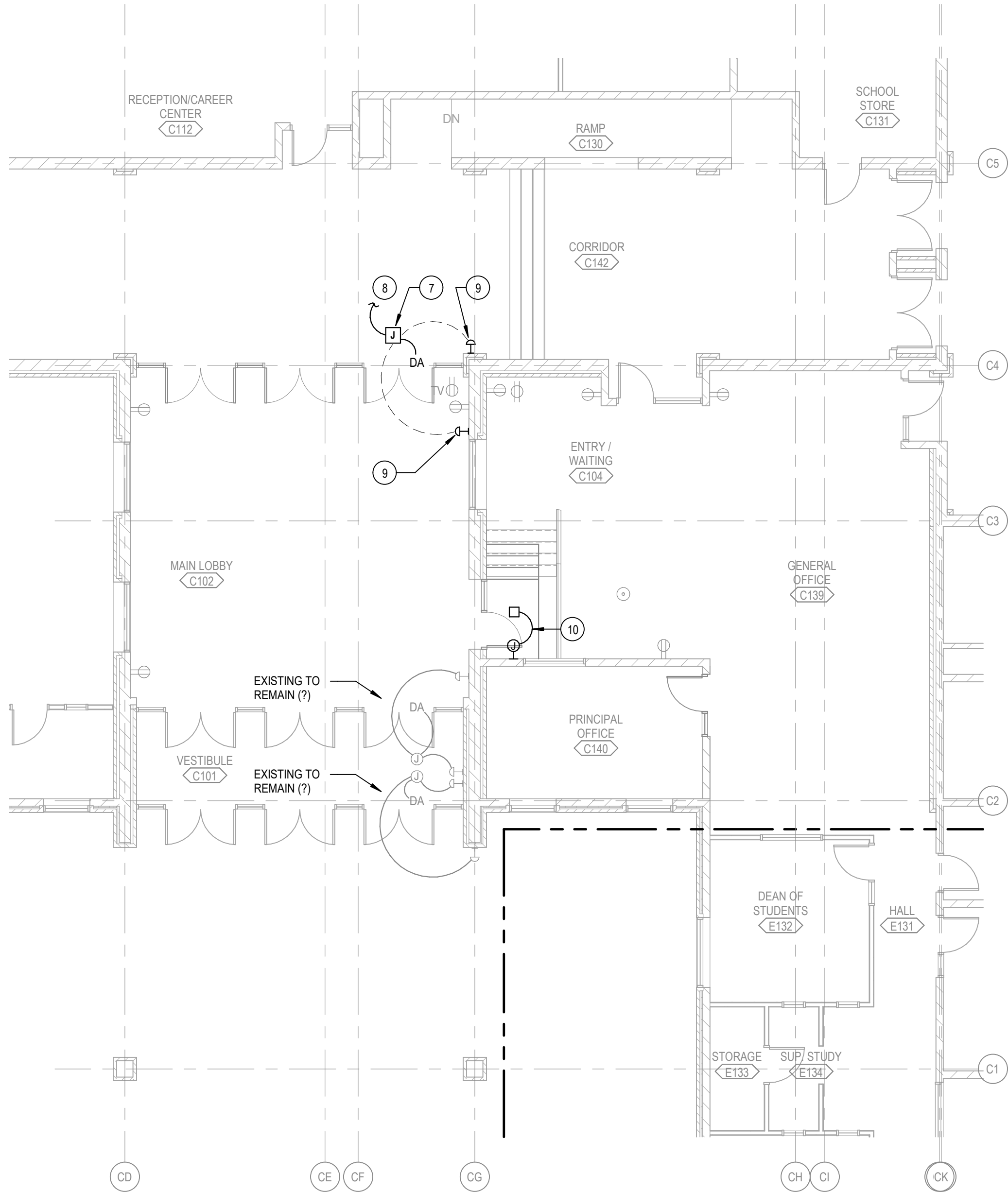




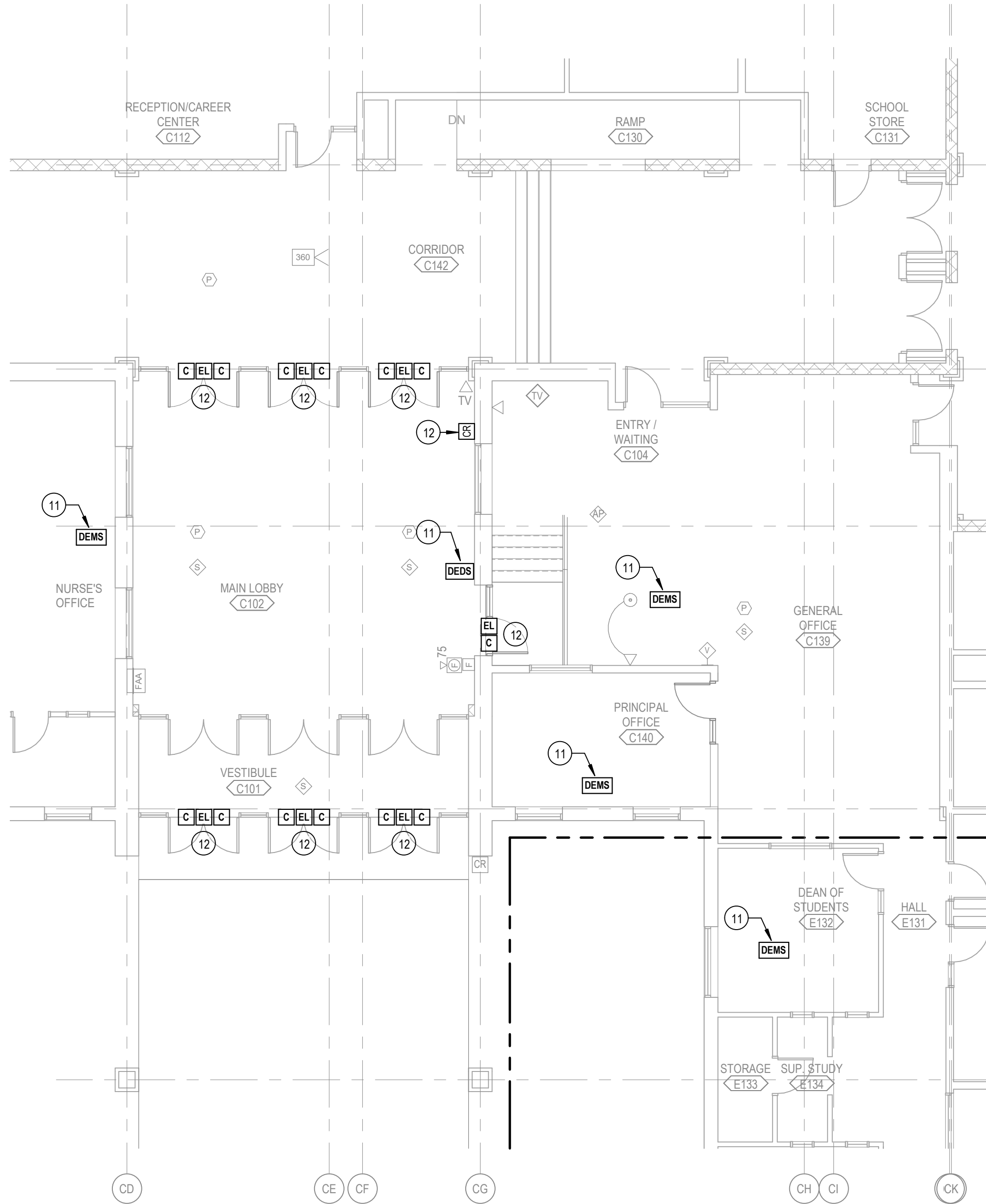
**ELECTRICAL DEMOLITION PLAN, FIRST LEVEL**  
SCALE: 1/8" = 1'-0"



**LIGHTING PLAN, FIRST LEVEL**  
SCALE: 1/8" = 1'-0"



**POWER PLAN, FIRST LEVEL**  
SCALE: 1/8" = 1'-0"



**SPECIAL SYSTEMS PLAN, FIRST LEVEL**  
SCALE: 1/8" = 1'-0"

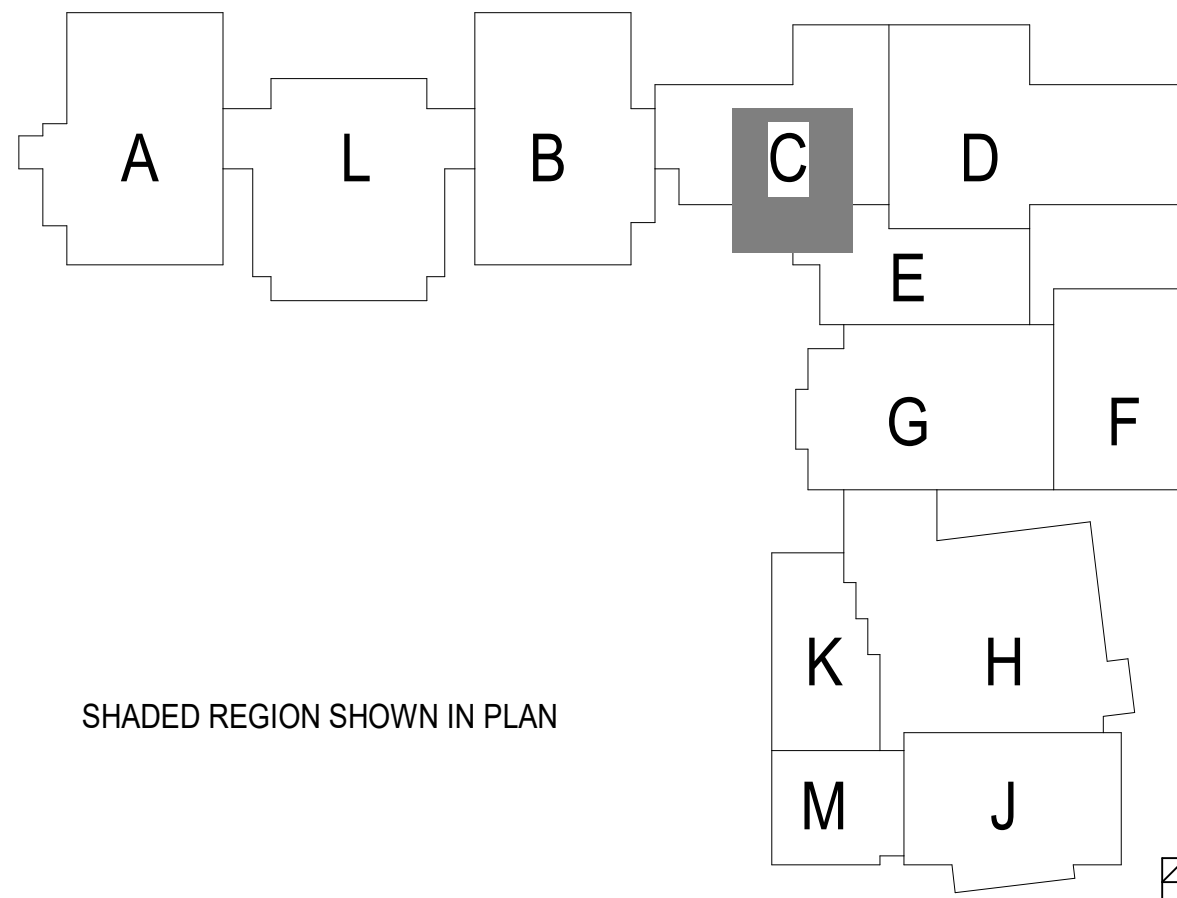
**LEGEND NOTES**

**KEYED NOTES**

(TYPICAL FOR ALL ELECTRICAL PLANS.)

1. REMOVE 8'-0" SECTION OF EXISTING SUSPENDED LINEAR LIGHTING FIXTURE. REMOVE ITS END-CAP AND INSTALL IT ON THE END OF THE REMAINING FIXTURE FOR A COMPLETE AND PROFESSIONAL FINISH. REWORK EXISTING CIRCUITING INTERNAL TO THE REMAINING FIXTURE AS REQUIRED (CONNECTED TO PANEL NH104).
2. REMOVE EXISTING RECEPTACLE. MAINTAIN ITS EXISTING 120V BRANCH-CIRCUIT (CONNECTED TO PANEL NL1C7) TO BE EXTENDED TO NEW LIGHTING FIXTURE. SEE LIGHTING PLAN AND POWER PLAN.
3. EXTEND EXISTING 277V EMERGENCY POWER BRANCH-CIRCUIT (CONNECTED TO PANEL EH1C1) TO NEW LIGHTING FIXTURE.
4. INSTALL UL-924 EMERGENCY LIGHTING BYPASS RELAY INSIDE ENCLOSURE ABOVE THE EXISTING ACCESSIBLE CEILING. INSTALL REMOTE TEST SWITCH STATUS INDICATOR FLUSH IN CEILING BELOW RELAY WITH FLEXIBLE CONNECTION AND AMPLE SLACK. SEE LIGHTING CONTROL DIAGRAM 1/EZ.1.
5. INSTALL KEYSWITCH AT 18" AFF IMMEDIATE OUTSIDE OF TIME CAPSULE DISPLAY.
6. INSTALL LIGHTING FIXTURE INSIDE TIME CAPSULE DISPLAY BELOW STAIR-LANDING. COORDINATE EXACT REQUIREMENTS PRIOR TO ROUGH-IN. SEE POWER PLAN FOR BRANCH CIRCUIT POWER CONNECTION.
7. MAKE ALL REQUIRED ELECTRICAL CONNECTIONS TO POWERED DOOR ASSIST (DA) SYSTEM, INCLUDING ROUGH-IN WORK, CONDUIT, 120V POWER INSTALLATION, AND WIRING OF PUSHBUTTON OPERATORS (34" AFF) PER MANUFACTURER'S SPECIFICATIONS. COORDINATE WITH DOOR ASSIST CONTRACTOR.
8. PROVIDE 120V POWER BRANCH-CIRCUIT CONNECTION TO SPARE 20A/1P BREAKER IN EXISTING PANEL NL1C5 (OR PANEL NL1C6). SEE ELECTRICAL OVERALL PLAN FOR LOCATION OF EXISTING PANEL. ROUTE (2) #10 + (1) #10 GND IN 3/4" C (CONDUCTORS UPGRADED TO REDUCE VOLTAGE DROP). FIELD-VERIFY TO DETERMINE CIRCUIT ROUTING AND ALL OTHER REQUIREMENTS PRIOR TO BIDDING.
9. PROVIDE ROUGH-IN ONLY FOR SEMI-RECESSED MOUNTED BATTERY-POWERED WIRELESS OPERATOR PUSHBUTTON (NO WIRING BETWEEN OPERATOR AND MOTOR).
10. EXTEND EXISTING 120V RECEPTACLE POWER BRANCH-CIRCUIT TO NEW LIGHTING FIXTURE LOCATED INSIDE TIME CAPSULE DISPLAY (BENEATH STAIR LANDING).
11. SEE SHEET E2.1 FOR AUDIO/VIDEO DOOR ENTRY SYSTEM DIAGRAM. COORDINATE WITH OWNER PRIOR TO ROUGH-IN TO DETERMINE EXACT LOCATIONS FOR DOOR ENTRY MASTER STATIONS, DOOR STATIONS, AND OTHER SYSTEM COMPONENTS. INSTALL NEW TELECOM OUTLET TO ACCOMMODATE COMMUNICATIONS CABLE OR USE EXISTING OUTLET, IF AVAILABLE. FIELD-VERIFY AND COORDINATE WITH OWNER'S I.T. DIRECTOR PRIOR TO BIDDING.
12. THIS DOOR (OR SET OF DOORS) SHALL INCLUDE ELEC PROVISIONS FOR SECURITY ACCESS CONTROL AND MONITORING. REFER TO DETAIL 1/EZ.1 AND DIVISION 8 SPECIFICATIONS FOR APPLICABLE HARDWARE SETS AT EACH DOOR. COORDINATE WITH SECURITY DOOR ACCESS CONTROL CONTRACTOR PRIOR TO ROUGH-IN.
13. REMOVE EXISTING DOOR ENTRY SYSTEM AND TURN OVER TO OWNER. PATCH WALL TO MATCH SURROUNDING. COORDINATE PATCH-WORK WITH PRIME CONTRACTOR AND ARCHITECT.

**KEY PLAN**

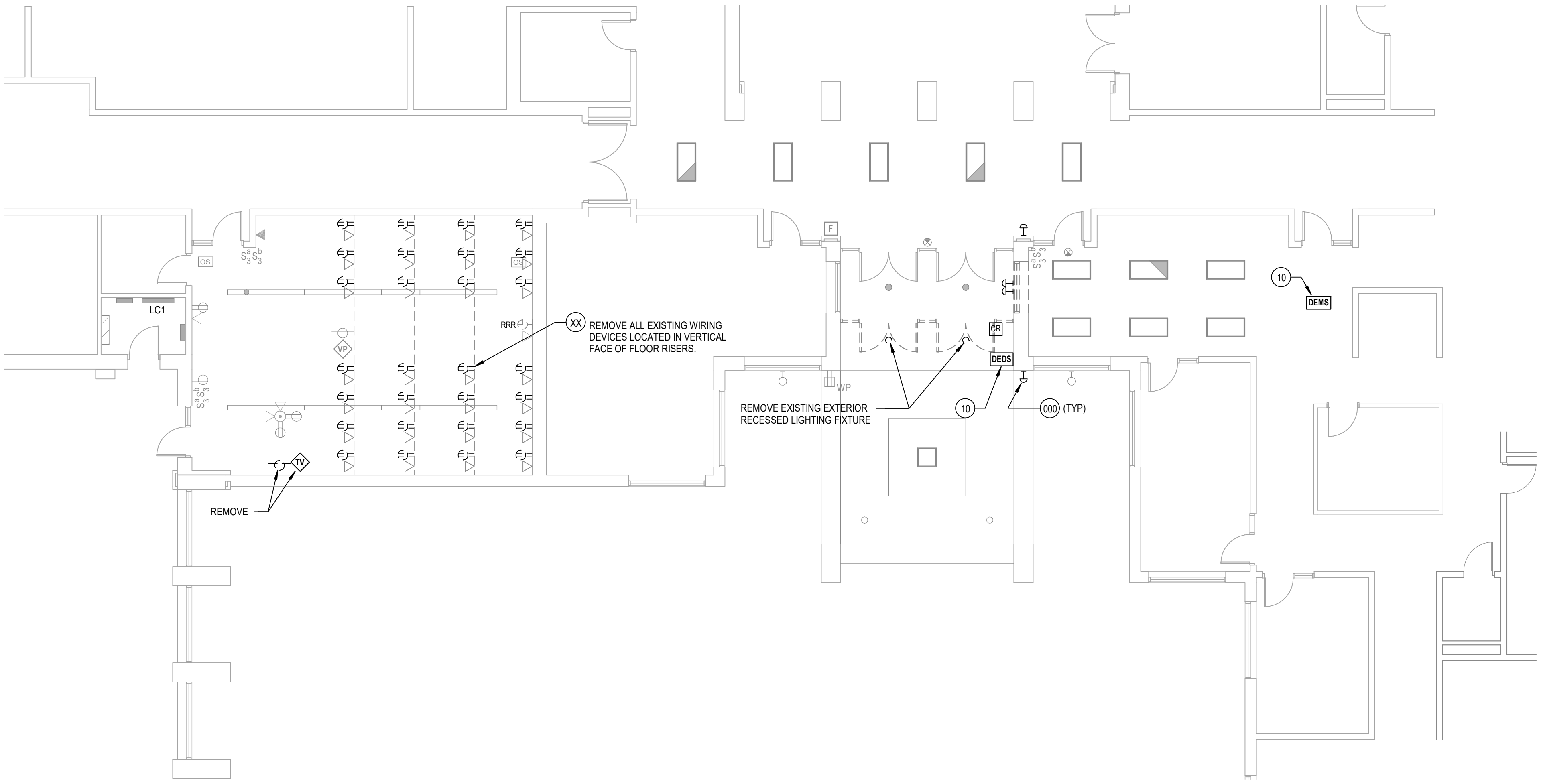




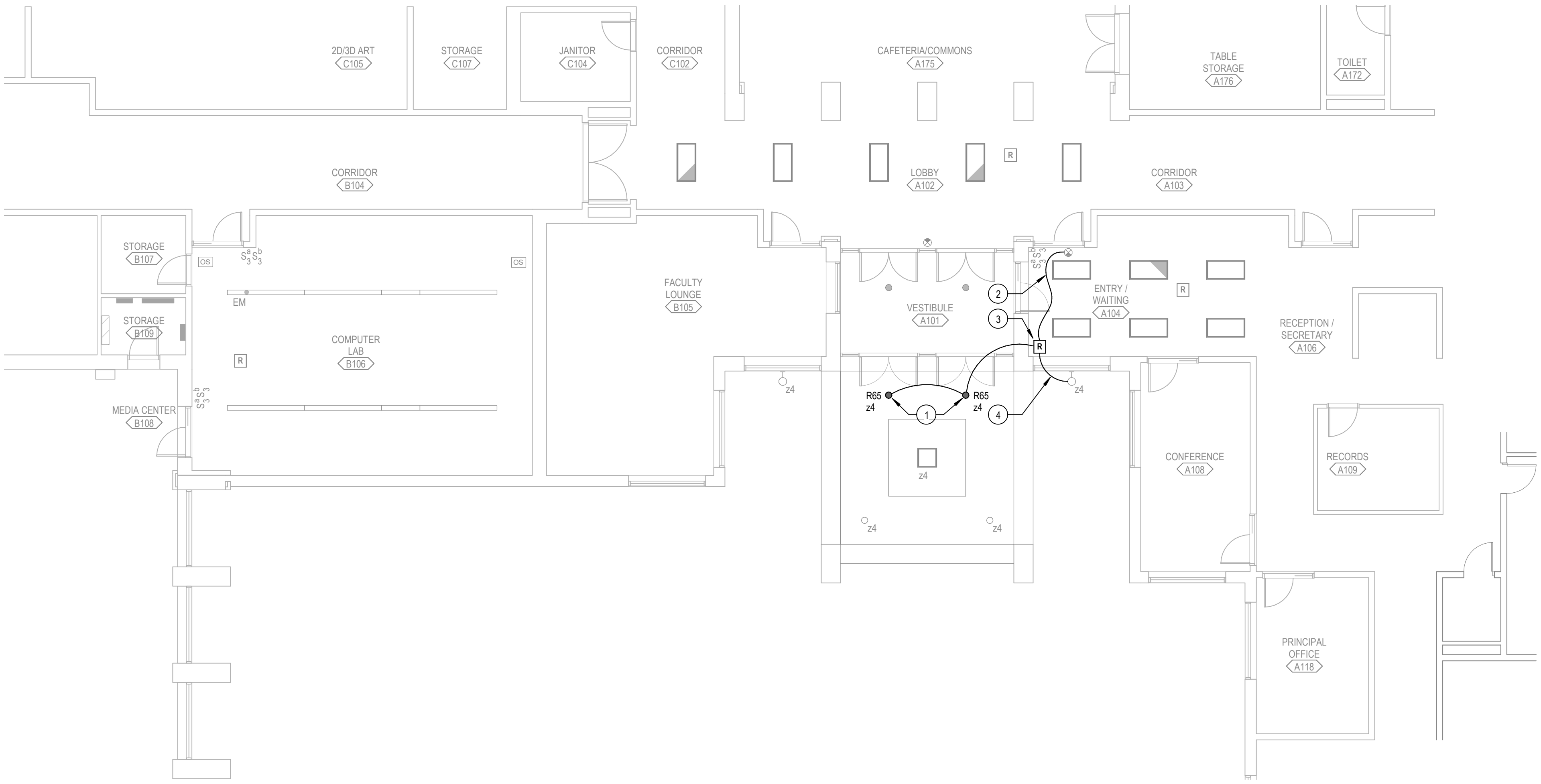




C:\Realt1\18101-30\_Urband...WebsterES MEP\_2018.dwg (sheet) (GED3) v1  
3/20/2019 9:53:59 AM



 **ELECTRICAL DEMOLITION PLAN, FIRST LEVEL**  
SCALE: 1/8" = 1'-0"



 **LIGHTING PLAN, FIRST LEVEL**  
SCALE: 1/8" = 1'-0"

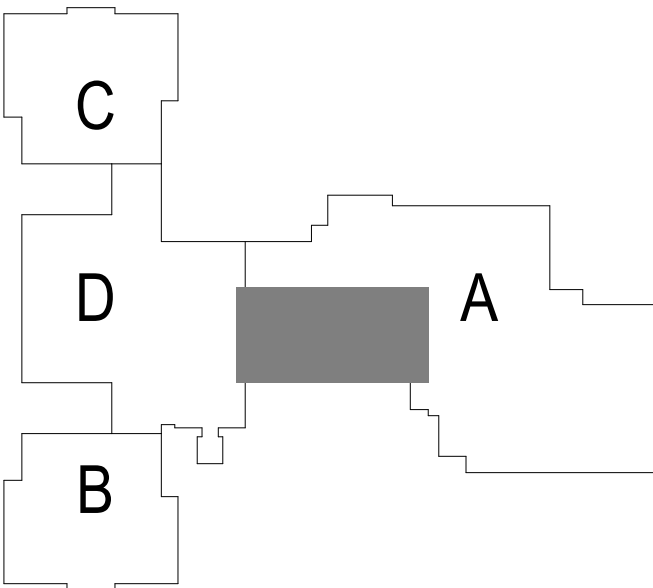
## LEGEND NOTES

### KEYED NOTES

( TYPICAL FOR ALL ELECTRICAL PLANS )

1. INSTALL NEW LIGHTING FIXTURE RECESSED IN EXISTING CANOPY CEILING. CUT AND PATCH EXISTING CEILING AS NECESSARY. COORDINATE WORK WITH PRIME CONTRACTOR. FIELD-VERIFY TO DETERMINE EXISTING CONDITIONS AND COMPLETE SCOPE OF WORK PRIOR TO BIDDING.
2. EXTEND UNSWITCHED PORTION OF EXISTING 277V EMERGENCY POWER BRANCH-CIRCUIT (CONNECTED TO EXISTING PANEL EHA) TO NEW LIGHTING FIXTURES THROUGH CONTROL CONTACT OF EMERGENCY LIGHTING BYPASS RELAY AS INDICATED ON LIGHTING CONTROL DIAGRAM 1IE2.1. FIELD-VERIFY PRIOR TO BIDDING.
3. INSTALL UL-924 EMERGENCY LIGHTING BYPASS RELAY INSIDE ENCLOSURE ABOVE THE EXISTING ACCESSIBLE CEILING. INSTALL REMOTE TEST SWITCH/STATUS INDICATOR FLUSH IN CEILING BELOW RELAY WITH FLEXIBLE CONNECTION AND AMPLE SLACK.
4. EXTEND BOTH THE UNSWITCHED AND SWITCHED PORTIONS OF EXISTING 277V NORMAL POWER BRANCH-CIRCUIT (CONNECTED TO EXISTING PANEL HB) TO EMERGENCY LIGHTING BYPASS RELAY AS INDICATED ON DIAGRAM 1IE2.1. FIELD-VERIFY TO DETERMINE EXISTING CONDITIONS AND COMPLETE SCOPE OF WORK PRIOR TO BIDDING.
5. MAKE ALL REQUIRED ELECTRICAL CONNECTIONS TO POWERED DOOR ASSIST (DA) SYSTEM, INCLUDING ROUGH-IN WORK, CONDUIT, 120V POWER, INSTALLATION, AND WIRING OF PUSHBUTTON OPERATORS (DA AFF) PER MANUFACTURER'S SPECIFICATIONS. COORDINATE WITH DOOR ASSIST CONTRACTOR.
6. PROVIDE 120V POWER BRANCH-CIRCUIT CONNECTION TO EXISTING 20-AMP CIRCUIT SERVING DEMOLISHED DOOR ASSIST OPERATOR. EXTEND EXISTING CIRCUIT SERVED FROM EXISTING PANEL LF2 AS REQUIRED USING (2) #10 + (1) #10 GND IN 3/4" C (CONDUCTORS UPSIZED TO REDUCE VOLTAGE DROP). FIELD-VERIFY TO DETERMINE CIRCUIT ROUTING AND ALL OTHER REQUIREMENTS PRIOR TO BIDDING.
7. PROVIDE ROUGH-IN ONLY FOR SEMI-RECESSED MOUNTED BATTERY-POWERED WIRELESS OPERATOR PUSHBUTTON (NO WIRING BETWEEN OPERATOR AND MOTOR).
8. SEE SHEET E2.1 FOR AUDIO/VIDEO DOOR ENTRY SYSTEM DIAGRAM. COORDINATE WITH OWNER PRIOR TO ROUGH-IN TO DETERMINE EXACT LOCATIONS FOR DOOR ENTRY MASTER STATIONS, DOOR STATIONS, AND OTHER SYSTEM COMPONENTS. INSTALL NEW TELECOM OUTLET TO ACCOMMODATE COMMUNICATIONS CABLE OR USE EXISTING OUTLET, IF AVAILABLE. FIELD-VERIFY AND COORDINATE WITH OWNER'S I.T. DIRECTOR PRIOR TO BIDDING.
9. THIS DOOR (OR SET OF DOORS) SHALL INCLUDE ELEC PROVISIONS FOR SECURITY ACCESS CONTROL AND MONITORING. REFER TO DETAIL SHOWN ON SHEET E2.1 AND DIVISION 8 SPECIFICATIONS FOR APPLICABLE HARDWARE SETS AT EACH DOOR. COORDINATE WITH SECURITY DOOR ACCESS CONTROL CONTRACTOR PRIOR TO ROUGH-IN.
10. REMOVE EXISTING DOOR ENTRY SYSTEM AND TURN OVER TO OWNER. PATCH WALL TO MATCH SURROUNDING. COORDINATE PATCH-WORK WITH PRIME CONTRACTOR AND ARCHITECT.

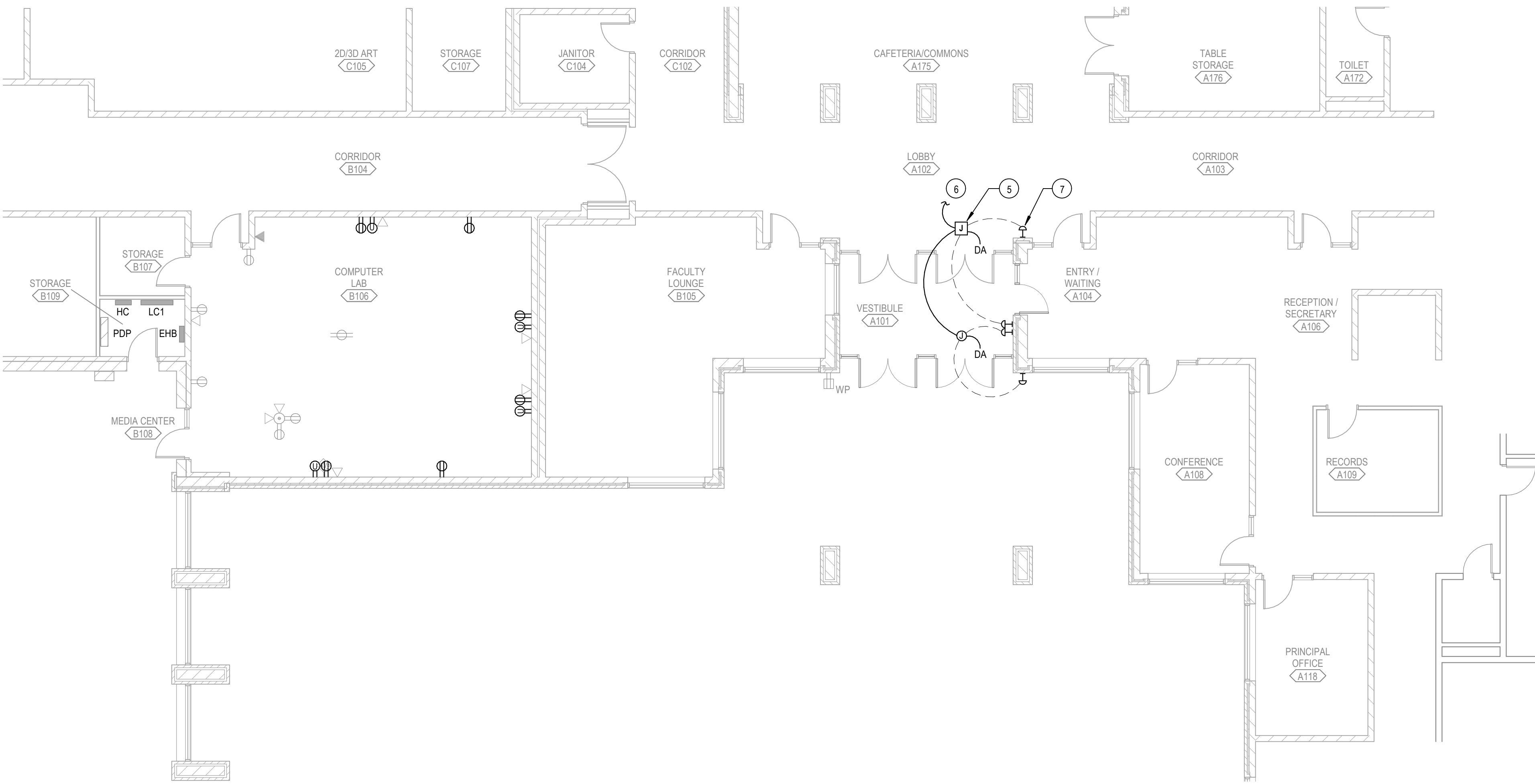
### KEY PLAN



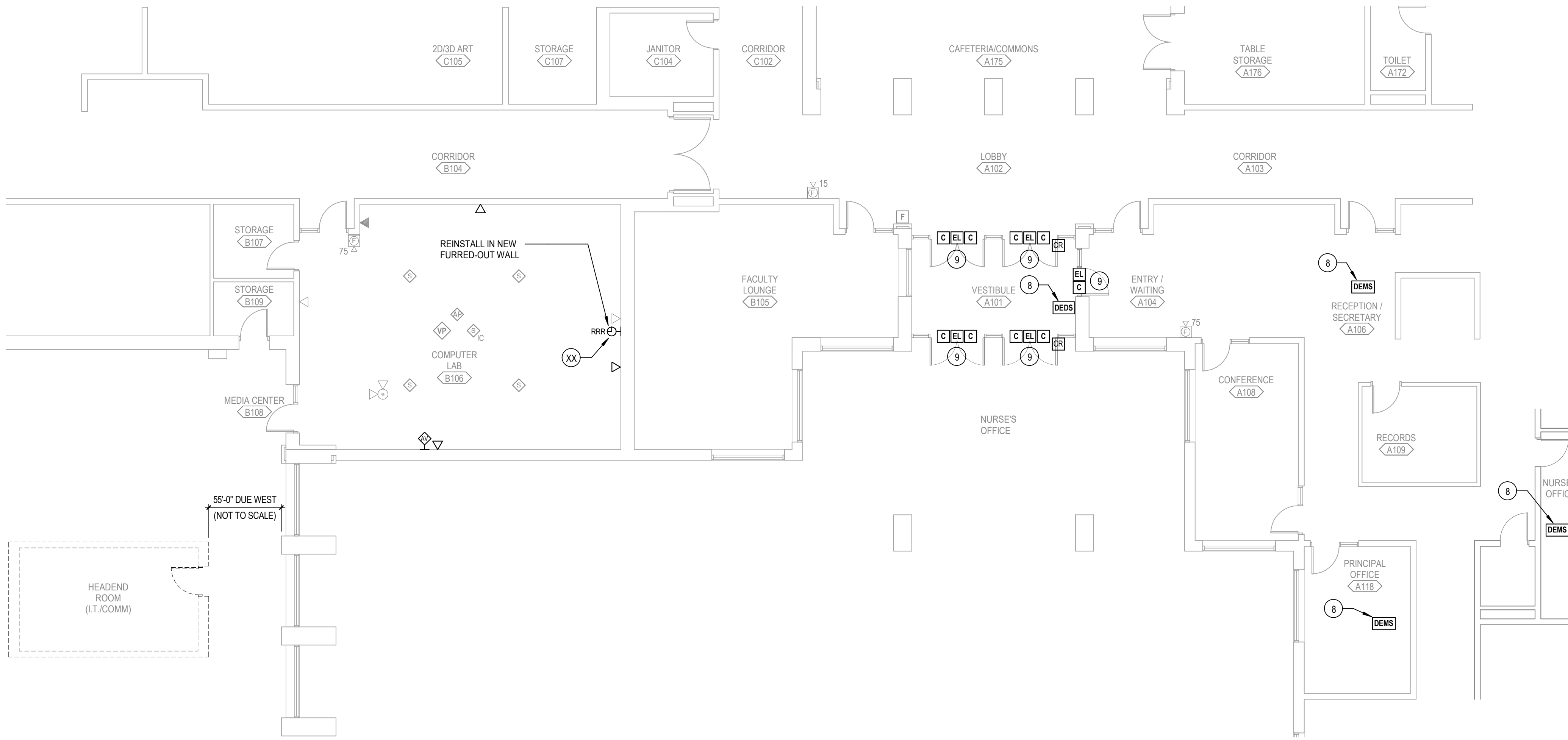
SHADED REGION SHOWN IN PLAN



C:\Realt1\18101-30\_Urbnd\WebsterES MEP\_2018\_dwg\mech\CED3.rvt  
3/20/2019 9:54:00 AM



**POWER PLAN, FIRST LEVEL**  
SCALE: 1/8" = 1'-0"  
NORTH



**SPECIAL SYSTEMS PLAN, FIRST LEVEL**  
SCALE: 1/8" = 1'-0"  
NORTH

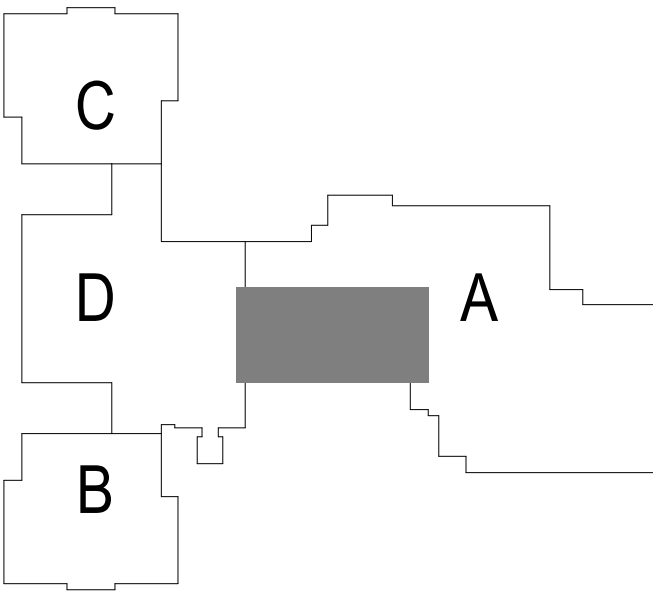
## LEGEND NOTES

### KEYED NOTES

( TYPICAL FOR ALL ELECTRICAL PLANS )

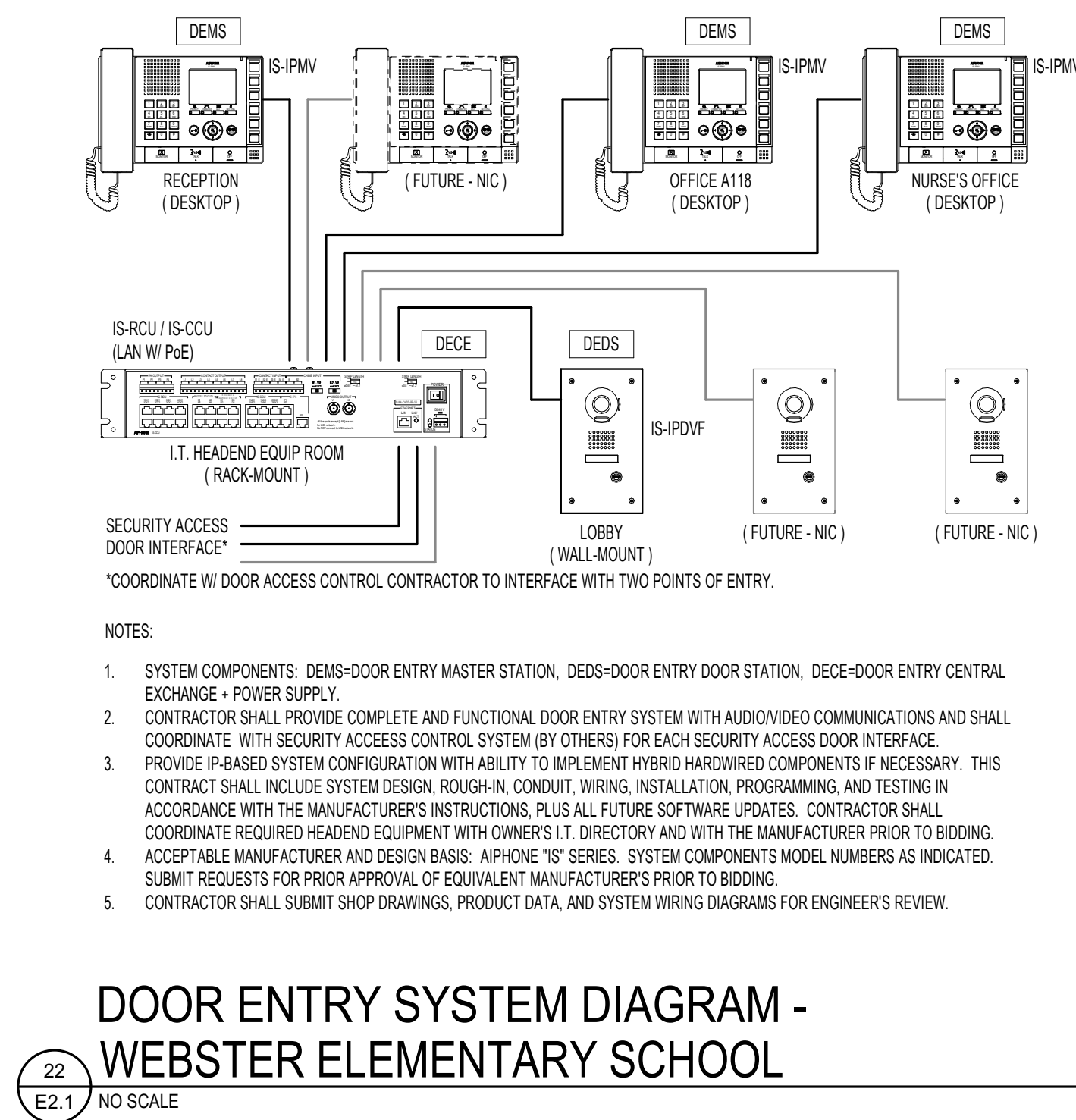
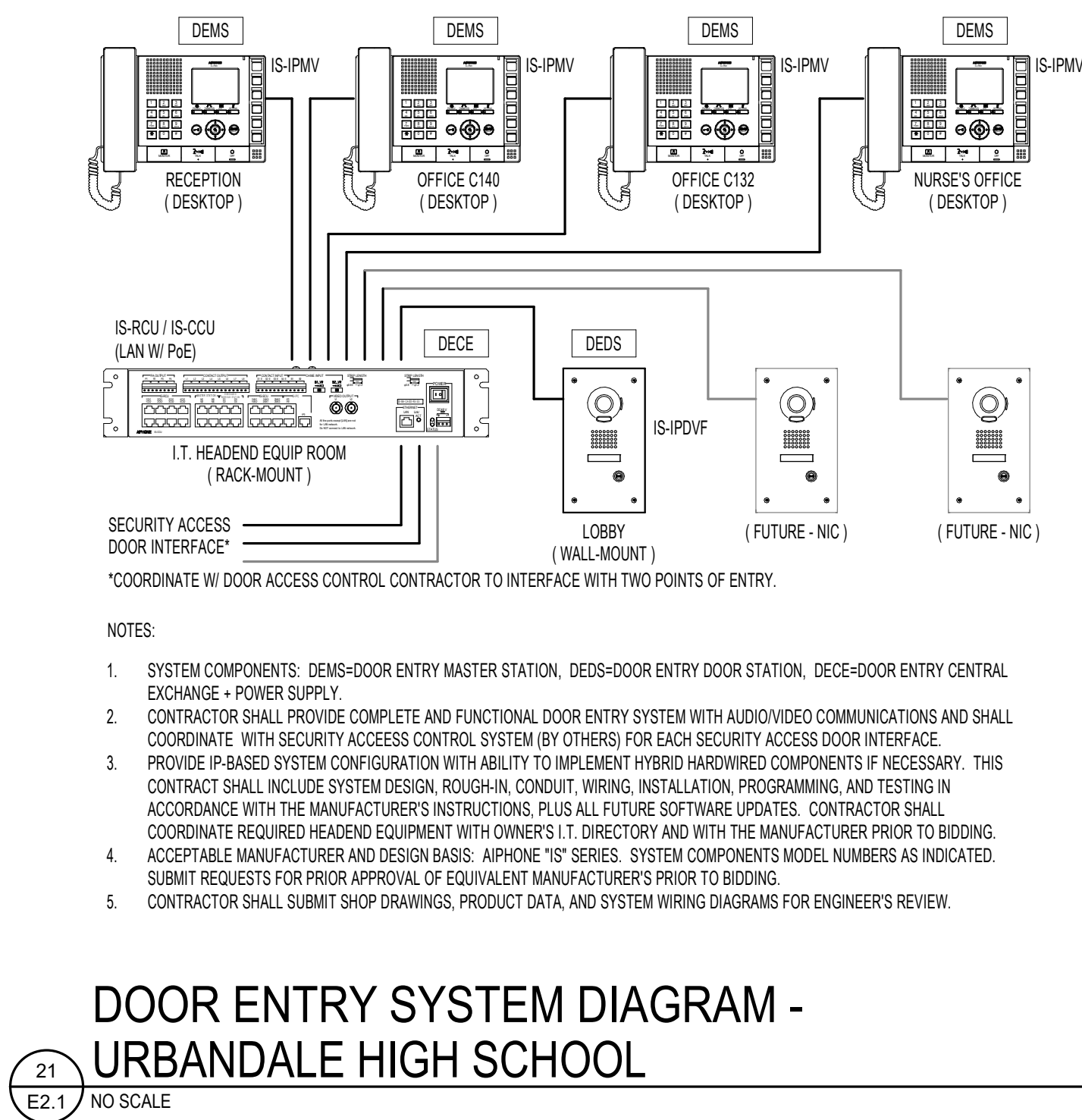
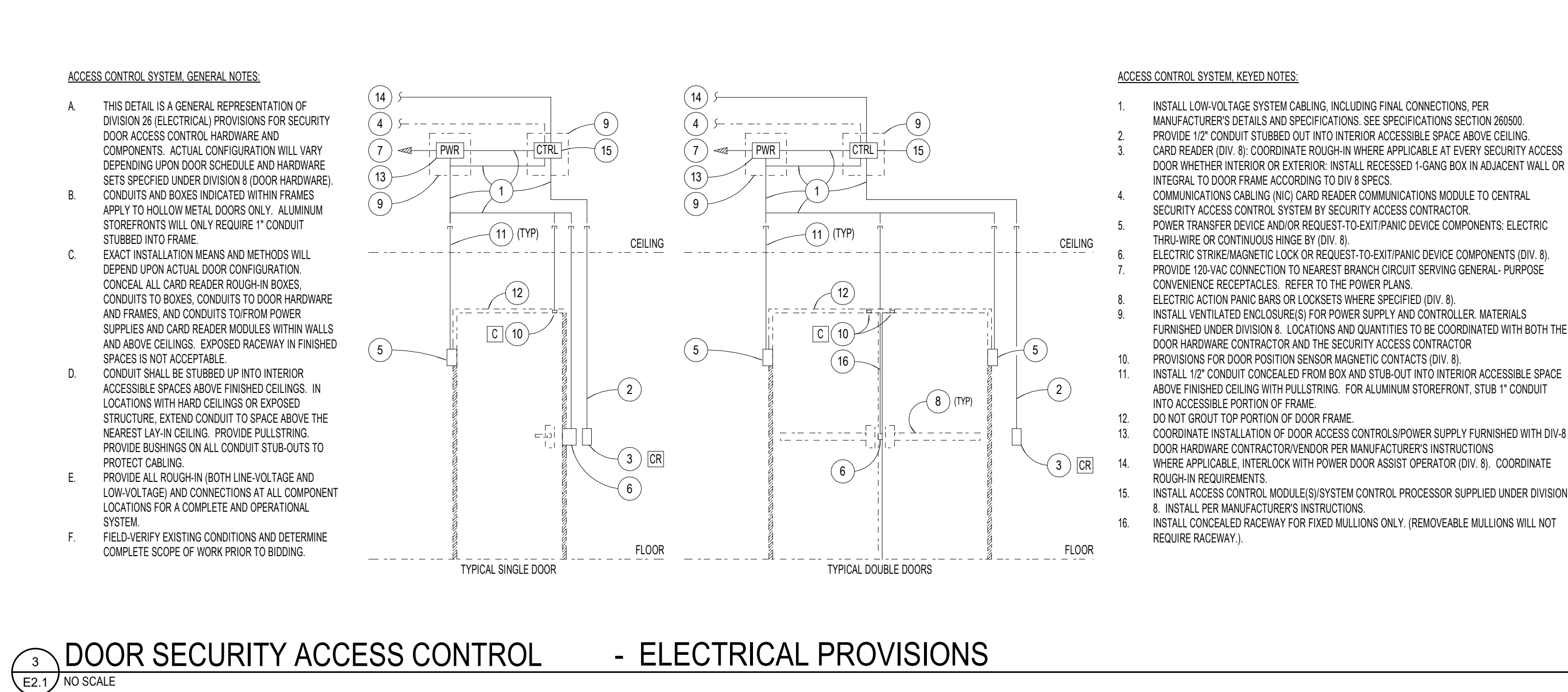
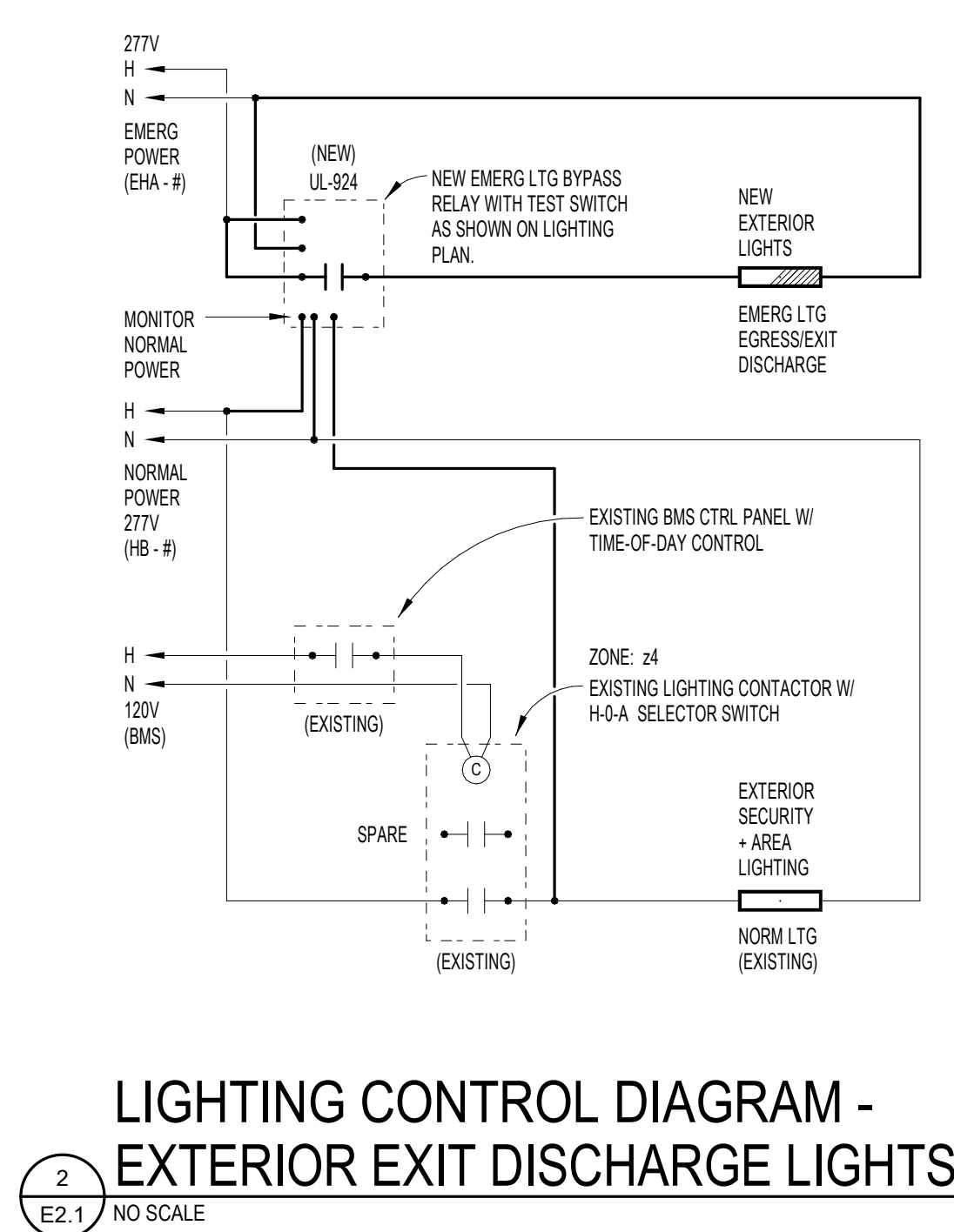
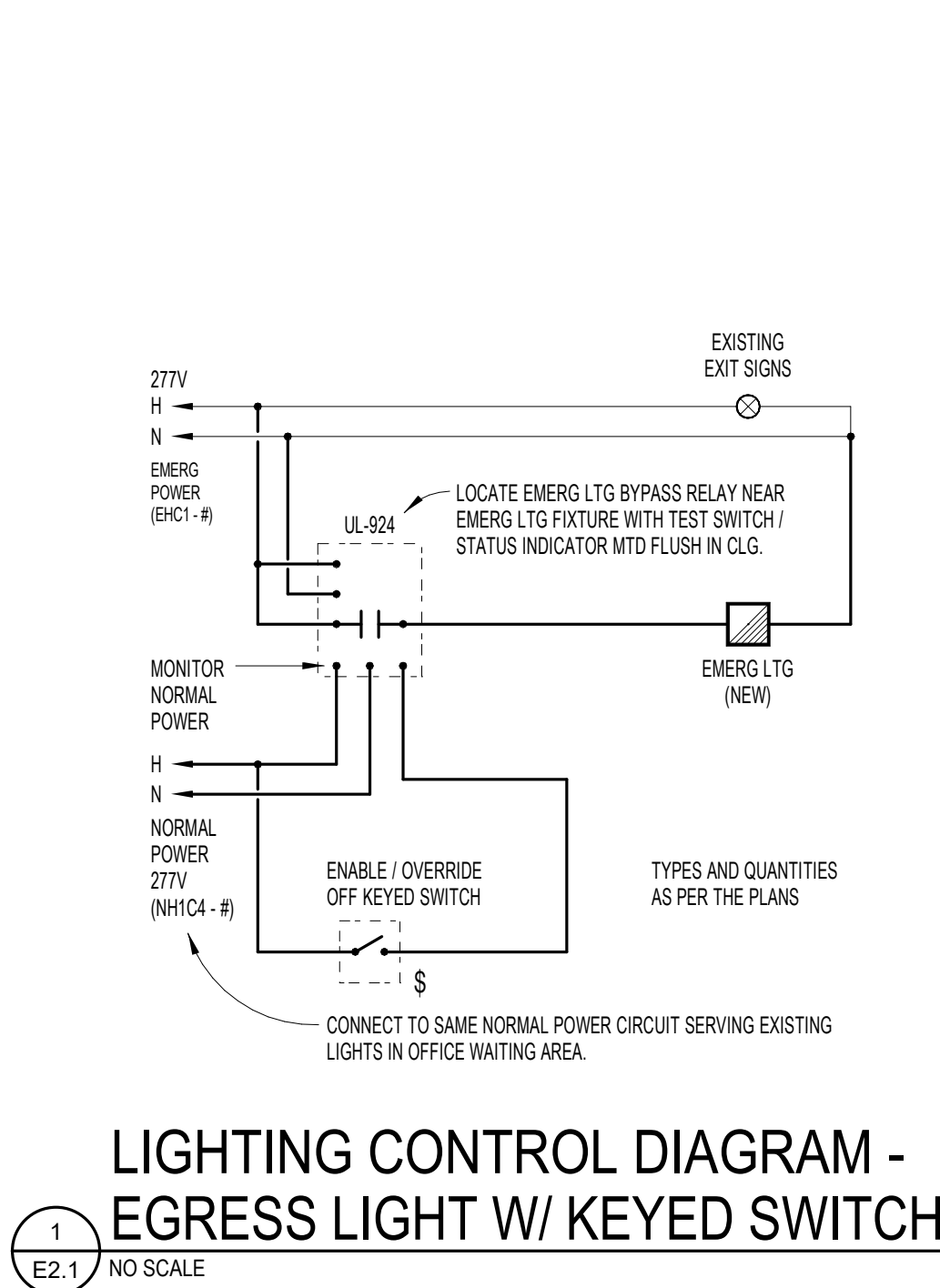
1. INSTALL NEW LIGHTING FIXTURE RECESSED IN EXISTING CANOPY CEILING. CUT AND PATCH EXISTING CEILING AS NECESSARY. COORDINATE WORK WITH PRIME CONTRACTOR. FIELD-VERIFY TO DETERMINE EXISTING CONDITIONS AND COMPLETE SCOPE OF WORK PRIOR TO BIDDING.
2. EXTEND UNSWITCHED PORTION OF EXISTING 277V EMERGENCY POWER BRANCH-CIRCUIT (CONNECTED TO EXISTING PANEL EHA) TO NEW LIGHTING FIXTURES THROUGH CONTROL CONTACT OF EMERGENCY LIGHTING BYPASS RELAY AS INDICATED ON LIGHTING CONTROL DIAGRAM 1E2.1. FIELD-VERIFY PRIOR TO BIDDING.
3. INSTALL UL-924 EMERGENCY LIGHTING BYPASS RELAY INSIDE ENCLOSURE ABOVE THE EXISTING ACCESSIBLE CEILING. INSTALL REMOTE TEST SWITCH/STATUS INDICATOR FLUSH IN CEILING BELOW RELAY WITH FLEXIBLE CONNECTION AND AMPLE SLACK.
4. EXTEND BOTH THE UNSWITCHED AND SWITCHED PORTIONS OF EXISTING 277V NORMAL POWER BRANCH-CIRCUIT (CONNECTED TO EXISTING PANEL HB) TO EMERGENCY LIGHTING BYPASS RELAY AS INDICATED ON DIAGRAM 1E2.1. FIELD-VERIFY TO DETERMINE EXISTING CONDITIONS AND COMPLETE SCOPE OF WORK PRIOR TO BIDDING.
5. MAKE ALL REQUIRED ELECTRICAL CONNECTIONS TO POWERED DOOR ASSIST (DA) SYSTEM, INCLUDING ROUGH-IN WORK, CONDUIT, 120V POWER, INSTALLATION, AND WIRING OF PUSHBUTTON OPERATORS (34" AFF) PER MANUFACTURER'S SPECIFICATIONS. COORDINATE WITH DOOR ASSIST CONTRACTOR.
6. PROVIDE 120V POWER BRANCH-CIRCUIT CONNECTION TO EXISTING 20-AMP CIRCUIT SERVING DEMOLISHED DOOR ASSIST OPERATOR. EXTEND EXISTING CIRCUIT SERVED FROM EXISTING PANEL LF2 AS REQUIRED USING (2) #10 + (1) #10 GND IN 3/4" C (CONDUCTORS UPSIZED TO REDUCE VOLTAGE DROP). FIELD-VERIFY TO DETERMINE CIRCUIT ROUTING AND ALL OTHER REQUIREMENTS PRIOR TO BIDDING.
7. PROVIDE ROUGH-IN ONLY FOR SEMI-RECESSED MOUNTED BATTERY-POWERED WIRELESS OPERATOR PUSHBUTTON (NO WIRING BETWEEN OPERATOR AND MOTOR).
8. SEE SHEET E2.1 FOR AUDIO-VISIO DOOR ENTRY SYSTEM DIAGRAM. COORDINATE WITH OWNER PRIOR TO ROUGH-IN TO DETERMINE EXACT LOCATIONS FOR DOOR ENTRY MASTER STATIONS, DOOR STATIONS, AND OTHER SYSTEM COMPONENTS. INSTALL NEW TELECOM OUTLET TO ACCOMMODATE COMMUNICATIONS CABLE OR USE EXISTING OUTLET, IF AVAILABLE. FIELD-VERIFY AND COORDINATE WITH OWNER'S I.T. DIRECTOR PRIOR TO BIDDING.
9. THIS DOOR (OR SET OF DOORS) SHALL INCLUDE ELEC PROVISIONS FOR SECURITY ACCESS CONTROL AND MONITORING. REFER TO DETAIL SHOWN ON SHEET E2.1 AND DIVISION 8 SPECIFICATIONS FOR APPLICABLE HARDWARE SETS AT EACH DOOR. COORDINATE WITH SECURITY DOOR ACCESS CONTROL CONTRACTOR PRIOR TO ROUGH-IN.
10. REMOVE EXISTING DOOR ENTRY SYSTEM AND TURN OVER TO OWNER. PATCH WALL TO MATCH SURROUNDING. COORDINATE PATCH-WORK WITH PRIME CONTRACTOR AND ARCHITECT.

### KEY PLAN



SHADED REGION SHOWN IN PLAN





LIGHTING FIXTURE SCHEDULE								
TYPE	MANUFACTURERS	CATALOG NUMBER	PARAMETERS		CONTROLS	MOUNTING	DESCRIPTION	NOTES
R21	AURA	AR-P12P29D0240-*	LIGHT SOURCE:	LED	NON-DIMMABLE	RECESSED  CLG GRD MOUNTS	2' x 2' FLAT-PANEL, EDGE-LIT, ULTRA-THIN PROFILE, 4000 LUMENS (NOM), DAMP LOCATION ACROSS LIGHT GUIDE, FROSTED ACRYLIC DIFFUSER, NO AIR GAP, 120-DEG BEAM ANGLE, GALVANIZED STEEL HOUSING, PAF EXTERNAL DAMP LOCATION LISTED, IP-20 RATED, LUMENS @50K IRRS + LM-79 PER ETS TM-21, PF=0.9, THD<2%, 10 KV SPD,	1.
	ACQUITY (LITHONIA)	(EQUIVALENT)	COLOR TEMP =	4000K				
	EATON (METALUX)	(EQUIVALENT)	CRI (MIN) =	80				
	HUBBELL (COLUMBIA)	(EQUIVALENT)	LM (MIN) =	3500				
	PHILIPS (DAY-BRITE)	(EQUIVALENT)	LPW (MIN) =	105				
	WILLIAMS	(EQUIVALENT)	VA (MAX) =	38				
	CREE (ESSENTA)	(EQUIVALENT)	VOLT =	277				
	(SEE NOTE 1 FOR OTHER MFR)							
S52	PHILIPS (LIGHTOLIER)	\$65-\$40X-10-*	LIGHT SOURCE:	LED	NON-DIMMABLE	SURFACE MOUNTED	6 x 6 INCH (NOM) SQUARE FLAT-PANEL, EDGE-LIT, ULTRA-THIN PROFILE, FULL UNIFORMITY ACROSS LIGHT GUIDE, FROSTED ACRYLIC DIFFUSER, NO AIR GAP, 120-DEG BEAM ANGLE, GALVANIZED STEEL HOUSING, PAF EXTERIOR DAMP LOCATION LISTED, IP-20 RATED, WHITE TRIM, LUMENS @50K IRRS + LM-79 PER ETS TM-21, PF=0.9, THD<2%, 10 KV SPD,	2
	CREE (ESSENTA)	(EQUIVALENT)	COLOR TEMP =	4000K				
	ACQUITY (LITHONIA)	(EQUIVALENT)	CRI (MIN) =	80				
	EATON (METALUX)	(EQUIVALENT)	LM (MIN) =	1000				
	JUNO	(EQUIVALENT)	LPW (MIN) =	60				
	GREEN CREATIVE	(EQUIVALENT)	VA (MAX) =	20				
		(EQUIVALENT)	VOLT =	277				
R65	AURA	AR-DS6PW1FWB40	LIGHT SOURCE:	LED	NON-DIMMABLE	RECESSED  N-HARD CLG  (GYP-SABOD)	MAXIMUM DIMENSIONS: 9 x 9 IN SQUARE X 1 IN PROFILE. NO GAPS PERMITTED BETWEEN FIXTURE AND CEILING  SPECIAL LOW-PROFILE DOWNLIGHT, 3-INCH AMX BENTLY 6-INCH ROUND APERTURE, 7-INCH DIA W/ TRIM RING, WET LOCATION RATED, SEALED LENS W/ MULTI-FACETED HALOGEN-LIKE APPEARANCE, WIDE 70-DEG BEAM DISTRIBUTION, 4-DEG-F OPERATING TEMP, MOUNTING ACCESSORIES FOR HARD CO LOCATIONS, INTEGRAL 10 KV SPD, LUMENS @50K IRRS + LM-79 PER ETS TM-21, PF=0.9, THD<2% ALL LISTED FOR WET LOCATIONS, INCLUDING EXTERIOR APPLICATIONS	
	ACQUITY (ZOTHAM)	(EQUIVALENT)	COLOR TEMP =	4000K				
	EATON (PORTFOLIO)	(EQUIVALENT)	CRI (MIN) =	85				
	HUBBELL (PRESCOLITE)	(EQUIVALENT)	LM (MIN) =	1400				
	PHILIPS (LIGHTOLIER)	(EQUIVALENT)	LPW (MIN) =	80				
	H.E. WILLIAMS OR CREE	(EQUIVALENT)	VA (MAX) =	20				
	PEACHTREE	(EQUIVALENT)	VOLT =	277				
	FOCAL POINT	(EQUIVALENT)						

ABBREVIATIONS:		GENERAL NOTES:	
ACF	ABOVE FINISHED FLOOR	A.	IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE FIXTURE MOUNTING ACCESSORIES, WHICH DEPEND UPON CEILING TYPES AND OTHER CHARACTERISTICS OF BUILDING CONSTRUCTION. COORDINATE PRIOR TO BIDDING.
CLG	CEILING	B.	THE FIRST MFR LISTED FOR EACH TYPE AND ITS CATALOG NUMBER SERVES AS THE BASIS OF DESIGN. ALTERNATIVE PRODUCTS BY OTHER APPROVED MANUFACTURERS MUST PROVIDE EQUAL OR SUPERIOR QUALITY TO THAT OF THE DESIGN BASIS.
CRI	COLOR RENDERING INDEX (RATING)	C.	WORDS SUCH AS "EQUAL" AND "EQUIVALENT" SHALL BE DEFINED AS AN APPROVED MFR THAT IS STATED AS SUCH IN THE CONTRACT DOCUMENTS AND A PRODUCT HAVING A CERTAIN QUALITY OF DESIGN, CONSTRUCTION, AND PERFORMANCE THAT IS EQUIVALENT OR SUPERIOR TO THAT OF THE DESIGN BASIS.
GWB	GYPSIUM WALLBOARD	D.	CATALOG NUMBER SHALL NOT BE REGARDED AS COMPLETE AND IS PROVIDED ONLY TO INDICATE QUALITY, STYLE, & FEATURES OF THE FIXTURE. THIS NUMBER SHALL NOT BE USED FOR ORDERING MATERIALS.
HRS	HOURS	E.	THIS CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR DETERMINING THE COMPLETE AND ACCURATE CATALOG NUMBER BASED ON THE SCHEDULE, DESCRIPTION, NOTES, PLANS, AND SPECIFICATIONS.
IES	ILLUMINATING ENGINEERING SOCIETY	F.	THE CONTRACTOR SHALL RECONCILE EACH FIXTURE SELECTION, INCLUDING ITS MOUNTING OPTIONS AND ACCESSORIES, WITH ITS INTENDED APPLICATION.
IP	INGRESS PROTECTION (RATING)	G.	ALL FIXTURE ACCESSORIES REQUIRED FOR A COMPLETE AND FUNCTIONAL INSTALLATION SHALL BE SUPPLIED AND INSTALLED UNDER THIS CONTRACT. SEE PROJECT MANUAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
KV	KILO-VOLTS		
L	DELIVERED LUMENS		
LFD	LIGHT EMITTING DIODES		
LED	DELIVERED LUMENS PER LINEAR FOOT		
LPW	DELIVERED LUMENS PER WATT		
MAX	MAXIMUM VALUE		
MFR	MANUFACTURER		
MIN	MINIMUM VALUE		
MTD	MOUNTED		
MTG	MOUNTING		
NOM	NOMINAL		
PAF	PAINTED AFTER FABRICATION		
PF	POWER FACTOR		
RCP	REFLECTED CEILING PLAN		
SD	SURGE PROTECTIVE DEVICE		
THD	TOTAL HARMONIC DISTORTION		
TP	TYPICAL		
UL	UNDERWRITERS LABORATORIES		
UNO	UNLESS NOTED OTHERWISE		
UNV	UNIVERSAL OPERATING VOLTAGE		
VA	VOLT-AMPERES		
VA/FT	VOLT-AMPERES PER LINEAR FOOT		
VOLT	OPERATING VOLTAGE		
W	WATTS		
		SPECIFIC NOTES:	
		1.	OTHER APPROVED MANUFACTURERS FOR EDGE-LIT FLAT-PANEL FIXTURES ARE: NORA LIGHTING, EVERLAST, ETECHLED, VENTURE, DECO, FOCAL POINT, AND VERBATIM.
		2.	SURFACE-MOUNT FIXTURE SHALL ACCOMMODATE ELECTRICAL CONNECTION WITHIN STANDARD ELECTRICAL J-BOX INSTALLED FLUSH, FULLY ACCESSIBLE, YET CONCEALED BEHIND FIXTURE ENCLOSURE.

