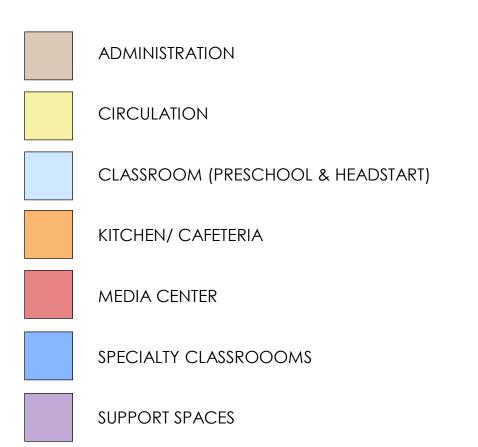
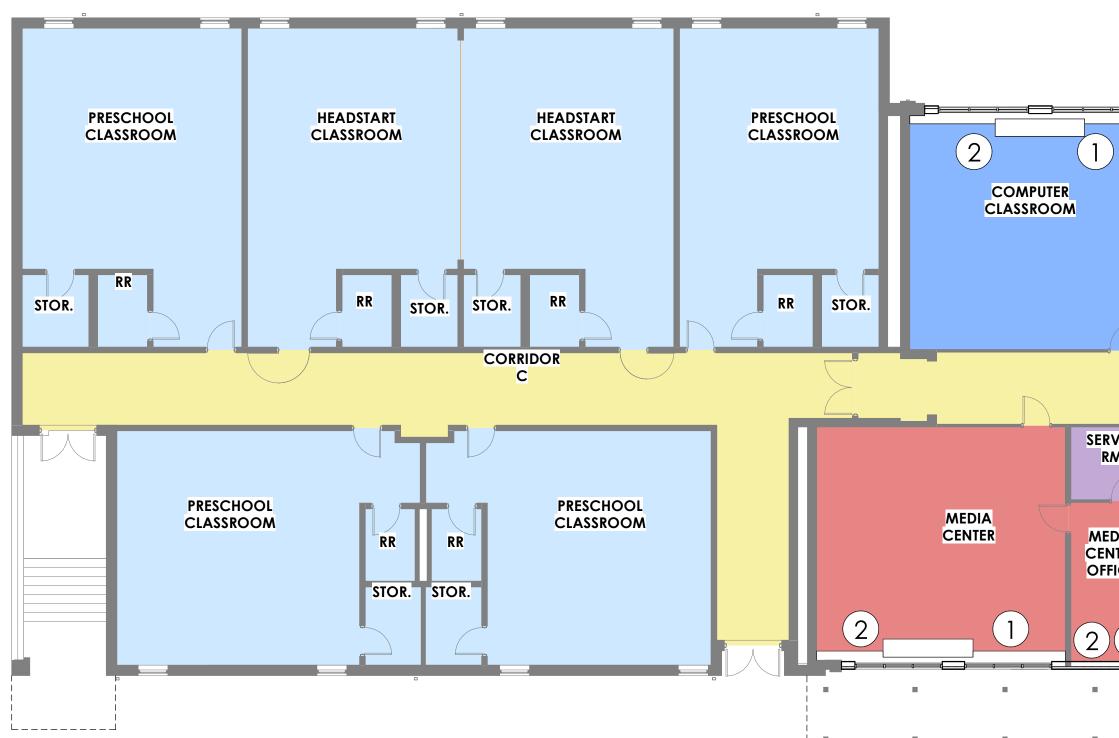
## PROJECT SCOPE

## PROGRAM ADDITIONS AND REVISIONS (#)

- REPLACE WINDOW SYSTEM @ ORIGINAL CLASSROOM WING
   REPLACE EXTERIOR WALL SYSTEM REQUIRED WITH WINDOW DEMOLITION
   REPLACE WINDOWS AT ADJUNCT CLASSROOM BUILDING
   SECURE ENTRY VESTIBULE

## DEPARTMENT LEGEND

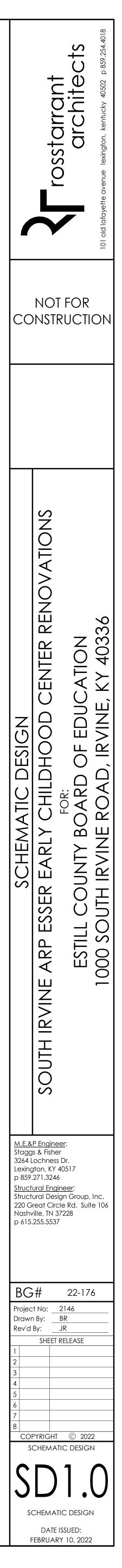






2 1 COMPUTER CLASSROOM	2 PRESCHOOL CLASSROOM	2 PRESCHOOL CLASSROOM	2 PRESCHOOL CLASSROOM	RESTROOM	RESTROON
	CC	DRRIDOR A			STORA
EDIA NTER MEDIA CENTER OFFICE	PRESCHOOL CLASSROOM EXISTING MECH. UNIT TO REMAIN, TYP.	PRESCHOOL CLASSROOM EXISTING CASEWORK, TOP LAYER TO BE REPLACED AT MINIMUM, TYP.	PRESCHOOL CLASSROOM		SCHOOL SSROOM
				2	(
			<u>p00p00</u> _		V

COLORED FLOOR PLAN 3/32" = 1'-0"



A \$D1.0

REVISIONS								
#	DATE DESCRIPTION							

## MECHANICAL LE

	OTECTION LEGEND
⊱ FP	FIRE PROTECTION MAIN (REFER TO PLANS FOR PIPE SIZE)
↓	SUPERVISED VALVE
	INSPECTOR'S TEST PIPING
<u>ہے۔</u>	FLOW SWITCH
<u>.</u>	PRESSURE GAUGE
0	SPRINKLER HEAD (SEMI-RECESSED)
۲	SPRINKLER HEAD (CONCEALED)
0	SPRINKLER HEAD (PENDENT)
O <sub>D</sub>	SPRINKLER HEAD (PENDENT - DRY TYPE)
O <sub>ht</sub>	SPRINKLER HEAD (HIGH TEMPERATURE)
	SPRINKLER HEAD (UPRIGHT)
$\triangleleft$	SPRINKLER HEAD (SIDEWALL - EXISTING)
•	SPRINKLER HEAD (SIDEWALL)
◄ <sub>E</sub>	SPRINKLER HEAD (SIDEWALL-EXTENDED COVERAGE)

		ı ———
H\	AC LEGEND	
14"x8"	RECTANGULAR DUCT WIDTH X DEPTH (REFER TO PLANS FOR DUCT SIZE)	HPS:
	INTERNALLY LINED DUCT	HPR:
δ 14"x8" RD δ	OVAL DUCT WIDTH X DEPTH	LPS:
δ 8" RD δ		LPR:
\$ <u></u>	FLEXIBLE DUCT	
		SV=
<u>↓    ►     ↓</u>	RISE IN DIRECTION OF ARROW	SV V:
	RECTANGULAR TO ROUND TRANSITION	₽D=
	SQUARE ELBOW WITH TURNING VANES	FW=
	MANUAL VOLUME/BALANCING DAMPER	cws=
FD +	FIRE DAMPER	CWR=
	ROUND DUCT UP, DOWN	↓ →
	SUPPLY DUCT UP, DOWN	
	RETURN DUCT UP, DOWN	
		CDS =
	EXHAUST DUCT UP, DOWN	CDR=
	FLEXIBLE CONNECTION	DCW=
	MOTOR-OPERATED DAMPER	k===sw=
	CONTROL DAMPER	HWET
	SOUND TRAP	CWET
	ACCESS DOOR PLAN, SIDE VEIW	∠CD=
HC-1 1.0	UNIT SYMBOL, WATER FLOW(GPM)	
		REF =
T	TEMPERATURE SENSOR	
С	CO2 SENSOR	
н	HUMIDITY SENSOR	▷ ~ ~
F	FREEZESTAT	
CSS	CURRENT SENSING SWITCH	
DPS	DIFFERENTIAL PRESSURE SWITCH	
	VARIABLE FREQUENCY DRIVE	┥ ┶╢╟┥ と
STR	STARTER	
250 CFM	SUPPLY DIFFUSER TYPE, AIR QUANTITY	
	SUPPLY DIFFUSER ELEVATION	
R-1 250 CFM	RETURN INLET TYPE, AIR QUANTITY	→
	SIDEWALL RETURN GRILLE ELEVATION	
	SIDEWALL RETURN GRILLE PLAN	
E-1 250 CFM	EXHAUST INLET TYPE, AIR QUANTITY	
	EXHAUST/RETURN INLET ELEVATION	
		' ∖≰'
		₽
		T
		⊱—_FM_
		E-
		DPS] ├────BTU}

G	Ε	Ν	D	

HVAC	PIPING LEGEND	VAVS	SYMBOL L
3====→	HIGH PRESSURE STEAM (REFER TO PLANS FOR PIPE SIZE)		
<	HIGH PRESSURE CONDENSATE RETURN (REFER TO PLANS FOR PIPE SIZE)	100-300 MIN	V UNIT - 6" RD IN NIMUM AND MAXI
;	LOW PRESSURE STEAM (REFER TO PLANS FOR PIPE SIZE)	<u>110-110</u> CO	V UNIT - 5" RD IN NSTANT MINIMU
≥====⇒	LOW PRESSURE CONDENSATE RETURN	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	V UNIT W/CO2 CO NSTANT MINIMU
·	(REFER TO PLANS FOR PIPE SIZE)	110-202 C MIN	V UNIT - 6" RD IN NIMUM AND MAXI
~ /	(REFER TO PLANS FOR PIPE SIZE)	<u>110-188</u> H MIN	NIMUM AND MAXI
	(REFER TO PLANS FOR PIPE SIZE) CONDENSATE PUMP DISCHARGE	400-1340 CC MIN	V UNIT W/CO2 CO I. AND MAX. COC
~	(REFER TO PLANS FOR PIPE SIZE)		VIMUM AND MAXI
(	(REFER TO PLANS FOR PIPE SIZE)		N HEATING CFM - AX COOLING CFI
	(REFER TO PLANS FOR PIPE SIZE) CHILLED WATER RETURN		
< <u> </u>	(REFER TO PLANS FOR PIPE SIZE) HOT WATER SUPPLY		
;====→	(REFER TO PLANS FOR PIPE SIZE)		REHEAT (
:====→	(REFER TO PLANS FOR PIPE SIZE)		ET DUCT SOU SIZE SOU
<b></b>	(REFER TO PLANS FOR PIPE SIZE)	VAV OR VAVC-5 VAV OR VAVC-6 VAV OR VAVC-8	5" RD 6" RD 8" RD
	CONDENSER WATER RETURN (REFER TO PLANS FOR PIPE SIZE)		10" RD 12" RD
'───	DOMESTIC COLD WATER (REFER TO PLANS FOR PIPE SIZE)	VAV OR VAVC-14	14" RD 5
	SOFT WATER (REFER TO PLANS FOR PIPE SIZE)		
т =	HOT WATER EXPANSION TANK PIPE (REFER TO PLANS FOR PIPE SIZE)	UNIT SOUND	IR VOLUME AIR 1 ) TRAP AND DUC HERWISE NOTEI
т====₹	CHILLED WATER EXPANSION TANK PIPE (REFER TO PLANS FOR PIPE SIZE)		
	CONDENSATE DRAIN (REFER TO PLANS FOR PIPE SIZE)	HVAC	ABBREV
	REFRIGERATE LINE (REFER TO PLANS FOR PIPE SIZE)	A.A.V.	AUTOMATIC
$\rightarrow$	GATE VALVE (SCREWED) - - PLAN, END VIEW	A.D.	ACCESS DO
$\rightarrow$	GATE VALVE (FLANGED) - - PLAN, END VIEW	A.F.	ABOVE FLOO
$\rightarrow$	TRIPLE OFFSET ROTARY VALVE - - PLAN, END VIEW		
~	GLOBE VALVE (SCREWED) - - PLAN, END VIEW	B.E. C.	COMMON
	GLOBE VALVE (FLANGED) - - PLAN, END VIEW		
s s	CHECK VALVE; SILENT CHECK VALVE	D.P.	DIFFUSER PI
"FL"	CHECK VALVE	E.A.	EXHAUST AI
	BUTTERFLY VALVE PLAN, END VIEW	E.M.D.	END OF MAIN
<u> </u>	BUTTERFLY VALVE	F.D.	FIRE DAMPE
···	HIGH PERFORMANCE BUTTERFLY VALVE	F.M.S.	FLOW MEAS
	- PLAN, END VIEW 3-WAY CONTROL VALVE;	F.S.D.	FIRE/SMOKE
$\sim$	2-WAY CONTROL VALVE COMB. BALANCING SHUT-OFF VALVE -	I.B.	INLET BELL
	- PLAN, END VIEW	I.S.	INLET SCREI
<u> </u>	0.5-2" BALANCING VALVE	M.A.V.	MANUAL AIR
	2.5-12" BALANCING VALVE	M.D.	MOTOR OPE
₩ 1Öl		M.E.	MOISTURE E
		N.C.	NORMALLY (
=	3/4" DRAIN VALVE WITH HOSE CONNECTION	N.O.	NORMALLY (
	SAFETY RELIEF VALVE	O.A.	OUTSIDE AIF
	Y-TYPE STRAINER WITH DRAIN VALVE	P.A.	PRIMARY AIF
	Y STRAINER	R.A.	RETURN AIR
	FLEXIBLE CONNECTOR	S.A.	SUPPLY AIR
	PRESSURE GAUGE	R.H.	RANGE HOO
	TEMPERATURE GAUGE	S.D.	SUCTION DIF
~	UNION	SM.D.	SMOKE DAM
L7	MANUAL AIR VENT PLAN, ELEVATION	T.A.V.	THERMOSTA
	AUTOMATIC AIR VENT PLAN, ELEVATION	T.C.P.	TEMPERATU
	CONCENTRIC REDUCER - - PLAN, ELEVATION	V.B.	VACUUM BR
_ <b></b> ~	ECCENTRIC REDUCER - - PLAN, ELEVATION	V.D.	VOLUME DAI
	FLANGED CONNECTION	· · · · · · · · · · · · · · · · · · ·	
<u></u>	NEEDLE VALVE IN GAUGE LINE		
<b>_</b>	FLOW METER		
_	FLOW SWITCH	L	
_	TEMPERATURE SENSOR	NOTE:	
_	PRESSURE SWITCH		_
]	DIFFERENTIAL PRESSURE SWITCH	THE SYMBOL	
]{	BTU METER	DRAWINGS, H	IOWEVER
		USED THE ITE	:M SHALL

VAV S	SYMBOL LEGEND
100-300         MIN           VAV-5         VA'           110-110         CO           VAVC-5         VA'           110-110         CO           VAVC-5         VA'           VAV-6         VA'	/ UNIT - 6" RD INLET SIZE IIMUM AND MAXIMUM AIR FLOWS / UNIT - 5" RD INLET SIZE NSTANT MINIMUM AND MAXIMUM AIR FLOWS / UNIT W/CO2 CONTROL - 5" RD INLET SIZE NSTANT MINIMUM AND MAXIMUM AIR FLOWS / UNIT - 6" RD INLET SIZE IIMUM AND MAXIMUM COOLING AIR FLOWS
VAVC-12         VAV           400-1340         CC         MIN           400-616         H         MIN           VAV-5         VA           150-60-200         MIN	V UNIT W/CO2 CONTROL - 12" RD INLET SIZE I. AND MAX. COOLING & CO2 AIR FLOWS IIMUM AND MAXIMUM HEATING AIR FLOWS IIMUM AND MAXIMUM HEATING AIR FLOWS V UNIT - 5" RD INLET SIZE I HEATING CFM - MIN COOLING CFM AX COOLING CFM
AV OR VAVC-5 AV OR VAVC-6 AV OR VAVC-6 AV OR VAVC-8 AV OR VAVC-10	SIZE         SOUND TRAP         SIZE           5" RD         ST-1         12x12           6" RD         ST-1         12x12           8" RD         ST-2         15x15           10" RD         ST-3         21x15           12" RD         ST-4         27x15
UNIT SOUNE	IR VOLUME AIR TERMINAL O TRAP AND DUCT SIZING HERWISE NOTED
HVAC	ABBREVIATIONS
A.A.V.	
A.D. A.F.	ACCESS DOOR ABOVE FLOOR
B.E.	BELLMOUTH ENTRANCE
C.	COMMON
D.P.	DIFFUSER PLATE
E.A.	EXHAUST AIR
E.M.D.	END OF MAIN DRIP
F.D.	FIRE DAMPER
F.M.S.	FLOW MEASURING STATION
F.S.D.	FIRE/SMOKE DAMPER
I.B.	INLET BELL
I.S.	INLET SCREEN
M.A.V.	MANUAL AIR VENT
M.D.	MOTOR OPERATED DAMPER
M.E.	MOISTURE ELIMINATORS
N.C.	NORMALLY CLOSED
O.A. P.A.	OUTSIDE AIR PRIMARY AIR
P.A. 	
S.A.	SUPPLY AIR
R.H.	RANGE HOOD
S.D.	SUCTION DIFFUSER
SM.D.	SMOKE DAMPER
T.A.V.	THERMOSTATIC AIR VENT
T.C.P.	TEMPERATURE CONTROL PANEL
V.B.	VACUUM BREAKER
V.D.	VOLUME DAMPER

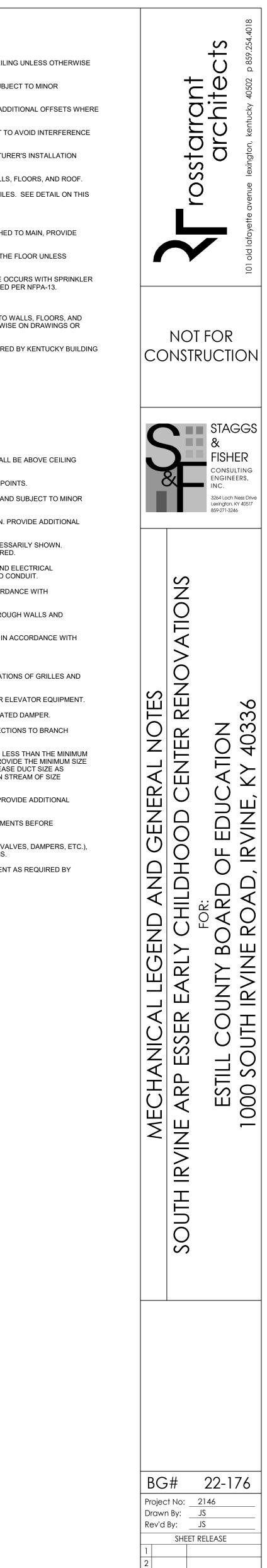
FIRE PROTECTION GENERAL NOTES:

- 1. PIPING IN ROOMS WITH SUSPENDED CEILINGS SHALL BE ABOVE CEILING UNLESS OTHERWISE NOTED.
- 2. LOCATIONS OF PIPING AND EQUIPMENT ARE APPROXIMATE AND SUBJECT TO MINOR ADJUSTMENTS IN THE FIELD. DO NOT SCALE THE DRAWINGS.
- 3. ALL OFFSETS IN PIPING ARE NOT NECESSARILY SHOWN. PROVIDE ADDITIONAL OFFSETS WHERE NECESSARY.
- 4. COORDINATE WITH HVAC, PLUMBING, AND ELECTRICAL EQUIPMENT TO AVOID INTERFERENCE WITH PIPING, DUCT AND CONDUIT.
- INSTALL PIPING AND EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- SEAL AIRTIGHT AROUND ALL PIPING PENETRATIONS THROUGH WALLS, FLOORS, AND ROOF.
   CENTER SPRINKLER HEADS IN SUSPENDED ACOUSTICAL CEILING TILES. SEE DETAIL ON THIS DRAWING.
- 8. PROVIDE DRAINS AT LOW POINTS PER NFPA-13.
- 9. PITCH ALL SPRINKLER PIPING TO MAIN. IF PIPING CANNOT BE PITCHED TO MAIN, PROVIDE AUXILIARY DRAINS AT LOW POINTS.
- 10. PROVIDE GUARDS ON ALL HEADS INSTALLED 8'-0" OR LESS ABOVE THE FLOOR UNLESS DIRECTED OTHERWISE BY ENGINEER.
- 11. IN MECHANICAL ROOMS OR SIMILAR AREAS WHERE INTERFERENCE OCCURS WITH SPRINKLER
- DISCHARGE, PROVIDE ADDITIONAL SPRINKLER HEAD(S) AS REQUIRED PER NFPA-13.12. INDIVIDUAL BRANCH LINE SIZE TO A SPRINKLER HEAD SHALL BE 1".
- ALL PIPING SHALL BE INSTALLED PARALLEL AND PERPENDICULAR TO WALLS, FLOORS, AND CEILINGS AND HORIZONTAL UNLESS SPECIFICALLY SHOWN OTHERWISE ON DRAWINGS OR UNABLE DUE TO INTERFERENCES.
- 14. PROVIDE SEISMIC BRACING FOR PIPING AND EQUIPMENT AS REQUIRED BY KENTUCKY BUILDING CODE. SEE SPECIFICATIONS.
- 15. DO NOT SUPPORT ANY PIPING FROM THE RAISED ACCESS FLOOR.

### HVAC GENERAL NOTES:

- 1. DUCTWORK AND PIPING IN ROOMS WITH SUSPENDED CEILINGS SHALL BE ABOVE CEILING EXCEPT IN EQUIPMENT ROOMS.
- 2. INSTALL AIR VENTS AT HIGH POINTS IN PIPING AND DRAINS IN LOW POINTS.
- 3. LOCATIONS OF PIPING, DUCT, AND EQUIPMENT ARE APPROXIMATE AND SUBJECT TO MINOR ADJUSTMENTS IN THE FIELD. DO NOT SCALE THE DRAWINGS.
- 4. ALL OFFSETS IN DUCTS AND PIPING ARE NOT NECESSARILY SHOWN. PROVIDE ADDITIONAL OFFSETS WHERE NECESSARY.
- 5. ALL INCREASERS AND REDUCERS IN PIPING SYSTEM ARE NOT NECESSARILY SHOWN. PROVIDE ADDITIONAL INCREASERS AND REDUCERS WHERE REQUIRED.
- 6. COORDINATE WITH PLUMBING, SHEET METAL, FIRE PROTECTION, AND ELECTRICAL CONTRACTORS TO AVOID INTERFERENCE WITH PIPING, DUCTS, AND CONDUIT.
- INSTALL ALL PIPING, DUCTWORK, AND EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- 8. SEAL AIRTIGHT AROUND ALL DUCT AND PIPING PENETRATIONS THROUGH WALLS AND FLOORS.
- 9. SEAL ALL DUCTWORK WITH DUCT SEALANT AND/OR DUCT CEMENT IN ACCORDANCE WITH SPECIFICATIONS SECTION "METAL DUCTWORK."
- DIMENSIONS FOR DUCTS ARE INSIDE DIMENSIONS.
   SEE ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF GRILLES AND
- DIFFUSERS IN CEILINGS.12. DO NOT RUN ANY PIPING OR DUCTWORK OVER ANY ELECTRICAL OR ELEVATOR EQUIPMENT.
- 13. INSTALL ACCESS DOOR IN DUCT ADJACENT TO EACH MOTOR OPERATED DAMPER.
- 14. ROLL FITTINGS IN ROUND DUCT AS REQUIRED FOR PROPER CONNECTIONS TO BRANCH DUCTS.
- 15. WHERE SIZE OF DUCT PENETRATING A FIRE WALL OR PARTITION IS LESS THAN THE MINIMUM SIZE OF FACTORY-MADE FIRE DAMPER OR DUCT ACCESS DOOR, PROVIDE THE MINIMUM SIZE FACTORY MADE DAMPER AND/OR ACCESS DOOR AVAILABLE. INCREASE DUCT SIZE AS REQUIRED TO ACCOMMODATE TRANSITIONS UPSTREAM AND DOWN STREAM OF SIZE INCREASE.
- 16. ALL TRANSITIONS IN DUCTWORK ARE NOT NECESSARILY SHOWN. PROVIDE ADDITIONAL TRANSITIONS WHERE REQUIRED.
- 17. FIELD VERIFY EXISTING CONDITIONS AND ALL REQUIRED MEASUREMENTS BEFORE FABRICATING ANY PIPING, DUCTWORK, OR EQUIPMENT.
- 18. INSTALL CONTROL DEVICES (SUCH AS SENSORS, SENSING WELLS, VALVES, DAMPERS, ETC.), FURNISHED BY CONTROLS SUPPLIER, IN DUCT AND PIPING SYSTEMS.
- 19. PROVIDE SEISMIC BRACING FOR PIPING, DUCTWORK, AND EQUIPMENT AS REQUIRED BY KENTUCKY BUILDING CODE. SEE SPECIFICATIONS.

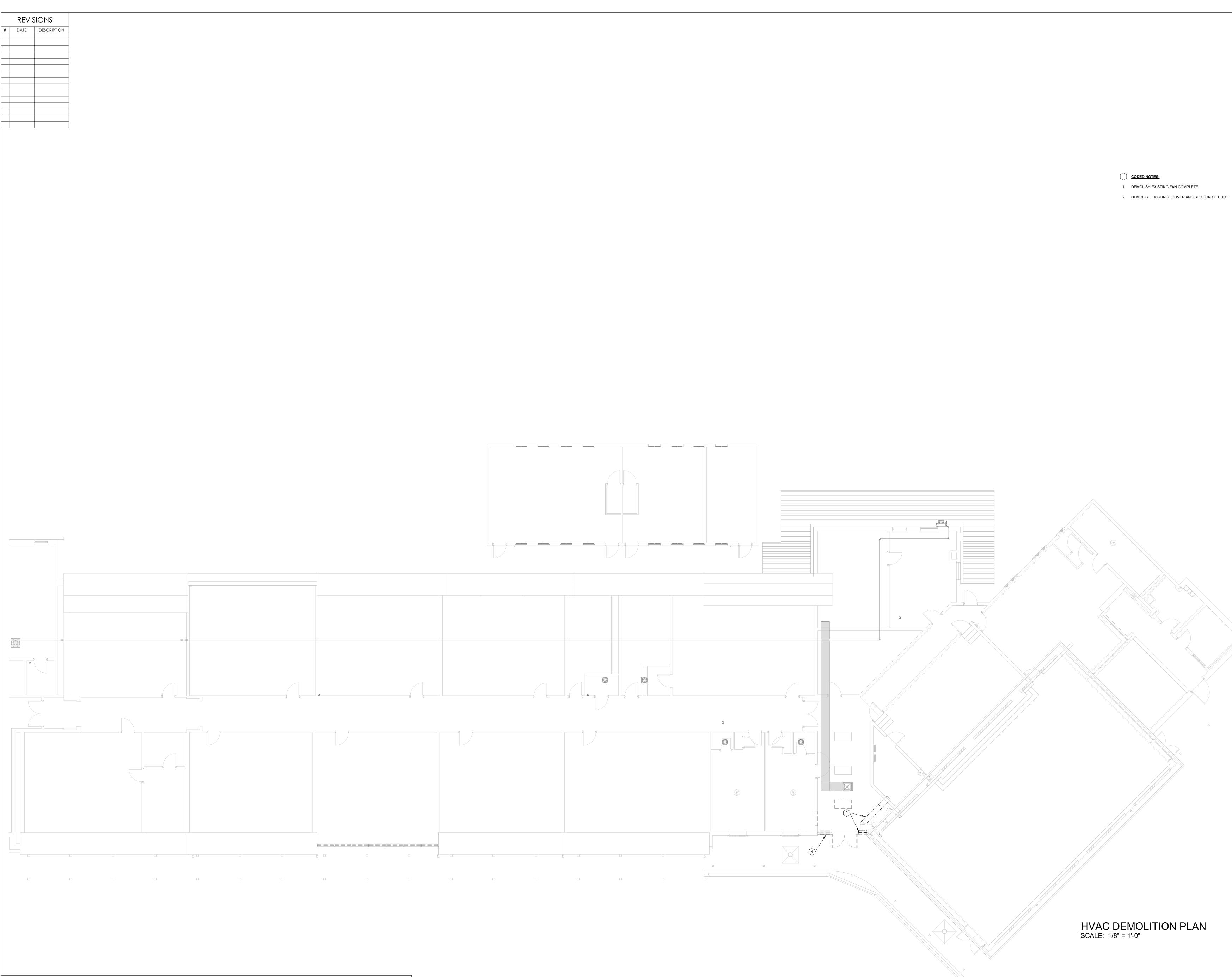
THE SYMBOLS LISTED ON THIS SHEET MAY NOTALL BE USED ON THIS SET OF CONTRACTDRAWINGS, HOWEVER, WHEREVER A SYMBOL ISUSED THE ITEM SHALL BE FURNISHED ANDINSTALLED.



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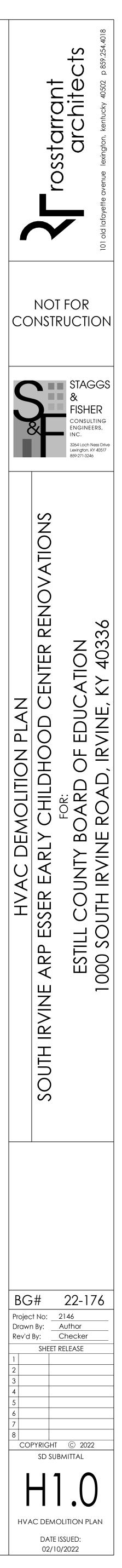
MECHANICAL LEGEND AND GENERAL NOTES DATE ISSUED: 02/10/2022

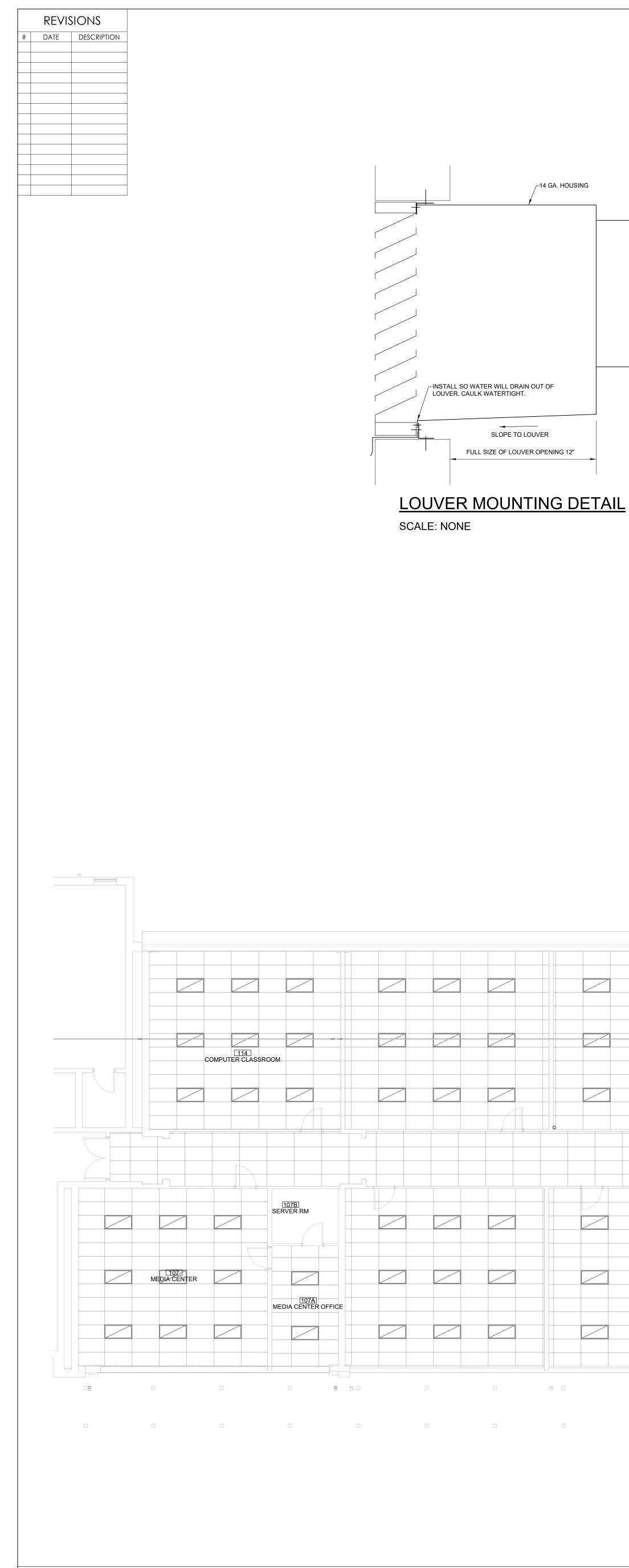


NOTE:

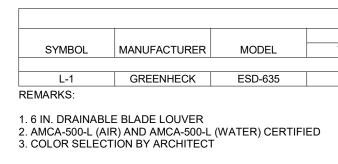
IT IS NOT INTENDED THAT THE PLANS SHOW ALL OFFSETS IN PIPES, CONDUITS, AND DUCTS REQUIRED FOR INSTALLATION OF THE WORK. DETAILS AND SECTIONS ARE INCLUDED FOR SOME AREAS TO SHOW INTENDED RELATIONSHIP OF THE WORK OF VARIOUS TRADES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SUB-CONTRACTORS TO COORDINATE INSTALLATION OF THE WORK AND TO PROVIDE THE NECESSARY OFFSETS, TRANSFORMATIONS, AND FITTINGS REQUIRED. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR CORRECTION CONFLICTS BETWEEN THE WORK OF VARIOUS TRADES. DETAILS AND SECTIONS ARE SHOWN FOR THE CONTRACTORS CONVENIENCEAND SHALL NOT BE CONSIDERED COMPLETE IN EVERY DETAIL.

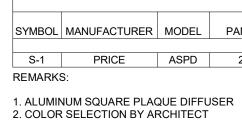




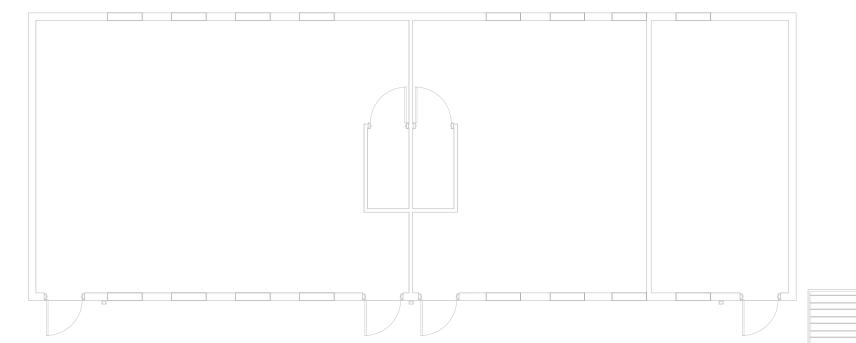


NOTE:





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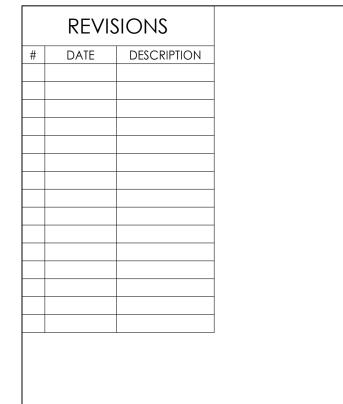
		ESTROOM	ESTROOM		
					II02AI RR II02BI STOR
	CLASSROOM		LI03 CLASSROOM		PRINCIPAL'S OFFICE
				[	

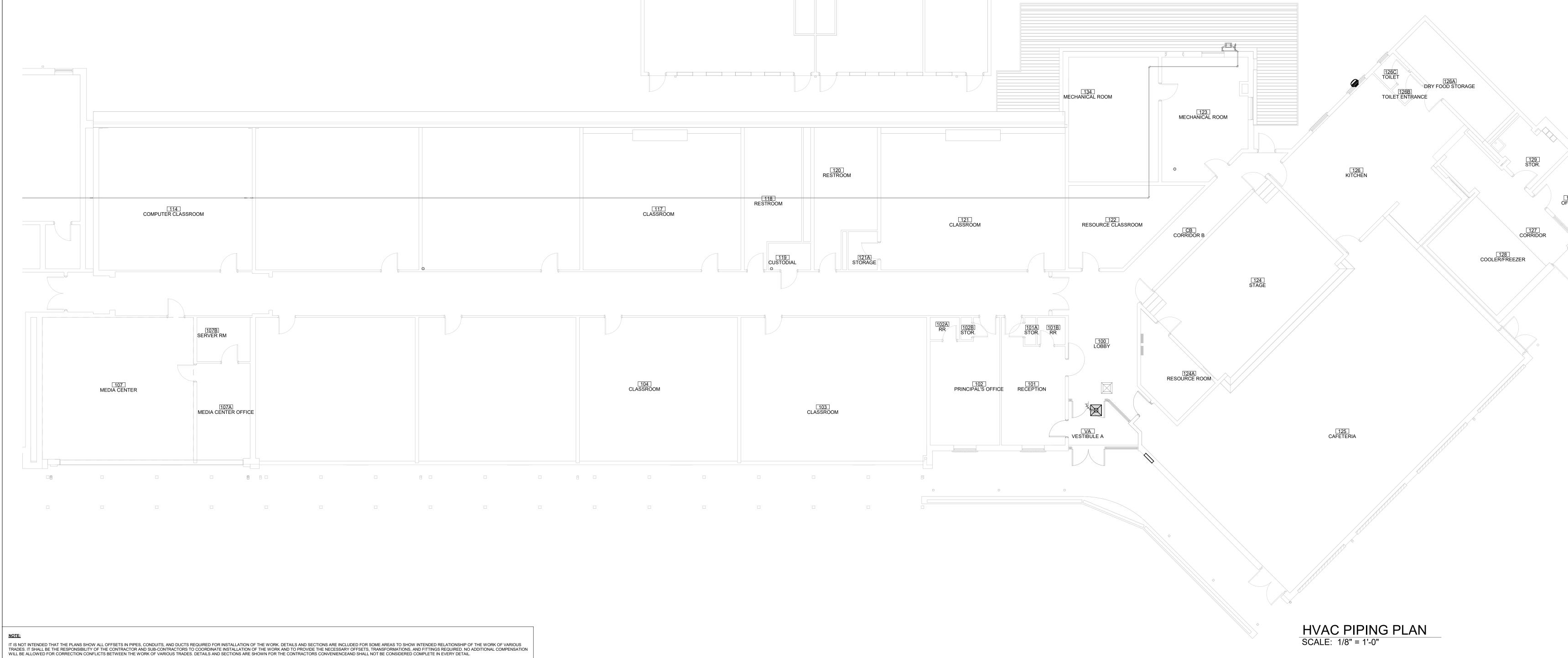
	LOUVERS									
		SI	ZE		FREE AREA SQ.					
URER	MODEL	WIDTH	HEIGHT	CFM	FT.	P.D. IN. W.C.	SCREEN TYPE	REMARKS		
ECK	ESD-635	26"	26"	1380	2.2	0.06	BIRD	ALL		

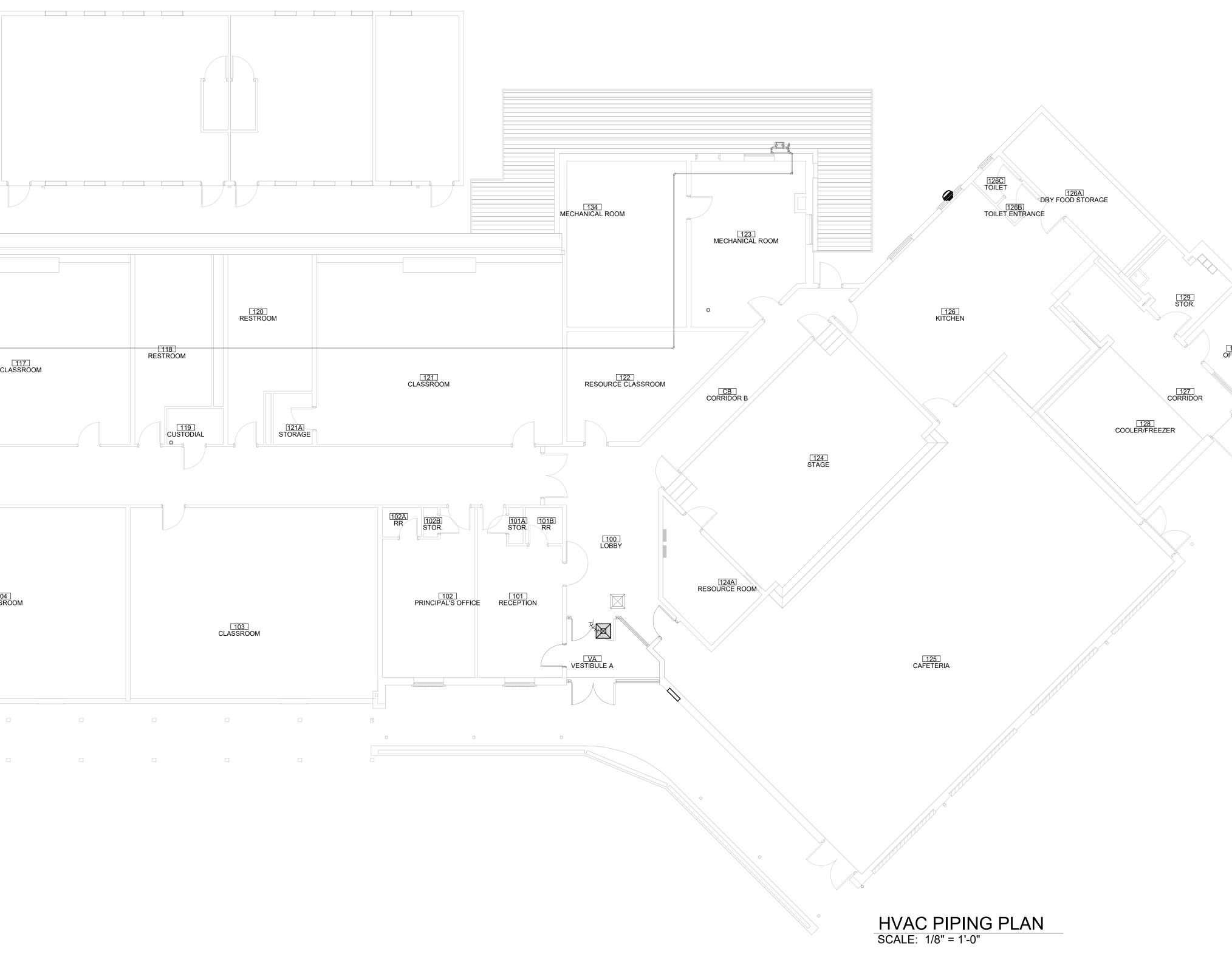
	GRILLES, REGISTERS AND DIFFUSERS									
ODEL	PANEL SIZE	DIFFUSER SIZE	DIFFUSER INLET	DESIGN CFM	P.D. (IN. W.G.)	THROW (FT)	DIRECTION OF THROW	NC	MOUNTING	REMARKS
SPD	24"x24"	12"x12"	5" RD	100	0.108	3-5-8	4-WAY	17	SEE PLANS	



		VA	126A 126B 126C 127 128 129 130 134 CA CB	114 115 116 117 118 119 120 121 121A 122 123 124 124A 125 126	102 102A 102B 103 104 105 106 107 107A 107B 114	ROOM NUN 100 101 101A 101B
		VESTIBULE A	DRY FOOD STORAGE TOILET ENTRANCE TOILET CORRIDOR COOLER/FREEZER STOR. OFFICE MECHANICAL ROOM CORRIDOR A CORRIDOR B	COMPUTER CLASSRO CLASSROOM CLASSROOM CLASSROOM CLASSROOM CUSTODIAL RESTROOM CLASSROOM STORAGE RESOURCE CLASSRO MECHANICAL ROOM STAGE RESOURCE ROOM CAFETERIA KITCHEN	PRINCIPAL'S OFFICE RR STOR. CLASSROOM CLASSROOM CLASSROOM CLASSROOM CLASSROOM MEDIA CENTER MEDIA CENTER MEDIA CENTER OFFIC SERVER RM COMPUTER CLASSRO	ROOM SCHEDULE MBER ROOM NAME LOBBY RECEPTION STOR. RR
Drawr Rev'd 1 2 3 4 5 6 7 8	HVAC PLAN		СС			
et No:2 n By:J By:J	SOUTH IRVINE ARP ESSER EARLY CHILDHOOD CENTER RENOVATIONS		NOT NSTR		starrant	
IS IS EELEASE © 202 MITTAL PLAN SSUED:	ESTILL COUNTY BOARD OF EDUCATION	STAC & FISH CONSU ENGINE INC. 3264 Loch Lexington, 859-271-324	FOR 2UCTI		archited	cts
	1000 SOUTH IRVINE ROAD, IRVINE, KY 40336	LTING ERS, Ness Drive KY 40517	ON	101 old lafayette avenue lexington, kentucky 40502		p 859.254.4018







		120 RESTROOM			
[117] CLASSROOM	118 RESTROOM			121 CLASSROOM	
				CLASSROOM	
	CUSTODIAL	[121A] STORAGE	Č		
		U U			

ROO

		VESTIBULE A	RESOURCE ROOM         CAFETERIA         KITCHEN         DRY FOOD STORAGE         TOILET ENTRANCE         TOILET         CORRIDOR         COOLER/FREEZER         STOR.         OFFICE         MECHANICAL ROOM         CORRIDOR A         CORRIDOR B	ROOM SCHEDULEM NUMBERROOM NAMEM NUMBERROOM NAMELOBBYRECEPTIONSTOR.RRPRINCIPAL'S OFFICERRSTOR.CLASSROOMRESTROOMCLASSROOMCLASSROOMCLASSROOMRESTROOMCLASSROOMSTORAGERESOURCE CLASSROOMMECHANICAL ROOMSTAGESTAGE
BG# 22-176 Project No: 2146 Drawn By: JS Rev'd By: JS SHEET RELEASE 1 J 2 J 3 J 4 J 5 J 6 J 7 J 8 J COPYRIGHT © 2022 SD SUBMITTAL HVAC PIPING PLAN DATE ISSUED:	HVAC PIPING PLAN SOUTH IRVINE ARP ESSER EARLY CHILDHOOD CENTER RENOVATIONS FOR: ESTILL COUNTY BOARD OF EDUCATION 1000 SOUTH IRVINE ROAD, IRVINE, KY 40336	STAGGS & FISHER CONSULTING ENGINEERS, INC. 3264 Loch Ness Drive Lexington, KY 40517 859-271-3246	NOT FOR CONSTRUCTION	A rosstarrant architects 01 old lafayette avenue Texington, kentucky 40502 p.859.254.4018

DATE ISSUED: 02/10/2022

REVISIONS								
#	DATE	DESCRIPTION						

			ELECTRICAL LE	GEND			
EQUIPMEI	NT, CONDUITS, ETC.		CHES (BOTTOM 44" A.F.F.) TAS NOTED OTHERWISE)	F		ELECTR	ICAL ABBREVIATIONS
<i>⊨ = = = = = =  ₹</i>	CONDUIT BELOW FLOOR	\$	SINGLE POLE		FIRE ALARM BREAKGLASS STATION	AFF	ABOVE FINISHED FLOOR
	CONDUIT ABOVE FLOOR	\$2	DOUBLE POLE	Ē	(BOTTOM 44" A.F.F.) FIRE ALARM SPKR/FLASHING LIGHT	ATCP	AUTOMATIC TEMPERATURE
0	ENTRANCE POINT OF CONDUIT	\$3	THREE-WAY	K-€	(80" TO BOTTOM, WALL MNT)	C	
│ \{\{\}\}\}	THROUGH FLOOR	\$4	FOUR-WAY	HÊ-	FIRE ALARM FLASHING LIGHT (80" TO BOTTOM, WALL MOUNTED)	FA	
	WIREWAY OR CABLE TRAY		LOW-VOLTAGE, MOMENTARY		FIRE ALARM SPEAKER (80" TO BOTTOM, WALL MOUNTED)		
1	WIRE MOLD	\$LV			FIRE ALARM SPEAKER /FLASHING LIGHT (CEILING MOUNTED)	GFI	GROUND FAULT INTERRUPTER
	(FOR POWER AND/OR DATA)	\$os	OCCUPANCY/VACANCY SENSOR SWITCH	F	FIRE ALARM SPEAKER (CEILING MOUNTED)	IG	ISOLATED GROUND
	PANELBOARD OR TERMINAL CABINET (REFER TO PLANS AND RISER FOR SIZE)	\$□	DIMMER	¢	FIRE ALARM STROBE/FLASHING LIGHT (CEILING MOUNTED)	JB	JUNCTION BOX
	SECTIONAL SWITCH GEAR (REFER TO PLANS AND RISER	\$ <sub>P</sub>	PILOT LIGHT	S	SINGLE STATION SMOKE DETECTOR (CEILING MOUNTED)	TTC	TELEPHONE TERMINAL CABINET
	FOR NUMBER OF SECTIONS AND LAYOUT)	\$ <sub>0L</sub>	THERMAL OVERLOAD	SD	ADDRESSABLE SMOKE DETECTOR (CEILING MOUNTED)	W	WIRE
	TRANSFORMER (REFER TO PLANS AND RISER FOR SIZE)	\$P OL	THERMAL OVERLOAD WITH PILOT LIGHT	SD	DUCT TYPE SMOKE DETECTOR	F	FLUSH
J	JUNCTION BOX	\$ <sub>K</sub>	KEY OPERATED SWITCH		AUTOMATIC HEAT DETECTOR	Р	PEDESTAL
	ENCLOSED CIRCUIT BREAKER	CS	LIGHTING CONTROL STATION			СКТ	CIRCUIT
	DISCONNECT SWITCH	MS	MASTER LIGHTING CONTROL STATION	FACP		REC(S)	RECEPTACLE(S)
	FUSED DISCONNECT				FIRE ALARM ANNUNCIATOR PANEL	LTG	
	COMBINATION MAGNETIC STARTER AND		CLES (BOTTOM 16" A.F.F.) PT AS NOTED OTHERWISE)	EDH	ELECTROMAGNETIC DOOR HOLDER		
	FUSED SWITCH		DUPLEX CONVENIENCE OUTLET	EDC	ELECTROMAGNETIC DOOR CLOSER	NL	NIGHT LIGHT
	MOTOR		QUADRAPLEX CONVENIENCE OUTLET	TS	TAMPER SWITCH	AIC	AMPERE INTERRUPTING CAPACITY
	WIRE / CONDUIT			FS	FLOW SWITCH	UON	UNLESS OTHERWISE NOTED
NEUTRAL		<i>₩</i>	BOTTOM 2" ABOVE BACKSPLASH/COUNTER DUPLEX OUTLET. COORDINATE WITH ARCHITECTURAL	RA	REMOTE TEST ACTIVATOR	WP	WEATHER PROOF
(12)	BOTTOM OF DEVICE (IN INCHES A.F.F.)		DRAWINGS.			FACP	FIRE ALARM CONTROL PANEL
	SEE NOTE 1 THIS SHEET		GROUND FAULT INTERRUPTING OUTLET		SECURITY	FAAP	FIRE ALARM ANNUNCIATOR PANEL
HW ??	HEADWALL - FOR SERVICES, SEE DETAILS	WP =	WEATHERPROOF OUTLET	CR	CARD READER / PROXIMITY READER	LCP	LIGHTING CONTOL PANEL
+	GROUND	sw =	SWITCHED/CONTROLLED DUPLEX OUTLET	Р	DOOR PUSH PLATE		
		E D	DUPLEX RECEPTACLE ON EMERGENCY CIRCUIT	К	KEY PAD		
	G & LIGHTING DEVICES	см	CEILING MOUNTED RECEPTACLE.	X	DOOR CONTACTS		
	(REFER TO PLANS FOR TYPES OF FIXTURES THE LF-# DESIGNATES THE	USB	USB DUPLEX RECEPTACLE.	$\bullet$	T.V./SECURITY CAMERA OUTLET		
	TYPE OF FIXTURE)	-0	SIMPLEX WALL OUTLET (RATING AS NOTED)	$\Phi$	T.V./SECURITY CAMERA OUTLET WALL MOUNTED		
	EMERGENCY LIGHTING FIXTURES (REFER TO PLANS FOR TYPES OF FIXTURES THE LF-# DESIGNATES THE	<b></b>	WALL OUTLET (240V, 1-PHASE) (RATING AS NOTED)	- M-	MOTION DETECTOR		
	TYPE OF FIXTURE)	<b></b>	WALL OUTLET (240V, 3-PHASE) (RATING AS NOTED)	⊥ √©≪	SIREN		
	WALL MOUNTED LIGHTING FIXTURES (REFER TO PLANS FOR TYPES	•	FLOOR BOX / POKE-THRU FOR POWER AND/OR DATA	AS	AUDIO OR GLASS BREAK SENSOR		
	OF FIXTURES THE LF-# DESIGNATES THE TYPE OF FIXTURE)	<u> </u>	HOOD CONNECTION				
	EMERGENCY WALL MOUNTED LIGHTING FIXTURES (REFER TO PLANS FOR TYPES			5011	ND AND INTERCOM		
	OF FIXTURES THE LF-# DESIGNATES THE TYPE OF FIXTURE)	<b>—</b>		XK	CEILING MOUNTED SPEAKER		
9-9x9-9	TRACK LIGHTING	R	CONTROL RELAY				
9-9-9-9-9-	EMERGENCY TRACK LIGHTING	CC	OMMUNICATIONS				
	WALL-MOUNTED WARNING LIGHT		TELECOMMUNICATIONS RACK		WALL MOUNTED HORN		
	EXIT LIGHT		DATA OUTLET (DATA & COMMUNICATIONS)		ALARM TYPE SPEAKER		
t⊗t			(MOUNTED AT 16" TO THE BOTTOM AFF) (UNLESS OTHER WISE NOTED)	$\bigcirc$	VOLUME CONTROL		
			COMMUNICATION OUTLET NOTATION:	Ū <sub>M</sub>	MASTER INTERCOM STATION		
	EXIT LIGHT (WALL MOUNTED)	xD xC xV	xD NUMBER OF DATA PORTS xC NUMBER OF CATV PORTS	0	INTERCOM STATION		
	COMBINATION EMERGENCY BATTERY PACK AND EXIT SIGN			O <sub>M</sub>	MICROPHONE OUTLET IN FLOOR (FLUSH TYPE)		
22	EMERGENCY BATTERY PACK		GROUNDING BAR	M	MICROPHONE OUTLET IN WALL (BOTTOM 16" A.F.F.)		
LR	LIGHTING CONTROL RELAY			С	CALL IN SWITCH		
ETR	EMERGENCY TRANSFER RELAY			L			
OS	OCCUPANCY / VACANCY SENSOR						
	WALL MOUNTED OCCUPANCY / VACANCY						
PS	PHOTO SENSOR						
	LIGHTING CONTROL PANEL						
LCP	LF-# = LIGHT FIXTURE TYPE TAG						
LF-# a NL	(REFER TO LIGHT FIXTURE SCHEDULE) 1 = CIRCUIT NUMBER a = SWITCHING/ZONING DESIGNATION (IF APPLICABLE) NL = FIXTURE IS A NIGHT LIGHT						

NOTE: THE SYMBOLS LISTED ON THIS SHEET MAY NOT ALL BE USED ON THIS SET OF CONTRACT DRAWINGS, HOWEVER, WHEREVER A SYMBOL IS USED THE ITEM SHALL BE FURNISHED AND INSTALLED.

(IF APPLICABLE)

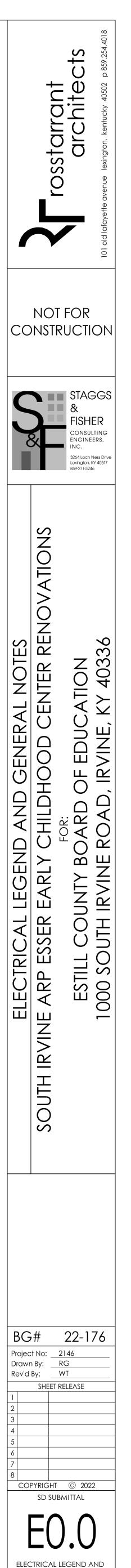
### **ELECTRICAL DEMOLITION GENERAL NOTES:**

- 1. ALL ITEMS SHOWN AS DASHED TO BE DEMOLISHED, INCLUDING ALL CONDUIT, WIRE, JUNCTION BOXES, ETC. REMOVE WIRING COMPLETE BACK TO PANEL. EXISTING BREAKER IN PANEL TO REMAIN UNLESS OTHERWISE NOTED. EXISTING BOXES IN EXISTING BLOCK WALLS SHALL BE PROVIDED WITH A BLANK COVER PLATE. EXISTING CONDUIT IN BLOCK WALLS TO REMAIN AND CAPPED. CONDUIT ABOVE CEILING SHALL BE REMOVED COMPLETE BACK TO PANEL.
- BEFORE START OF WORK, THE CONTRACTOR SHALL CHECK ALL EXISTING DEVICES, LIGHT FIXTURES AND EQUIPMENT THAT IS NOTED OR REQUIRED TO BE REUSED TO SATISFY THEMSELF THAT THEY ARE OPERATING PROPERLY. SHOULD ANY OF THE ITEMS NOT BE OPERATING, THE CONTRACTOR SHALL REPORT SAME TO THE ARCHITECT AND AWAIT DIRECTIONS. CONTRACTORS NOT COMPLYING WITH THE ABOVE WILL BE RESPONSIBLE FOR PROVIDING OPERATIONAL ITEMS AT HIS EXPENSE.
- IN EXISTING AREAS WHERE NEW WORK IS SHOWN, REMOVE ALL EXISTING EXPOSED CONDUITS, WIREMOLD, SURFACE 3 AND FLUSH OUTLET BOXES, WIRING DEVICES, FIXTURES, PANELS, ETC., NOT REQUIRED FOR NEW ARRANGEMENT. INSTALL ALL NEW WORK AS INDICATED. FLUSH OUTLET BOXES MAY BE REUSED IF AT PROPER HEIGHT, LOCATION AND IN GOOD CONDITION. EXISTING CONCEALED CONDUITS MAY BE REUSED IF IN GOOD CONDITION, CIRCUITRY SHOWN ON PLANS SHALL GOVERN. ALL OTHER MATERIALS REMOVED SHALL BE REMOVED FROM THE JOB SITE OR TURNED OVER TO
- THE OWNER. MAINTAIN AND RESTORE, IF INTERRUPTED BY REMOVALS OR IN PATH OF NEW CONSTRUCTION, ALL CIRCUITS, CONDUITS AND FEEDERS PASSING THROUGH AND SERVING UNDISTURBED AREAS (SHOWN OR NOT SHOWN).
- WHERE ANY EXISTING OUTLET (ELECTRIC, COMMUNICATION, ETC.) IS NOTED OR REQUIRED TO BE REMOVED, THE CONTRACTOR UNDER THIS DIVISION SHALL CONNECT CONDUIT, PULL IN NEW CONDUCTORS AND RECONNECT AS REQUIRED FOR FEED-THRU OF CIRCUITS TO ENSURE ALL CIRCUITS DOWNSTREAM FROM REMOVED OUTLETS WILL REMAIN OPERATIONAL.
- IN GENERAL, REMOVE EXISTING WORK INDICATED. THE DRAWINGS SHOW EXISTING WORK TO THE EXTENT POSSIBLE. 7 HOWEVER, ALL EXISTING WORK MAY NOT BE SHOWN ON THE DRAWINGS. REMOVE OR RELOCATE EXISTING MECHANICAL AND ELECTRICAL WORK THAT INTERFERES WITH NEW WORK EVEN IF IT IS NOT SHOWN ON THE DRAWINGS. RELOCATE EXISTING WORK THAT MUST REMAIN IN SERVICE THAT INTERFERES WITH NEW WORK EVEN IF IT IS NOT SHOWN ON THE DRAWINGS. TURN OVER TO OWNER REMOVED EXISTING EQUIPMENT AS INDICATED AND REMOVE OTHER REMOVED EXISTING WORK FROM PROJECT SITE.
- 8. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO REPAIR ANY HOLES LEFT IN THE EXISTING BUILDING FLOORS, WALLS, OR CEILINGS DUE TO THE DEMOLITION OF THE EXISTING ELECTRICAL SYSTEM. 9. ELECTRICAL CONTRACTOR SHALL REMOVE ALL ELECTRICAL CONNECTIONS TO EQUIPMENT TO BE REMOVED. EXISTING
- EXPOSED CIRCUITS NOT TO BE REUSED SHALL BE REMOVED. EXISTING CONCEALED CIRCUITS NOT TO BE REUSED SHALL BE ABANDONED AFTER CONDUCTORS ARE REMOVED. CONDUITS EXPOSED BY CONSTRUCTION SHALL BE REMOVED. 10. ALL ITEMS SHOWN AS HALFTONE/GRAY ARE EXISTING AND ARE TO REMAIN.
- 11. ALL EXISTING ELECTRICAL CONNECTIONS AND DEVICES NOT SPECIFICALLY INDICATED TO REMAIN AND NOT REQUIRED FOR THE NEW ARRANGEMENT SHALL BE REMOVED UNLESS OTHERWISE NOTED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SURVEY THE SITE TO DETERMINE THE TOTAL SCOPE OF THE WORK.
- 12. IN RENOVATED AREAS OF EXISTING BUILDING, EXISTING CONDUIT IS SHOWN AS OBTAINED FROM ORIGINAL BUILDING DRAWINGS FOR BID PURPOSES ONLY. CONTRACTOR SHALL VERIFY EXACT ROUTING AND LOCATION FOR RECONNECTING CIRCUITS AS SHOWN OR REQUIRED TO WORK WITH NEW SYSTEM.

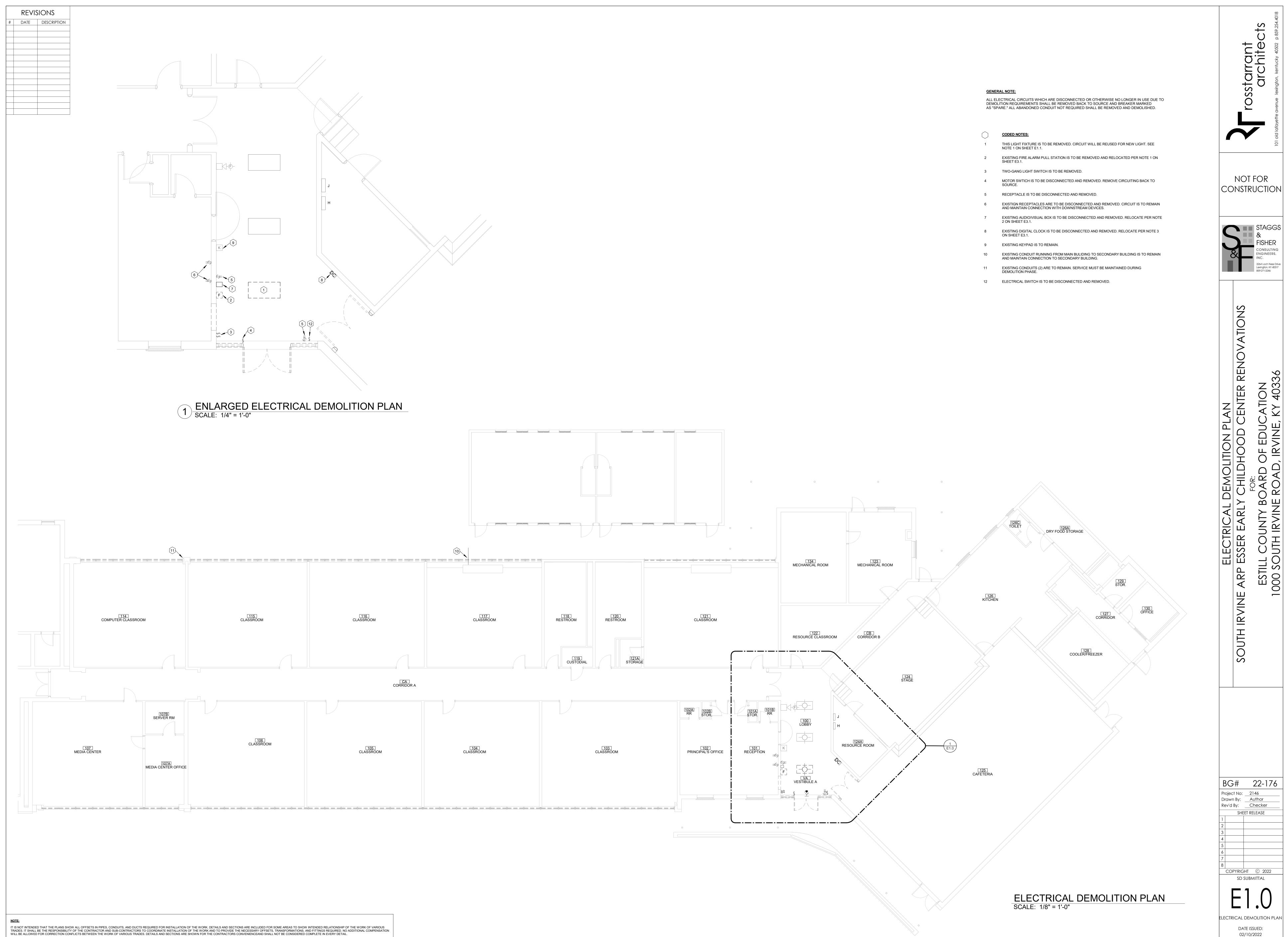
### ELECTRICAL GENERAL NOTES

1. INSTALL PANELBOARDS WITH THE TOP AT 6-6" ABOVE FINISHED FLOOR.

- 2. PROVIDE SUPPORTS FOR ALL VERTICAL CONDUIT RUNS IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
- 3. INSTALL SECONDARY UNDERGROUND CONDUCTORS A MINIMUM OF 36" DEEP TO TOP OF CONDUIT OR ENCASEMENT. 4. FLUSH-MOUNTED PANELBOARDS SHALL BE PROVIDED WITH FOUR (4) 1" SPARE CONDUITS CONCEALED IN WALL TO ABOVE ACCESSIBLE CEILING. TURN OUT 4" FROM WALL AND CAP.
- 5. ELECTRICAL CONTRACTOR SHALL INSTALL ALL ELECTRICAL EQUIPMENT IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
- 6. PROVIDE A COPY OF ALL COMPLETED PANEL SCHEDULES IN THE O & M MANUAL. 7. LIGHTS IN MECHANICAL SPACES SHALL BE LOCATED SO AS TO CLEAR PIPING, DUCTWORK, AND EQUIPMENT ON CEILING.
- FIELD VERIFY. 8. COORDINATE EXACT LOCATION OF ALL LIGHT FIXTURES WITH ARCHITECTURAL REFLECTED CEILING PLANS.
- 9. FLEXIBLE CONDUIT SHALL BE USED FOR FIXTURE WHIPS TO LIGHT FIXTURES. FLEXIBLE CONDUITS TO LIGHT FIXTURES SHALL NOT EXCEED 6'-0" AND SHALL BE A MINIMUM OF 1/2".
- 10. CHAIN FOR SUPPORTING LIGHT FIXTURES SHALL BE GALVANIZED STEEL WELL CHAIN WITH A MINIMUM DEAD WEIGHT CAPACITY OF 100 LBS.
- 11. RECESSED LIGHTING FIXTURE WITH IN A GRID TYPE CEILING TO BE SUPPORTED INDEPENDENTLY FROM THE GRID. SUPPORT FIXTURE FROM STRUCTURE ABOVE WITH 12 GUAGE WIRE ONE ON EACH CORNER. 12. WALL MOUNTED OCCUPANCY/VACANCY SENSORS SHALL BE MOUNTED AND INSTALLED IMMEDIATELY BELOW THE CEILING AND PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR BEST COVERAGE. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING HEIGHTS.
- 13. CONTRACTOR SHALL CHECK ALL DOOR SWINGS AND SHALL BE RESPONSIBLE FOR INSTALLING ALL ROOM LIGHT SWITCHES/CONTROL STATIONS ASSOCIATED WITH DOORS ON THE STRIKE SIDE OF THE DOORS REGARDLESS OF THE INDICATION ON THE ELECTRICAL DRAWINGS. SWITCHES NOT COMPLYING SHALL BE RELOCATED AT THE CONTRACTOR'S FXPFNSF
- 14. ALL CONDUIT SHALL BE HOMERUN TO PANELBOARD AS INDICATED ON THE DRAWINGS. COMBINING OF CIRCUITS IN HOMERUNS WILL NOT BE ACCEPTABLE. ANY DEVIATIONS IN SUCH WORK WILL NOT BE APPROVED EXCEPT AS REQUIRED TO MEET THE NATIONAL ELECTRICAL CODE OR BY PERMISSION OF THE ENGINEER.
- 15. ALL CONDUIT SHALL BE CONCEALED IN EXISTING AND NEW WALLS AND CEILINGS EXCEPT MECHANICAL ROOMS. REFER TO SPECIFICATIONS.
- 16. ELECTRICAL CONTRACTOR SHALL LOCATE ALL ELECTRICAL EQUIPMENT AS REQUIRED TO INSURE MINIMUM CLEARANCES ARE PROVIDED IN ACCORDANCE WITH THE N.E.C. 17. CONCERNING ALL RISER DIAGRAMS: AN ATTEMPT HAS BEEN MADE TO SHOW ALL DEVICES ON RISER DIAGRAM. ANY
- DEVICES SHOWN ON FLOOR PLANS AND NOT SHOWN ON RISER DIAGRAMS SHALL BE CONNECTED TO SYSTEM, AS REQUIRED.
- 18. ALL SCHEMATICS ARE FOR BID PURPOSES ONLY. SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH WIRING DIAGRAMS OBTAINED FROM THE MANUFACTURER.
- 19. ALL DEVICES SHALL BE LOCATED ON CLEAR WALL SPACES, CLEAR OF ALL SHELVING, CHALKBOARDS, TACKBOARDS, CASEWORK, ETC. OUTLETS NOT COMPLYING WITH THE ABOVE SHALL BE RELOCATED AT THE CONTRACTOR'S EXPENSE.
- 20. ROUGH-IN FOR ELECTRIC DRINKING FOUNTAINS (WATER COOLERS) AND BOTTLE FILLERS SHALL BE PERFORMED IN ACCORDANCE WITH APPROVED SHOP DRAWINGS.
- 21. ROUGH-IN FOR EQUIPMENT SHALL BE DONE IN ACCORDANCE WITH APPROVED SHOP DRAWINGS. 22. ELECTRICAL CONTRACTOR SHALL COORDINATE HEIGHT OF ALL DEVICES AT ALL CASEWORK LOCATIONS TO AVOID CONFLICTS. ALL OUTLETS SHALL BE ROUGHED-IN IN ACCORDANCE WITH ARCHITECTURAL CASEWORK ELEVATIONS. EXACT LOCATION OF ALL OUTLETS SHALL BE AS DIRECTED BY THE OWNER.
- 23. COORDINATE EXACT LOCATION OF ALL DEVICES IN THE CEILING WITH THE ARCHITECTURAL, HVAC, LIGHTING, AND FIRE PROTECTION REFLECTED CEILING PLANS.
- 24. THE CONTRACTOR SHALL PROVIDE EQUIPMENT GROUNDING CONDUCTORS IN ALL FEEDERS TO GROUND BUS IN PANELBOARDS AND IN ALL CIRCUITS TO EQUIPMENT AND RECEPTACLES. SEE SPECIFICATIONS.
- 25. ALL EXTERIOR UNDERGROUND CIRCUITS SHALL BE INSTALLED WITH TOP OF CONDUIT OR CONCRETE ENCASEMENT A MINIMUM OF 24" BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
- 26. LIQUIDTITE FLEXIBLE METAL CONDUIT (LFMC) SHALL BE USED FOR FIXTURE WHIPS TO MOTORS. FLEXIBLE CONDUIT TO MOTORS SHALL BE A MINIMUM OF 3/4" AND SHALL NOT EXCEED 24" IN LENGTH.
- 27. ALL ELECTRICAL OUTLETS WITHIN 6'-0" OF A WATER SOURCE SHALL BE OF THE GFI PROTECTED. 28. FIRE ALARM SYSTEM LAYOUT IS FOR BID PURPOSES ONLY. SYSTEM SHALL BE INSTALLED AND CONNECTED IN ACCORDANCE WITH WIRING DIAGRAMS OBTAINED FROM MANUFACTURER. DEVICE QUANTITY AND LOCATION SHALL PROVIDE COVERAGE IN ALL AREAS PER NFPA 72. PROVIDE DEVICES AS REQUIRED WHETHER SHOWN ON THE
- DRAWINGS OR NOT. 29. PROVIDE 5' EXCESS CABLE COILED ABOVE THE CEILING FOR EACH DATA DROP.
- 30. LABEL CABLES BOTH AT THE RACK AND AT THE INDIVIDUAL OUTLET.
- 31. INSTALL STEEL SLEEVES BETWEEN STACKED TELECOMMUNICATIONS ROOMS. SLEEVES SHALL EXTEND 4" AFF AND 4" BELOW THE DECK. A MINIMUM OF TWO (2) SLEEVES ON THREE (3) WALLS IS REQUIRED. ALL SLEEVES MUST BE FIRE CAULKED AND SEALED, INITIAL FIRE CAULKING IS THE RESPONSIBILITY OF THE CONTRACTOR INSTALLING THE SLEEVES. INSTALL GROUND BUSHINGS ON ALL SLEEVES AND PROPERLY GROUND TO THE GROUNDING BAR. TELECOMMUNICATIONS ROOMS THAT ARE NOT STACKED WILL REQUIRE THE INSTALLATION OF SIX (6) RISER CONDUITS (4 INCH MINIMUM DIAMETER) WITH PULL STRINGS AND APPROPRIATE JUNCTION PULL BOXES CONNECTING ALL TELECOMMUNICATIONS ROOMS.
- 32. FIRE TREATED PLYWOOD, 3/4 INCH THICK, MUST BE MECHANICALLY FASTENED TO ALL WALLS OF EACH TELECOMMUNICATIONS ROOM. THE FIRE TREATED PLYWOOD WILL BEGIN AT 4" AFF AND END AT 8' 4" AFF. THE ROOM WALLS WILL BE FINISHED WITH DRYWALL (COMPLETELY TAPED, SANDED, AND PAINTED) OR CONCRETE BLOCK (PAINTED) PRIOR TO MOUNTING THE PLYWOOD.
- 33. CABLE TRAY WILL LOOP THE ENTIRE PERIMETER INSIDE A TELECOMMUNICATIONS ROOM AT 8' AFF. MAINTAIN A 4" CLEARANCE FROM FACH WALL SUPPORT WITH TRAPEZE MADE UP OF ALL THREAD AND UNISTRUT UNIVERSAL 12 CABLE TRAY WILL BE INSTALLED AT THE TOP OF THE COMMUNICATIONS RACKS SPANNING THE WIDTH OF THE ROOM. RADIUS DROP OUTS WILL BE INSTALLED ON ALL CABLE TRAYS WHERE CABLES EXIT THE TRAY TO A LOWER ELEVATION.
- 34. ALL TELECOMMUNICATIONS ROOMS SHALL HAVE A GROUNDING BAR, WHICH MEASURES 12" LONG BY 4" WIDE BY 1/4" THICK WITH PRE-DRILLED 1/4" HOLES. THE GROUND BAR SHALL BE CONNECTED TO THE MAIN BUILDING GROUND USING # 2 OR GREATER AWG COPPER WIRE WITH A MAXIMUM RESISTANCE OF 0.5 OHMS OR LESS. NEC REQUIREMENTS SHALL BE FOLLOWED. 35. ALL CABLE TRAY WITHIN THE TELECOMMUNICATIONS ROOM SHALL BE GROUNDED TO THE MAIN BUILDING GROUNDING
- SYSTEM WITH A WIRE NOT SMALLER THAN #2 AWG COPPER. GROUND WIRE AND CLAMPS WILL BE INSTALLED ON THE EXTERIOR OF THE CABLE TRAY. 36. NO MORE THAN AN EQUIVALENT OF 270 DEGREES OF BEND, INCLUDING OFFSETS, IS ALLOWED IN A CONDUIT RUN
- BETWEEN JUNCTION BOXES OR PULL BOXES. 37. ABSOLUTELY NO "LB'S" ARE ALLOWED IN ANY COMMUNICATIONS CONDUIT INSTALLATION.
- 38. CONDUIT ENDS AT A CABLE TRAY WILL HAVE PLASTIC BUSHINGS AND BE WIRE BONDED TO THE TRAY.
- 39. CONDUIT THAT TERMINATES IN THE TELECOMMUNICATIONS ROOM MUST HAVE PLASTIC BUSHINGS AND BE WIRE BONDED TO THE GROUND BAR LOCATED IN THE ROOM. 40. ALL COMMUNICATIONS OUTLETS SHALL BE FED WITH CONDUIT AND PULL STRING, WITH AN ABSOLUTE MINIMUM
- NUMBER OF BENDS FROM THE OUTLET TO THE CABLE TRAY, OR HOMERUN DIRECTLY TO THE TELECOMMUNICATIONS ROOM. PULL BOXES MUST BE INSTALLED AFTER EVERY 270 DEGREES OF BEND (INCLUDING OFFSETS) OR 100 FEET OF THE CONDUIT RUN.
- 41. PREPACKAGED INTUMESCENT MATERIALS ARE THE PREFERRED MATERIAL FOR FIREPROOFING FOR TELECOMMUNICATIONS. DO NOT USE CONCRETE FOR FIRE STOPPING ON CABLE TRAYS, WIREWAYS OR CONDUIT. CONTRACTORS WHO USE THIS METHOD WILL BE REQUIRED TO REPLACE ALL CABLES AFFECTED.



GENERAL NOTES DATE ISSUED: 02/10/2022



REVISIONS							
#	DATE	DESCRIPTION					

NOTE:

LIGHTING	SEQUENCE OF OPE	RATIONS
	SCHEDULE	
ROOM NUMBER	ROOM NAME	NOTE NUMBER
		1
100	LOBBY	
101	RECEPTION	
101A	STOR.	
101B	RR	
102	PRINCIPAL'S OFFICE	
102A	RR	
102B	STOR.	
103	CLASSROOM	
104	CLASSROOM	
105	CLASSROOM	
106	CLASSROOM	
107	MEDIA CENTER	
107A	MEDIA CENTER OFFICE	
107B	SERVER RM	
114	COMPUTER CLASSROOM	
115	CLASSROOM	
116	CLASSROOM	
117	CLASSROOM	
118	RESTROOM	
119	CUSTODIAL	
120	RESTROOM	
121	CLASSROOM	
121A	STORAGE	
122	RESOURCE CLASSROOM	
123	MECHANICAL ROOM	
123	STAGE	
124A	RESOURCE ROOM	
125	CAFETERIA	
126	KITCHEN	
126A	DRY FOOD STORAGE	
126A	TOILET ENTRANCE	
126C	TOILET ENTRANCE	
1200	CORRIDOR	
127	CORRIDOR COOLER/FREEZER	
128	STOR.	
130		
134	MECHANICAL ROOM	
CA	CORRIDOR A	
СВ		

VESTIBULE A

LIGHTING SEQUENCE OF OPERATIONS NOTES:

1. <u>CORRIDORS/VESTIBULES:</u> LIGHTING SHALL BE CONTROLLED VIA TIME SCHEDULE WITH LOC/ OVERRIDE SWITCHES.

2. LARGE RESTROOMS: LIGHTING SHALL BE CONTROLLED VIA TIME SCHEDULE WITH LIGHTS B DURING BUILDING OPERATIONS AND CONTROLLED BY OCCUPANCY SENSOR AFTER HOURS W OVERRIDE SWITCHES. 3. <u>SINGLE RESTROOMS/JANITOR/CUSTODIAL CLOSET:</u> LIGHTING SHALL BE CONTROLLED VIA OCCUPANCY SENSOR SWITCH.

4. STORAGE ROOMS: LIGHTING SHALL BE CONTROLLED VIA OCCUPANCY SENSOR. 5. MECHANICAL/ELECTRICAL/TELECOMMUNICATION ROOMS: LIGHTING SHALL BE CONTROL BY A WALL SWITCH

6. <u>TYPICAL OFFICE:</u> LIGHTING SHALL BE DIMMED. ENTRY STATION SHALL PROVIDE ON/OFF/DIM UP/DIM DOWN/PRESET. A VACANCY SENSOR SHALL SWITCH LIGHTING OFF AFTER 15 MINUTES IF OCCUPANT DOES NOT MANUALLY SWITCH OFF THE LIGHTING. INDICATED (SW) RECEPTACLES SHALL BE CONTROLLED ON/OFF BY THE LIGHTING CONTROL SCHEDULE. THE VACANCY SENSOR SHALL PROVIDE THE BMS WITH OCCUPANCY STATUS VIA AUXILIARY CONTACTS.

7. <u>TYPICAL CONFERENCE/MEETING ROOM</u>: LIGHTING SHALL BE DIMMED. ENTRY STATION SHALL PROVIDE ON/OFF/DIM UP/DIM DOWN/PRESET. A VACANCY SENSOR SHALL SWITCH LIGHTING OFF AFTER 15 MINUTES IF OCCUPANT DOES NOT MANUALLY SWITCH OFF THE LIGHTING. THE VACANCY SENSOR SHALL PROVIDE THE BMS WITH OCCUPANCY STATUS VIA AUXILIARY CONTACTS. 8. <u>TYPICAL CLASSROOM:</u> LIGHTING SHALL BE DIMMED. ENTRY STATION SHALL PROVIDE ON/OFF/DIM UP/DIM DOWN/PRESET. A VACANCY SENSOR SHALL SWITCH LIGHTING OFF AFTER 15 MINUTES IF OCCUPANT DOES NOT MANUALLY SWITCH OFF THE LIGHTING. THE VACANCY SENSOR SHALL PROVIDE

THE BMS WITH OCCUPANCY STATUS VIA AUXILIARY CONTACTS. 9. <u>TYPICAL COMPUTER CLASSROOM:</u> LIGHTING SHALL BE DIMMED. ENTRY STATION SHALL PROVIDE ON/OFF/DIM UP/DIM DOWN/PRESET. A VACANCY SENSOR SHALL SWITCH LIGHTING OFF AFTER 15 MINUTES IF OCCUPANT DOES NOT MANUALLY SWITCH OFF THE LIGHTING. INDICATED (SW) RECEPTACLES SHALL BE CONTROLLED ON/OFF BY THE LIGHTING CONTROL SCHEDULE. THE VACANCY SENSOR SHALL PROVIDE THE BMS WITH OCCUPANCY STATUS VIA AUXILIARY CONTACTS. 10. <u>STAIRS:</u> LIGHTING SHALL REMAIN ON AT ALL TIMES. LIGHTING SHALL BE DIMMED TO 50% LEVEL UNTIL OCCUPANCY SENSOR SENSES OCCUPANCY AT WHICH TIME LIGHT LEVEL SHALL BE BROUGHT TO 100%.

LIGHTS SHALL RETURN TO 50% LEVEL FIVE MINUTES AFTER LAST OCCUPANCY WAS SENSED. 11. DAY LIGHTING CONTROL BY PHOTOSENSOR.

12. ROOM PARTITION SENSORS TO COMBINE CONTROL OF MULTIPLE ROOMS WHEN PARTITION IS OPEN. GENERAL NOTES:

• IN ALL CLASSROOMS, OFFICES, BREAK ROOMS, AND ADMINISTRATIVE SPACES, ENTRY CONTROL STATIONS SHALL TURN LIGHTS ON TO 80% OF FULL OUTPUT. DIM UP CONTROL AND/OR PRESETS SHALL ALLOW LIGHTS TO BE BROUGHT TO FULL OUTPUT. • WHERE EMERGENCY TRANSFER RELAYS ARE SHOWN, CONNECTED LIGHT FIXTURES SHALL BE CONTROLLED ALONG WITH THE NORMAL FIXTURES IN THE SAME ZONE OF CONTROL. PROVIDE

EMERGENCY, NORMAL, AND CONTROL CIRCUITS TO EMERGENCY TRANSFER RELAY PER THE MANUFACTURER'S DIRECTIONS. • WHERE DIMMING IS INDICATED TO BE PROVIDED, ADDITIONAL DIMMING CONDUCTORS MY BE REQUIRED

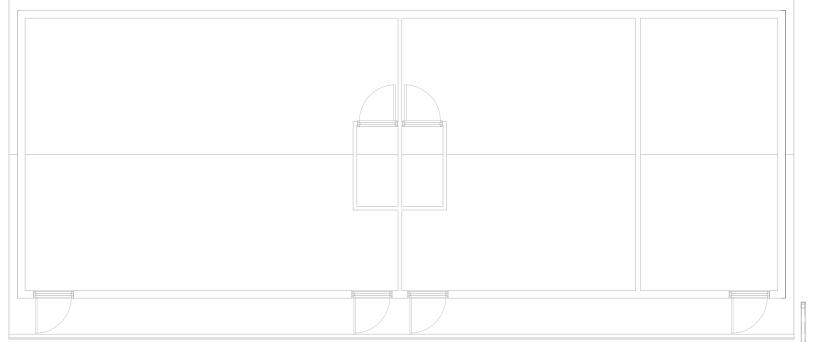
REQUIREMENTS AND PROVIDE AS REQUIRED. PROVIDE OCCUPANCY/VACANCY SENSORS, DIMMING BALLASTS/DRIVERS, CONTROLLERS, CONTROL STATIONS, ETC. AS REQUIRED FOR OPERATION AS DESCRIBED BY THE SEQUENCE OF OPERATION. EXTERIOR LIGHTS:

• POLE-MOUNTED AND BUILDING-MOUNTED LIGHT FIXTURES, INCLUDING EMERGENCY EGRESS FIXTURES, ARE TO BE CONTROLLED BY LIGHTING CONTACTORS. CONTACTORS SHALL BE CONTROLLED BY THE HVAC CONTROL SYSTEM. PROVIDE CONTACTOR WITH AN INTEGRAL MANUAL SWITCH TO ALLOW MANUAL CONTROL OF CIRCUIT FOR DIAGNOSTIC PURPOSES. CONTACTORS SHALL BE LOCATED ADJACENT TO PANELBOARDS. EMERGENCY EGRESS FIXTURES SHALL BE CONTROLLED WITH EMERGENCY TRANSFER RELAY(S) SUCH THAT FIXTURES WILL ENERGIZE WHEN GENERATOR RUNS DURING A POWER OUTAGE.

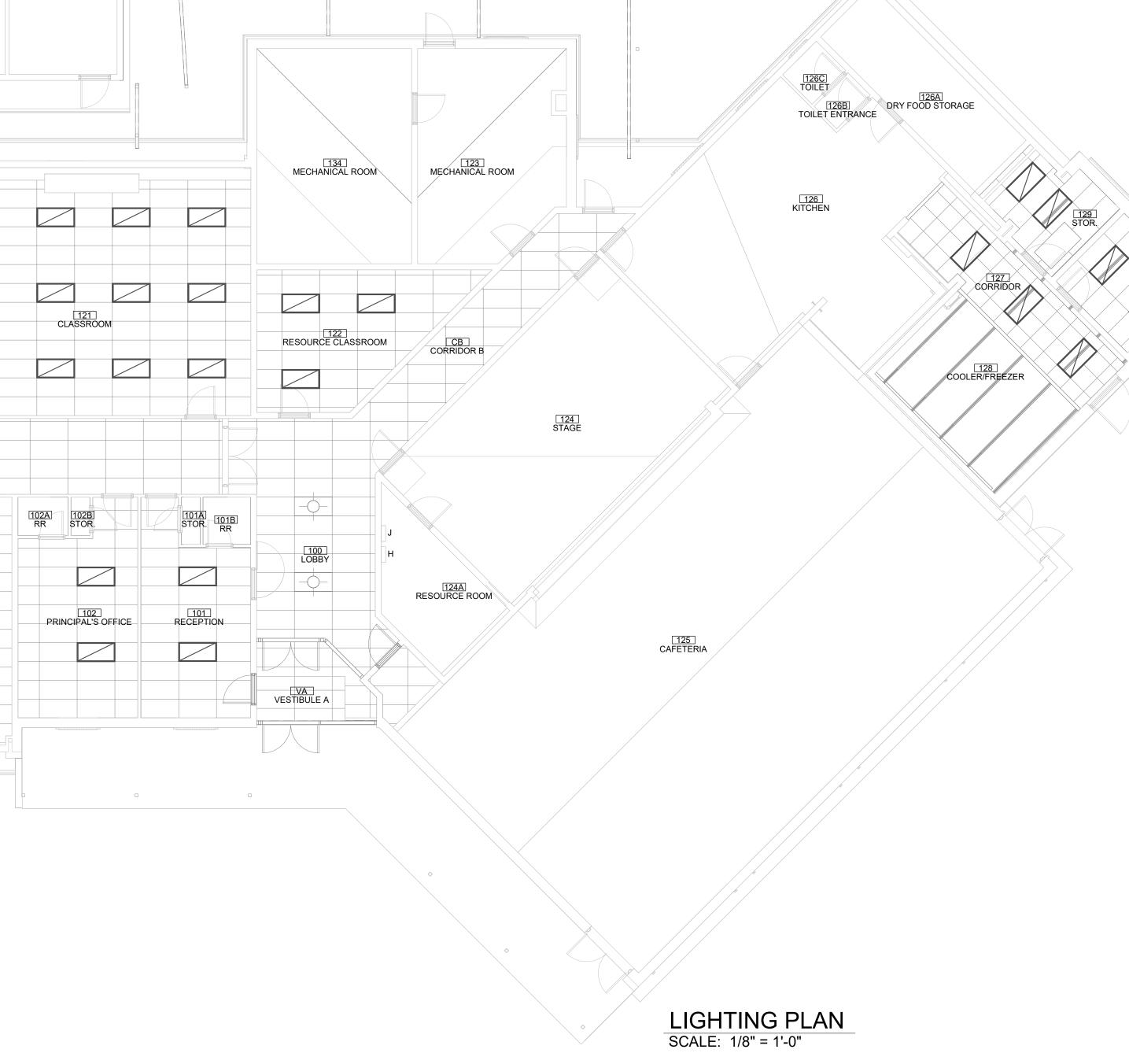
			LI16 CLASSROOM			
	COMPUTER CLASSROOM	CLASSROOM		CLASSROOM	Image: 118     Image: 120       RESTROOM     Image: 120	Image: line state stat
					CUSTODIAL	
	SERVER RM					102A RR STOR
LIOT MEDIA CENTER	107A MEDIA CENTER OFFICE	CLASSROOM		ID4       CLASSROOM	CLASSROOM	PRINCIPAL'S OFFICE RECEP

				LIGHT FIXT	JRE SCHEDULE						
LF-#	FIXTURE DESCRIPTION	VOLTAGE	WATTAGE	LAMP	LUMEN OUTPUT	COLOR TEMPERATURE	COLOR RENDERING INDEX (CRI)	DRIVER	MANUFACTURER	MODEL	EQUIVALENT MANUFACTUR
LF-1	2' x 4' RECESSED TROFFER	277 V	0	LED							
X-3	UNIVERSAL MOUNTED STENCIL SINGLE FACE SELF DIAGNOSTIC LED EXIT SIGN WITH DIE-CAST ALUMINUM HOUSING, SINGLE CAST ALUMINUM HINGED FACEPLATE PER PLANS, WHITE FINISHED HOUSING, LOW ENERGY CONSUMPTION LONG-LIFE LED LAMPS, UL LABEL, FIVE YEAR FIXTURE WARRANTY		1 W	LED				LED DRIVER		LQC W 1 G ELN ELA WG1	

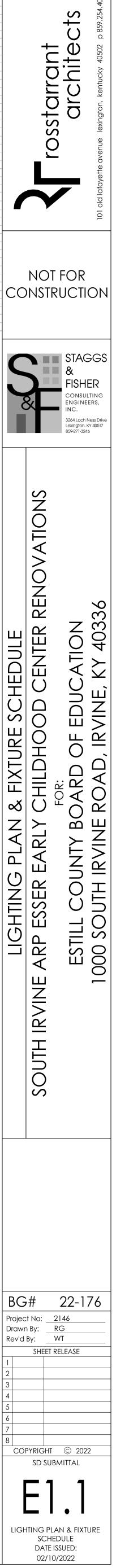
## FROM LIGHTING CONTROLLER TO FIXTURES. COORDINATE WITH LIGHTING CONTROL SYSTEM



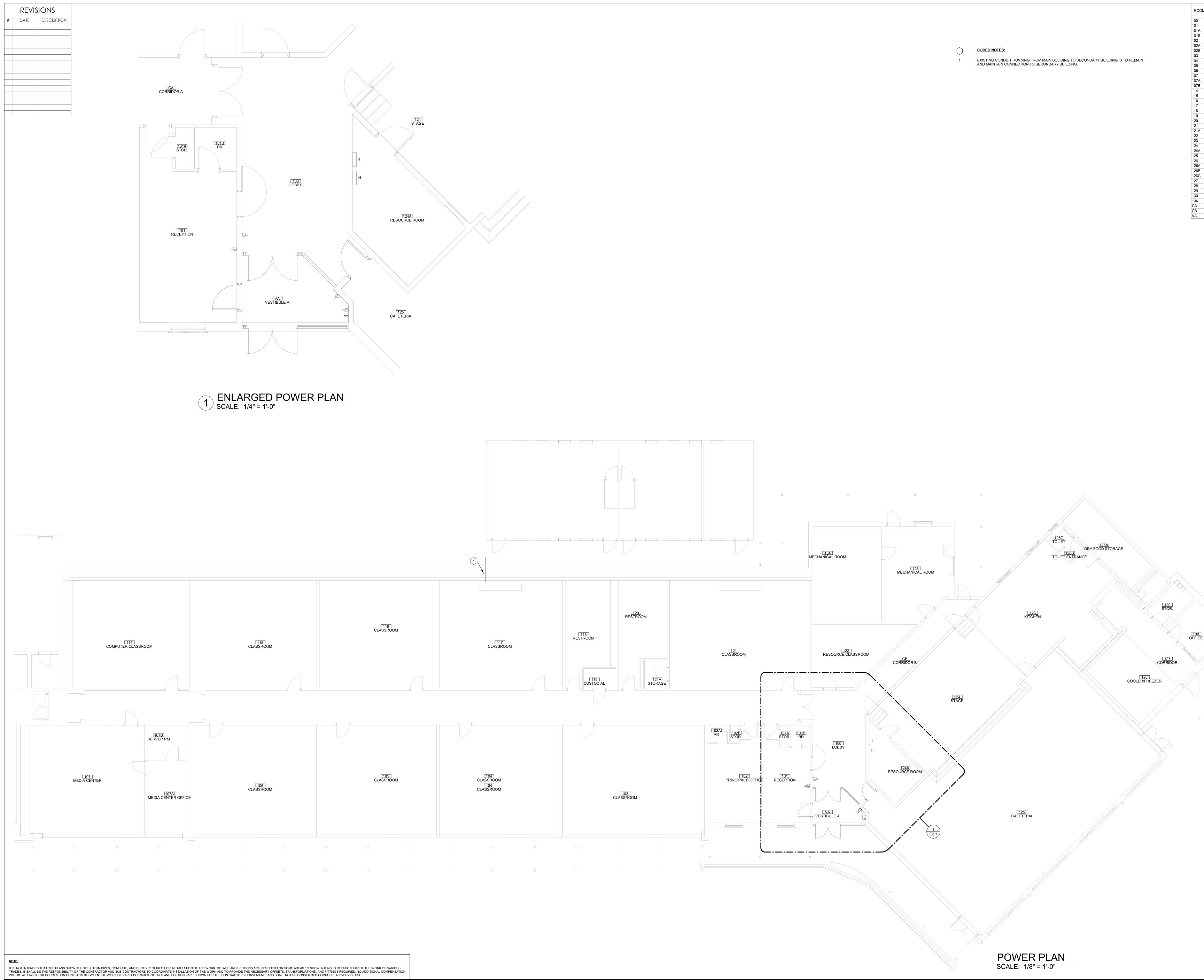
ROO



DM SCHEDULE ROOM NAME
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STOR.
RR
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RR
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COMPUTER CLASSROOM
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CUSTODIAL
 RESTROOM
CLASSROOM
STORAGE
 RESOURCE CLASSROOM
 MECHANICAL ROOM
STAGE
 RESOURCE ROOM
CAFETERIA
KITCHEN
DRY FOOD STORAGE
 TOILET ENTRANCE
TOILET
CORRIDOR
COOLER/FREEZER
STOR.
OFFICE
MECHANICAL ROOM
CORRIDOR A
CORRIDOR B
 VESTIBULE A

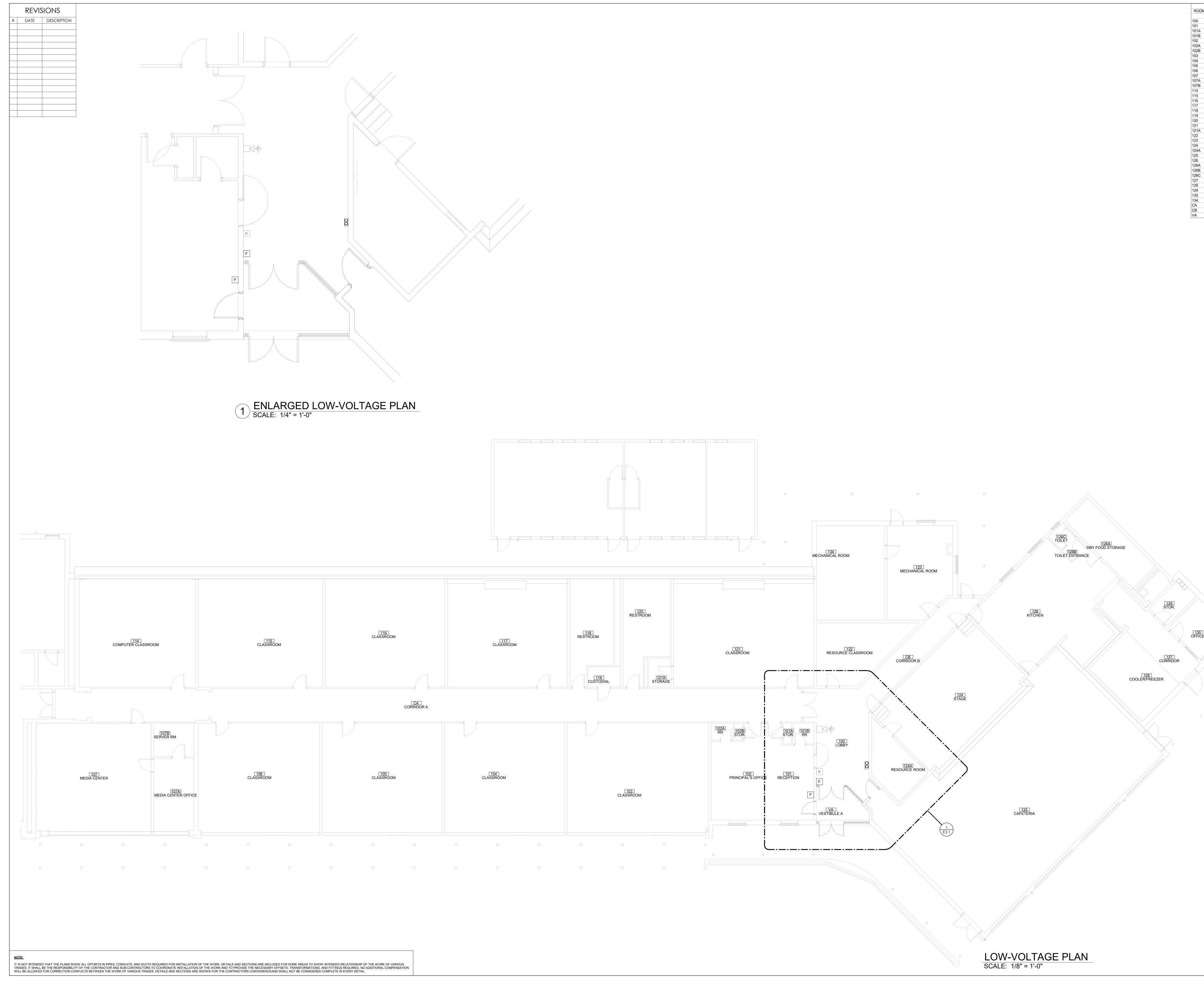








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© 2022 MITTAL PLAN SUED:	ESTILL COUNTY BOARD OF EDUCATION	STAC & FISHI CONSUL ENGINE INC. 3264 Loch N Lexington, k 859-271-324	FOR UCTI	architects
	1000 SOUTH IRVINE ROAD, IRVINE, KY 40336	ER .TING ERS, Ness Drive Y 40517	ON	101 old lafayette avenue lexington, kentucky 40502 p 859.254.4018



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t No:2 n By:R	SOUTH IRVINE ARP ESSER EARLY CHILDHOOD CENTER RENOVATIONS		NOT NSTR	<b>L</b> rosstarra	1
© 202	ESTILL COUNTY BOARD OF EDUCATION	STAC & FISH CONSUL ENGINE INC. 3264 Loch Lexington, 1 859-271-324		archite	tects
	1000 SOUTH IRVINE ROAD, IRVINE, KY 40336	ER LTING ERS, Ness Drive (Y 40517	ON	101 old lafayette avenue Texington, kentucky 40502 p 859.254.4018	0502 p 859.254.4018

### <u>Crime Prevention Through Environmental Design</u> <u>CPTED Principles Checklist for Kentucky Public Schools</u>

## KRS 158.447, Required review of Crime Prevention Through Environmental Design (CPTED) principles prior to school construction or renovation.

The Kentucky Department of Education shall require a local board of education to review CPTED principles when constructing a new school building or when renovating an existing school building. Effective: June 25, 2013

Keeping Kentucky's schools as safe as possible begins with prevention. As such, when planning to build a new school or renovate an existing school building, a critical level of security can be provided when specific principles and guidelines are considered. CPTED standards are designed to encourage review and consideration of best practices in physical plant safety and security.

Any effort local school officials can make to enhance the safety of children and school employees must be considered as being of paramount importance.

Listed below are specific topics for school officials and local boards of education, in cooperation with their design professionals, to consider when beginning the planning process for new construction:

District Name: _	Estill County District Code: 161
Facility Name:	South Irvine Early Childhood Center
Project Name:	South Irvine ARP ESSER Early Childhood Center Renovations
BG Number:	22-176

### 1. What risks and opportunities do students encounter between home and school?

	Yes	No	Remarks
Are crosswalk locations hazardous?		X	
Can physical surveillance of the campus be improved?		X	

## 2. What risks and opportunities are posed on the school property and areas directly adjoining school property?

	Yes	No	Remarks
Traffic Related		X	
Are student drop-off areas separated from school buses and other forms of transportation?	×		
Are parking lots separate for staff, students, and visitors with appropriate signage?		X	

Is adequate signage provided to direct visitors to the primary entrance of the building?	×		
Is the parking lot positioned in areas adequate for surveillance (physical and electronic)?	×		
Are walkways positioned for adequate surveillance from within the building?	X		
Is adequate external lighting provided?	×		
During renovations, consider surrounding hazards	×		
Is access to school property controlled by fencing, walls, signs (territorial, directional, and regulatory)?		×	
Do solid walls, fences, trees, and hedges block surveillance or attract graffiti? (3/7 rule – bushes trimmed 3 feet or shorter, trees cut 7 feet high)		×	
Are possible evacuation sites available? Do they have telephones, bathrooms, heat, securable areas?		X	

# 3. Can the office staff observe approaching visitors before they reach the school entry?

	Yes	No	Remarks
Is the office located adjacent to the main entry?	X		
Does anything block the view? (Sculpture, landscaping features)		X	
Do windows allow natural surveillance of approaching visitors?	x		
Does the office layout allow staff to see approaching visitors from normal working positions?	×		
If poorly located, can new locations for the office be identified and the office moved?			NĄ.

### 4. Do staff members have the physical ability to stop visitors from entering?

	Yes	No	Remarks
Is there an airlock or sally port vestibule?	X		Part of Project
Is it difficult for staff members to lock entry doors in an emergency?		×	

Can staff use an emergency electronic lock button?		X	
Do staff members use keys? Are they			
required to go outside the room in order to lock the door?		X	흔들고 있는 것 같은 물건을
Is the primary entrance secured, monitored and identified with appropriate signage?	X		
Do counters or windows protect office staff?	X		
If threatened, can office staff retreat to safer locations?	x		
Do staff members have panic button alarms?		X	
Can intruders gain access any other way than through the main entry?		X	
Are all exterior doors numbered?	×		
Can those secondary entries be locked, staffed, and otherwise controlled?	X		
Is an alarm system in place? What triggers the alarmand what happens then?		X	

### 5. How well can people see what is going on inside the school?

	Yes	No	Remarks
Can office staff and others see activity in immediately adjacent areas, as well as up and down hallways? Can they see over the heads of crowds using mirrors, cameras, raised areas?	×		
Do blind corners, niches, unlocked and unattended rooms block surveillance?		×	
Can access to hidden areas be denied? Can those areas be locked off?	×		
Would convex mirrors help? If yes, where?		X	
Can internal windows be uncovered, or blinds be opened, to improve surveillance?	×		
Can first responders see what is going on in the building?	x		

# 6. Do staff members have immediate lockdown capability in classrooms and other locations?

	Yes	No	Remarks
Can rooms be used as safety areas in emergencies? If yes, which ones?	×		

Is it difficult to lock each room in an emergency?		X	
Is a key required to lock the classroom door?		X	
Does a person have to step into the hallway to lock the door?		X	
Will classroom doors lock automatically when closed?	•	ĸ	•
Is there a two-way intercom or telephone in each room?	X		
Are there secondary emergency exits available from each room?		×	

7. Are there identifiable or predictable trouble spots or high-risk locations? (These locations may have already been addressed in #1-6. This serves as a fail-safe measure, to see if any locations have been missed, and require more specific recommendations.)

	Yes	No	Remarks
Climbing hazards (trees, ladders, etc)		X	
School boundaries	×		
School grounds		X	
Playgrounds		X	
Driveways		X	
Bike racks			NA
Main entry area		X	
Secondary entryways		X	
Main office		X	
Hallways (specify which ones)		×	
Courtyards			NA
Classrooms		X	,
Temporary classrooms		X	
Gymnasium			NA
Locker rooms, locker bays, locker halls			NA

Toilets		X	
Library		X	
Cafeteria		X	
Loading docks and dumpsters		1	
Custodial receiving and storage areas	-	K	
Boiler room		×	
Auditorium			Nr
Art rooms			
Science labs			NA NA
Preschool or Head Start classrooms		×	Nr
Music rooms			Na
Special education rooms			NA
Computer/technology rooms		×	
Family/Consumer science rooms			NA
Technology education rooms			Na
Agriculture classrooms/labs			Na
Time-out rooms			Na
Meeting or conference rooms			NA
Informal or formal gathering areas		×	
Roof		×	
Crawl spaces			No
Surveillance equipment closet		X	
Key control	X		
Lighting problems indoors or out		Ŷ	

### 8. Security Technology

	Yes	No	Remarks
Are access control devices used?			PArt of Renovation
Are electronic access control devices being used?			1
Do emergency workers have easy access when needed?	x		
Are surveillance cameras used?	X		
Is a monitoring station provided? Can they be viewed off-site?	×		
If yes, are cameras maintained, protected from vandals, functional, and of adequate quality?	X		

### 9. Miscellaneous

	Yes	No	Remarks
Is hallway lighting positioned perpendicular to the walls?	×		
Are stairwells lit adequately?			NA
Is appropriate directional signage provided for other areas than the primary entrance (gym, theatre, stadium, etc)?	X		
Are emergency call stations or panic alarms provided?		x	

Notes:

Kentucky Licensed		
Design Professionals:		Date:
	Signature	
Kentucky Registered Engineer:		Date:
	Signature	
Kentucky Landscape Architect:		Date:
Superintendent or Board Designee:	Signature Signature	Date: 125/2022
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