Burgin Independent School Addition & Renovation

Burgin, Kentucky

for the

Burgin Independent Board of Education 440 E. Main Street Burgin, Kentucky 40310 p 859.748.5282

BG #19-262 RTA #1904

rosstarrant architects

enhancing education through great design

STRUCTURAL ENGINEER:

M.E.P. ENGINEER:

FOOD SERVICE CONSULTANT:

HARDWARE CONSULTANT:

STRUCTURAL DESIGN GROUP, INC. 220 Great Circle Road, Suite 106 Nashville, Tennessee 37228 p 615.255.5537

CMTA, INC. 2429 Members Way p 859.253.0892

JOBY SMITH AND ASSOCIATES, INC. 8111 LeSourdsville-Westchester Road Westchester, Ohio 45069 p 513.778.7970

CALVERT INDEPENDENT HARDWARE SPECIFICATIONS, LLC 307 Oakwood Circle Vine Grove, Kentucky 40175 p 502.930.2039



Lexington, Kentucky 40504

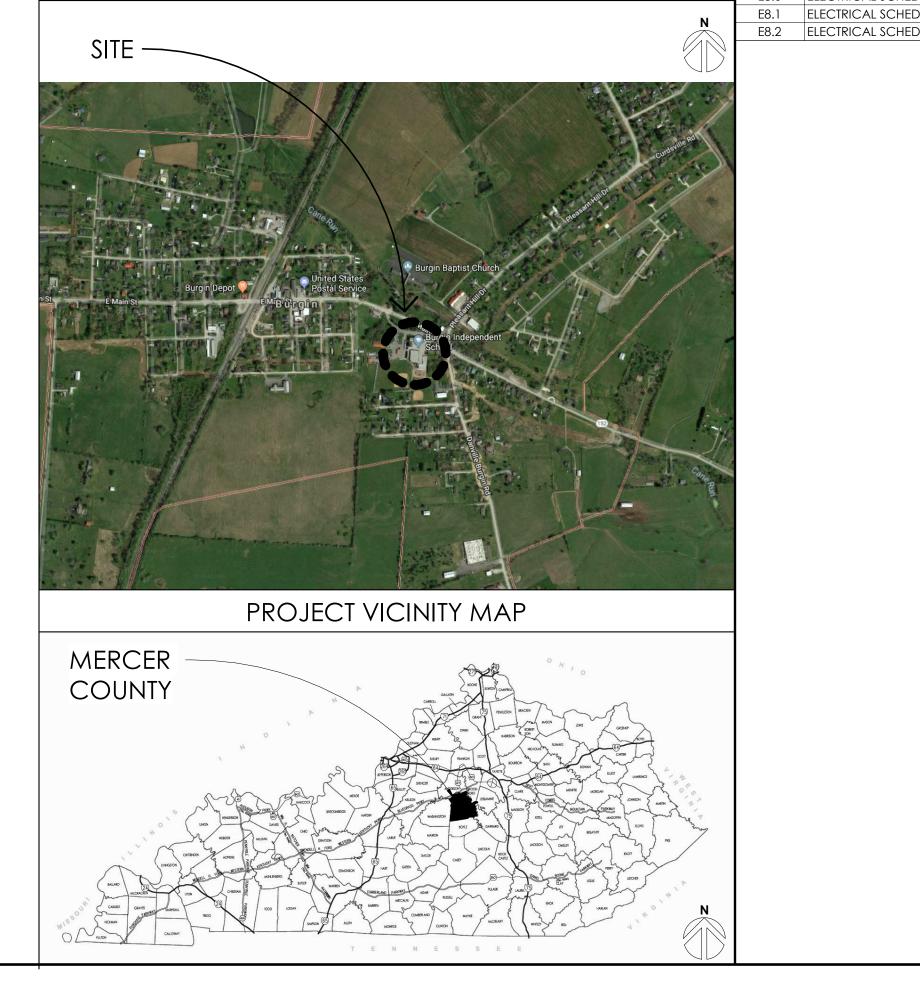
101 old lafayette avenue lexington, kentucky 40502 p 859.254.4018 www.rosstarrant.com



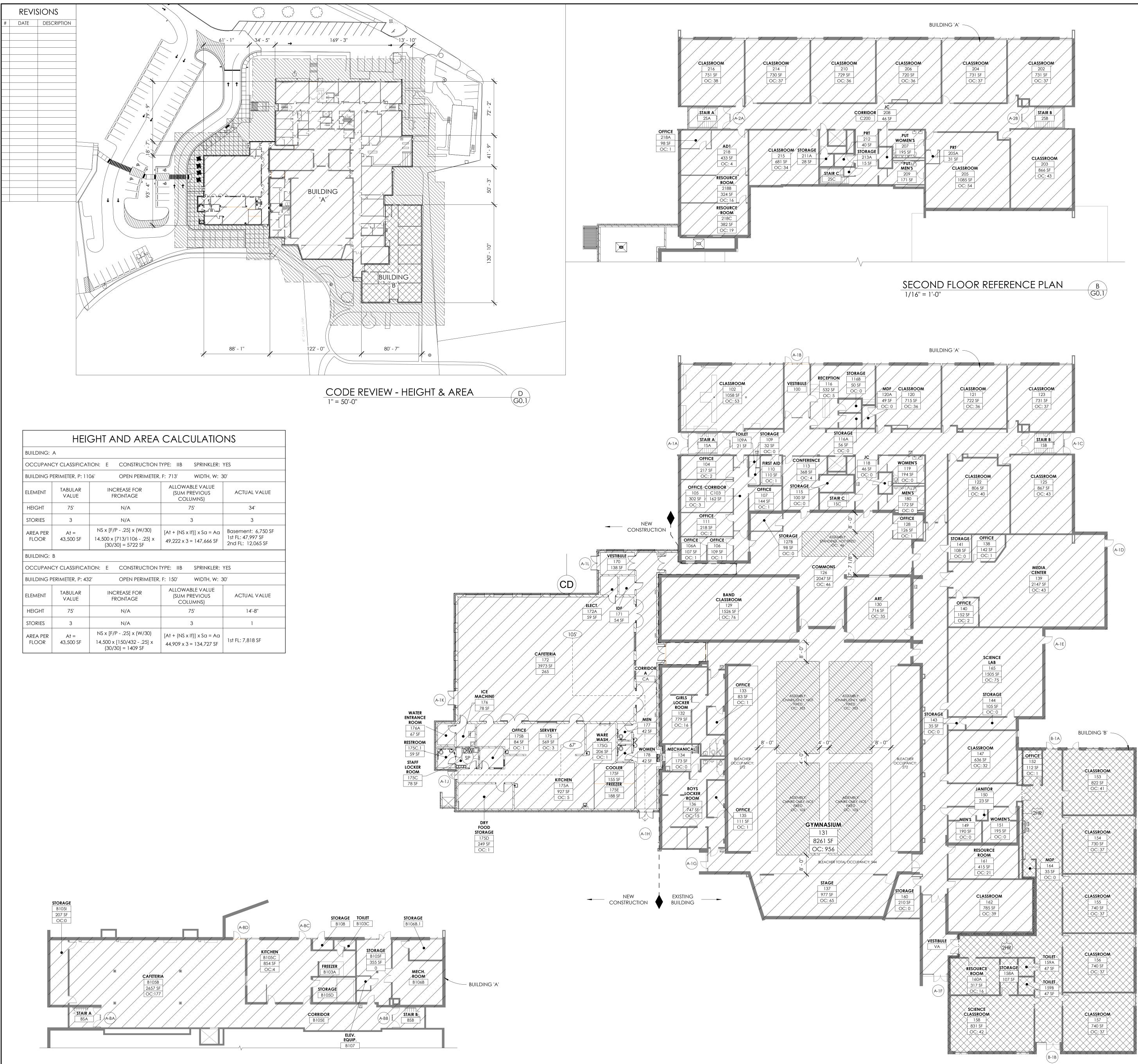
PROJECT SITE ADDRESS:

440 E Main Street Burgin, Kentucky 40310

VICINITY MAP

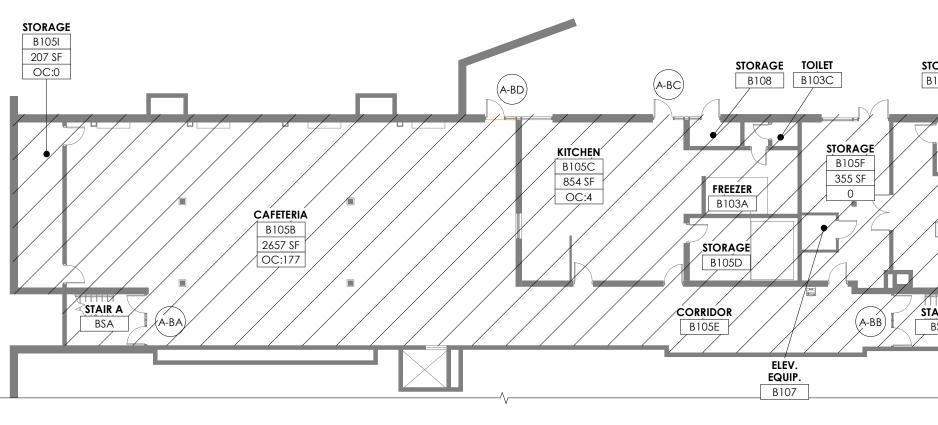


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D1.1 A0.1 A1.0 A1.1 A1.2 A2.0 A2.1 A3.1 A3.2	DEMOLITION PLAN GENERAL ARCHITECTURAL DETAILS REFERENCE PLANS FLOOR PLANS ENLARGED FLOOR PLANS FINISH SCHEDULE AND DETAILS FLOOR PLANS - INTERIORS ROOF PLAN ROOF DETAILS				
A4.1 A5.1 A5.2 A5.3 A5.4 A6.1 A6.2 A7.1 A7.2	BUILDING ELEVATIONS BUILDING SECTIONS WALL SECTIONS WALL SECTIONS WALL SECTIONS DOORS AND FRAME SCHEDULE DOOR AND WINDOW DETAILS REFLECTED CEILING PLANS REFLECTED CEILING PLANS				
A8.1 A8.2 A8.3 A8.4 FS1.0 FS1.1 FS1.2 FS1.3 U1.0 UM2.0 UE1.0 UE2.0 FP1.0 FP2.1 P1.0 P2.1 P1.0 P2.1 P1.0 P2.1 P1.0 P2.1 P1.0 P2.1 P1.0 P2.1 P3.1 P4.0 P5.0 P6.1 P7.0 P6.1 P7.0 P6.1 P7.0 R0.1 M3.2 M3.3 M4.0 M5.0 M6.1 M7.0 E1.0 E4.1 E5.0 E6.1 E6.2 E6.3 E7.0 E8.1 E8.2	ALTERNATES #1 & #2 ALTERNATES #1 & #2 ALTERNATE S#4 AND #5 ALTERNATE DETAILS ALTERNATE DETAILS ALTERNATE DETAILS KITCHEN EQUIPMENT FLOOR PLAN KITCHEN EQUIPMENT FLOOR PLAN MECHANICAL AND ELECTRICAL SITE PLAN - DEMOLITION MECHANICAL SITE PLAN - NEW WORK ELECTRICAL SITE PLAN - NEW WORK ELECTRICAL SITE DETAILS FIRE PROTECTION LEGEND FIRE PROTECTION LATERNATES #1 & #2 PLUMBING LOBEND PLUMBING LEGEND PLUMBING PLAN PLUMBING PLAN PLUMBING PLAN PLUMBING ALTERNATES #1 & #2 ROOF PLAN - PLUMBING ENLARGED KITCHEN PLAN - PLUMBING WASTE AND VENT RISER DIAGRAMS WASTE AND VENT RISER DIAGRAMS WASTE AND VENT RISER DIAGRAMS MECHANICAL DEGEND MECHANICAL DEGEND MECHANICAL DEGEND MECHANICAL DEGEND MECHANICAL ROOF DEMOLITION PLANS MECHANICAL ROOF DEMOLITION PLANS MECHANICAL ROOF DEMOLITION PLANS MECHANICAL ALTERNATES #1 & #2 MECHANICAL CONTROLS MECHANICAL CONTROLS MECHANICAL CONTROLS MECHANICAL CONTROLS MECHANICAL SCHEDULS ELECTRICAL DETAILS MECHANICAL CONTROLS MECHANICAL SCHEDULS ELECTRICAL DETAILS POWER PLANS ROOF PLANS ROO	COVER SHEET	BURGIN INDEPENDENT SCHOOL ADDITION & RENOVATION	BURGIN INDEPENDENT BOARD OF EDUCATION	BURGIN, KENTUCKY
		CMTA 2429 N Lexing p 859. <u>Struct</u> 220 G Nashv	P Enginee , Inc. Members gton, KY 4(253.0892 <u>ural Engin</u> ural Desig reat Circle <i>r</i> ille, TN 37 255.5537	Way 0504 1 <u>eer</u> : 1n Group, e Rd. Suit	
		BG Projec		19-262 904	
		Drawr Rev'd 1 2 3 4 5 6 7 8 COF	n By:B	BB RM ELEASE © 201 N DOCUM DOCUM	MENTS





HEIGHT AND AREA CALCULATIONS								
BUILDING: A								
OCCUPANCY CLASSIFICATION: E CONSTRUCTION TYPE: IIB SPRINKLER: YES								
BUILDING PERIMETER, P: 1106' OPEN PERIMETER, F: 713' WIDTH, W: 30'								
ELEMENT	TABULAR VALUE	INCREASE FOR FRONTAGE	ALLOWABLE VALUE (SUM PREVIOUS COLUMNS)	ACTUAL VALUE				
HEIGHT	75'	N/A	75'	34'				
STORIES	3	N/A	3	3				
AREA PER FLOOR	At = 43,500 SF	NS x [F/P25] x (W/30) 14,500 x [713/110625] x (30/30) = 5722 SF	[At + (NS x If)] x Sa = Aa 49,222 x 3 = 147,666 SF	Basement: 6,750 SF 1st FL: 47,997 SF 2nd FL: 12,065 SF				
BUILDING:	В							
OCCUPANO	CY CLASSIFICAT	ION: E CONSTRUCTION I	YPE: IIB SPRINKLER:	YES				
BUILDING P	ERIMETER, P: 43	2' OPEN PERIMETER,	F: 150' WIDTH, W: 3	30'				
ELEMENT	TABULAR VALUE	INCREASE FOR FRONTAGE	ALLOWABLE VALUE (SUM PREVIOUS COLUMNS)	ACTUAL VALUE				
HEIGHT	75'	N/A	75'	14'-8''				
STORIES	3	N/A	3	1				
AREA PER FLOOR	At = 43,500 SF	NS x [F/P25] x (W/30) 14,500 x [150/43225] x (30/30) = 1409 SF	[At + (NS x If)] x Sa = Aa 44,909 x 3 = 134,727 SF	1st FL: 7,818 SF				



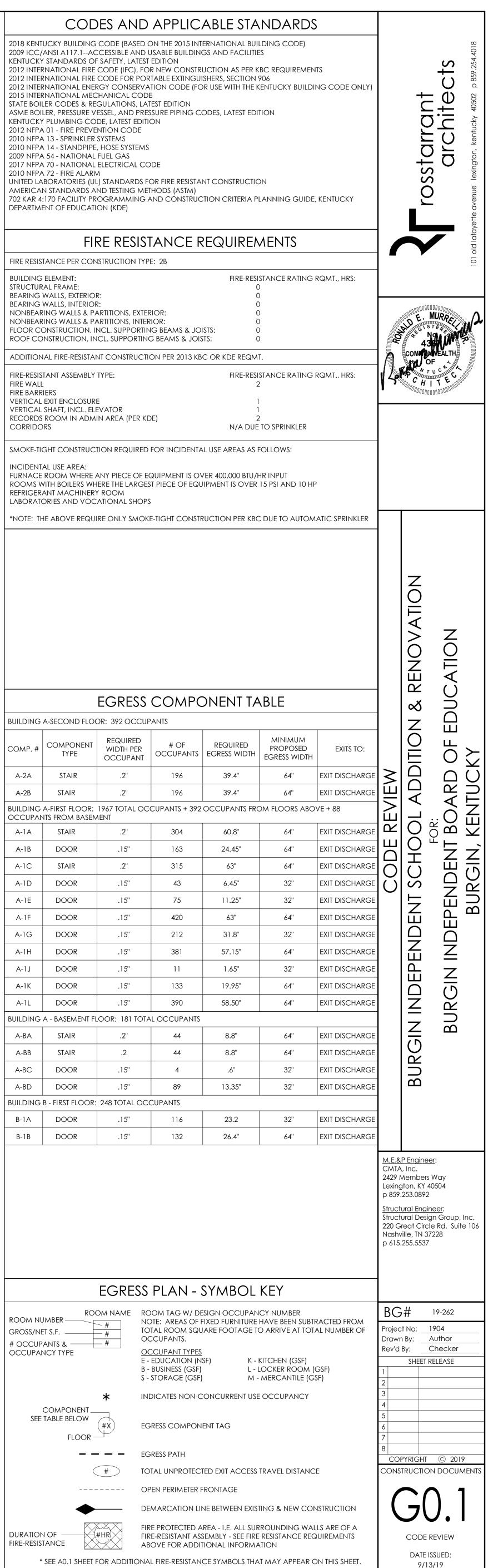
BASEMENT REFERENCE PLAN 1/16" = 1'-0"



FIRST FLOOR REFERENCE PLAN 1/16" = 1'-0"

A G0.1

	COD	es and	APPLIC	ABLE STA	N.			
2009 ICC/ KENTUCKY 2012 INTEF 2012 INTEF 2012 INTEF 2015 INTEF STATE BOI ASME BOI KENTUCKY 2012 NFPA 2010 NFPA	ANSI A117.1AC Y STANDARDS OF RNATIONAL FIRE RNATIONAL FIRE RNATIONAL ENEF RNATIONAL MEC LER CODES & RE LER, PRESSURE V Y PLUMBING CO A 01 - FIRE PREVE A 13 - SPRINKLER A 14 - STANDPIPE A 14 - STANDPIPE A 54 - NATIONAL A 70 - NATIONAL A 72 - FIRE ALARM ABORATORIES (UL N STANDARDS A	CESSIBLE AND L SAFETY, LATEST CODE (IFC), FO CODE FOR POR RGY CONSERVA CHANICAL CODE GULATIONS, LAT ESSEL, AND PRES DE, LATEST EDITION CODE SYSTEMS , HOSE SYSTEMS FUEL GAS ELECTRICAL CO M _) STANDARDS FO ND TESTING MET OGRAMMING A	JSABLE BUILDING EDITION R NEW CONSTR TABLE EXTINGUI TION CODE (FC E EST EDITION SURE PIPING CO ON DE DE DR FIRE RESISTAT	ERNATIONAL BUI GS AND FACILITIE UCTION AS PER K SHERS, SECTION S R USE WITH THE K ODES, LATEST EDI NT CONSTRUCTIO	ES IBC 906 (EN ^T TIOI			
	FIF	RE RESIST		REQUIREN	ΛE			
FIRE RESIS	TANCE PER CON	ISTRUCTION TYP	E: 2B					
STRUCTUR BEARING BEARING NONBEAR NONBEAR FLOOR CO	BUILDING ELEMENT:FIRE-RESISTASTRUCTURAL FRAME:0BEARING WALLS, EXTERIOR:0BEARING WALLS, INTERIOR:0NONBEARING WALLS & PARTITIONS, EXTERIOR:0NONBEARING WALLS & PARTITIONS, INTERIOR:0FLOOR CONSTRUCTION, INCL. SUPPORTING BEAMS & JOISTS:0ROOF CONSTRUCTION, INCL. SUPPORTING BEAMS & JOISTS:0							
ADDITION	IAL FIRE-RESISTAN		ON PER 2013 KB	C OR KDE REQM	Γ.			
FIRE WALI FIRE BARR VERTICAL VERTICAL	riers . exit enclosuri . shaft, incl. ele	e Evator		FIRE-RESI 2 1 1				
RECORDS CORRIDC	s room in admi Drs	IN AREA (PER KC)E)	2 N/A DUE				
SMOKE-TI				L USE AREAS AS F				
FURNACE ROOMS V REFRIGER LABORAT	INCIDENTAL USE AREA: FURNACE ROOM WHERE ANY PIECE OF EQUIPMENT IS OVER 400,000 BTU/HR II ROOMS WITH BOILERS WHERE THE LARGEST PIECE OF EQUIPMENT IS OVER 15 F REFRIGERANT MACHINERY ROOM LABORATORIES AND VOCATIONAL SHOPS *NOTE: THE ABOVE REQUIRE ONLY SMOKE-TIGHT CONSTRUCTION PER KBC DU							
BUILDING COMP. #	EGRESS COMPONENT TAB BUILDING A-SECOND FLOOR: 392 OCCUPANTS							
A-2A	TYPE STAIR	OCCUPANT	OCCUPANTS	EGRESS WIDTH	EC			
A-2B	STAIR	.2"	196	39.4"				
BUILDING		1967 TOTAL OC		OCCUPANTS FRO	L DM			
OCCUPAN A-1A	NTS FROM BASEN	1ENT .2"	304	60.8"				
A-1A A-1B	DOOR	.15"	163	24.45"				
A-1C	STAIR	.13	315	63"				
A-1D	DOOR	.15"	43	6.45"	-			
A-1E	DOOR	.15"	75	11.25"				
A-1F	DOOR	.15"	420	63"				
A-1G	DOOR	.15"	212	31.8"	-			
A-1H	DOOR	.15"	381	57.15"				
A-1J	DOOR	.15"	11	1.65"				
A-1K	DOOR	.15"	133	19.95"				



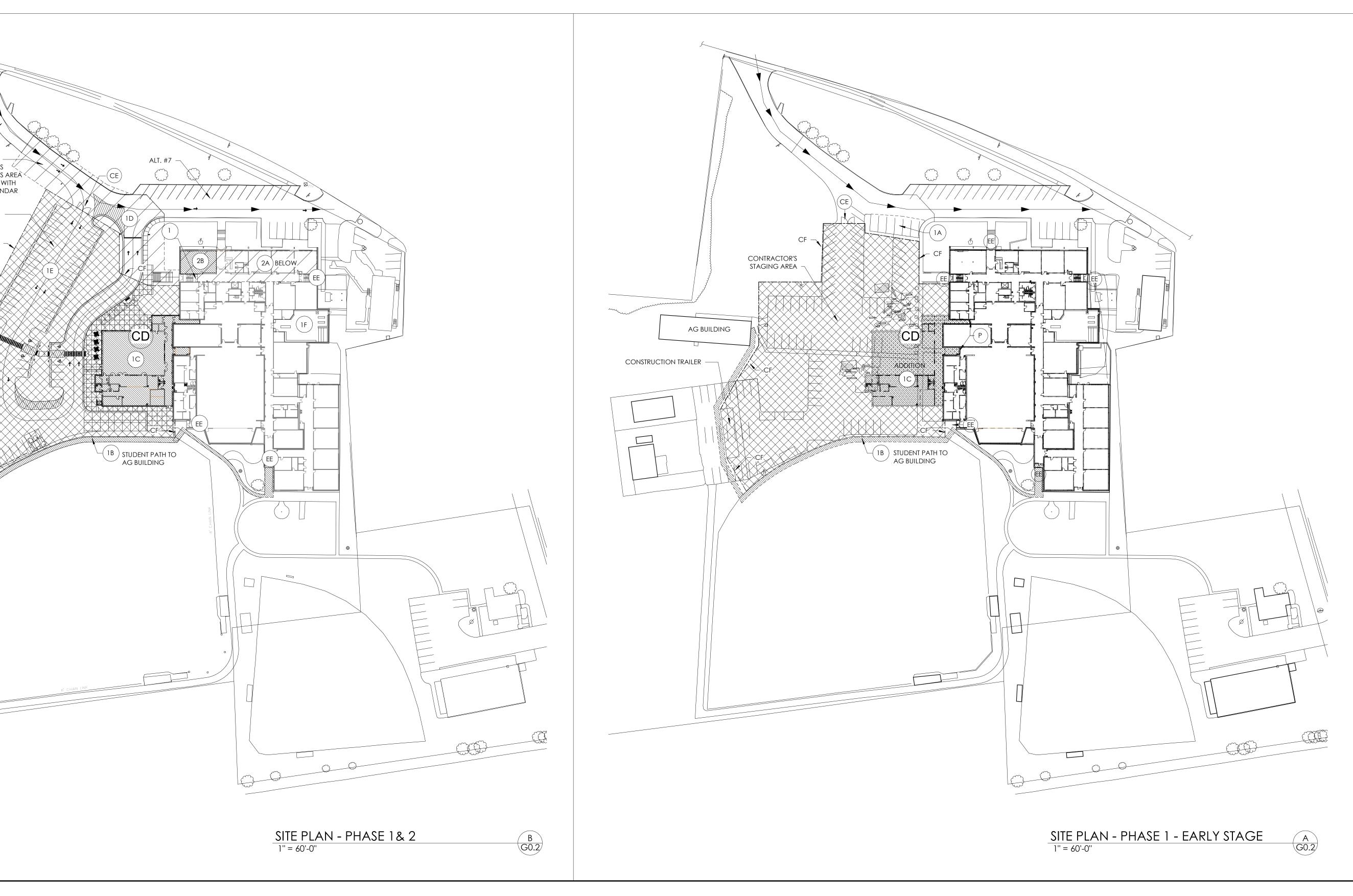
#	REVIS	SIONS DESCRIPTION	
			ALT. #7
			COORDINATE CONTRACTOR'S ACCESS TO THIS AREA FOR PHASE 1C WITH SCHOOL CALENDAR
			CONTRACTOR'S AREA CF
			AG BUILDING
			CONSTRUCTION TRAILER
			10' CHAIN LINK
			e. CHAN LINK

PHASE 1

NOTE	e: time
(1A)	<u>tempo</u> Instai to re
(1B)	<u>Stude</u> Instai to re
	<u>buildi</u> Nov.
	<u>SITE: C</u> MAY

1E <u>SITE: PARKING</u> MAY 18, 2020 - NOV. 12, 2020

NOTE: OFFICIAL.



E FRAME MAY ALTER DEPENDING ON EXTERNAL FACTORS. PORARY PARKING

Tall: NOV. 14, 2019 - NOV. 27, 2019 REMAIN: UNTIL 1C BEGINS

<u>DENT WALK</u> TALL: NOV. 14, 2019 - NOV. 27, 2019 REMAIN: UNTIL 1C & 1D ARE SUBST. COMPLETE <u>DING ADDITION</u> INCLUDES ALTERNATES #4 & #5 V. 14, 2019 - NOV. 12, 2020

<u>: Connection</u> Includes Alternate #7 Y 18, 2020 - July 24, 2020

 ALTERNATE #3 (MEDIA CENTER)

 MAY 18, 2020 - JULY 24, 2020

PHASE 2

NOTE: TIME FRAME MAY ALTER DEPENDING ON EXTERNAL FACTORS. PHASE 1B TO BE COMPLETE BEFORE PHASE 2A IS TO BEGIN.

2A <u>ALTERNATE #1 (BASEMENT)</u> DEC. 14, 2020 - JUNE 14, 2021

(2B) ALTERNATE #2 (FMD/FIRST AID) DEC. 14, 2020 - JUNE 14, 2021 \smile

PHASING LEGEND

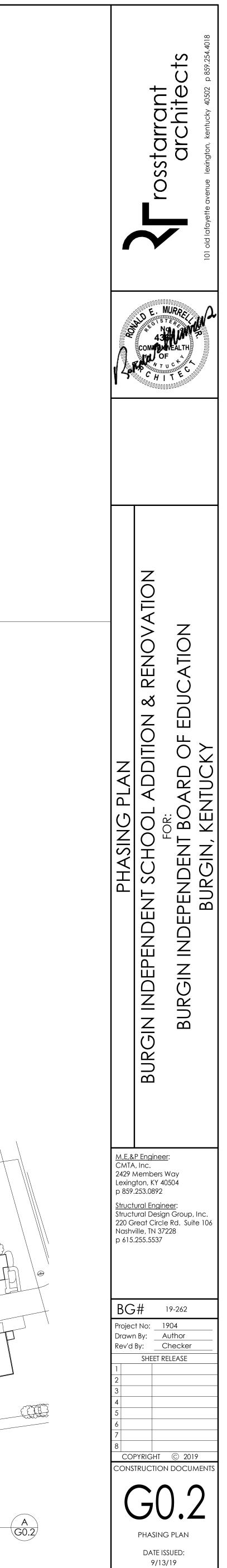
STUDENT PATH

PARENT/BUS LOOP TRAFFIC

CONSTRUCTION FENCE (CF) _____ STUDENT ENTRANCE CONTRACTOR ENTRANCE EMERGENCY EXIT

SE CE EE

P CONSTRUCT PARTITION PER 015000 COORDINATE ALL FINAL MEANS OF EGRESS REQUIREMENT WITH CODE



UTILITY OWNERS

WATER AND SANITARY SEWER LAKE VILLAGE WATER ASSOCIATION INC 801 PLEASANT HILL DRIVE, BURGIN, KY 40310 (859) 236-9505

MERCER SANITATION DISTRICT 801 PLEASANT HILL DRIVE, BURGIN, KY 40310 (859) 748-9654

KENTUCKY UTILITIES 815 DIX DM RD, HARRODSBURG, KY 40330

(859) 748-9933 NATURAL GAS

ELECTRIC

ATMOS ENERGY CORPORATION 449 WHIRLAWAY DR, DANVILLE, KY 40422 (859) 236-2291

SURVEY NOTES

NOTE 1: SHOWN FROM BURGIN INDEPENDENT K-12 PHASE 2 2011 RENOVATION AND ADDITION SHEET SS-1, NOT BY SURVEY.

THE PURPOSE OF THIS SURVEY IS TO PROVIDE SITE IMPROVEMENT & TOPOGRAPHIC INFORMATION ONLY. THIS DOCUMENT DOES NOT REPRESENT A BOUNDARY SURVEY, IS NOT INTENDED FOR RECORDING OR LAND TRANSFER AND IS NOT INTENDED TO COMPLY WITH 201 KAR 18:150.

THE NORTH MERIDIAN & VERTICAL DATUM SHOWN HEREON ARE BASED ON GPS OBSERVATIONS MADE USING A TRIMBLE R10 AND TRIMBLE R8 NETWORK RECEIVER USING C.O.R.S. STATION "VRS". THE HORIZONTAL DATUM IS KENTUCKY STATE PLANE COORDINATE SYSTEM SOUTH ZONE (NAD 83) GRID NORTH. THE VERTICAL DATUM IS NAVD 88 (GEOID12B). THIS SURVEY CONTROL WAS ESTABLISHED ON MAY 15, 2019.

THIS SURVEY WAS CONDUCTED BY THE METHOD OF RANDOM TRAVERSE WITH SIDESHOTS . THE PRECISION RATIO OF THE TRAVERSE WAS 1:144,914 AND WAS NOT ADJUSTED.

THIS PROPERTY IS SUBJECT TO ALL EASEMENTS AND RIGHTS OF WAY BOTH RECORDED AND UNRECORDED.

DATE OF SURVEY: MAY 15, 2019

DISCLAIMERS

THIS SURVEY WAS CONDUCTED WITHOUT THE BENEFIT OF A TITLE ABSTRACT. NO LIABILITY IS ASSUMED BY THE SURVEYOR FOR ANY LOSS THAT MAY BE DISCOVERED BY AN ABSTRACT OR TITLE SEARCH.

THE SUBSURFACE UTILITY LOCATIONS AND DESCRIPTIONS SHOWN HEREON WERE DETERMINED TO THE EXTENT POSSIBLE BY SURFACE OBSERVATIONS, LOCATION MARKINGS PROVIDED BY THE UNDERGROUND DETECTIVE (TUD) AND LOCATION MARKINGS PLACED BY KY 811 LOCATION SERVICE (TICKET NUMBER 1905140313, DATED 05/14/2019). LINES SHOWN MAY VARY FROM THE LOCATIONS OUTLINED AND ADDITIONAL UTILITIES AND OR EASEMENTS MAY EXIST. NO LIABILITY IS ASSUMED BY THE SURVEYOR FOR ANY LOSS OR DAMAGE THAT MAY OCCUR DURING DESIGN OR CONSTRUCTION.

LAND SURVEYORS CERTIFICATION

I DO HEREBY CERTIFY THAT THIS EXHIBIT WAS PREPARED UNDER MY DIRECTION AND THAT, TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE INFORMATION SHOWN HEREON IS TRUE AND ACCURATE.

08/08/2019 ALAN W. LEAKE, P.L.S. #3032

DATE

LEGEND ------ PL ------ PL ------ APPROXIMATE PROPERTY LINE (SEE NOTE 1) — — — — 886— — — — MINOR CONTOUR ------ STM ------ STORM SEWER UGE UGE UGE UGE UGE UNDERGROUND ELECTRIC LINE (FROM TUD MARKS) ------ COMM ------ BURIED TELEPHONE / COMMUNICATIONS (FROM TUD MARKS) ------ SAN ------ SAN ------ SANITARY SEWER LINE (FROM SURFACE OBSERVATIONS ONLY) ------ *SAN* ----- *SAN* ------ SANITARY SEWER LINE (FROM PLAN PG. SS-1 PHASE 2-DOLLER SURVEY) ------ *GAS* ----- *GAS* ------ GAS LINE (FROM PLANS) GAS GAS GAS GAS GAS GAS LINE (FROM KY 811 MARKS) AU AU AU AU AERIAL UTILITY (FROM SURFACE OBSERVATIONS ONLY) ------ FZ ------ FZ ------ FLOOD ZONE A (FEMA MAP 21167C0145C EFF. 9/17/2008) STORM SEWER DROP INLET WATER VALVE WATER METER FIRE HOSE CONNECTION FIRE HYDRANT POST INDICATOR VALVE WATER SPIGOT **GUY WIRE** 🛦 CP # CONTROL POINT SANITARY MANHOLE DOWN SPOUT LIGHT POLE UTILITY POLE GAS VALVE GAS METER SANITARY CLEANOUT @ co TREE (NOT TO SCALE) SIGN WIND GAUGE BOLLARD 3" (NOT TO SCALE) COLUMN 3" X 3" (NOT TO SCALE) FLAG POLE PROPERTY MONUMENT FOUND

DOWNSPOUT

ELECTRIC METER

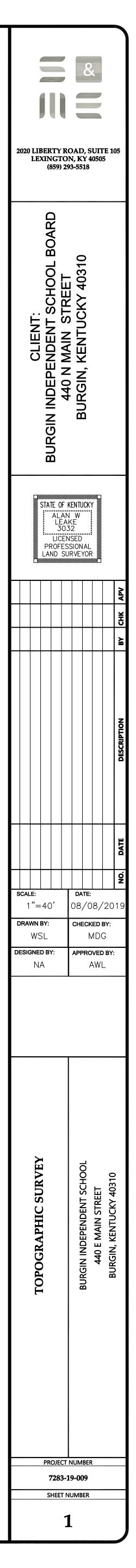


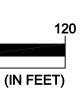


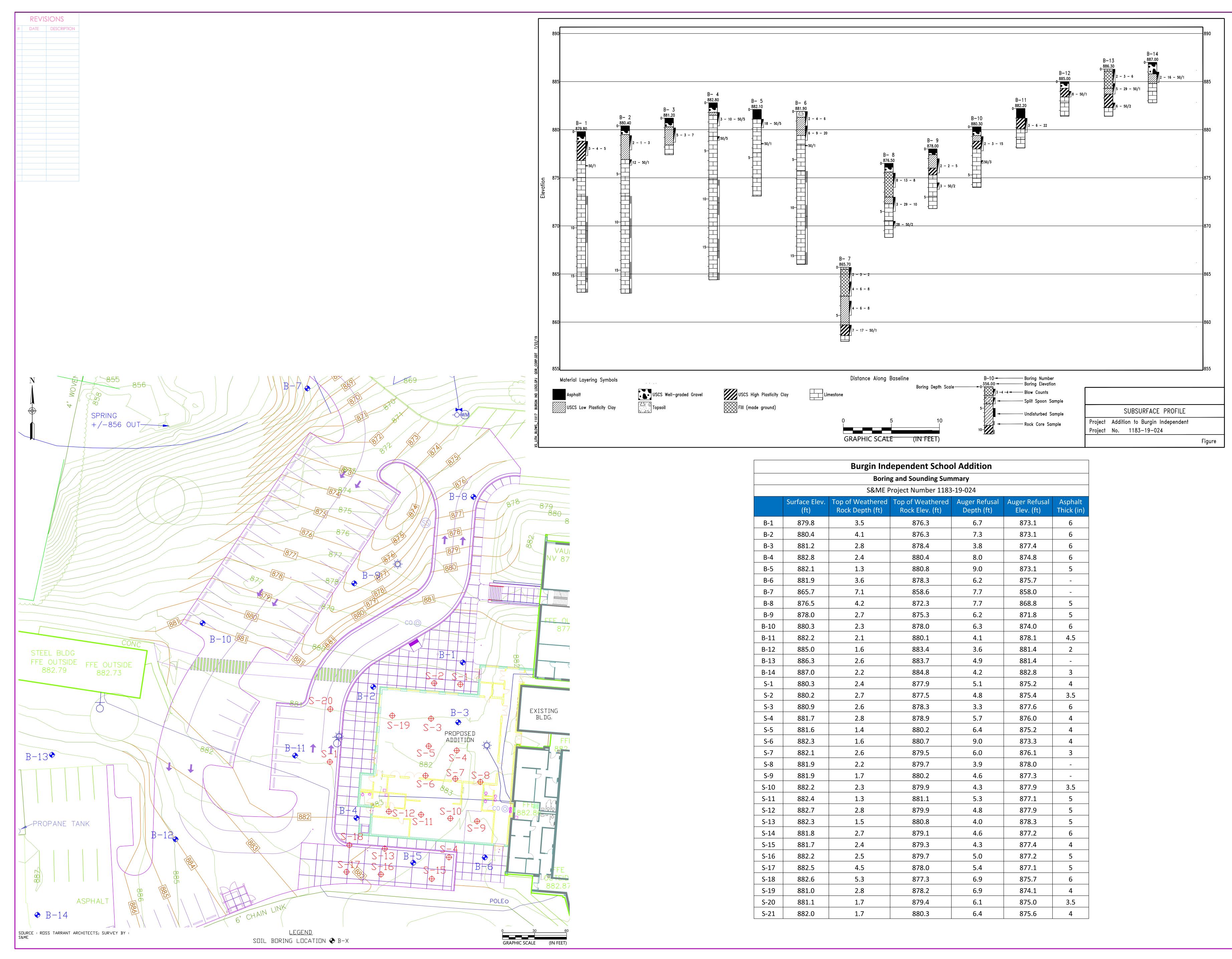
SURVEY CONTROL DOINT TARLE

SURVEY CONTROL POINT TABLE					
CP #	Northing	Easting	Elevation	Description	
1	2158355.637	1925552.480	886.45	IRON PIN SET	
2	2158211.491	1926014.828	878.44	IRON PIN SET	
3	2158593.737	1926058.914	873.82	IRON PIN SET	
4	2158694.348	1925938.439	872.03	IRON PIN SET	
5	2158629.738	1925845.641	881.72	IRON PIN SET	

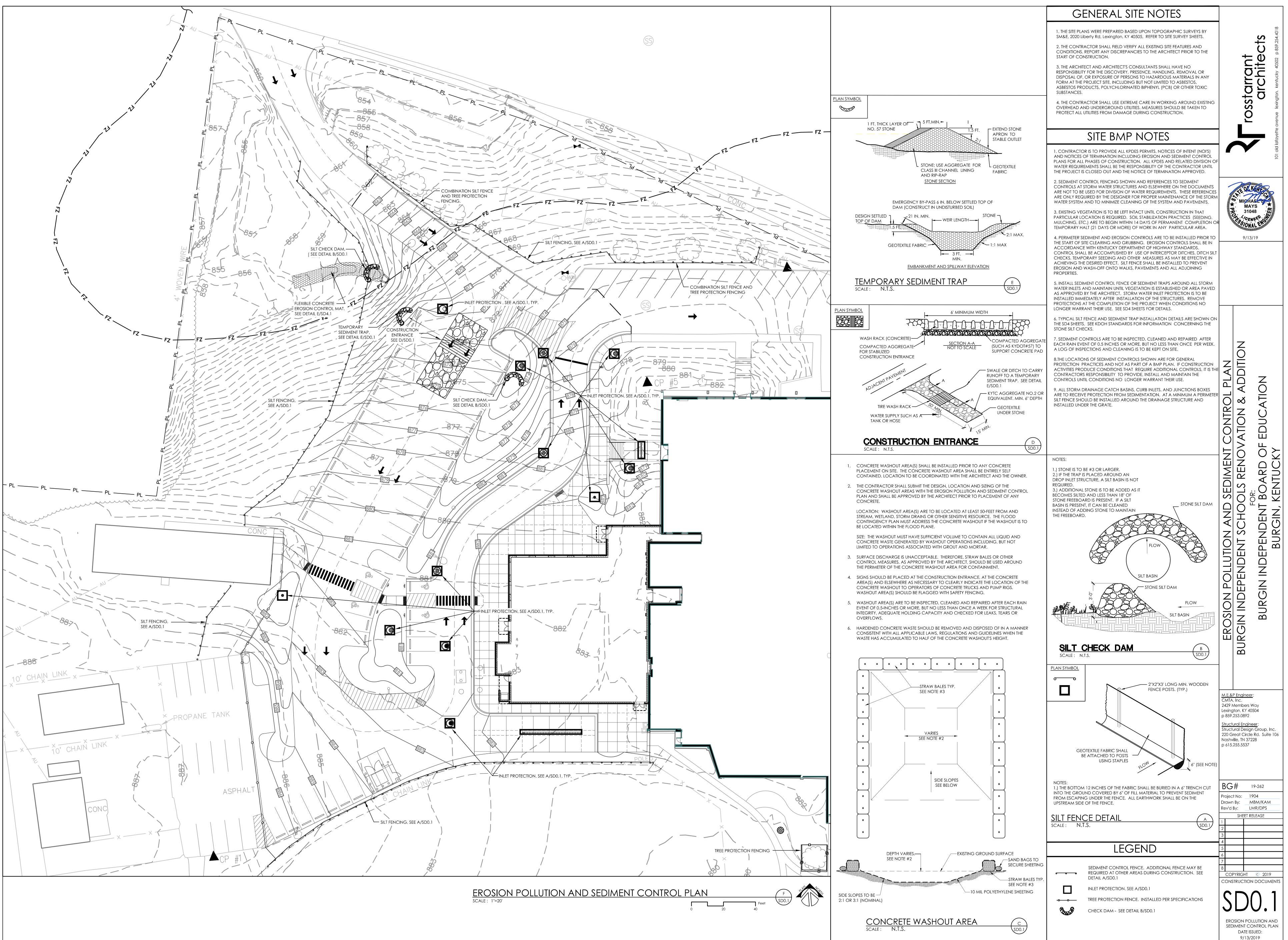
GRAPHIC SCALE 1"=40'

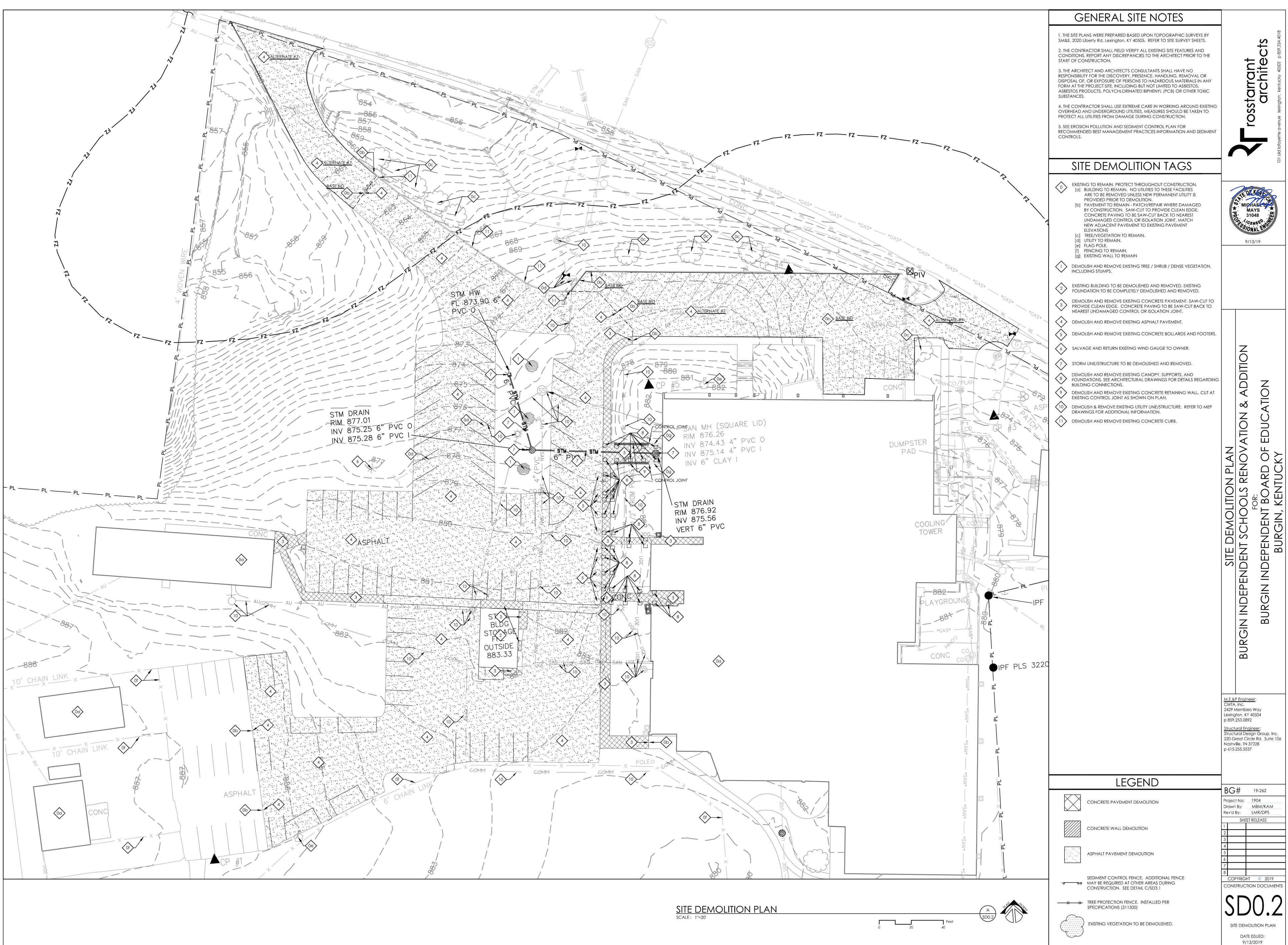






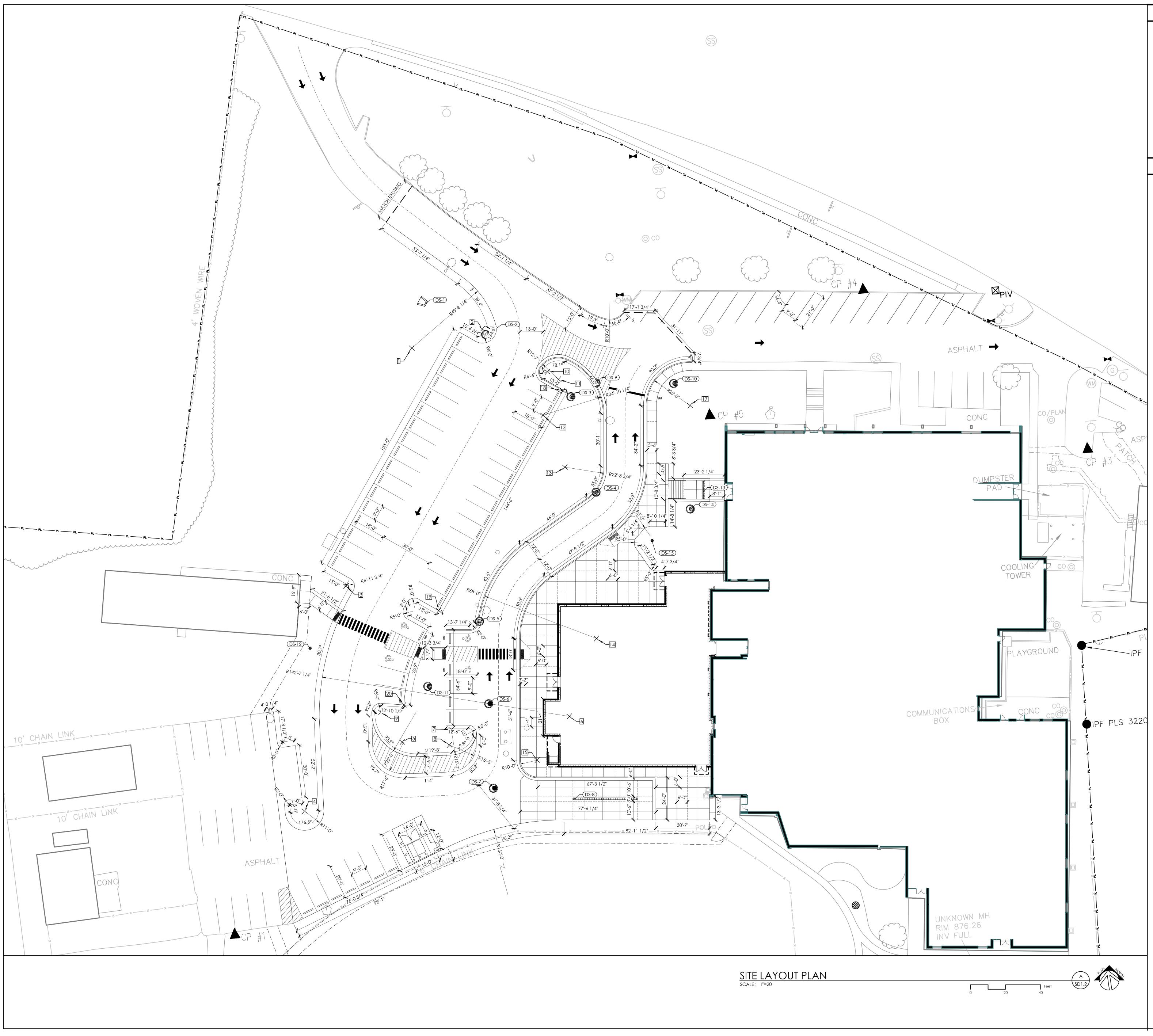








NOTES				
N TOPOGRAPHIC SURVEYS BY EFER TO SITE SURVEY SHEETS. XISTING SITE FEATURES AND THE ARCHITECT PRIOR TO THE ANTS SHALL HAVE NO E, HANDLING, REMOVAL OR IAZARDOUS MATERIALS IN ANY OT LIMITED TO ASBESTOS, HENYL (PCB) OR OTHER TOXIC E IN WORKING AROUND EXISTING ASURES SHOULD BE TAKEN TO G CONSTRUCTION.				101 old lafayette avenue lexington, kentucky 40502 p 859.254.4018
IENT TAGS				10
SHOUT CONSTRUCTION. ES TO THESE FACILITIES V PERMANENT UTILITY IS V. REPAIR WHERE DAMAGED O PROVIDE CLEAN EDGE. CUT BACK TO NEAREST ATION JOINT. MATCH KISTING PAVEMENT				
A/SD4.2 B/SD4.2 NT, SEE DETAIL, C/SD4.2 26) D4.2 "AIL E/SD4.2 "AIL E/SD4.2 "A' RAMP. SEE DETAILS G&H/SD4.2.	THE STUDIES	McC 8	37 STERED	
4.2 .13) /. EE DETAIL J/SD4.2. 2, WHITE. K/SD4.2. E DETAIL O/SD4.2 WHITE. 53) R SIGN ATTACHED TO REAR. AN ACCESSIBLE' SIGN 4.2. RIGHT TURN ARROW. SEE M/SD4.2. I/SD4.2 CCESS GATE. SEE DETAIL A&B/SD4.3 WALL. SEE DETAIL J/SD4.3 ISTING FENCE. SEE H/SD4.3 GS FOR ADDITIONAL INFORMATION. DITIONAL INFORMATION.	SITE DEVELOPMENT PLAN	CHC	FOR: BURGIN INDEPENDENT BOARD OF EDUCATION	BURGIN, KENTUCKY
	CMTA 2429 N Lexing p 859. Structu Structu 220 Gu Nashv	Aembers Iton, KY 4 253.0892 Ural Engii Ural Desig	Way 10504 <u>neer</u> : gn Group, le Rd. Suit 7228	
		t No: By: By:	19-262 1904 MBM/KAN LMR/DPS RELEASE	Λ
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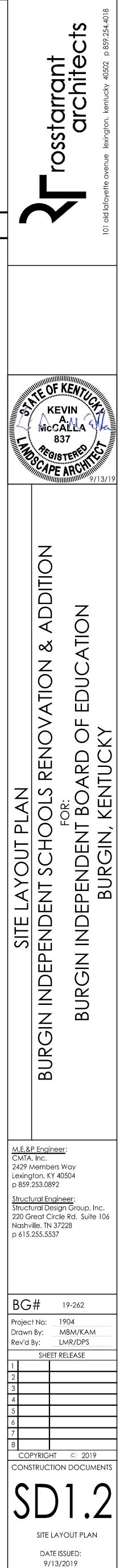
1. THE SM&E, 2. the COND Start (

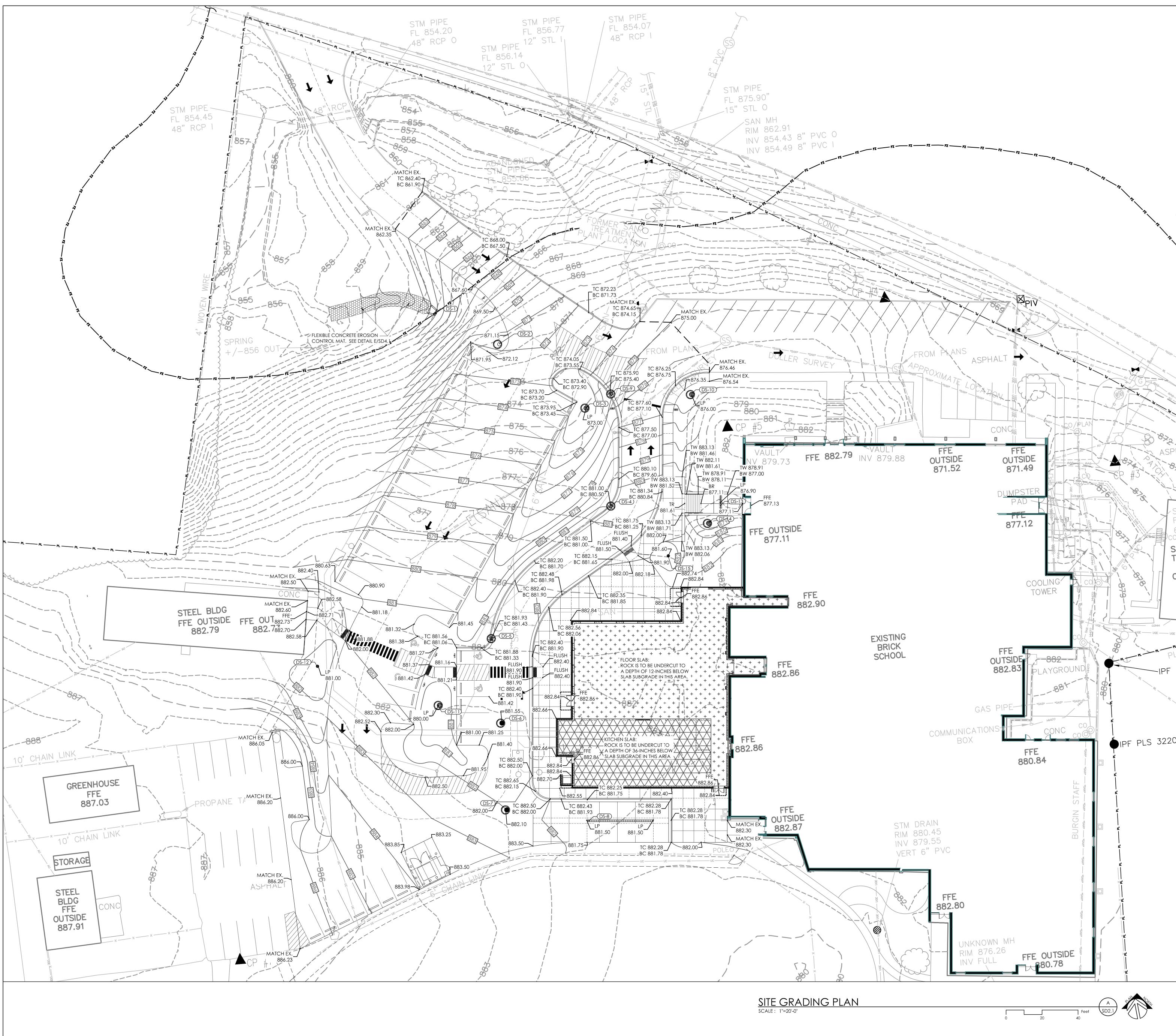
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4. THE C OVERHE PROTEC

5. SEE EF RECOM CONTRO

		IOTES	SITE N	ERAI	GEN	(
	SITE PLANS WERE PREPARED BASED UPON TOPOGRAPHIC SURVEYS BY , 2020 Liberty Rd, Lexington, KY 40505, REFER TO SITE SURVEY SHEETS.										
	CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SITE FEATURES AND DITIONS. REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO THE OF CONSTRUCTION.										
	MOVAL OR ERIALS IN ANY BESTOS,	NTS SHALL HAVI HANDLING, RE ZARDOUS MAT LIMITED TO AS NYL (PCB) OR	Y, PRESENCE, RSONS TO HA DING BUT NO	THE DISCOVER POSURE OF PE CT SITE, INCLU	SIBILITY FOR AL OF, OR EX AT THE PROJE	NSI SAL AT TOS					
		SURES SHOULD	UTILITIES. MEAS	DERGROUND	ONTRACTOR	CC HEA					
		CONSTRUCTION									
	n and sediment	S INFORMATION	INT PRACTICE	T MANAGEME	mended bes Dls.						
		N12		YOU [®]	LÆ						
		DECRIPTION	EASTING	NORTHING	POINT #						
		CEN RAD	1925679.22	2158681.35	1						
		CEN RAD	1925720.19	2158689.05	2						
		CEN RAD	1925631.07	2158548.97	3						
		CEN RAD	1925597.57	2158422.92	4						
		CEN RAD	1925656.16	2158457.73	5						
		CEN RAD	1925752.38	2158464.92	6						
		CEN RAD	1925684.75	2158462.65	7						
		CEN RAD	1925682.88	2158454.02	8						
		CEN RAD	1925645.32	2158475.77	9						
		CEN RAD	1925755.23	2158661.78	10						
		CEN RAD	1925761.18	2158657.07	11						
K		CEN RAD	1925750.85	2158637.34	12						
		CEN RAD	1925760.93	2158606.84	13						
		CEN RAD	1925771.32	2158508.01	14						
		CEN RAD	1925732.03	2158441.44	15						
		CEN RAD	1925733.01	2158256.80	16						
		CEN RAD	1925834.82	2158636.29	17						
		EOP	1925763.23	2158650.37	18						
		EOP EOP	1925763.23 1925682.84	2158650.37 2158530.90	18 19						





GENERAL SITE NOTES

1. THE SITE PLANS WERE PREPARED BASED UPON TOPOGRAPHIC SURVEYS BY SM&E, 2020 Liberty Rd, Lexington, KY 40505, REFER TO SITE SURVEY SHEETS. 2. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SITE FEATURES AND CONDITIONS. REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO THE START OF CONSTRUCTION.

3. THE ARCHITECT AND ARCHITECT'S CONSULTANTS SHALL HAVE NO RESPONSIBILITY FOR THE DISCOVERY, PRESENCE, HANDLING, REMOVAL OR DISPOSAL OF, OR EXPOSURE OF PERSONS TO HAZARDOUS MATERIALS IN ANY FORM AT THE PROJECT SITE, INCLUDING BUT NOT LIMITED TO ASBESTOS, ASBESTOS PRODUCTS, POLYCHLORINATED BIPHENYL (PCB) OR OTHER TOXIC substances.

4. THE CONTRACTOR SHALL USE EXTREME CARE IN WORKING AROUND EXISTING OVERHEAD AND UNDERGROUND UTILITIES. MEASURES SHOULD BE TAKEN TO PROTECT ALL UTILITIES FROM DAMAGE DURING CONSTRUCTION. 5. SEE EROSION POLLUTION AND SEDIMENT CONTROL PLAN FOR RECOMMENDED BEST MANAGEMENT PRACTICES INFORMATION AND SEDIMENT

CONTROLS.

SITE GRADING NOTES

1. THE CONTRACTOR SHALL VERIFY LOCATIONS AND ACTUAL DEPTHS OF ALL EXISTING STORM DRAINS, GAS MAINS, WATER MAINS, AND PIPES TO ALL NEW CONNECTIONS AND CROSSINGS. CONTRACTOR SHALL PAY PARTICULAR ATTENTION TO AREAS WHERE CONSTRUCTION OR GRADING MAY INTERFERE WITH SUCH LINES.

2. ANY DISCREPANCIES BETWEEN THIS GRADING PLAN AND ACTUAL FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IN WRITING PRIOR TO EXCAVATION, GRADING, TRENCHING, OR OTHER CONSTRUCTION OF ANY SORT. FAILURE TO NOTIFY THE ARCHITECT IN WRITING PRIOR TO COMMENCEMENT OF EXCAVATION, GRADING, TRENCHING, OR OTHER CONSTRUCTION SHALL IMPLY THE CONTRACTOR'S VERIFICATION OF AND ACCEPTANCE OF EXISTING SITE CONDITIONS. SAID FAILURE TO NOTIFY THE ARCHITECT IN WRITING SHALL IDENTIFY AND HOLD HARMLESS THE OWNER FROM ANY ADDITIONAL COSTS INCURRED BY THE CONTRACTOR DUE TO DISCREPANCIES NOT REPORTED WHICH COULD HAVE BEEN DETECTED BY PRUDENT AND REASONABLE OBSERVATION AND VERIFICATION BY THE CONTRACTOR.

3. ALL IMPERVIOUS SURFACES SHALL BE GRADED AND INSTALLED WITH A MINIMUM SLOPE OF ONE PERCENT (1%) AND A MAXIMUM SLOPE OF SEVEN PERCENT (7%)

4. ALL PERVIOUS SURFACES SHALL BE GRADED AND INSTALLED WITH A MINIMUM SLOPE OF TWO PERCENT (2 %) AND A MAXIMUM SLOPE OF THIRTY-THREE PERCENT (33%) EXCEPT WHERE SHOWN.

5. SLOPE PERVIOUS SURFACES MIN. 5 % AND IMPERVIOUS SURFACES MIN. 1% AWAY FROM BUILDING FOUNDATIONS.

6. MAINTAIN GRADING TO PROMOTE POSITIVE DRAINAGE AT ALL TIMES. DO NOT ALLOW WATER TO POND IN CONSTRUCTION AREAS.

7. RELOCATE ALL BURIED UTILITIES THAT ARE IMPACTED BY ANY EARTHWORK. RELOCATED UTILITY LOCATIONS ARE TO BE APPROVED BY THE ARCHITECT PRIOR TO STARTING WORK.

- 8. PROTECT AREAS TO BE SEEDED AS FOLLOWS: A) DITCHES AND DRAINAGE SWALES ARE TO RECEIVE HIGH-VELOCITY
- EROSION-CONTROL BLANKETS. B) SLOPES 4:1 (H:V) OR GREATER ARE TO RECEIVE LONG-TERM
- EROSION-CONTROL BLANKETS. C) SLOPES BETWEEN 4:1 AND 6:1 (H:V) ARE TO RECEIVE SHORT-TERM
- EROSION CONTROL BLANKETS. D) SLOPES BELOW 6:1 (H:V) ARE TO RECEIVE STRAW MULCH PER THE SPECIFICATIONS. DO NOT USE HAY.

9. ANY AREAS DISTURBED DURING CONSTRUCTION ARE TO BE SODDED PER THE specifications.

10. COMPACT SOIL TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF THEIR STANDARD PROCTOR MAXIMUM DRY DENSITY AT PLUS OR MINUS TWO (2) PERCEN OF OPTIMUM MOISTURE CONTENT:

A) UNDER FLOOR SLABS AND FOUNDATIONS ON STRUCTURAL FILL - 97% B) FILLS ON EXISTING SOILS, ROCK CUTS OR SHOT-ROCK FILL - 97% C) PAVED AREAS AND WALKS - 95% d) landscape areas outside mass fill areas - 85%

1. ALL TREES THAT ARE IDENTIFIED BY THE ARCHITECT TO REMAIN, EITHER ON THE DRAWING OR IN THE FIELD, ARE TO BE PROTECTED IN ACCORDANCE WITH THE SPECIFICATIONS. ALL TREES LOCATED OUTSIDE OF AREAS IDENTIFIED TO BE RE-GRADED ARE TO BE PROTECTED IN ACCORDANCE WITH THE SPECIFICATIONS.

ARE REMOVED DAILY FROM SITE DRIVEWAYS, PARKING AREAS, WALKWAYS AND SURROUNDING ROADWAYS AND WALKWAYS.

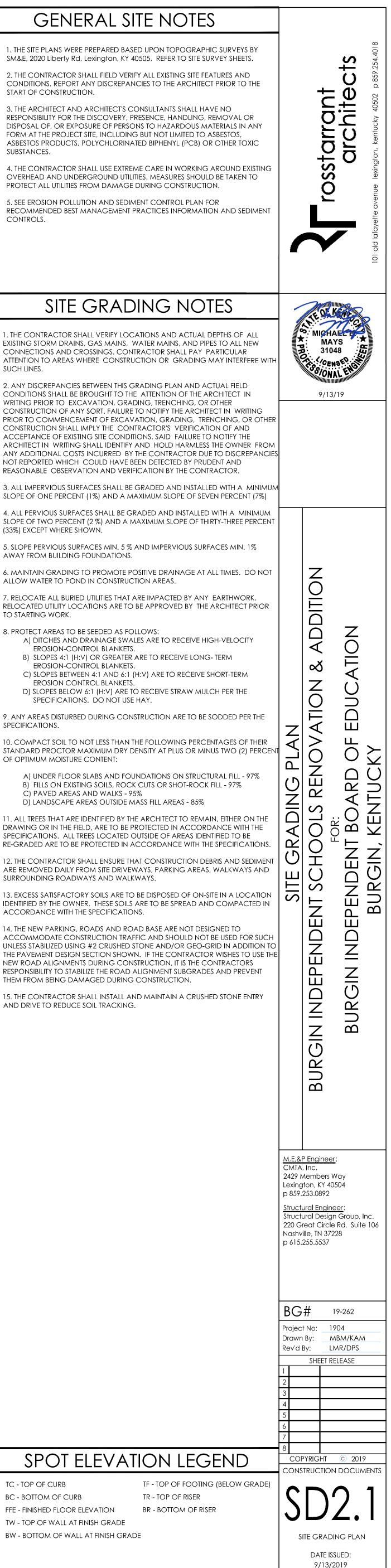
13. EXCESS SATISFACTORY SOILS ARE TO BE DISPOSED OF ON-SITE IN A LOCATION IDENTIFIED BY THE OWNER. THESE SOILS ARE TO BE SPREAD AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS.

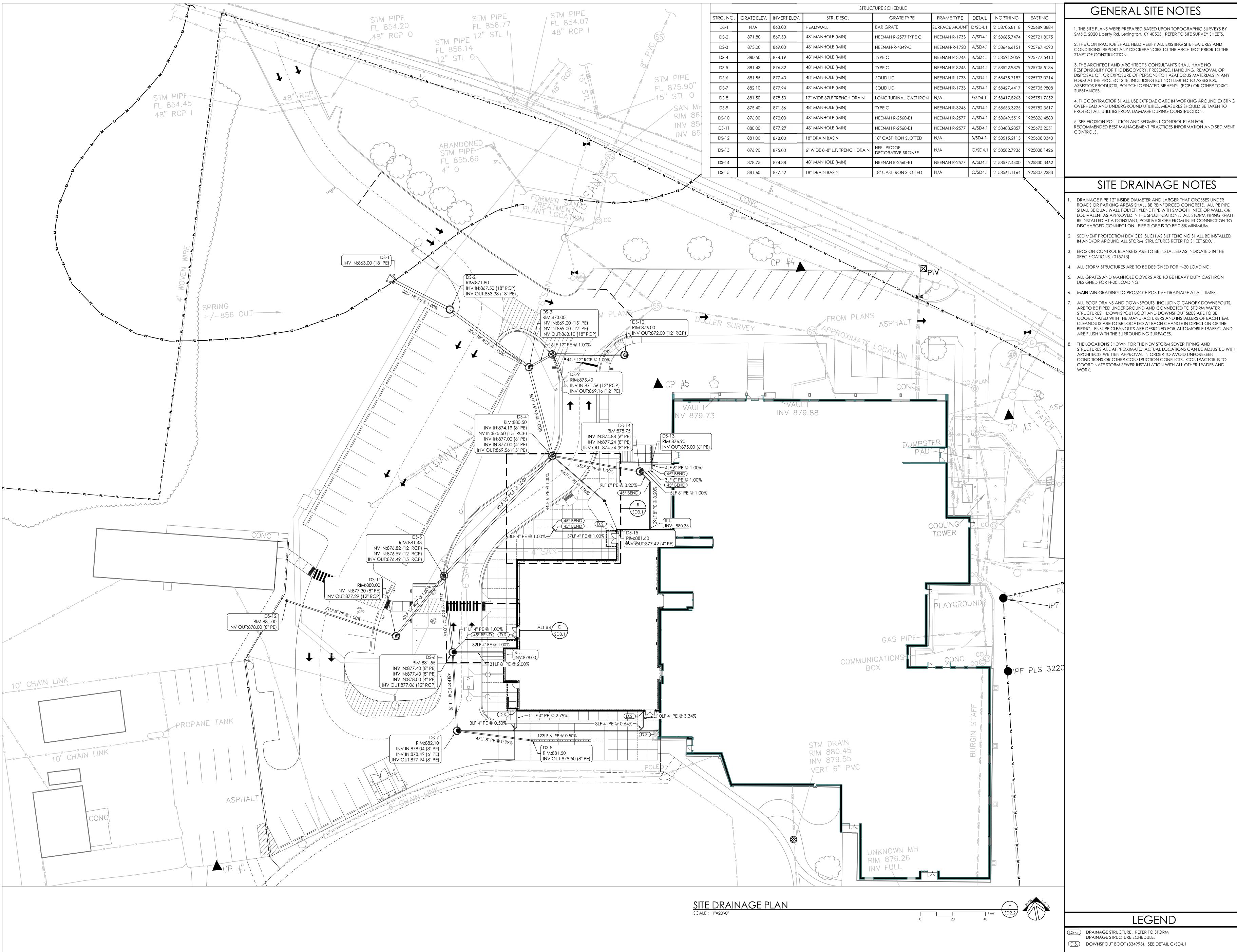
14. THE NEW PARKING, ROADS AND ROAD BASE ARE NOT DESIGNED TO ACCOMMODATE CONSTRUCTION TRAFFIC AND SHOULD NOT BE USED FOR SUCH UNLESS STABILIZED USING #2 CRUSHED STONE AND/OR GEO-GRID IN ADDITION TO THE PAVEMENT DESIGN SECTION SHOWN. IF THE CONTRACTOR WISHES TO USE TH NEW ROAD ALIGNMENTS DURING CONSTRUCTION, IT IS THE CONTRACTORS RESPONSIBILITY TO STABILIZE THE ROAD ALIGNMENT SUBGRADES AND PREVENT

15. THE CONTRACTOR SHALL INSTALL AND MAINTAIN A CRUSHED STONE ENTRY AND DRIVE TO REDUCE SOIL TRACKING.

SPOT ELEVATION LEGEND

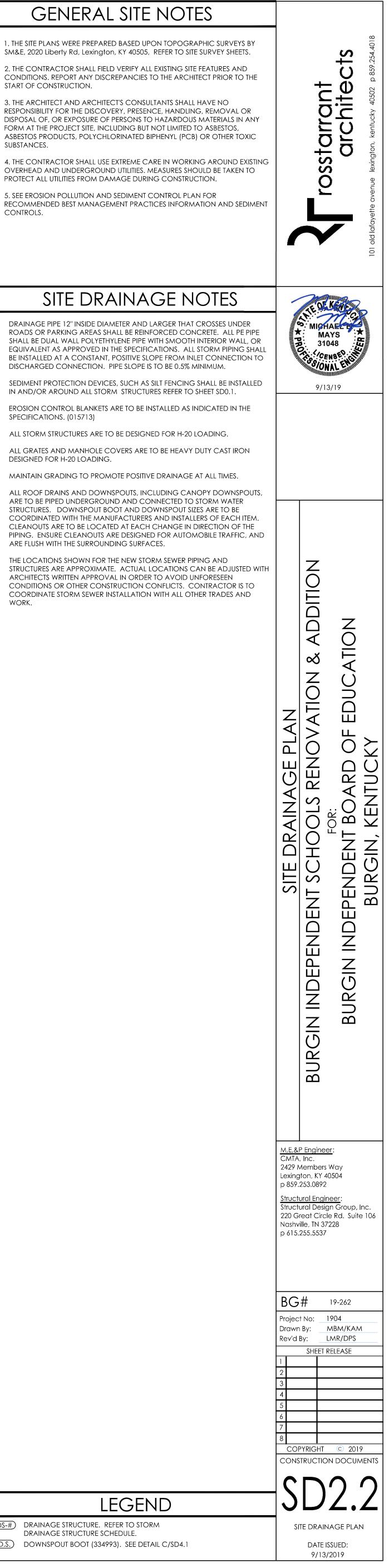
TC - TOP OF CURB BC - BOTTOM OF CURB FFE - FINISHED FLOOR ELEVATION TW - TOP OF WALL AT FINISH GRADE BW - BOTTOM OF WALL AT FINISH GRADE

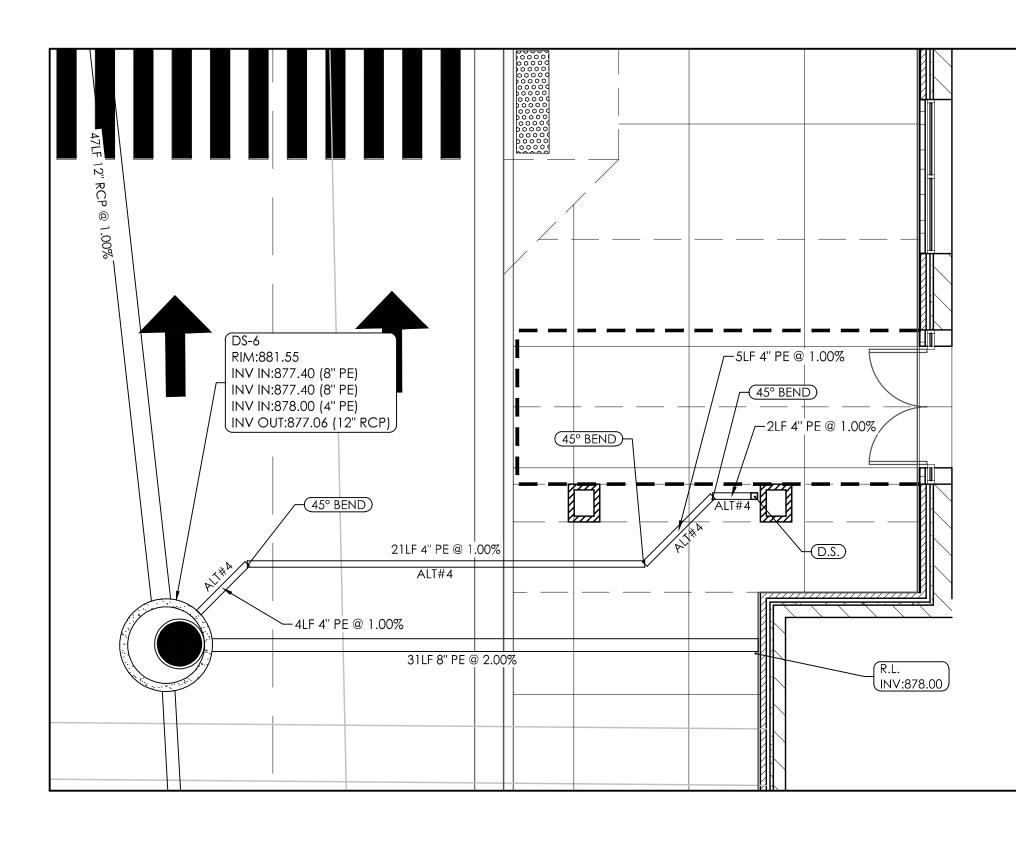




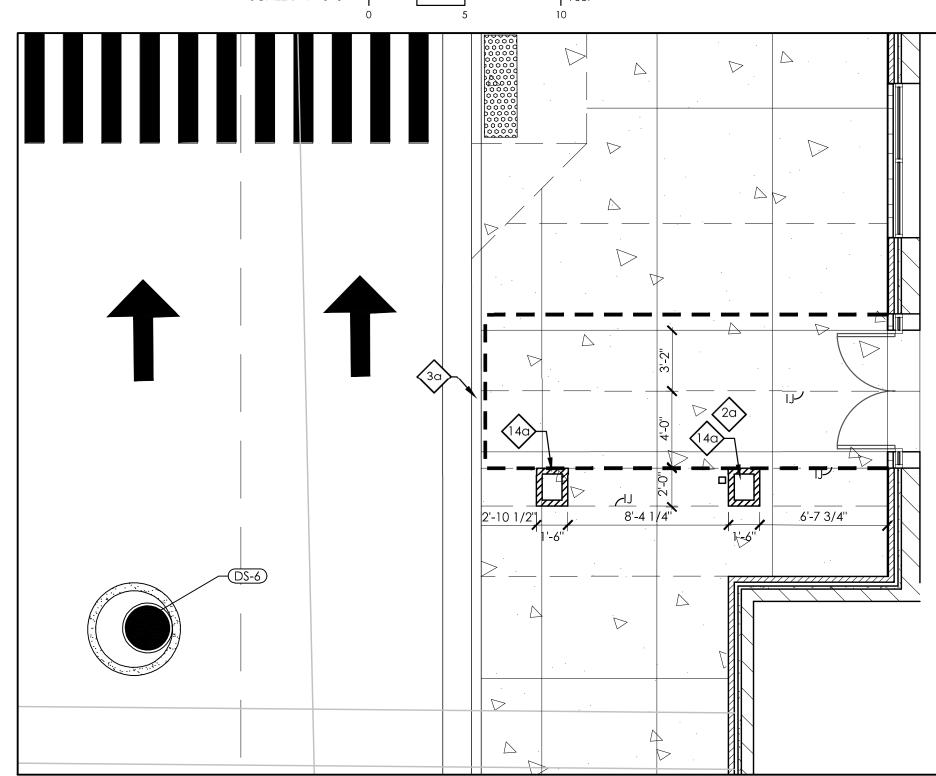
LEGEND

DS-#) DRAINAGE STRUCTURE. REFER TO STORM DRAINAGE STRUCTURE SCHEDULE. D.S.) DOWNSPOUT BOOT (334993). SEE DETAIL C/SD4.1

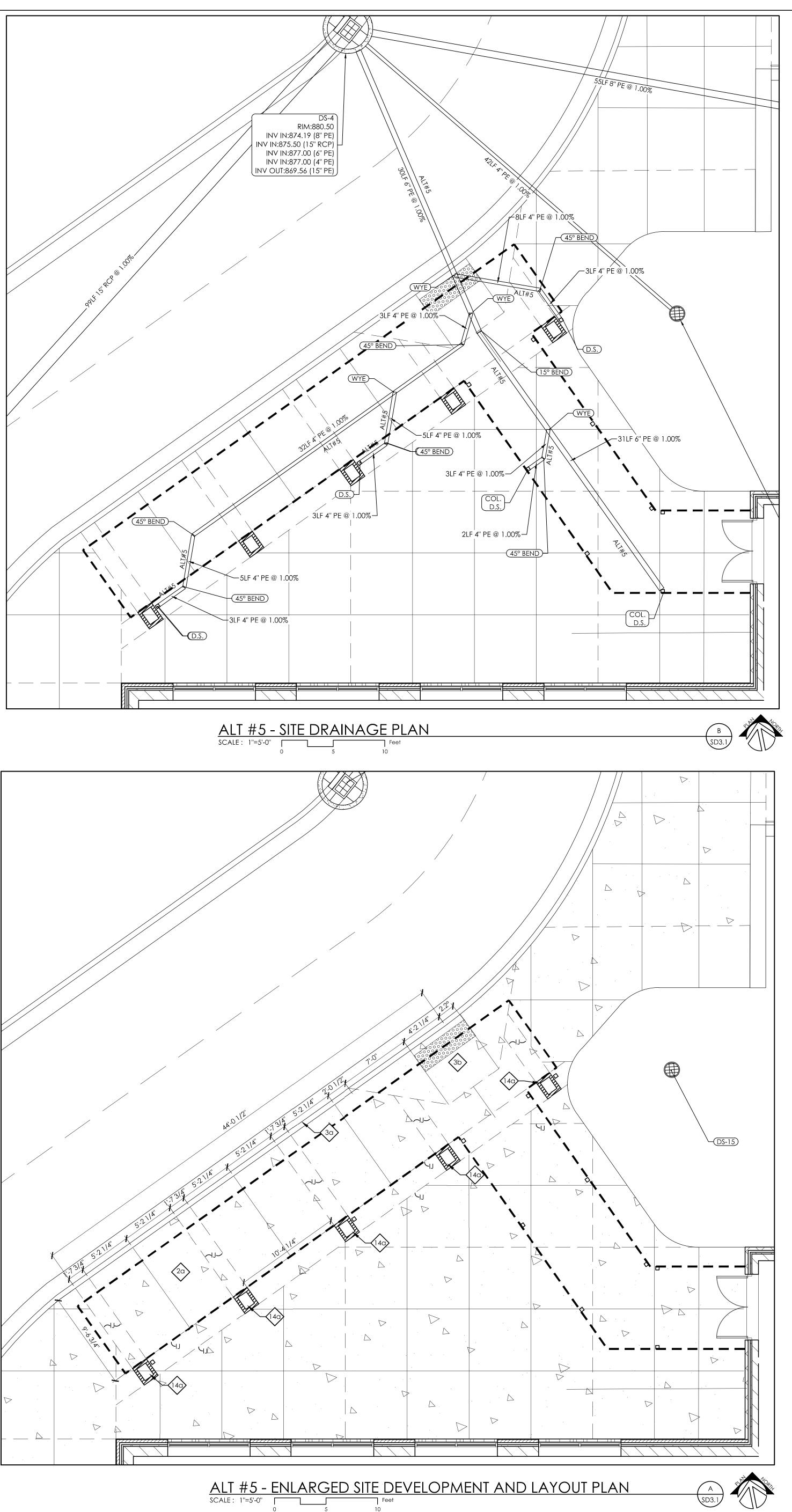


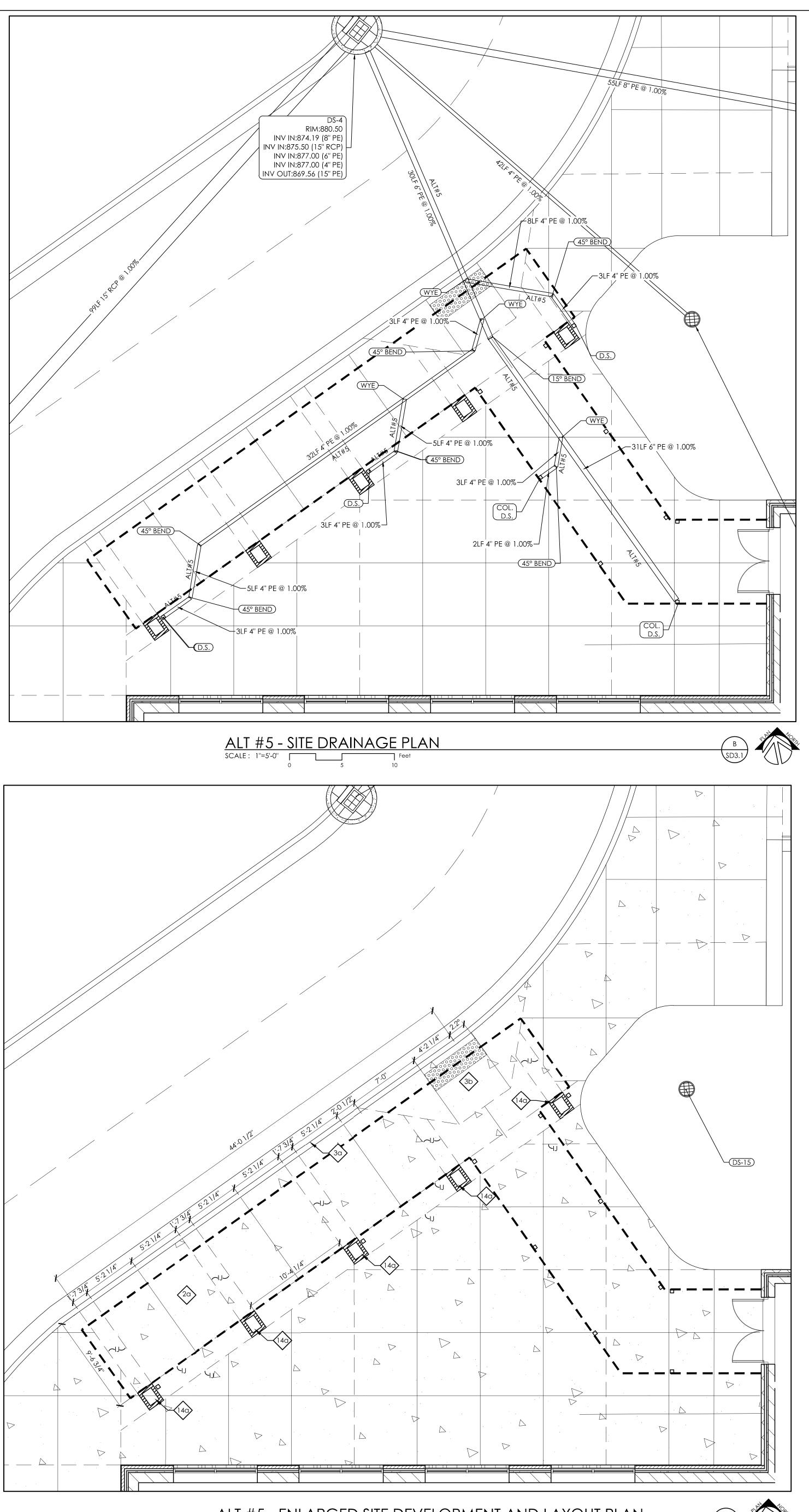


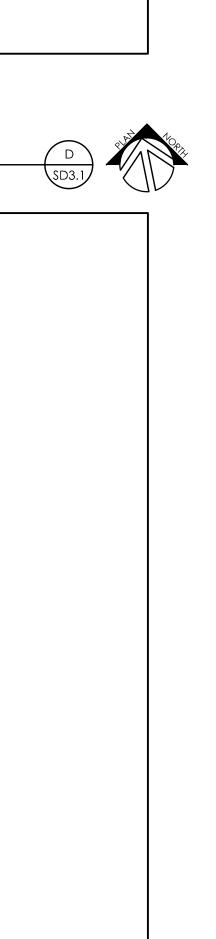
ALT #4 - SITE DRAINAGE PLAN SCALE: 1"=5'-0"



ALT #4 - ENLARGED SITE DEVELOPMENT AND LAYOUT PLAN

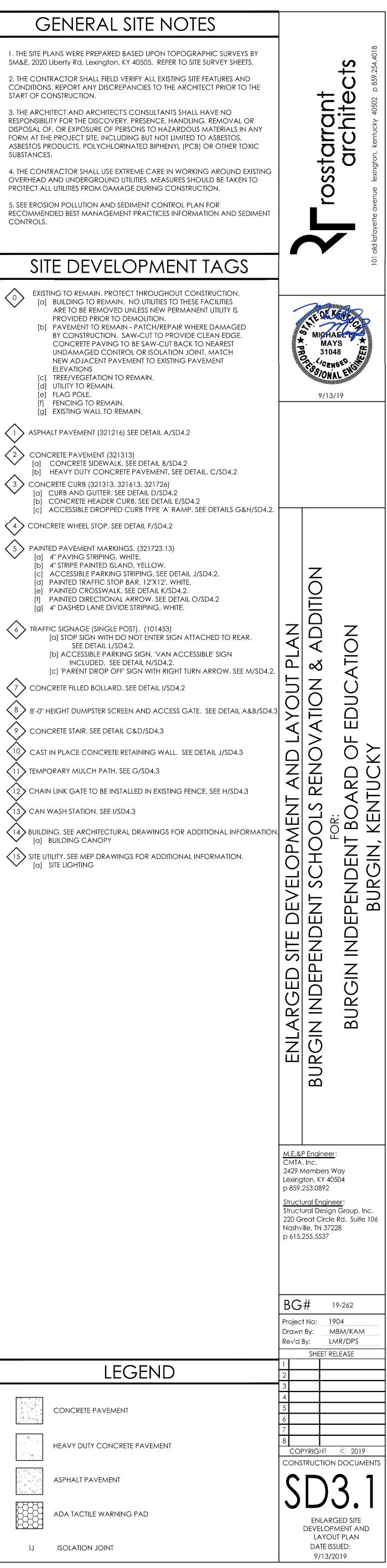




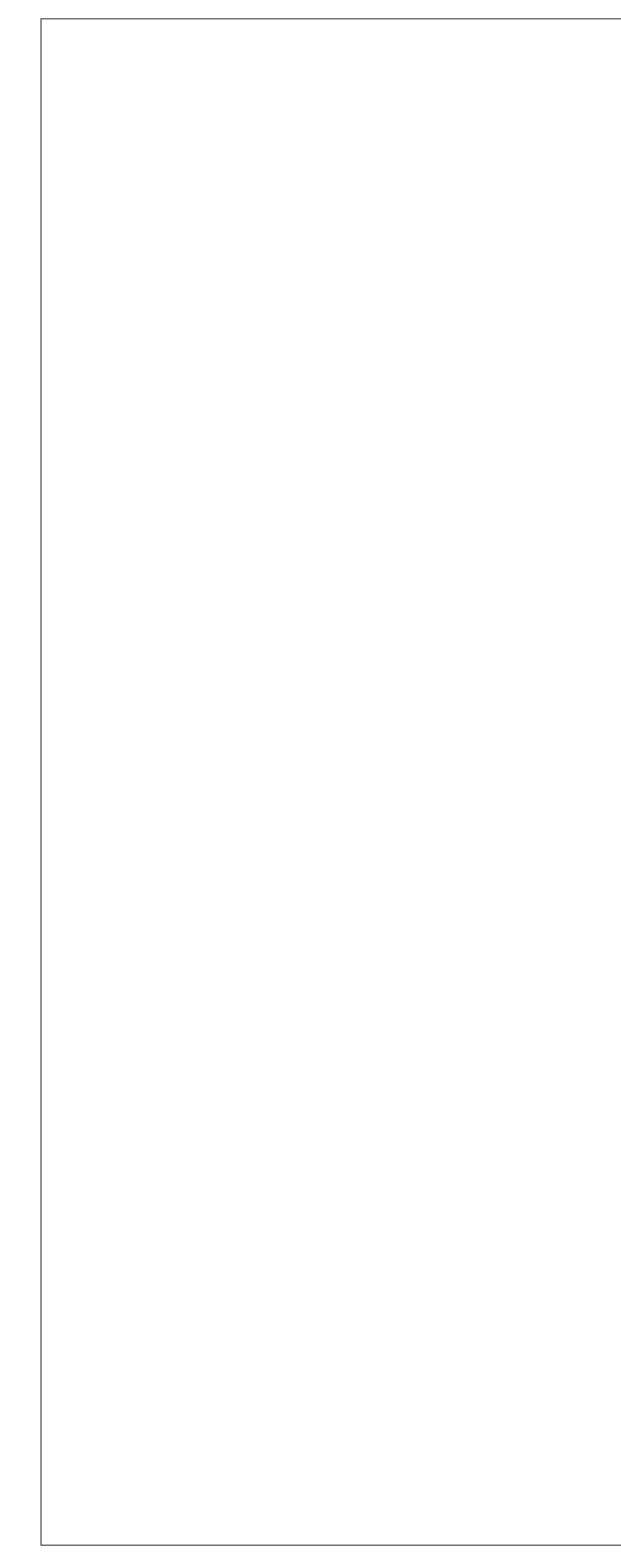


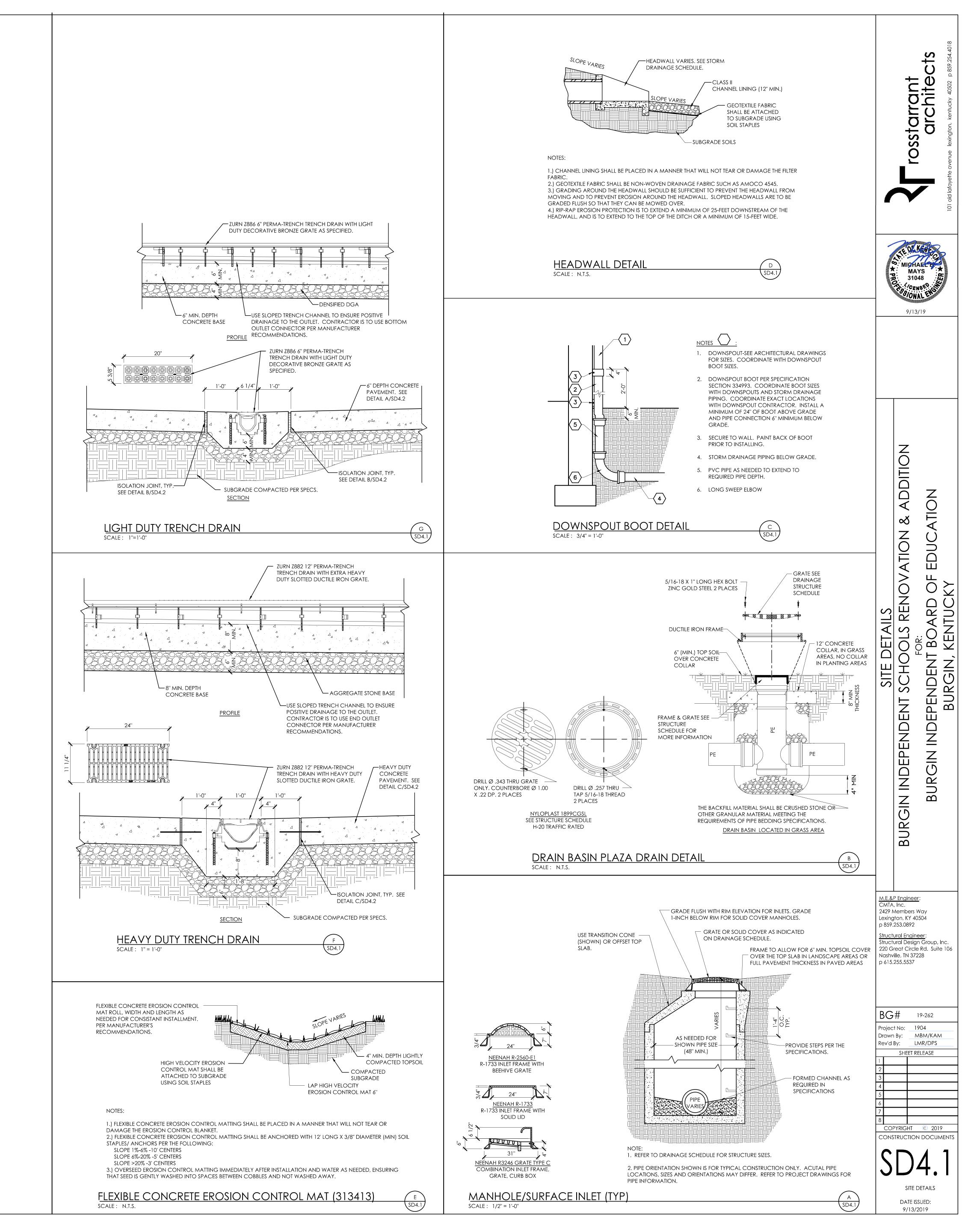


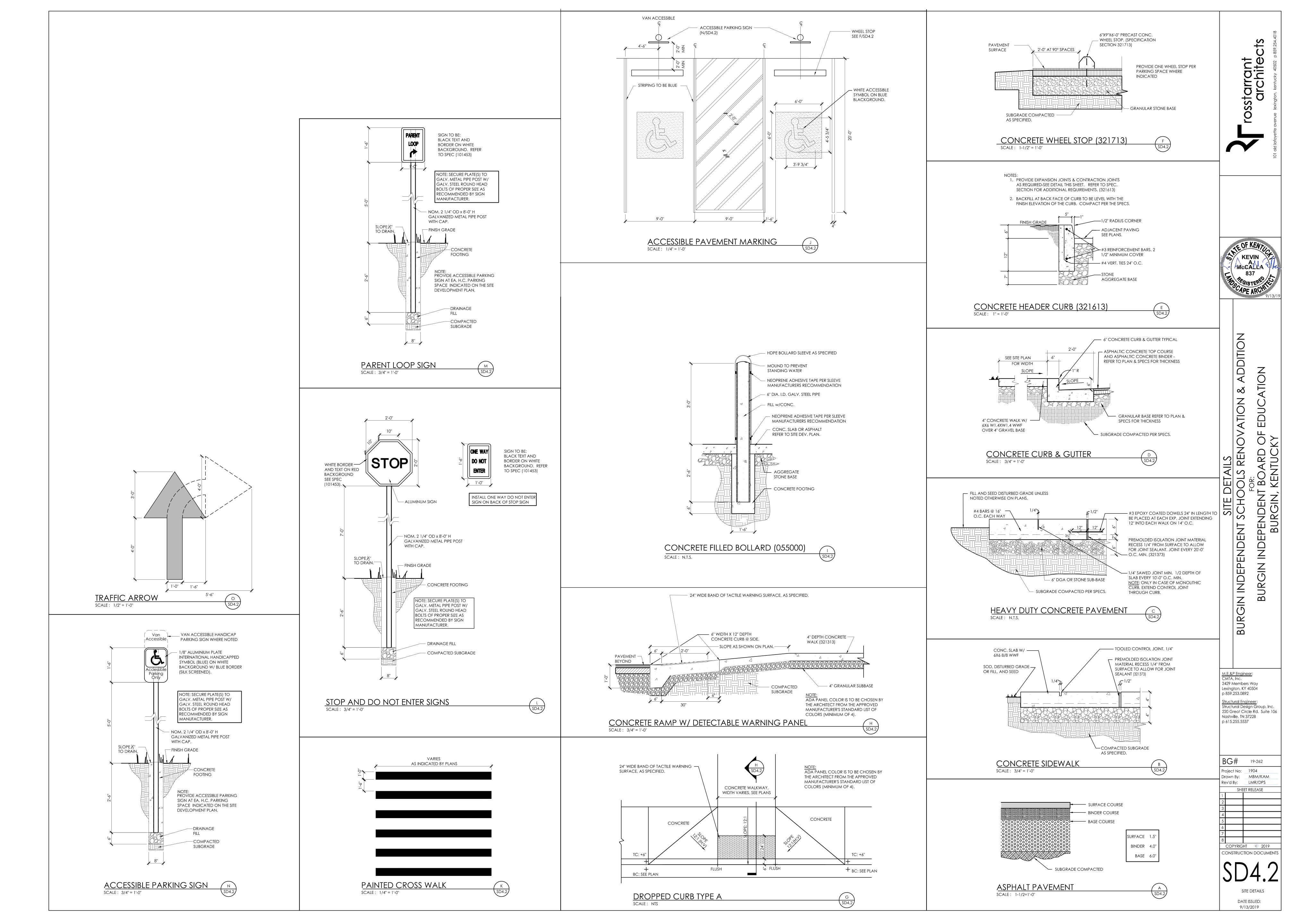
substances.

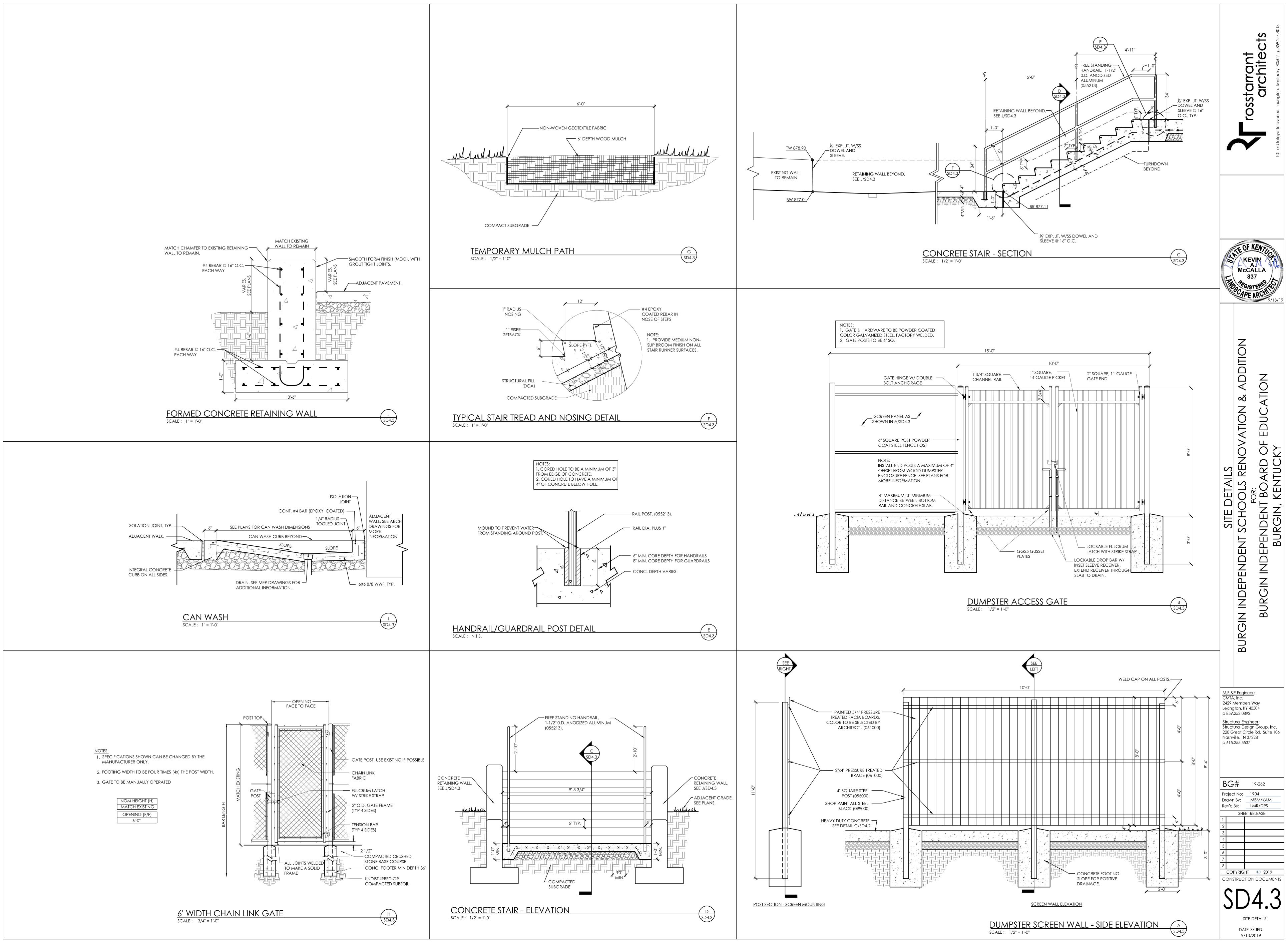


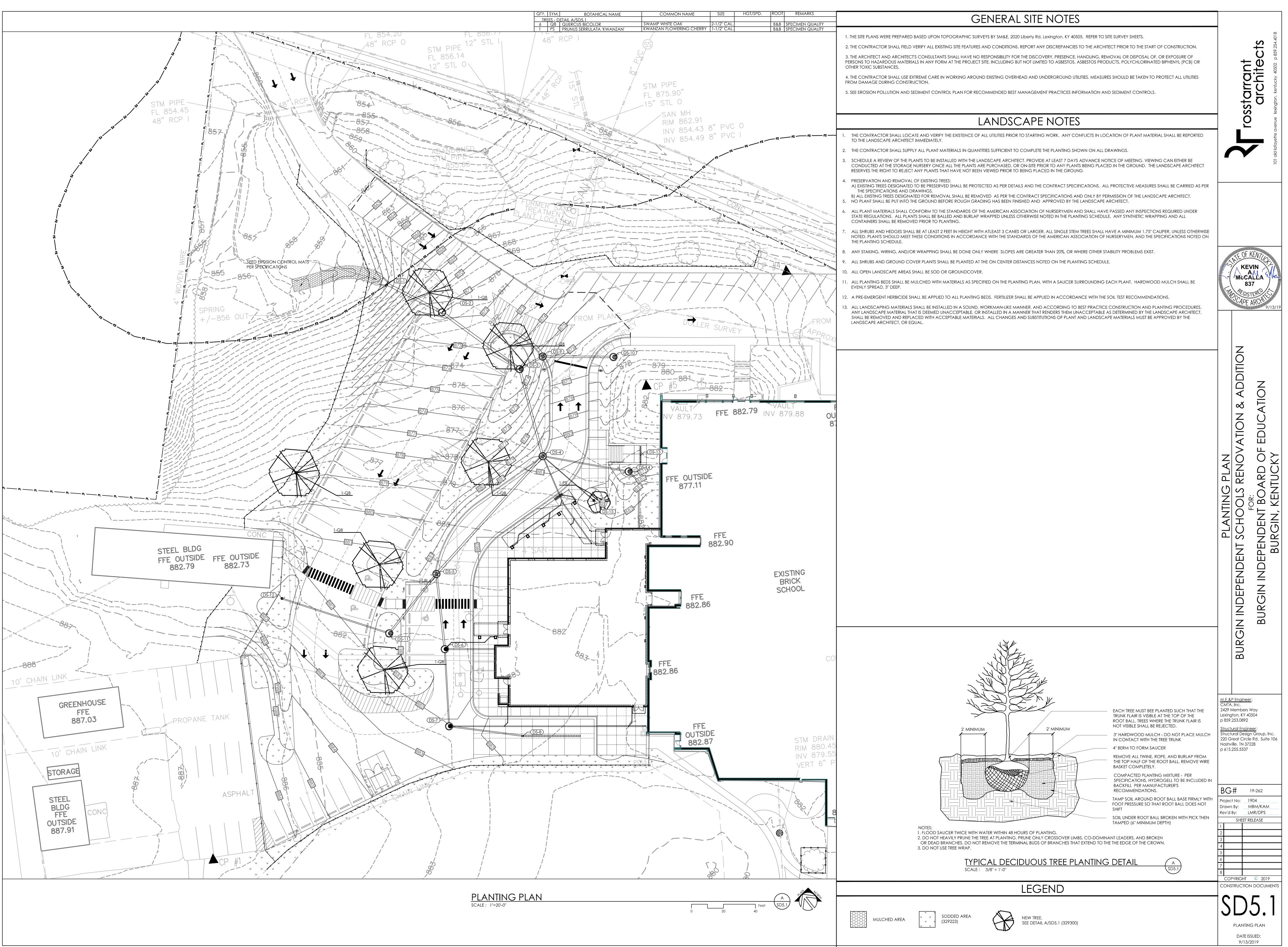












DESIGN CRITERIA

1. Building Code: 2018 Kentucky Building Code and ASCE 7-10 (except Chapter 14 and Appendix 11A)

- 1.1 Building Risk Category: III
- 2. Design Loads
- 2.1 Uniform Floor Live Loads (reduced per Building Code, UNO) General Ground Floor Areas 100 psf
- 2.2 Roof Loads
 - 20 psf (reduced per Bldg. Code) 2.2.1 Uniform Roof Live Load
 - 2.2.2 Snow Loads: Ground Snow = 15 psf (with drift loads per Code) Terrain Category = C
 - Snow Exposure Factor, Ce = 1.0
 - Snow Load Importance Factor, I = 1.1Thermal Factor: Heated Spaces, Ct = 1.0
 - Unheated Spaces, Ct = 1.2Flat-roof Snow Load: Heated Spaces, Pf = 16.6 psf
 - Unheated Spaces. Pf = 18.9 psfRain-on-Snow Surcharge: 5 psf (where applicable)
- 2.3 Wind Loads: Basic Wind Speed V(ult)=120 mph; V(asd)=93 mph Wind Exposure C Internal Pressure Coefficient = +/-0.18 (Enclosed Building)
 - Directionality Factor, Kd = 0.85
- 2.3.1 Component and Cladding Pressures: See S0.4
- 2.4 Earthquake Loads Seismic Importance Factor, I = 1.25Mapped Spectral Response Accelerations, Ss and S1 = 0.182 and 0.098Site Class: B Spectral Response Coefficients, Sds and Sd1 = 0.121 and 0.065Seismic Design Category: A
- Structural Engineer is not responsible for the design of steel stairs, handrails, curtain wall/window wall systems, cold-formed steel framing, or other systems not shown in the Structural Documents. Such systems shall be designed, furnished, and installed as required by other portions of the Construction Documents.
- 4. No explicit provisions have been made for future building expansion. <u>GENERAL</u>
- Reference to standards or specifications of technical societies, organizations, or associations means the standard or specification referenced by the governing Building Code shown on the Drawings, unless specifically noted otherwise.
- 2. Material, workmanship, and design shall conform to the referenced Building Code.
- For dimensions not shown in the Structural Drawings, see the Architectural Drawings.
- 4. Contractor responsibilities include, but are not limited to, the following: 4.1 Coordinate the Structural Documents with the Architectural, Mechanical,
 - Electrical, Plumbing, and Civil Documents. Architect/Structural Engineer shall be notified of any discrepancy or omission.
 - 4.2 Coordinate Structural Documents with Architectural and MPE Documents for location and quantity of miscellaneous framing for items such as roof drains, suspended or supported mechanical units, window washing davits, etc. Refer to Architectural and MPE Documents for additional miscellaneous structural elements that may not appear in the Structural Documents.
 - 4.3 Equipment/Framing Verification
 - 4.3.1 Mechanical Equipment: Submit actual weights of equipment to be used for review at least 3 weeks prior to fabrication and construction. Coordinate opening sizes and locations with Mechanical Contractor.
 - 4.3.2 Miscellaneous Framing: Verify framing shown on the Structural Drawings for mechanical equipment, Owner-furnished items, partitions, etc. is consistent with the requirements of such items.
 - 4.4 The structure is stable only in its completed form. Temporary supports required for stability during all intermediate stages of construction shall be designed, furnished, and installed by the Contractor.
 - 4.5 Contractor has sole responsibility for jobsite safety and complying with all health and safety precautions as required by any regulatory agency. In performing construction observation visits to the jobsite, the Structural Engineer will have no control over, nor responsibility for, the Contractor's means, methods, sequences, techniques, or Procedures in performing the work.
 - 4.6 Contractor is responsible for locating concrete reinforcement prior to installation of post-installed anchors, through bolts, or other post-installed items in concrete. Existing reinforcement including post-tensioning tendons shall not be cut or otherwise damaged while installing post-installed anchors.
- 5. Existing and Unforeseen Conditions
 - 5.1 Contractor shall field verify all existing conditions, elevations, and site conditions prior to construction and fabrication. Contractor shall immediately notify Structural Engineer of any existing conditions that are in conflict with the Structural Documents.
 - 5.2 Shop drawing submittals shall be based on field verified dimensions and conditions only. Contractor shall clearly show actual field dimensions on shop drawings.

STRUCTURAL NOTES

THE STRUCTURAL NOTES DEFINE GENERAL DESIGN AND MATERIAL REQUIREMENTS AND ARE INTENDED TO SUPPLEMENT. BUT NOT REPLACE. THE PROJECT SPECIFICATIONS

SUBMITTALS

- 1. Shop Drawings and Submittals
 - 1.1 Reproduction of Structural Drawings for shop drawings is not permitted.
- 1.2 Electronic drawing files will not be provided to the Contractor.
- 1.3 Review of shop drawings will be for conformance with the Construction Documents regarding arrangement and sizes of members and the Contractor's interpretation of the design loads, if applicable, and Construction Document details. Such review shall not relieve the Contractor of the full responsibility to comply with the Construction Documents.
- 2. Submittals
 - 2.1 The Structural Quality Assurance Plan and Specifications identify the required submittals. Prior to (or with) the first submittal, Contractor shall submit a list of all required submittals for Engineer's review.
- Deferred Submittals
 - 3.1 Deferred Submittals include those portions of the project that are furnished by the Contractor and designed by someone other than the Engineer of Record and are submitted at the time of the application. Deferred Submittals shall be submitted to the Building Official prior to fabrication and installation.
- 3.2 Submittal documents for Deferred Submittals:
 - 3.2.1 Shall be included in the Contractor's scope of services and shall be sealed by an Engineer licensed in the project state. Design of Deferred Submittals shall be in accordance with the governing Building Code indicated above.
 - 3.2.2 Shall be submitted to the registered design professional in responsible charge who shall review them and forward them to the Building Official with a notation indicating the deferred submittal documents have been reviewed and that they have been found in general conformance with the design of the building. Deferred submittal items shall not be installed until the design and submittal documents have been approved by the Building Official.
- 3.3 The following shall be considered Deferred Submittals: Steel Connections - See "Structural Steel" Section Steel Joists Cold-formed Exterior Steel Stud Framing Rooftop Unit Anchorage Steel Stairs and Handrails Curtainwall/Window Wall Systems
 - Guardrails/Handrails
 - Slotted Channel Strut Framing (e.g. Unistrut)

FOUNDATION

- Geotechnical Report: S&ME Report No. 1183-19-024, Dated July 19, 2019
 - 1.1 It is the responsibility of the contractor to obtain a copy of the geotechnical report and comply with the recommendations found therein.
- 2. Building Pad Preparation
 - 2.1 Strip vegetation and topsoil.
 - 2.2 Proofroll building areas with a minimum of two complete coverages of a loaded dump-truck or scraper in each of two perpendicular directions.
 - Replace soft areas with compacted structural fill. 2.3 Undercut encountered bedrock under slabs in new building footprint as follows:
 - Kitchen: 3-feet below bottom of subgrade & replace w/ structural fill Other Areas: 1-feet below bottom of subgrade & replace w/ structural fill.
- Rock Bearing Capacity: Isolated Footings 5000 psf Continuous Footings 5000 psf
 - 3.1 Provide 2-inch minimum diameter probe holes that extend 1.5 times the maximum footing dimension or 6 feet, whichever is larger, below the bottom of the footings.
 - 3.1.1 Probe holes shall be drilled every 25 feet along continous footings

REINFORCEMENT

- 1. Reinforcing Bars: ASTM A615, Grade 60
 - 1.1 Reinforcing bars are not to be welded.
- 2. Welded Wire Reinforcement (WWR): ASTM A1064, 8" minimum side and end laps
- Reinforcement Placement (UNO)

noted in Drawings.

- 3.1 Concrete Reinforcement Cover Below Grade: Unformed clear 2" clear Formed
- 3.2 Masonry reinforcing steel: Place in the center of CMU cells, unless otherwise
- 4. Reinforcement Splices
 - 4.1 Reinforcement marked "Continuous" can be spliced at locations determined by Contractor. All other reinforcement shall be spliced only at locations shown or noted, unless approved in writing by Structural Engineer.
- 4.2 Splice Lengths (UNO)
- Concrete Reinforcement: See Concrete Lap Splice Tables in Drawings Masonry Reinforcement: See CMU Lap Splice Tables in Drawings
- 5. Deformed Bar Anchors (DBA): ASTM A496
 - 5.1 Deformed Bar Anchors shall conform to AWS D1.1, Type C studs with a minimum yield strength of 70 ksi and minimum tensile strength of 80 ksi.
 - 5.2 Deformed Bar Anchors shall be stud welded
- CAST-IN-PLACE CONCRETE
- 1. Concrete Properties
 - 1.1 Normal Weight Structural Concrete

	28-Day, f'c (min)	w/cm Ratio (max.)	Entrained Air
Footings (Isolated/Continuous) Foundation Walls, Pedestals Slabs on Grade	3,000 psi _,000 psi 3,500 psi	 0.48	None Required None Required None Required
Mechanical Equipment Pads: Interior Exterior Lean Concrete All Other Concrete	3,000 psi 3,000 psi 1,500 psi 5,000 psi	 0.40	None Required 5.0 +/- 1.5% None Required 5.0 +/- 1.5%
Aggressive Environment: Loading Dock Walls Retaining Walls	5,000 psi 5,000 psi 5,000 psi	0.40 0.40 0.40	6.0 +/- 1.5% 6.0 +/- 1.5%

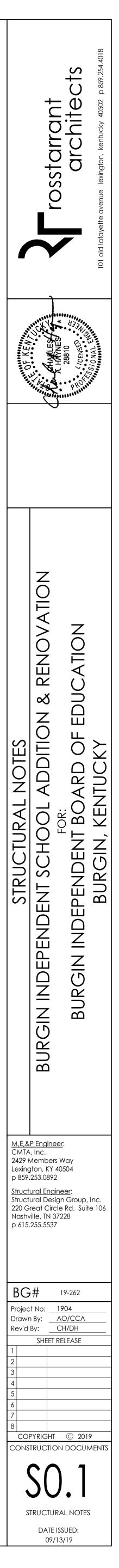
Note: All concrete shall be assigned the exposure classes FO, SO, WO, and CO; except concrete in Aggressive Environment shall be assigned the exposure classes F3, S3, W1, and C2 (see ACI 318).

- 2. Construction Joint Locations: No horizontal construction joints are permitted except as shown on the Structural Drawings. Obtain written consent for additional joints.
- Pipes or ducts shall not exceed one-third the slab or wall thickness unless specifically detailed. See mechanical and electrical drawings for location of sleeves, accessories, etc.
- 3.1 Conduit shall not be placed within the slab on grade. Conduit shall be installed below the slab on grade within the granular subbase.
- 4. Special Finishes: Refer to Architectural Drawings for molds, grooves, ornaments, clips or grounds required to be encased in concrete and for location of floor finishes and slab depressions.
- Defect Repair: Honey-combing, spalls, cracks, etc. shall be repaired. Extent of defective area to be determined by the Structural Engineer.
- Curing 6.
 - 6.1 Begin curing procedures immediately following commencement of the finishing operation.
 - 6.2 Concrete shall be moist cured in accordance with ACI 308. See Specification for additional information.
 - 6.3 All concrete slabs that are to have exposed stained or polished concrete finish shall be wet cured a minimum of 7 days in strict accordance with ACI 301. The acceptable methods of wet curing are ponding, continuous fogging, continuous sprinkling; or application of mats or fabric kept continuously wet.

NON-SHRINK GROUTING

- 1. Non-shrink grout under steel base plates shall be non-metallic with minimum compressive strength of 5000 psi at 28 days.
- 2. Non-shrink grout used for patching, repair, and other specific applications shall be submitted for review and approval by engineer.

	STRUCTURAL INDEX				
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S0.1	STRUCTURAL NOTES				
S0.2	STUCTURAL NOTES CONTINUED				
S0.3	STRUCTURAL QUALITY ASSURANCE PLAN				
S0.4	WIND PRESSURE DIAGRAM PLAN				
S1.0	BASEMENT PLAN				
S1.1	FOUNDATION PLAN				
S1.2	ROOF FRAMING PLAN				
S2.1	FOUNDATION SECTIONS AND DETAILS				
S2.2	FOUNDATION SECTIONS AND DETAILS				
S2.3	FOUNDATION SECTIONS AND DETAILS				
S3.1	MASONRY SECTIONS AND DETAILS				
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S4.1	ROOF FRAMING SECTIONS AND DETAILS				
S4.2	ROOF FRAMING SECTIONS AND DETAILS				
S4.3	FRAMING SECTIONS AND DETAILS				
S8.1	ALTERNATE CANOPY PLANS				



CONCRETE MASONRY

- Specified Compressive Strength, f'm = 2,000 psi (ASTM C90 w/ Type M or S Mortar)
- 2. Mortar: Walls below grade Type M Bearing walls Type M or S Partition walls Type N
- cavities below grade.
- the face of masonry units.
- bond" unless approved by Structural Engineer.
- masonry walls (including partitions) above grade.
- construction.

STRUCTURAL STEEL

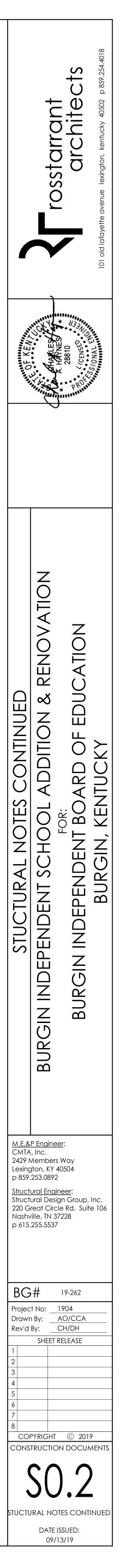
- 1. Steel Shapes
 - 1.1 W-Shapes: ASTM A992 (Grade 50)
 - 1.2 Angles, Channels, Plates, UNO: ASTM A36
- 2. Anchor Rods, Bolts, and Studs
 - washer and heavy hex nut.

 - Length given is in-place length after burn-off.
- Building Code.
- Structural Documents.
 - applicable Building Code.
- verified by the Contractor and the Special Inspector.
- includes the following:
 - Structural steel members exposed to view
- 7. Galvanizing
 - supports and screenwalls.
 - example brick shelf angles.
 - 12.2.1 Galvanized brick lintel angles receiving paint shall have proper treatment performed to accept paint.
 - 7.3 Touch-up welds and abrasions in galvanized members in accordance with ASTM A780.

STRUCTURAL NOTES CONTINUED

POST-INSTALLED ANCHORS 1. Post-installed anchors shall only be installed where indicated on the structural Minimum Net Area Compressive Strength of Masonry Unit: 2,000 psi drawings, unless approved by engineer of record. 2. The below products are the design basis for this project. Product diameter and embedment shall be as shown in the details. Install products IN ACCORDANCE WITH MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII). Refer to the project building code and/or evaluation report for special inspections and proof load requirements. Substitution requests for products other than those listed below may be submitted by the contractor to the Engineer-of-Record (EOR) for review. Substitutions will only be considered for products having a 3. Coarse Grout: 2,500 psi min. compressive strength conforming to ASTM C476. research report recognizing the product for the appropriate application under the project building code. Substitution requests shall include calculations that demonstrate the substituted product is capable of achieving the equivalent 3.1 Grout solid bond beams, reinforced CMU cores, and CMU cores and wall 3.2 Masonry webs on each side of grouted cells shall be fully mortared. Exterior Single wythe CMU walls shall have head joints fully mortared. performance values of the design basis product. For Anchoring into Concrete 4. Horizontal Joint Reinforcement: Two (2) No. 9 gage longitudinal wires at 16" 3.1 Expansion Anchors: Hilti Kwik Bolt TZ (ICC-ES ESR-1917), Simpson Strong-Bolt 2 (ICC-ES ESR-3037), DeWalt/PowersPower-Stud+ SD1 (ICC-ES ESR-2818), vertically, UNO. Lap wire 6 inches minimum. Provide accessories for corners, intersections, etc. Use ladder type for walls with vertical reinforcing. or DeWalt/Powers Power-Stud+ SD2 (ICC-ES ESR-2502). Minimum embedment = Provide open bottom beam block units with 3" deep minimum web openings at 6 times anchor diameter. UNO. horizontal reinforcement locations not located over an opening. A minimum clear space of one bar diameter shall be provided between the reinforcing bars and 3.2 Screw Anchors: Simpson Titen-HD (Concrete: ICC-ES ESR-2713; Grouted Masonry: ICC-ES ESR-1056) or DeWalt Screw Bolt+ (ICC-ES ESR-3889), Hilti Kwik HUS-EZ (ICC-ES ESR-3027). Minimum Embedment = 6 times anchor diameter, CMU has been designed assuming "running bond" placement. Do not use "stack UNO. 3.3 Adhesive Anchors Contraction Joints: Unless noted otherwise on the Plans, maximum spacing of 1 1/2 times of wall height or 24 feet (whichever is less) in all concrete 3.3.1 All-thread steel rods conforming ASTM A36 or bolts conforming to ASTM A307, Grade A or, both zinc plated in accordance with ASTM B633 or reinforcing bars conforming to ASTM A615, Grade 60. 8. Dovetail Anchors: At 16" vert., UNO, where CMU walls abut concrete surfaces. 3.3.2 Adhesive for rebar and anchors shall have been tested in accordance with ACI 355.4 and ICC-ES AC308 for cracked concrete and seismic 9. Submit written construction procedures prior to the start of masonry applications. Design bond strength has been based on CRACKED CONCRETE, ACI 355.4 temperature category B, and installations into dry holes drilled using a hammer drill into concrete that has cured for at least 21 days. Adhesive anchors shall be installed by a certified adhesive anchor installer per ACI 318 where INDICATED on the contract documents. Installations requiring certified installers shall be inspected per ACI 318. 3.3.3 Adhesive conforming to Simpson Set-XP (IAPMO-UES ER-263), Simpson SET-XP (ICC-ES ESR-2508), DeWalt/Powers Pure110+ (ICC-ES ESR-3298), Powers Dewalt AC200+ Adhésive (ICC-ES ESR-4027), Hilti HIT-HY 200 Safe Set Fast Cure Adhesive (ICC-ES ESR-3187), Hilti HIT-RE 500 V3 1.3 Square/Rectangular/Round Hollow Structural Sections (HSS): ASTM A500, Grade B Safe Set Adhesive (ICC-ES ESR-2322). Minimum Embedment = 12 times 1.4 Pipe Structural Sections: ASTM A53, Grade B anchor diameter, UNO. 4. For Anchorage into Solid Grouted Concrete Masonry 4.1 Expansion Anchors: Hilti Kwik Bolt 3 (ICC-ES ESR-1385). Simpson 2.1 Anchor Rods: ASTM F1554, Grade 36. Headed Rods or threaded rods with plate Strong-Bolt 2 (IAPMO-UES ER-240), Simpson Wedge-All (ICC-ES ESR-1396) or DeWalt/Powers Power-Stud+ SD1 (ICC-ES ESR-2966). Minimum embedment = 6 times anchor diameter. UNO. 2.2 Bolts: 3/4" Diameter A325 minimum. All connections may be bearing type, UNO. Design bearing type connections for load values with threads included in the shear plane. Submit proposed bolt tightening procedure for review. 4.2 Screw Anchors: Simpson Titen-HD (ICC-ES ESR-1056) or Powers Wedge-Bolt+ (ICC-ES ESR-1678), Hilti Kwik HUS-EZ (ICC-ES ESR-3056).Minimum Embedment = 6 2.3 Headed Studs: ASTM A108. See Details for Diameter, Length and Spacing. times anchor diameter, UNO. 4.3 Adhesive Anchors: Adhesive conforming to Simpson AT-XP (IAPMO-UES ER-281), Simpson SET-XP (ICC-ES ESR-265), DeWalt/Powers AC100+ Gold (ICC-ES ESR-3200), Structural steel shall be fabricated and erected according to the "Specification for Structural Steel Buildings" referenced in the applicable Hilti HIT-HY 70 Fast Cure Adhesive (ICC-ES ESR-2682). Minimum Embedment = 6 times anchor diameter. UNO. Connections shall be detailed based on the design information provided in the STEEL JOISTS 1. Steel Joists, Bridging, and Connections: Designed, fabricated, and erected 4.1 Standard Shear Connections: Detail as bolted or welded double-angle, according to Specifications of the Steel Joist Institute (SJI). single-plate, single-angle, or tee connections in accordance with the connection tables in the "Manual of Steel Construction" referenced in the 1.1 Net Uniform Uplift Design Load for Roof Joists = 10 psf 1.2 Bridging shall be designed to fully brace top chord of joists under 4.1.1 Shear connections not defined in the AISC Manual shall be designed service loads for roof joists not braced by steel roof deck. by an Engineer licensed in the project state. This design service shall be included in the Contractor's scope of services. Shop 1.3 Top chord extensions or extended ends are to be designed for the same tabulated uniform loads used in the design of the associated joists plus drawings of such connections shall be sealed by the Engineer. a concentrated load of 300 pounds at the end of the of the extension or 4.2 Welded Connections: Prequalified welded joints in accordance with AISC and extended end, unless noted otherwise on the Drawings. the Structural Welding Code of the American Welding Society; "Non-pregualified joints" shall be gualified prior to fabrication. 2. Design of steel joists, bridging, and their connections shall be the sole responsibility of the Contractor. Submit shop drawings sealed by an Engineer 4.3 Factored Design Forces/Reactions: As shown on the Structural Drawings or, licensed in the project state. if not shown, the factored design reaction shall be half of the "Maximum Total Uniform Load (LRFD)" tabulated in the "Manual of Steel Contractor shall coordinate the construction and erection of walls, beam Construction" referenced in the applicable Building Code. framing, steel decking, etc. to ensure compatibility of roof and wall systems considering pitch and camber of steel joists. 4.4 Steel connections not specifically detailed in the Structural Drawings shall be designed by the Contractor. This design service shall be included in the Contractor's scope of services. Shop drawings of such connections STEEL DECK shall be sealed by an Engineer licensed in the project state. 1. Steel Roof Deck: See plan for gage, galvanized. Welders shall be qualified for the work performed in accordance with AWS D1.1. Welder qualifications shall be certified by the local building authority and 2. Submit shop drawings with the manufacturer's catalog demonstrating compliance with the Contract Documents and the Steel Deck Institute. Architecturally Exposed Structural Steel (AESS): Conform to AISC Code of Standard Practice, Section 10. AESS shall be sandblasted (SSPC-SP6) prior to COLD-FORMED NON-LOAD BEARING EXTERIOR STEEL STUD FRAMING primer coat application. Primer shall be compatible with final paint coat and shall be approved by finish paint contractor. Steel deck shall be painted after 1. Design of cold-formed exterior steel non-load bearing studs and their installation. See Architectural Documents for paint specifications. AESS connections shall be the sole responsibility of the Contractor. Design and shop drawing submittals shall comply with the Specifications. Shop drawings shall be sealed by an Engineer licensed in the Project state. Cold-Formed Steel Design, Fabrication and Erection: Conform to AISI S100 "North American Specification for the Design of Cold-formed Structural steel members identified as AESS in the Structural or Architectural Drawings Steel Structural Members" referenced in the referenced Building Code 7.1 Galvanize environmentally exposed steel, for example mechanical equipment 7.2 Galvanize shelf angles that support the exterior building veneer, for

THE STRUCTURAL NOTES DEFINE GENERAL DESIGN AND MATERIAL REQUIREMENTS AND ARE INTENDED TO SUPPLEMENT, BUT NOT REPLACE, THE PROJECT SPECIFICATIONS



<u>GENERAL</u>

This Structural Quality Assurance Plan includes:

- 1. The Statement of Special Inspections which defines the scope of testing and inspection that is required
- for this project. The responsibilities of the Contractor. 2.
- Structural Observations 3

Refer to other portions of the Construction Documents for Special Inspections required of architectural, mechanical, electrical, or other building components.

Special Inspector will be hired by the Owner.

Special Inspector shall maintain records of inspections in accordance with Chapter 17 of the Building Code and shall distribute these records to the Building Official, Architect, and Structural Engineer on a weekly basis, unless noted otherwise below. Reports shall indicate that work inspected/tested was done in conformance to the Construction Documents. Discrepancies shall be brought to the immediate attention of the Contractor for correction. If the discrepancies are not corrected, they shall be brought to the attention of the Building Official, Architect, and Structural Engineer prior to completion of that phase of the work.

At the conclusion of the project, the Special Inspector shall submit a final report documenting required special inspections and correction of any discrepancies noted in the inspections.

STATEMENT OF SPECIAL INSPECTIONS

Special Inspector shall perform the following tests and inspections of all structural elements included within this Statement of Special Inspections.

- 1. The following tables contain material, components and work that require special inspection or testing: a. Inspection Frequency, C - Continuous special inspection. Special inspection by the special
 - inspector who is present when and where the work to be inspected is being performed. Inspection Frequency, P - Periodic special inspection. Special inspection by the special b.
 - inspector who is intermittently present where the work to be inspected has been or is being performed. For structural steel observe the items on a random basis. c. See Steel section for additional information for inspection tasks.

	SOILSInspectionFrequency			Remarks
1.	Verify materials below shallow foundations are adequate to achieve the design bearing capacity.		Р	
2.	Verify excavations are extended to proper depth and have reached proper material.		Р	Inspection is required after excavation is complete and prior to placement of structural fills.
3.	Perform classification and testing of controlled fill materials.		Р	Perform laboratory tests of field samples provided by contractor for verification of in place densities.
4.	Verify use of proper materials, densities, and lift thickness during placement and compaction of controlled fill.a. As a minimum, perform one test per lift for every 2500 square feet of fill placed.	С		Refer to specification for lift thicknesses and compaction.
5.	Prior to placement of controlled fill, observe subgrade and verify that the site has been prepared properly (e.g. proofrolling, etc.).		Р	
6.	Determine quantities of material removed and quantities of material placed where Unit Prices are involved.		Р	
			4.	
C	ONCRETE CONSTRUCTION	-	ection Jency	Remarks
1.	Inspection of reinforcing steel placement and installation. Grade, size, quantity, quality, location, spacing, clearances.		Р	ACI 318: 3.5, 7.1 – 7.7 / IBC 1910.4

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1.	Inspection of reinforcing steel placement and installation. Grade, size, quantity, quality, location, spacing, clearances.		Р	ACI 318: 3.5, 7.1 – 7.7 / IBC 1910.4
2.	 Inspection of reinforcing steel welding: a. Verify weldability of reinforcing steel other than ASTM A 706 		Р	ACI 318: 3.5.2 / AWS D1.4 / IBC Table 1705.2.2
	b. Reinforcing steel resisting flexural and axial forces in intermediate and special moment frames, and boundary elements of special structural walls of concrete and	С		
	shear reinforcement.c. Shear reinforcement.d. Other reinforcement.	C 	 P	
3.	Inspection of anchors cast in concrete. Verify compliance of the following: diameter, grade, type, length, number, placement, and embedment depth.	С		ACI 318: 1.3.2, 8.1.3, 21.1.8 / IBC 1908.5, 1909.1, AISC 360-10 N5.7
4.	Inspection of post-installed mechanical anchors installed in hardened concrete members: verify anchor type, anchor dimensions, hole diameter and cleaning procedures, anchor spacing, edge distances, concrete minimum thickness, anchor embedment, and tightening torque.	С		ACI 318: 3.8.6, 8.1.3, 21.1.8 / IBC 1909.1 Use of post installed anchors must be approved by Structural Engineer
5.	Inspection of post-installed adhesive anchors and reinforcing steel installed in hardened concrete members: Verify adhesive type, anchor rod dimensions, hole diameter and cleaning procedures, anchor spacing, edge distances, concrete minimum thickness, anchor embedment and tightening toque.	С		ACI App. D9.2.4
6.	Verify use of required design mix.		Р	ACI 318: Ch. 4, 5.2 – 5.4, IBC 1904.2, 1910.2, 1910.3
7.	 Sampling fresh concrete from concrete discharge. Mold one set of specimens for compressive strength testing for each 150 cubic yards or each 5,000 square feet of slab or wall surface area for each mix design placed in any one day. No fewer than five tests for a given class of concrete for the entire project. a. Mold (5) 4x8-inch compressive strength cylinders, break and report (1) at 7-days, (3) at 28-days, or mold (4) 6x12-inch compressive strength cylinders, break and report (1) at 7-days, (2) at 28-days. b. Remaining specimen(s) shall be broken as directed by the Structural Engineer if compressive strengths do not appear adequate. c. For each set molded, record: i. Slump ii. Air Content iii. Unit Weight iv. Temperature, ambient and concrete v. Batch and discharge times vi. Location and placement vii. Any pertinent information, such as addition of water, addition of admixtures, etc. 	С		ACI 318: 5.6, 5.8 ACI (5.a, 5b.i, ii, iii, iv, v, vi), SDG (5b.vii, 5.c, 5.d) ASTM C 172, ASTM C 31 ACI 318: 5.6.1 Report in writing on the same day as tests are performed. Reports of compressive strength tests shal contain the project identification name and number, date of concrete placement, name of concrete testing agency, concrete design compressive strength, locatio of concrete placement in structure, concrete mix proportions and materials, compressive breaking strength and type of break.
8.	Inspection of concrete and shotcrete conveying and placement for proper application techniques.	С		ACI 318: 5.9, 5.10
9.	Inspection for maintenance of specified curing temperature and techniques.		Р	ACI 318: 5.11 – 5.13
10.	Inspection of formwork for shape, location, and dimensions of the concrete member being formed.			ACI 318: 6.1.1
11.	Perform testing of floor Flatness and Levelness of concrete slab placements in accordance with ASTM E1155. See specification		ß	ACI 117-10

STRUCTURAL QUALITY ASSURANCE PLAN

1. Compressive strength tests per ASTM C1107.		NON-SHRINK GROUTING	Inspe Fregu	ction lency	Remarks
a. Marcle of Train: On the last for table to grig grig the last Sorte So	1.			 	
2. Performance consultation weight performance and unitary for the angular the performance of the tenginning part in produce and angular tenginneous of the tenginning part in the angular tengin tenginning part in the a		used or minimum of one test for each day of grouting. b. Cube Size: 2-inch x 2-inch	С		
Level. B - Cook Raise CATEGORY 14, 06 III STRUCTURES Inspection Remarks 1. Write 16 for monotonic methods. MoNot Empirical. m. m. m. TMS 602 - Article 1.4 B 2. Write 1.4 (2) monotonic methods. MoNot Empirical. m. m. m. TMS 602 - Article 1.4 B 3. Write 1.4 (2) monotonic methods. MoNot Empirical. m. m. m. m. 3. Write Compliance with the following approved automatical empirical. m. m. m. m. 4. Mortar mic designs including two and protonion of instructional of ASTM (270). m. p. TMS 602 - Article 2.1 and 2.6 A 5. Write Compliance with the speetprotonion of instructure and approval automatical for the speetprotonion of approval automatical for the speetprotonic of instructure and proton the speetprotonic metal empirical for the speetprotonical empirical for the speetprotonic metal empirical for the speetprotonical em	2.	Perform one performance evaluation test prior placing grout under base plates. Test shall be performed as outlined in		Р	One test shall be performed at the beginning job prior to placement of grout under base plates.
Level. B. ("GP Risk CATEGORY I, IL OF IL STRUCTURES Frequency Kemarks 1. Warkbauen of min accountance with Specification TMS 502 TMS 502 - Article 14.8 2. warkbauen of min accountance with Specification TMS 502 TMS 502 - Article 15.8 Ib.3 3. Warkbauen of the properties for self-consolicating spruced adminite 3. Markbauen of the self-consolicating spruced adminite 3. Markbauen of ASTM C220					
Article 1.4 B prote to construction Image: marked set of the set of t	LE	VEL B - (FOR RISK CATEGORY I, II, OR III STRUCTURES	-		Remarks
2. Verification of Sump Novan Visual Stability Network (VS) as delivered to be degres activity producting approved submittalsTMS 602 - Article 1.5 B. 1b. 33. Verify compliance with the following approved submittalsa. Motar mix designs and runts tests performed in agportance with the proceptomed in accordination of ASIM (270)b. Motar mix designs and motar tests performed in accordination of ASIM (270)c. Grout or indicating types and proportions of ingredients according to the proportion requirements of ASIM (276)c. Grout or indicating types and proportions of vasal Stability Index (VS) as determined by ASIM CTE (1705)d. Corut or indicating types and proportions of vasal Stability Index (VS) as determined by ASIM CTE (1705)d. Corut or index scale and grout strength test performed in vasal Stability Index (VS) as determined by ASIM CTE (1705)d. Corut or index scale washer (Lemprature 	1.				TMS 602 - Article 1.4 B
a. Notice may design and motate tests performed in exceptions of segmentation of ASTM G20 P TMS 602 - Article 2.1 and 2.6 A b. Motate may designs and motate tests performed in C270. P TMS 602 - Article 2.1 and 2.6 A c. Grout mix designs and motate tests performed in excerdance with the propertion explanement on the test performed in excerdance with the stoperformed in excerdance with ASTM C470. P TMS 602 - Article 2.1 d. Grout mix designs and proof the regularement in accordance with ASTM C470. P TMS 602 - Article 2.2 d. Grout mix designs and proof the regularement in accordance with ASTM C470. P TMS 602 - Article 2.2 d. Grout proceed with ASTM C470. P TMS 602 - Article 2.1 and 2.6 A f. Construction proceedures cold weather (temperature toops 00° F) P TMS 602 - Article 1.8 C and 1.8 D d. Brout article proceedures cold weather (temperature toops 00° F) P TMS 602 - Article 2.1 and 2.6 A e. Location of reinformeration along are in compliance: P TMS 602 - Article 2.1 and 2.6 A e. Grout proceedures cold weather (temperature toops 00° F) TMS 602 - Article 2.1 and 2.6 A a. Grout proceedures cold weather (temperature toops 00° F) TMS 602 - Article 2.1 and 2.6 A a. Grout proceedures cold weather (temperature toops 00° F) TMS 602 - Article 3.1 and 3.4	2.	Verification of Slump flow and Visual Stability Index (VSI) as			TMS 602 - Article 1.5 B.1.b.3
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		ingredients in compliance with the proportion		Р	
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		ingredients according to the proportion requirements of		Р	TMS 602 - Article 2.2
accordance with ASTM C1019, and slump flow and Visual Stability Index (VSI) as determined by ASTM C1611/C1811M. P 1. Construction procedures cold weather (temperature below 40°F) or how weather (temperature an enopliance. P a. Proportions of alle-prepared montar P TMS 602 - Article 2.1 and 2.6 A b. Construction of motori plots P TMS 602 - Article 2.1 and 2.6 A c. Location of reinforcement and connectors P TMS 602 - Article 3.3 B c. Location of reinforcement and connectors P TMS 602 - Article 3.2 D and 3.2 F b. Construction of motori plots P TMS 602 - Article 2.4 and 3.4 c. Stable soc. P TMS 602 - Article 2.4 and 3.4 c. Construction of motori plots P TMS 602 - Article 3.2 D and 3.2 F b. Grade, type, and size of reinforcement and connectors (including on horizontal plot reinforcement and connectors (including on charzontal plot reinforcement) P TMS 602 - Article 3.2 B and 3.4 c. Orostruction of matrup plots P TMS 602 - Article 3.3 B P e. Construction of anothers, including other dealla or another plots P TMS 602 - Article 3.3 F b. Type, size, and location of anothers, including other dealla or another (temperature balow 40°F) or hot weather (temperature above 90°F)		d. Grout mix designs and grout strength test performed in accordance with ASTM C476		Р	
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b. Construction of mortar joints P TMS 602 - Article 3.3 B c. Location of reinforcement and connectors P TMS 602 - Article 3.4 5. Prior to grouting, verify that the following are in compliance: P TMS 602 - Article 3.2 D and 3.2 F a. Grout space. P TMS 602 - Article 3.2 D and 3.2 F b. Grade, type, and size of reinforcement and anchor P TMS 602 - Article 3.2 D and 3.2 F b. Grade, type, and size of reinforcement P TMS 602 - Article 3.2 D and 3.2 F b. Grade, type, and size of reinforcement and connectors (including P TMS 602 - Article 3.4 c. Placement of reinforcement and connectors (including on the reinforcement) P TMS 602 - Article 3.8 e. Construction of motar joints P TMS 602 - Article 3.3 F b. Verify during construction: P TMS 602 - Article 3.3 F b. Type, size, and location of anchors, including other details of anchors, including other details of anchors are of masonry to structural members, including other details or construction. P TMS 602 - Article 1.8 C and 1.8 D verify connection, sort tructural elements	4.				
c. Location of reinforcement and connectors P TMS 602 - Article 3.4 5. Prior to grouting, verify that the following are in compliance: P TMS 602 - Article 3.2 D and 3.2 F b. Grade, type, and size of reinforcement and anchor P TMS 602 - Article 3.2 D and 3.2 F b. Grade, type, and size of reinforcement and connectors (including not reinforcement) P TMS 602 - Article 3.2 D and 3.4 c. Plazement of reinforcement) P TMS 602 - Article 3.2 E and 3.4 d. Proportions of site-prepared grout P TMS 602 - Article 3.3 B e. Construction of mortar joints P TMS 602 - Article 3.3 B e. Construction of structural elements P TMS 602 - Article 3.3 F b. Type, size, and location of anchors, including other details of contensory to structural members, arc other construction P TMS 602 - Article 3.5 o. Preparation, constructural members, including other details of construction of grout specimens, mortar specimens, article set and 3.4 P TMS 602 - Article 1.4 D.4 S.1 T.1 frames, or other construction P <td< td=""><td></td><td>a. Proportions of site-prepared mortar</td><td></td><td>Р</td><td>TMS 602 - Article 2.1 and 2.6 A</td></td<>		a. Proportions of site-prepared mortar		Р	TMS 602 - Article 2.1 and 2.6 A
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b. Grade, type, and size of reinforcement and anchor bolts P TMS 402 - Sec 1.16 TMS 602 - Article 2.4 and 3.4 c. Placement of reinforcement) P TMS 402 - Sec 1.16 TMS 602 - Article 3.2 E and 3.4 d. Proportions of site-prepared grout P TMS 602 - Article 3.2 E and 3.4 d. Verify during construction P TMS 602 - Article 3.2 E and 3.4 e. Construction of motar joints P TMS 602 - Article 3.3 E e. Construction of motar joints P TMS 602 - Article 3.3 F f. Verify during construction: P TMS 602 - Article 3.3 F e. Construction of masony to structural elements P TMS 602 - Article 1.8 C and 1.8 D e. Preparation, construction, and protection of masony to structural elemembers, and/or prisms P TMS 602 - Article 1.8 C and 1.8 D d. Placement of grout is in compliance C TMS 602 - Article 1.4 B 2.b 3, 1.4 B.3, 1.4 B.4 and/or prisms P 1. Visual inspection of bolted and welded connections. P 2. Verify installation of bridging or braces. P -	5.				 TMS 602 Article 3.2 D and 3.2 E
bolts TMS Core TMS TMS Core Article 2.4 and 3.4 c. Placement of reinforcement) P TMS 602 - Article 3.2 E and 3.4 d. Proportions of site-prepared grout P TMS 602 - Article 3.2 E and 3.4 d. Proportions of site-prepared grout P TMS 602 - Article 3.3 B e. Construction of motar joints P TMS 602 - Article 3.3 F a. Size and location of structural elements P TMS 602 - Article 3.3 F b. Type, size, and location of anchors, including other details of anchorage of masomy to structural members, frames, or other construction P TMS 602 - Article 3.5 c. Preparation, construction, and protection of masomy during cold weather (temperature above 90°F) or hot weather (temperature above 90°F) or hot weather (temperature above 90°F) TMS 602 - Article 3.5 r. Descript preparation of grout is in compliance C TMS 602 - Article 3.5 r. Descript preparation of grout specimens, motar specimens, motar specimens, and/or prisms P TMS 602 - Article 3.5 r. Observe preparation of bridging or braces.		· · · · · · · · · · · · · · · · · · ·			
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e. Construction of montar joints P TMS 602 - Article 3.3 B 6. Verify during construction: a. Size and location of structural elements P TMS 602 - Article 3.3 F b. Type, size, and location of anchors, including other details of anchorage of masonry ot structural members, frames, or other construction P TMS 402 - Sec. 1.16.4.3, 1.17.1 c. Preparation, construction, and protection of masonry dung cold weather (temperature below 40°F) or hot weather (temperature above 90°F) P TMS 602 - Article 1.8 C and 1.8 D d. Placement of grout is in compliance C TMS 602 - Article 1.4 B.2.b.3, 1.4 B.3, 1.4 B.4 7. Observe preparation of fortut specimens, mortar specimens, and/or prisms P TMS 602 - Article 1.4 B.2.b.3, 1.4 B.3, 1.4 B.4 8. Verify connections for top and bottem chords. P 1. Visual inspection of bidging or braces. P 2. Verify installation of bridging or braces. P 3. Verify connections for top and bottem chords. P 4. Verify proper bearing. P Verify proper bearing. </td <td></td> <td></td> <td></td> <td>Р</td> <td></td>				Р	
6. Verify during construction: a. Size and location of structural elements P TMS 602 - Article 3.3 F b. Type, size, and location of anchors, including other details of anchorsage of masonry to structural members, frames, or other construction, and protection of masonry during cold weather (temperature above 90°F) P TMS 602 - Article 1.8 C and 1.8 D c. Preparation, construction, and protection of masonry during cold weather (temperature above 90°F) C TMS 602 - Article 1.8 C and 1.8 D d. Placement of grout is in compliance C TMS 602 - Article 1.8 C and 1.8 D 7. Observe preparation of grout specimens, mortar specimens, and/or prisms P TMS 602 - Article 1.4 B.2.b.3, 1.4 B.3, 1.4 B.4 8. Verify installation of bolted and welded connections. P TMS 602 - Article 1.4 B.2.b.3, 1.4 B.3, 1.4 B.4 1. Visual inspection of bridging or braces. P P 3. Verify connections for top and bottom chords. P 4. Verify reinforcement of members for concentrated loads. P 5. Verify proper bearing. P		d. Proportions of site-prepared grout		Р	TMS 602 - Article 2.6 B
a. Size and location of structural elements P TMS 602 - Article 3.3 F b. Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction, and protection of masonry during cold weather (temperature above 90°F) P TMS 602 - Article 1.8 C and 1.8 D c. Preparation, construction, and protection of masonry during cold weather (temperature above 90°F) P TMS 602 - Article 1.8 C and 1.8 D d. Placement of grout is in compliance C TMS 602 - Article 3.5 7. Observe preparation of prot specimens, and/or prisms P TMS 602 - Article 1.4 B.2.b.3, 1.4 B.3, 1.4 B.4 and/or prisms Inspection of bolted and welded connections. P Verify installation of bolted and welded connections. P Inspection of bolted and welded connections. P Verify reinforcement of members for concentrated loads. P Inspection of steel deck. a. Identification of steel deck. Auterial verification of steel deck. Auterification of steel deck.		e. Construction of mortar joints		Р	TMS 602 - Article 3.3 B
b. Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction, and protection of masonry during cold weather (temperature below 40°F) or hot weather (temperature above 90°F) P TMS 602 - Article 1.8 C and 1.8 D c. Preparation, construction, and protection of masonry during cold weather (temperature above 90°F) P TMS 602 - Article 1.8 C and 1.8 D d. Placement of grout is in compliance C TMS 602 - Article 1.8 C and 1.8 D 7. Observe preparation of grout specimens, mortar specimens, and/or prisms P TMS 602 - Article 1.4 B.2.b.3, 1.4 B.4 1. Visual inspection of bolted and welded connections. P TMS 602 - Article 1.4 B.2.b.3, 1.4 B.4 2. Verify installation of bridging or braces. P 3. Verify connections for top and bottom chords. P 4. Verify reinforcement of members for concentrated loads. P 5. Verify proper bearing. P 7. STEEL DECK Inspection Frequency Remarks 8. Identification markings to conform to ASTM standards specified in the approved construction documents P 9. Verify general alignment and deck lap. P 9. Verify general alignment and deck lap. <td>6.</td> <td></td> <td></td> <td></td> <td></td>	6.				
details of anchorage of masonry to structural members. P c. Preparation, construction, and protection of masonry during cold weather (temperature below 40°F) or hot weather (temperature below 40°F) or hot weather (temperature above 90°F) P TMS 602 - Article 1.8 C and 1.8 D d. Placement of grout is in compliance C TMS 602 - Article 3.5 7. Observe preparation of grout specimens, and/or prisms P TMS 602 - Article 1.4 B.2,b.3, 1.4 B.4 STEEL JOISTS Inspection of bolted and welded connections. P 1. Visual inspection of bolted and welded connections. P 1. Visual inspection of bolted and welded connections. P 2. Verify installation of bridging or braces. P 3. Verify connections for top and bottom chords. P 5. Verify proper bearing. P STEEL DECK Inspection of steel deck. a. Identification of steel deck. P 1. Material verification of steel deck. P				Р	
during cold weather (temperature below 40°F) or hot weather (temperature above 90°F) PPd. Placement of grout is in complianceCTMS 602 - Article 3.57. Observe preparation of grout specimens, mortar specimens, and/or prismsPTMS 602 - Article 1.4 B.2.b.3, 1.4 B.4 TEEL JOISTS Inspection FrequencyRemarksPVisual inspection of bolted and welded connectionsP1. Visual inspection of bolted and welded connectionsP2. Verify installation of bridging or bracesP3. Verify connections for top and bottom chordsP4. Verify proper bearingPSTEEL DECKInspection FrequencyPRemarksInspection perify proper bearing.Inspection perify proper bearing.Inspection perify proper bearing.Inspection perify proper bearing.PPPPPPPPP		details of anchorage of masonry to structural members, frames, or other construction		Р	
7. Observe preparation of grout specimens, mortar specimens, and/or prisms		during cold weather (temperature below 40°F) or hot weather (temperature above 90°F)		Р	
and/or prisms Image: Product of the product of prisms Image: Product of the prod	-	•	С		
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2. Verify installation of bridging or braces.Image: Probability of prob		STEEL JOISTS			Remarks
3. Verify connections for top and bottom chords. P 4. Verify reinforcement of members for concentrated loads. P 5. Verify proper bearing. P STEEL DECK Inspection Frequency Remarks 1. Material verification of steel deck. P a. Identification markings to conform to ASTM standards specified in the approved construction documents b. Manufacturer's certified test reports. P 2. Verify general alignment and deck lap. P 3. Verify welds for size and pattern. P 4. Inspection of welding at floor and roof deck P		•		-	
4. Verify reinforcement of members for concentrated loadsP5. Verify proper bearingPSTEEL DECKInspection FrequencyRemarks1. Material verification of steel deck. a. Identification markings to conform to ASTM standards specified in the approved construction documents b. Manufacturer's certified test reportsP2. Verify general alignment and deck lapP3. Verify welds for size and patternP4. Inspection of welding at floor and roof deckP				-	
5. Verify proper bearing. P 5. Verify proper bearing. P Inspection Frequency Remarks 1. Material verification of steel deck. a. Identification markings to conform to ASTM standards specified in the approved construction documents b. Manufacturer's certified test reports. P 2. Verify general alignment and deck lap. P 3. Verify welds for size and pattern. P 4. Inspection of welding at floor and roof deck P		•		-	
STEEL DECKInspection FrequencyRemarks1. Material verification of steel deck. a. Identification markings to conform to ASTM standards specified in the approved construction documents b. Manufacturer's certified test reportsP2. Verify general alignment and deck lapP3. Verify welds for size and patternP4. Inspection of welding at floor and roof deckP		•		-	
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a. Identification markings to conform to ASTM standards specified in the approved construction documents b. Manufacturer's certified test reportsP2. Verify general alignment and deck lapP3. Verify welds for size and patternP4. Inspection of welding at floor and roof deckP		STEEL DECK			Remarks
2. Verify general alignment and deck lap. P 3. Verify welds for size and pattern. P 4. Inspection of welding at floor and roof deck P	 Identification markings to conform to ASTM standards specified in the approved construction documents 			Р	
4. Inspection of welding at floor and roof deck P	2.	•		Р	
		· · ·			
p. verily spacing and type of sidelap attachments.					
6. Verify installation of deck closures P					
6. Verify installation of deck closures. P 7. Inspect welding operations, screw attachment, bolting, P		•		<u>Р</u>	
anchoring, and other fastening of components within the lateral force resisting system along including shear walls, braces, diaphragms, collectors (drag struts) and hold downs.		anchoring, and other fastening of components within the lateral force resisting system along including shear walls,		Р	

	COLD-FORMED EXTERIOR STEEL (CFS) FRAMING	Inspection Frequency		Remarks	
1.	Verify that installation of cold-formed members complies with the Construction Documents and the approved shop drawings.		Р		

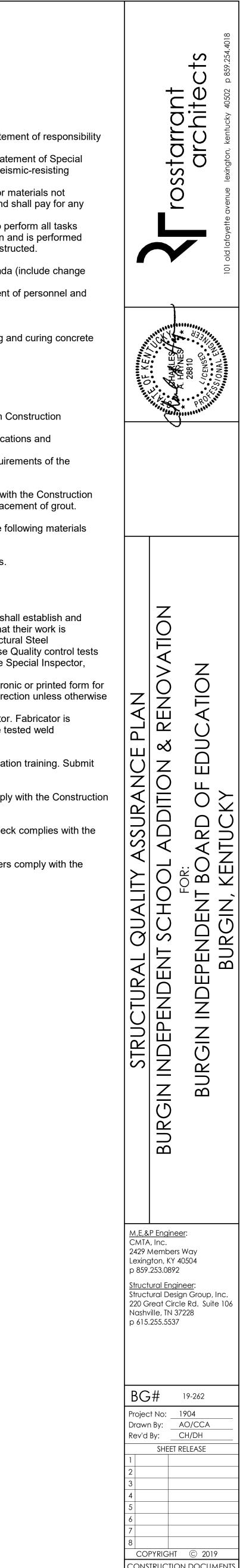
STRUCTURAL ST	=FI

		STRUCTURAL STEEL	Inspe Frequ		Remarks
fabr Cha	ricat aptei	the following tasks have been be performed by the or's or erector's quality control program in accordance to r N of AISC 360-10. It is permitted that this tasked be ated with the Special Inspector so that the inspection	Obs. – C	bserve the	ese items on a random basis. need not be delayed pending ctions.
funo Insp	ction pecto	are d with the Special Inspector so that the Inspection is are performed by only one party. The Special or shall review records of tasked performed by the is and fabricator's quality control program to verify	Perf. – F	Perform the	ese tasks for each welded joint or
	Ins sho me	teness. pection of steel framing to verify compliance with details own on the approved construction documents including mber locations, bracing, stiffening application of joint details	member 	Obs.	AISC 360-10 N5.7
2.	Rev belo a.	each connection, proper fasteners, etc. view the material test reports and certifications as listed ow for compliance with the construction documents. Main structural steel material test reports	Perf.		AISC 360-10 N5.2 & N3.2
2	C.	Anchor rods and threaded rods test reports Headed stud anchors - manufacturer's certifications			AISC 360-10 Table N5.4-1
3.	vis a.	ual Inspection Tasks Prior to Welding Welding procedure specifications (WPSs) available	 Perf.		AWS D1.1/D1.1M 6.3
	b.	Manufacturer certifications for welding consumables available.	Perf.		
	c. d.	Material identification (type/grade) Welder identification system The fabricator or erector, as applicable, shall maintain a system by which a welder who has welded a joint or member can be identified.		Obs. Obs.	AWS D1.1/D1.1M 6.4 (welder qualification) (identification system not required
	e.	Stamps, if used, shall be the low-stress type. Fit-up of groove welds (including joint geometry) i. Joint preparation ii. Dimensions (alignment, root opening, root face, bevel) iii. Cleanliness (condition of steel surfaces)		Obs.	by AWS D1.1/D1.1M) AWS D1.1/D1.1M 6.5.2 AWS D1.1/D1.1M 5.22 AWS D1.1/D1.1M 5.15 AWS D1.1/D1.1M 5.18
	f.	 iv. Tacking (tack weld quality and location) v. Backing type and fit (if applicable) Configuration and finish of access holes 		Obs.	AWS D1.1/D1.1M 5.10, 5.22.1.1 AWS D1.1/D1.1M 6.5.2, 5.17
	g.	Fit-up of fillet welds i. Dimensions (alignment, gaps at root)		Obs.	AWS D1.1/D1.1M 5.22.1 AWS D1.1/D1.1M 5.15
	h.	ii. Cleanliness (condition of steel surfaces)iii. Tacking (tack weld quality and location)Check welding equipment		Obs.	AWS D1.1/D1.1M 5.18 Only Required for shop Fabrication.
4.	Vis	ual Inspection Tasks During Welding			AISC 360-10 Table N5.4-2
		Use of qualified welders Control and handling of welding consumables		Obs.	AWS D1.1/D1.1M 6.4 AWS D1.1/D1.1M 6.2
		i. Packaging ii. Exposure control		Obs.	AWS D1.1/D1.1M 5.3.1 AWS D1.1/D1.1M 5.3.2 (for SMAW), AWS D1.1/D1.1M 5.3.3 (for SAW)
F	C.	No welding over cracked tack welds		Obs.	AWS D1.1/D1.1M 5.18
	d.	Environmental conditions i. Wind speed within limits ii. Precipitation and temperature		Obs.	AWS D1.1/D1.1M 5.12.1 AWS D1.1/D1.1M 5.12.2
	e.	WPS followed i. Settings on welding equipment ii. Travel speed			AWS D1.1/D1.1M 6.3.3, 6.5.2, 5.5, 5.21
		 iii. Selected welding materials iv. Shielding gas type/flow rate v. Preheat applied vi. Interpass temperature maintained (min./max.) vii. Proper position (F, V, H, OH) 		Obs.	AWS D1.1/D1.1M 5.6, 5.7
	f.	 viii. Intermix of filler metals avoided unless approved Welding techniques i. Interpass and final cleaning ii. Each pass within profile limitations 		Obs.	AWS D1.1/D1.1M 6.5.2, 6.5.3, 5.24 AWS D1.1/D1.1M 5.30.1
5.	Vis	iii. Each pass meets quality requirements ual Inspection Tasks After Welding			AISC 360-10 Table N5.4-3
	a.	Welds cleaned		Obs.	AWS D1.1/D1.1M 5.30.1
		Size, length and location of welds Welds meet visual acceptance criteria	Perf.		AWS D1.1/D1.1M 6.5.1 AWS D1.1/D1.1M 6.5.3
		 i. Crack prohibition ii. Weld/base-metal fusion iii. Crater cross section iv. Weld profiles v. Weld size vi. Undercut 	Perf.		AWS D1.1/D1.1M Table 6.1(1) AWS D1.1/D1.1M Table 6.1(2) AWS D1.1/D1.1M Table 6.1(3) AWS D1.1/D1.1M Table 6.1(4), 5.24 AWS D1.1/D1.1M Table 6.1(6) AWS D1.1/D1.1M Table 6.1(7)
	d.	vii. Porosity Arc strikes	Perf.		AWS D1.1/D1.1M Table 6.1(8) AWS D1.1/D1.1M 5.29
	e.	k-area. When welding of doubler plates, continuity plates or stiffeners has been performed in the k-area, visually inspect the web k-area for cracks within 3 in. (75mm) of	Perf.		Not addressed in AWS but see AISC (1997b). See Commentary Section A3.1c and Section J10.8.
	f.	the weld. Backing removed and weld tabs removed_and_finished, and fillet_welds_added (if required)	Perf.		AWS D1.1/D1.1M 5.10, 5.31
	g.	Repair activities	Perf.		AWS D1.1/D1.1M 6.5.3, 5.26
6.		Document acceptance or rejection of welded joint or member ndestructive Testing (NDT) of Welded Joints	Perf.		AWS D1.1/D1.1M 6.5.4, 6.5.5 agnetic particle testing (MT), penetrant testing (PT) and
		, , , , , , , , , , , , , , , , , , ,	radiographic Inspector in fabricator's s Certified or a	testing (RT), accordance w shop may be p approved by th	where required, shall be performed by Special ith AWS D1.1/D1.1M. NDT of welds completed in a performed by that fabricator when fabricator is AISC ine Building Official where applicable. When the DT, the Special inspection agency shall review the
	-	UT all complete penetration groove welds subject to	performed by with AWS D	y the Special I 1.1/D1.1M for	All NDT of welds completed in the field shall be nspector. Acceptance criteria shall be in accordance <i>statically loaded</i> structures, unless otherwise <i>rawings</i> or project <i>specifications</i> . AISC 360-10 N5.5b & AISC 341-10 J6.2b
	а.	transversely applied tension loading in a butt, T- and corner joints in material 5/16" thick or greater. MT shall be performed on 25% of all beam-to-column CJP groove welds.	Perf.		AISC 300-10 NS.5D & AISC 341-10 J6.2D
	b.	Thermally cut surfaces of access holes when material thickness is greater than 2" shall be tested by MT or PT. Any crack shall be deemed unacceptable.	Perf.		AISC 360-10 N5.5c
	c. d.	Establish weld soundness of welded joint subject to fatigue by RT of UT for the following joints: Document all NDT performed, identifying tested weld by location in the structure, piece mark and location.	Perf.		Reduction in rate of UT is prohibited. AISC 360-10 N5.5d AISC 360-10 N5.5g
_	е.	Concurrent to submitting NDT reports to EOR or owner submit to contractor. Review NDT test reports performed by fabricator	Perf.		AISC 360-10 N7
7.		pection Tasks Prior to Bolting			Perform for 10% of all Snug tight joints if task is applicable and all pretension and slip critical joints. AISC 360-10 Table N5.6-1
		Manufacturer's certifications available for fastener materials	Perf.		RCSC 2.1 & 9.1
		Fasteners marked in accordance with ASTM requirements	Perf.		RCSC Figure C-2.1 & 9.1 (Also See ASTM Standards)
		Proper fasteners selected for the joint detail (grade, type, bolt length if threads are to be excluded from shear plane)		Obs.	RCSC 2.3.2, 2.7.2 & 9.1 RCSC 4 & 8
		Proper bolting procedure selected for joint detail Connecting elements, including the appropriate faying surface condition and hole preparation, if specified, meet		Obs.	RCSC 4 & 8 RCSC 3, 9.4 & 9.3
┝	f.	applicable requirements Pre-installation verification testing by installation personnel			RCSC 7 & 9.2
-		observed and documented for fastener assemblies and methods used, not required for Snug tight bolts Proper storage provided for bolts, nuts, washers and other fastener components		Obs. Obs.	RCSC 2.2,8 & 9.1
8.		pection Tasks During Bolting			Perform for 10% of all Snug tight joints if task is applicable and all pretension and slip critical joints. Special Inspector need not be present during bolt pretensioning procedures. AISC 360-10 Table N5.6-2
_		Fastener assemblies, of suitable condition, placed in all holes and washers (if required) are positioned as required Joint brought to the snug-tight condition prior to the		Obs.	RCSC 8.1 & 9.1 RCSC 8.1 & 9.1
\vdash	b. с.	Joint brought to the shug-tight condition prior to the pretensioning operation Fastener component not turned by the wrench prevented		Obs.	RCSC 8.1 & 9.1 RCSC 8.2 & 9.2
\vdash	d.	from rotating Fasteners are pretensioned in accordance with the RCSC		Obs.	RCSC 8.2 & 9.2
9.	Ine	Specification, progressing systematically from the most rigid point toward the free edges pection Tasks After Bolting		Obs.	AISC 360-10 Table N5.6-3
<u> </u>	a.	Document acceptance or rejection of bolted connections	Perf.		
 	Ins	pection of Steel Elements of Composite Construction Prior Concrete Placement			AISC 360-10 Table N6-1
10.		Placement and installation of steel headed stud anchors		Obs.	Visually inspect and Hammer bend test (1 per 500).

CONTRACTOR RESPONSIBILITIES

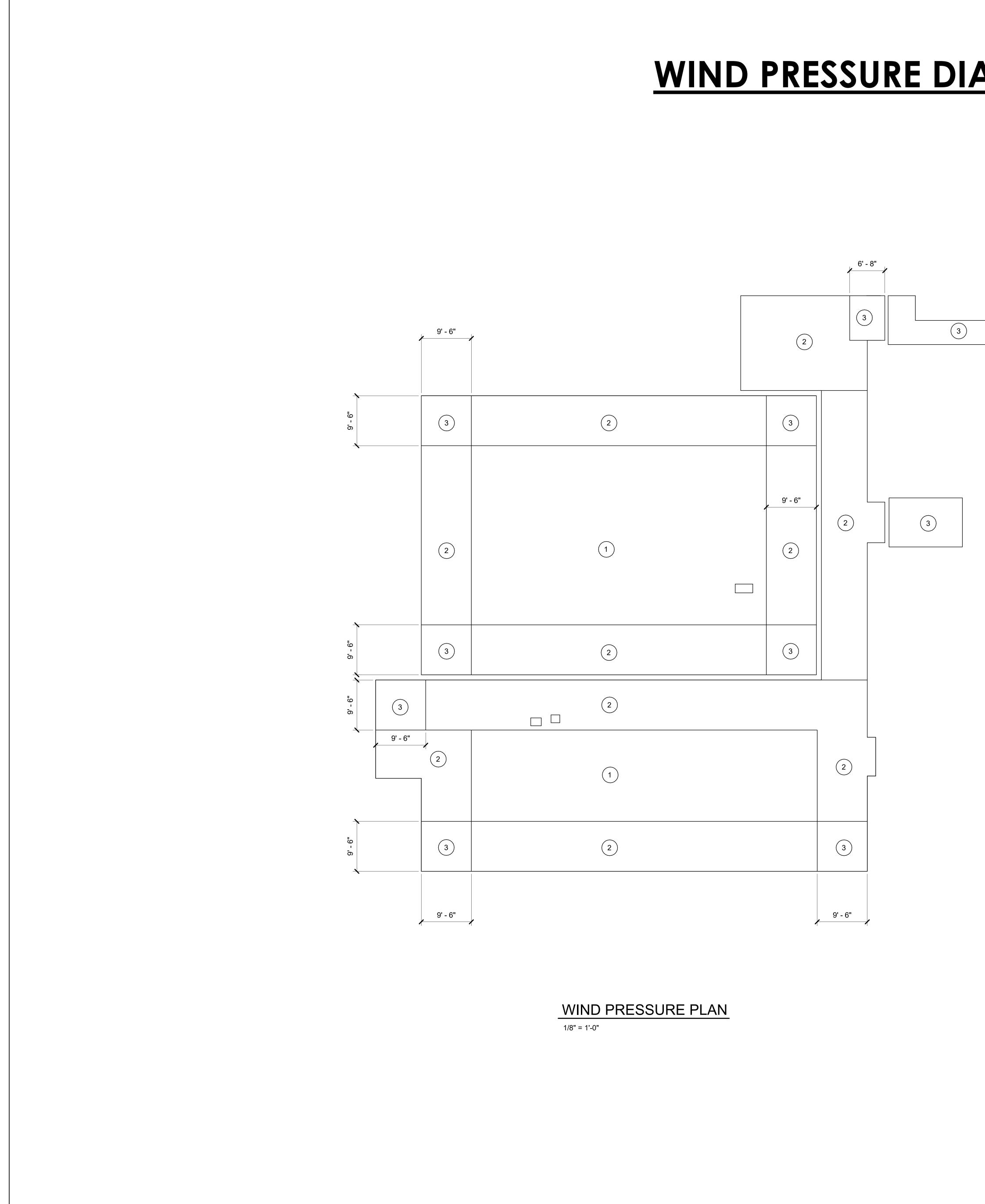
5.

- Contractor shall submit to the Building Official, Owner, and the Architect a written statement of responsibility that contains the following: a. Acknowledgment of awareness of the special requirements contained in the Statement of Special Inspections for the main wind- or seismic force-resisting system or a wind- or seismic-resisting
- component listed in the statement of special inspections. 2. Contractor shall pay for any additional structural testing/inspection required for work or materials not complying with the Construction Documents due to negligence or nonconformance and shall pay for any
- additional structural testing/inspection required for his convenience. Contractor is responsible to ensure that the Special Inspector is on site as required to perform all tasks 3 required by Statement of Special Inspection. Any work that requires special inspection and is performed
- without the Special Inspector being present is subject to being demolished and reconstructed. Contractor has the following responsibilities to the Special Inspector: 4. a. Provide copy of Construction Documents to Special Inspector and latest addenda (include change
 - orders and field orders prior to inspection of work contained therein). b. Notify Special Inspector sufficiently in advance of operations to allow assignment of personnel and scheduling of tests. Cooperate with Special Inspector and provide access to work.
 - Provide samples of materials to be tested in required quantities. d.
 - Provide storage space for Special Inspector's exclusive use, such as for storing and curing concrete e. testing samples. Provide labor to assist Special Inspector in performing tests/inspections.
- Contractor shall perform the following: a. SOILS
- Identify soils to be used as structural fill. b.
- CAST-IN-PLACE CONCRETE Submit manufacturer's certification that reinforcing materials comply with Construction Documents.
- Establish concrete mix design proportions in accordance with the specifications and İİ. ACI 318, Chapter 5. Submit manufacturer's certification that concrete materials meet the requirements of the iii.
- Construction Documents. c. NON-SHRINK GROUTING
- Submit product data sheets for non-shrink grout that shows compliance with the Construction Documents and with ASTM C1107 for fluid or flowable grouts, prior to placement of grout.
- d. CONCRETE MASONRY i. Submit a certification from each manufacturer or supplier stating that the following materials comply with the Construction Documents:
 - 1. Concrete masonry units.
 - Mortar materials: Portland cement, hydrated lime, and aggregates. Grout materials: Portland cement and aggregates.
- Joint reinforcement steel. 5. Reinforcing steel.
- e. STRUCTURAL STEEL If fabricator or erector is not AISC certified, the fabricator and/or erector shall establish and maintain *quality control* procedures and perform inspections to ensure that their work is performed in accordance with the Section N of the Specification for Structural Steel Building, AISC 360-10 and the *construction documents*. Payment of these Quality control tests and inspections, except for all NDT of welds completed in the field by the Special Inspector,
 - shall be by the fabricator and Erector. 1. Make available the documents listed in AISC 360-10 N3.2 in electronic or printed form for review by the EOR of the EOR's Designee prior to fabrication or erection unless otherwise
- required by the contract documents to be submitted: ii. Provide non-destructive test (NDT) reports performed in shop by fabricator. Fabricator is responsible for cost of NDT performed in shop. Reports shall identify the tested weld by piece mark and location in the piece.
- POST-INSTALLED ANCHORS i. Contractor shall contact manufacturer's representative for product installation training. Submit a letter indicating that training has taken place.
- g. STEEL JOISTS Submit manufacturer's certificate of compliance that the steel joists comply with the Construction
- Documents. STEEL DECK
- Submit manufacturer's certificate of compliance that the supplied steel deck complies with the Construction Documents.
- COLD-FORMED EXTERIOR STEEL STUDS i. Submit manufacturer's certification that the supplied cold-formed members comply with the Construction Documents.

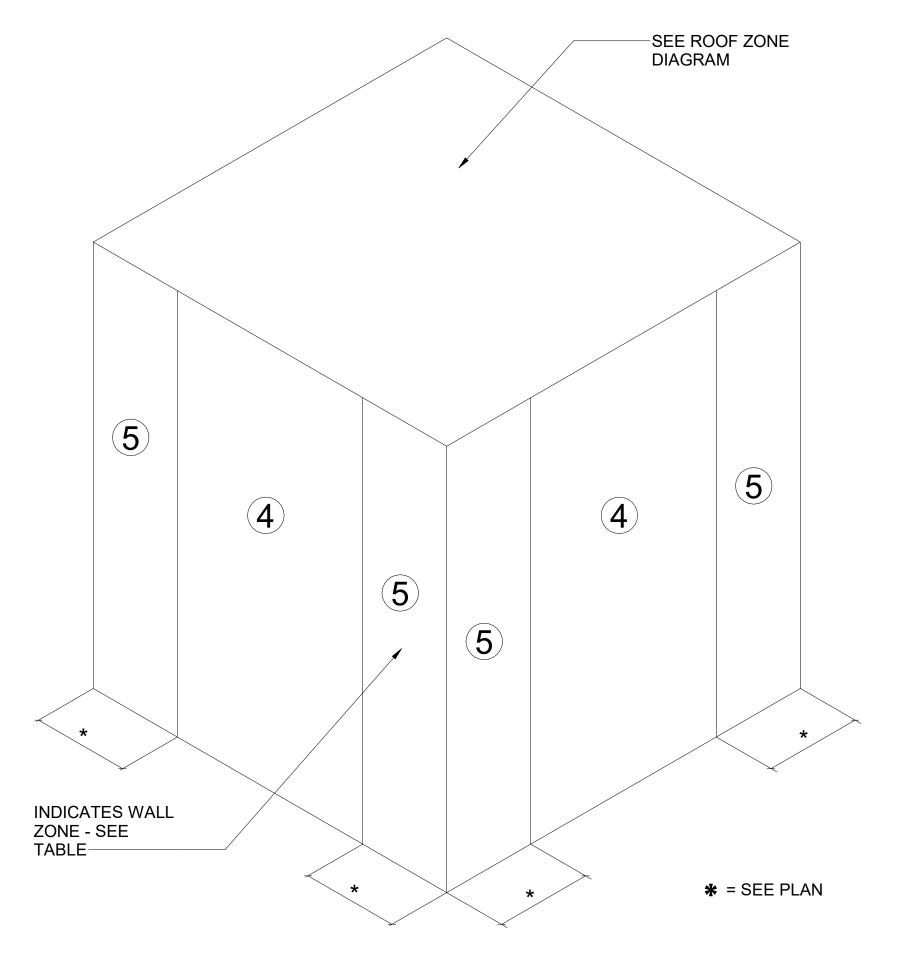


V31KUCIION DOCUME
SO.3
STRUCTURAL QUALITY ASSURANCE PLAN DATE ISSUED:

09/13/19



WIND PRESSURE DIAGRAM



WALL ZONE DIAGRAM

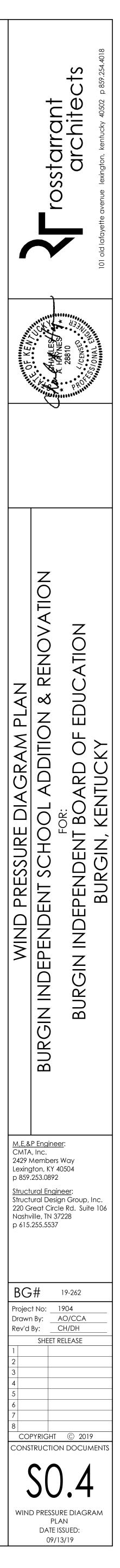
AGRAM					Structural Engi Structural Desi 220 Great Circ Nashville, TN 3	ig cle
ROC	OF UPLI	FT PRESSI	JRES		p 615.255.5537	7
AREA (SQ. FT)	ZONE 1 (PS	SF) ZONE 2 (PS	F) ZONE 3 (PSF)			
10	-31.4	-52.7	-79.3			
20	-30.6	-47.1	-65.7			
50	-29.5	-39.7	-47.7			
≥ 100	-28.7	-34.0	-34.0		BG#	
EXTE	RIOR W	ALL PRES]		1 A C
AREA (SC	ξ. FT)	ZONE 4 (PSF)	ZONE 5 (PSF)		SHEET	R
10		+28.7 / -31.1	+28.7 / -38.3		1	
20		+27.5 / -29.8	+27.5 / -35.8		2 3	
50		+25.8 / -28.2	+25.8 / -32.4		4	
100		+24.5 / -26.9	+24.5 / -29.8		5	
200		+23.2 / -25.6	+23.2 / -27.3		6	
≥ 500		+21.5 / -23.9	+21.5 / -23.9		7	
				_	8 COPYRIGHT	
P/	ARAPET	PRESSUR	ES			-
AREA (SC). FT)	TYPIC	AL (PSF)	1		
10		+/-	75.2	1	\mathbf{C}	١
20		+/-	68.0			
50		+/-	58.5			J
≥ 100		+/-	51.3		WIND PRESSU	JF
				- 1		

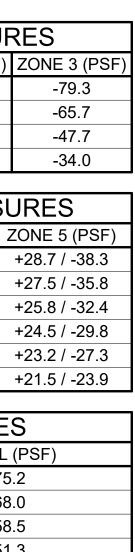
WIND PRESSURE DIAGRAM NOTES:
1. DESIGN WIND PRESSURES WERE CALCULATED IN ACCORDANCE WITH ASCE 7-10 BASED ON AN EFFECTIVE WIND AREA. MULTIPLY BY 0.6 FOR ASD.

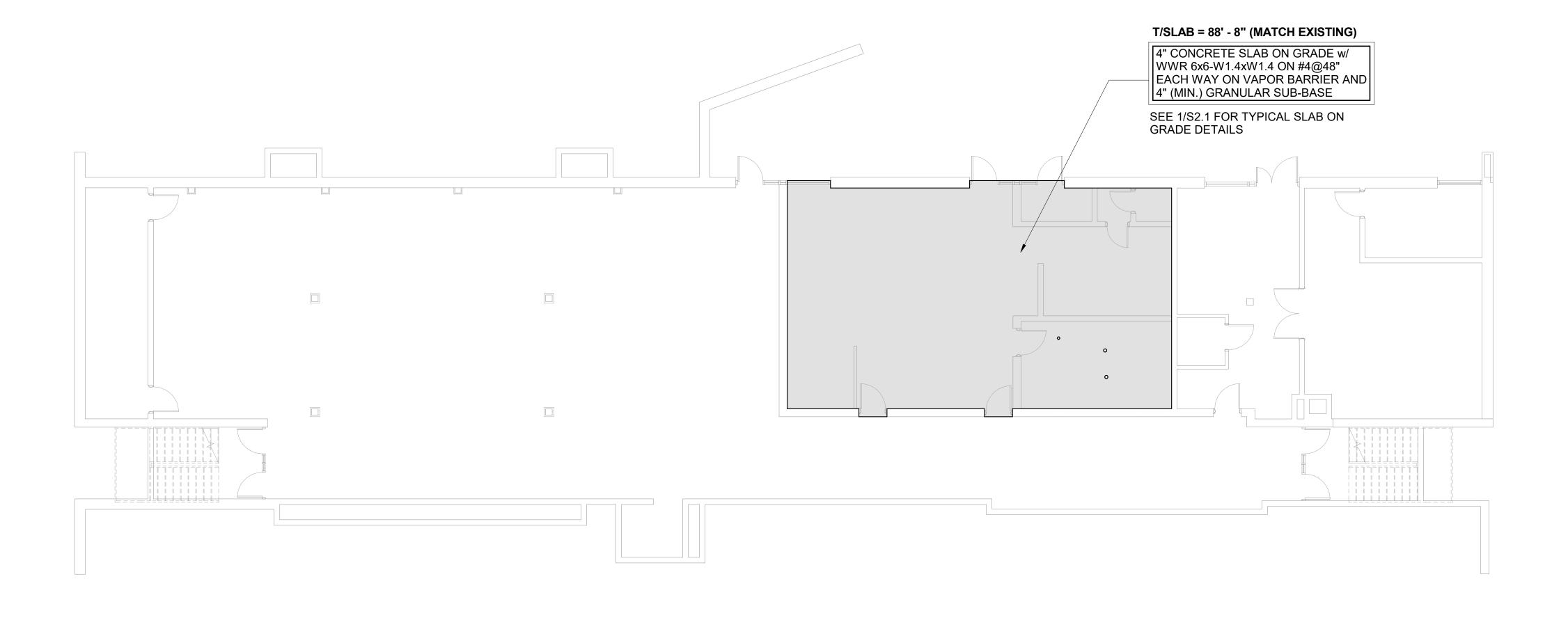
2. ROOF UPLIFT WIND PRESSURES IN ZONES 1, 2, AND 3 ARE GROSS UPLIFT VALUES. NET UPLIFT PRESSURES SHALL BE CONSIDERED EQUAL TO GROSS PRESSURES.

3. TABULATED WIND PRESSURES SHALL BE USED IN THE DESIGN OF EXTERIOR COMPONENT AND CLADDING MATERIALS. INTERPRETATION AND APPLICATION OF THESE PRESSURES TO SPECIFIC PORTIONS OF THE BUILDING AREAS SHALL BE THE RESPONSIBILITY OF THE EXTERIOR COMPONENT AND CLADDING MATERIAL SUPPLIER.

4. WHERE PARAPET HEIGHT EXCEEDS 3' - 0", CORNER ZONES (ZONE 3), MAY BE TREATED AS PERIMETER ZONES (ZONE 2).

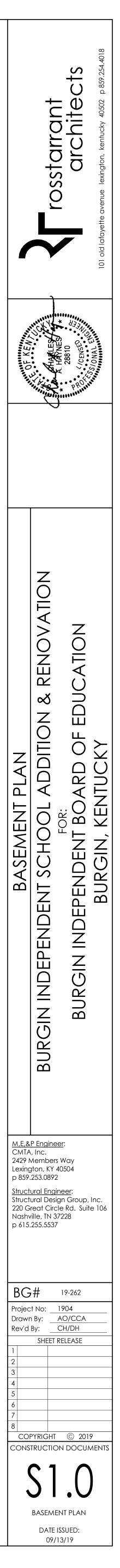


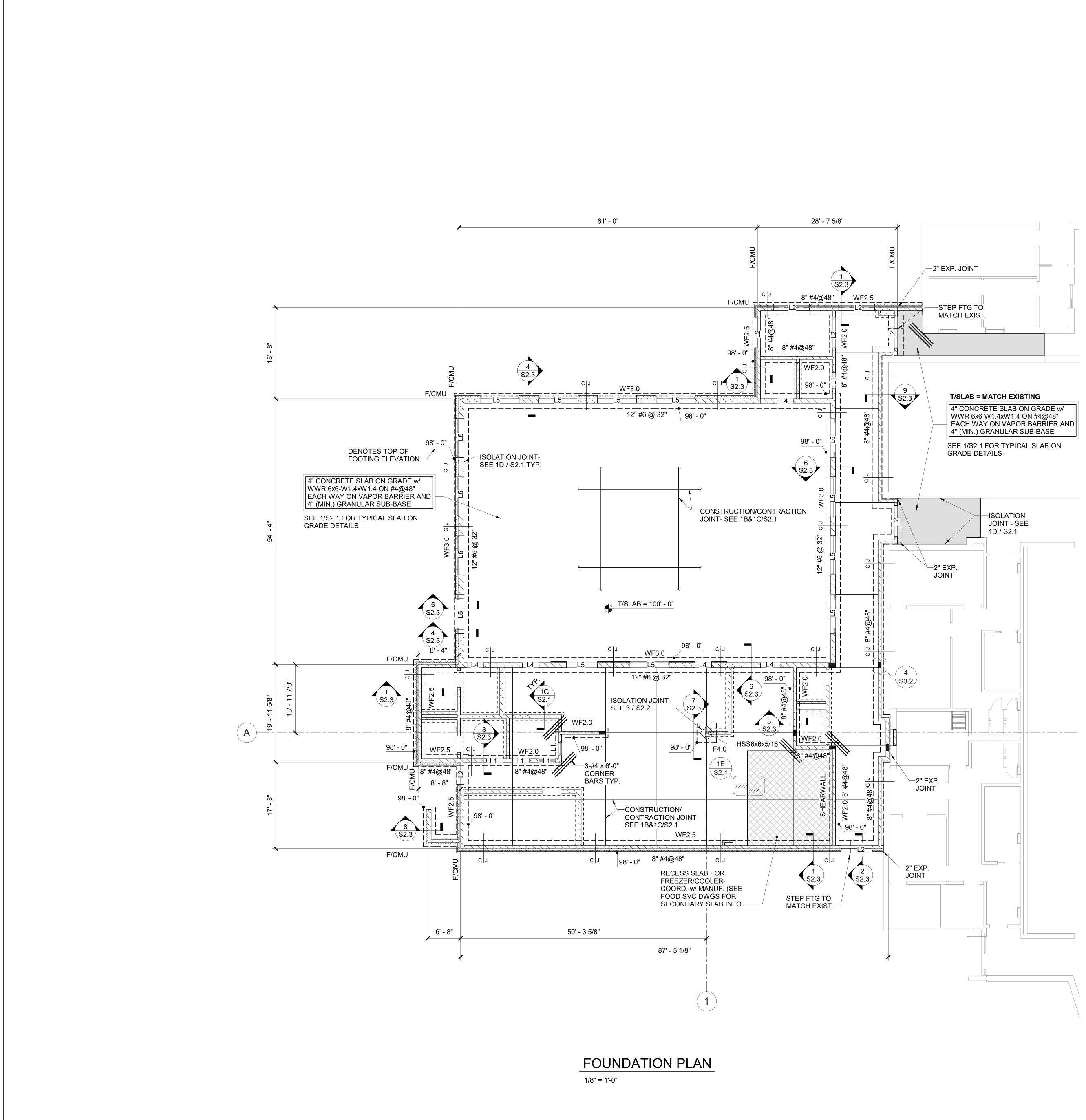




BASEMENT PLAN

1/8" = 1'-0"





FOUNDATION NOTES:

- 1. WALL REINFORCING FOR FULL HEIGHT OF WALLS IS INDICATED ON PLANS (ie, X" #X@XX", DENOTES CMU/BAR SIZE/BAR SPACING) SEE TYPICAL CMU / WALL REINFORCING DETAIL FOR ADDITIONAL REINFORCING AT OPENINGS, CORNERS, CMU CONTRACTION JOINTS, ETC.
- 2. WALLS SHOWN ON PLAN WITHOUT REINFORCING INDICATED TO HAVE MINIMUM REINFORCING AS SHOWN IN THE TYPICAL CMU WALL REINFORCING DETAIL.
- 3. LINTELS ABOVE DOOR AND WINDOW OPENINGS ARE SHOWN ON PLANS. "LX" -SEE CMU LINTEL SCHEDULE FOR SIZE AND REINFORCING.
- 4. CJ (CMU CONTRACTION JOINT) SHOWN ON PLANS INDICATES APPROPRIATE LOCATIONS OF CONTRACTION JOINTS. LOCATIONS ARE INTENDED TO COINCIDE WITH CMU COURSING. COORDINATE LOCATION OF JOINTS WITH ARCHITECTURAL DRAWINGS. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF BRICK JOINTS.
- 5. ALL DIMENSIONS ARE TO BE VERIFIED WITH ARCHITECTURAL DRAWINGS BEFORE DETAILING AND CONSTRUCTION AR TO BEGIN. FOR DIMENSIONS NOT SHOWN, SEE ARCHITECTURAL DRAWINGS.
- 6. DO NOT LOCATE PLUMBING LINES WITHIN CONCRETE FOOTINGS OR GRADE BEAMS.

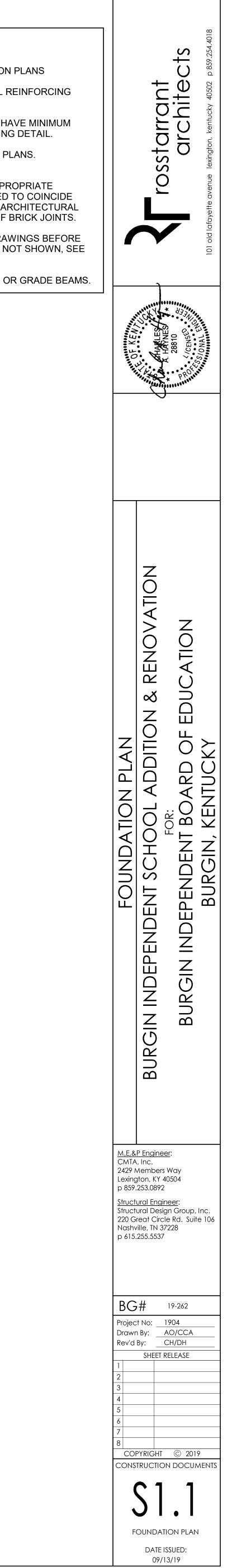
FOOTING LEGE	ND
FOOTING-	SEE SCHEDULE
	OTING ELEVATION

WALL FOOTING SCHEDULE

MARK	SIZE	BOTTOM REINF.	REMARKS
WF2.0	2'-0"x2'-0"x1'-3"	3-#4 EW	
WF2.5	2'-6"x2'-6"x1'-3"	4-#5 EW	
WF3.0	3'-0"x3'-0"x1'-3"	4-#5 EW	

COLUMN FOOTING SCHEDULE

MARK	SIZE	BOTTOM REINF.	REMARKS
F3.0	3'-0"x3'-0"x1'-3"	4-#5 EW	
F4.0	4'-0"x4'-0"x1'-3"	4-#5 EW	
F6.5	6'-6"x6'-6"x1'-6"	6-#6 EW	



JOIST BRG = 117' - 4" LIGHTWEIGHT INSULATING CONCRETE (SEE ARCHITECTURAL DRAWINGS) ON 1 1/2" TYPE "B" 20 GAGE VENTED STEEL FORM DECK (GALVANIZED) SEE 1 / S4.1 FOR DECK ATTACHMENT

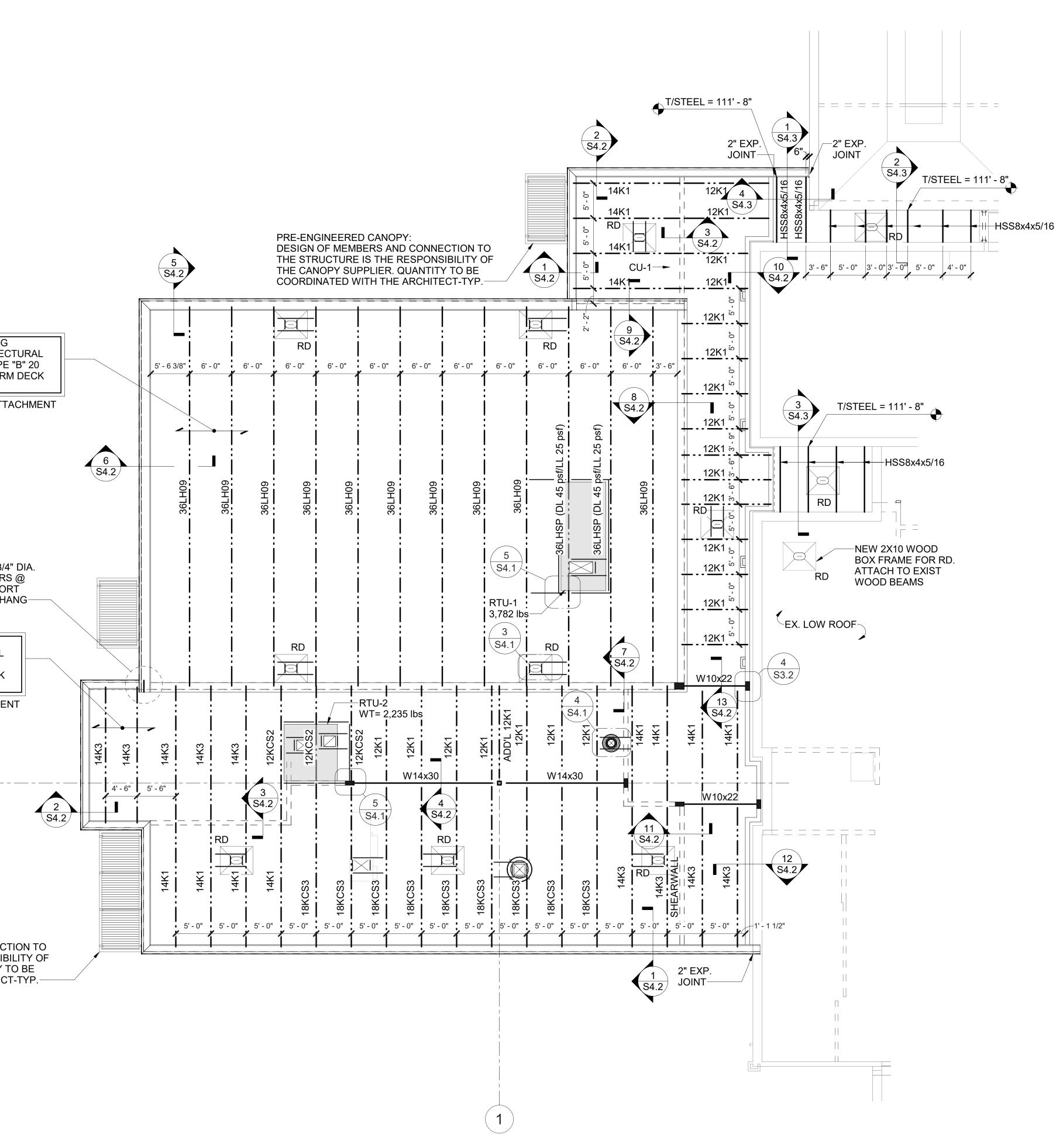
> L7x4x3/8" w/ 3/4" DIA. EXP. ANCHORS @ 16" TO SUPPORT BRICK OVERHANG—

JOIST BRG = 114' - 0" LIGHTWEIGHT INSULATING CONCRETE (SEE ARCHITECTURAL DRAWINGS) ON 1 1/2" TYPE "B" 20 GAGE VENTED STEEL FORM DECK (GALVANIZED)

SEE 1 / S4.1 FOR DECK ATTACHMENT

A

PRE-ENGINEERED CANOPY: DESIGN OF MEMBERS AND CONNECTION TO THE STRUCTURE IS THE RESPONSIBILITY OF THE CANOPY SUPPLIER. QUANTITY TO BE COORDINATED WITH THE ARCHITECT-TYP.—



ROOF FRAMING PLAN

1/8" = 1'-0"

CONTRACTOR / MECHANICAL EQUIPMENT NOTES:

MECHANICAL ROOF EQUIPMENT SHOWN IS FOR INFORMATION PURPOSES ONLY. ACTUAL UNIT SIZES, WEIGHTS, AND SUPPORT FRAMES MUST BE VERIFIED WITH FINAL MECHANICAL DRAWINGS BY THE CONTRACTOR. ANY DISCREPANCIES OF SIZE, WEIGHT, QUANTITIES, ETC. SHOULD BE SUBMITTED IN WRITING TO ENGINEER PRIOR TO PRODUCING SHOP DRAWINGS.

LOCATIONS AND DIMENSIONS OF ROOF TOP EQUIPMENT SUPPORT FRAMES SHALL BE PROVIDED BY CONTRACTOR FOR JOIST LAYOUT AND DESIGN PURPOSES.

GENERAL CONTRACTOR SHALL VERIFY DUCTWORK LOCATION, PENETRATION AND ROUTING WITH STRUCTURAL RESTRICTIONS PRIOR TO CONSTRUCTION OF DUCTWORK AND ROOF TOP MOUNTED EQUIPMENT. DUCTWORK SIZE AND ROUTING MAY BE ALTERED TO CONFORM TO STRUCTURAL REQUIREMENTS AS APPROVED BY THE ENGINEER.

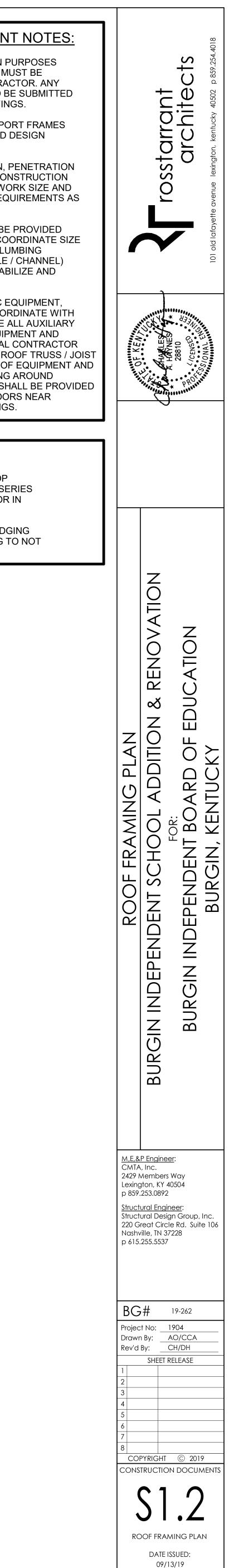
ALL ROOF AND WALL OPENINGS AND ROOF FLASHING SHALL BE PROVIDED AND INSTALLED BY THE GENERAL / ROOFING CONTRACTOR. COORDINATE SIZE AND LOCATION OF SUCH WITH THE MECHANICAL HVAC AND PLUMBING CONTRACTOR. PROVIDE SUBSTANTIAL STEEL FRAMING (ANGLE / CHANNEL) MEMBERS AROUND THE PERIMETER OF ALL OPENINGS TO STABILIZE AND SUPPORT EQUIPMENT, ETC.

MECHANICAL CONTRACTOR SHALL VERIFY WEIGHTS OF HVAC EQUIPMENT, KITCHEN HOODS, ROOF FANS, SIDE WALL FANS, ETC. AND COORDINATE WITH GENERAL CONTRACTOR. GENERAL CONTRACTOR TO PROVIDE ALL AUXILIARY SUPPORT STEEL (ANGLES / CHANNELS) TO SUPPORT ALL EQUIPMENT AND SHALL PROVIDE BLOCKING AND SUPPORT FOR SAME. GENERAL CONTRACTOR SHALL INDICATE ALL SUCH PENETRATIONS AND WEIGHTS ON ROOF TRUSS / JOIST SUBMITTAL DRAWINGS. ALL SOFFIT, EXTERIOR WALL, AND ROOF EQUIPMENT AND LOUVERS SHALL INCLUDE AUXILIARY SUPPORT STEEL FRAMING AROUND PERIMETER OF ALL OPENINGS. CONCEALED STEEL FRAMING SHALL BE PROVIDED BY GENERAL CONTRACTOR TO SUPPORT CEILING ACCESS DOORS NEAR EQUIPMENT INSTALLED ABOVE FIRE RATED CORRIDOR CEILINGS.

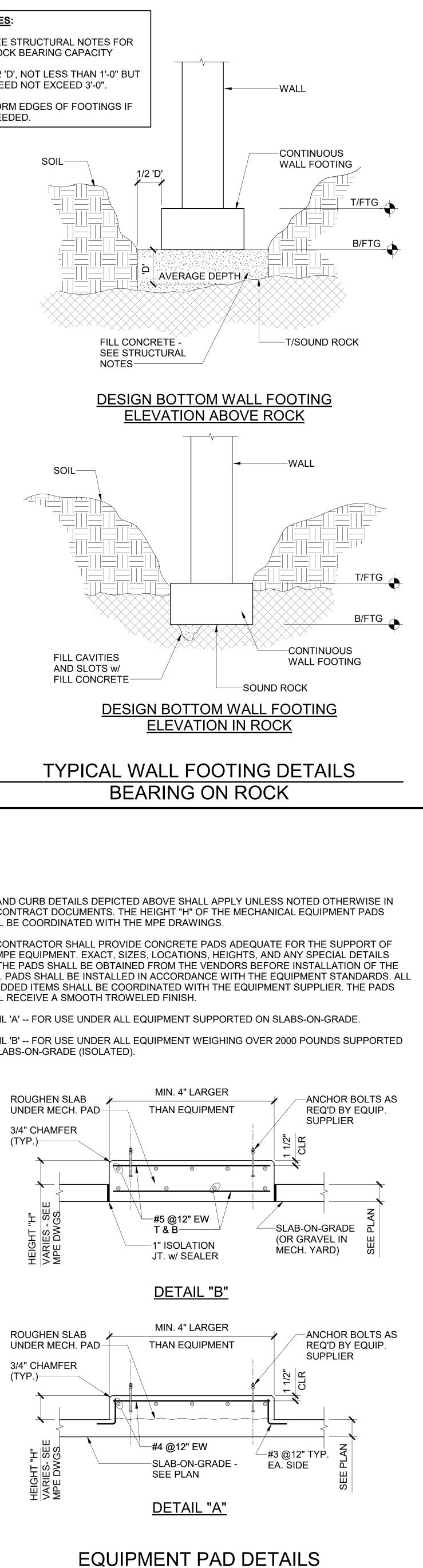
JOIST SUPPLIER NOTES:

JOISTS SHOWN ON DRAWINGS AS KCS JOISTS HAVE ROOF TOP EQUIPMENT LOADS ACCOUNTED FOR IN JOIST SELECTION. K-SERIES JOISTS SHALL HAVE THE MECHANICAL LOADS ACCOUNTED FOR IN DESIGN BY THE JOISTS SUPPLIER.

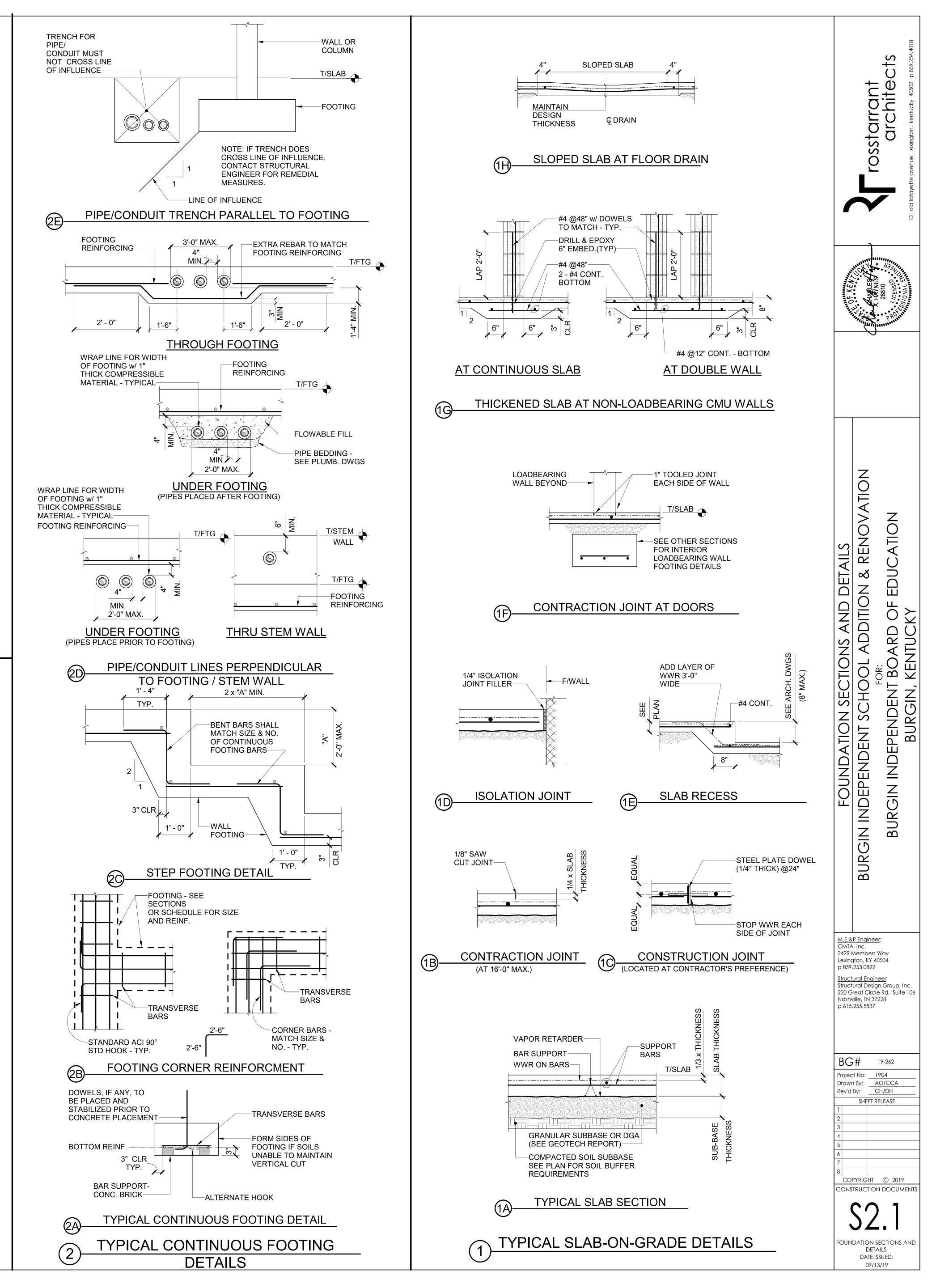
JOIST SUPPLIER SHALL COORDINATE LOCATION OF JOIST BRIDGING WITH MECHANICAL UNITS AND DUCTWORK. LOCATE BRIDGING TO NOT INTERFERE WITH UNITS OR DUCTWORK.



	NOTES 1. SEE ROC 2. 1/2 'I NEE 3. FOR NEE
	4
	NOTE: 1. PAD AN THE CO SHALL 2. THE CO THE MF FOR TH PADS. F EMBED SHALL 3. DETAIL 4. DETAIL ON SLA
	3—



AT SLAB-ON-GRADE



	Co Co f'C Bar Size #3 #4 #5 #6 #7 #8 #9 #10 #11 #11 #11 #11 #11 #11 #11 #11 #11
	#6 #7 #8 #9 #10 #11 Case #1: For be equal times other r diame diame Case #2: For be diame other bar sp

oncrete Minimum 28 Day	
mpressive Strength,	
= 3000 psi	

Case 1		Case 2		
Top Bars	Other Bars	Top Bars	Other Bars	
2'-6"	2'-0"	3'-9"	3'-0"	
3'-3"	2'-9"	5'-0"	3'-9"	
4'-3"	3'-3"	6'-0"	4'-9"	
5'-0"	3'-9"	7'-3"	5'-6"	
7'-0"	5'-6"	10'-6"	8'-0"	
8'-0"	6'-3"	11'-9"	9'-3"	
9'-0"	7'-0"	13'-3"	10'-3"	
10'-0"	7'-9"	15'-0"	11'-6"	
11'-3"	8'-9"	16'-6"	12'-9"	

oncrete Minimum 28 Day ompressive Strength, ; = 4000 psi

- 4000	– 4000 psi						
Case 1		Case 2					
Top Bars	Other Bars	Top Bars	Other Bars				
2'-3"	1'-9"	3'-3"	2'-6"				
3'-0"	2'-3'	4'-3"	3'-3"				
3'-6"	2'-9"	5'-3"	4'-3"				
5'-3"	4'-0"	7'-9"	6'-0"				
7'-6"	5'-9"	11'-3"	8'-9"				
8'-6"	6'-6"	12'-9"	9'-9"				
9'-6"	7'-6"	14'-3"	11'-0"				
10'-9"	8'-3"	16'-0"	12'-6"				
12'-0"	9'-3"	17'-9"	13'-9"				

<u>ENGTH NOTES:</u>

eams and columns, concrete cover greater than or I to bar diameter, bar spacing greater than or equal to 2 bar diameter, and ties as specified on the drawings. For members, concrete cover greater than or equal to bar eter and bar spacing greater than or equal to 3 times bar

eams and columns, concrete cover less than bar eter and bar spacing less than 2 bar diameters. For members, concrete cover less than bar diameter and pacing less than 3 times bar diameter.

С	Concrete Minimum 28 Day Compressive Strength, f'c = 5000 psi							
Bar	Cas	se 1	Cas	se 2				
Size	Top Bars	Other Bars	Top Bars	Other Bars				
#3	2'-0"	1'-9"	3'-0"	2'-3"				
#4	2'-9"	2'-3"	3'-9"	3'-0"				
#5	3'-3"	2'-6"	4'-9"	3'-9"				
#6	4'-9"	3'-9"	7'-0"	5'-6"				
#7	6'-9"	5'-3"	10'-0"	7'-9"				
#8	7'-9"	6'-0"	11'-6"	8'-9"				
#9	8'-9"	6'-9"	12'-9"	10'-0"				
#10	9'-9"	7'-6"	14'-6"	11'-3"				
#11	10'-9"	8'-3"	16'-0"	12'-3"				

Concrete Minimum 28 Day Compressive Strength, $f_{0} = 6000$ pai

f'c	f'c = 6000 psi							
Bar Cine			Case 2					
Size	Top Bars	Other Bars	Top Bars	Other Bars				
#3	2'-0"	1'-6"	2'-9"	2'-3"				
#4	2'-6"	2'-0"	3'-6"	2'-9"				
#5	3'-0"	2'-3"	4'-3"	3'-6"				
#6	3'-6"	2'-9"	5'-3"	4'-0"				
#7	5'-0"	4'-0"	8'-6"	6'-6"				
#8	5'-9"	4'-6"	8'-6"	6'-6"				
#9	6'-6"	5'-0"	9'-6"	7'-3"				
#10	7'-3"	5'-6"	10'-9"	8'-3"				
#11	8'-0"	6'-3"	11'-9"	9'-3"				

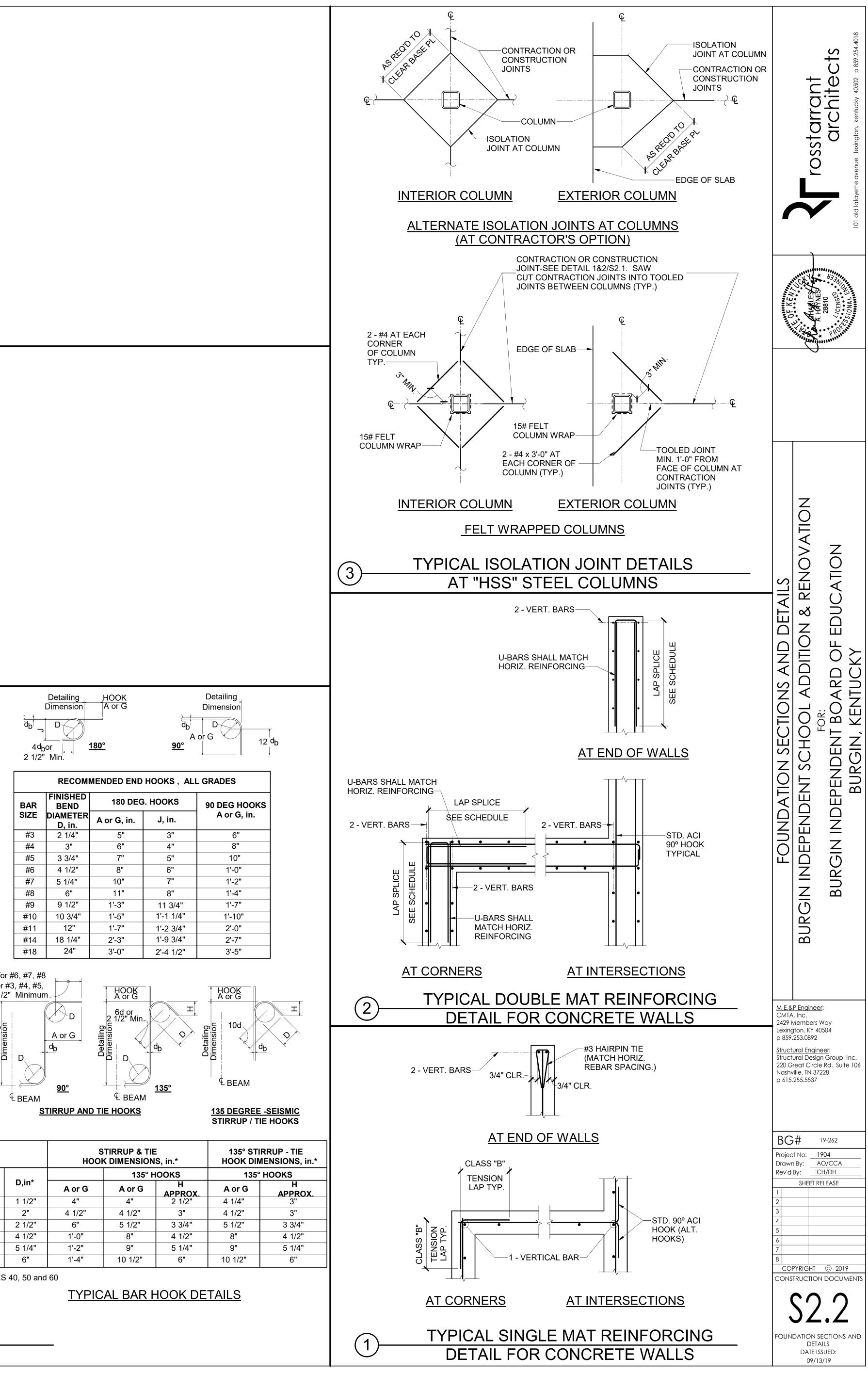
Top bars are horizontal reinforcement with more than 12" of fresh concrete placed below the splice.

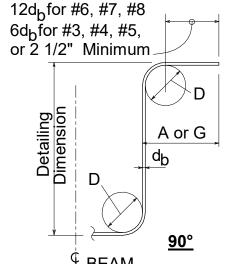
Where indicated on the drawings, class "A" lap splice lengths may be calculated by dividing tabulated values by 1.3.

As contractor's alternate, class "B" splice lengths may be calculated by the steel reinforcement detailer in accordance with ACI 318 and submitted for review.

Tension couplers may be used and installed in accordance with manufacturer's recommendations and shall be capable of developing 125% of the reinforcing steel ASTM specified minimum yield strength.

For lightweight structural concrete, multiply lap splice lengths by 1.3





			HO
	BAR	D	
	SIZE	D,in*	A or G
	#3	1 1/2"	4"
	#4	2"	4 1/2"
	#5	2 1/2"	6"
6	#6	4 1/2"	1'-0"
	#7	5 1/4"	1'-2"
	#8	6"	1'-4"

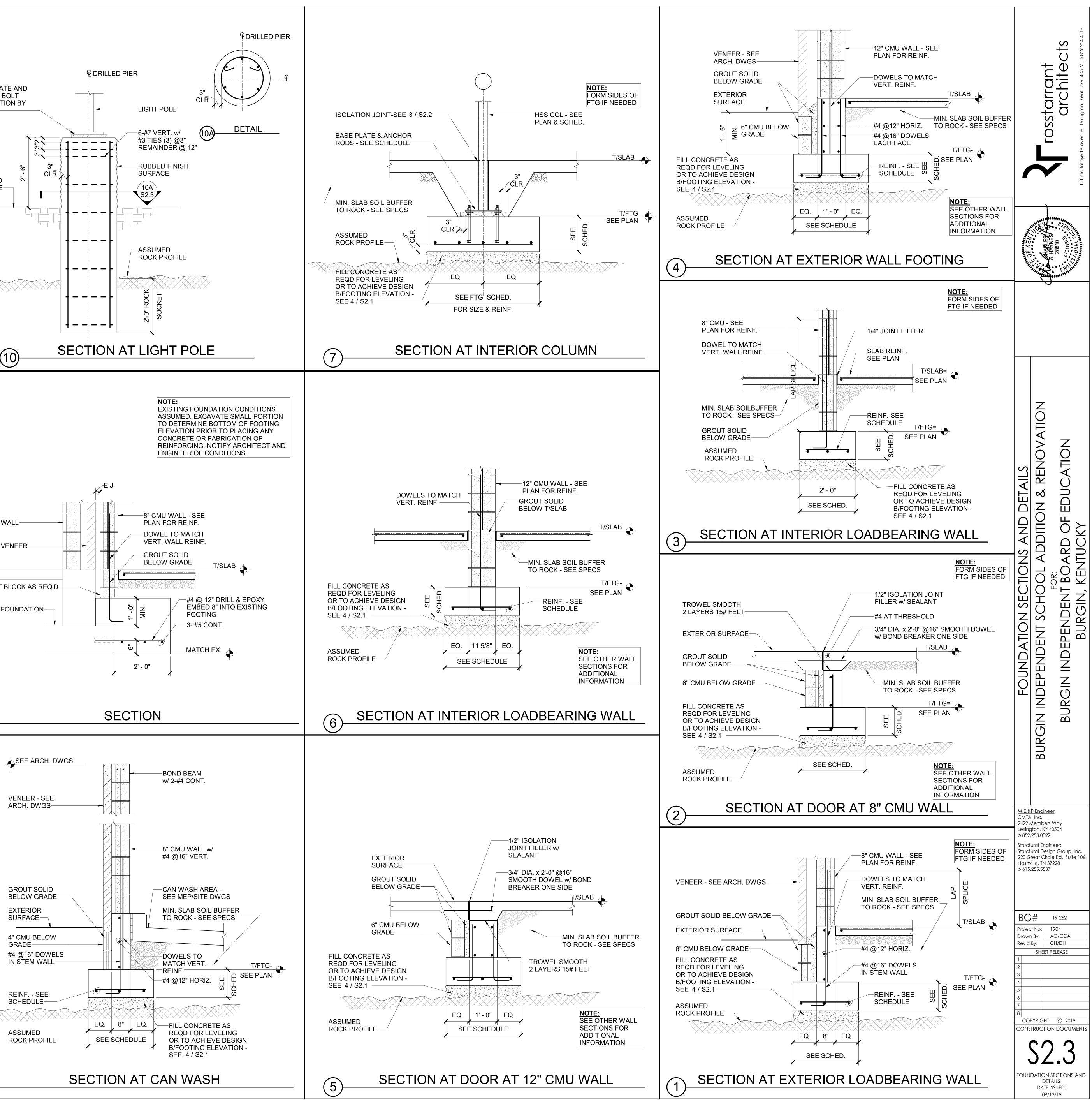
* GRADES 40, 50 and 60

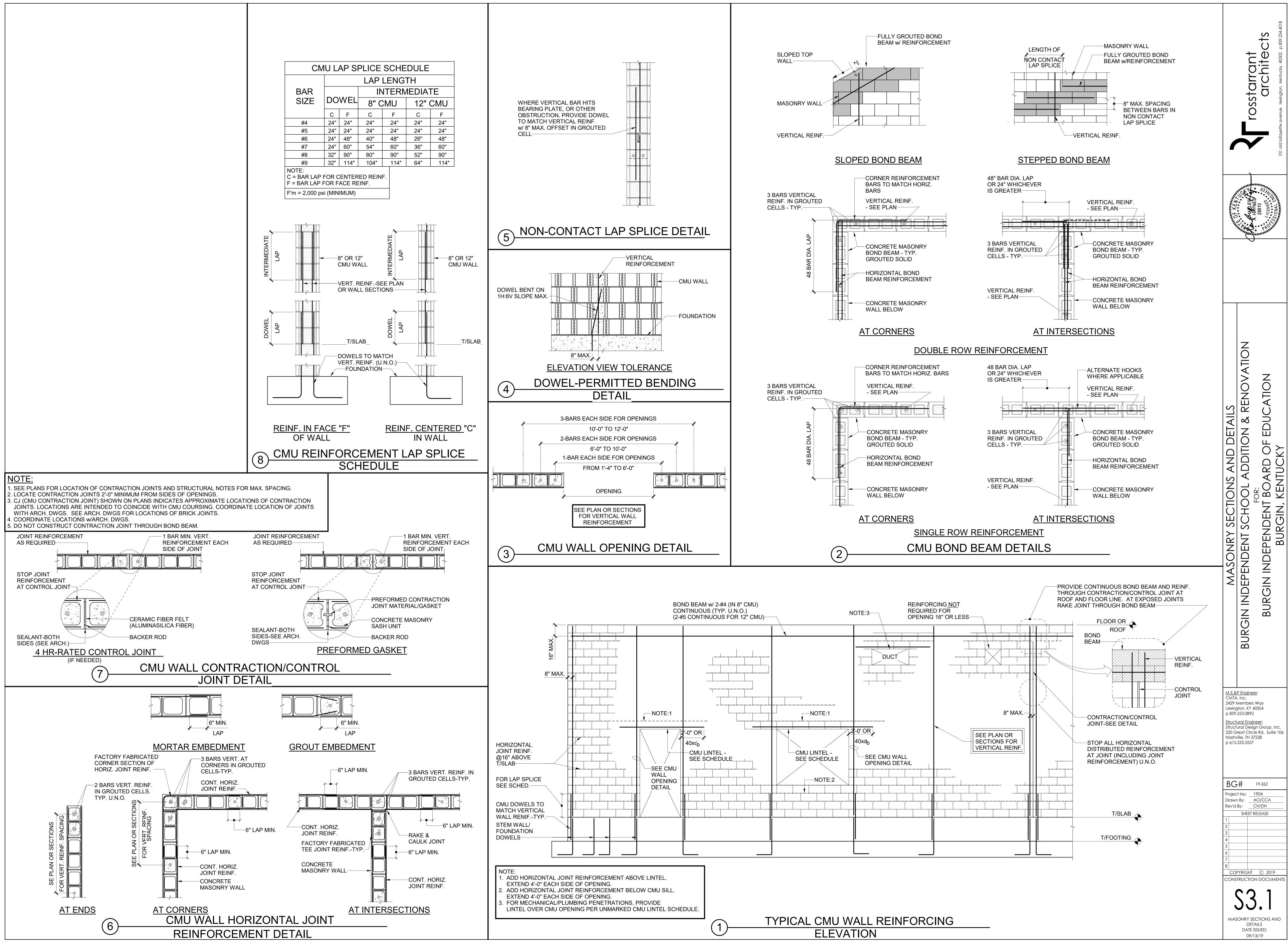
CONCRETE REINFORCEMENT CLASS "B" SPLICE LENGTHS (UNO)

(4)

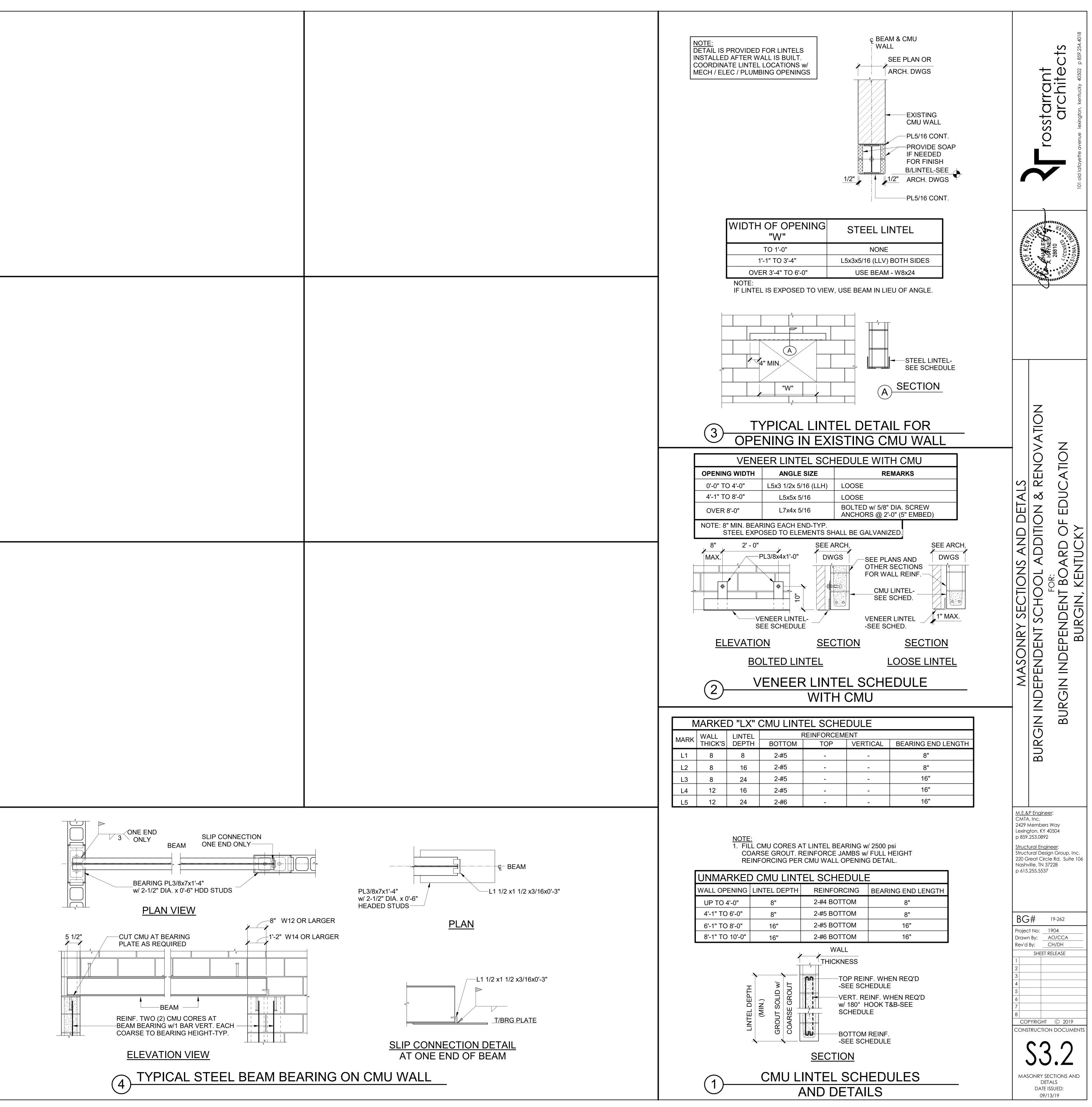
SCHEDULES

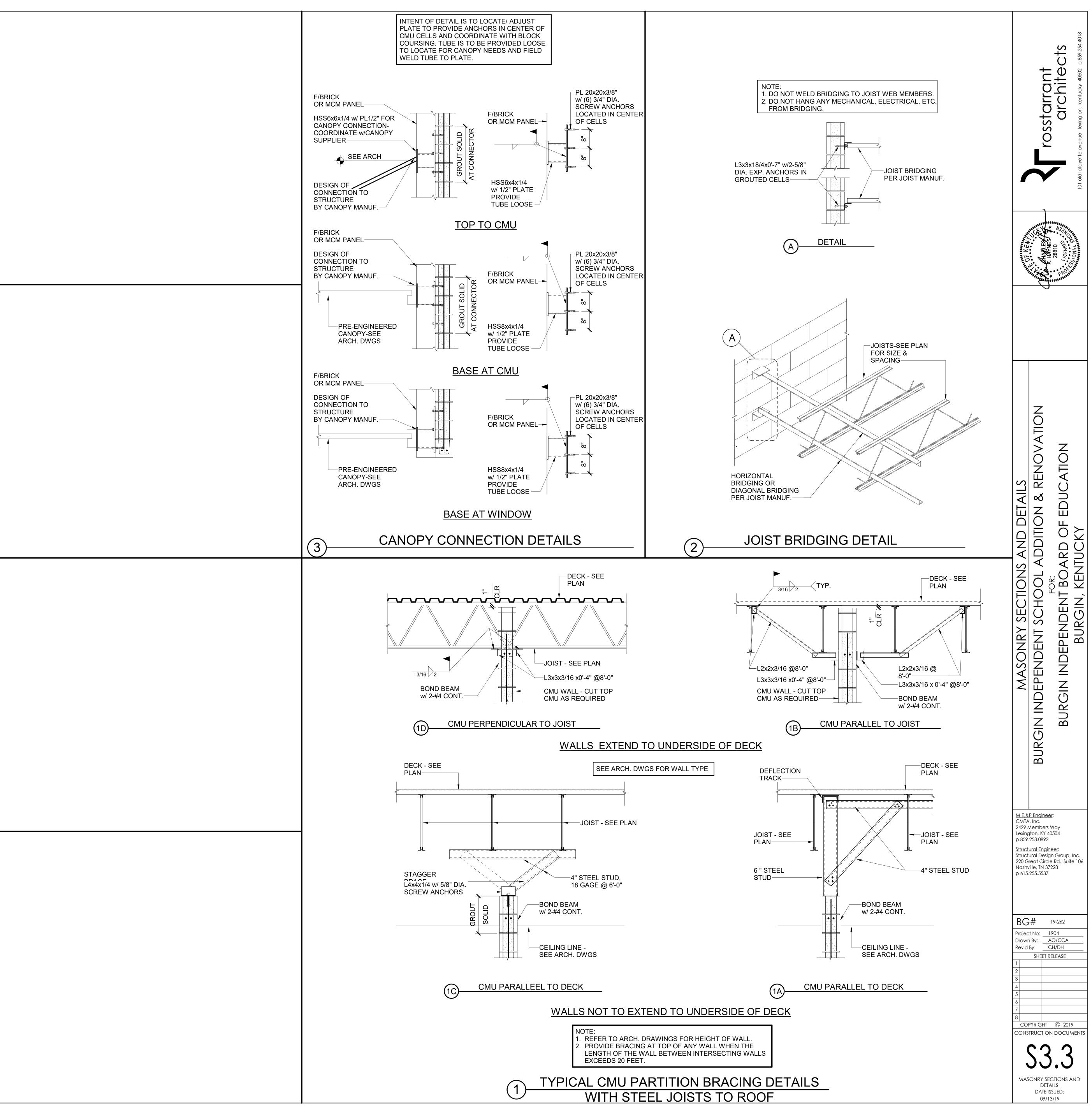
BASE PLA ANCHOR E CONNECT
OTHERS-
FINISHED SURFACE
EX. V EX. V
CUT EX. F
(9)
(8)

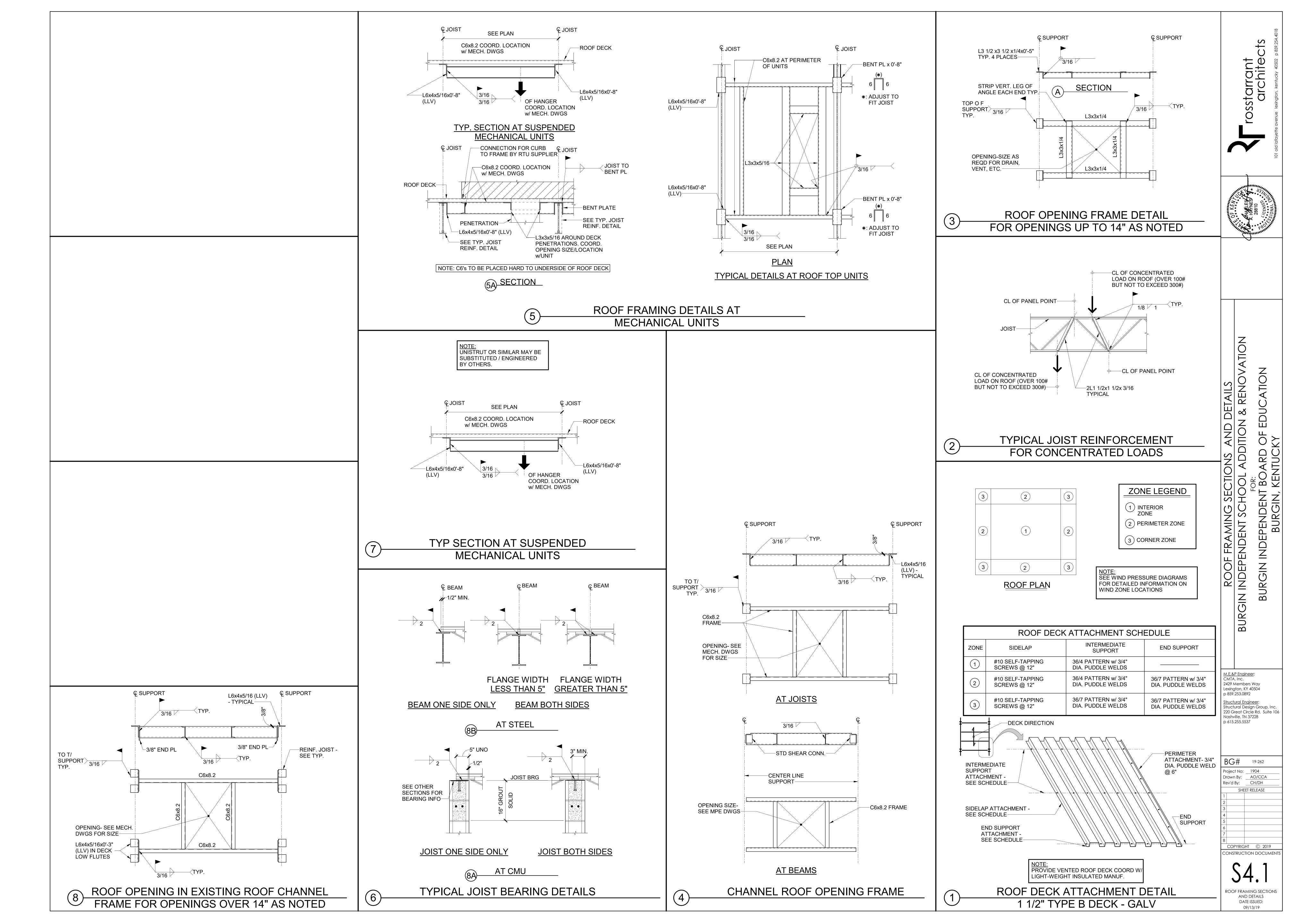


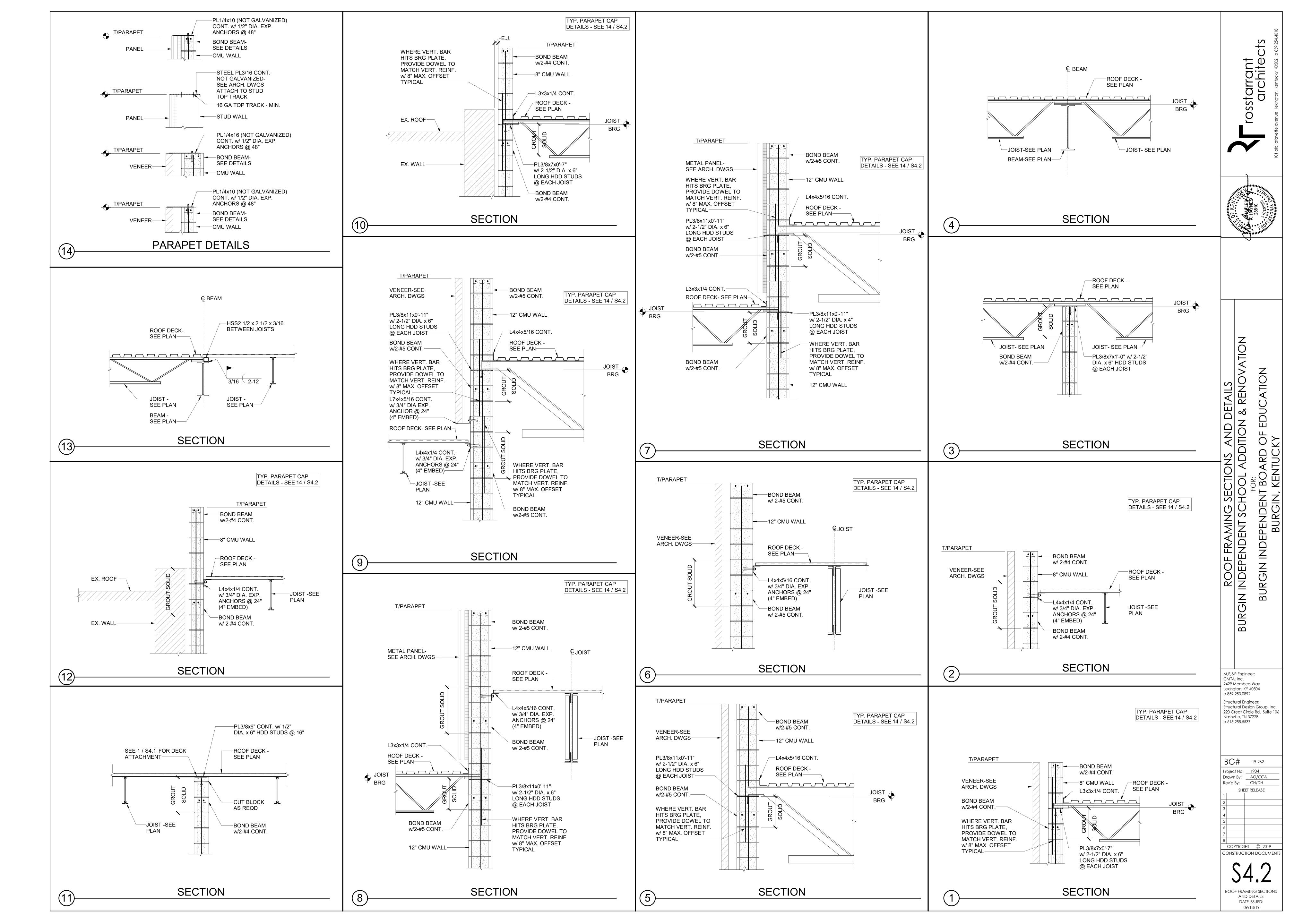


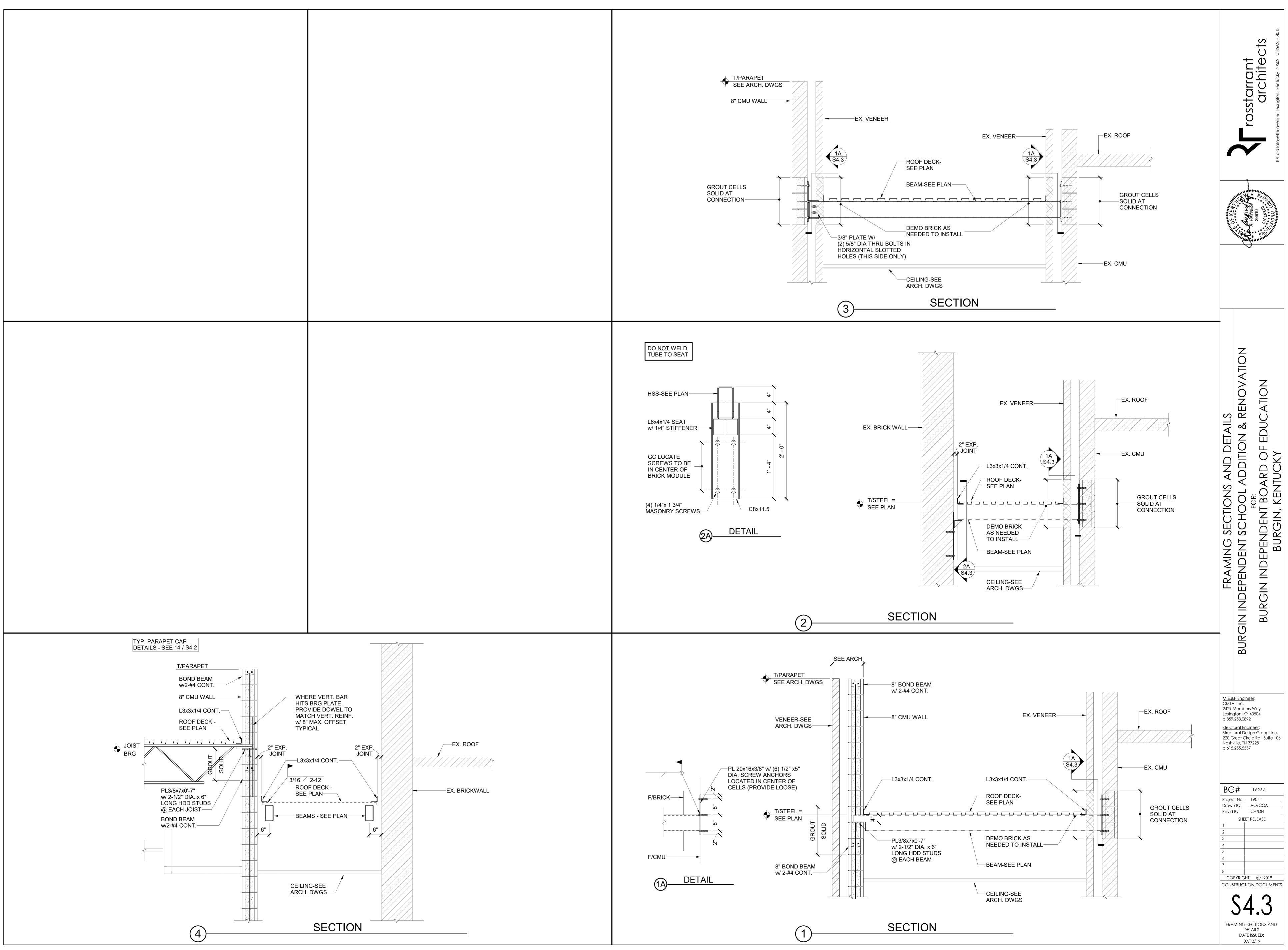
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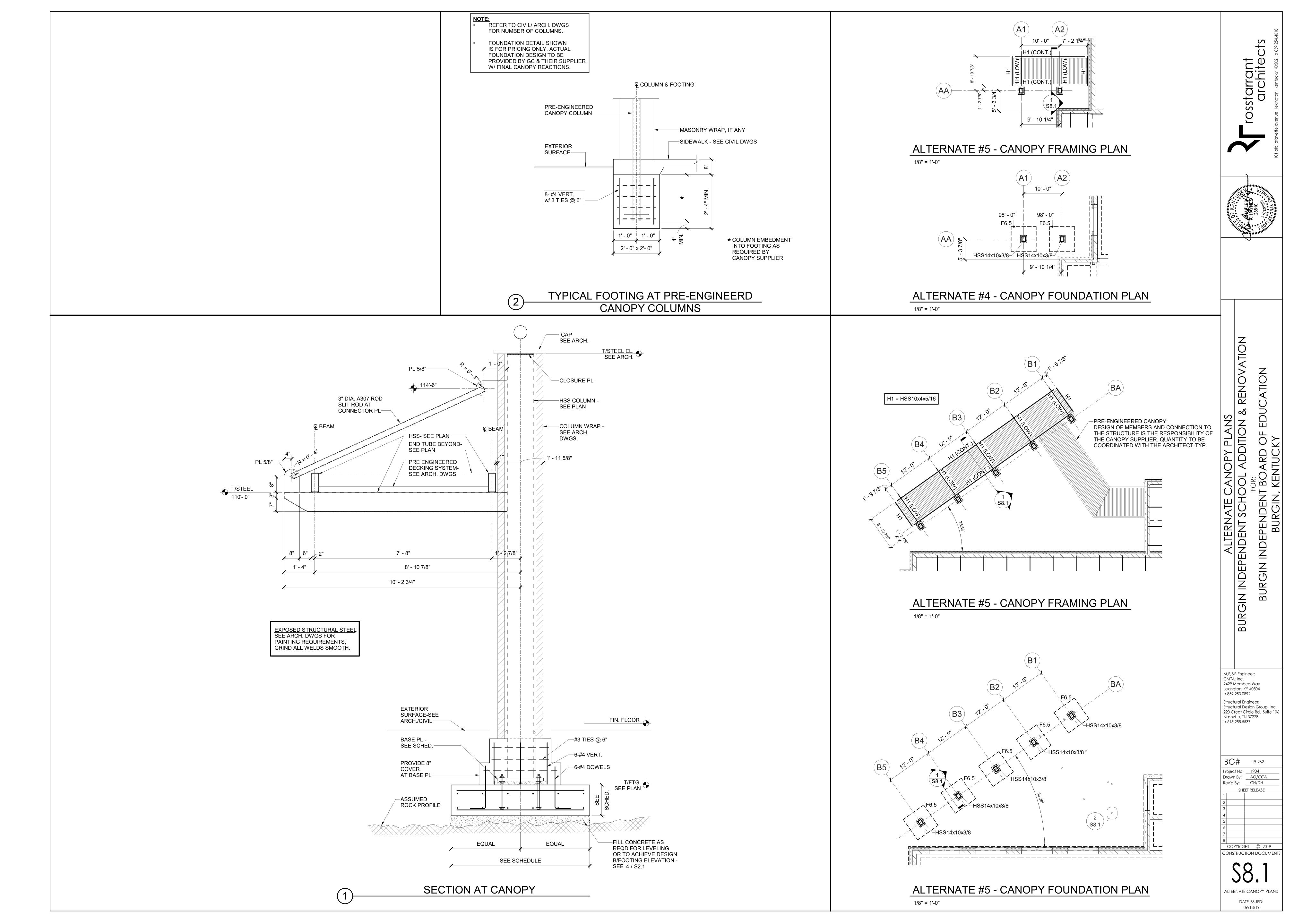


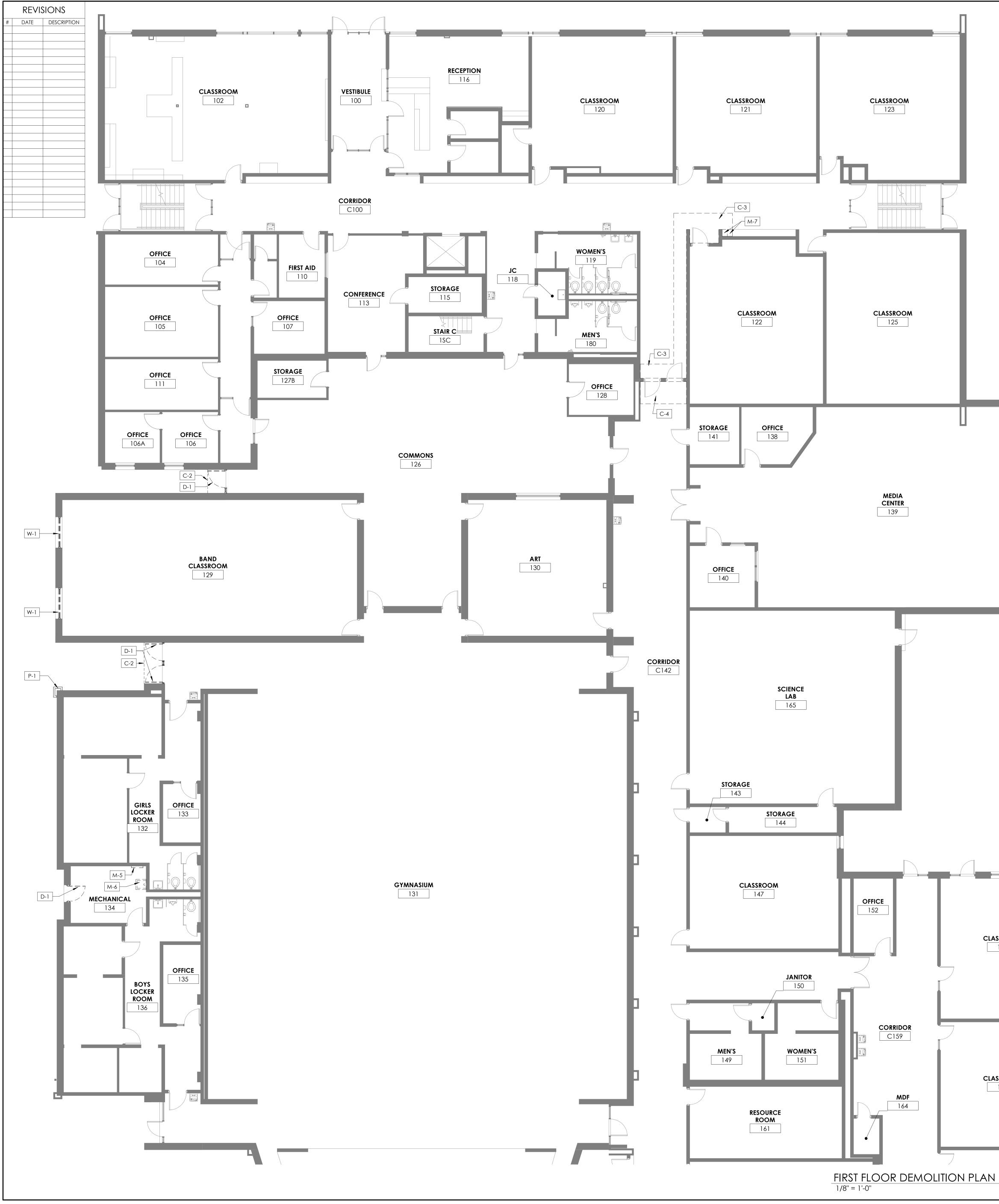


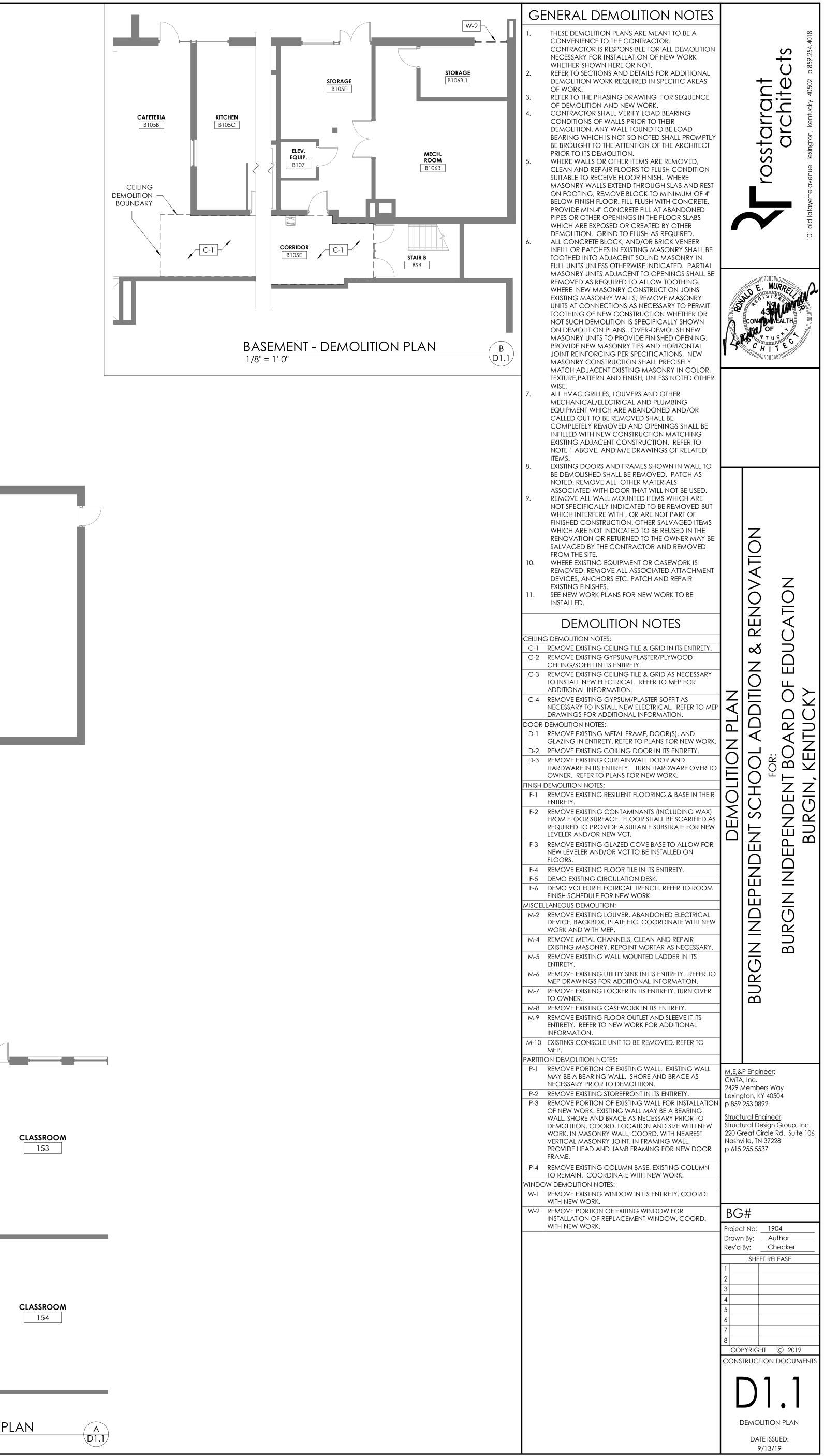








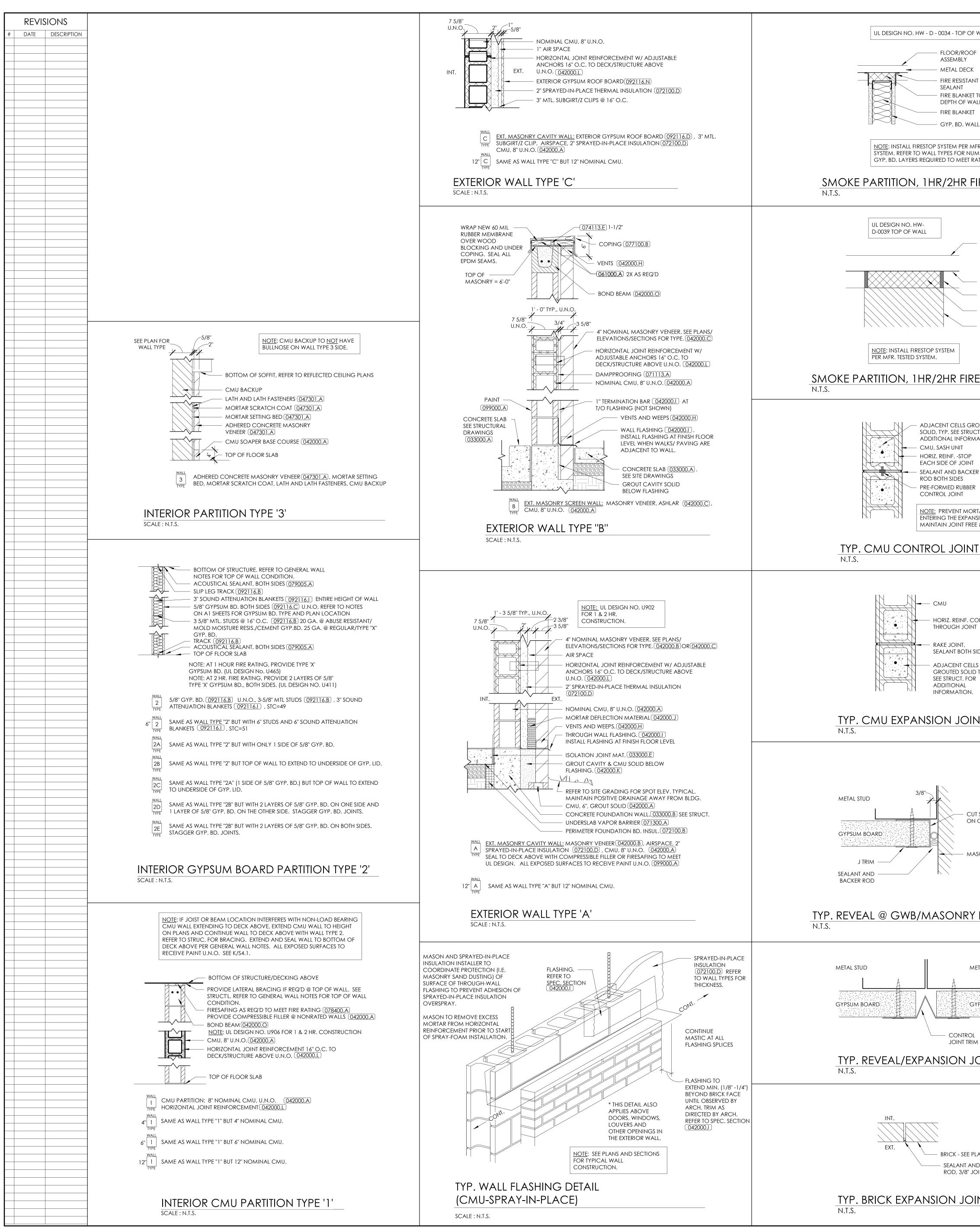




CLASSROOM

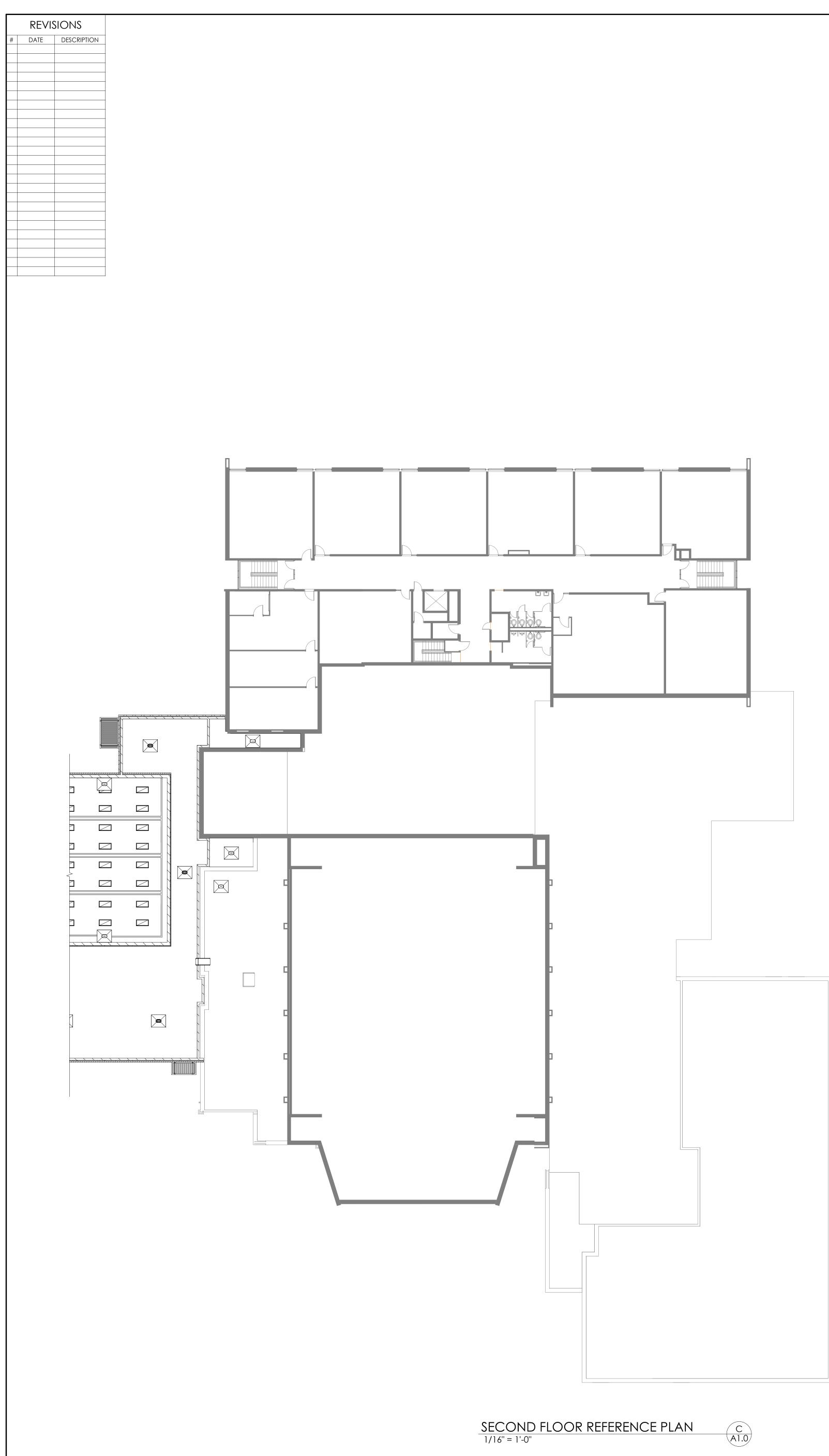
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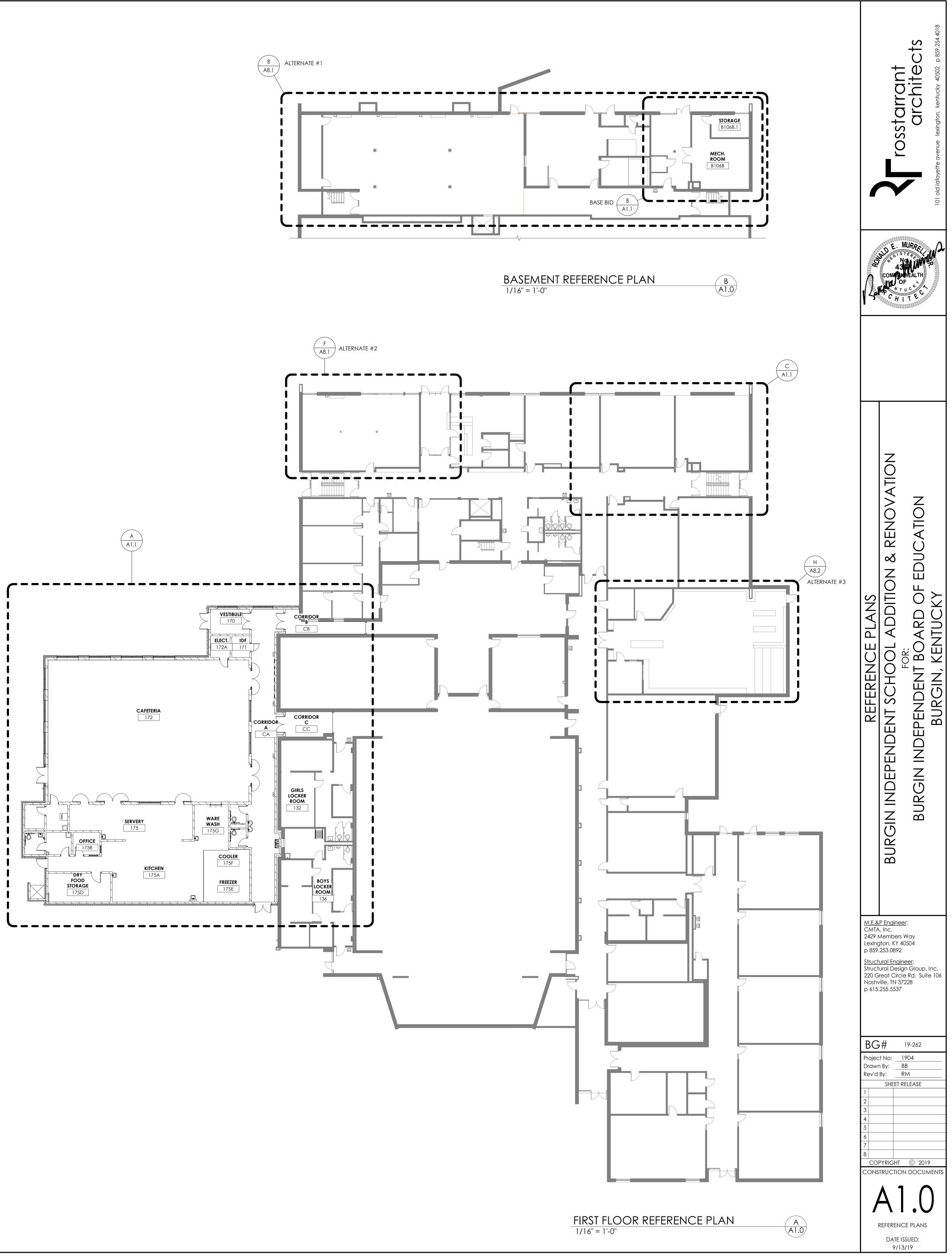
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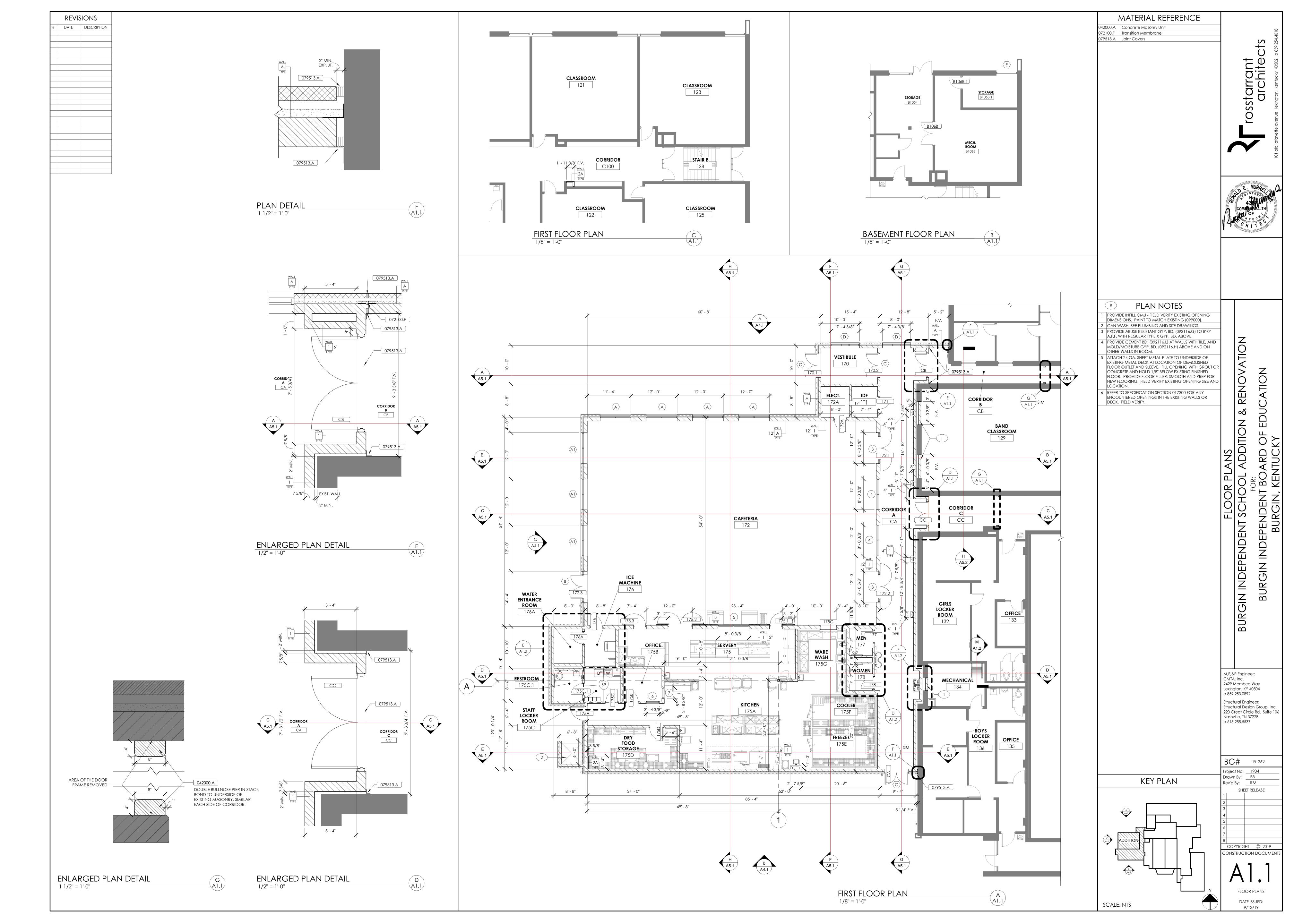


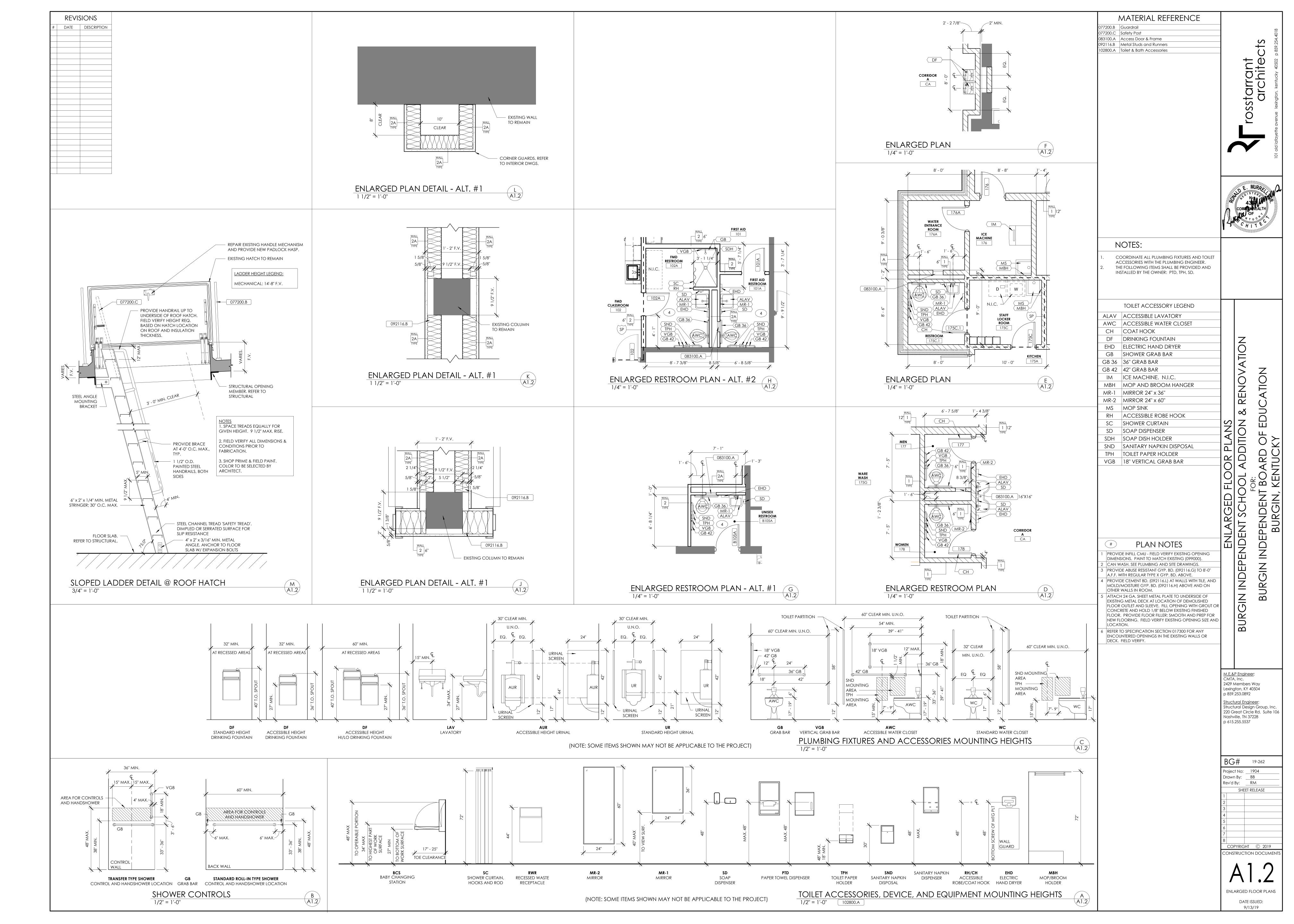
		ABBREVIATIONS		GENERAL P	PLAN NOTES		
FWALL	A.F.F. ALT.	ABOVE FINISH FLOOR ALTERNATE	1.	AND INSTALLED BY OTH		033000.B	Footing Foundation Wall Slab-on-Grade
DF	AL/ALUM. ARCH. BD.	ALUMINUM ARCHITECT/ ARCHITECTURAL BOARD	2. 3.	TAKE PRECEDENCE. ALL DIMENSIONS ARE 1	TO FACE OF STUDS, MASONRY	033000.E	Isolation Joint Mate
NT	BIT. BLKG. BLDG.	BITUMINOUS BLOCKING BUILDING			STRUCT'L STEEL UNLESS ONTACT ARCHITECT WITH ANY IG DIMENSIONS.	042000.B	Concrete Masonry Face Brick
et to full /All	B.O. BRG. C.J.	BOTTOM OF SOMETHING BEARING CONTRACTION/ CONSTRUCTION JOINT	4.	MASONRY DIMENSION	NS ARE ACTUAL. EXTERIOR TO EXTERIOR FACE OF	042000.C 042000.H 042000.I	Split Face CMU Vents and Weeps Through Wall Flashi
et All partition	CL. CLG.	CENTERLINE CEILING	5.	REFER TO ENLARGED P SHOWN ON 1/8'' PLAN:	S.	042000.J 042000.K	Mortar Deflection N Grout
	CLR. C.M.U. COL.	CLEAR CONCRETE MASONRY UNIT COLUMN	6. 7.	INDICATED OTHERWISE		042000.M	Masonry Reinforce Masonry Anchors Bond Beam
MFR. TESTED UMBER OF RATING.	CONC. CONT. DBL.	CONCRETE CONTINUOUS DOUBLE	8.		e. NITS AT ALL VERTICAL OUTSIDE	042000.W	Thru-Wall Flashing S Stone Cladding
	DIA. DS. DWG.	DIAMETER DOWNSPOUT	9.	NOTED. PARTITION TYPES SHALI	L MAINTAIN THEIR	044301.A 047301.A	Stone Masonry Ver Cultured Stone Ver
FIRESTOP @ GWB	E.I.F.S. E.J.	DRAWING EXTERIOR INSULATION FINISH SYSTEM EXPANSION JOINT		RATING (IF ANY) FOR F ELEC., AND PLUMBING	RESPECTIVE SEPARATION FULL HEIGHT. ALL MECH., & PENETRATIONS SHALL BE	053100.A	Structural Steel Me Roof Deck Roof Ladder
	EQ. EQUIP. ELEV.	EQUAL EQUIPMENT ELEVATOR	10.	WITH APPLICABLE COE	525.	061000.A	Wood Blocking Plywood Sheathing
	E.O.S. E.R.D. E.T.R.	EDGE OF SLAB EMERGENCY ROOF DRAIN OVERFLOW EXISTING TO REMAIN			TIONS, REINFORCEMENT AND	064100.A	Wood Framing Custom Casework
— FLOOR/ROOF ASSEMBLY	EXP. EXT.	EXPANSION EXTERIOR	11.	REFER TO STRUCTURAL SCHEDULE. ALL EXTERIO	DRAWINGS FOR LINTEL OR LINTELS ARE TO BE	064100.A12	Plastic Laminate Bo Plastic Laminate Bo Plastic Laminate Er
	FAB. FDN. F.F.E.	FABRICATE/ FABRICATION FOUNDATION FINISH FLOOR ELEVATION	12.	APPROPRIATE FINISH FI	DF ALL RECESSED SLABS w/ LOORING MANUFACTURER	064100.A14	Plastic Laminate C Tackable, Fabric W
— METAL DECK	F.G.E. FIN. FLR.	FINISH GRADE ELEVATION FINISH FLOOR/ FLOORING	13.		OF SLAB. IN CMU WALLS FOR DOORS TED 8" FROM THE JAMB	064100.C8	Solid-Surface Cour Solid-Surface Cour Shelf Bracket
— FIRE RESISTANT SEALANT	F.RT. FT. F.V.	FIRE RETARDENT FEET FIELD VERIFY	14.	OTHERWISE.	ACENT WALL UNLESS NOTED	064100.L1	3 1/2" Dia Gromme Bituminous Dampp
 FIRE BLANKET TO FULL DEPTH OF WALL CMU WALL 	GA. GALV. GYP.	GUAGE GALVANIZED		LOCATED 6" FROM THE THE ADJACENT WALL L	E DOOR JAMB OPENING TO JNLESS NOTED OTHERWISE.	072100.B	Underslab Vapor B Perimeter Foundat
- CMU WALL	HORZ. HT.	GYPSUM HORIZONTAL HEIGHT	15.	WALL, PROVIDE 3/4'' SE	ET BACK FROM FACE OF WALL	072100.E	Sprayed-In-Place T Extruded Polystyrer Transition Membrar
	INSUL. INT. JT.	INSULATION INTERIOR JOINT					Polyisocyanurate Ir Thermoplastic Men
RESTOP @ CMU	LAM. MAS. M.E.P.	LAMINATE MASONRY MECHANICAL, ELECTRICAL, PLUMBING		GENERAL V	VALL NOTES		Termination Bar Tapered Edge Strip
	MFR. MAT. MAX.	MANUFACTURER MATERIAL MAXIMUM	1.		IS FOR LOCATION OF	075700.A	Drip Edge Coated Foam Roo Skirt Flashing
	MECH. MEM.	MECHANICAL MEMBRANE	2.		DRAWINGS FOR OTHER INING TO REINFORCED UNIT	077100.A 077100.B	Fascia Coping
ROUTED JCT. FOR	MIN. MISC. M.O.	MINIMUM MISCELLANEOUS MASONRY OPENING	3.			077100.D	Drip Edge Reglet/Counter Fla Expansion Joint
MATION.	N.A. N.I.C. N.T.S.	NOT APPLICABLE NOT IN CONTRACT NOT TO SCALE		EXTERIOR WALLS BY AL	LOWING POSITIVE DRAINAGE ERIOR TO OCCUR WHERE	077200.B	Guardrail Safety Post
T	O.H. OPP.	OVERHEAD OPPOSITE		REQUIRED. A) KEEP A CAVITY WALLS FREE O	ALL DRAINAGE CAVITIES IN F MORTAR. B) PAN-UP	079005.A	Through-Penetratic Joint Sealant
R	ORN. PEN. PL.	ORNAMENTAL PENETRATION PLATE		ENDS MINIMUM 6 INC	HING AT BACK EDGES AND HES. EXTEND THROUGH-WALL E OF MASONRY VENEER FOR	081113.A	Joint Covers Steel Doors & Fram Steel Frame
DRTAR FROM	POLYISO. P.S.F. P.S.I.	POLYISOCYANURATE POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH		VENTS AT 24" O.C HOR	OVIDE WEEPS AND CAVITY RIZONTALLY, ALTERNATE	083100.A 083313.A	Access Door & Fran Coiling Counter Do
NSION JOINT. EE & CLEAR.	P.T. RAD. R.D.	PRESSURE TREATED RADIUS ROOF DRAIN		LOCATIONS OF WEEPS ALLOW WEEPS OR CA	WITH CAVITY VENTS. DO NOT	084313.B	Aluminum Storefror Aluminum Storefror Storefront Sunshad
IT DETAIL	REINF. RQD. REV.	REINFORCEMENT REQUIRED REVISION/ REVISED		FOR ADDITIONAL INFO	DRMATION ON PLACEMENT THROUGH-WALL FLASHING,	088000.A	Glazing Gypsum Board Ass
	SECT. SIM.	section Similar	4.		/metal stud wall onry veneer/cmu walls	092116.C	Metal Studs and Ru Gypsum Board-Reg
	SPECS. S.S. SQ.	SPECIFICATIONS STAINLESS STEEL SQUARE		AND CAVITY VENTS AT		092116.E	Fiberglass-Faced E Hat Channels Abuse Resistant Gy
	STD. Stl. Struct.	STANDARD STEEL STRUCTURE/ STRUCTURAL			ING ON STUDS, OR CMU, PAN-UP THROUGH-WALL NIMUM 6". DO NOT	092116.H	Mold/Moisture Resi Sound Attenuation
CONT.	SYM. Sys. T.O.	SYMMETRICAL SYSTEM TOP OF SOMETHING		MECHANICALLY FASTE THROUGH-WALL FLASH	EN, PENETRATE, OR PUNCTURE HING. THROUGH-WALL	092116.N	Cement Board Exterior Gypsum Rc Ceramic Tile
NT	THK. TYP. U.N.O.	THICK TYPICAL UNLESS NOTED OTHERWISE		FACE OF WALL. KEEP / OF MORTAR.	ALL DRAINAGE CAVITIES FREE	093000.B	Wall Tile Acoustical Panel C
SIDES	VERT. V.I.F.	VERTICAL VERIFY IN FIELD	5.	INTERIOR MASONRY A SHALL EXTEND FULL HE	wise, all exterior and IND/OR MTL. STUD WALLS FIGHT TO BOTTOM OF DECK	096500.B	Floor Sleeves Resilient Tile Floorin
LLS ID TYP. DR	W/ W/O W.P.	WITH WITHOUT WORK POINT		PROVIDE THE FOLLOW		099000.A	Resilient Wall Base Paint Signs
	WT.	WEIGHT			ND PARTITIONS. A) FULL ATL STUD/GYP PARTITION	101424.B 102800.A	Letters & Numbers Toilet & Bath Acces
	S	YMBOLS LEGEND:		FLUTE/STRUCTURE: CO METAL DECK FLUTE. FIL	PE GYP TO WITHIN 1/2" OF L METAL DECK FLUTE VOID UND ATTENUATION BLANKET	107300.A	Printed Display Ma Column Supported Wall Hung Metal C
<u>NT DETAIL</u>				MATERIAL, INSTALL CC SEALANT BOTH SIDES C	DNTINUOUS ACOUSTICAL DR PROVIDE COMPRESSIBLE	107300.D	Canopy Deck Institutional Casew
	0.00	0 BUILDING SECTION		METAL STUD/GYP PART METAL DECK FLUTES/ST) FULL HEIGHT, NON-RATED TITION RUNNING PARALLEL TO TRUCTURE: STOP GYP TO	123550.A4	Plastic Laminate Bo Plastic Laminate W Plastic Laminate Fu
	0	SECTION CUT / DETAIL MARKER		ACOUSTICAL SEALANT	DECK, INSTALL CONTINUOUS BOTH SIDES OR PROVIDE RENE FILLER. C) FULL HEIGHT,	123550.A10	Plastic Laminate Di Plastic Laminate Di Plastic Laminate Fu
		ELEVATION		NON-RATED CMU WAL OR PARALLEL TO META	LL RUNNING PERPENDICULAR AL DECK FLUTES/STRUCTURE: " OF METAL DECK. FILL METAL	123550.F1	Plastic Laminate C Shelf Bracket (mate
	DR	AWING #		DECK FLUTE VOID COM	mpletely with cut to fit Rene filler or sound	123550.F2	Depth) Countertop Suppo (match A&M Hardy
ut straight edge n gypsum board	,-,-(0 0.00 REFERENCE DETAIL		CONTINUOUS ACOUST D) FIRE RATED FULL HEI	TICAL SEALANT BOTH SIDES. IGHT WALLS: FILL ALL VOIDS,		3-1/2" Dia. Gromme Concrete Paving
		DRAWING #		BLANKETS AND INTUME	CTURE ABOVE, WITH FIRE ESCENT SEALANT PER SECTION AILS ON THIS SHEET. E) CMU		
ASONRY WALL		SPOT ELEVATION			SURROUNDS MAY BE STOPPED NLESS PART OF A FIRE OR CONSTRUCTION.		
	X WAL	ROOF TYPES	6.	PROVIDE CAULKED CO	ONTROL JOINTS WHERE LOAD NON-LOAD BEARING CMU OR		
	X'' X Type	WALL TYPES. X" DENOTES SIZE OF CMU OR STUD.					
y intersection		DOOR NUMBER		MATERIAL	s legend:		
) HOLLOW METAL WINDOW & DOOR FRAME TYPE		À , À , À , À , À , À , À , À , À , À ,			
	<u>(00</u>	ALUMINUM WINDOW & STOREFRONT FRAME TYPE		CONCRETE	FINISHED WOOD		
METAL STUD	(00	DOOR ELEVATION TYPES		CONCRETE	PLYWOOD		
				UNIT			
GYPSUM BOARD		FE-2 SEMI-RECESSED CABINET WITH FIRE EXTINGUISHER (104400)		CLAY MASONRY			
				UNIT			
DL IM				SPLIT-FACE CONCRETE MASONRY UNIT	CAVITY WALL INSULATION/PERLI TE ROOFING		
JOINT DETAIL							
				GROUND-FACE CONCRETE MASONRY UNIT	POLYISO. ROOFING INSULATION		
	F	IRE BARRIER TYPES:					
	(SP)	TARIHION WALL TO DECK ADOVE, SEAL			THERMAL, SOUND, OR FIRE BATT-		
		PERIMETER TO PROVIDE "SMOKE TIGHT INSTALLATION". SEAL ALL PENETRATIONS		7777	INSULATION		
PLAN		<u>1 HOUR RATING</u> : PROVIDE FIRE SAFING AT VOIDS AT THE TOP PERIMETER OF THE PARTITION AND FIRESAFE ALL PENETRATIONS.		STEEL	GYPSUM BOARD		
ND BACKER JOINT		VERIFY WITH STRUCTURAL DRAWINGS AND COORDINATE WITH WALL SECTIONS.		////	SPRAY-IN-		
	(2HR) ==	VOIDS AT THE TOP PERIMETER OF THE		ALUMINUM	PLACE THERMAL INSULATION		
DINT DETAIL		PARTITION AND FIRESAFE ALL PENETRATIONS. VERIFY WITH STRUCTURAL DRAWINGS AND COORDINATE WITH WALL SECTIONS.			INJULAIIUN		
		COUNTRY ALL MITTIN MALL SLUTIONS.				L	

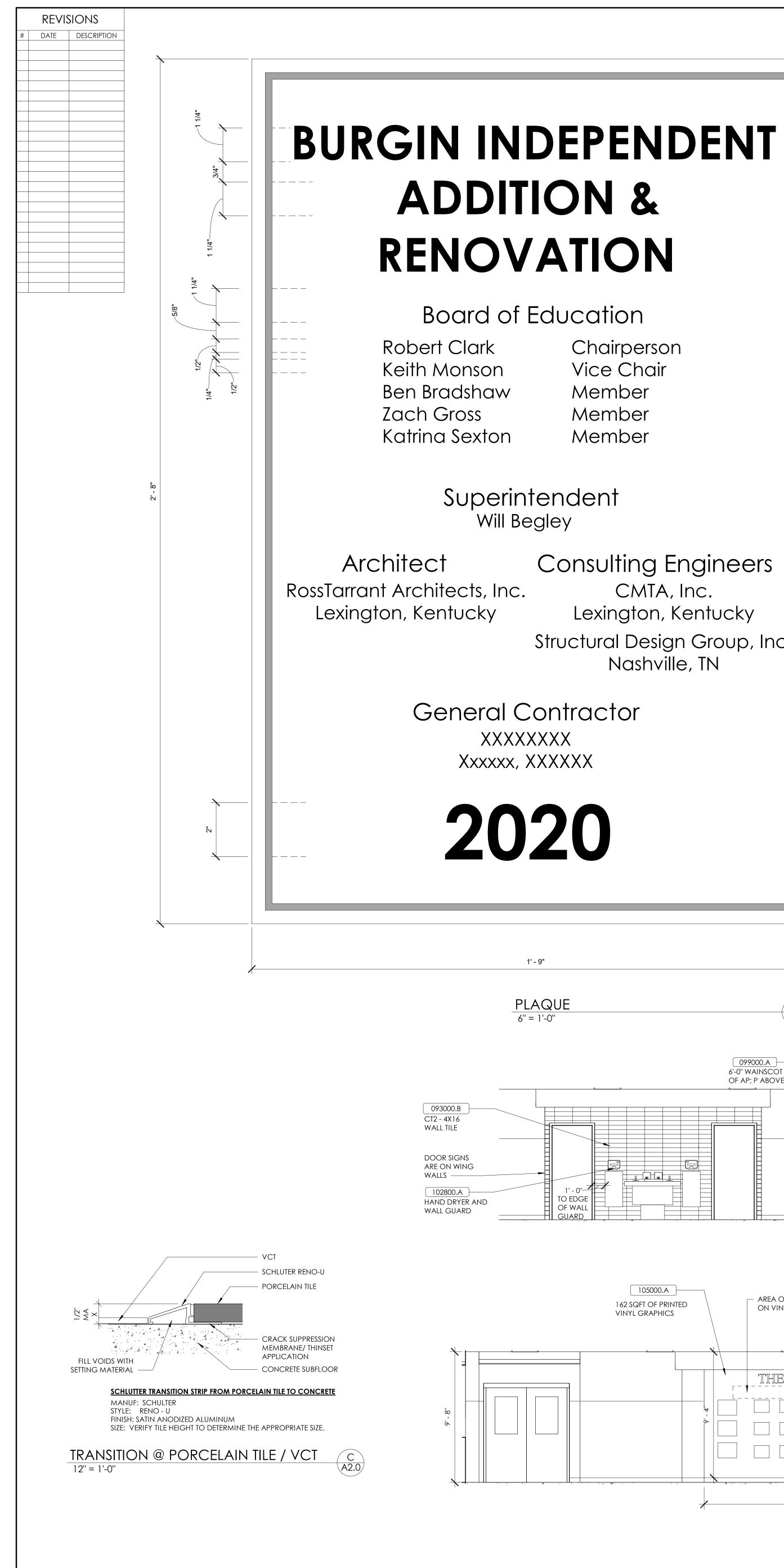
ERIAL REFERENCE all all Material oncrete Roof Insulation onry Unit J eps lashing tion Material orcement ors ing Support g v Veneer v Veneer all Veneer ing Support g vork		C rosstarrant	architects	101 old lafayette avenue lexington, kentucky 40502 p 859.254.4018
te Base Cabinet te Box, File w/ Hanging Hardware te Enclosure Panel te Covered Vertical Support Panel ric Wrapped Panel Countertop Countertop & Backsplash mmet Sleeve mpproofing por Barrier ndation Board Insulation ace Thermal Insulation	Constant of the second of the	Fra OF		A A A A A A A A A A A A A A A A A A A
tyrene Board Insulation nbrane ate Insulation Membrane Roofing System ar Strip Roofing System				
er Flashing tration Fire Stop System Frames Frames Frame er Door efront Window efront Framing thade d Assemblies ad Runners d-Regular/Type 'X' ed Exterior Gypsum Board Assemblies ad Runners d-Regular/Type 'X' ed Exterior Gypsum Board for Gypsum Board Resistant Gypsum Board and Runners d-Regular/Type 'X' ed Exterior Gypsum Board asset accessories from Roof Board m Roof Board asset Accessories from Gase & Accessories	GENERAL ARCHITECTURAL DETAILS	BURGIN INDEPENDENT SCHOOL ADDITION & RENOVATION	BURGIN INDEPENDENT BOARD OF EDUCATION	BURGIN, KENTUCKY
	CMTA 2429 N Lexing p 859. <u>Structu</u> 220 Gu Nashv	<u>P Engineer</u> , Inc. Aembers V Iton, KY 40 253.0892 <u>ural Engine</u> ural Desigr reat Circle ille, TN 372 255.5537	Vay 504 <u>eer</u> : n Group, Rd. Suit	
	CONS	t No:19 n By:B		MENTS











Chairperson Vice Chair Member Member Member

Consulting Engineers CMTA, Inc. Lexington, Kentucky Structural Design Group, Inc. Nashville, TN

ROOM NO.	ROOM NAME	FLOOR FINISH	BASE FINISH	NORTH WALL	EAST WALL
129	BAND CLASSROOM	ETR	ETR	ETR	ETR
132	GIRLS LOCKER ROOM	ETR	ETR	ETR	ETR
134	MECHANICAL	Area of floor to be patched for trenching, see A1 sheets. No new floor finish required.	ETR	ETR	ETR
170	VESTIBULE	VCT1	RB1 - 4''	Р	Р
171	IDF	SC1	RB1 - 4''	Р	Р
172	CAFETERIA	VCT1-VCT7	RB1 - 4''	P & AP Wainscot	P & AP Wainscot
172A	ELECT.	SC1	RB1 - 4''	Р	Р
175	SERVERY	QTI	QT1	P	P
175A	KITCHEN	QTI	QTI	P	P
175B	OFFICE	QTI	QTI	AP	P
175C	STAFF LOCKER ROOM	QTI	QTI	P	P
175C.1	RESTROOM	QTI	QTI	Р	Р
175D	DRY FOOD STORAGE	QTI	QTI	P	Р
175E	FREEZER	QT1	QTI	Р	P
175F	COOLER	QT1	QT1	P	P
175G	WARE WASH	QTI	QT1	Р	Р
176	ICE MACHINE	QTI	QT1	Р	Р
176A	WATER ENTRANCE ROOM	SC1	RB1 - 4"	P	P
177	MEN	CTI	CT1 with Schluter	P above CT2 wainscot with CT3 accent tile	P above CT2 wainscot with CT3 accent tile
178	WOMEN	CT1	CT1 with Schluter	P above CT2 wainscot with CT3 accent tile	P above CT2 wainscot with CT3 accent tile
CA	CORRIDOR A	VCT1-VCT7	RB1 - 4''	P & AP Wainscot	P & AP Wainscot - area of CT2 at wa fountain
СВ	CORRIDOR B	VCT1 at new work and existing VCT	RB1-4" at new work	ETR and P at new work	ETR
СС	CORRIDOR C	VCT1 at new work and existing VCT	RB1-4" at new work	ETR and P at new work	ETR

OPTIMUM MOUNTING HEIGHTS

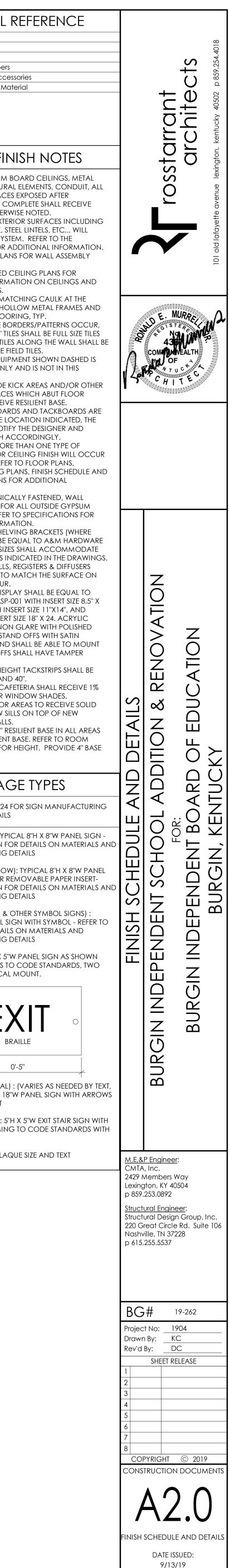
ITEM		GRADE LEVEL						
(DIMENSION TO)	PRE-SCHOOL KINDERGARTEN	1 THRU 3	4 THRU 6	7 THRU 9	10 TH			
VISUAL DISPLAY BOARDS - MARKER, TACK, CHALK	TOP 70" BOTTOM 22"	TOP 73" BOTTOM 25"	TOP 77" BOTTOM 29"	TOP 80" BOTTOM 32"	to Botto			
Countertop: standing position (top)	24''	26"	30"	34"	3			
DESKTOP/TABLETOP: SEATED POSITION (TOP)	18"	20"	23"	26"	<u>,</u>			
PANIC DEVICE DOOR HARDWARE (CENTERLINE)	27"	31"	36"	40''	2			
fire extinguisher Cabinet (bottom)		32"		4	0''			
FIRE EXTINGUISHER CABINET (CENTER OF VALVE LINE)		64"		6	4''			
COAT HOOK (CENTERLINE)	36"	41"	48''	54"				

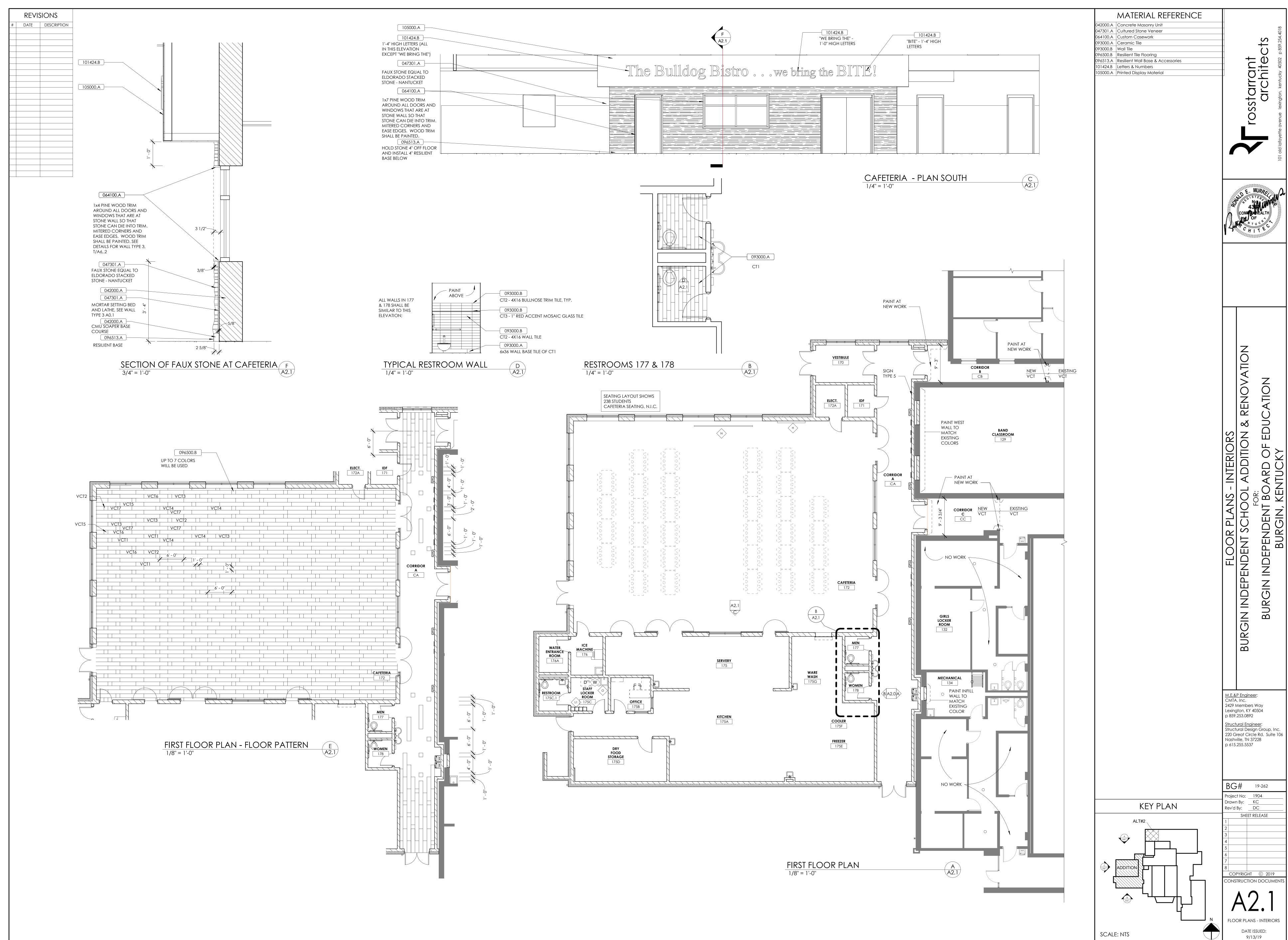
D A2.0

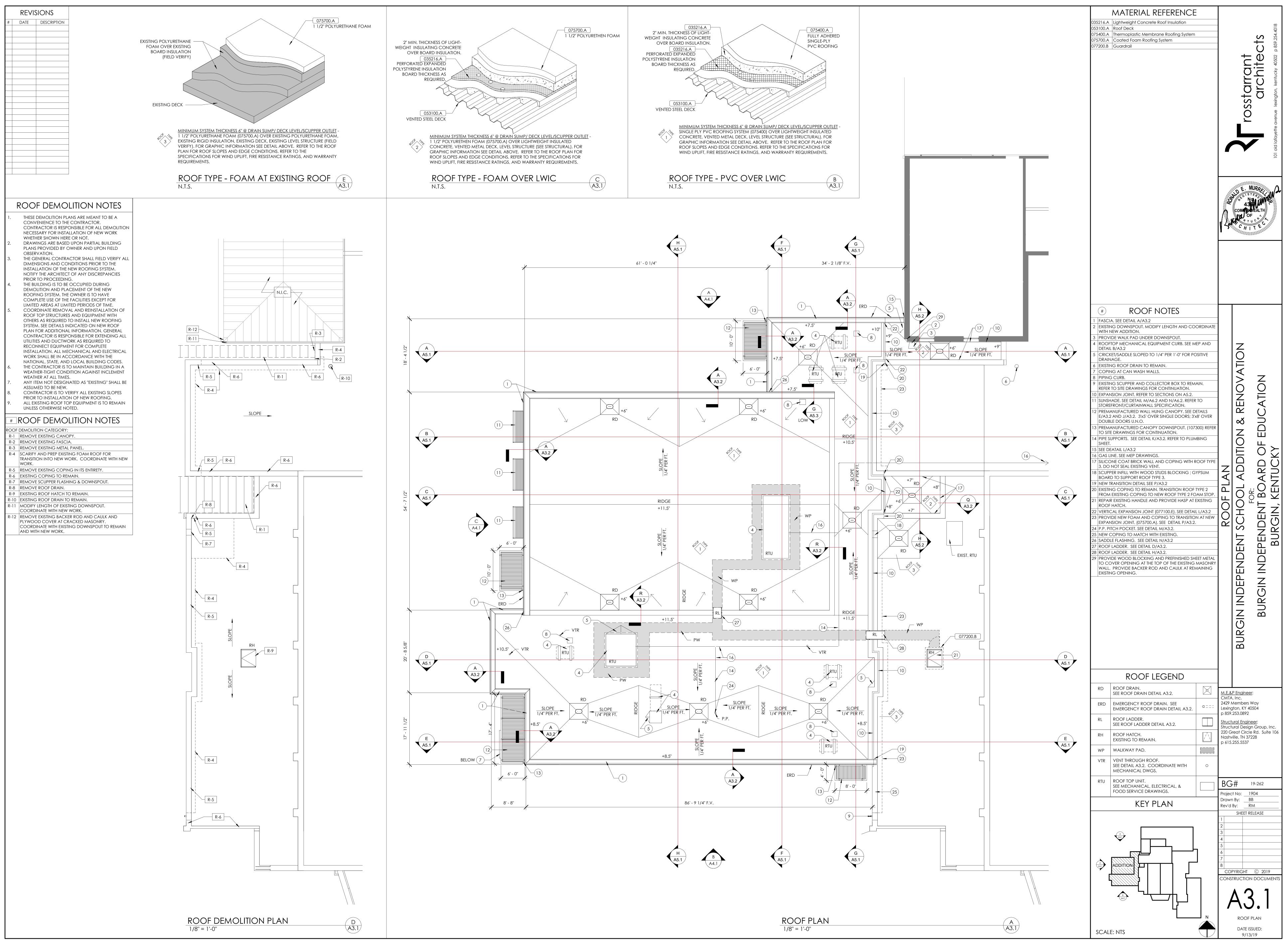
099000.A 6'-0'' WAINSCOT OF AP; P ABOVE	<u>u u</u>	<u> </u>	u	<u></u>

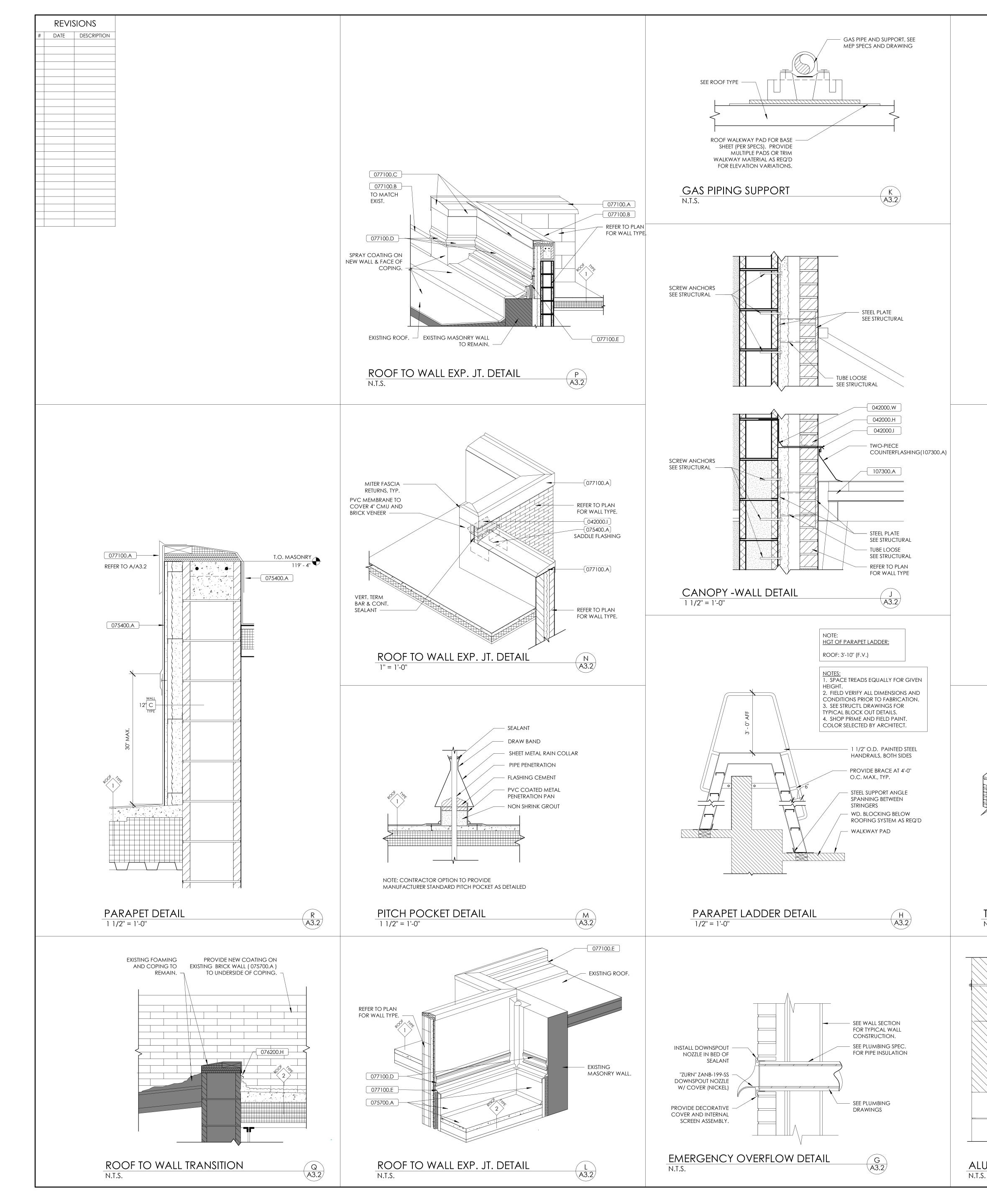
105000.A 162 SQFT OF PRINTED VINYL GRAPHICS	- AREA OF TEXT PRINTED ON VINYL GRAPHIC	101424.B DIMENSIONAL LETTERS - 8" HIGH 101424.A FRAMELESS DISPLAY WALL MOUNTED GRAPHIC PANELS EQU TO KASP-001, 002 AND 008 FROM NOVA DISPLAY SYSTEMS	101424.A FRAMELESS DISPLAY WALL MOUNTED GRAPHIC PANELS EQUAL TO KASP-001 FROM NOVA DISPLAY SYSTEMS 105000.A JAL 102 SQFT OF PRINTED VINYL GRAPHICS
	16' - 10"		

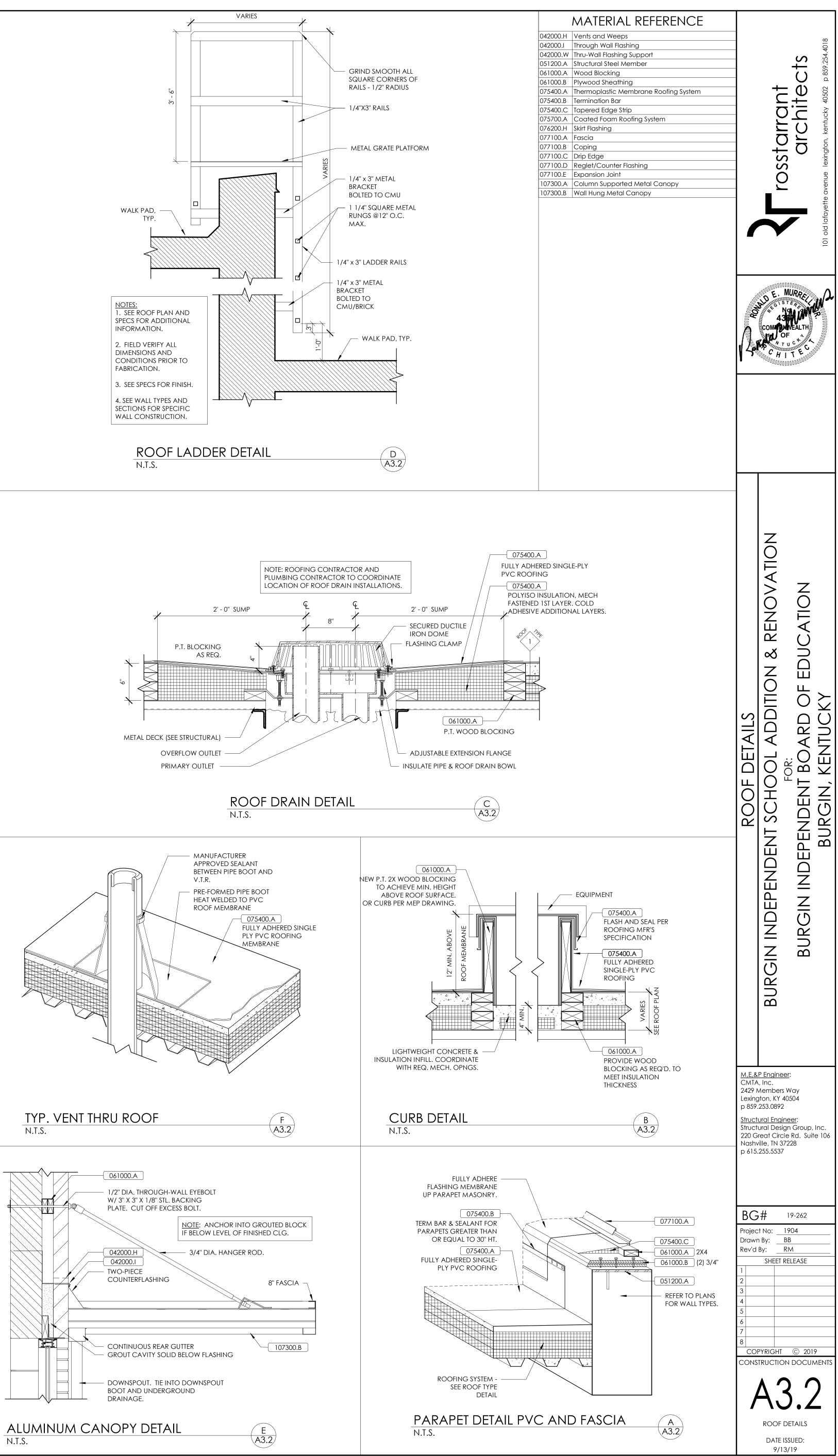
			SCHEDULE					MATERIAL
	SOUTH WALL	P - to me existing	ST WALL CEILING FINISH atch ETR		COMMENTS	Sign Type NA	093000.B 099000.A	Wall Tile Paint
	ETR	ETR	P			NA	101424.A 101424.B 102800.A	Signs Letters & Number Toilet & Bath Acc
	ETR	ETR and work	P at new ETR		II be floor trenching in this room for new work. Refer to A1 sheets for concrete fill.	NA	102800.A	Printed Display M
	P	P	ACT2			SIGN TYPE 4 (Exit) Qty 2	-	
	P P & AP Wainscot &	Р Р&АР\	P - Exposed Structure Vainscot ACT2 & AP - Gypsum			SIGN TYPE 1 SIGN TYPE 1 SIGN TYPE 1 (Qty 2)	-	ROOM FI
	Area of ST1 P	P	P - Exposed Structure			SIGN TYPE 1		ALL WALLS, GYPSUM
	P P	P P	ACT3 & P - Gypsum ACT3 & P - Gypsum			SIGN TYPE 1 (Qty 3) SIGN TYPE 1 (Qty 3)		DECKING, STRUCTUR JNFINISHED SURFAC
	P P	P P	ACT1 ACT1			SIGN TYPE 2 SIGN TYPE 1	F	CONSTRUCTION IS C PAINT UNLESS OTHER
	P	P	ACTI			SIGN TYPE 3	- (all UnFinished exti Concrete Block, s Receive a paint sys
	P	P	ACT3			SIGN TYPE 1	- 3. F	SPECIFICATION FOR REFER TO FLOOR PLA
	P	P P	NA NA			SIGN TYPE 1 SIGN TYPE 1	4. F	IYPES. REFER TO REFLECTED
	P D	P P	ACT3 ACT1 B. Exposed Structure			NA SIGN TYPE 1 SIGN TYPE 1	- 5	ADDITIONAL INFORM SOFFIT LOCATIONS. PROVIDE COLOR M.
	F	F	P - Exposed Structure			SIGN ITPE I	l H	NTERSECTION OF HO
	P above CT2 wainscot with CT3		t with CT3			SIGN TYPE 3	T	WHERE FLOOR TILE B THE CENTER "FIELD" T
	accent tile P above CT2	P above	CT2 ACT1			SIGN TYPE 3	- (AND THE BORDER TIL CUT TO CENTER THE ALL FURNITURE/EQU
	wainscot with CT3 accent tile P & AP Wainscot	accent	t with CT3 tile Vainscot - ACT2 & AP - Gypsum			Sign Type 5 (Directional)	- F	FOR REFERENCE ON CONTRACT.
ter	r & Ar Wainscol		CT2 at sink			sign type 5 (Directional)		ALL CASEWORK TOE CASEWORK SURFAC FINISHES WILL RECEI'
	ETR and P at new work	Р	ACT2 at new work and P - gypsum			SIGN TYPE 1	9. V	WHERE MARKERBOA
	ETR and P at new	P	ACT2 at new work and P - gypsum			SIGN TYPE 1	٨	SUPPLIER SHALL NOT
	work						F	N SOME CASES MO FLOORING AND/OR N ONE SPACE - REFE
			FINISH LEGEND		EQUIPMENT L	EGEND	F	REFLECTED CEILING
	SPEC SECTION	KEY	BASIS OF DESIGN		(A4) 4' -0"W X 4"-0"H MARKERBOARD	REFER TO SPECIFICATION	11. F	NFORMATION. PROVIDE MECHANIO
RU 12	2 047301	ST1	FAUX STONE		A6 6' -0"W X 4"-0"H MARKERBOARD	REFER TO SPECIFICATION		CORNER GUARDS FO CORNERS, TYP. REFE
80"	064100	HPL3	TYP. MEDIA CENTER PLASTIC LAMINATE (TBD)		410 10' -0"W X 4"-0"H MARKERBOARD	REFER TO SPECIFICATION	12. (ADDITIONAL INFORM COUNTERTOP & SHE APPLICABLE WILL BE
DM 3	4"	HPL4 SS1	TRANSACTION - MEDIA CENTER PLASTIC LAMI	. ,	A12 12' -0"W X 4"-0"H MARKERBOARD	REFER TO SPECIFICATION	S T	STEEL BRACKETS. SIZ
6"	_	SST SS2	SOLID SURFACE COUNTER - MEDIA CENTER (SOLID SURFACE SILLS - ALT #2	ןשטי	B4 4' -0"W X 4"-0"H TACKBOARD	REFER TO SPECIFICATION	S	ALL LOUVERS, GRILL SHALL BE PAINTED TO WHICH THEY OCCUI
7''	092116	FRP1	FIBERGLASS REINFORCED PANELS		B6 6' -0"W X 4"-0"H TACKBOARD	REFER TO SPECIFICATION	14. S	STANDOFFS FOR DIS
2''	093000	CT1	"WOOD" PORCELAIN PLANK FLOOR TILE OVE	r existing		REFER TO SPECIFICATION	1 k	1 1'', KASP-002 WITH I KASP-008 WITH INSEF
		CT2	(SEE SPECS) TYP 5'-9"+/- WAINSCOT WALL TILE IN RESTROC		(B10) 10' -0''W X 4''-0''H TACKBOARD (B12) 12' -0''W X 4''-0''H TACKBOARD	REFER TO SPECIFICATION	E	Panels Shall be nc Edges. 1/2'' high st Chrome finish ani
			PLUMBING WALLS (SEE SPECS)		C CORNER GUARD	REFER TO SPECIFICATION	T	TO CMU. STAND OFF RESISTENT HEADS.
	_	CT3	GLASS ACCENT WALL TILE IN RESTROOMS ON PLUMBING WALLS (SEE SPECS)		D TACK STRIP DOUBLE HEIGHT	REFER TO SPECIFICATION	٨	TEM "D" DOUBLE HE MOUNTED AT 64" AN
5''		QT1	QUARRY TILE			N.I.C.	(WINDOWS IN THE C/ OPENNESS FACTOR ' REFER TO ALT #2 FOI
	095113	ACT1	ACOUSTICAL CEILING TILE 2X4 - SQUARE EDG			N.I.C.	S	SURFACE WINDOW S DRYWALL KNEEWALI
		ACT2	ACOUSTICAL CEILING TILE 2X4 - TEGULAR ED		G COT	N.I.C.	T	PROVIDE 4" AND 6" F
		ACT3	ACOUSTICAL CEILING TILE 2X2 - WASHABLE F,	ACE		N.I.C.		FINISH SCHEDULE FC AT CASEWORK.
	096500	VCT RB1	VCT COLORS 1-7 RESILIENT BASE 4" AND 6"		OWNER'S CHANGING TABLE	N.I.C.		SIGNA
	096513	T1	TERRAZZO AND PRECASE BASE		J PROJECTOR LOCATION K INTERACTIVE BOARD	N.I.C. N.I.C.		ECIFICATION 101424
	090000	P1	TYPICAL PAINT		K INTERACTIVE BOARD LOCKERS - DOUBLE TIER, 12 X 12 X (L1) LOUVER VENT, REFER TO PLANS FO	50,		NSTALLATION DETAIL
		AP	ACCENT PAINT - THERE WILL BE UP TO 5 COLO ACCENT PAINT	ORS OF	BASE M HVAC UNIT	REFER TO MEP SPECS		TYPE 1 (TYPICAL): TYPE 1 (TYPICAL): TYPE 1 (TYPICAL): TYPE TO SPECIFICATION F
		НМР	HOLLOW METAL FRAMES			REFER TO MEP SPECS		ANICAL MOUNTING
	101101	MB1	MARKERBOARDS - VARIOUS SIZES			REFER TO MEP SPECS	sign v	YPE 2 (WITH WINDO WITH OPENING FOR TO SPECIFICATION F
	101101	TB 1	TACKBOARDS - VARIOUS SIZES		-			ANICAL MOUNTING
	101424	CG1	SIGNAGE CORNER GUARD		-		TYPICA	YPE 3 (RESTROOM 8 AL 8''H X 8''W PANEL
	105000	WG1	PRINTED DISPLAY - WALL GRAPHIC		_			ANICAL MOUNTING
	105050	L1	LOCKERS					YPE 4 (EXIT) : 3"H X 5 V THAT CONFORMS
	122413	RWS1	MANUAL ROLLER WINDOW SHADES				SCREW	VS FOR MECHANICA
	123550	HPL1	TYPICAL BASE AND WALL CABINETS		-			_
	123550	HPL2	TYPICAL COUNTERTOPS				0'-3"	0
							+	[
			uu		u	1	sign t	TYPE 5 (DIRECTIONAL
							NOT TO) exceed 20")"H x 1 Iumbers and text
						_		YPE 6 (EXIT STAIR) : 5 E AND CONFORMIN
								XIT STAIR DOWN"
		<u></u>					PLAQU	JE: SEE A2.0 FOR PLA
		```						
			RIDOR A - PLAN WEST		B A2.0			
		1/4'' = 1	-0		AZ.0			
	DIMENSION		RS - 6" HIGH					
	u		u	u				
I HLA	ALL OF FAME			L				
	[]					093000.В		
	TV N.I.C.	-0				2 - 4X16 WALL TILE		
		õ	=0 - 0					
			~~ ~					
	х. м ² х х ,			<u>_</u>				
12' -	- 8 3/4"			-	7' - 4 3/8"			
		CO	RRIDOR A - PLAN EAST		A			
			= 1'-0"		A2.0			
							1	



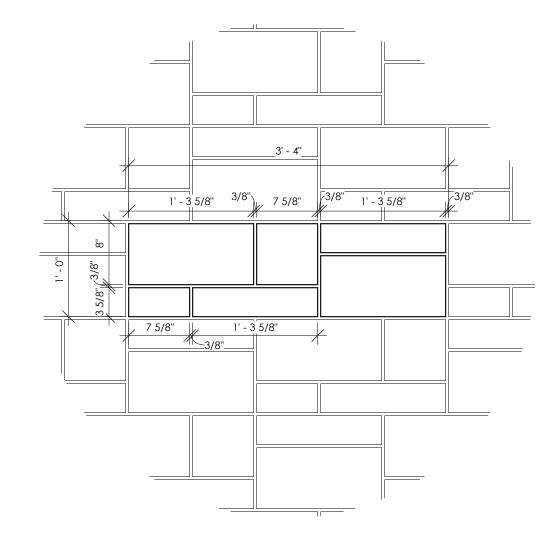






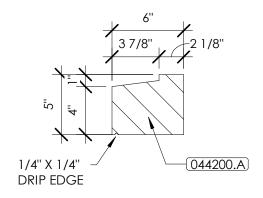


REVISIONS						
#	DATE	DESCRIPTION				

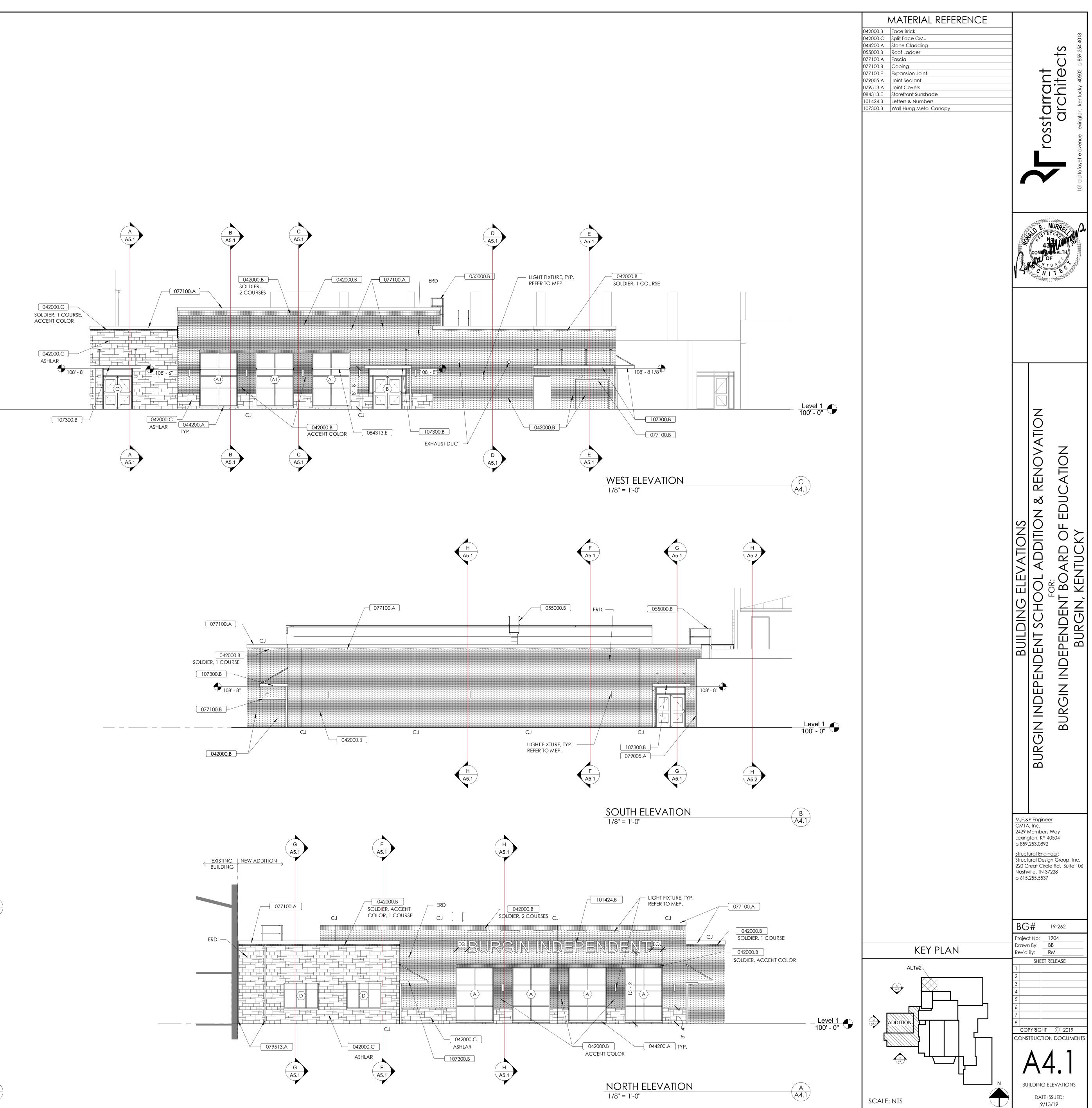


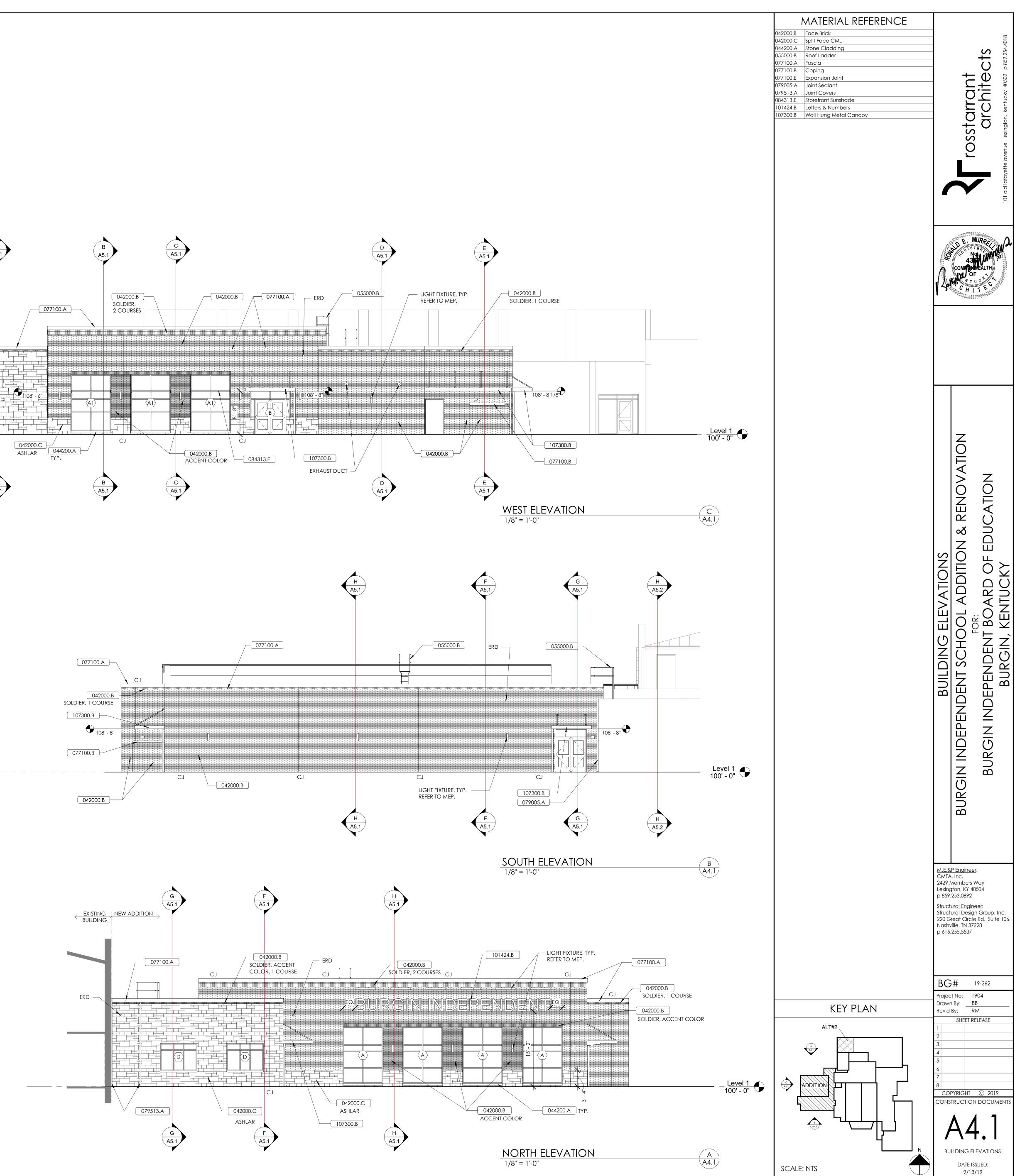
ASHLAR PATTERN

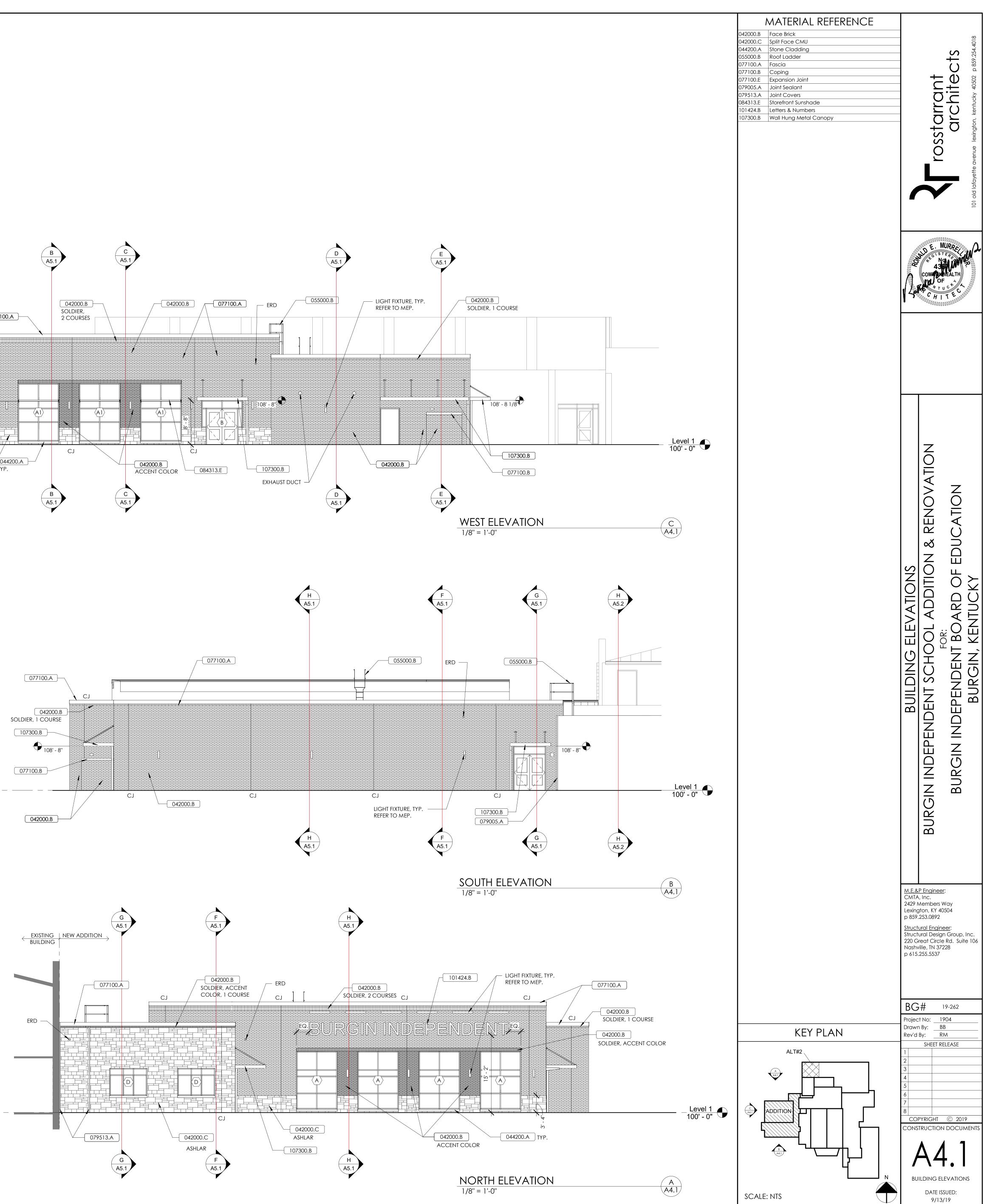
E A4.1

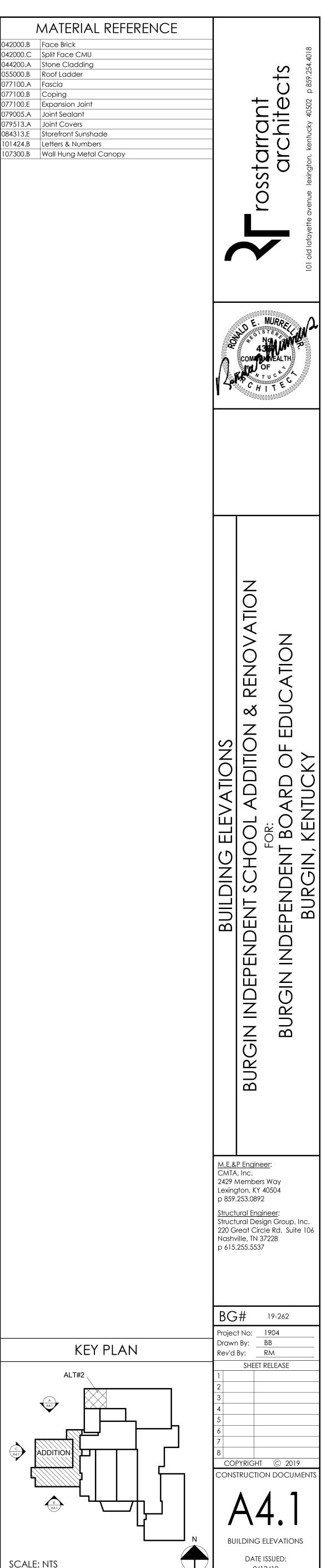


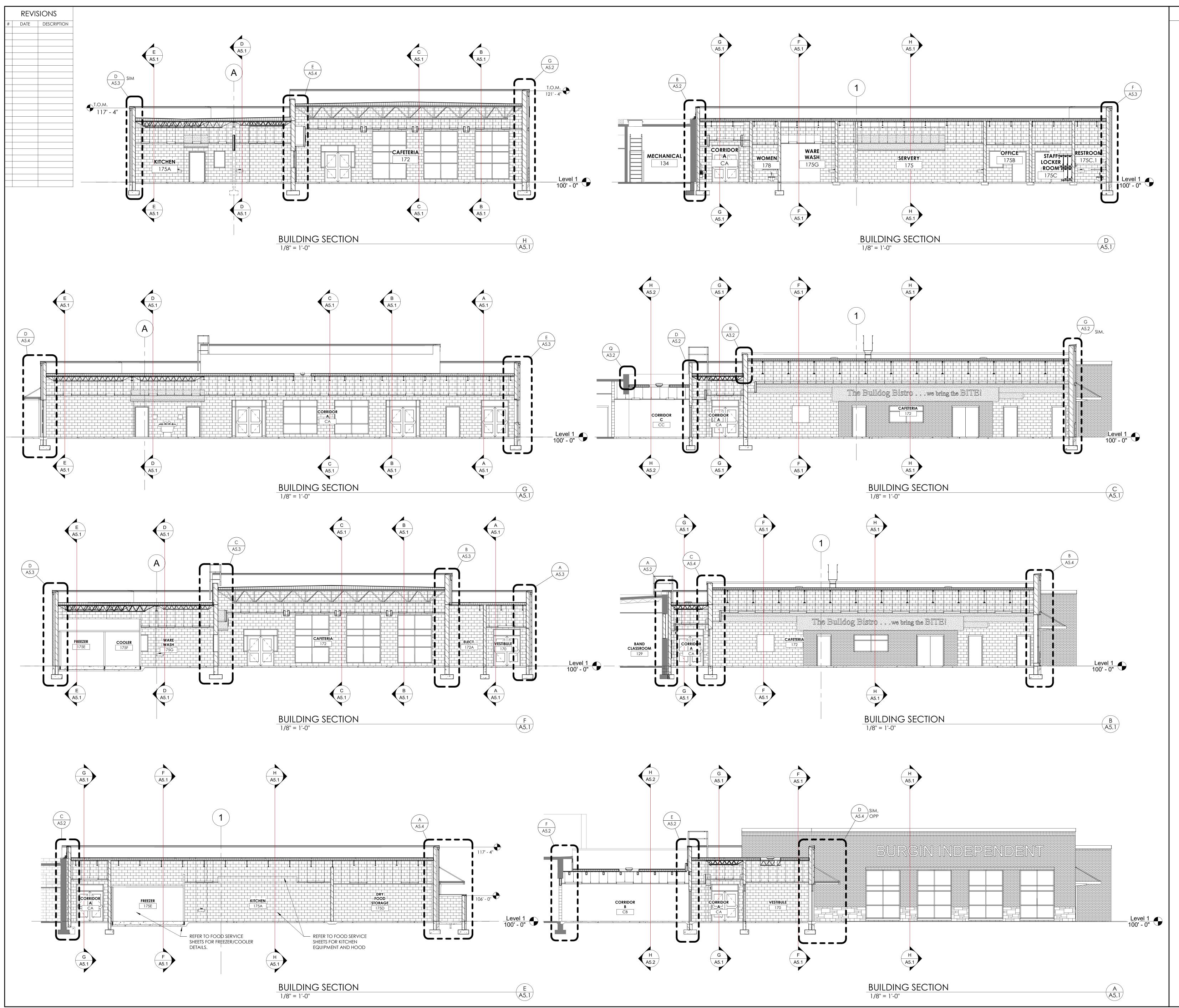
LIMESTONE SILL DETAIL

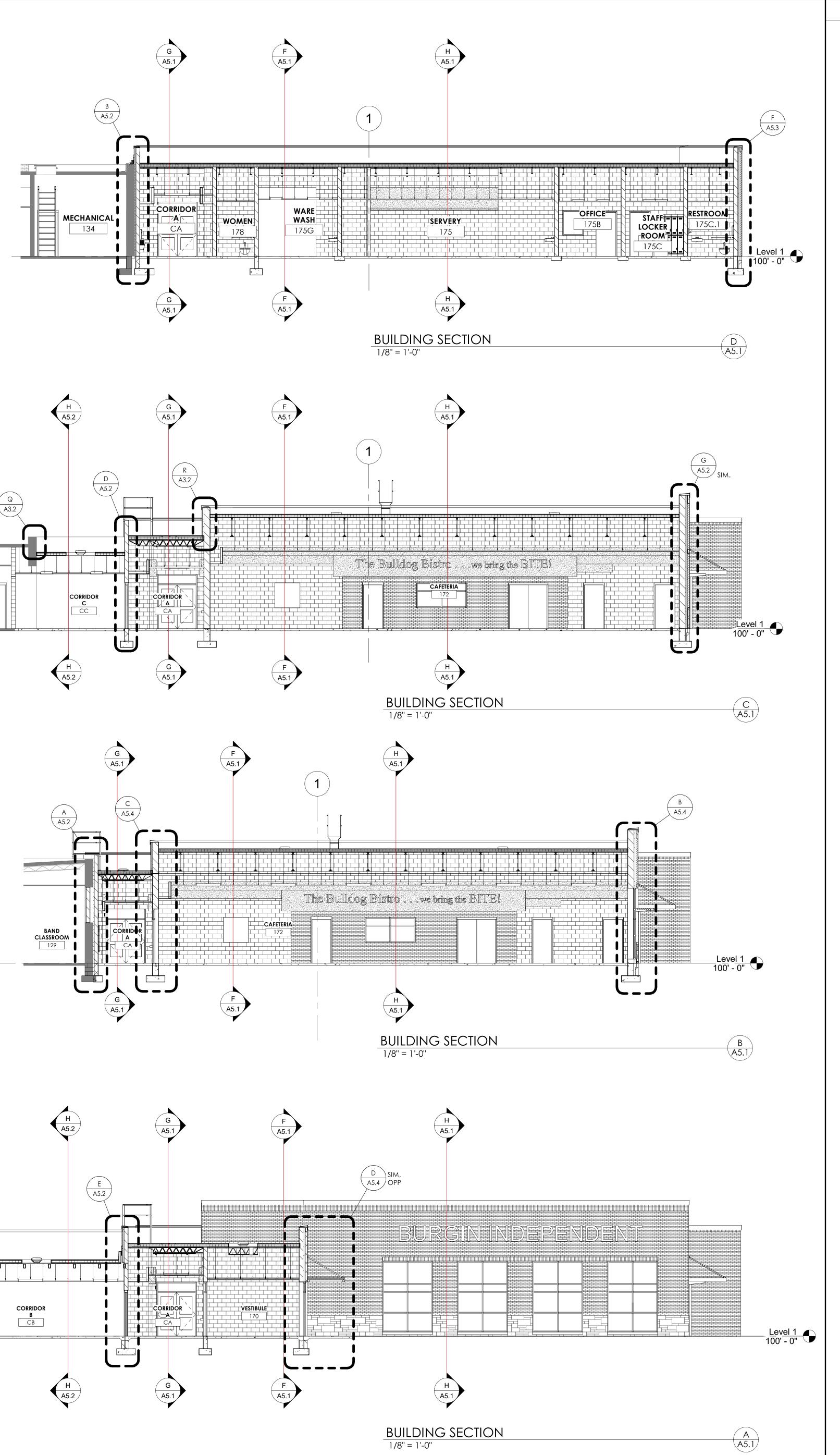




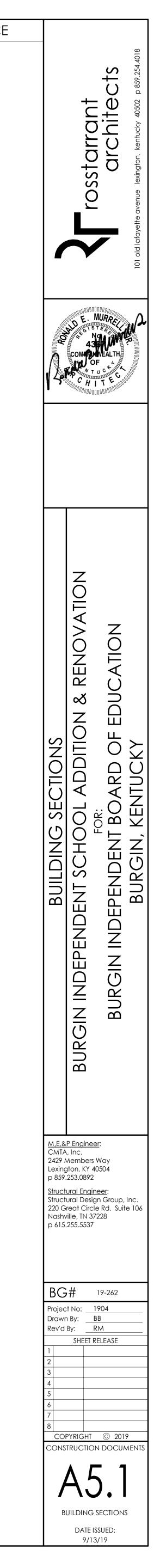


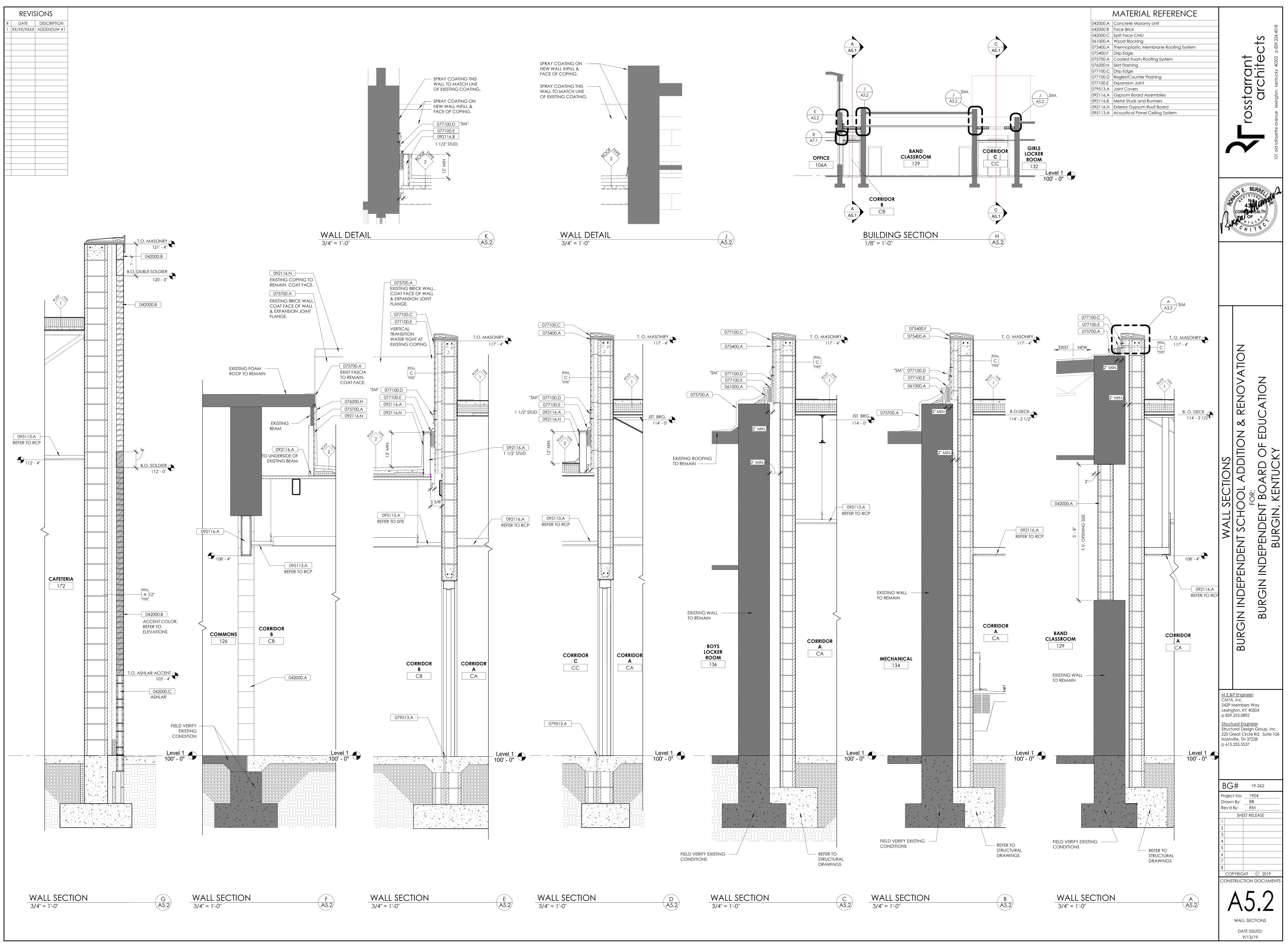


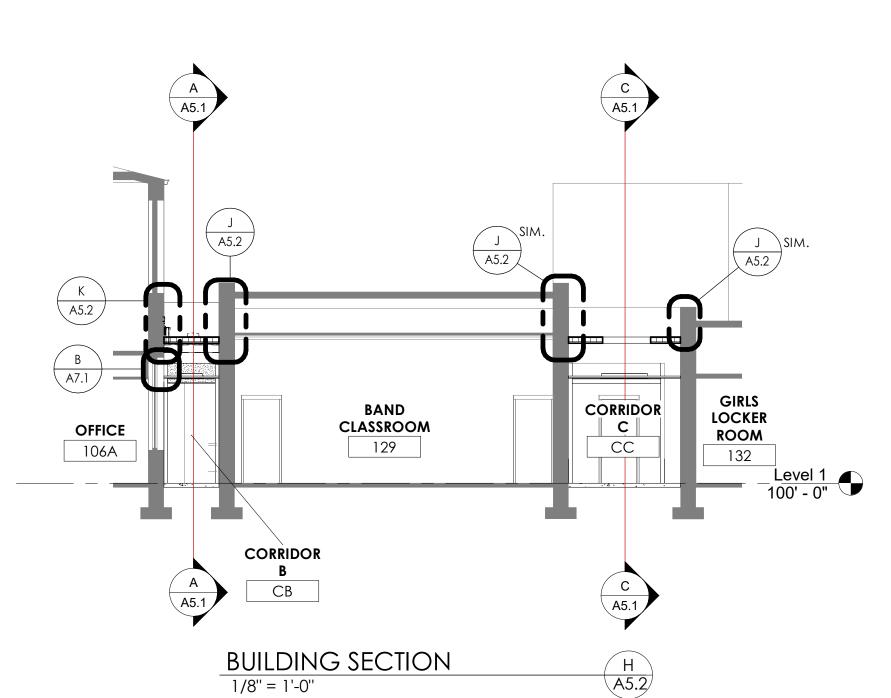




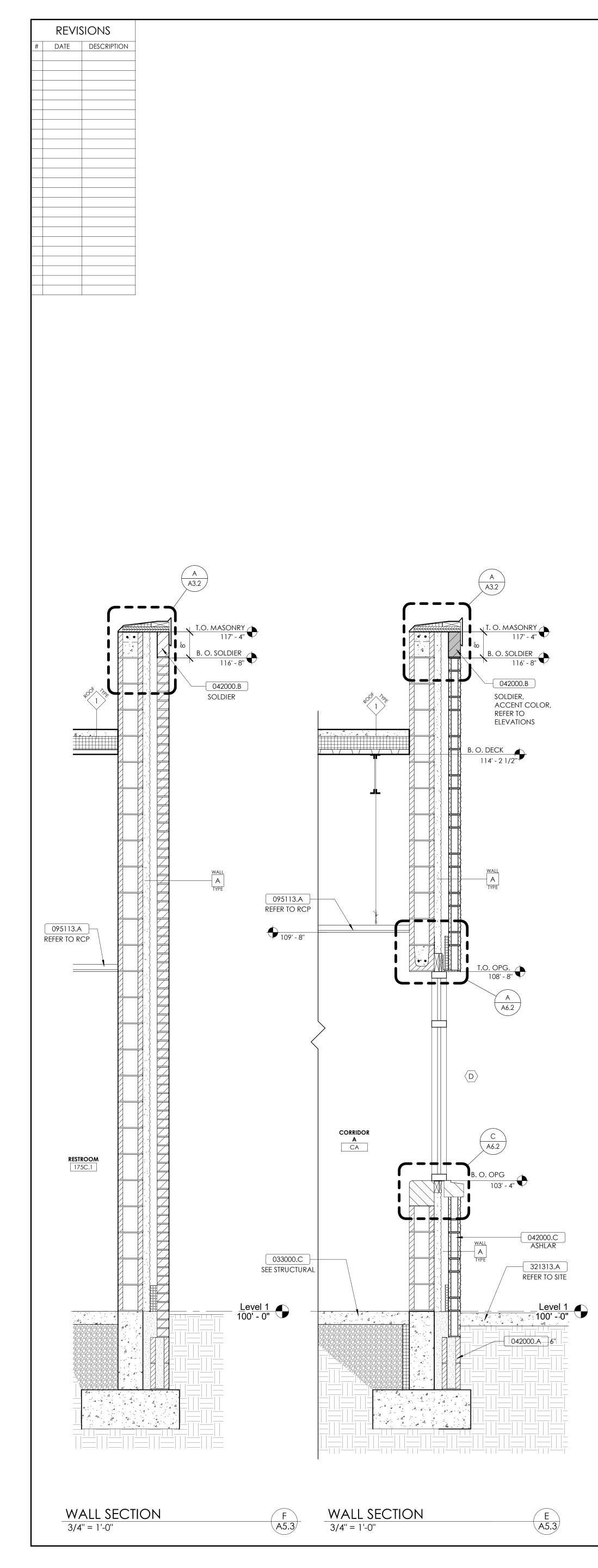
MATERIAL REFERENCE

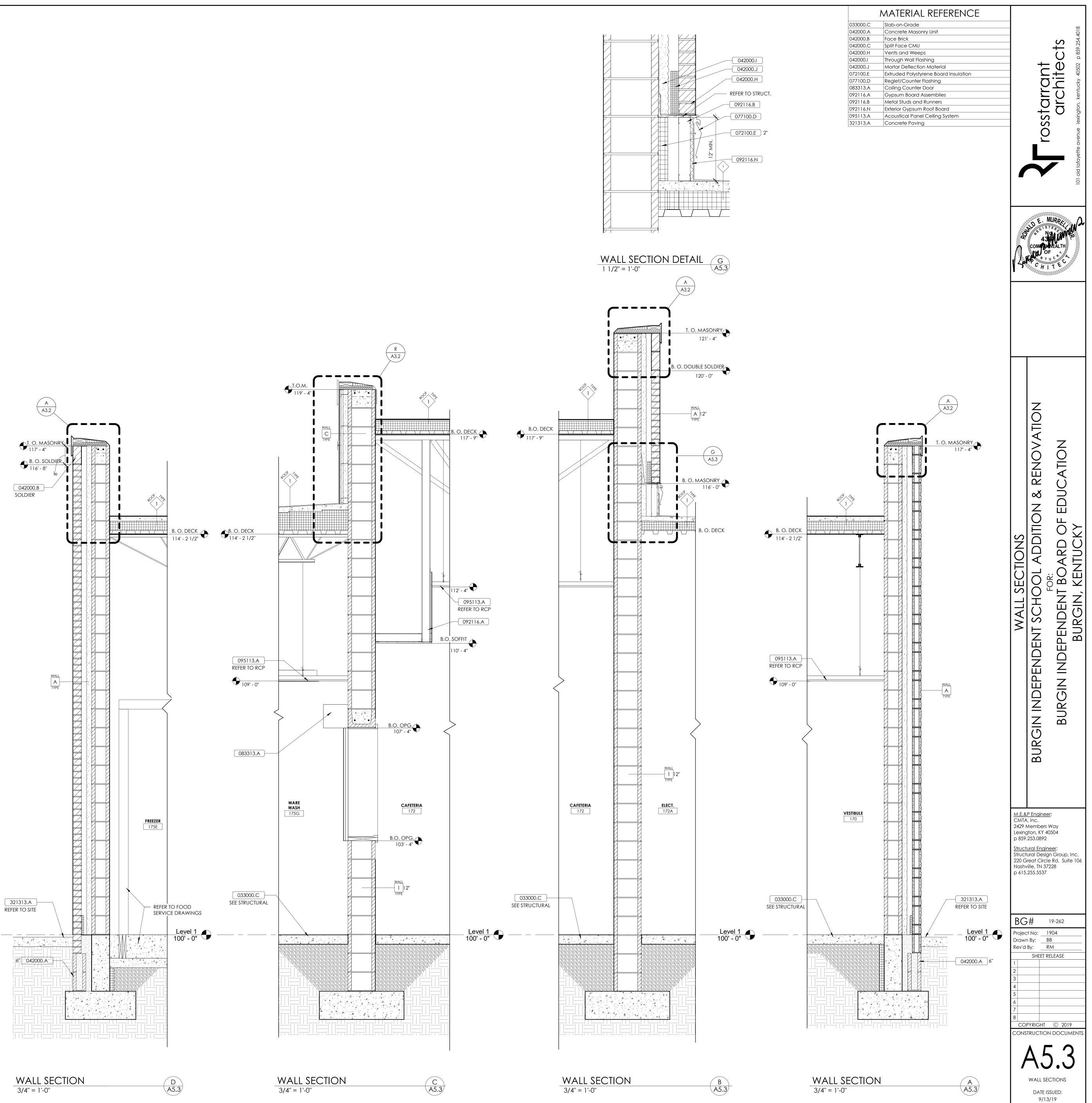


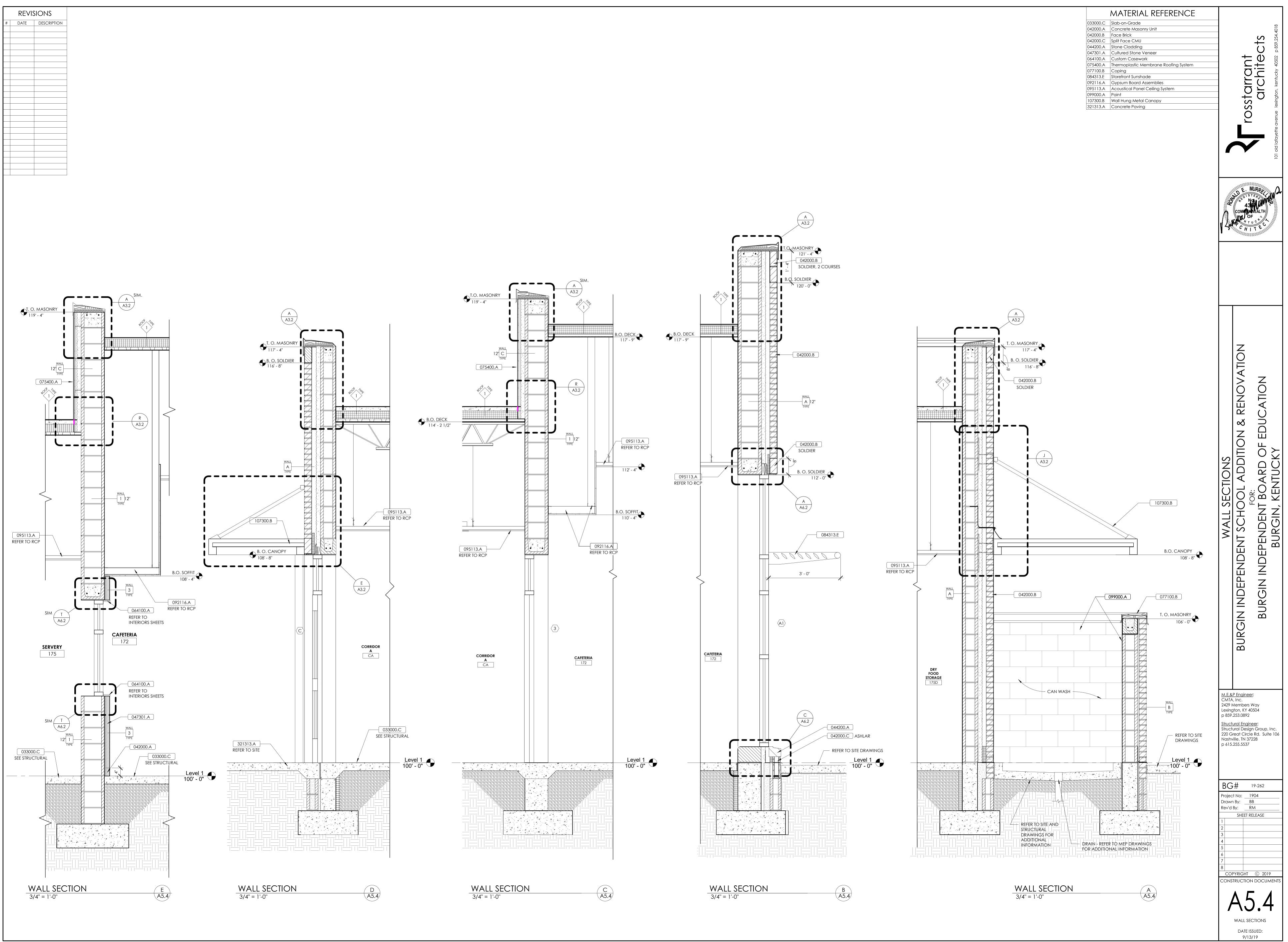




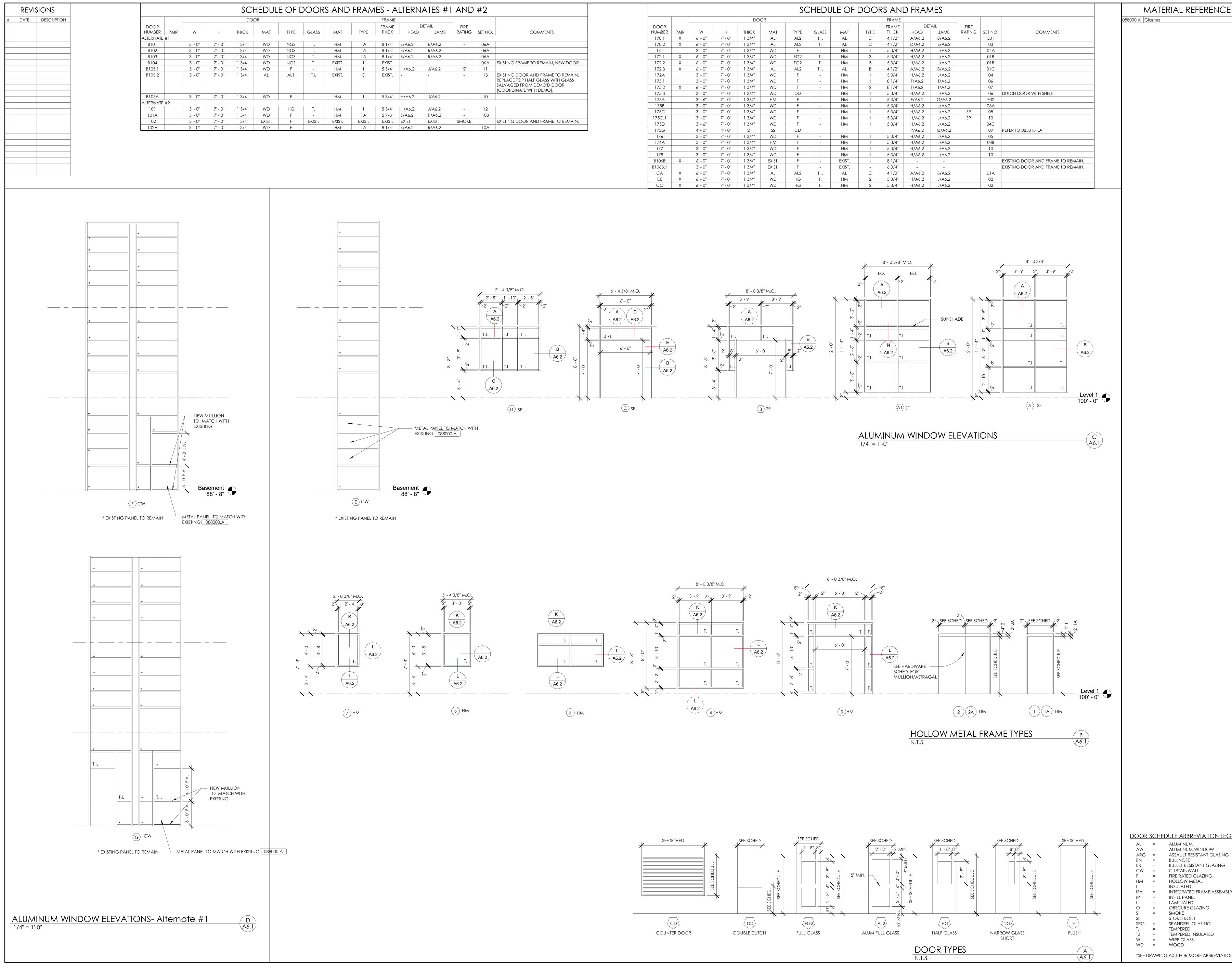
	MATERIAL
042000.A	Concrete Masonry
042000.B	Face Brick
042000.C	Split Face CMU
061000.A	Wood Blocking
075400.A	Thermoplastic Men
075400.F	Drip Edge
075700.A	Coated Foam Roo
076200.H	Skirt Flashing
077100.C	Drip Edge
077100.D	Reglet/Counter Fla
077100.E	Expansion Joint
079513.A	Joint Covers
092116.A	Gypsum Board Asse
092116.B	Metal Studs and Ru
092116.N	Exterior Gypsum Rc
095113.A	Acoustical Panel C





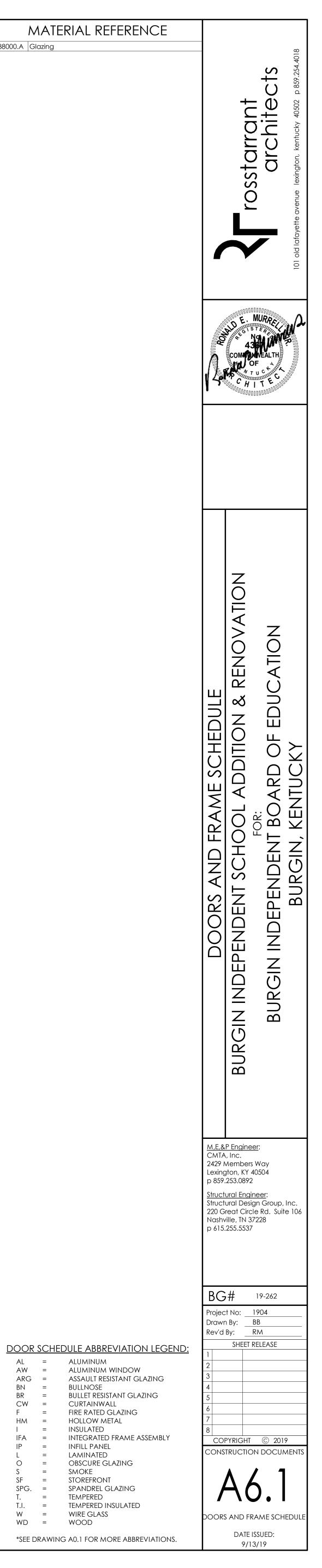


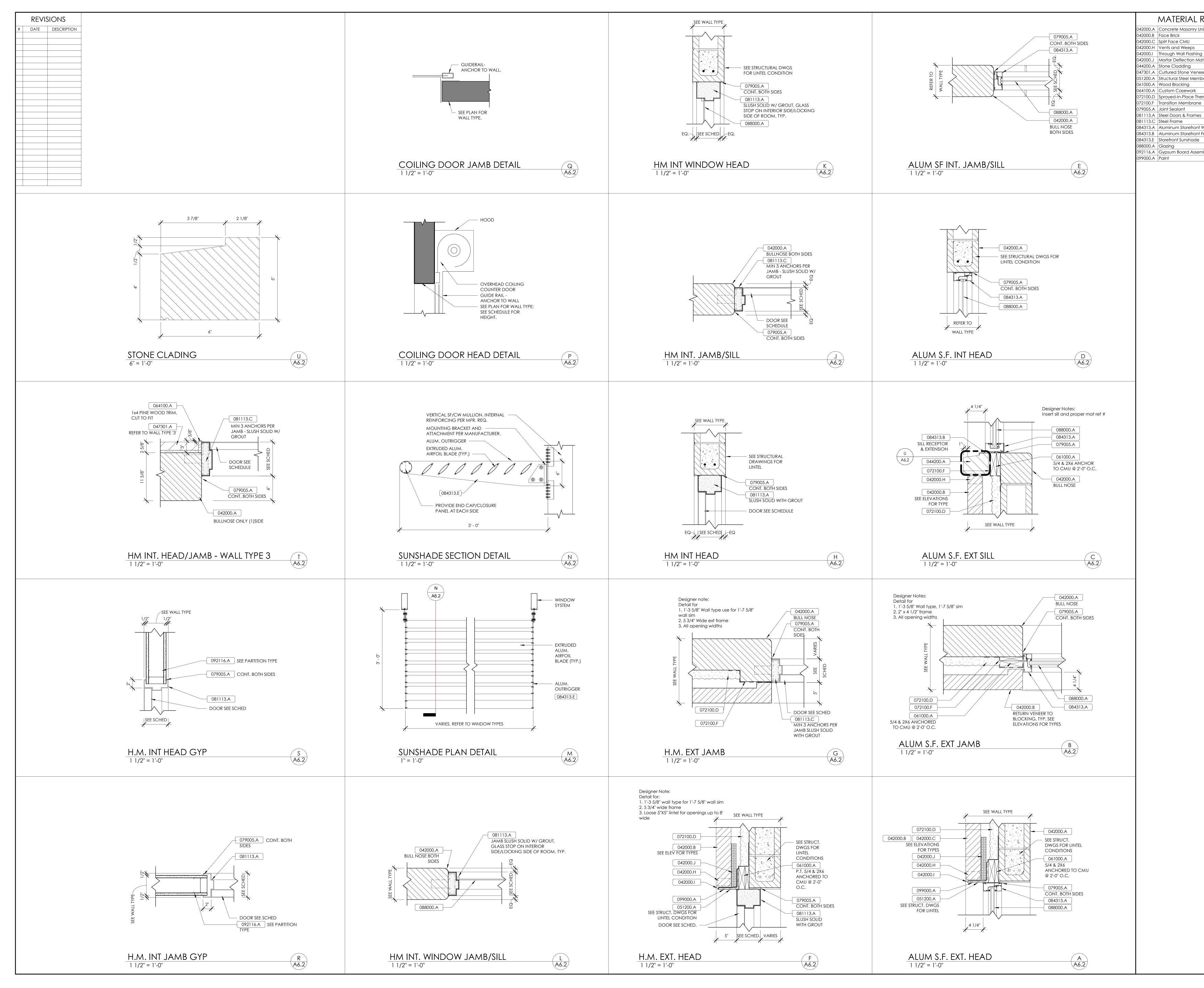
	MATERIAL
)33000.C	Slab-on-Grade
)42000.A	Concrete Masonry
)42000.B	Face Brick
)42000.C	Split Face CMU
)44200.A	Stone Cladding
)47301.A	Cultured Stone Ven
)64100.A	Custom Casework
)75400.A	Thermoplastic Mem
)77100.B	Coping
)84313.E	Storefront Sunshade
)92116.A	Gypsum Board Asse
)95113.A	Acoustical Panel Ce
)99000.A	Paint
07300.B	Wall Hung Metal Co
321313.A	Concrete Paving



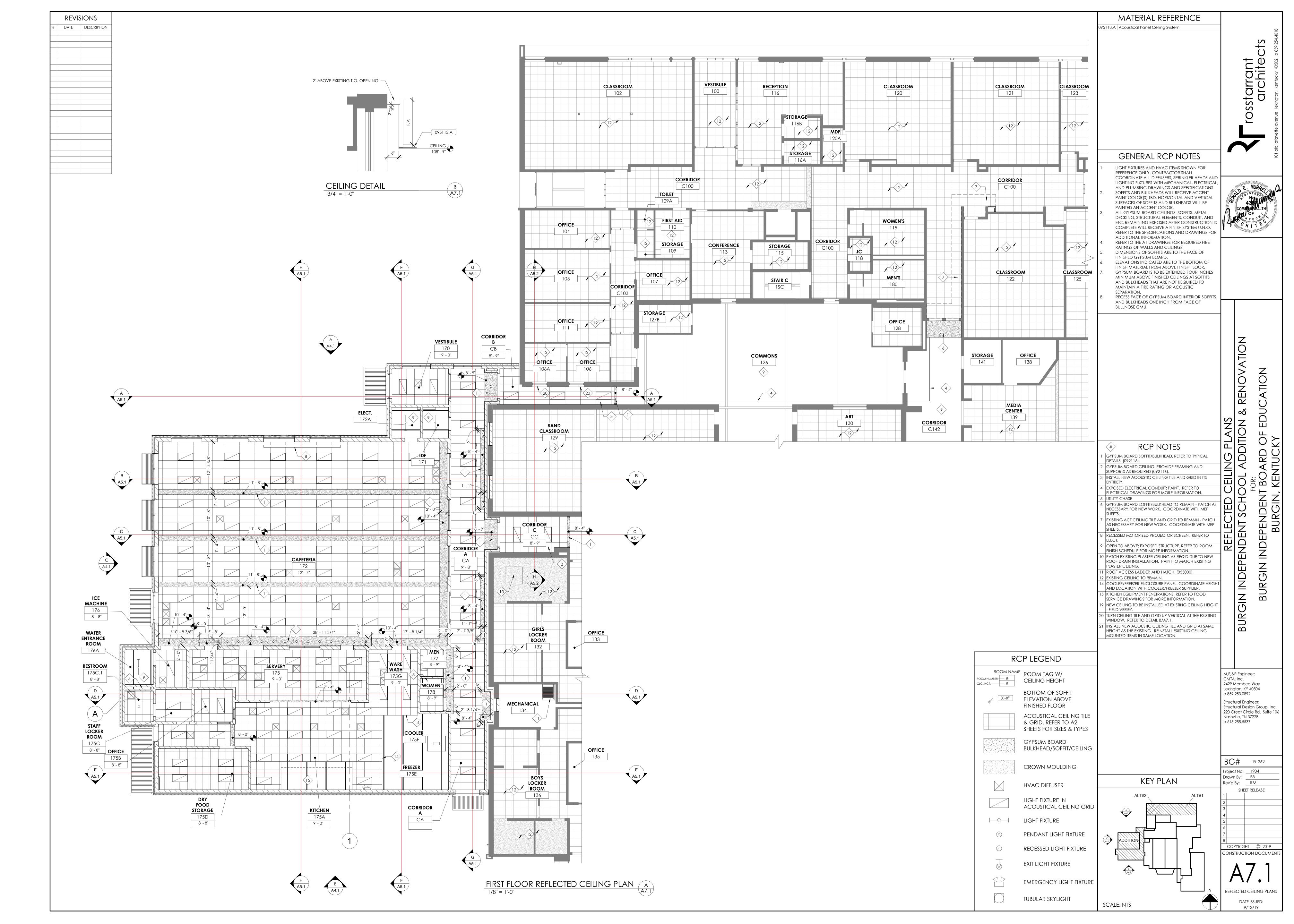
FRAME						
	FRAME	D	ETAIL	FIRE		
TYPE	THICK	HEAD	JAMB	RATING	SET NO.	COMMENTS
		_		_		
1A	8 1/4"	S/A6.2	R/A6.2	-	06A	
1A	8 1/4"	S/A6.2	R/A6.2	-	06A	
1A	8 1/4"	S/A6.2	R/A6.2	-	06A	
1	EXIST.	-	-	-	06A	EXISTING FRAME TO REMAIN, NEW DOOR.
1	5 3/4"	H/A6.2	J/A6.2	"S"	11	
G	EXIST.	-	-	-	13	EXISTING DOOR AND FRAME TO REMAIN. REPLACE TOP HALF GLASS WITH GLASS SALVAGED FROM DEMO'D DOOR (COORDINATE WITH DEMO).
1	5 3/4"	H/A6.2	J/A6.2	-	10	
1	5 3/4"	H/A6.2	J/A6.2	-	12	
1A	5 7/8"	S/A6.2	R/A6.2	-	10B	
EXIST.	EXIST.	EXIST.	EXIST.	SMOKE		EXISTING DOOR AND FRAME TO REMAIN.
1A	8 1/4"	S/A6.2	R/A6.2	-	10A	

	-			DOC	OR
door Number	PAIR	W	н	THICK	M
170.1	X	6' - 0''	7' - 0''	1 3/4"	A
170.2	Х	6' - 0''	7' - 0''	1 3/4"	A
171		3' - 0''	7' - 0''	1 3/4"	W
172.1	Х	6' - 0''	7' - 0''	1 3/4"	W
172.2	Х	6' - 0''	7' - 0''	1 3/4"	W
172.3	Х	6' - 0''	7' - 0''	1 3/4"	A
172A		3' - 0''	7' - 0''	1 3/4"	W
175.1		3' - 0''	7' - 0''	1 3/4"	W
175.2	Х	6' - 0''	7' - 0''	1 3/4"	W
175.3		3' - 0''	7' - 0''	1 3/4"	W
175A		3' - 6''	7' - 0''	1 3/4"	Н
175B		3' - 0''	7' - 0''	1 3/4"	W
175C		3' - 0''	7' - 0''	1 3/4"	W
175C.1		3' - 0''	7' - 0''	1 3/4"	W
175D		3' - 6''	7' - 0''	1 3/4"	W
175G		4' - 0''	4' - 0''	2"	S
176		3' - 0''	7' - 0''	1 3/4"	W
176A		3' - 0''	7' - 0''	1 3/4"	Н
177		3' - 0''	7' - 0''	1 3/4"	W
178		3' - 0''	7' - 0''	1 3/4"	W
B106B	Х	6' - 0''	7' - 0''	1 3/4"	EX
B106B.1		3' - 0''	7' - 0''	1 3/4"	EX
СА	Х	6' - 0''	7' - 0''	1 3/4"	A
СВ	Х	6' - 0''	7' - 0''	1 3/4"	W
СС	Х	6' - 0''	7' - 0''	1 3/4"	W

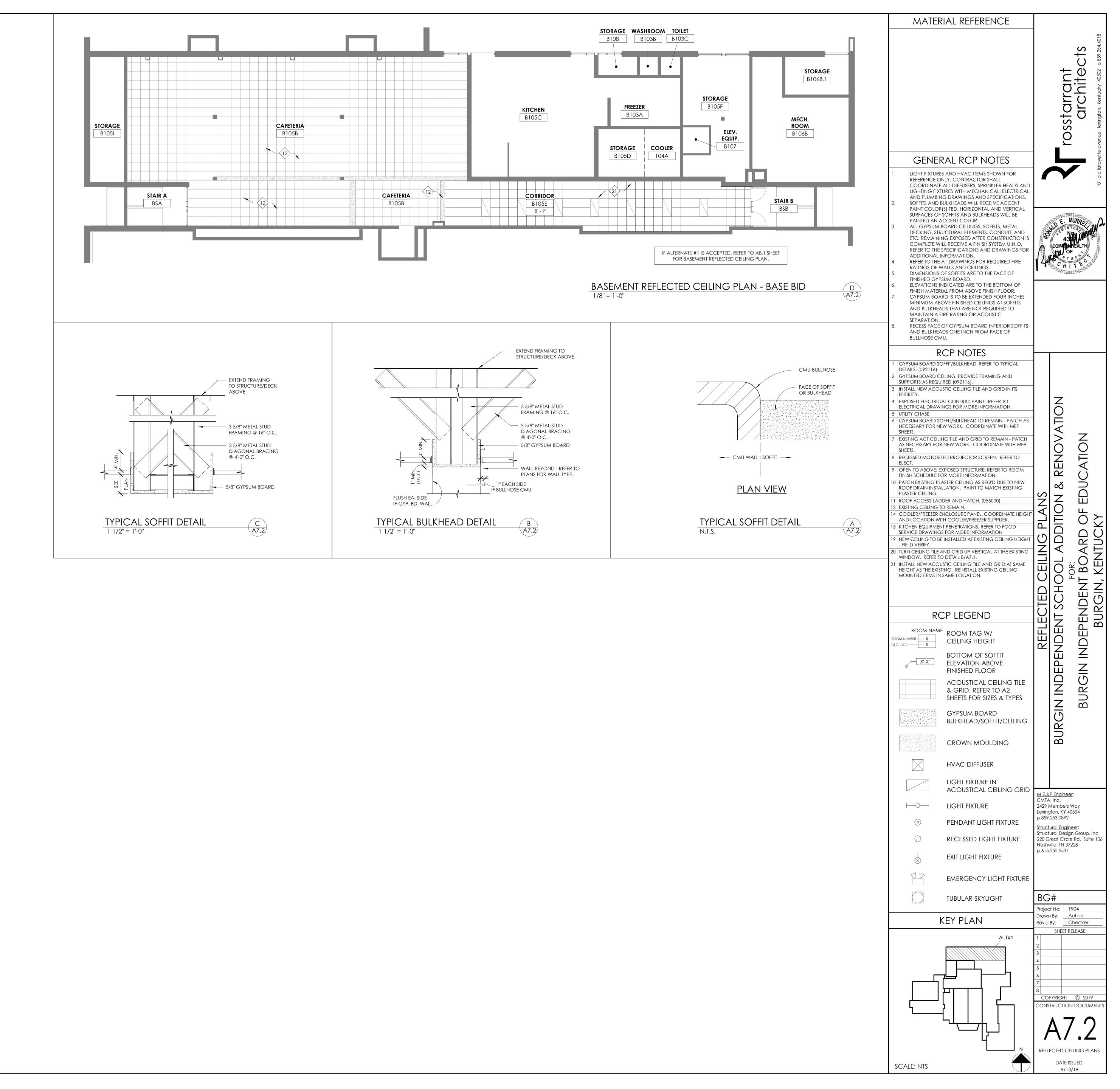


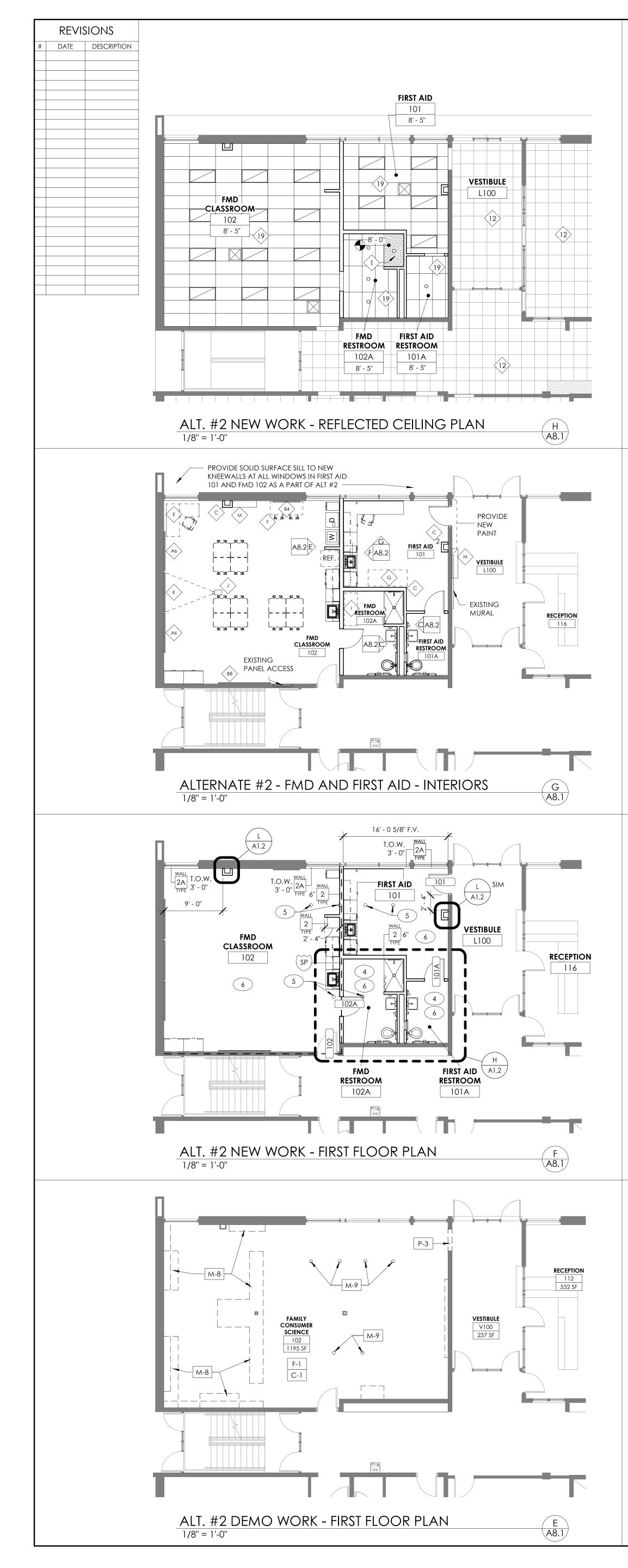


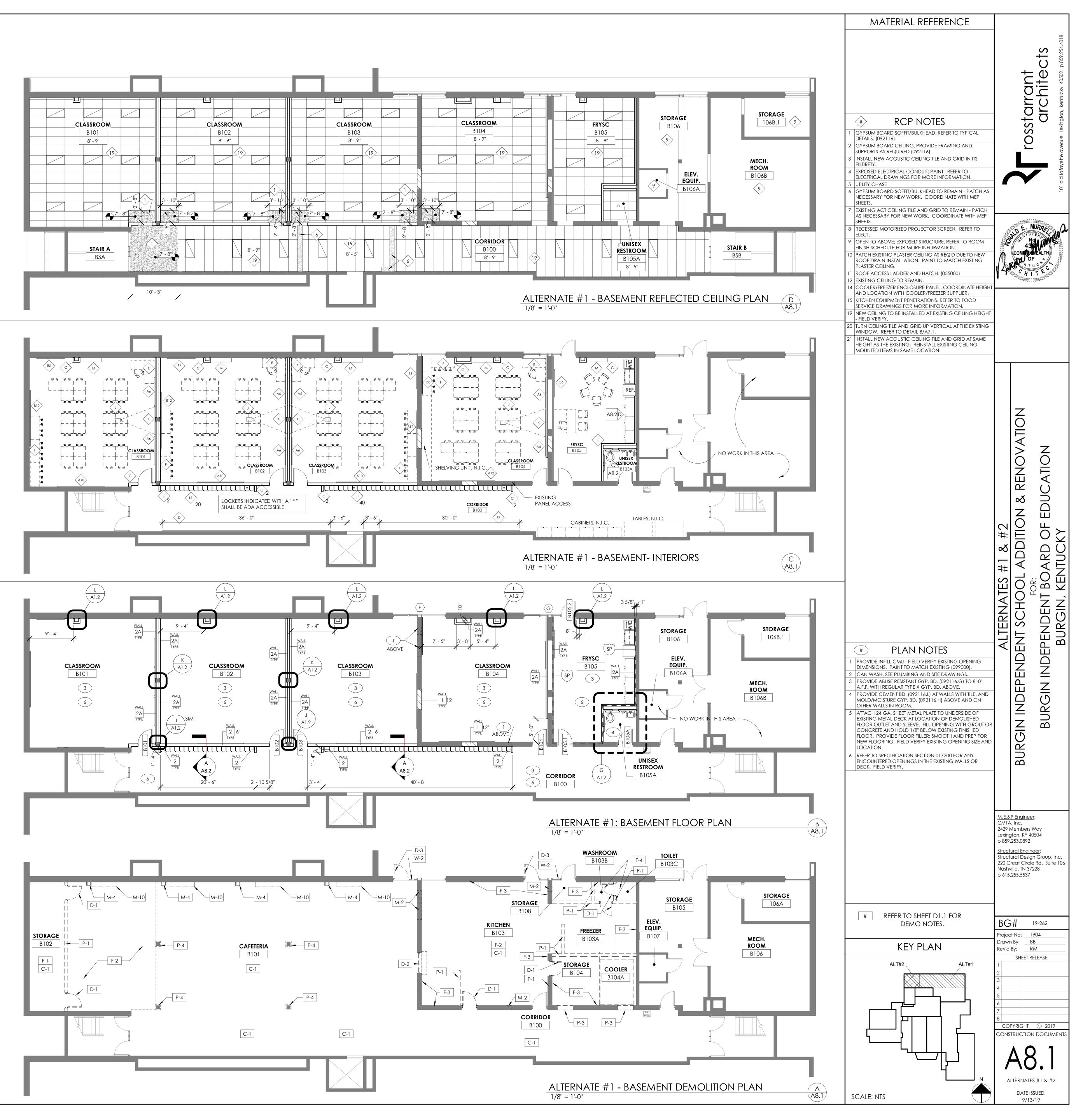
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	DOOR AND WINDOW DETAILS	BURGIN INDEPENDENT SCHOOL ADDITION & RENOVATION	BURGIN INDEPENDENT BOARD OF EDUCATION	BURGIN, KENTUCKY
	CMTA 2429 N Lexing p 859. Struct 220 G Nashv p 615. Projec Drawr Rev'd 1 2 3 4 5 6 7 8 CONS	Aembers yton, KY 4 253.0892 ural Engin ural Designed reat Circ reat Circ rille, TN 3: 255.5537	Way 10504 <u>neer</u> : gn Group, le Rd. Sui ⁻ 7228	9 9 9 7

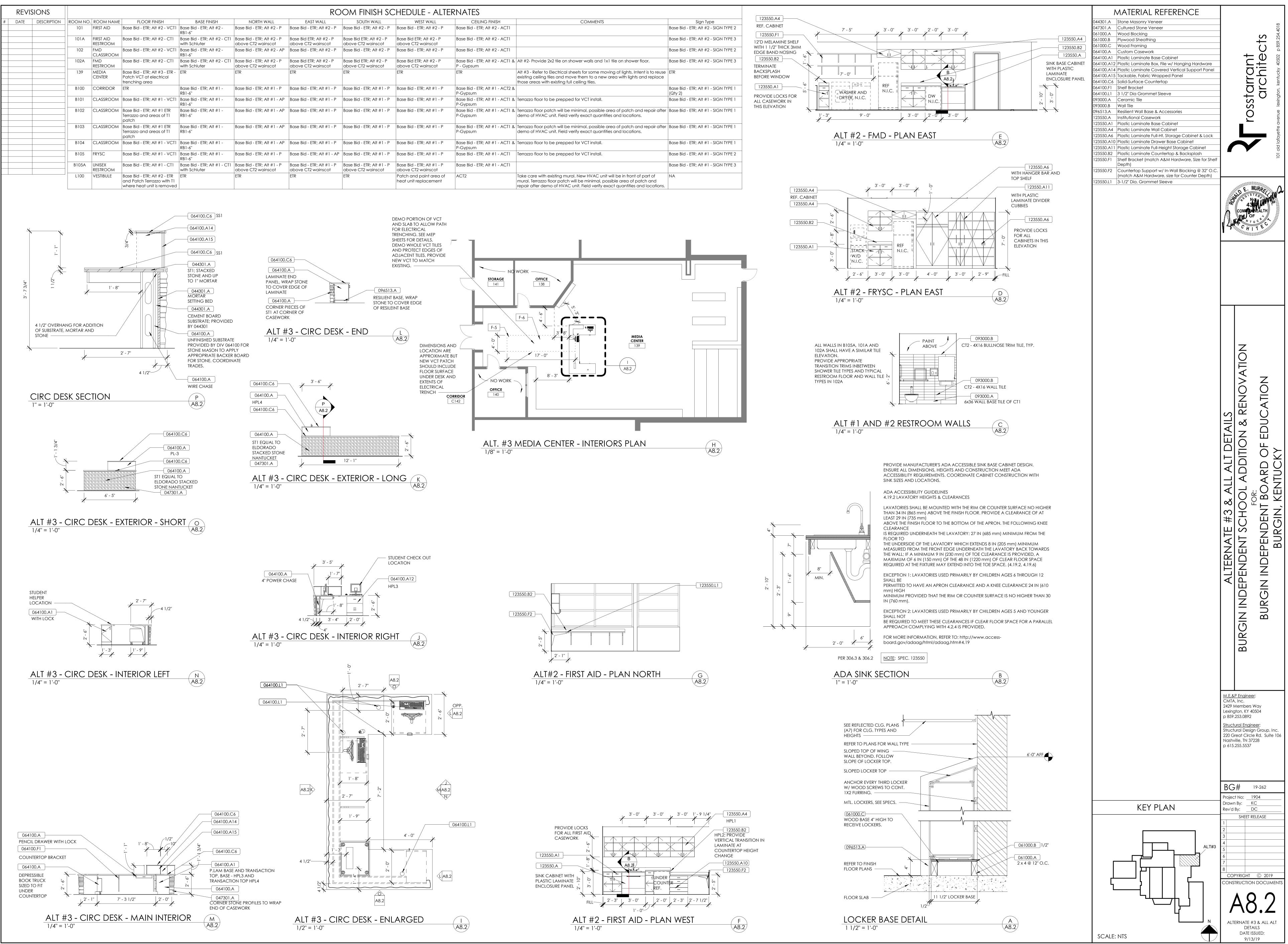


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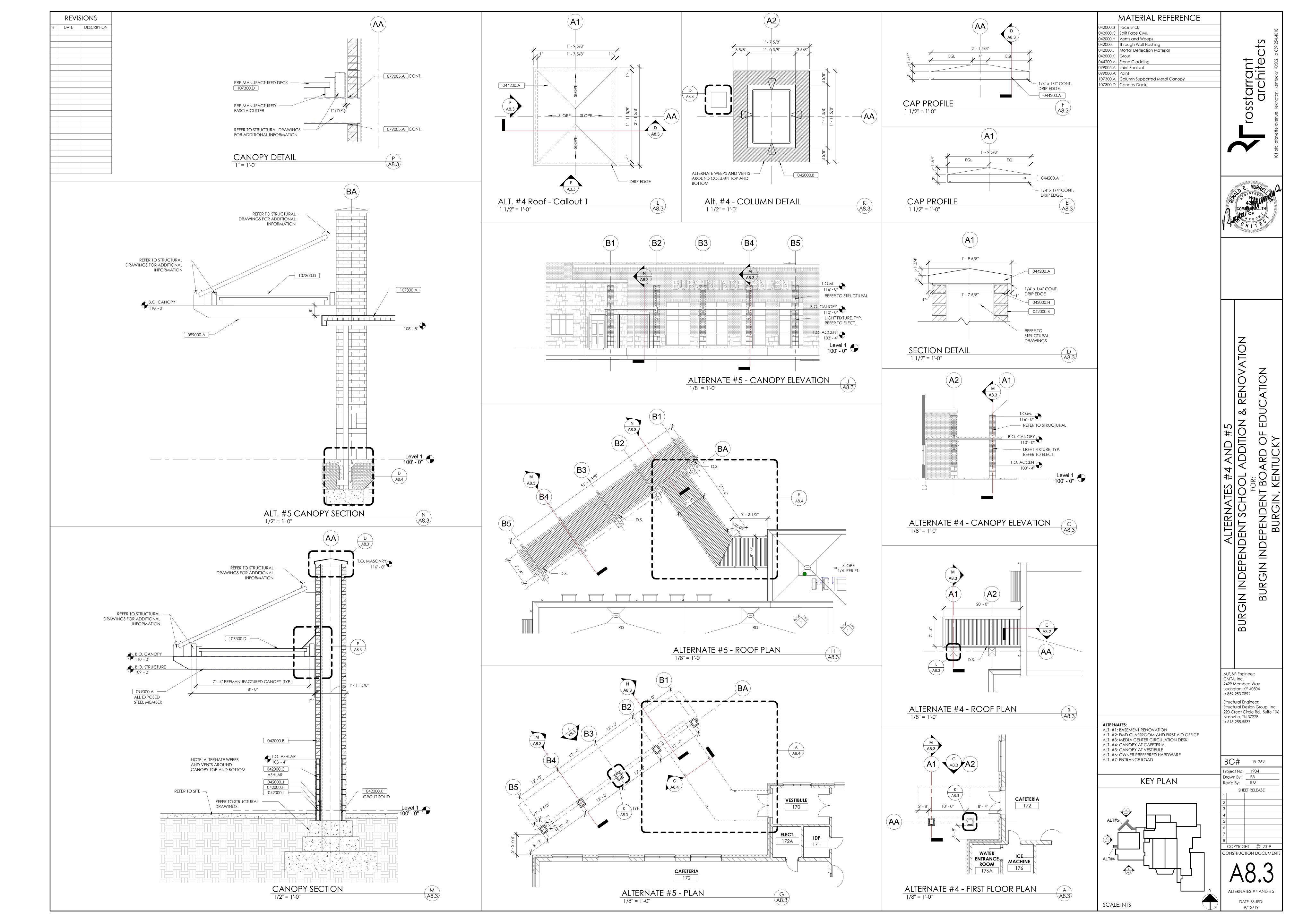




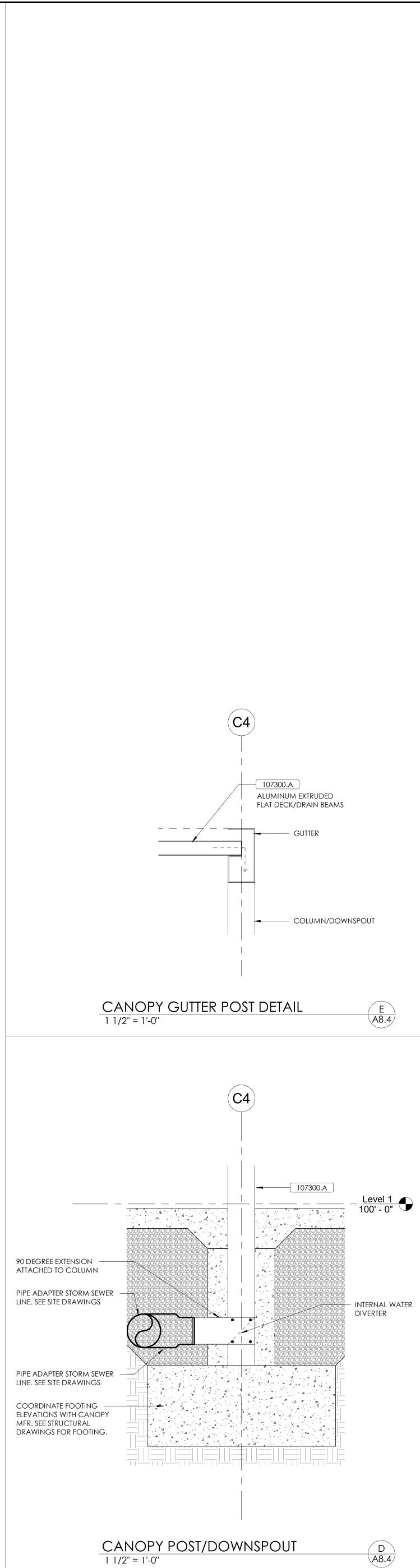




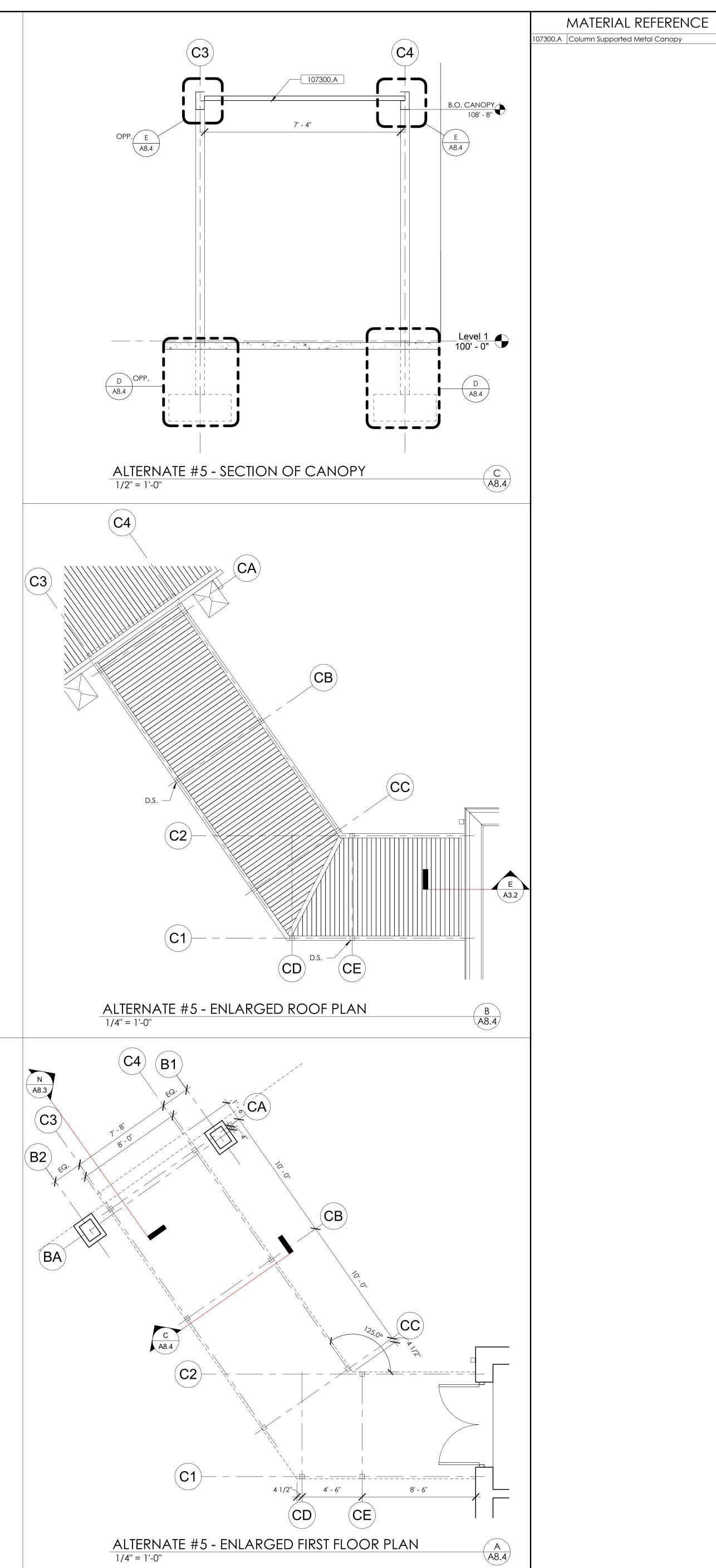
South Wall	WEST WALL	CEILING FINISH	COMMENTS	Sign Type
ase Bid - ETR; Alt #2 - P	Base Bid - ETR; Alt #2 - P	Base Bid - ETR; Alt #2 - ACT1		Base Bid - ETR; Alt #2 - SIGN TYPE 2
ase Bid ETR; Alt #2 - P bove CT2 wainscot	Base Bid ETR; Alt #2 - P above CT2 wainscot	Base Bid - ETR; Alt #2 - ACT1		Base Bid - ETR; Alt #2 - SIGN TYPE 3
ase Bid - ETR; Alt #2 - P	Base Bid - ETR; Alt #2 - P	Base Bid - ETR; Alt #2 - ACT1		Base Bid - ETR; Alt #2 - SIGN TYPE 2
ase Bid ETR; Alt #2 - P bove CT2 wainscot	Base Bid ETR; Alt #2 - P above CT2 wainscot	Base Bid - ETR; Alt #2 - ACT1 & P - Gypsum	Alt #2- Provide 2x2 tile on shower walls and 1x1 tile on shower floor.	Base Bid - ETR; Alt #2 - SIGN TYPE 3
ſŔ	ETR	ETR	Alt #3 - Refer to Electrical sheets for some moving of lights. Intent is to reuse existing ceiling tiles and move them to a new area with lights and replace those areas with existing full ceiling tiles.	ETR
ase Bid - ETR; Alt #1 - P	Base Bid - ETR; Alt #1 - P	Base Bid - ETR; Alt #1 - ACT2 & P-Gypsum		Base Bid - ETR; Alt #1 - SIGN TYPE 1 (Qty 2)
ase Bid - ETR; Alt #1 - P	Base Bid - ETR; Alt #1 - P	Base Bid - ETR; Alt #1 - ACT1 & P-Gypsum	Terrazzo floor to be prepped for VCT install.	Base Bid - ETR; Alt #1 - SIGN TYPE 1
ase Bid - ETR; Alt #1 - P	Base Bid - ETR; Alt #1 - P	Base Bid - ETR; Alt #1 - ACT1 & P-Gypsum	Terrazzo floor patch will be minimal, possible area of patch and repair after demo of HVAC unit. Field verify exact quantities and locations.	Base Bid - ETR; Alt #1 - SIGN TYPE 1
ase Bid - ETR; Alt #1 - P	Base Bid - ETR; Alt #1 - P	Base Bid - ETR; Alt #1 - ACT1 & P-Gypsum	Terrazzo floor patch will be minimal, possible area of patch and repair after demo of HVAC unit. Field verify exact quantities and locations.	Base Bid - ETR; Alt #1 - SIGN TYPE 1
ase Bid - ETR; Alt #1 - P	Base Bid - ETR; Alt #1 - P	Base Bid - ETR; Alt #1 - ACT1 & P-Gypsum	Terrazzo floor to be prepped for VCT install.	Base Bid - ETR; Alt #1 - SIGN TYPE 1
ase Bid - ETR; Alt #1 - P	Base Bid - ETR; Alt #1 - P	Base Bid - ETR; Alt #1 - ACT1	Terrazzo floor to be prepped for VCT install.	Base Bid - ETR; Alt #1 - SIGN TYPE 2
ase Bid - ETR; Alt #1 - P Dove CT2 wainscot	Base Bid - ETR; Alt #1 - P above CT2 wainscot	Base Bid - ETR; Alt #1 - ACT1		Base Bid - ETR; Alt #1 - SIGN TYPE 3
R	Patch and paint area of heat unit replacement	ACT2	Take care with existing mural. New HVAC unit will be in front of part of mural. Terrazzo floor patch will be minimal, possible area of patch and repair after demo of HVAC unit. Field verify exact quantities and locations.	NA

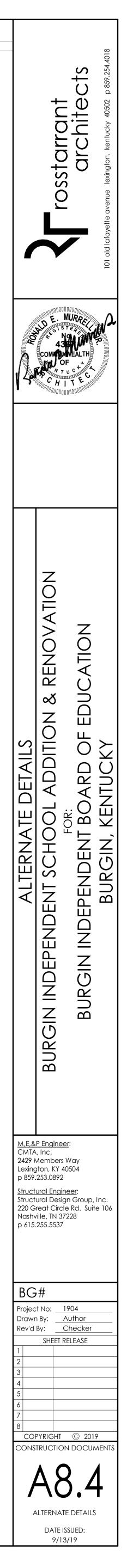


REVISIONS						
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## **GENERAL NOTES**

ALL RECEPTACLES & J-BOX'S ARE TO BE INSTALLED SO TOP OF BOXES ARE AT ABOVE FINISHED FLOOR HEIGHTS SHOWN ON DRAWINGS.

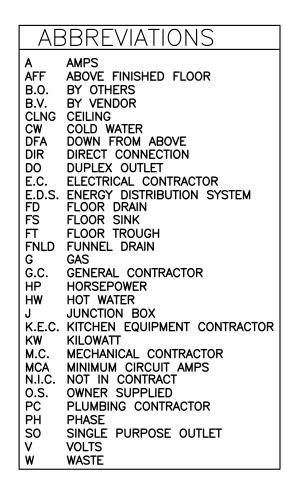
FLOOR MOUNTED ELECTRICAL OUTLETS AND "J" BOXES SHALL HAVE TOP OF BOX NO MORE THAN 5"AFF. K.E.C. TO SHOW ON ROUGH-IN DRAWINGS; EXACT LOCATION OF CONVENIENCE OUTLETS, MECHANICAL AND ELECTRICAL SERVICES FOR EACH PIECE OF EQUIPMENT PROVIDED BY K.E.C., OWNER, AND VENDORS. INCLUDE <u>ALL</u> FLOOR DRAINS AND FLOOR SINKS SHOWN ON BID DOCUMENT DRAWING SHEETS.

K.E.C. TO FURNISH COATED QUICK DISCONNECT KITS WITH HOSE KITS SIZED PER MANUFACTURERS RECOMMENDATION FOR EACH PIECE OF GAS COOKING EQUIPMENT.

ELECTRICAL AND PLUMBING INFORMATION SHOWN IN LIGHTER PRINT IS FOR REFERENCE ONLY.

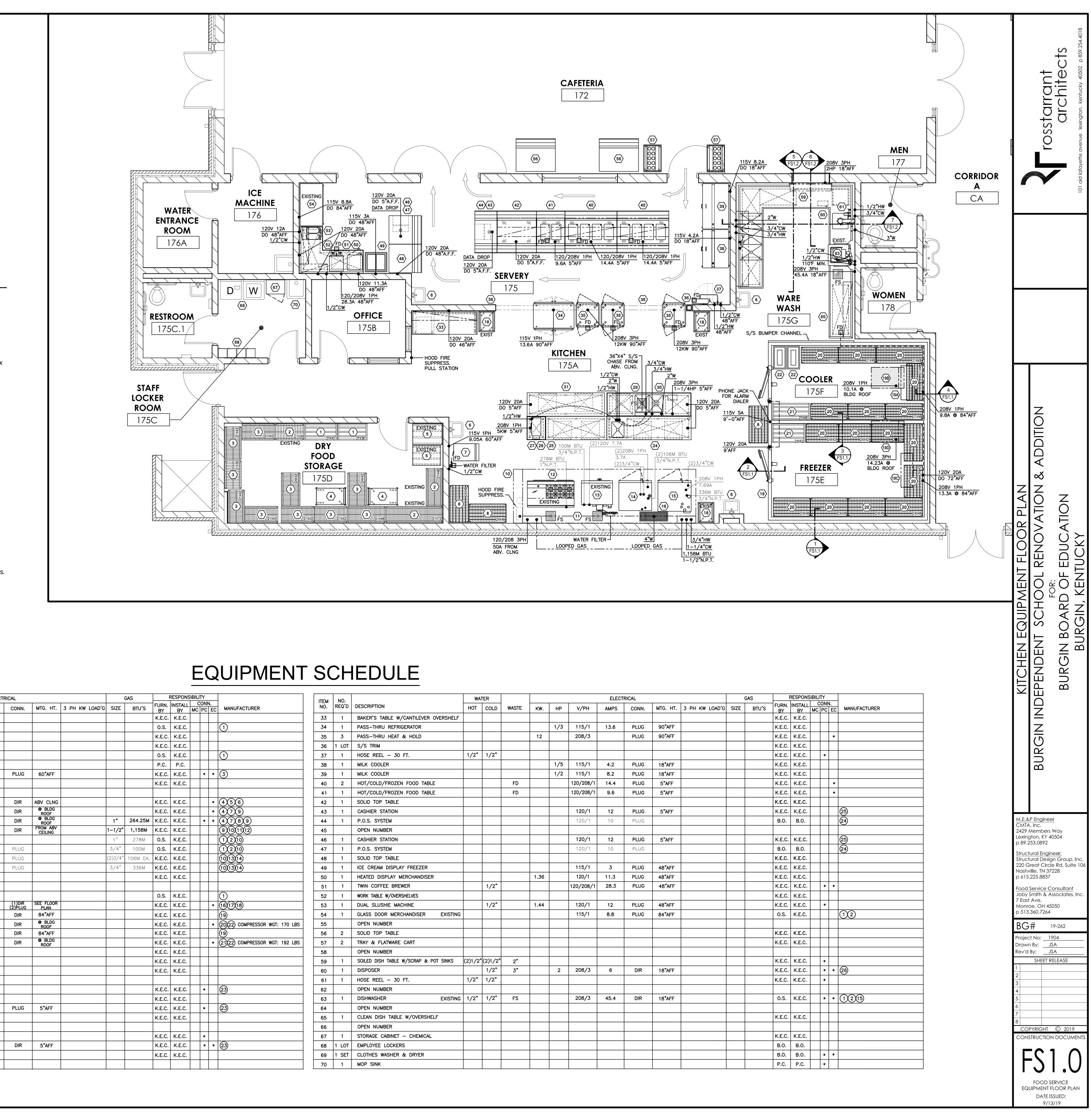
### $\otimes$ NOTES

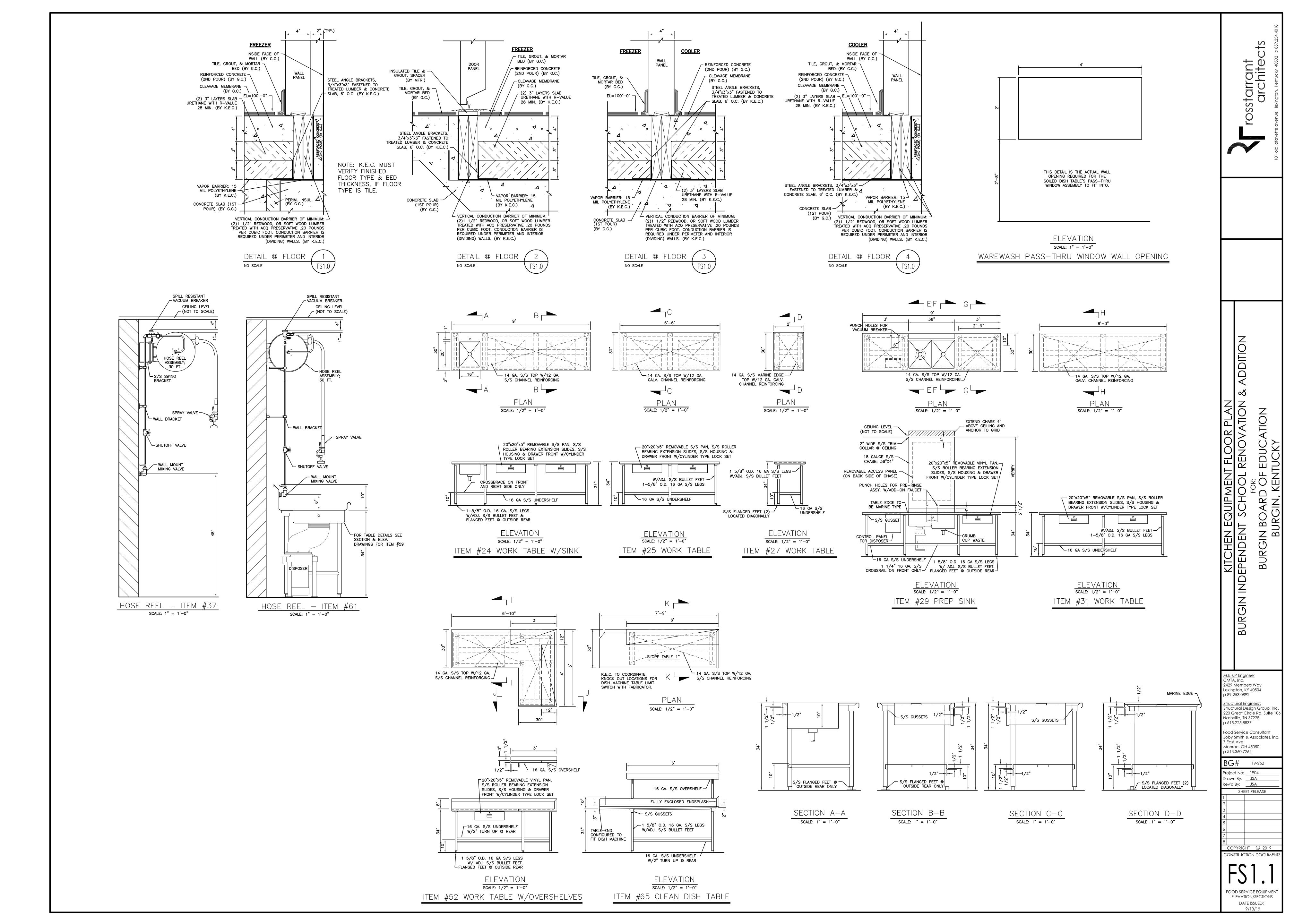
- 1 EXISTING EQUIPMENT K.E.C. TO RELOCATE AS SHOWN ON KITCHEN EQUIPMENT FLOOR PLAN.
- 2 EXISTING EQUIPMENT K.E.C., E.C., AND P.C. TO VERIFY CONNECTION REQUIREMENTS BEFORE BIDDING.
- (3) E.C. TO PROVIDE CORD & PLUG.
- 4 SEE WRITTEN SPECIFICATIONS AND HOOD PLANS FOR SERVICE REQUIREMENTS AND WORK TO BE PROVIDED BY GENERAL, STRUCTURAL, ROOFING, ELECTRICAL, PLUMBING, AND MECHANICAL CONTRACTORS.
- 5 120V 1PH 2.6 AMP ELECTRICAL REQUIREMENTS FOR HOOD LIGHTS SUPPLIED THROUGH CIRCUIT CALLED FOR IN E.D.S.
- (6) ELECTRICAL REQUIREMENTS FOR FIRE SUPPRESSION SYSTEM SUPPLIED THROUGH 120V 10A CIRCUIT CALLED FOR IN E.D.S.
- (7) EXHAUST AND MAKE-UP AIR FANS POWER SUPPLY SHALL BE COMBINED TO A 208V 3PH SINGLE POINT CONNECTION LOCATED ON THE SIDE OF THE MAKE-UP AIR UNIT. SEE HOOD PLANS FOR EXACT LOCATION AND DETAILS.
- 8 P.C. TO PROVIDE GAS CONNECTION TO MAKE-UP AIR FURNACE. SEE HOOD PLAN FOR EXACT LOCATION AND DETAILS.
- (9) E.C. TO INTERWIRE CONTROL SWITCHES LOCATED ON E.D.S. COLUMN TO HOOD LIGHTS AND HOOD SYSTEM FANS (SEE HOOD DRAWINGS AND SPECIFICATIONS) AS WELL AS INTER-WIRING FIRE SUPPRESSION SYSTEM TO CONNECTION POINTS IN E.D.S.
- (10) K.E.C. TO MAKE ALL FINAL CONNECTIONS BETWEEN E.D.S. AND COOKING EQUIPMENT.
- (1) E.C. AND P.C. ARE RESPONSIBLE FOR RESPECTIVE TRADE CONNECTIONS BETWEEN BUILDING SUPPLY AND E.D.S. PRIMARY CONNECTION POINTS.
- 12 P.C. TO PROVIDE & INSTALL REQUIRED LOOPED GAS SERVICE TO E.D.S.
- (13) EACH COMPARTMENT REQUIRES (1) FILTERED CW CONNECTION AND (1) NON-FILTERED CW CONNECTION.
- (14) K.E.C. RESPONSIBLE FOR INSTALLING DRAIN LINE & DRAIN WATER TEMPERING KIT. E.C. RESPONSIBLE FOR COMPLETE WIRING OF DRAIN WATER TEMPERING KIT TO DISHMACHINE. P.C. RESPONSIBLE FOR CONNECTING COLD WATER TO DRAIN WATER TEMPERING KIT.

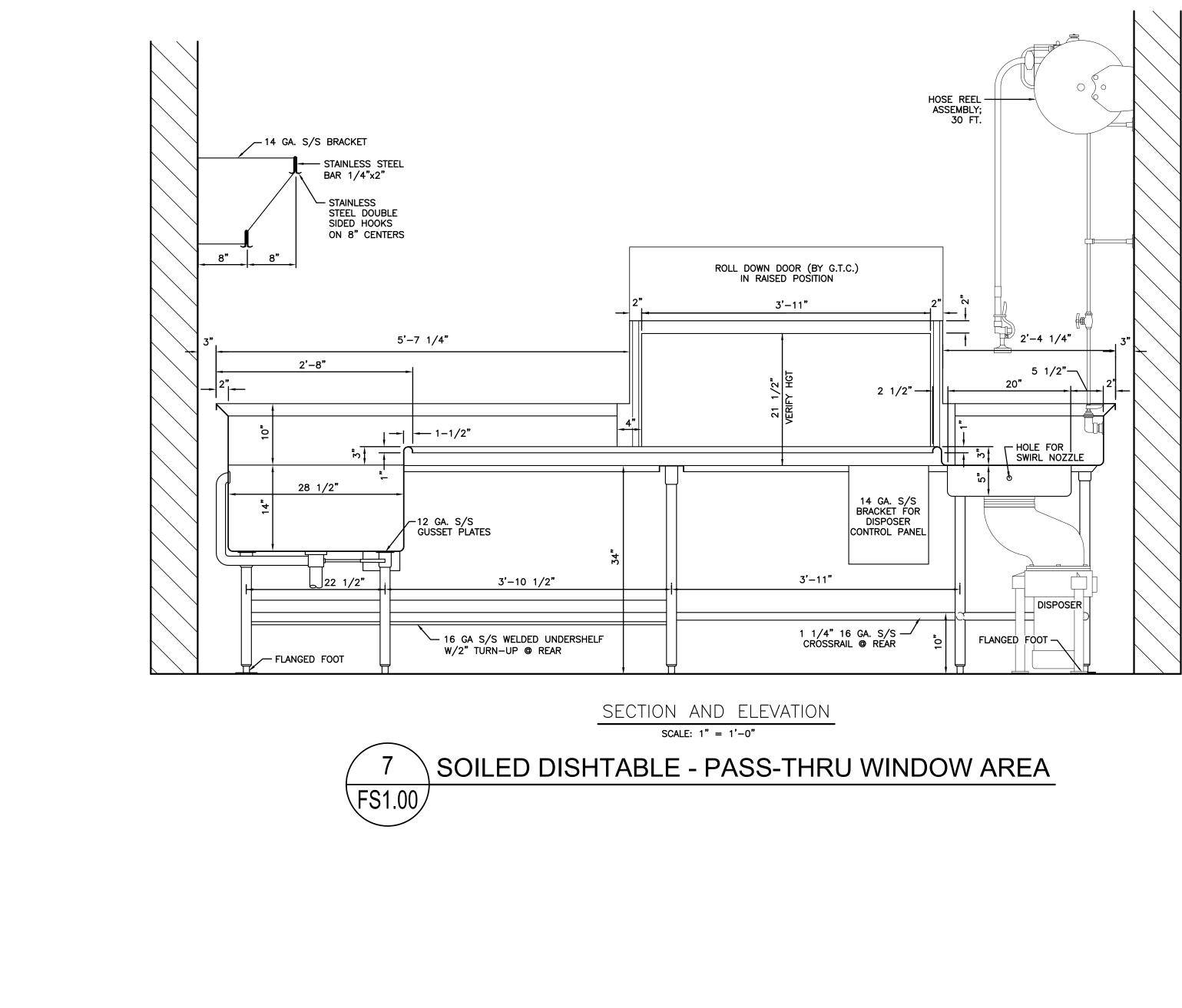


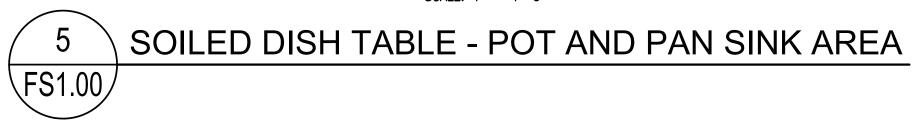
- (15) K.E.C. RESPONSIBLE FOR INSTALLING DRAIN LINE & DRAIN WATER TEMPERING KIT. K.E.C. TO HAVE MANUFACTURER INTER-WIRE DRAIN WATER TEMPERING KIT TO DISHMACHINE. P.C. RESPONSIBLE FOR CONNECTING COLD WATER TO DRAIN WATER TEMPERING KIT.
- (16) E.C. TO PROVIDE CIRCUIT TO "J" BOX WHERE SHOWN. K.E.C. TO BRANCH TO LIGHTS, DIGITAL ALARM AND HEATED VAPOR RELIEF VENT WHERE REQUIRED.
- (17) E.C. TO PROVIDE AND INSTALL (1) 115V 1PH 5 MCA RECEPTACLE AND (1) PHONE JACK AT ROOF OF WALK-IN BOX (AS SHOWN ON DRAWINGS) FOR ALARM PHONE DIALER. K.E.C. TO PROVIDE AND INSTALL ALARM PHONE DIALER BOX TO EXTERIOR FACE OF WALK-IN COOLER/FREEZER AND MAKE FINAL CONNECTIONS.
- (18) E.C. TO INSTALL 120V 20A RECEPTACLE 72"AFF ON INTERIOR BACK WALL OF WALK-IN FREEZER COMPARTMENT AS SHOWN ON FLOOR PLAN. K.E.C. TO PLUG CONDENSATE DRAIN LINE HEAT TAPE INTO THIS RECEPTACLE.
- 9 PROVIDE ELECTRIC SUPPLY DOWN INTO WALK-IN BOX TO DISCONNECT AND UNIT COOLER.
- (20) PROVIDE DISCONNECT AND CIRCUIT TO COOLER CONDENSING UNIT LOCATED AS SHOWN ON DRAWINGS. K.E.C. TO PROVIDE CONDUIT FROM CONDENSING UNIT TO UNIT COOLER AND INTER-WIRING OF CONTROL WIRING BETWEEN COMPONENTS NECESSARY FOR PROPER OPERATION OF THIS SYSTEM.
- (21) PROVIDE DISCONNECT AND CIRCUIT TO FREEZER CONDENSING UNIT LOCATED AS SHOWN ON DRAWINGS. K.E.C. TO PROVIDE CONDUIT FROM CONDENSING UNIT TO UNIT COOLER AND INTER-WIRING OF CONTROL WIRING BETWEEN COMPONENTS NECESSARY FOR PROPER OPERATION OF THIS SYSTEM.
- (22) ROOF MOUNTED WALK-IN COMPRESSORS ARE TO BE PLACED AT A MINIMUM OF 10'-0" AWAY FROM THE OUTER EDGES OF THE BUILDING ROOF.
- 23 P.C. TO BRANCH WATER SUPPLY FROM CHASE ON PREP SINK FOR THIS ITEM.
- 24 P.O.S. TO PLUG INTO OUTLET INCLUDED IN CASHIER STATION.
- 25 DEDICATED CIRCUIT REQUIRED AT ELECTRICAL PANEL FOR P.O.S.
- 26 P.C. TO BRANCH WATER SUPPLY FOR THIS ITEM FROM WATER SUPPLY FOR PRE-RINSE ON SOILED DISHTABLE.

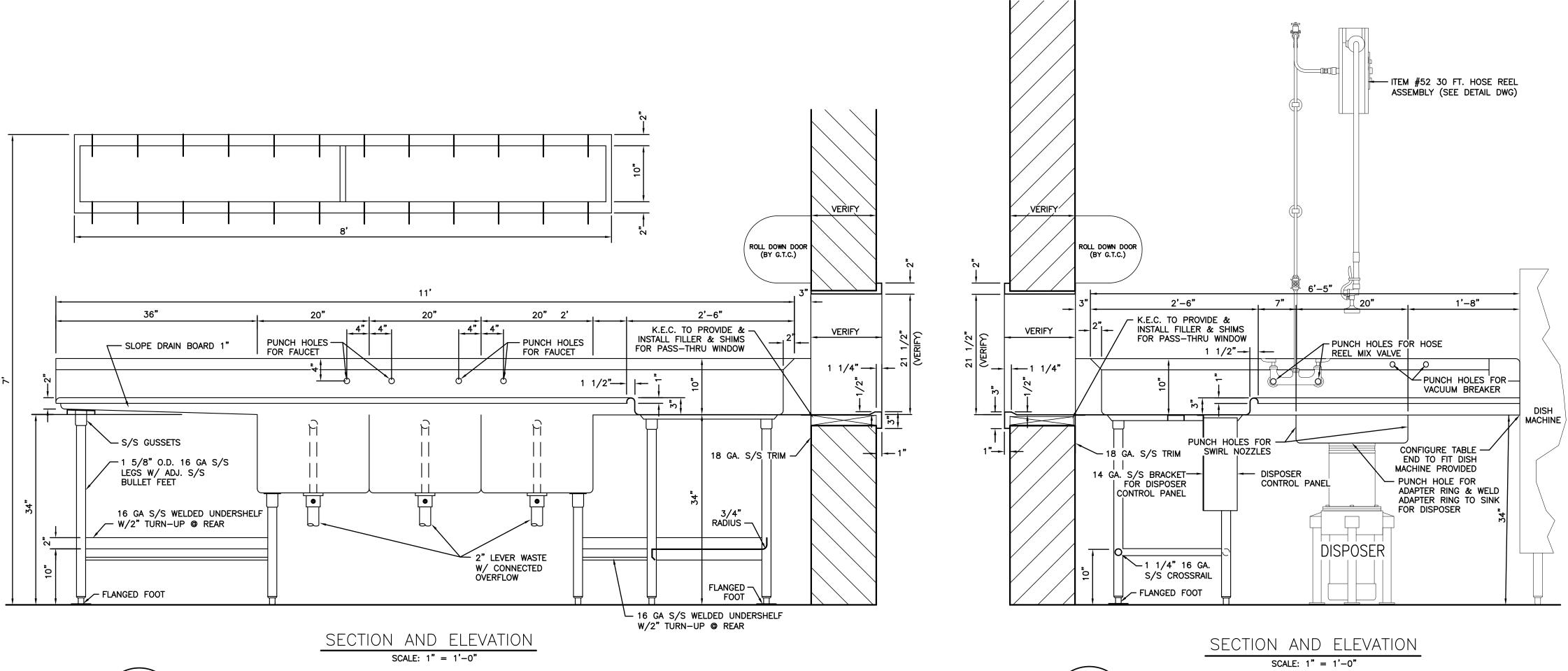
TEM NO. WATER			ELE	CTRICAL			GAS	RESPONSIBIL	TY	ITEM NO		WATER				ELECT	RICAL		GAS	RESPONS		
REQ'D DESCRIPTION HOT COLD	WASTE KW.	HP	V/PH AMPS	CONN.	MTG. HT. 3 F	PH KW LOAD'G SIZ	ZE BTU'S	FURN. INSTALL ( BY BY MC	ONN.  PC  EC MANUFACTURER	NO. REQ	•	нот со	LD WASTE	KW.	HP V/PH	AMPS	CONN.	MTG. HT. 3 PH KW LOAD'G	SIZE BTU'S	FURN. INSTALL BY BY	CONN.	MANUFACTURER
2 DUNNAGE RACK – DRY STORAGE								K.E.C. K.E.C.		33 1	BAKER'S TABLE W/CANTILEVER OVERSHELF									K.E.C. K.E.C.		
2 1 LOT SHELVING – DRY STORAGE EXISTING								0.S. K.E.C.		34 1	PASS-THRU REFRIGERATOR				1/3 115/1	13.6	PLUG	90"AFF		K.E.C. K.E.C.		
3 1 LOT SHELVING – DRY STORAGE								K.E.C. K.E.C.		35 3	PASS-THRU HEAT & HOLD			12	208/3		PLUG	90"AFF		K.E.C. K.E.C.	*	
4 2 UTILITY CART								K.E.C. K.E.C.		36 1 L	OT S/S TRIM									K.E.C. K.E.C.		
5 2 CAN RACK EXISTING								0.S. K.E.C.		37 1	HOSE REEL – 30 FT.	1/2" 1/3	2"							K.E.C. K.E.C.	*	
6 4 HAND SINK								P.C. P.C.		38 1	MILK COOLER				1/5 115/1	4.2	PLUG	18"AFF		K.E.C. K.E.C.		
7 1 ICE MACHINE W/STORAGE BIN 1/2'	FD		115/1 9.05	PLUG	60"AFF			K.E.C. K.E.C.	* * 3	39 1	MILK COOLER				1/2 115/1	8.2	PLUG	18"AFF		K.E.C. K.E.C.		
8 3 SHELVING – POT & PAN								K.E.C. K.E.C.		40 2	2 HOT/COLD/FROZEN FOOD TABLE		FD		120/208/1	14.4	PLUG	5"AFF		K.E.C. K.E.C.	*	
9 OPEN NUMBER										41 1	HOT/COLD/FROZEN FOOD TABLE		FD		120/208/1	9.6	PLUG	5"AFF		K.E.C. K.E.C.	*	
10 1 HOOD - CANOPY			120/1 2.6	DIR	ABV CLNG			K.E.C. K.E.C.	* 456 * 479	42 1	SOLID TOP TABLE									K.E.C. K.E.C.		
1 HOOD – EXHAUST AIR FAN		2	208/3	DIR	© BLDG ROOF			K.E.C. K.E.C.	* 479	43 1	CASHIER STATION				120/1	12	PLUG	5"AFF		K.E.C. K.E.C.		25
1 HOOD – SUPPLY AIR & FURNACE		2	208/3 13.95	DIR	© BLDG ROOF	1'	" 264.25	M K.E.C. K.E.C.	* * 4789	44 1	P.O.S. SYSTEM				120/1	10	PLUG			B.O. B.O.		24
11 1 ENERGY DISTRIBUTION SYSTEM 3/4" 1-1/4	·	120	0/208/3 50	DIR	FROM ABV CEILING	1-1,	/2" 1,158M	M K.E.C. K.E.C.	9101112	45	OPEN NUMBER											
12 1 6-BURNER RANGE W/GRIDDLE & OVENS EXISTING						1'	" 278M	0.S. K.E.C.	1210	46 1	CASHIER STATION				120/1	12	PLUG	5"AFF		K.E.C. K.E.C.		25
13 1 CONVECTION OVEN - DBL. STACK EXISTING		(2	2)120/1 7.7 EA	PLUG		3/4	′4" 100M	0.S. K.E.C.		47 1	P.O.S. SYSTEM				120/1	10	PLUG			B.O. B.O.		24
14 1 COMBI OVEN – DBL. STACK (4)3/-	" FS	(2	2)208/1 3.7 EA	PLUG		(2)3,	3/4" 106M E	A. K.E.C. K.E.C.	101314	48 1	SOLID TOP TABLE									K.E.C. K.E.C.		
15 1 COMBI OVEN – ROLL–IN (2)3/-	" FS		208/1 7.69	PLUG		3/4	′4" 336M	K.E.C. K.E.C.	101314	49 1	ICE CREAM DISPLAY FREEZER				115/1	3	PLUG	48"AFF		K.E.C. K.E.C.		
16 1 FLOOR TROUGH	4"							K.E.C. K.E.C.		50 1	HEATED DISPLAY MERCHANDISER			1.36	120/1	11.3	PLUG	48"AFF		K.E.C. K.E.C.		
17 OPEN NUMBER										51 1	TWIN COFFEE BREWER	1/	2"		120/208/1	28.3	PLUG	48"AFF		K.E.C. K.E.C.	* *	
18 3 BUN PAN RACKS EXISTING								0.S. K.E.C.		52 1	WORK TABLE W/OVERSHELVES									K.E.C. K.E.C.		
19 1 WALK-IN COOLER/FREEZER		(:	2)120/1 (2)20 115/1 5	(1)DIR (2)PLUG	SEE FLOOR PLAN			K.E.C. K.E.C.	* 161718	53 1	DUAL SLUSHIE MACHINE	1/	2"	1.44	120/1	12	PLUG	48"AFF		K.E.C. K.E.C.	*	
9A 1 UNIT COOLER – COOLER	FD		208/1 9.8	DIR	84"AFF			K.E.C. K.E.C.	(19)		GLASS DOOR MERCHANDISER EXISTING				115/1	8.8	PLUG	84"AFF		0.S. K.E.C.		12
9B 1 CONDENSING UNIT - COOLER			208/1 10.1	DIR	© BLDG ROOF			K.E.C. K.E.C.	* 2022 COMPRESSOR WGT: 170 LBS	55	OPEN NUMBER											
9C 1 UNIT COOLER – FREEZER	FD		208/1 13.3	DIR	84"AFF			K.E.C. K.E.C.	19	56 2	SOLID TOP TABLE									K.E.C. K.E.C.		
9D 1 CONDENSING UNIT – FREEZER		:	208/3 14.23	DIR	© BLDG ROOF			K.E.C. K.E.C.	* 2122 COMPRESSOR WGT: 192 LBS	57 2	TRAY & FLATWARE CART									K.E.C. K.E.C.		
20 1 LOT SHELVING – COOLER/FREEZER								K.E.C. K.E.C.		58	OPEN NUMBER											
21 2 DUNNAGE RACKS – COOLER/FREEZER								K.E.C. K.E.C.		59 1	SOILED DISH TABLE W/SCRAP & POT SINKS (2	2)1/2"(2)1	/2" 2"							K.E.C. K.E.C.	*	
22 2 MILK CRATE DOLLY								K.E.C. K.E.C.		60 1	DISPOSER	1/	2" 3"		2 208/3	6	DIR	18"AFF		K.E.C. K.E.C.	* *	26
23 OPEN NUMBER										61 1	HOSE REEL – 30 FT.	1/2" 1/2	2"							K.E.C. K.E.C.	*	
24 1 WORK TABLE W/SINK 1/2" 1/2	2"							K.E.C. K.E.C.	* 23	62	OPEN NUMBER											
25 1 WORK TABLE								K.E.C. K.E.C.		63 1	DISHWASHER EXISTING	1/2" 1/	2 <b>"</b> FS		208/3	45.4	DIR	18"AFF		0.S. K.E.C.	* *	1215
26   1   HOT WATER DISPENSER   1/2"	5		208/1 24	PLUG	5"AFF			K.E.C. K.E.C.	* 23	64	OPEN NUMBER											
27 1 WORK TABLE								K.E.C. K.E.C.		65 1	CLEAN DISH TABLE W/OVERSHELF									K.E.C. K.E.C.		
28 OPEN NUMBER										66	OPEN NUMBER											
29 1 PREP SINK W/CHASE 1/2" 1/2"	FS							K.E.C. K.E.C.	*	67 1	STORAGE CABINET - CHEMICAL									K.E.C. K.E.C.		
30 1 DISPOSER 1/2	2"	1-1/4	208/3 3.7	DIR	5"AFF			K.E.C. K.E.C.	* * 23	68 1 L	OT EMPLOYEE LOCKERS									B.O. B.O.		
31 1 WORK TABLE								K.E.C. K.E.C.		69 1 S	ET CLOTHES WASHER & DRYER									B.O. B.O.	* *	
32 OPEN NUMBER										70 1	MOP SINK									P.C. P.C.	*	

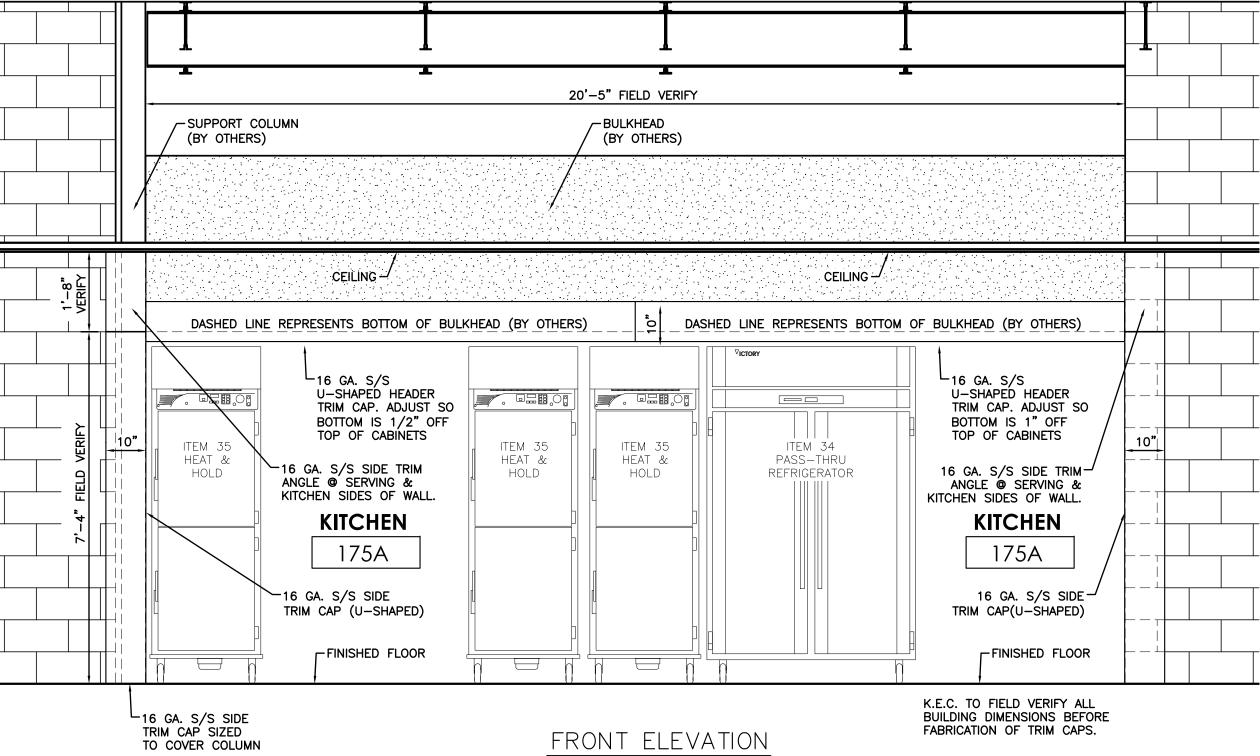






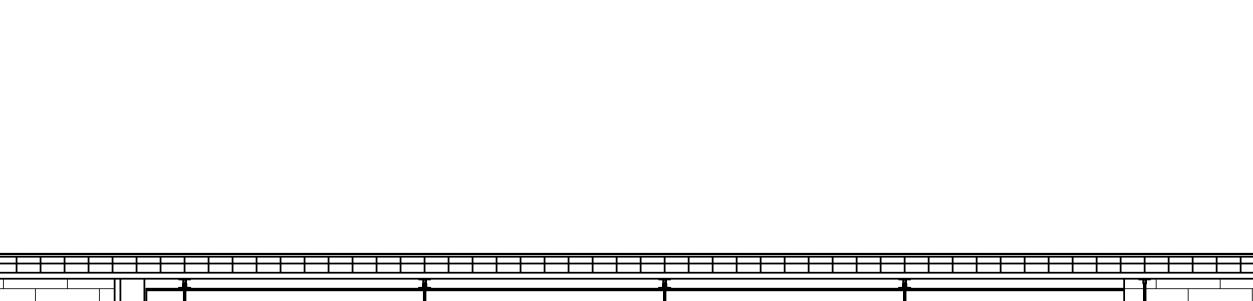




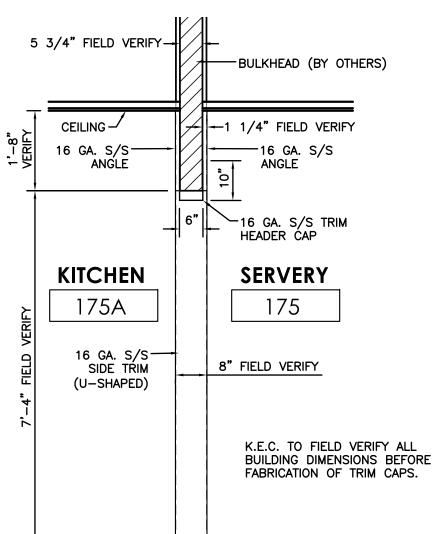


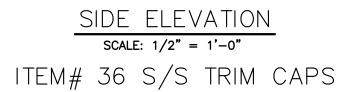
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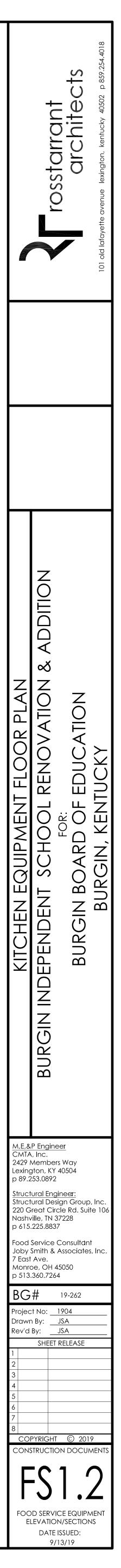


SOILED DISHTABLE - RINSE AREA





SCALE: 1/2" = 1'-0"ITEM# 36 S/S TRIM CAPS



HOOD: (1) Type 1 canopy exhaust hood, sized as shown on the drawings. Factory to pre-assemble hood sections and furnish fasteners for field assembly. Hood to be constructed of 18 gauge type 304 stainless steel #4 finish, where exposed. Double thickness outside end panels solid welded and polished to face with no exposed joints. Filter rack mullion to be tack welded to inside end panel. UL. 710 Listed Construction. LIGHTS: (4) Recessed LED light fixtures UL. Listed for use in Type I canopy hoods, factory wired to junction box. FILTERS: (10) 25"x20"x2" UL Classified, stainless steel baffle type grease

BULKHEAD: 18 gauge stainless steel bulkhead between top of hood and ceiling on all exposed sides. Verify ceiling height before construction.

FAN PACKAGE: Exhaust fan (1) upblast centrifugal, spun aluminum, belt driven, UL 762 Listed for use in grease laden environments, with prewired disconnect switch, tilting base, and grease catch trough. Wheel size to be 22" minimum and rated at 15.5 sones maximum. Supply air fan (1) centrifugal belt driven, side inlet type in square housing. Provide disconnect switch, motorized backdraft damper, aluminum air filters, and motor starters for exhaust and supply fans factory installed within

cabinet. Wheel size to be 15" minimum and rated at 21.0 sones maximum. Provide painted exterior for supply air fan. ROOF CURBS: 18 gauge welded galvanized steel, internally insulated, and

equipment support rail, set for flat roof. Verify roof pitch and direction before construction. FURNACE: Direct fired gas furnace to be a modular attachment to the supply fan. Unit set for 7" WC minimum pressure at rated flow, 14" WC maximum, 1" gas supply connection. Furnace control to be electronic spark ignition. Heater includes all controls with duct stat, and disconnect

switch. Painted exterior to match fan package. FAN DISCHARGE: 10'-0" minimum from any building inlet and 40" above building roof. EXHAUST DUCT: 16 gauge welded black iron exhaust duct, with

continuous liquid tight external welds at all seams and joints. Provide 1/4" per foot minimum slope toward hood on all horizontal duct runs. Provide cleanouts every 10'-0" of duct length or at every change of direction, as required per code.

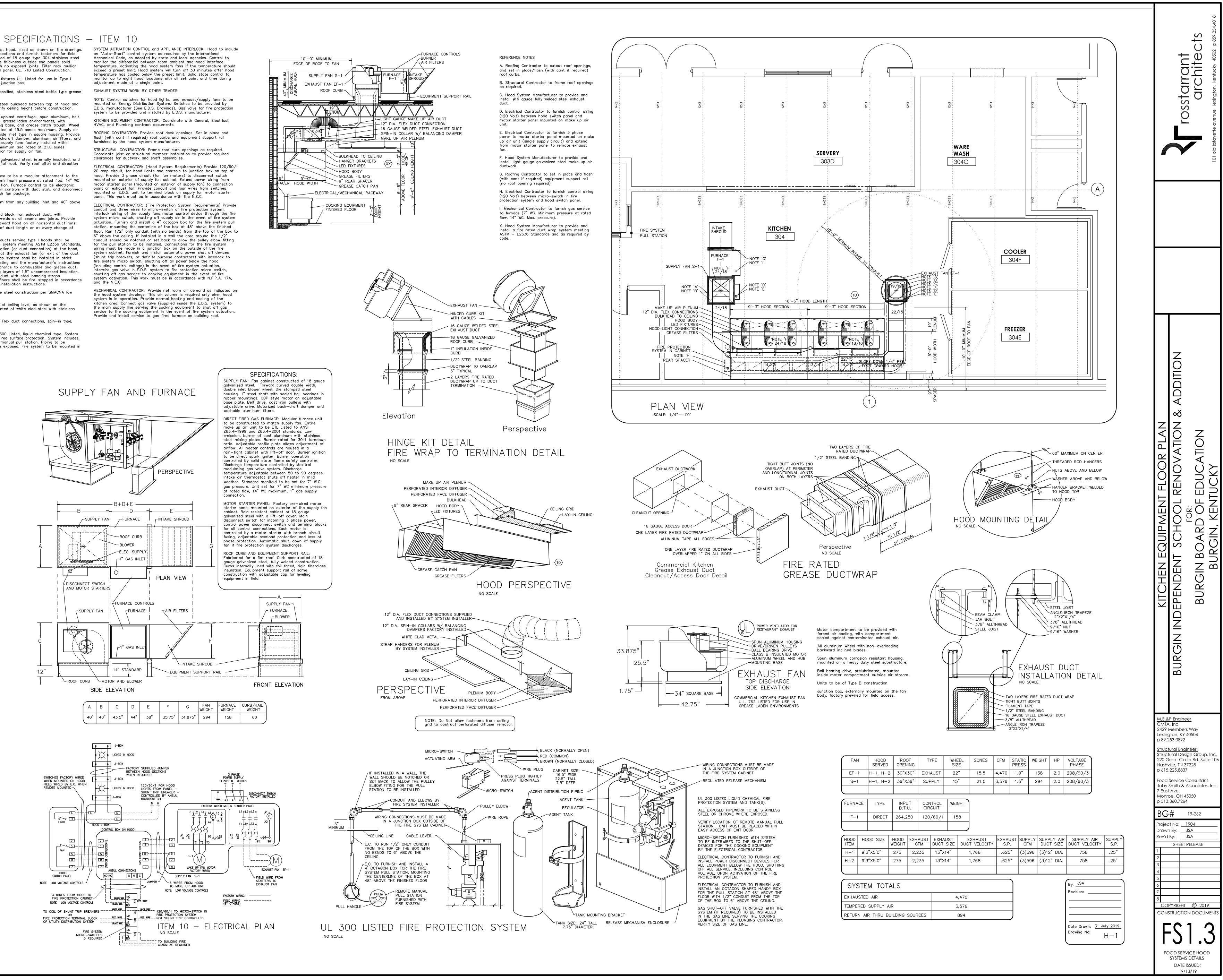
EXHAUST DUCT WRAP: Exhaust ducts serving type I hoods shall be installed with a rated duct wrap system meeting ASTM E2336 Standards, from the point of ceiling penetration (or duct connection) at the hood, to the termination of the duct at the exhaust fan (or exit of the duct from the building). The duct wrap system shall be installed in strict accordance with the system's listing and the manufacturer's instructions for 2 hour rated system 0" clearance to combustible and grease duct installation. System requires two layers of 1.5" uncompressed insulation. Insulation to be banded to the duct with steel banding straps. Penetration of rated walls and floors shall be fire-stopped in accordance with the system manufacturers installation instructions.

MAKE UP AIR DUCT: Light gauge steel construction per SMACNA low pressure standards. PLENUMS: Make up air plenums at ceiling level, as shown on the

drawing. Plenum to be constructed of white clad steel with stainless steel perforated face diffusers. MAKE UP AIR TAPS IN PLENUM: Flex duct connections, spin-in type, each with balancing damper.

FIRE CONTROL SYSTEM: (1) UL 300 Listed, liquid chemical type. System to provide hood, duct, and required surface protection. System includes, dual micro-switch, and remote manual pull station. Piping to be stainless steel or chrome, where exposed. Fire system to be mounted in cabinet on end of hood.

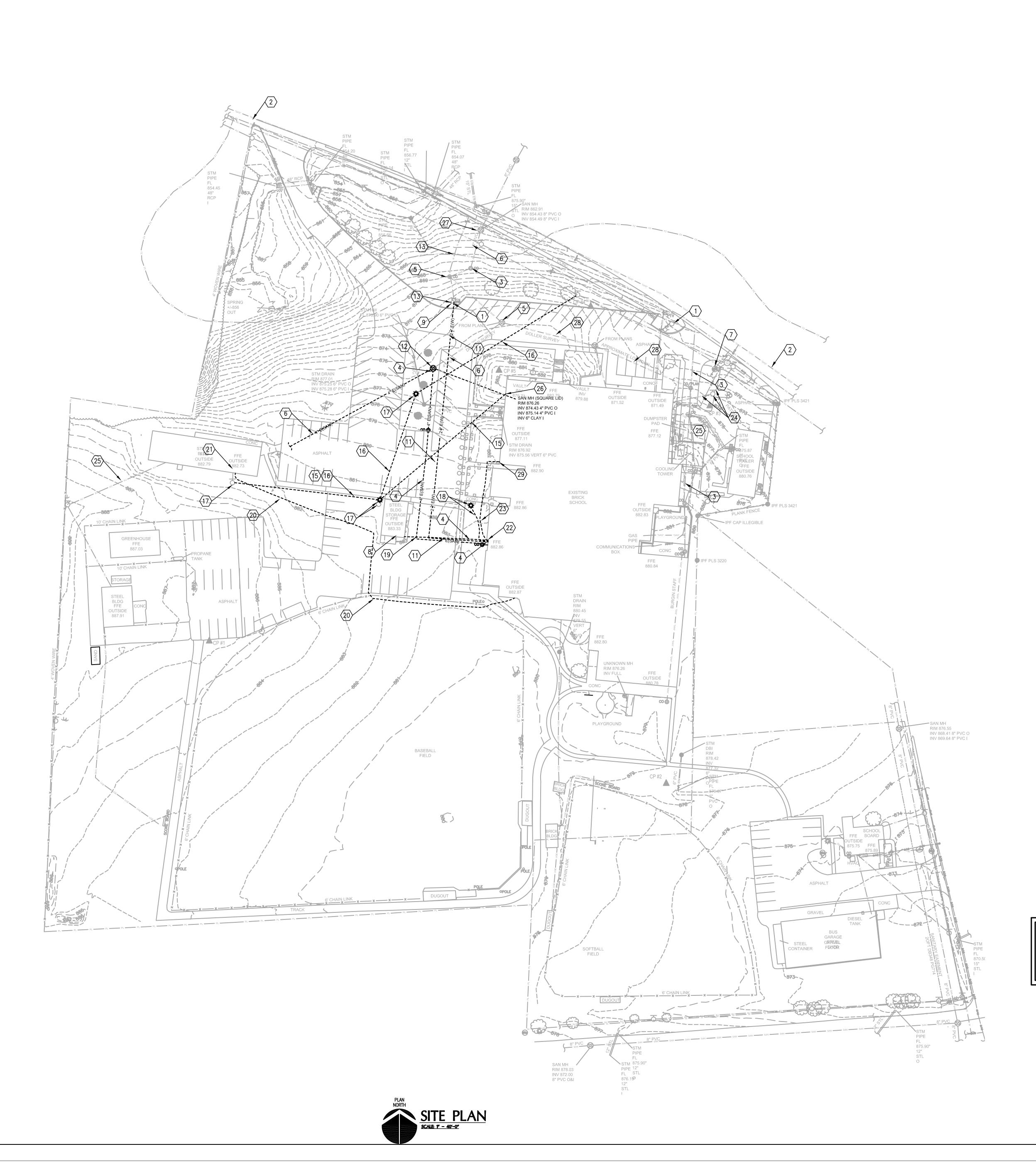
system to be provided and installed by É.D.S. manufacturer.



WIRING CONNECTIONS MUST BE MADE IN A JUNCTION BOX OUTSIDE OF THE FIRE SYSTEM CABINET
-REGULATED RELEASE MECHANISM

FAI	١	HOOD SERVED		ROOF OPENING		YPE	WH SIZ		SONES	CFM		ATIC ESS	WE	IGHT	ΗP	VOLTAGE PHASE				
EF-	1	H-1, H-	2 30"	30"X30"		AUST	JST 22		22"		15.5	4,470	1.0"		" 13		138		2.0	208/60/
S-	1	H—1, H—	2 36"	×36"	SUF	PLY	15		21.0	3,576	1.	.5"	2	94	2.0	208/60,				
FURNA	ACE	TYPE	INF B.T			ITROL CUIT	WEI	GHT												
F-'	1	DIRECT	264,	250	120	/60/1	1:	58												
									J											
HOOD ITEM	но	OD SIZE	HOOD WEIGHT			EXHAI DUCT			EXHAUST CT VELOCITY	EXHAI S.P		SUPP CFN			LY AIF I SIZE	SUPPL				
H-1	9'3	5"X5'0"	275	2,2	235	13"X14"			1,768	.625	."	(3)59	<del>9</del> 6	(3)12	" DIA.	75				
H-2	9'3	5"X5'0"	275	2,2	235	13"X14"			1,768	.625"		(3)59	<del>9</del> 6	(3)12	" DIA.	75				
SYS	STE	м тот	ALS													By: JSA				
								1 470			_					Revision:				
EXHAUSTED AIR							4,470													
TEMPE	RED	SUPPLY /	AIR					3,576												
RETURN AIR THRU BUILDING SOURCES							894													
																Date Dra				

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1. EXISTING FIRE HYDRANT SHALL REMAIN.

TAGGED NOTES

GENERAL UTILITY NOTES:

2. WATER AND GAS PIPING IN THIS AREA SHALL REMAIN.

A. THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE DRAWINGS ARE APPROXIMATE ONLY.

B. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY EXCAVATION WORK REQUIRED TO LOCATE UNDERGROUND UTILITIES. THE

AFFECTED UTILITY OWNERS PRIOR TO DIGGING. IN THE EVENT OF ACCIDENTAL INTERRUPTION OF SERVICE, CONTRACTOR WILL

EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER AND AROUND THE OTHER UTILITIES. THE UTILITY WILL BE

D. THE UTILITY WILL PROVIDE STAKING DATA INCLUDING NORTHING AND EASTING DATA AS REQUIRED OR SHOWN ON DRAWINGS.

E. REATTACH ALL TAPS AND TRANSFORMERS AS TO MAINTAIN EXISTING PHASE CONNECTIONS.

F. CONTRACTOR RESPONSIBLE FOR MAINTAINING DOWNSTREAM

SERVICE FROM REMOVED EQUIPMENT ON SITE. INCLUDING BUT NOT LIMITED TO SITE LIGHTING, TRANSFORMERS, ETC.

CONTRACTOR IS ALSO REQUIRED TO NOTIFY ANY OTHER

C. THE CONTRACTOR WILL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD OTHER EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE

IMMEDIATELY NOTIFY THE OTHER UTILITY OWNERS.

REQUIRED TO FURNISH SUCH EQUIPMENT.

- 3. EXISTING WATER LINE SHALL REMAIN. 4. EXISTING SEWER LATERAL SHALL BE REMOVED.
- 5. EXISTING MANHOLE SHALL BE REMOVED.
- 6. EXISTING SANITARY SEWER LINE SHALL BE REMOVED.
- 7. EXISTING WATER METER SHALL REMAIN.
- 8. EXISTING UTILITIES TO BUILDING SHALL BE CAPPED AND ABANDONED IN PLACE.
- 9. REMOVE EXISTING WATER METER AND WATER METER SETTING.
- 10. EXISTING WATER METER AND VALVES SHALL REMAIN.
- 11. CAP EXISTING WATER LINE AND REMOVE BACK TO EXISTING
- METER.
- 12. REMOVE EXISTING MANHOLE. FIELD VERIFY EXACT LOCATION.
- 13. CAP EXISTING WATER LINE BACK TO MAIN AND REMOVE WATER LINE. FIELD VERIFY EXACT LOCATION AND DEPTH.
- 14. REMOVE EXISTING SANITARY CLEAN-OUT AND REPLACE WITH NEW MANHOLE. REFER TO SHEET UM3.0.
- 15. DEMOLISH AERIAL FIBER OPTIC CABLE. REFER TO UE1.0 FOR NEW UNDERGROUND FIBER OPTIC CABLE PATHWAY AND CABLE.
- 16. AERIAL CONDUCTORS FOR SITE LIGHTING TO BE DEMOLISHED BY KENTUCKY UTILITIES. COORDINATE WORK WITH UTILITY COMPANY.
- 17. WOODEN LIGHT POLE AND ASSOCIATED LIGHT FIXTURE TO BE DEMOLISHED BY KENTUCKY UTILITIES. COORDINATE WORK WITH UTILITY COMPANY.
- 18. DEMOLISH LIGHT POLE, LIGHT FIXTURE, AND ASSOCIATED UNDERGROUND CONDUIT AND CONDUCTORS BACK TO SOURCE.
- 19. DEMOLISH UNDERGROUND CONDUIT AND CONDUCTORS SERVING PANELBOARD IN STORAGE BUILDING BACK TO SOURCE.
- 20. ABANDON DIRECT BURY TELEPHONE CABLE IN PLACE. REFER TO UE1.0 FOR NEW UNDERGROUND TELEPHONE PATHWAY AND CABLE.
- 21. DEMOLISH WEATHERHEAD FOR FIBER OPTIC CABLING. REMOVE CONDUIT TO WITHIN 6" OF ROOF, PROVIDE CAP, FILL REMAINING CONDUIT WITH INSULATION, AND ENSURE A WEATHERTIGHT SEAL.
- 22. PATCH AND SEAL ALL ABANDONED PENETRATIONS DUE TO DEMOLISHED UTILITIES.
- 23. DEMOLISH THE EXPOSED EXTERIOR AND UNDERGROUND PORTIONS OF CONDUIT AND CONDUCTORS SERVING PANEL G. UNDERGROUND. INTERIOR CONDUIT AND CONDUCTORS TO REMAIN TO BE SPLICED INTO NEW UNDERGROUND FEEDER. REFER TO UE1.0, E2.0 AND E4.0 SHEETS FOR ADDITIONAL INFORMATION.
- 24. EXISTING ELECTRICAL 3-PHASE OVERHEAD SERVICE ENTRANCE TO REMAIN.
- 25. ALL UNDERGREOUND ELECTRICAL UTILITIES IN THIS AREA ARE TO
- REMAIN.
- 26. DEMOLISH ALL EXPOSED CONDUIT AND ENCLOSURE FOR FIBER OPTIC CABLING. PATCH AND SEAL PENETRATION WEATHERTIGHT.
- 27. EXISTING MANHOLE SHALL REMAIN.
- 28. EXISTING SANITARY SEWER LINE AND SYSTEM SHALL REMAIN.
- 29. MAINTAIN A PORTION OF UNDERGROUND CONDUIT TO TIE INTO FOR NEW PANEL FEEDER.

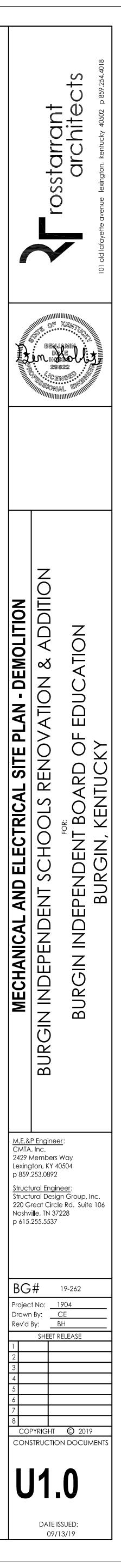
SITE UTILITIES LEGEND							
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B	MANHOLE	○ мн					
<b>♦</b> fh	FIRE HYDRANT	ĸ					
	EXTERIOR CLEANOUT	• ECO					
•	WATER VALVE	$\otimes$					
٢	GAS VALVE	$\otimes$					

### BEFORE YOU DIG

THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL CONTACT "BUD (BEFORE YOU DIG)" AT 1-800-752-6007 TO OBTAIN UNDERGROUND UTILITY LOCATIONS PRIOR TO ANY CONSTRUCTION. ANY CONTRACTOR OR SUBCONTRACTOR PERFORMING ANY TYPE OF EXCAVATION ON THIS PROJECT SHALL CALL "BUD" TO OBTAIN AN AUTHORIZATION NUMBER.

#### DESIGNER NOTE FOR 50% CD REVIEW BY CONSTRUCTION MANAGER:

PLEASE NOTE THAT THESE PLANS ARE PRELIMINARY. RECENT SITE INVESTIGATION HAS REVEALED INCONSISTENCIES WITH THE SITE SURVEY INFORMATION INITIALLY RECEIVED. SITE UTILITY ROUTINGS ANTICIPATED TO CHANGE SIGNIFICANTLY FROM THAT CURRENTLY SHOWN. PLEASE REFER TO REVISED PLANS FORTHCOMING AT 1/24/2018 EARLY SITE UTILITY PACKAGE REVIEW MEETING.



	REVIS	SIONS
#	DATE	DESCRIPTION



GENERAL NOTES:

- A. DO NOT SCALE FROM MECHANICAL AND ELECTRICAL DRAWINGS. FIELD VERIFY REQUIRED DIMENSIONS. B. CONTRACTOR SHALL CUT AND PATCH ALL PAVEMENT, CURBING, ETC. AS REQUIRED. FOR WORK. CONTRACTOR SHALL REPAIR ALL
- LANDSCAPING THAT IS DAMAGED FOR WORK. C. FEDERAL, STATE, LOCAL, MUNICIPALITY AND UTILITY COMPANY CODES, RULES, REGULATIONS AND REQUIREMENTS APPLY UNLESS
- D. WHEN INTERRUPTION OF AN EXISTING UTILITY OR SERVICES IS PLANNED OR OCCURS ACCIDENTALLY, THE CONTRACTOR(S) SHALL WORK CONTINUOUSLY AS NEEDED TO RESTORE SAME PROVIDING PREMIUM TIME AS NEEDED AT NO INCREASE IN THE CONTRACT PRICE.
- E. PLANNED INTERRUPTION OF ANY SERVICE SHALL BE COORDINATED WITH THE APPROPRIATE MUNICIPALITY OR UTILITY COMPANY, THE ARCHITECT AND THE BUILDING OPERATORS AT LEAST ONE WEEK IN ADVANCE OR ANTICIPATED INTERRUPTION. A SCHEDULE FOR THESE OUTAGES SHALL BE DEVELOPED AND AGREED UPON BETWEEN THE PARTIES MENTIONED TO AVOID UNNECESSARY INCONVENIENCE TO THE OWNER OR ANY AFFECTED PARTY. NOTIFY THE UTILITY COMPANY OF ANY ANTICIPATED SERVICES REQUIRED FROM THEM AT LEAST TWO WEEKS IN ADVANCE IN
- F. LOCATIONS, DEPTHS, MATERIAL TYPES, ELEVATIONS, ETC. OF ALL APPURTENANCES, LINES, BUILDINGS, ETC. INDICATED ON THESE DRAWINGS WERE TAKE FROM VARIOUS SOURCES, ARE DIAGRAMMATIC ONLY AND ARE SUBJECT TO SUBSTANTIAL VARIATION FROM EXISTING CONDITIONS. EXISTING UTILITIES LOCATIONS MAY VARY (CONSEQUENTLY ALL CONTRACTORS SHALL EXERCISE EXTREME CARE IN THE COURSE OF THEIR WORK SO AS INSURE THAT THEY DO NOT INTERRUPT ANY EXISTING SERVICE. FOR SAFETY PURPOSES, PAY PARTICULAR ATTENTION TO THIS PRECAUTION RELATIVE TO NATURAL GAS AND ELECTRICAL LINES. ALL WORK SHALL BE PERFORMED IN ACCORD WITH ALL FEDERAL, STATE, AND/OR LOCAL RULES, REGULATIONS, STANDARDS AND SAFETY REQUIREMENTS. UTILITIES SHALL ALSO BE INSTALLED IN ACCORD WITH THE APPLICABLE MUNICIPALITY OR UTILITY COMPANY STANDARDS. IN ALL CASES, THE MOST STRINGENT REQUIREMENT SHALL APPLY. IF ANY VARIATION OCCURS, CONSULT THE BUILDING ENGINEER AND THE MECHANICAL ENGINEER'S REPRESENTATIVE. CONTRACTOR SHALL VISIT SITE AND FIELD VERIFY THE ROUTING OF ALL UTILITIES NEW AND EXISTING PRIOR TO SUBMISSION OF BIDS. SUBMISSION OF A BID PROPOSAL INDICATES THAT THE CONTRACTOR IS FULLY AWARE OF ALL OBSTRUCTIONS AND WILL INSTALL ALL OF THE NEW UTILITIES
- G. CONTRACTOR SHALL PATCH AND REPAIR ALL LANDSCAPING THAT IS DISTURBED BY WORK OCCURRING IN THIS PROJECT AS
- H. THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE DRAWINGS ARE APPROXIMATE ONLY.
- I. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY EXCAVATION WORK REQUIRED TO LOCATE UNDERGROUND UTILITIES. THE CONTRACTOR IS ALSO REQUIRED TO NOTIFY ANY OTHER AFFECTED UTILITY OWNERS PRIOR TO DIGGING. IN THE EVENT OF ACCIDENTAL INTERRUPTION OF SERVICE, CONTRACTOR WILL IMMEDIATELY NOTIFY THE OTHER UTILITY OWNERS.
- J. THE CONTRACTOR WILL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD OTHER EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER AND AROUND THE OTHER UTILITIES. THE UTILITY WILL BE REQUIRED TO FURNISH SUCH EQUIPMENT.
- K. CONTRACTOR SHALL PAY ALL TAP FEES, UTILITY COST, UTILITY CONNECTION COSTS, METER FEES, EXTENSION AND DEVELOPMENT CHARGES. REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- L. CONTRACTOR SHALL COORDINATE LOCATION OF ALL UNDERGROUND WATER LINES, GAS LINES, SANITARY LINES, SEWER LINES, VAULTS, ETC., WITH ELECTRICAL PULL BOXES, CONDUITS, POLE BASES ETC. SPECIFICALLY COORDINATE PLACEMENT OF CHILLED WATER PIPING IN PARKING LOTS WITH POLE BASE LOCATIONS AND NOTIFY A/E IF CONFLICTS ARISE.
- M. WATER LINES, FORCE MAIN AND GAS LINES SHALL BE INSTALL 36" DEEP MINIMUM.

- CONNECT TO EXISTING WATER MAIN. FIELD VERIFY EXACT - 3. LOCATION AND DEPTH. 4. 1500 GALLON GREASE TRAP 10'X5'X5'WIDE. REFER TO DETAIL.. EXISTING WATER METER AND FIRE PROTECTION VAULT SHALL
- REMAIN

1. NEW FIRE HYDRANT. REFER TO DETAIL.

ORDERING MANHOLE.

TAGGED NOTES

- NEW DOMESTIC WATER METER AND FIRE PROTECTION VAULT. REFER TO DETAIL.
- FIELD VERIFY EXACT LOCATION AND DEPTH.
- FLOOR ELEVATION. REFER TO SITE UTILITIES PLAN FOR CONTINUATION.
- 4" SANITARY INVERT ELEVATION 5'-0" BELOW FINISHED FLOOR
- ELEVATION.
- FLOOR ELEVATION.
- 11. CONNECT TO EXISTING SANITARY SEWER MAIN IF ALTERNATE #1 IS ACCEPTED.
- 12. 4" SANITARY INVERT ELEVATION 2'-6" BELOW FINISHED FLOOR ELEVATION. REFER TO SHEET P3.1.

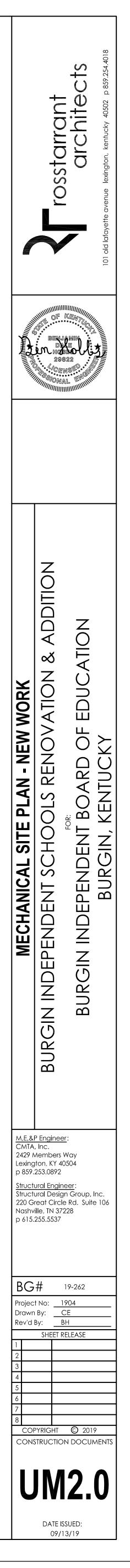
SITE UTILITIES LEGEND	
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	WIRE MANHOLE FIRE HYDRANT EXTERIOR CLEANOUT WATER VALVE

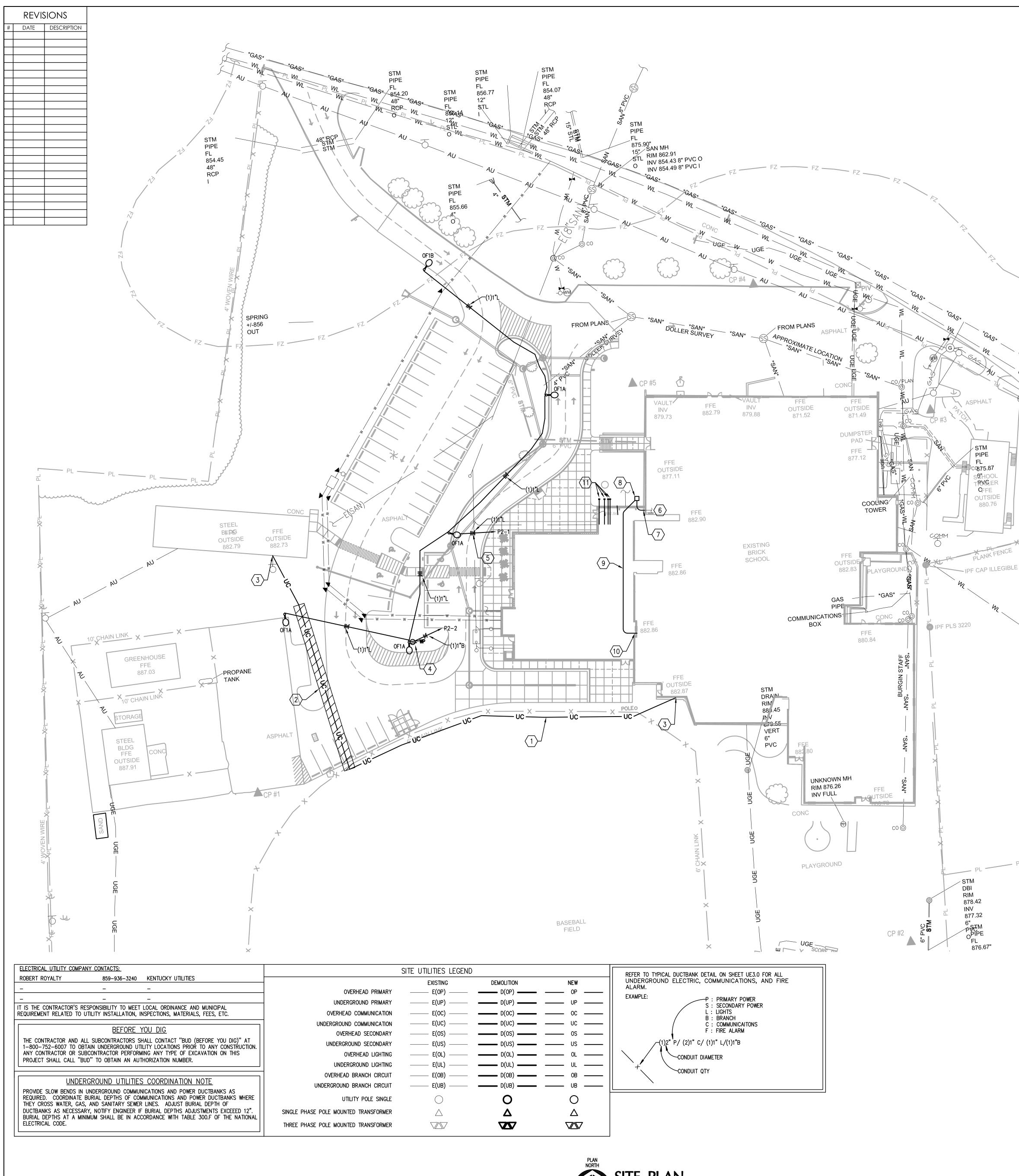
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REMOVE EXISTING SANITARY CLEAN-OUT AND INSTALL NEW MANHOLE. FIELD VERIFY ALL CONNECTION AND DEPTHS BEFORE CONNECT EXISTING 4" SANITARY LINE TO NEW SANITARY LINE. 6" ROOF LEADER. INVERT ELEVATION 2'-6" BELOW FINISHED 10. 4" GREASE WASTE INVERT ELEVATION 3'-6" BELOW FINISHED







- GENERAL NOTES: A. DO NOT SCALE FROM MECHANICAL AND ELECTRICAL DRAWINGS. FIELD VERIFY REQUIRED DIMENSIONS.
- B. CONTRACTOR SHALL CUT AND PATCH ALL PAVEMENT, CURBING, etc. AS REQUIRED FOR WORK. CONTRACTOR SHALL REPAIR ALL LANDSCAPING THAT IS DAMAGED FOR WORK.
- C. FEDERAL, STATE, LOCAL, MUNICIPALITY AND UTILITY COMPANY CODES, RULES, REGULATIONS AND REQUIREMENTS APPLY UNLESS EXCEEDED BY THIS DESIGN.
- D. WHEN INTERRUPTION OF AN EXISTING UTILITY OR SERVICES IS PLANNED OR OCCURS ACCIDENTALLY, THE CONTRACTOR(S) SHALL WORK CONTINUOUSLY AS NEEDED TO RESTORE SAME PROVIDING PREMIUM TIME AS NEEDED AT NO INCREASE IN THE CONTRACT PRICE.
- E. PLANNED INTERRUPTION OF ANY SERVICE SHALL BE COORDINATED WITH THE APPROPRIATE MUNICIPALITY OR UTILITY COMPANY, THE ARCHITECT AND THE BUILDING OPERATORS AT LEAST ONE WEEK IN ADVANCE OF ANTICIPATED INTERRUPTION. A SCHEDULE FOR THESE OUTAGES SHALL BE DEVELOPED AND AGREED UPON BETWEEN THE PARTIES MENTIONED TO AVOID UNNECESSARY INCONVENIENCE TO THE OWNER OR ANY AFFECTED PARTY. NOTIFY THE UTILITY COMPANY OF ANY ANTICIPATED SERVICES REQUIRED FROM THEM AT LEAST TWO WEEKS IN ADVANCE IN WRITING AND INSURE THAT THEY DO NOT DELAY WORK.
- F. LOCATIONS, DEPTHS, MATERIAL TYPES, ELEVATIONS, ETC. OF ALL APPURTENANCES, LINES, BUILDINGS, ETC. INDICATED ON THESE DRAWINGS WERE TAKEN FROM VARIOUS SOURCES, ARE DIAGRAMMATIC ONLY AND ARE SUBJECT TO SUBSTANTIAL VARIATION FROM EXISTING CONDITIONS. EXISTING UTILITIES LOCATIONS MAY VARY (CONSEQUENTLY ALL CONTRACTORS SHALL EXERCISE EXTREME CARE IN THE COURSE OF THEIR WORK SO AS INSURE THAT THEY DO NOT INTERRUPT ANY EXISTING SERVICE. FOR SAFETY PURPOSES, PAY PARTICULAR ATTENTION TO THIS PRECAUTION RELATIVE TO NATURAL GAS AND ELECTRICAL LINES. ALL WORK SHALL BE PERFORMED IN ACCORD WITH ALL FEDERAL, STATE, AND/OR LOCAL RULES, REGULATIONS, STANDARDS AND SAFETY REQUIREMENTS. UTILITIES SHALL ALSO BE INSTALLED IN ACCORD WITH THE APPLICABLE MUNICIPALITY OR UTILITY COMPANY STANDARDS. IN ALL CASES, THE MOST STRINGENT REQUIREMENT SHALL APPLY. IF ANY VARIATION OCCURS, CONSULT THE BUILDING ENGINEER AND THE MECHANICAL ENGINEER'S REPRESENTATIVE). CONTRACTOR SHALL VISIT SITE AND FIELD VERIFY THE ROUTING OF ALL UTILITIES NEW AND EXISTING PRIOR TO SUBMISSION OF BIDS. SUBMISSION OF A BID PROPOSAL INDICATES THAT THE CONTRACTOR IS FULLY AWARE OF ALL OBSTRUCTIONS AND WILL INSTALL ALL OF THE NEW UTILITIES WITHOUT REQUESTS FOR ANY ADDITIONAL CHANGES.
- G. CONTRACTOR SHALL REFER TO CIVIL PLANS FOR COORDINATION WITH OTHER UTILITIES. H. COORDINATE ELEVATION AND LOCATION OF ALL CONDUITS ENTERING BUILDING WITH STRUCTURAL FOUNDATION. CONDUIT SHALL PASS THROUGH STEM WALL OF FOUNDATION OR UNDER FOOTING AS REQUIRED.
- I. THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE DRAWINGS ARE APPROXIMATE ONLY. J. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY EXCAVATION WORK REQUIRED TO LOCATE UNDERGROUND UTILITIES. THE CONTRACTOR IS ALSO REQUIRED TO NOTIFY ANY OTHER AFFECTED UTILITY OWNERS PRIOR TO DIGGING. IN THE EVENT OF ACCIDENTAL INTERRUPTION OF SERVICE, CONTRACTOR WILL IMMEDIATELY NOTIFY THE OTHER UTILITY OWNERS.
- K. THE UTILITY/CONTRACTOR WILL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD OTHER EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER AND AROUND THE OTHER UTILITIES. THE UTILITY WILL BE REQUIRED TO FURNISH SUCH EQUIPMENT.
- L. THE UTILITY WILL PROVIDE STAKING DATA INCLUDING NORTHING AND EASTING DATA AS REQUIRED OR SHOWN ON DRAWINGS.
- M. COORDINATE UNDERGROUND ELECTRICAL WITH ALL LANDSCAPING AND FENCING, ADJUST ELECTRICAL LINES TO AVOID CONFLICTS. REFER TO LANDSCAPING PLANS FOR FUTHER INFORMATION.
- N. REFER TO STRUCTURAL AND ARCHITECTURAL DRAWING FOR FOOTER SYSTEM LOCATIONS. CONTRACTOR SHALL AVOID INSTALLING UNDERGROUND CONDUITS THROUGH FOOTER SYSTEM. O. COORDINATE INSTALLATION OF PULL BOXES, POLE BASES, ETC, WITH GRADING PLANS TO ENSURE PROPER
- MOUNTING ELEVATIONS. P. UNDERGROUND PRIMARY AND COMMUNICATIONS DUCTBANK SHALL MAINTAIN A MINIMUM SEPARATION OF 10' FROM
- WATER, SANITARY, AND GAS LINES. Q. CONTRACTOR SHALL COORDINATE LOCATION OF ALL UNDERGROUND GEOTHERMAL PIPING, WATER LINES, GAS LINES, SANITARY LINES, SEWER LINES, VAULTS, ETC., WITH ELECTRICAL PULL BOXES, CONDUITS, POLE BASES ETC. SPECIFICALLY COORDINATE PLACEMENT OF GEOTHERMAL PIPING IN PARKING LOTS WITH POLE BASE LOCATIONS AND NOTIFY A/E IF CONFLICTS ARISE. CONTRACTOR SHALL ADJUST ROUTING OF ELECTRICAL CONDUITS TO AVOID GEOTHERMAL PIPING ROUTES AND VAULTS IN THE PARKING AREAS.
- R. CONTRACTOR SHALL REFERENCE SHEET S2.1 FOR COORDINATION BETWEEN UNDERGROUND CONDUIT AND STRUCTURAL. S. CONTRACTOR SHALL REFERENCE SHEET SD1.1 BORING AND SOUNDINGS PLAN IN COORDINATING DUCTBANKS AND ROCK EXCAVATION.

TAGGED NOTES:

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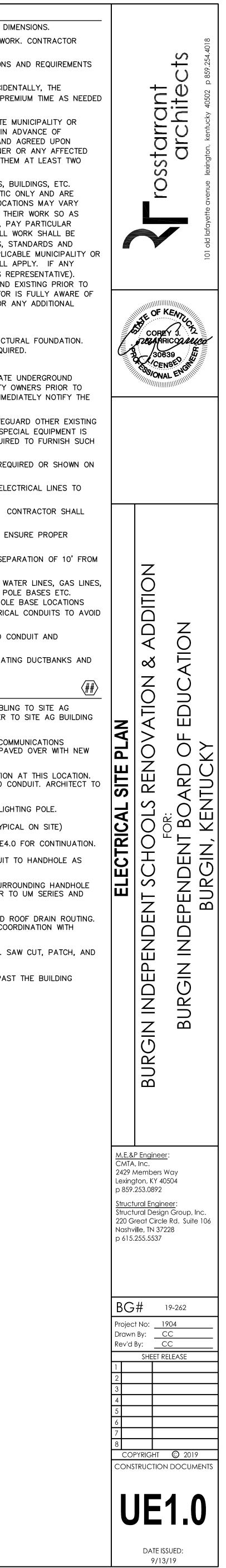
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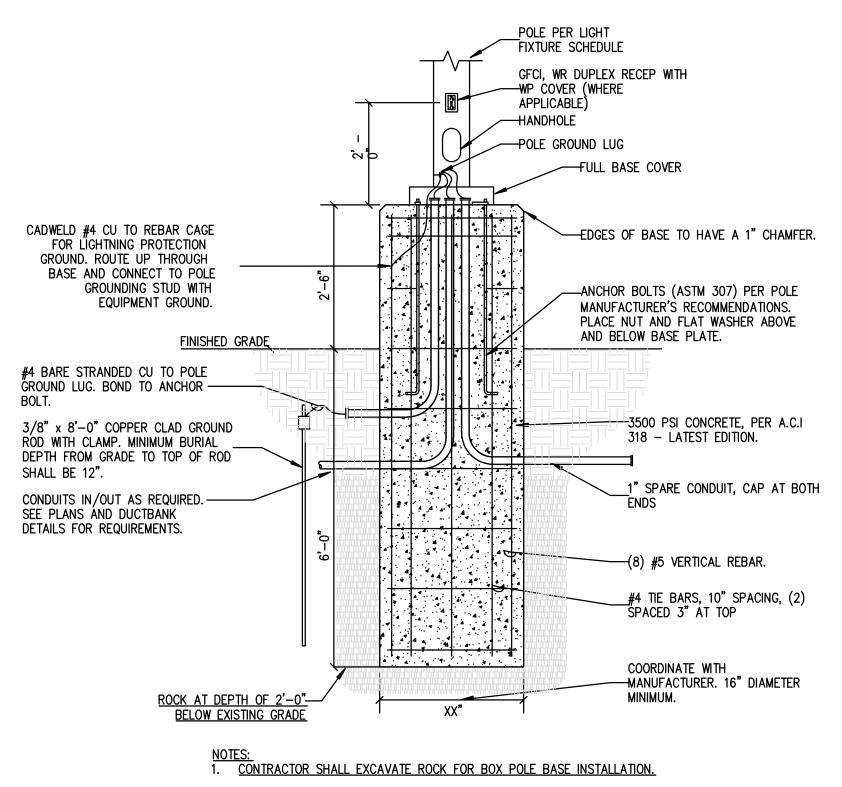
- 1. PROVIDE 12 STRAND MULTIMODE FIBER OPTIC CABLING AND 25 PAIR COPPER PHONE CABLING TO SITE AG BUILDING. COMPLETE INSTALLATION WITHIN ONE (1) WEEK OF DEMOLITION OF AERIAL FIBER TO SITE AG BUILDING TO RESTORE PHONE AND NETWORK OPERATION.
- 2. CONTRACTOR SHALL CUT TRENCH THROUGH EXISTING ASPHALT IN THIS AREA FOR NEW COMMUNICATIONS DUCTBANK. PACK TRENCH WITH GRAVEL FOR USE DURING CONSTRUCTION. AREA TO BE PAVED OVER WITH NEW PARKING LOT SURFACE AT END OF PROJECT.
- 3. PROVIDE RIGID GALVANIZED CONDUIT ABOVE GRADE. REUSE EXISTING BUILDING PENETRATION AT THIS LOCATION. RESEAL PENETRATION TO ENSURE FINAL INSTALLATION IS WEATHERTIGHT. PAINT EXPOSED CONDUIT. ARCHITECT TO SELECT COLOR.
- 4. PROVIDE HEAVY DUTY LOCKABLE WHILE-IN-USE COVER FOR RECEPTACLE INSTALLED IN LIGHTING POLE.
- 5. PROVIDE COPPER REDUCING LUGS ON WIRE AS REQUIRED TO TERMINATE TO DEVICES. (TYPICAL ON SITE)
- 6. EXACT CONDUIT ROUTING UNDER BUILDING FOOTPRINT IS NOT KNOWN. REFER TO SHEET E4.0 FOR CONTINUATION.
- 7. INTERCEPT EXISTING UNDERGROUND CONDUIT SERVING PANEL G AND EXTEND NEW CONDUIT TO HANDHOLE AS SHOWN.
- 8. PROVIDE NEW HANDHOLE SIZED AS REQUIRED PER NEC. EXCAVATE PORTION OF ROCK SURROUNDING HANDHOLE TO ROUTE CONDUITS UP THROUGH BASE. REFER TO UE2.0 FOR HANDHOLE DETAIL. REFER TO UM SERIES AND PLUMBING DRAWINGS AND COORDINATE WITH OTHER UTILITIES IN THIS AREA.
- 9. EXTEND NEW CONDUIT AS SHOWN TAKING CARE TO COORDINATE WITH NEW UNDERGROUND ROOF DRAIN ROUTING. REFER TO PLUMBING PLANS FOR NEW WORK IN THIS AREA. REFER TO SHEET S2.1 FOR COORDINATION WITH FOUNDATIONS AND FOOTINGS.
- 10. COORDINATE NEW UNDERGROUND CONDUIT INSTALLATION THROUGH EXISTING FOUNDATION. SAW CUT, PATCH, AND REPAIR INTERIOR CONCRETE SLAB.
- 11. PROVIDE THE FOLLOWING SPARE CONDUITS STUBBED OUT BELOW GRADE FIVE (5) FEET PAST THE BUILDING FOUNDATION, CAPPED AND SEALED WITH PULLSTRING: 11.1. ONE (1) 4" FROM SDB3.
- 11.2. ONE (1) 2" FROM SDB3. 11.3. FOUR (4) 1" FROM P1.

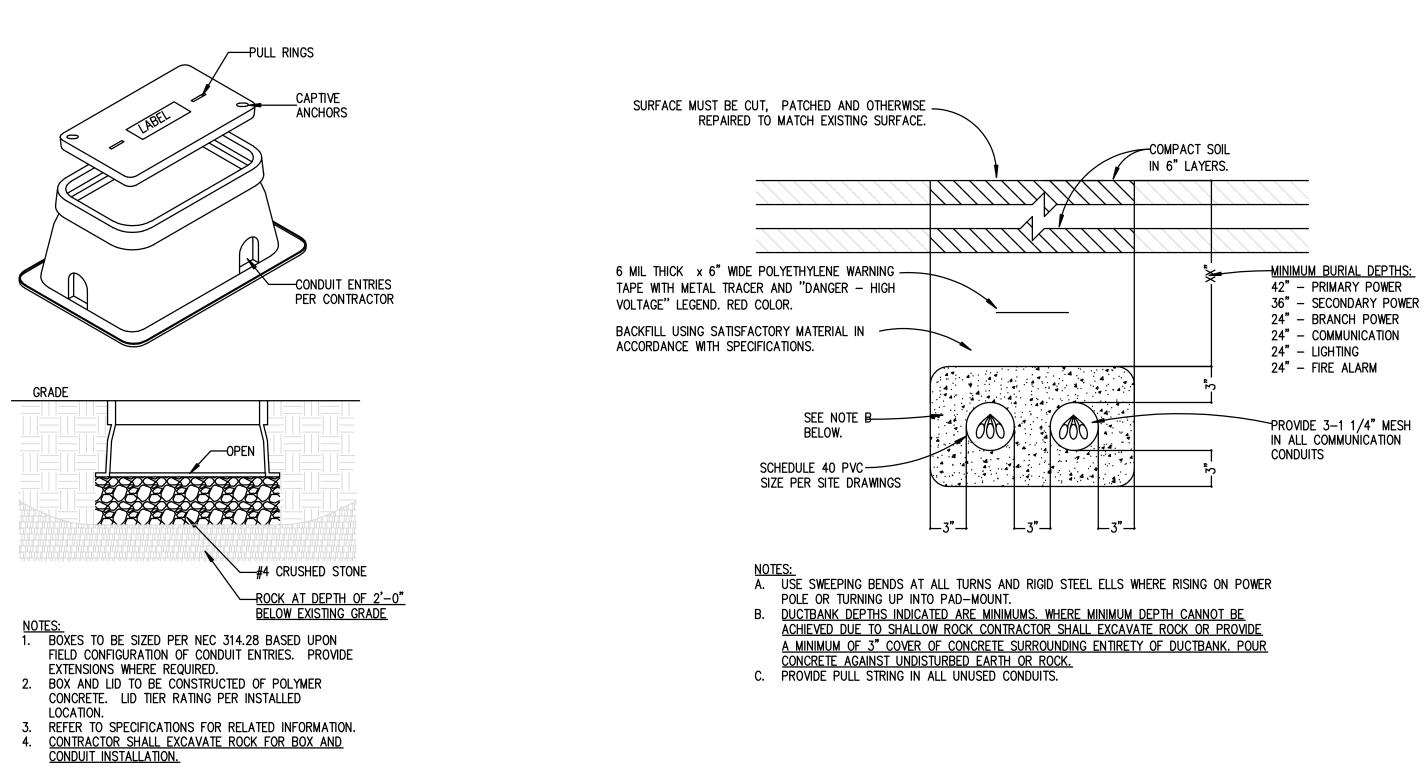
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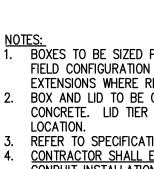
11.4. FOUR (4) 1" FROM P2. 11.5. ONE (1) 4" FROM IDF ROOM.



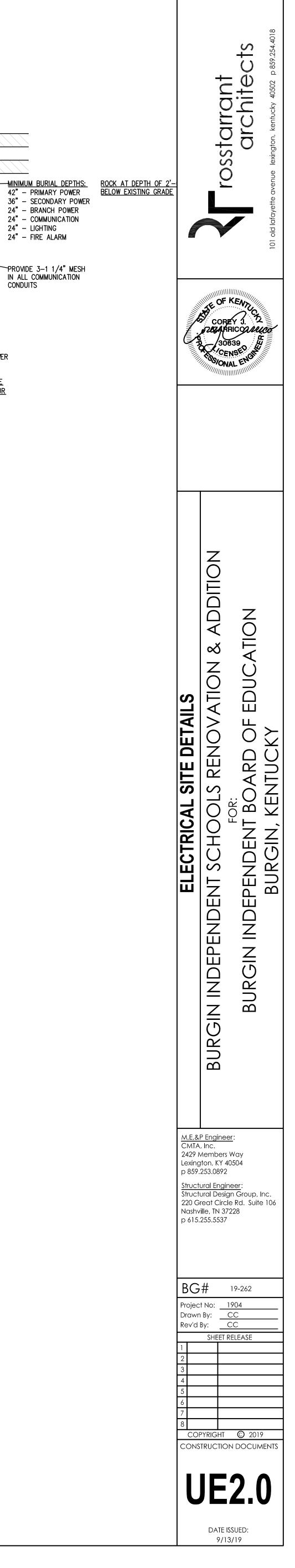
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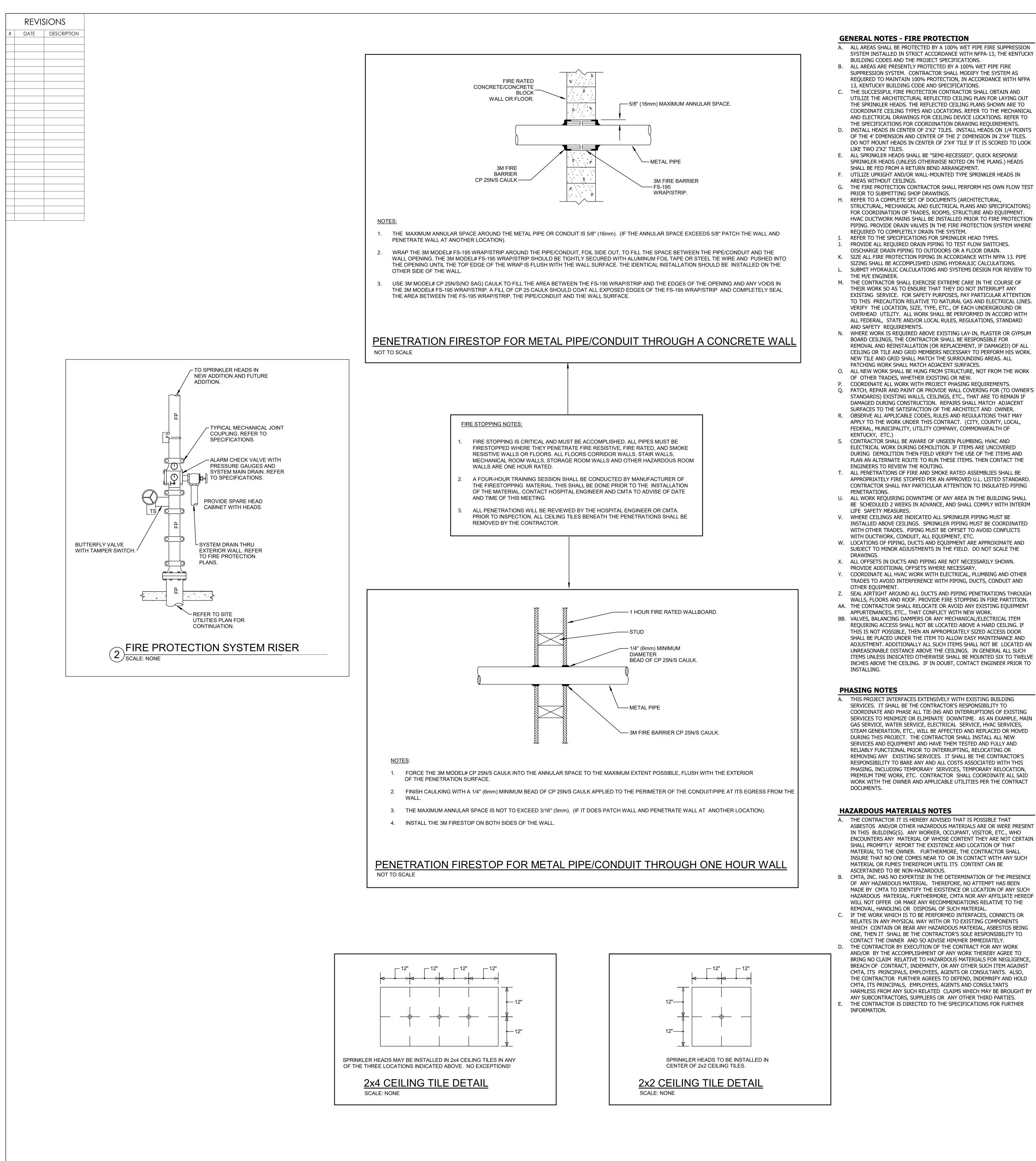


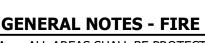




2. POLE BASE TO HAVE ARCHITECTURAL CONCRETE FINISH: PATCH ALL SURFACE VOIDS AND DEFECTS. REMOVE ALL FINS AND FORM MARKS COMPLETELY. PRODUCE FINISH ON NEWLY HARDENED CONCRETE NO LATER THAN THE DAY FOLLOWING FORMWORK REMOVAL. WET THE SURFACE AND RUB IT WITH CARBORUNDUM OR OTHER ABRASIVE UNTIL UNIFORM COLOR AND TEXTURE ARE PRODUCED. USE NO CEMENT GROUT OTHER THAN CEMENT PASTE DRAWN FROM THE CONCRETE ITSELF BY THE RUBBING PROCESS.







A. ALL AREAS SHALL BE PROTECTED BY A 100% WET PIPE FIRE SUPPRESSION

SUPPRESSION SYSTEM. CONTRACTOR SHALL MODIFY THE SYSTEM AS REQUIRED TO MAINTAIN 100% PROTECTION, IN ACCORDANCE WITH NFPA C. THE SUCCESSFUL FIRE PROTECTION CONTRACTOR SHALL OBTAIN AND UTILIZE THE ARCHITECTURAL REFLECTED CEILING PLAN FOR LAYING OUT THE SPRINKLER HEADS. THE REFLECTED CEILING PLANS SHOWN ARE TO COORDINATE CEILING TYPES AND LOCATIONS. REFER TO THE MECHANICAL AND ELECTRICAL DRAWINGS FOR CEILING DEVICE LOCATIONS. REFER TO THE SPECIFICATIONS FOR COORDINATION DRAWING REQUIREMENTS. D. INSTALL HEADS IN CENTER OF 2'X2' TILES. INSTALL HEADS ON 1/4 POINTS OF THE 4' DIMENSION AND CENTER OF THE 2' DIMENSION IN 2'X4' TILES. DO NOT MOUNT HEADS IN CENTER OF 2'X4' TILE IF IT IS SCORED TO LOOK

SPRINKLER HEADS (UNLESS OTHERWISE NOTED ON THE PLANS.) HEADS F. UTILIZE UPRIGHT AND/OR WALL-MOUNTED TYPE SPRINKLER HEADS IN

G. THE FIRE PROTECTION CONTRACTOR SHALL PERFORM HIS OWN FLOW TEST

STRUCTURAL, MECHANICAL AND ELECTRICAL PLANS AND SPECIFICAITONS) FOR COORDINATION OF TRADES, ROOMS, STRUCTURE AND EQUIPMENT. HVAC DUCTWORK MAINS SHALL BE INSTALLED PRIOR TO FIRE PROTECTION PIPING. PROVIDE DRAIN VALVES IN THE FIRE PROTECTION SYSTEM WHERE

SIZING SHALL BE ACCOMPLISHED USING HYDRAULIC CALCULATIONS. L. SUBMIT HYDRAULIC CALCULATIONS AND SYSTEMS DESIGN FOR REVIEW TO

THEIR WORK SO AS TO ENSURE THAT THEY DO NOT INTERRUPT ANY EXISTING SERVICE. FOR SAFETY PURPOSES, PAY PARTICULAR ATTENTION TO THIS PRECAUTION RELATIVE TO NATURAL GAS AND ELECTRICAL LINES. VERIFY THE LOCATION, SIZE, TYPE, ETC., OF EACH UNDERGROUND OR OVERHEAD UTILITY. ALL WORK SHALL BE PERFORMED IN ACCORD WITH

N. WHERE WORK IS REQUIRED ABOVE EXISTING LAY-IN, PLASTER OR GYPSUM BOARD CEILINGS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND REINSTALLATION (OR REPLACEMENT, IF DAMAGED) OF ALL CEILING OR TILE AND GRID MEMBERS NECESSARY TO PERFORM HIS WORK. NEW TILE AND GRID SHALL MATCH THE SURROUNDING AREAS. ALL

Q. PATCH, REPAIR AND PAINT OR PROVIDE WALL COVERING FOR (TO OWNER'S

DAMAGED DURING CONSTRUCTION. REPAIRS SHALL MATCH ADJACENT SURFACES TO THE SATISFACTION OF THE ARCHITECT AND OWNER. R. OBSERVE ALL APPLICABLE CODES, RULES AND REGULATIONS THAT MAY APPLY TO THE WORK UNDER THIS CONTRACT. (CITY, COUNTY, LOCAL, FEDERAL, MUNICIPALITY, UTILITY COMPANY, COMMONWEALTH OF

ELECTRICAL WORK DURING DEMOLITION. IF ITEMS ARE UNCOVERED DURING DEMOLITION THEN FIELD VERIFY THE USE OF THE ITEMS AND PLAN AN ALTERNATE ROUTE TO RUN THESE ITEMS. THEN CONTACT THE T. ALL PENETRATIONS OF FIRE AND SMOKE RATED ASSEMBLIES SHALL BE

CONTRACTOR SHALL PAY PARTICULAR ATTENTION TO INSULATED PIPING

BE SCHEDULED 2 WEEKS IN ADVANCE, AND SHALL COMPLY WITH INTERIM

WITH OTHER TRADES. PIPING MUST BE OFFSET TO AVOID CONFLICTS

SUBJECT TO MINOR ADJUSTMENTS IN THE FIELD. DO NOT SCALE THE

Y. COORDINATE ALL HVAC WORK WITH ELECTRICAL, PLUMBING AND OTHER

Z. SEAL AIRTIGHT AROUND ALL DUCTS AND PIPING PENETRATIONS THROUGH WALLS, FLOORS AND ROOF. PROVIDE FIRE STOPPING IN FIRE PARTITION. AA. THE CONTRACTOR SHALL RELOCATE OR AVOID ANY EXISTING EQUIPMENT BB. VALVES, BALANCING DAMPERS OR ANY MECHANICAL/ELECTRICAL ITEM REQUIRING ACCESS SHALL NOT BE LOCATED ABOVE A HARD CEILING. IF

ADJUSTMENT. ADDITIONALLY ALL SUCH ITEMS SHALL NOT BE LOCATED AN UNREASONABLE DISTANCE ABOVE THE CEILINGS. IN GENERAL ALL SUCH ITEMS UNLESS INDICATED OTHERWISE SHALL BE MOUNTED SIX TO TWELVE INCHES ABOVE THE CEILING. IF IN DOUBT, CONTACT ENGINEER PRIOR TO

SERVICES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE AND PHASE ALL TIE-INS AND INTERRUPTIONS OF EXISTING SERVICES TO MINIMIZE OR ELIMINATE DOWNTIME. AS AN EXAMPLE, MAIN GAS SERVICE, WATER SERVICE, ELECTRICAL SERVICE, HVAC SERVICES, STEAM GENERATION, ETC., WILL BE AFFECTED AND REPLACED OR MOVED DURING THIS PROJECT. THE CONTRACTOR SHALL INSTALL ALL NEW SERVICES AND EQUIPMENT AND HAVE THEM TESTED AND FULLY AND RELIABLY FUNCTIONAL PRIOR TO INTERRUPTING, RELOCATING OR REMOVING ANY EXISTING SERVICES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO BARE ANY AND ALL COSTS ASSOCIATED WITH THIS PHASING, INCLUDING TEMPORARY SERVICES, TEMPORARY RELOCATION, PREMIUM TIME WORK, ETC. CONTRACTOR SHALL COORDINATE ALL SAID

ASBESTOS AND/OR OTHER HAZARDOUS MATERIALS ARE OR WERE PRESENT IN THIS BUILDING(S). ANY WORKER, OCCUPANT, VISITOR, ETC., WHO ENCOUNTERS ANY MATERIAL OF WHOSE CONTENT THEY ARE NOT CERTAIN SHALL PROMPTLY REPORT THE EXISTENCE AND LOCATION OF THAT MATERIAL TO THE OWNER. FURTHERMORE, THE CONTRACTOR SHALL INSURE THAT NO ONE COMES NEAR TO OR IN CONTACT WITH ANY SUCH

B. CMTA, INC. HAS NO EXPERTISE IN THE DETERMINATION OF THE PRESENCE OF ANY HAZARDOUS MATERIAL. THEREFORE, NO ATTEMPT HAS BEEN MADE BY CMTA TO IDENTIFY THE EXISTENCE OR LOCATION OF ANY SUCH HAZARDOUS MATERIAL. FURTHERMORE, CMTA NOR ANY AFFILIATE HEREOF WILL NOT OFFER OR MAKE ANY RECOMMENDATIONS RELATIVE TO THE

C. IF THE WORK WHICH IS TO BE PERFORMED INTERFACES, CONNECTS OR RELATES IN ANY PHYSICAL WAY WITH OR TO EXISTING COMPONENTS WHICH CONTAIN OR BEAR ANY HAZARDOUS MATERIAL, ASBESTOS BEING ONE, THEN IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO CONTACT THE OWNER AND SO ADVISE HIM/HER IMMEDIATELY. D. THE CONTRACTOR BY EXECUTION OF THE CONTRACT FOR ANY WORK AND/OR BY THE ACCOMPLISHMENT OF ANY WORK THEREBY AGREE TO BRING NO CLAIM RELATIVE TO HAZARDOUS MATERIALS FOR NEGLIGENCE BREACH OF CONTRACT, INDEMNITY, OR ANY OTHER SUCH ITEM AGAINST CMTA, ITS PRINCIPALS, EMPLOYEES, AGENTS OR CONSULTANTS. ALSO, THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD CMTA, ITS PRINCIPALS, EMPLOYEES, AGENTS AND CONSULTANTS HARMLESS FROM ANY SUCH RELATED CLAIMS WHICH MAY BE BROUGHT BY

#### ABBREVIATIONS

ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
ANSI	AMERICAN NATIONAL STANDARD INSTITUTE
CLG	CEILING
CLR	CLEAR
DN	DOWN
ENGR	ENGINEER
EQ	EQUAL
ETR	EXISTING TO REMAIN
EXT	EXTERIOR
FVC	FIRE VALVE CABINET
FL	FLOOR
FLA	FULL LOAD AMPS
FOB	FLAT ON BOTTOM
FOT	FLAT ON TOP
FPC	FIRE PROTECTION CONTRACTOR
FT	FEET <b>OR</b> FOOT
FUT	FUTURE
GA	GAGE/GAUGE
GAL	GALLON (-S)
GC	GENERAL CONTRACTOR
HORIZ	HORIZONTAL
ID	I (-DENTIFICATION, -NSIDE DIAMETER, -NSIDE DIMENSION)
IN	INCH (-ES)
INT	INTER (-IOR, -ERVAL)
IPS	IRON PIPE SIZE
LBS	POUNDS
LF	LINEAR FEET/FOOT
MAX	MAXIMUM
MFG	MANUFACTURER
MIN	MIN (-IMUM, -UTE)
MISC	MISCELLANEOUS
MTG	MOUNTING
N/A	NOT APPLICABLE
NC	NOISE CRITERIA OR NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN <b>OR</b> NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DI (-AMETER, -MENSION)
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED, OWNER INSTALLED
PC	PLUMBING CONTRACTOR
PLBG	PLUMBING
PRV	PRESSURE REDUCING VALVE (STEAM, WATER, GAS)
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIG	PPSI GAUGE
SQ FT	SQUARE FEET <b>OR</b> FOOT
TBD	TO BE DETERMINED
	L

#### ABBREVIATIONS (CONTINUED)

TE	TOP ELEVATION
ТҮР	TYPICAL
UNO	UNLESS NOTED OTHERWISE
WT	WEIGHT
W/	WITH
W/O	WITHOUT
%	PERCENT
¢_	CENTERLINE

### **GENERAL SYMBOLS**

<b>(#)</b>	TAGGED NOTE DESIGNATOR
$\bigtriangleup$	REVISION TRIANGLE
ROOM NAME RM #	ROOM TAG
TAG XXX-# INSTANCE XXXX	EQUIPMENT TAG
•	POINT OF CONNECTION / CONNECT TO
<b>\$</b>	POINT OF DEMOLITION

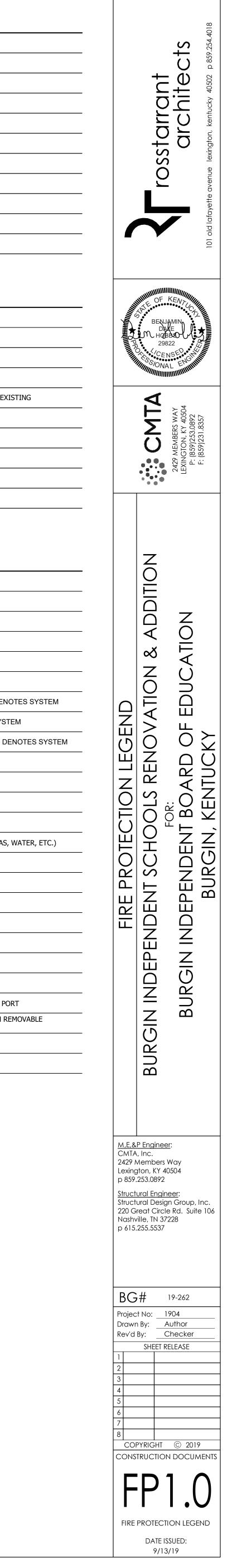
#### **MECHANICAL PIPING LEGEND** PIPE ELBOW TURNING UP —0 PIPE ELBOW TURNING DOWN _____ PIPE TEE; CONNECTION ON BOTTOM PIPE CAP -- D(XXX) --PIPING TO BE DEMOLISHED - (XXX) DENOTES SYSTEM —E(XXX)— EXISTING PIPING - (XXX) DENOTES SYSTEM ABANDONED IN PLACE PIPING - (XXX) DENOTES SYSTEM —A(XXX)— MANUAL ISOLATION VALVE PRESSURE REDUCING VALVE (STEAM, GAS, WATER, ETC.) - DOUBLE CHECK VALVE ASSEMBLY FLEXIBLE PIPE CONNECTION -----____∥⊢____ PIPING UNION _____**P**^{FS}____ FLOW SWITCH _____₽^{₽s}____ | PRESSURE SWTICH _____^{Ţ™} TAMPER SWITCH PETE'S PLUG; TEMPERATURE/PRESSURE PORT _____ SEMI-RECESSED SPRINKLER HEAD WITH REMOVABLE ESCUTCHEON PLATE UPRIGHT TYPE SPRINKLER HEAD SIDEWALL TYPE SPRINKLER HEAD

APPLICABLE BUILDING CODES		
APPLICABLE BUILDING CODES	DOCUMENT	YEAR
FIRE SPRINKLER CODE	NFPA 13	2018
INTERNATIONAL BUILDING CODE (IBC)	STATE EDITION	2018
INTERNATION FIRE CODE (IFC)	STATE EDITION	2018
INTERNATION MECHANICAL CODE (IMC)	STATE EDITION	2018
KENTUCKY PLUMBING CODE (KSPC)	STATE EDITION	2018
NATIONAL FIRE ALARM & SIGNALING CODE	NFPA 72	2010

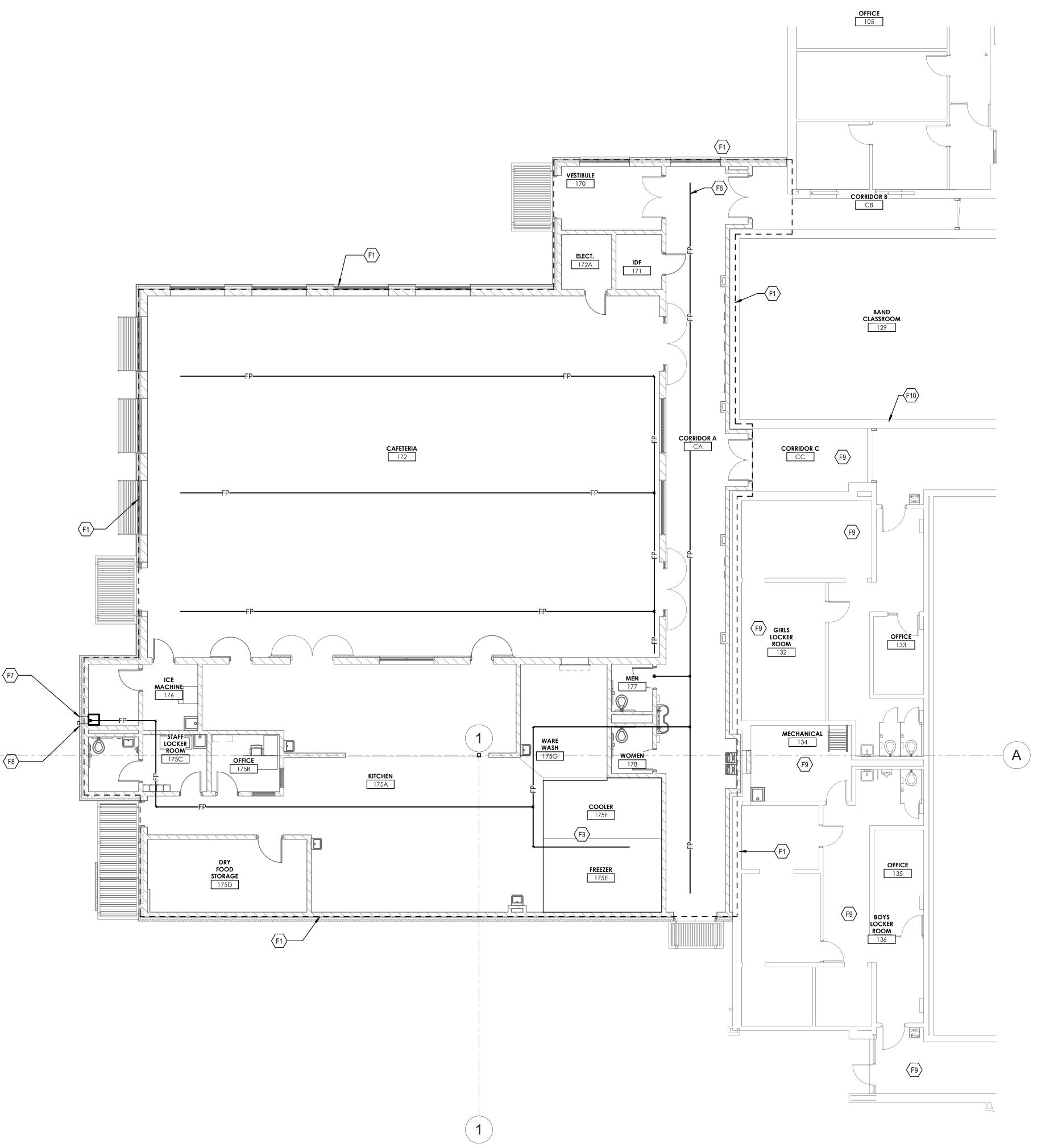
## FIRE PUMP FLOW DATA

STATIC PSI: 68 RESIDUAL PSI: 47 FLOW: 1095 GPM DURATION: CONTINUOUS DATE & TIME: JUNE 14, 2019 SOURCE OF WATER: CITY WATER MAIN SOURCE OF DATA: BROWN SPRINKLER HAZARD: LIGHT/ORD

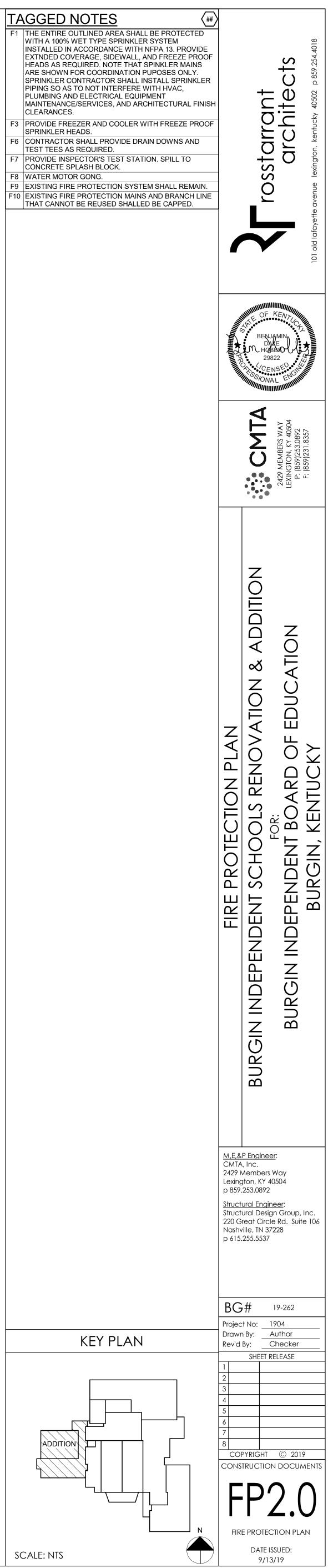
OCCUPANCY OF BUILDING: EDUCATION

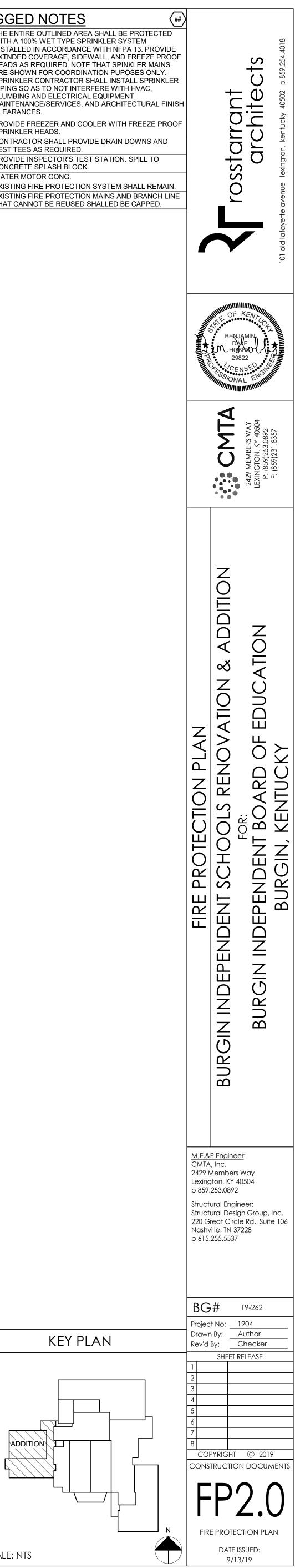


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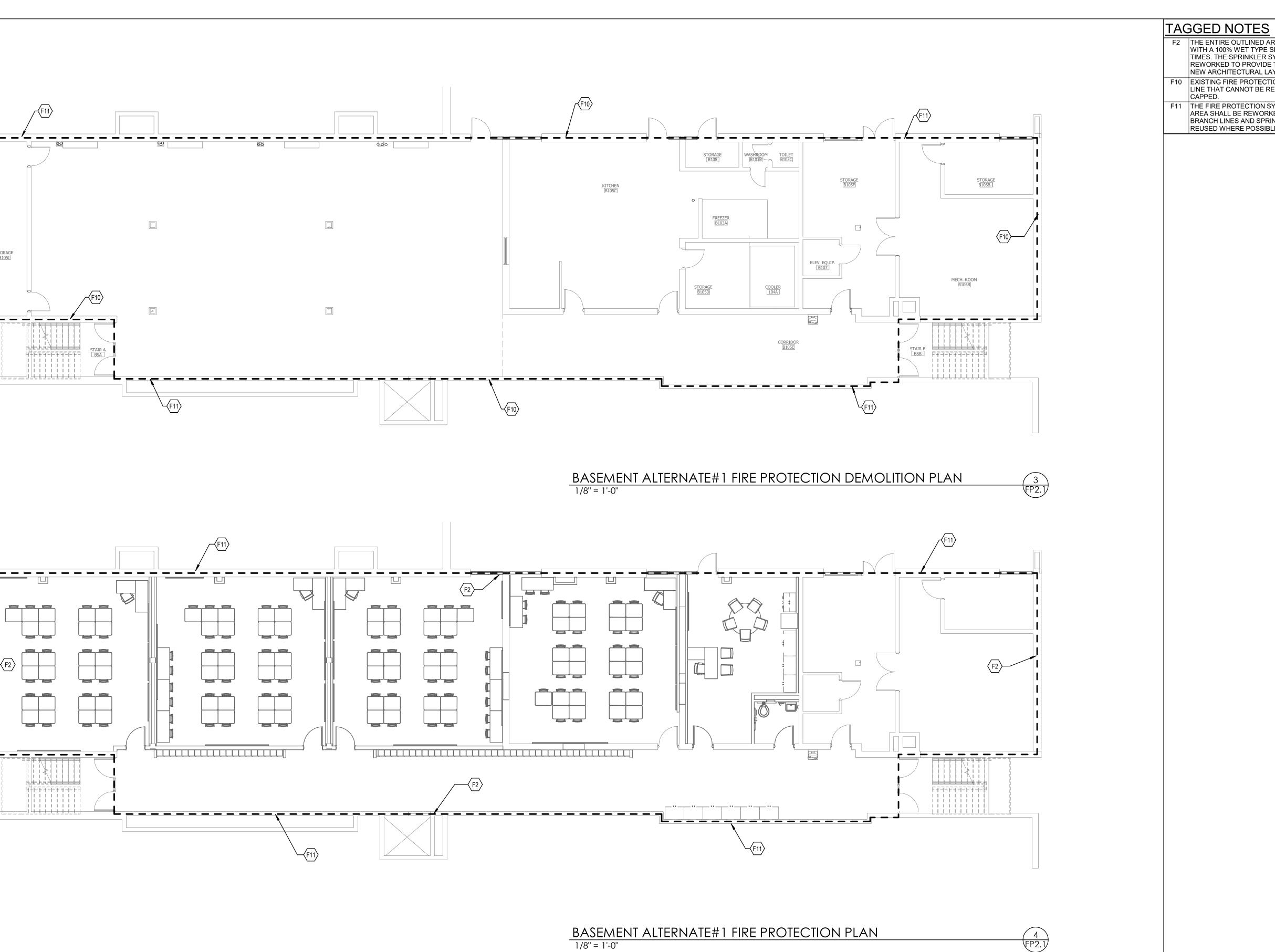
LEVEL 1 FIRE PROTECTION PLAN



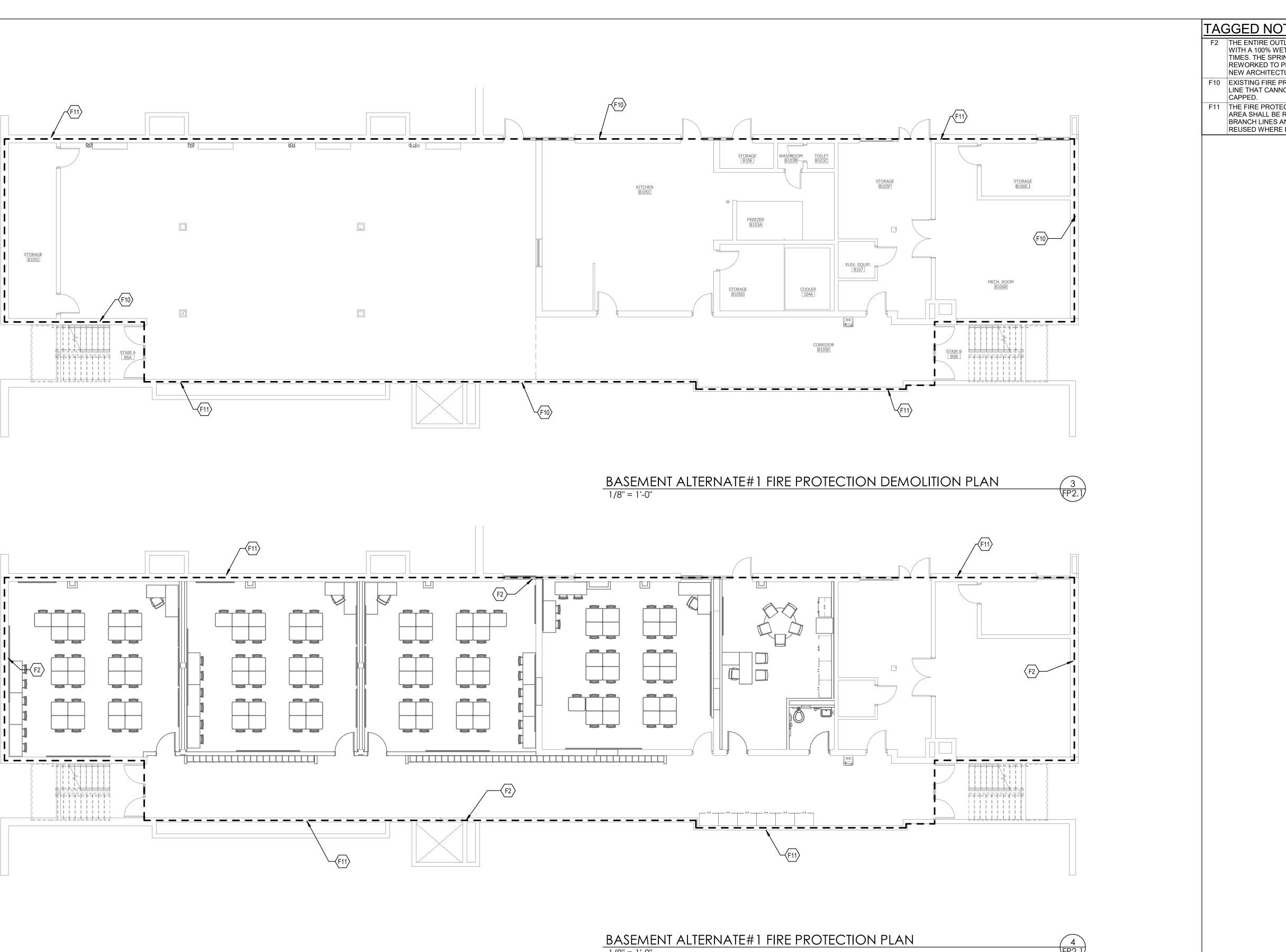


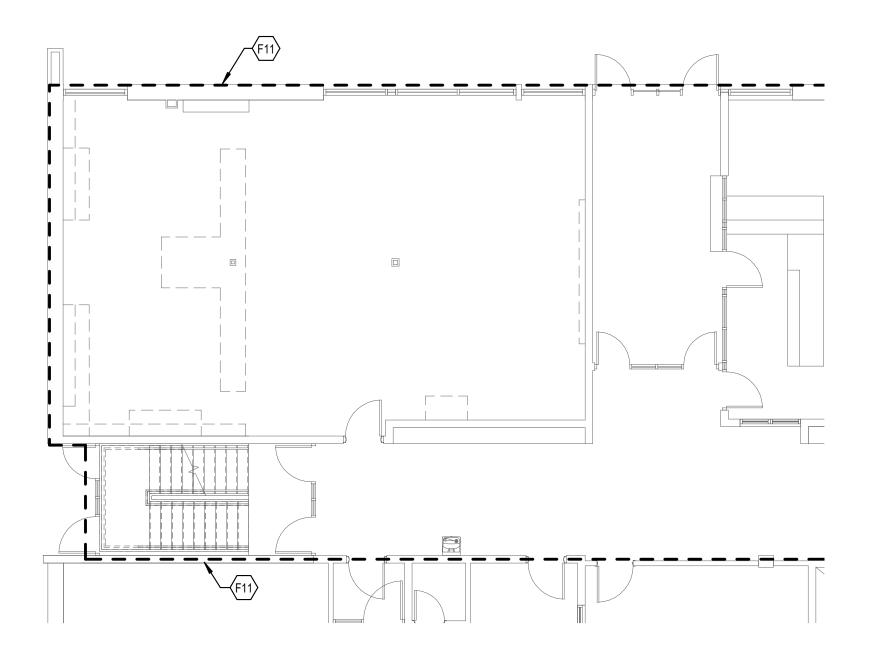
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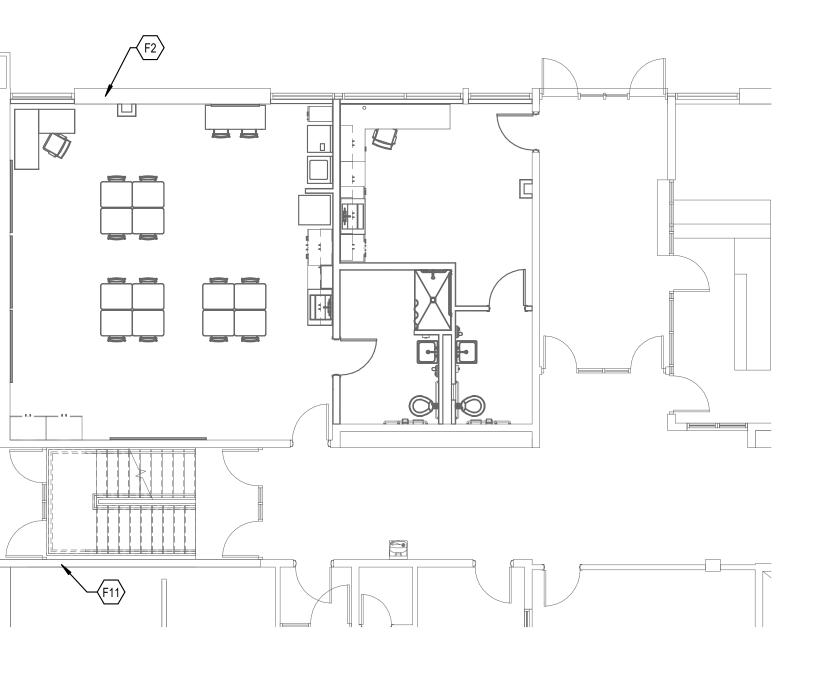






LEVEL 1 ALTERNATE #2 FIRE PROTECTION DEMOLITION PLAN 1/8" = 1'-0"

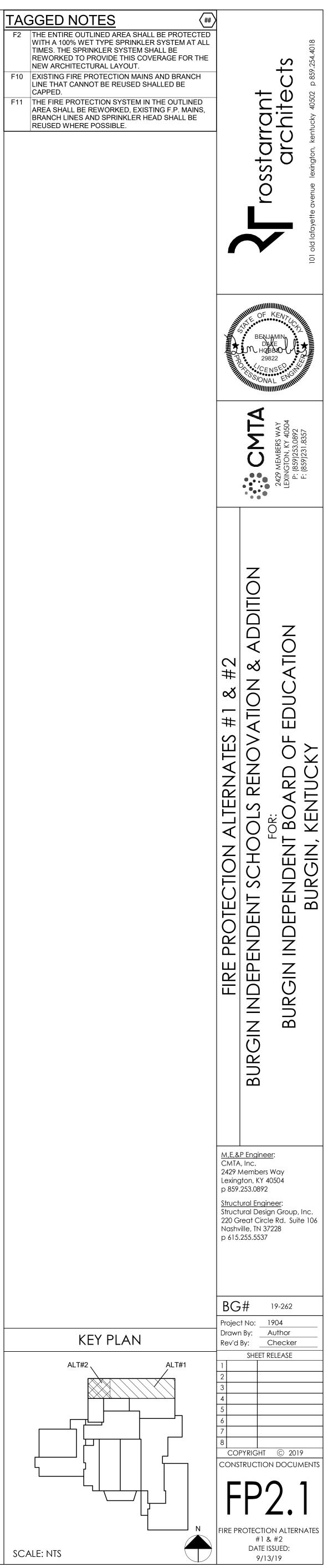
LEVEL 1 ALTERNATE#2 FIRE PROTECTION PLAN 1/8" = 1'-0"



ALT#2、

SCALE: NTS

5 FP2.1



	PLUMBING FIXTURE SCHEDULE					
TAG	DESCRIPTION	CW	HW	VENT	WASTE	VOLTAGE
FD-1	FLOOR DRAIN - 6" DIA. : ZURN, ZN-415 OR EQUAL FLOOR DRAIN WITH 6" DIAMETER TOP, TYPE "B" NICKEL BRONZE STRAINER, 4" DRAIN OUTLET AND TRAP PRIMER CONNECTION.	-	-	2"	4"	No
FD-2	FLOOR DRAIN - 12" X 12" : ZURN, ZN-610 OR EQUAL, FLOOR DRAIN WITH 12"X12" LOCKING GRATE, SECONDARY STRAINER, SEDIMENT BUCKET AND GALVANIZED CAST IRON CONSTRUCTION WITH TRAP PRIMER CONNECTION; NICKEL BRONZE STRAINER; 4" DRAIN OUTLET.	-	-	2"	4"	Yes
FD-3	FLOOR DRAIN -FUNNEL : ZURN, ZN-415 OR EQUAL FLOOR DRAIN WITH TYPE "E" STRAINER, WITH COMBINATION FUNNEL GRATE WITH PERIMETER OPENINGS, STRAINER SHALL BE NICKEL BRONZE. 4" DRAIN OUTLET.					Yes
FD-4	FLOOR DRAIN WITH 3/4" GRATE : ZURN, ZN-1901 OR EQUAL, 12"X12"X8" DEEP CAST IRON BODY SANI FLOOR RECEPTOR, WITH SQUARE SLOTTED LIGHT-DUTY 3/4" GRATE WITH WHITE ACID RESISTING PORCELAIN ENAMEL INTERIOR AND TOP COMPLETE WITH WHITE ABS ANTI-SPLASH INTERIOR BOTTOM DOME STRAINER. PROVIDE WITH 4" OUTLET AND NICKEL BRONZE FRAME. THE 1" VOID BETWEEN THE TOP OF THE FLOOR SINK AND THE FINISHED FLOOR SHALL BE FILLED WITH A NON-SHRINKING GROUT AND GROUT SHALL BE PAINTED TO MATCH THE FLOOR.	-	-	2"	4"	Yes
FPWH-1	FREEZE-PROOF WALL HYDRANT - CAN WASH : ZURN Z1325 OR EQUAL WALL HYDRANT, ENCASED, COMBINATION HOT/COLD WATER, NON-FREEZE. ALL BRONZE INTERIOR PARTS, 3/4" HOSE CONNECTION AND NICKEL BRONZE BOX AND HINGED COVER WITH OPERATION KEY LOCK AND "WATER" CAST ON COVER. MOUNT HYDRANT AT A MINIMUM OF 20" ABOVE FINISHED GRADE. REFER TO MECHANICAL SPECIFICATION FOR ADDITIONAL REQUIREMENTS.	3/4"	3/4"	-	-	Yes
P-1	WATER CLOSET ZURN Z5645-BWL - FLOOR MOUNTED - BATTERY SENSOR FLUSH VALVE : VITREOUS CHINA, SIPHON JET, 11/2" TOP SPUD INLET, CHINA BOLT CAPS AND WHITE OPEN FRONT PLASTIC SEAT WITH SELF-SUSTAINING CHECK HINGES. PROVIDE WITH ZURN A BATTERY POWERED, SIDE MOUNT SENSOR OPERATED 1.6 GPF FLUSH VALVE WITH OVERRIDE BUTTON AND CHROME PLATED HOUSING.	1-1/2"	-	2"	4"	No
P-1A	WATER CLOSET - WALL HUNG - BATTERY SENSOR FLUSH VALVE - ADA COMPLIANT : VITREOUS CHINA, WALL HUNG ELONGATED BOWL, SIPHON JET, 11/2" TOP SPUD INLET, CHINA BOLT CAPS AND WHITE OPEN FRONT PLASTIC SEAT WITH SELF-SUSTAINING CHECK HINGES. PROVIDE WITH A BATTERY POWERED, SIDE MOUNT SENSOR OPERATED 1.6 GPF FLUSH VALVE WITH OVERRIDE BUTTON AND CHROME PLATED HOUSING. PROVIDE WALL CARRIER. MOUNTED WITH RIM OF BOWL AT 18" AFF. FLUSH VALVE HANDLE SHALL BE A MAXIMUM OF 31" AFF.	1-1/2"	-	2"	4"	Yes
P-2	LAVATORY ZURN Z5340 - WALL HUNG W/ SINGLE LEVER FAUCET ZURN Z7440-XL-BA : VITREOUS CHINA, 20"X18" WALL HUNG LAVATORY WITH 4" FAUCET CENTERS, CONCEALED ARMS AND 4" HIGH BACKSPLASH. PROVIDE WITH A LOW FLOW SINGLE LEVER FAUCET, CHROME PLATED 3/8" SUPPLIES WITH STOPS, GRID DRAIN, A KENTUCKY CODE P-TRAP, TAILPIECE AND ESCUTCHEONS. MOUNT LAVATORY AT A HEIGHT LEAVING A CLEARANCE OF AT LEAST 29" FROM THE FLOOR TO THE APRON AND THE RIM AT A MAXIMUM OF 34" AFF.	1/2"	1/2"	2"	2"	No
P-2A	2 STATION LAVATORY SYSTEM : BRADLEY MODEL SS-2/IR/WH OR EQUAL TWO STATION LAVATORY SYSTEM, WALL HUNG WITH RIM AT 31" AFF, WITH SOLID SURFACE TERREON MATERIAL WITH INFRARED SENSOR SOLENOID VALVE AND LOW VOLTAGE TRANSFORMER. PROVIDE WITH THERMOSTATIC MIXING. NO HAND SOAP DISPENSER.	1/2"	1/2"	2"	2"	
P-3	MOP BASIN : 24"X24"X10" HIGH MOLDED STONE MOP SERVICE BASIN, IN WHITE DRIFT COLOR, 3" DRAIN, SERVICE FAUCET, HOSE AND HOSE BRACKET, VINYL BUMPERGUARD AND STAINLESS STEEL WALL GUARDS. THE DRAIN SHALL BE LOCATED 12" TO THE CENTER. PROVIDE A CHECK VALVE IN THE HOT AND COLD WATER SUPPLIES.	3/4"	3/4"	2"	3"	No
P-4	DRINKING FOUNTAIN WITH BOTTLE FILLER - ADA COMPLIANT - ELKAY MODEL LMABFTL8WSLK, VANDAL RESISTANT, FILTERED 8 GPH LIGHT GRAY, MECHANICALLY ACTIVATED, HANDS FREE, VISUAL FILTER MONITOR, MECHANICAL FRONT AND SIDE BUBBLER PSHBAR ACTIVATION, WALL MOUNTED CARRIER. PROVIDE WITH ELKAY MODEL LZWSRK RETROFIT BOTTLE FILLER STATION KIT, FILTERED NON-REFRIGERATED. REFER TO ARCHIECHTURAL PLANS FOR MOUNTING HEIGHTS. PROVIDE WITH CANE APRON.	1/2"	-	2"	2"	Yes
P-6	SHOWER, ZURN Z7101-SS-LH-DV2P-HW- ADA COMPLIANT : PROVIDE A PRESSURE BALANCING MIXING VALVE WITH COMBINATION INTEGRAL DIVERTER AND VOLUME CONTROL, ADJUSTABLE SCREW TO LIMIT HANDLE TURN, SHOWER HEAD WITH ARM AND FLANGE, AND A WALL/HAND SHOWER WITH FLEXIBLE METAL HOSE AND 30" SLIDE BAR FOR HAND SHOWER MOUNTING. PROVIDE ZURN ZN-415 OR EQUAL FLOOR DRAIN WITH TYPE "B" STRAINER.	3/4"	3/4"	2"	2"	Yes
P-7	WASHER BOX : RECESSED 20 GAUGE METAL WASHER BOX WITH 1/2" HW AND CW BOTTOM HOSE CONNECTIONS AND 2" DRAIN. PROVIDE WITH WATER HAMMER ARRESTORS IN WATER SUPPLY LINES.	3/4"	3/4"	2"	2"	Yes
P-8	SINGLE COMPARTMENT SINK ADA : SINGLE COMPARTMENT STAINLESS STEEL SINK, 19"X21" O.D., 14"X18" I.D., 41/2" DEEP, 18 GAUGE, WITH 8" CENTERS. PROVIDE WITH 8" RIGID SPOUT GOOSENECK FAUCET WITH 4" WRIST BLADE CONTROL HANDLES, REAR CENTERED CRUMB CUP STRAINER DRAIN, 3/8" ANGLE SUPPLIES WITH STOPS, KENTUCKY CODE P-TRAP, TAILPIECE AND ESCUTCHEONS.	1/2	1/2"	2"	2"	Yes
RD-1	ROOF DRAIN - COMBINATION DRAIN : WATTS DRAINAGE RD-700 EPOXY COATED CAST IRON DUAL OUTLET ROOF DRAIN/OVERFLOW COMBINATION WITH FLASHING CLAMP, INTEGRAL GRAVEL STOP, 4" HIGH INTERNAL OVERFLOW STANDPIPE, SECURED DUCTILE IRON DOME AND NO HUB OUTLETS. PROVIDE WITH DECK CLAMP, EXTENSION OR ANY OTHER ACCESSORIES NEEDED FOR INSTALLATION IN ROOF SPECIFIED BY ARCHITECT AND AS RECOMMENDED BY THE ROOF MANUFACTURER.	-	-	-	4"	Yes
TP-1	TRAP PRIMER TYPE-1 : PRECISIONS PLUMBING PRODUCTS PRIME-TIME OR EQUAL ELECTRONIC TRAP PRIMING MANIFOLD, WITH ATMOSPHERIC VACUUM BREAKER, PRE-SET 24 HOUR CLOCK, MANUAL OVERRIDE SWITCH, 120 VOLT SOLENOID VALVE WITH 120V/3WIRE CONNECTION. PROVIDE IN 12" X 12" X 4" SURFACE MOUNTED METAL CABINET. PROVIDE WITH 10 OPENING MANIFOLD, UN-USED MANIFOLD OPENING SHALL BE CAPPED. INSTALL UNITED AS REQUIRED BY MANUFACTURER.	-	-	-	-	Yes

REVISIONS

DATE DESCRIPTION

## **FER FOUNTAIN/FILL STATION CALCULATIONS**

TOTAL WATER FOUNTAINS/FILL STATIONS: 13

TOTAL BUILDING OCCUPANTS: 550 PEOPLE

CALCULATED OCCUPANT CAPACITY: 13 FOUNTAINS X 75 PEOPLE/FOUNTAIN = 975 PEOPLE NOTE: REFER TO PLUMBING FIXTURE SCHEDULE AND DRAWINGS.

### **PLUMBING DEMOLITION NOTES:**

- A. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR AREAS IN WHICH THE CEILING IS REMAINING. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE EXISTING CEILING AS REQUIRED AND REINSTALLATION. TEMPORARILY SUPPORT LIGHTS, DIFFUSERS, CEILING ETC. REPLACE BROKEN CEILING TILES WITH NEW AT NO ADDITIONAL COST TO OWNER. FIELED VERIFY EXACT REQUIREMENTS.
- B. ALL OUTAGES SHALL BE SCHEDULED THROUGH THE PROJECT REPRESENTATIVE FOR PROPER COORDINATION. A REQUEST FOR AN OUTAGE SHALL BE SUBMITTED IN WRITING A MINIMUM OF TWO WEEKS IN ADVANCE.
- C. DURING SPRINKLER SYSTEM OUTAGES THE CONTRACTORS SHALL PROVIDE FIRE WATCH OF AREAS WITH OUTAGES. D. ALL WALLS AND FLOOR SLABS SHALL BE REPAIRED TO MATCH EXISTING
- AND TO A LIKE NEW CONDITION. ALL RATED WALLS AND FLOOR SLABS SHALL BE PATCHED AND REPAIRED TO MAINTAIN RATING.
- E. ALL EXISTING BUILDING FINISHES SHALL BE PROTECTED DURING THE DEMOLITION PHASE.
- F. HEAVY DASHED LINES INDICATE ITEMS FOR REMOVAL (U.O.N) AND LIGHT SOLID LINES INDICATE EXISTING ITEMS TO REMAIN.
- G. COORDINATE DISPOSAL OF ALL FIXTURES, DEVICES, ETC. (INDICATED FOR DEMOLITION) WITH THE OWNER.

## **HAZARDOUS MATERIAL NOTE:**

- A. THE CONTRACTOR IT IS HEREBY ADVISED THAT IS POSSIBLE THAT ASBESTOS AND/OR OTHER HAZARDOUS MATERIALS ARE OR WERE PRESENT IN THIS BUILDING(S). ANY WORKER, OCCUPANT, VISITOR, ETC., WHO ENCOUNTERS ANY MATERIAL OF WHOSE CONTENT THEY ARE NOT CERTAIN SHALL PROMPTLY REPORT THE EXISTENCE AND LOCATION OF THAT MATERIAL TO THE OWNER. FURTHERMORE, THE CONTRACTOR SHALL INSURE THAT NO ONE COMES NEAR TO OR IN CONTACT WITH ANY SUCH MATERIAL OR FUMES THEREFROM UNTIL ITS CONTENT CAN BE ASCERTAINED TO BE NON-HAZARDOUS.
- B. CMTA, INC. HAS NO EXPERTISE IN THE DETERMINATION OF THE PRESENCE OF ANY HAZARDOUS MATERIAL. THEREFORE, NO ATTEMPT HAS BEEN MADE BY CMTA TO IDENTIFY THE EXISTENCE OR LOCATION OF ANY SUCH HAZARDOUS MATERIAL. FURTHERMORE, CMTA NOR ANY AFFILIATE HEREOF WILL NOT OFFER OR MAKE ANY RECOMMENDATIONS RELATIVE TO THE REMOVAL, HANDLING OR
- DISPOSAL OF SUCH MATERIAL. C. IF THE WORK WHICH IS TO BE PERFORMED INTERFACES, CONNECTS OR RELATES IN ANY PHYSICAL WAY WITH OR TO EXISTING COMPONENTS WHICH CONTAIN OR BEAR ANY HAZARDOUS MATERIAL, ASBESTOS BEING ONE, THEN IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO CONTACT THE OWNER AND SO ADVISE HIM/HER IMMEDIATELY.
- D. THE CONTRACTOR BY EXECUTION OF THE CONTRACT FOR ANY WORK AND/OR BY THE ACCOMPLISHMENT OF ANY WORK THEREBY AGREE TO BRING NO CLAIM RELATIVE TO HAZARDOUS MATERIALS FOR NEGLIGENCE, BREACH OF CONTRACT, INDEMNITY, OR ANY OTHER SUCH ITEM AGAINST CMTA, ITS PRINCIPALS, EMPLOYEES, AGENTS OR CONSULTANTS. ALSO, THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD CMTA, ITS PRINCIPALS, EMPLOYEES, AGENTS AND CONSULTANTS HARMLESS FROM ANY SUCH RELATED CLAIMS WHICH MAY BE BROUGHT BY ANY SUBCONTRACTORS, SUPPLIERS OR ANY OTHER THIRD PARTIES.
- E. THE CONTRACTOR IS DIRECTED TO THE SPECIFICATIONS FOR FURTHER INFORMATION.

### **PLUMBING GENERAL NOTES:**

- A. COORDINATE THE LOCATION OF DRAINS, THERMOSTATS, GAS OUTLETS, ETC., WITH ALL CASEWORK EQUIPMENT, MECHANICAL ROOM EQUIPMENT, ETC., PRIOR TO COMMENCING INSTALLATION. WORK NOT SO COORDINATED SHALL BE REMOVED AND PROPERLY INSTALLED AT THE EXPENSE OF THE
- CONTRACTOR. B. THE CONTRACTOR SHALL EXERCISE EXTREME CARE IN THE COURSE OF THEIR WORK SO AS TO ENSURE THAT THEY DO NOT INTERRUPT ANY EXISTING SERVICE. FOR SAFETY PURPOSES, PAY PARTICULAR ATTENTION TO THIS PRECAUTION RELATIVE TO NATURAL GAS AND ELECTRICAL LINES. VERIFY THE LOCATION, SIZE, TYPE, ETC., OF EACH UNDERGROUND OR OVERHEAD UTILITY. ALL WORK SHALL BE PERFORMED IN ACCORD WITH ALL FEDERAL, STATE AND/OR LOCAL RULES, REGULATIONS, STANDARD AND SAFETY REQUIREMENTS. UTILITIES SHALL BE INSTALLED IN ACCORD WITH THE APPLICABLE MUNICIPALITY OR UTILITY COMPANY STANDARDS.
- IN ALL CASES, THE MOST STRINGENT REQUIREMENT SHALL APPLY C. WHERE WORK IS REQUIRED ABOVE EXISTING LAY-IN, PLASTER OR GYPSUM BOARD CEILINGS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND REINSTALLATION (OR REPLACEMENT, IF DAMAGED) OF ALL CEILING OR TILE AND GRID MEMBERS NECESSARY TO PERFORM HIS WORK. NEW TILE AND GRID SHALL MATCH THE SURROUNDING AREAS. ALL PATCHING WORK SHALL MATCH ADJACENT SURFACES.
- D. ALL NEW WORK SHALL BE HUNG FROM STRUCTURE, NOT FROM THE WORK OF OTHER TRADES, WHETHER EXISTING OR NEW. E. COORDINATE ALL WORK WITH PROJECT PHASING REQUIREMENTS. F. PATCH, REPAIR AND PAINT OR PROVIDE WALL COVERING FOR (TO OWNER'S STANDARDS) EXISTING WALLS, CEILINGS, ETC.,
- THAT ARE TO REMAIN IF DAMAGED DURING CONSTRUCTION. REPAIRS SHALL MATCH ADJACENT SURFACES TO THE SATISFACTION OF THE ARCHITECT AND OWNER. G. OBSERVE ALL APPLICABLE CODES, RULES AND REGULATIONS
- THAT MAY APPLY TO THE WORK UNDER THIS CONTRACT. (CITY, COUNTY, LOCAL, FEDERAL, MUNICIPALITY, UTILITY COMPANY, COMMONWEALTH OF KENTUCKY, ETC.) H. CONTRACTOR SHALL BE AWARE OF UNSEEN PLUMBING WORK DURING DEMOLITION. IF ITEMS ARE UNCOVERED DURING
- DEMOLITION THEN FIELD VERIFY THE USE OF THE ITEMS AND PLAN AN ALTERNATE ROUTE TO RUN THESE ITEMS. THEN CONTACT THE ENGINEERS TO REVIEW THE ROUTING. I. IF AREA OF CONSTRUCTION HAS A POST TENSION FLOOR SLAB.
- CONTRACTOR SHALL USE ULTRA SOUND OR OTHER APPROVED METHODS TO SURVEY THE EXISTING FLOOR STRUCTURE BEFORE MAKING ANY AND ALL FLOOR PENETRATIONS. J. WHERE FIRE PROOFING IS SPRAYED ON EXISTING STRUCTURE ALL EXISTING CONDUITS, WATER, HYDRONIC, STEAM, CHILLED
- WATER, FIRE PROTECTION LINES, MED GAS, ETC. SHALL BE LOWERED TO BE BELOW FULL THICKNESS OF FIRE PROOFING WITH NO INTERFERENCE. K. ALL PENETRATIONS OF FIRE AND SMOKE RATED ASSEMBLIES SHALL BE APPROPRIATELY FIRE STOPPED PER AN APPROVED
- U.L. LISTED STANDARD. CONTRACTOR SHALL PAY PARTICULAR ATTENTION TO INSULATED PIPING PENETRATIONS. L. ALL WORK REQUIRING DOWNTIME OF ANY AREA IN THE BUILDING SHALL BE SCHEDULED 2 WEEKS IN ADVANCE, AND SHALL COMPLY WITH INTERIM LIFE SAFETY MEASURES.
- M. ALL PIPING IN ROOMS WITH CEILINGS SHALL BE ABOVE CEILING EXCEPT AS NOTED. N. IN ACCORDANCE WITH K.R.S. ALL PLUMBING WORK SHALL BE CONSTRUCTED IN COMPLIANCE WITH PLANS APPROVED BY AND BEARING THE APPROVAL STAMP OF THE KENTUCKY
- DIVISION OF PLUMBING AND/OR THE DIVISION OF WATER. THE CONTRACTOR SHALL NOT BEGIN WORK UNTIL HE HAS RECEIVED SUCH APPROVED PLANS. O. LOCATIONS OF PIPING AND EQUIPMENT ARE APPROXIMATE AND SUBJECT TO MINOR ADJUSTMENTS IN THE FIELD. DO NOT
- SCALE THE DRAWINGS P. ALL OFFSETS IN PIPING ARE NOT NECESSARILY SHOWN. PROVIDE ADDITIONAL OFFSETS WHERE NECESSARY.
- Q. THE CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY COMPANY FEES OR OTHER COSTS THAT ANY UTILITY COMPANY MAY REQUIRE TO COMPLETE THEIR WORK. (GAS, SEWER, WATER, ETC.).
- R. WHERE MOUNTING HEIGHTS ARE NOT INDICATED OR ARE IN CONFLICT WITH ANY OTHER BUILDING SYSTEM, CONTACT THE ENGINEERS BEFORE INSTALLATION. REFER ALSO TO ARCHITECTURAL WALL INTERIOR AND EXTERIOR WALL ELEVATIONS, CEILING HEIGHTS AND OTHER DETAIL OF THESE
- DOCUMENTS. S. DOUBLE WIDTH TURNING VANES SHALL BE INSTALLED IN ALL SUPPLY, RETURN, AND EXHAUST DUCTWORK ELBOWS. TURNING VANES NOT REQUIRED FOR KITCHEN EXHAUSTS. T. ANY VIBRATING, OSCILLATING OR OTHER NOISE OR MOTION PRODUCING EQUIPMENT SHALL BE ISOLATED FROM SURROUNDING SYSTEMS IN AN APPROVED MANNER. NOISY OR STRUCTURALLY DAMAGING INSTALLATIONS SHALL BE
- SATISFACTORILY REPLACED OR REPAIRED AT THE INSTALLING CONTRACTOR'S EXPENSE. THE FINAL DECISION ON THE SUITABILITY OF A PARTICULAR INSTALLATION'S ACCEPTABILITY SHALL BE THAT OF THE ENGINEER. U. DEVIATIONS IN SIZE, CAPACITIES, FIT, FINISH, ETC. FOR
- EQUIPMENT FROM THAT USED AS BASIS OF DESIGN SHALL BE THE RESPONSIBILITY OF THE PURCHASER OF THAT EQUIPMENT. ANY PROVISIONS REQUIRED TO ACCOMMODATE A DEVIATION, WHETHER APPROVED BY THE ENGINEERS OR NOT, SHALL BE THE RESPONSIBILITY OF THE PURCHASER.
- V. VALVES, BALANCING DAMPERS OR ANY MECHANICAL/ELECTRICAL ITEM REQUIRING ACCESS SHALL NOT BE LOCATED ABOVE A HARD CEILING. IF THIS IS NOT POSSIBLE, THEN AN APPROPRIATELY SIZED ACCESS DOOR SHALL BE PLACED UNDER THE ITEM TO ALLOW EASY MAINTENANCE AND ADJUSTMENT. ADDITIONALLY ALL SUCH ITEMS SHALL NOT BE LOCATED AN UNREASONABLE DISTANCE ABOVE THE CEILINGS. IN GENERAL ALL SUCH ITEMS UNLESS INDICATED OTHERWISE
- SHALL BE MOUNTED SIX TO TWELVE INCHES ABOVE THE CEILING. IF IN DOUBT, CONTACT ENGINEER PRIOR TO INSTALLING. W. ALL MANHOLES, VAULTS AND SIMILAR UNDERGROUND STRUCTURES SHALL HAVE THE TOP ELEVATION SET FLUSH
- WITH FINISHED GRADE UNLESS SPECIFICALLY NOTED OTHERWISE. X. WHEN RUNNING ANY TYPE OF PIPING BELOW A FOOTER, OR IN THE ZONE OF INFLUENCE THE PIPING SHALL BE BACKFILLED WITH CEMENTITIOUS FLOWABLE FILL PER SPECIFICATIONS. WHENEVER POSSIBLE, LOCATE PIPING OUTSIDE OF THE ZONE OF INFLUENCE. THE ZONE OF INFLUENCE IS THE AREA UNDER THE FOOTER WITHIN A 45 DEGREE ANGLE PROJECTING DOWN FROM THE BOTTOM EDGE OF THE FOOTER OF ALL SIDES OF THE FOOTER. ADDITIONALLY, GREASE TRAPS, MANHOLES,
- VAULTS AND OTHER UNDERGROUND STRUCTURES SHALL BE HELD AWAY FROM BUILDING WALLS FAR ENOUGH TO BE OUTSIDE OF THE ZONE OF INFLUENCE. Y. WORK IN CONFINED AREAS SHALL BE IN ACCORDANCE WITH
- THE OWNER'S SAFETY POLICY REQUIREMENTS. Z. THE DOCUMENTS COMPLY WITH 2015 IMC, 2018 KBC, AND 2012 IECC. AA. THE DOCUMENTS COMPLY WITH 2015 IMC, 2018 KBC, AND

## **PHASING NOTE:**

THE CONTRACT DOCUMENTS.

ASHRAE 90.1-2010.

A. THIS PROJECT INTERFACES EXTENSIVELY WITH EXISTING BUILDING SERVICES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE AND PHASE ALL TIE-INS AND INTERRUPTIONS OF EXISTING SERVICES TO MINIMIZE OR ELIMINATE DOWNTIME. AS AN EXAMPLE, MAIN GAS SERVICE. WATER SERVICE, ELECTRICAL SERVICE, HVAC SERVICES, STEAM GENERATION, ETC., WILL BE AFFECTED AND REPLACED OR MOVED DURING THIS PROJECT. THE CONTRACTOR SHALL INSTALL ALL NEW SERVICES AND EQUIPMENT AND HAVE THEM TESTED AND FULLY AND RELIABLY FUNCTIONAL PRIOR TO INTERRUPTING, RELOCATING OR REMOVING ANY EXISTING SERVICES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO BARE ANY AND ALL COSTS ASSOCIATED WITH THIS PHASING. INCLUDING TEMPORARY SERVICES, TEMPORARY RELOCATION PREMIUM TIME WORK. ETC. CONTRACTOR SHALL COORDINATE ALL SAID WORK WITH THE OWNER AND APPLICABLE UTILITIES PER

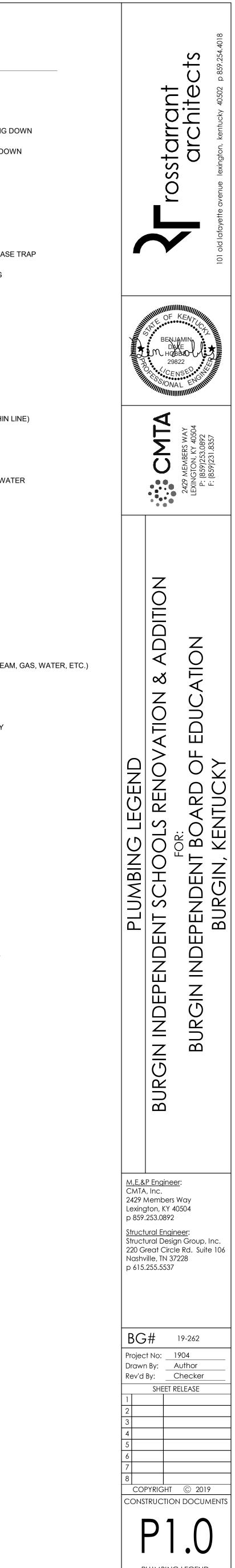
# SYMBOLS & ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
CW	DOMESTIC COLD WATER
DN	DOWN
FHV	FIRE HOSE VALVE WITH CABINET
FPWH	FREEZE PROOF WALL HYDRANT
HB	HOSE BIBB
HW	DOMESTIC HOT WATER
ID	INSIDE DIMENSION
IE	INVERT ELEVATION
МН	MANHOLE
NTS	NOT TO SCALE
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NC	NORMALLY CLOSED
OR	OPEN RECEPTACLE
ORL	OVERFLOW ROOF LEADER
PRV	PRESSURE REDUCING VALVE (STEAM, WATER, OR GAS
RHW	DOMESTIC RECIRCULATING HOT WATER
RL	ROOF LEADER
SR	SANITARY RISER
ТВ	THRUST BLOCK
TE	TOP ELEVATION
TP	TRAP PRIMER
TYP	TYPICAL
VTR	VENT THRU ROOF

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— CA ——
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— ORL ——
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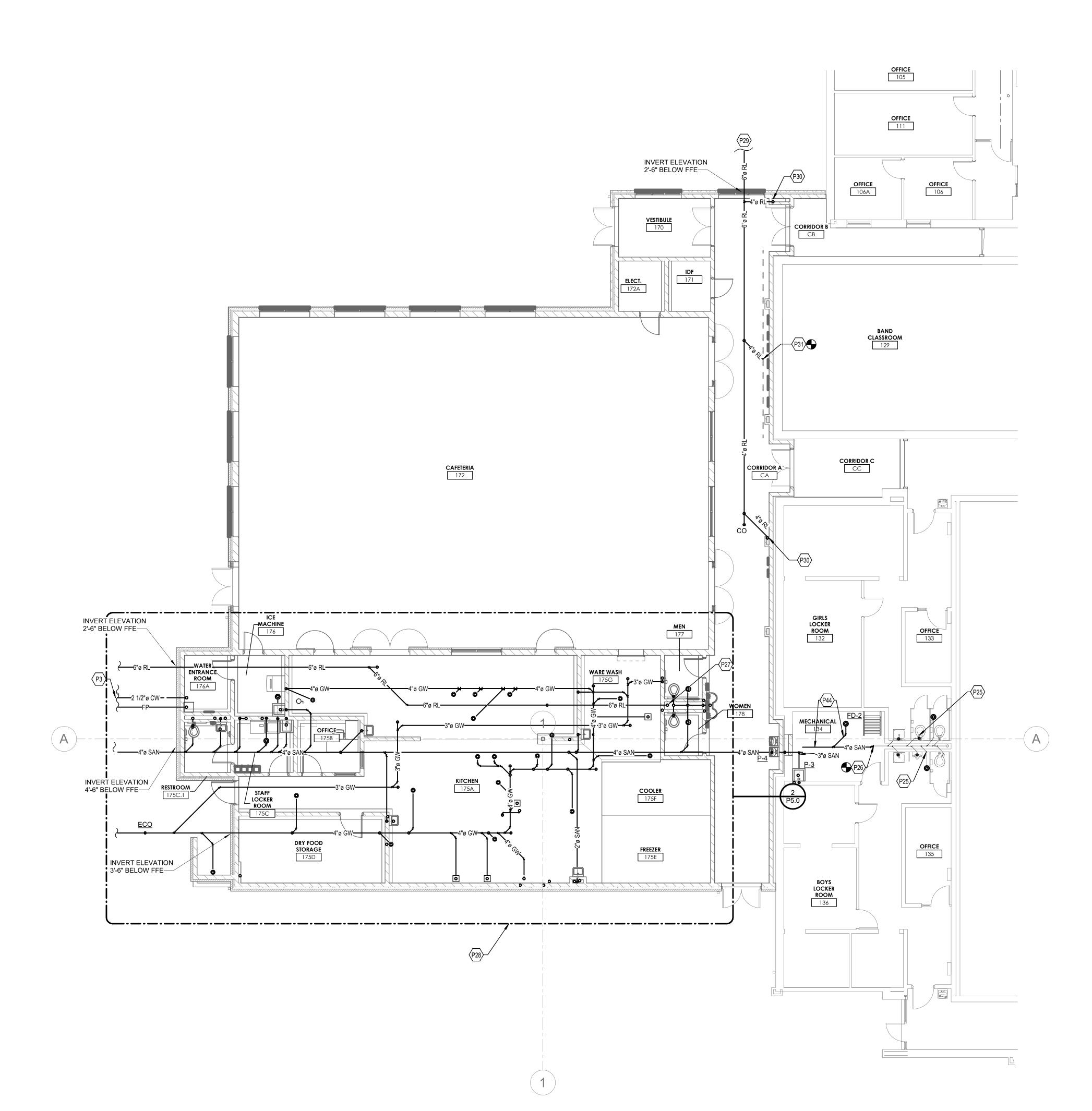
—A

POINT OF C	ONNECTION
LIMIT OF DE	MOLITION
PIPE ELBOV	V TURNING UP/TURNING DOW
PIPE TEE T	URNING UP/TURNING DOWN
COMPRESS	ED AIR
FORCED MA	AIN
FIRE PROTE	ECTION LINE
GAS LINE	
SANITARY V	VASTE PIPING TO GREASE TR
OVERFLOW	ROOF LEADER PIPING
ROOF LEAD	ER PIPING
SANITARY V	VASTE PIPING
STORM SEV	VER PIPING
VACUUM PI	PING
	G
EXISTING P	PING (THIN LINE)
	D EXISTING PIPING (THIN LINE
	COLD WATER PIPING
DOMESTIC	HOT WATER SUPPLY
DOMESTIC	RECIRCULATING HOT WATER
	IN CEILING SPACE
FLOOR CLE	
EXTERIOR	
BALANCING	
BALL VALVE	
SAFETY REI	
SAFETY REI	
OS&Y (GATE	
·	REDUCING VALVE (STEAM, G
STRAINER	
CHECK VAL	VE
DOUBLE CH	ECK VALVE ASSEMBLY
PIPING UNIC	
FLOW SWIT	СН
PRESSURE	
TAMPER SV	VITCH
THERMOME	TER
VACUUM BE	REAKER
	EA SPRINKLER HEAD
PETE'S PLU	G
-	
ROOF DRAI	
PLUMBING	FIXTURE DESIGNATOR
	TAG DESIGNATOR
	TAG DESIGNATOR
	ESIGNATOR
	JRE SENSOR
HOSE BIB	

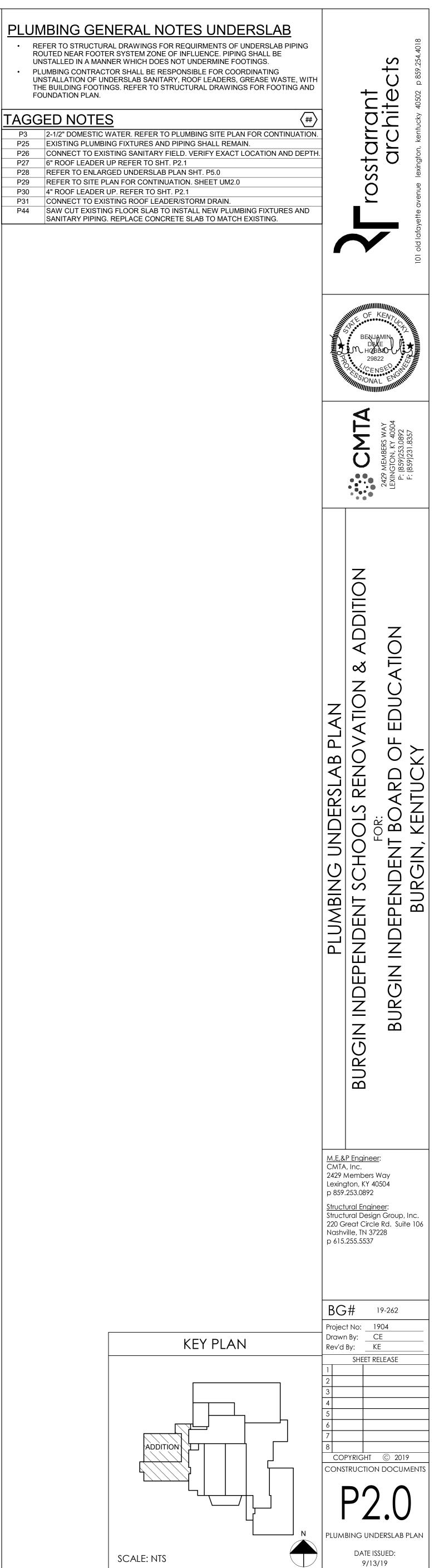


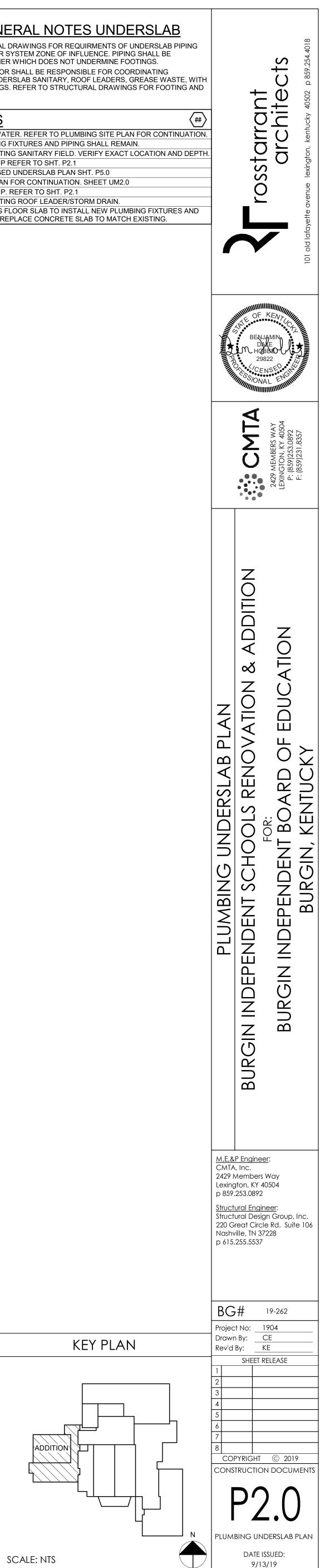
PLUMBING LEGEND DATE ISSUED: 9/13/19

REVISIONS				
#	DATE	DESCRIPTION		



TAGGED NOTES			
P3	2-1/2" DOMESTIC WATER. REFER TO PLUMBING		
P25	EXISTING PLUMBING FIXTURES AND PIPING SHA		
P26	CONNECT TO EXISTING SANITARY FIELD. VERIF		
P27	6" ROOF LEADER UP REFER TO SHT. P2.1		
P28	REFER TO ENLARGED UNDERSLAB PLAN SHT. F		
P29	REFER TO SITE PLAN FOR CONTINUATION. SHE		
P30	4" ROOF LEADER UP REFER TO SHT P2 1		

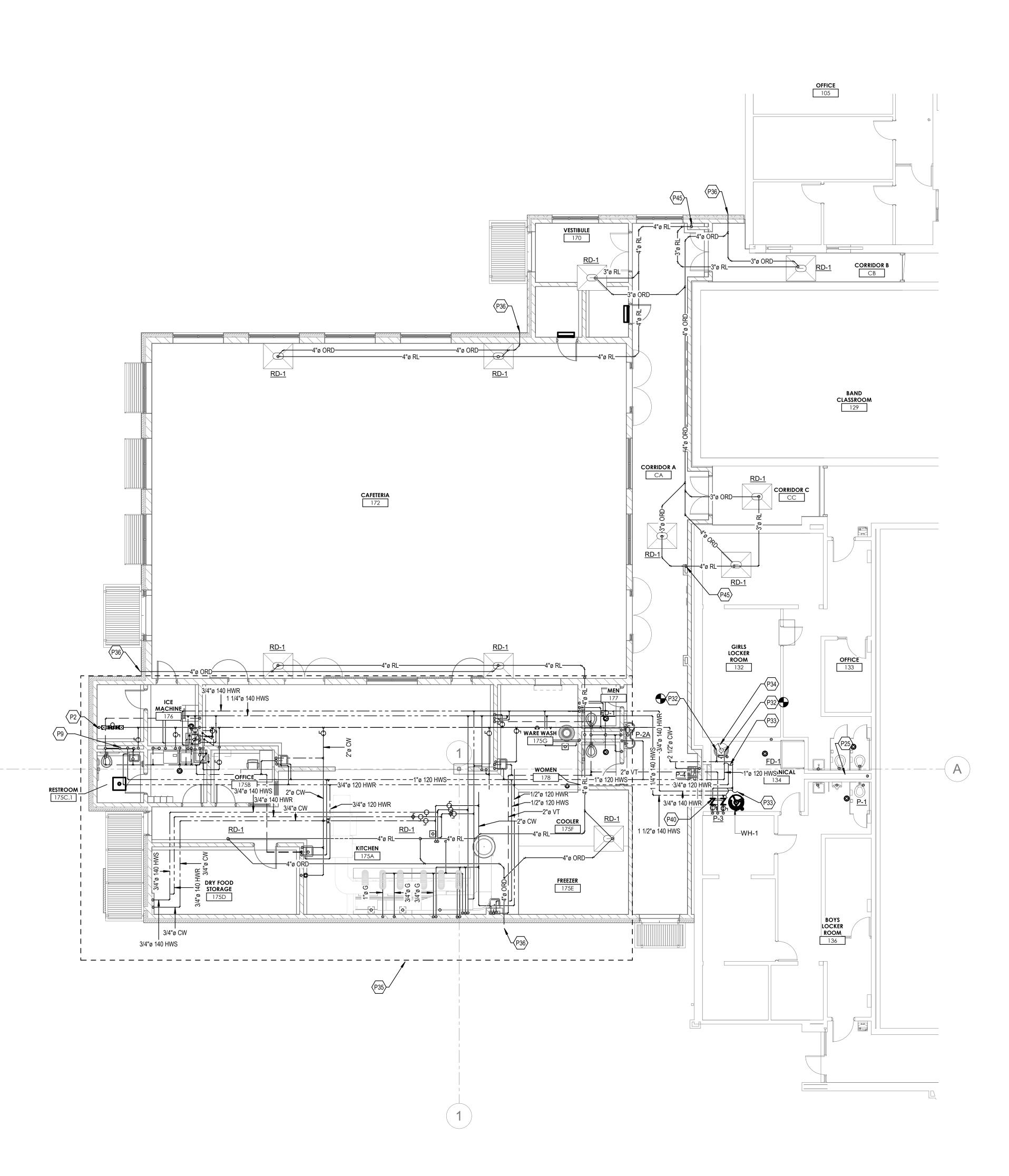




1 P2.0

REVISIONS				
#	DATE	DESCRIPTION		

A



FIRST FLOOR PLUMBING PLAN

2 P2.1

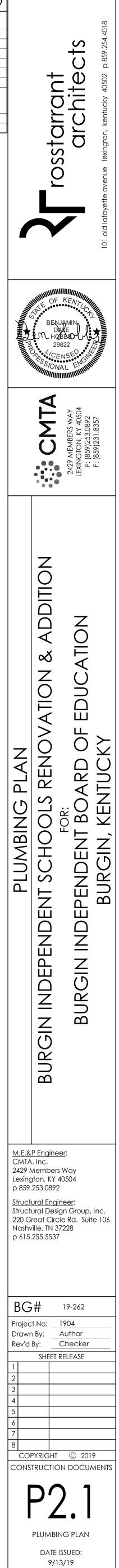


P2 DOMESTIC WATER ENTRANCE DOWN BELOW GRADE RI PLUMBING PLAN. P9 4" VENT UP TO 4" VTR.

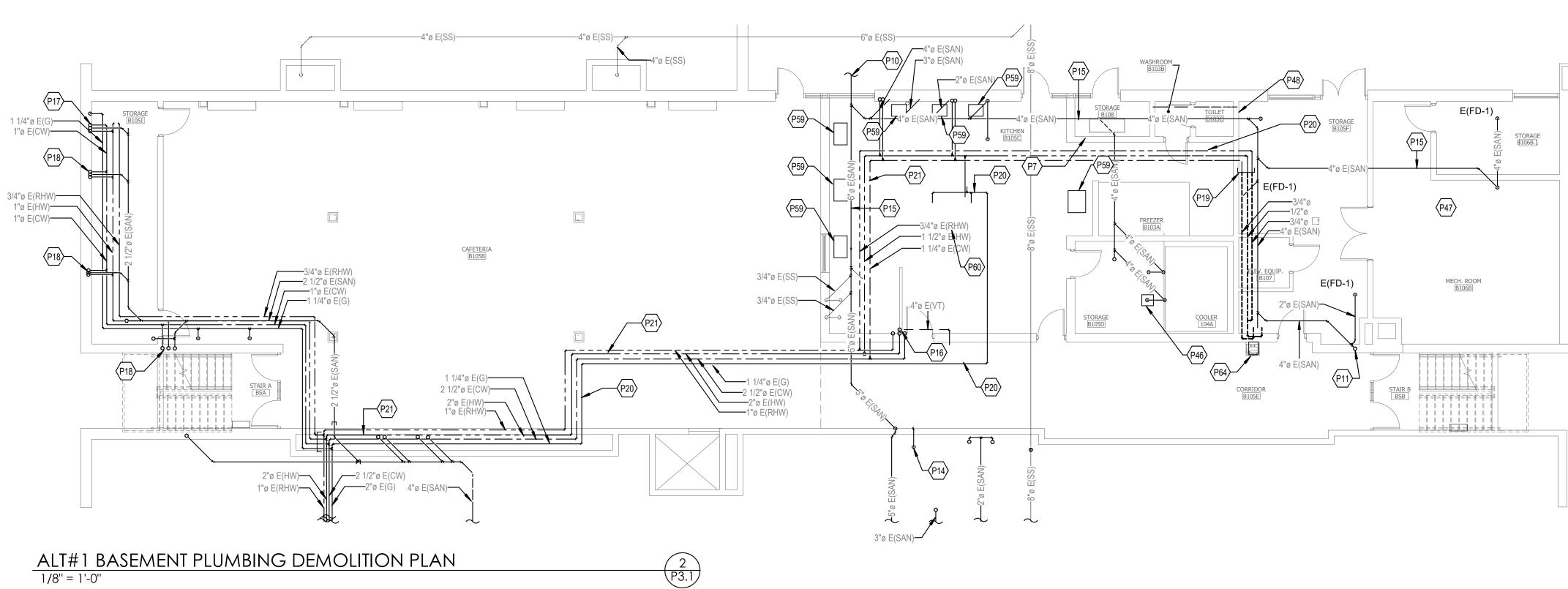
P25 EXISTING PLUMBING FIXTURES AND PIPING SHALL REM

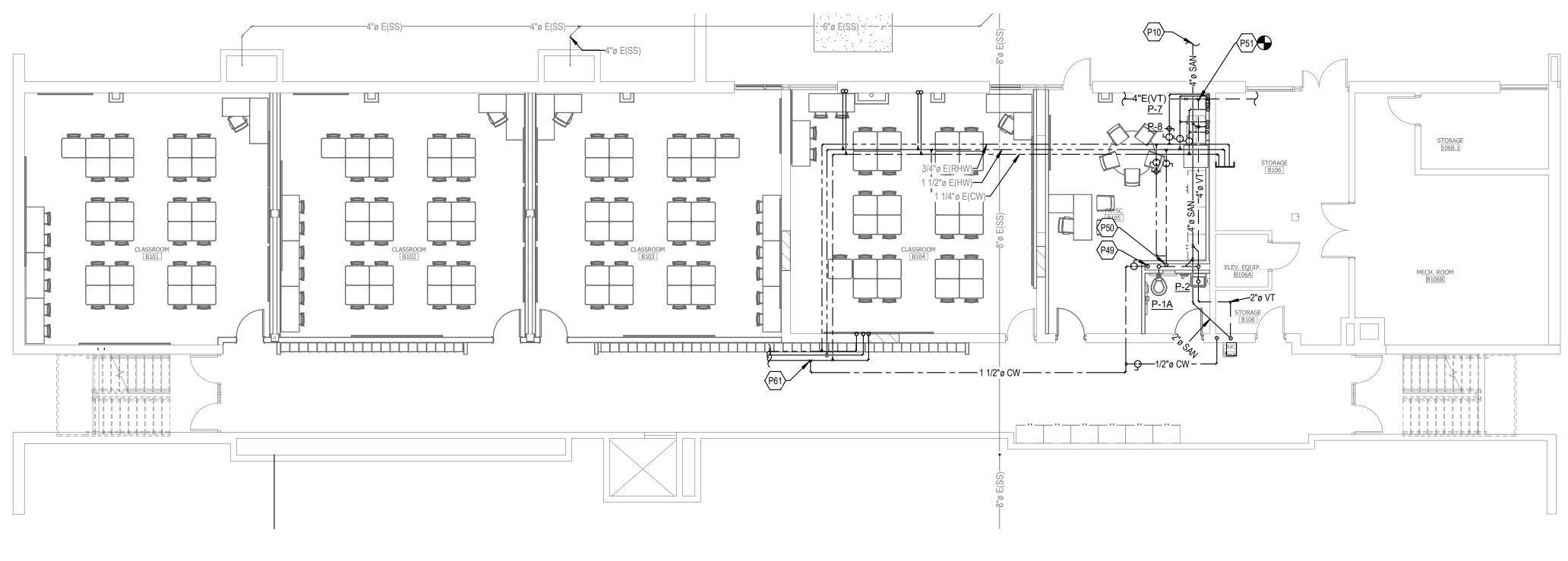
- P32 CONNECT TO EXISTING WATER HEATER.
- P33 REFER TO WATER HEATER DETAIL SHEET P7.1 P34 EXISTING WATER HEATER TO REMAIN. REFER TO DETA
- P35 REFER TO ENLARGED KITCHEN PLAN SHEET P5.0
- P36 PROVIDE ZURN MODEL Z199 DOWNSPOUT NOZZLE WIT CONNECTION SIZE. PROVIDE WITH STAINLESS STEEL S COORDINATED WITH ARCHITECTURAL ELEVATION PLAN
- P40 INSTALL CHECK VALVES ON WATER LINE SERVING MOI P45 4" ROOF LEADER DOWN

(##)
REFER TO UNDERSLAB
EMAIN.
TAIL SHEET P7.1
ITH MATCHING PIPE
SCREEN. LOCATION SHALL BE AN.
OP BASINS AND SHOWER.

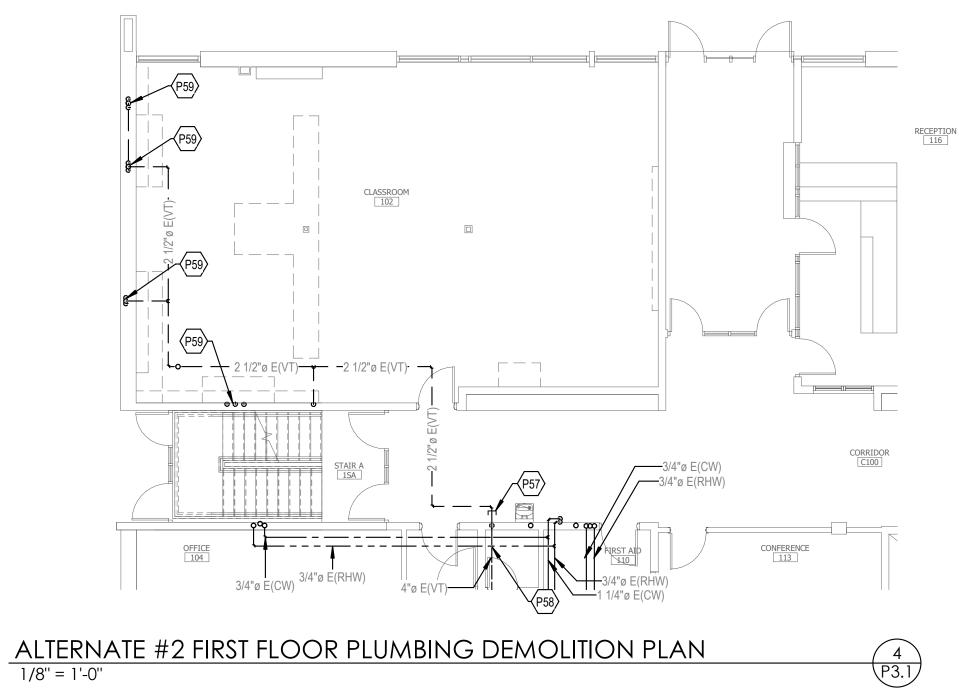


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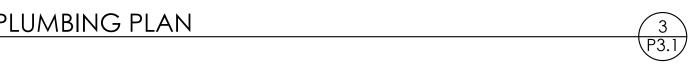


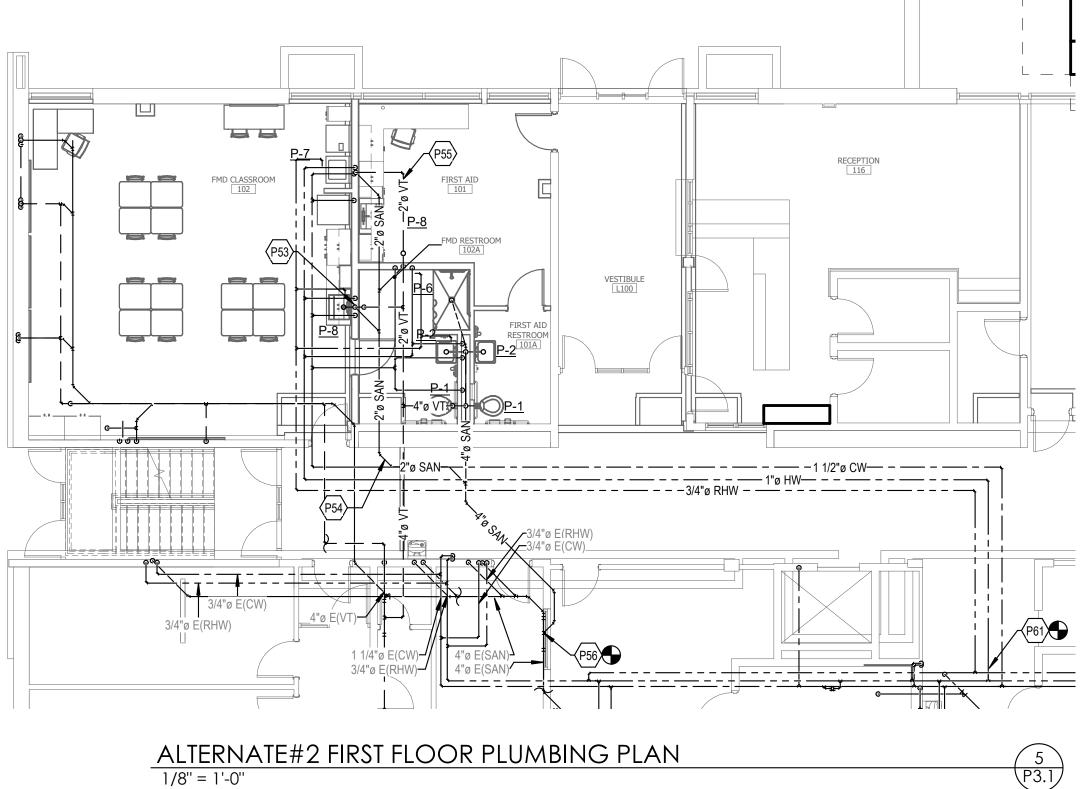


ALT#1 BASEMENT PLUMBING PLAN 1/8" = 1'-0"



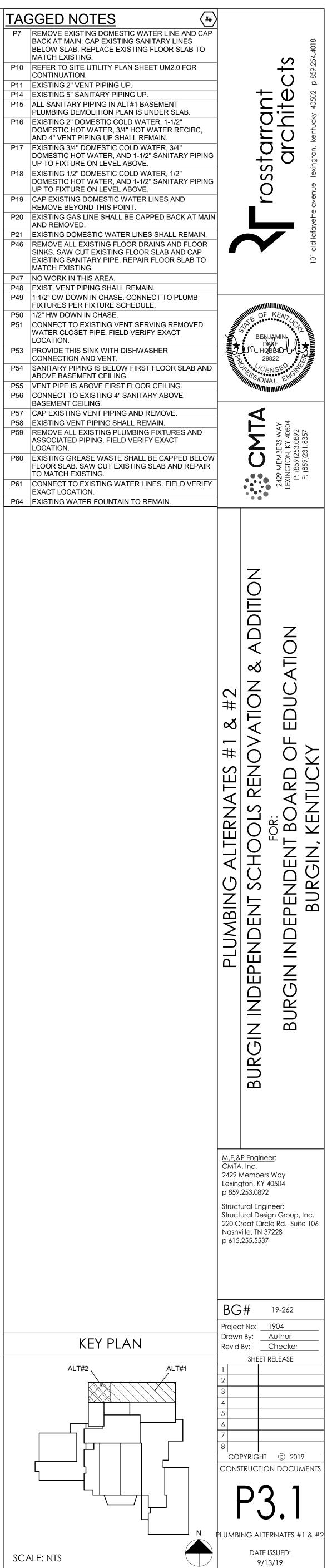
1/8" = 1'-0"



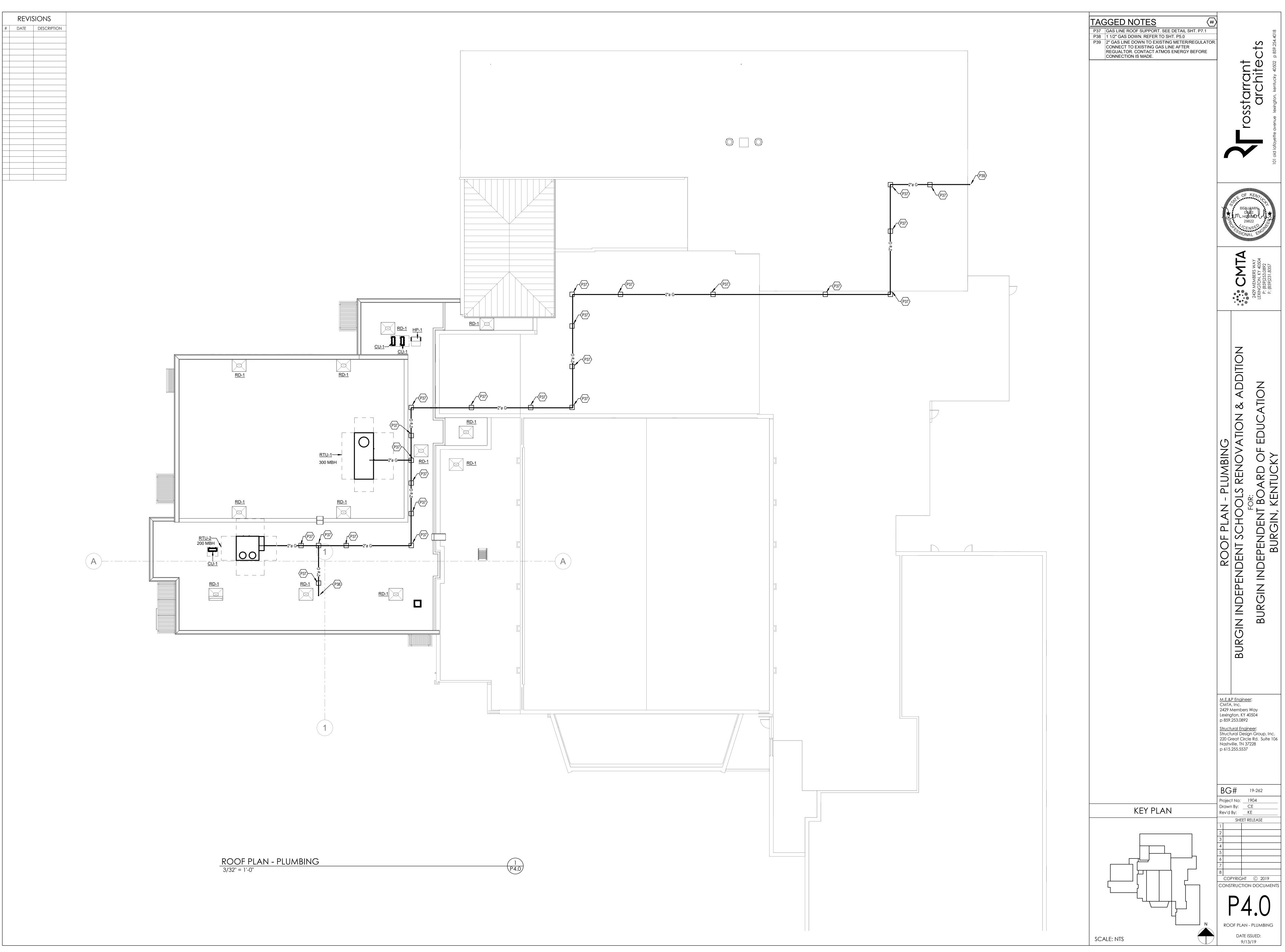


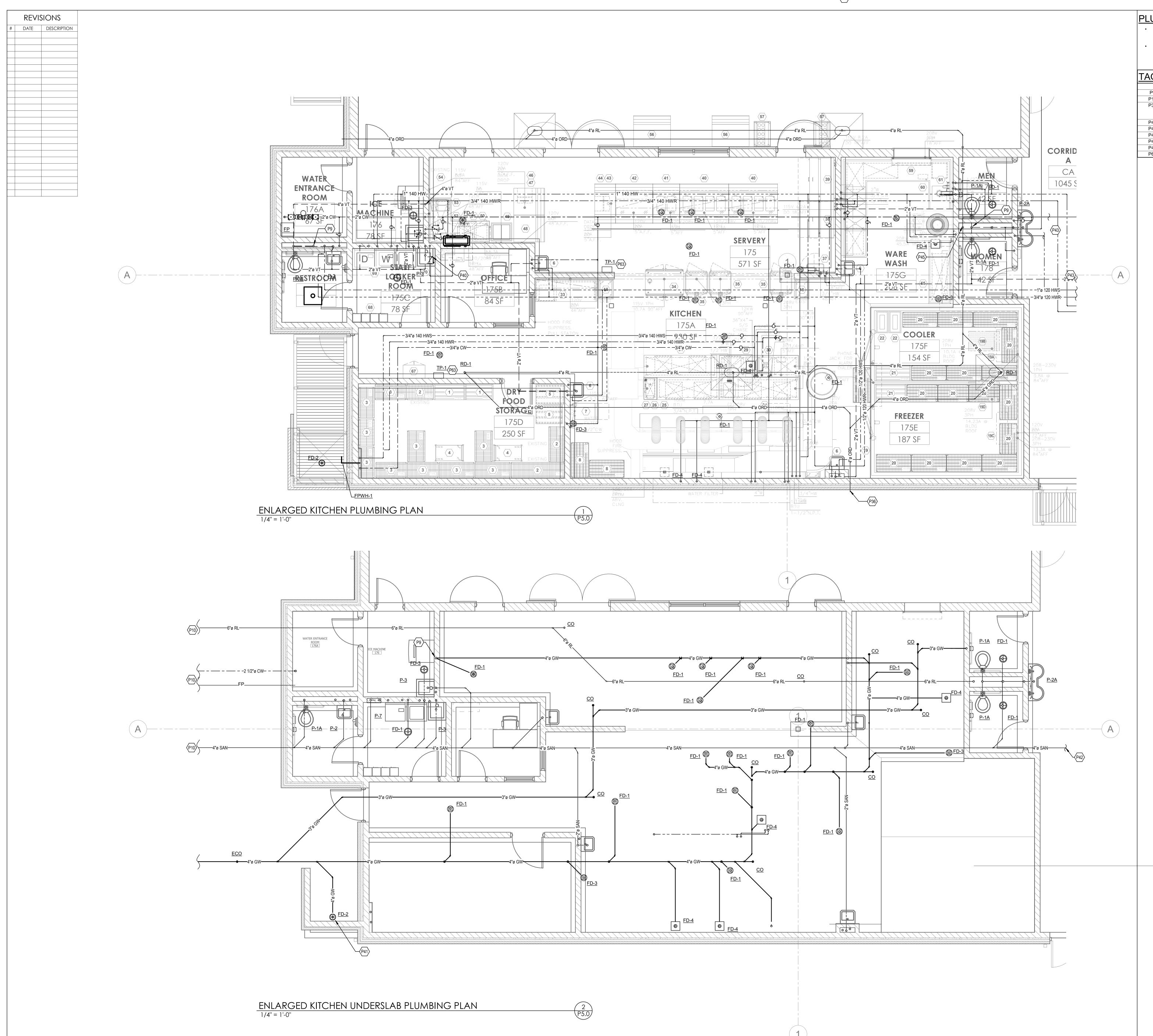
1/8" = 1'-0"

TAC	GED NOTE
P7	REMOVE EXISTING DC BACK AT MAIN. CAP E BELOW SLAB. REPLAC MATCH EXISTING.
P10	REFER TO SITE UTILIT CONTINUATION.
P11	EXISTING 2" VENT PIP
P14	EXISTING 5" SANITAR
P15	ALL SANITARY PIPING PLUMBING DEMOLITIC
P16	EXISTING 2" DOMESTI DOMESTIC HOT WATE AND 4" VENT PIPING L
P17	EXISTING 3/4" DOMES DOMESTIC HOT WATE UP TO FIXTURE ON LE
P18	EXISTING 1/2" DOMES DOMESTIC HOT WATE UP TO FIXTURE ON LE
P19	CAP EXISTING DOMES REMOVE BEYOND THI
P20	EXISTING GAS LINE SH AND REMOVED.
P21	EXISTING DOMESTIC V
P46	REMOVE ALL EXISTING SINKS. SAW CUT EXIS EXISTING SANITARY P MATCH EXISTING.
P47	NO WORK IN THIS ARE
P48	EXIST, VENT PIPING S
P49	1 1/2" CW DOWN IN CH FIXTURES PER FIXTUR
P50	1/2" HW DOWN IN CHA
P51	CONNECT TO EXISTIN WATER CLOSET PIPE. LOCATION.
P53	PROVIDE THIS SINK W CONNECTION AND VE
P54	SANITARY PIPING IS B ABOVE BASEMENT CE
P55	VENT PIPE IS ABOVE F
P56	CONNECT TO EXISTIN BASEMENT CEILING.
P57	CAP EXISTING VENT P
P58	EXISTING VENT PIPING
P59	REMOVE ALL EXISTING ASSOCIATED PIPING. LOCATION.
P60	EXISTING GREASE WA FLOOR SLAB. SAW CU TO MATCH EXISTING.
P61	CONNECT TO EXISTIN EXACT LOCATION.

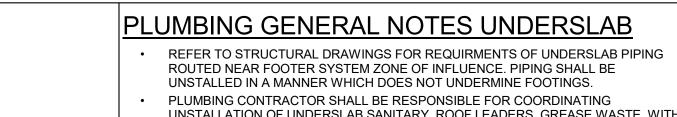


SCALE: NTS



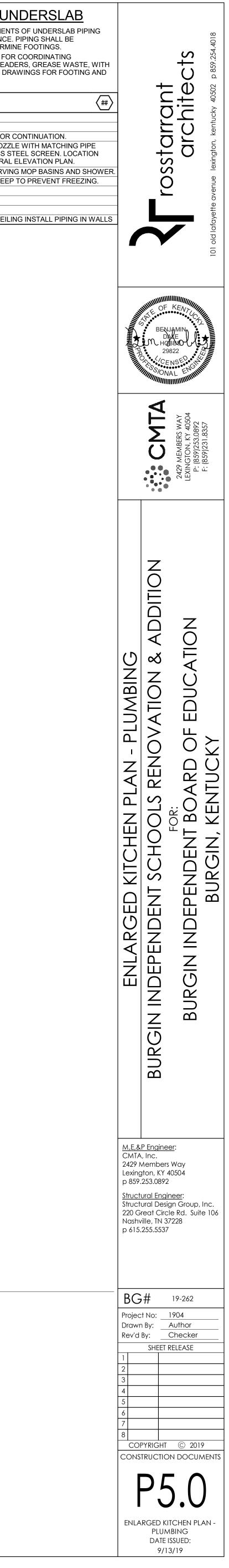




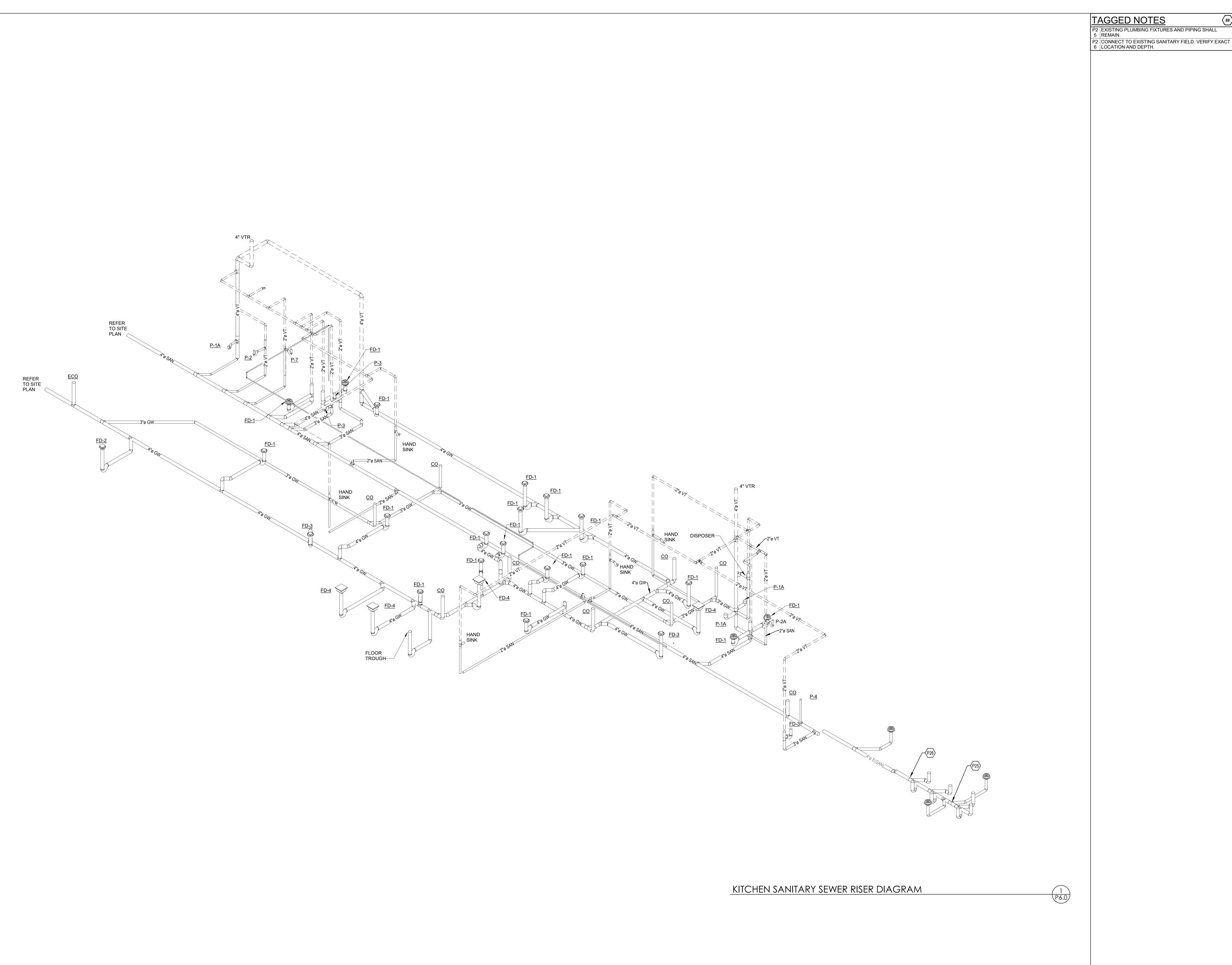


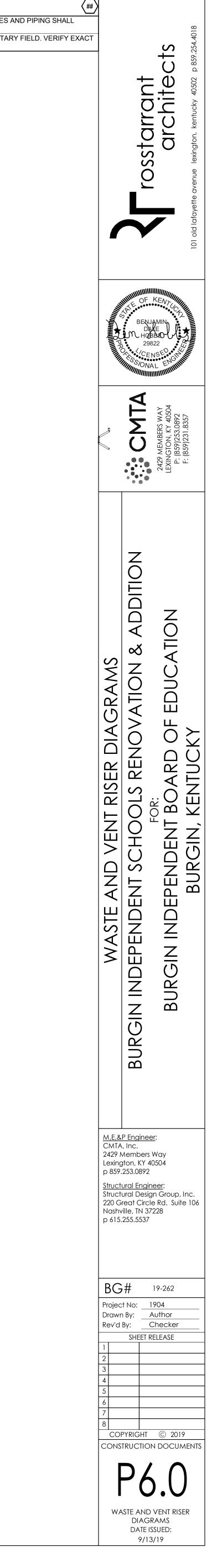
PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING UNSTALLATION OF UNDERSLAB SANITARY, ROOF LEADERS, GREASE WASTE, WITH THE BUILDING FOOTINGS. REFER TO STRUCTURAL DRAWINGS FOR FOOTING AND FOUNDATION PLAN.

TAGGED NOTES		
P9	4" VENT UP TO 4" VTR.	
P10	REFER TO SITE UTILITY PLAN SHEET UM2.0 FOR	
P36	PROVIDE ZURN MODEL Z199 DOWNSPOUT NOZ CONNECTION SIZE. PROVIDE WITH STAINLESS S SHALL BE COORDINATED WITH ARCHITECTURA	
P40	INSTALL CHECK VALVES ON WATER LINE SERVI	
P41	INSTALL CAN WASH DRAIN AT MINIMUM 32" DEE	
P42	REFER TO SHEET P2.0 FOR CONTINUATION.	
P43	REFER TO SHEET P2.1 FOR CONTINUATION.	
P45	4" ROOF LEADER DOWN	
P63	MOUNT ELECTRONIC TRAP PRIMER ABOVE CEIL	

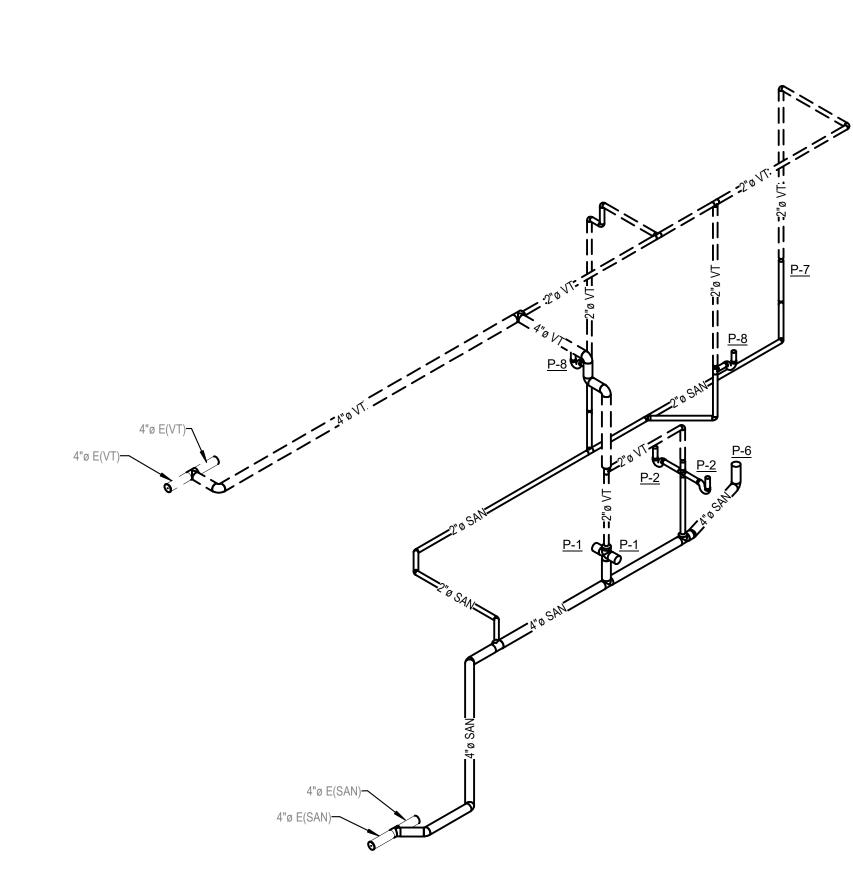


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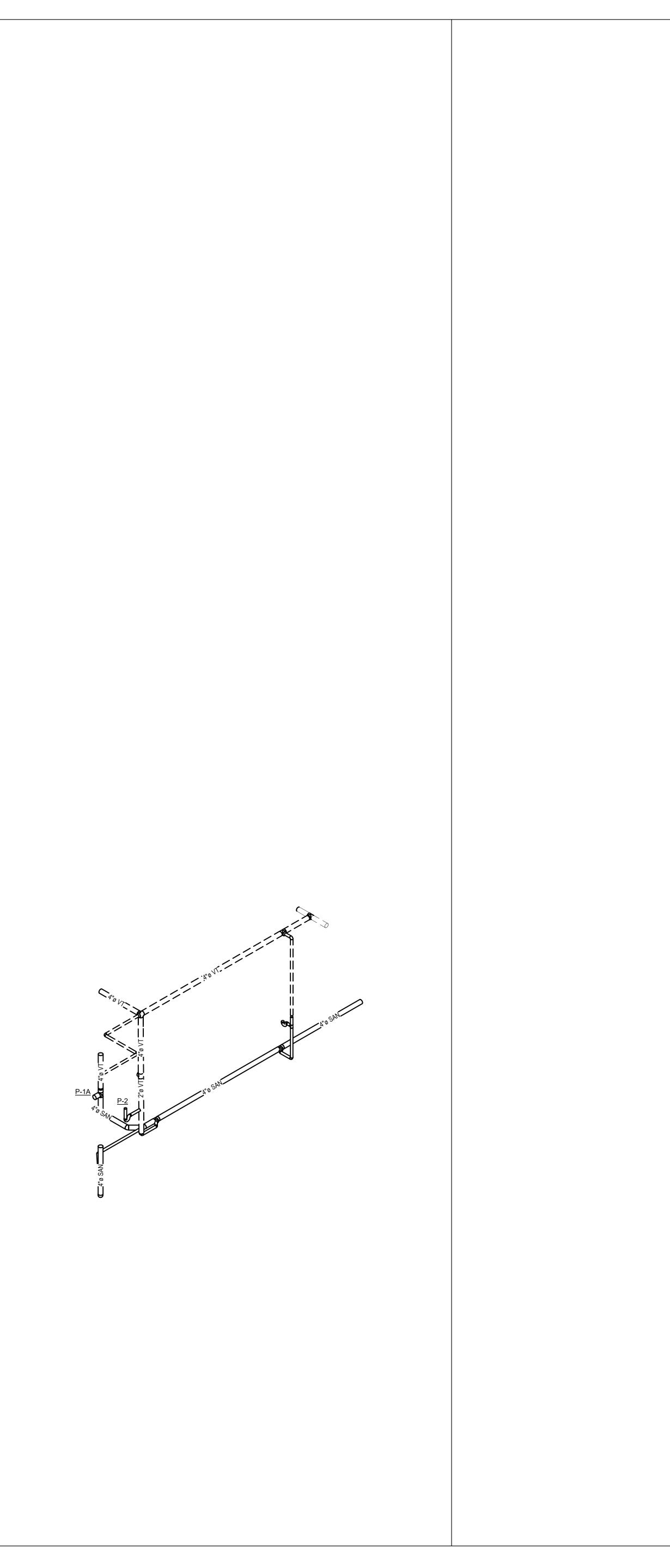


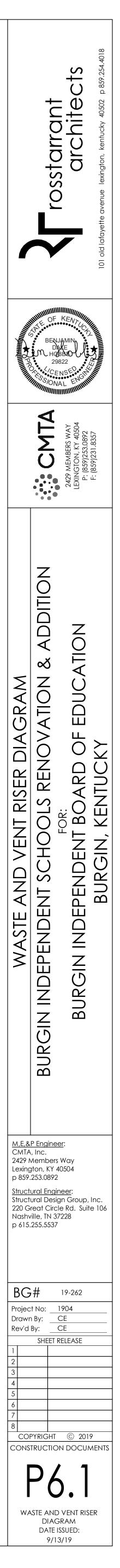
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SANITARY SEWER RISER DIAGRAM





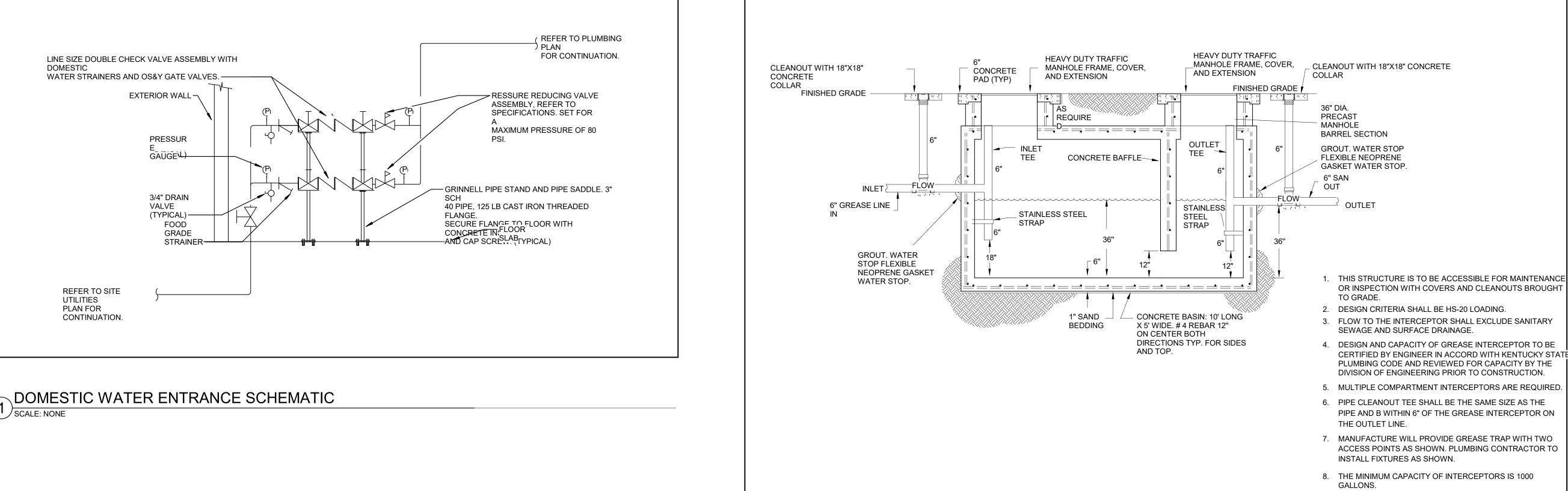


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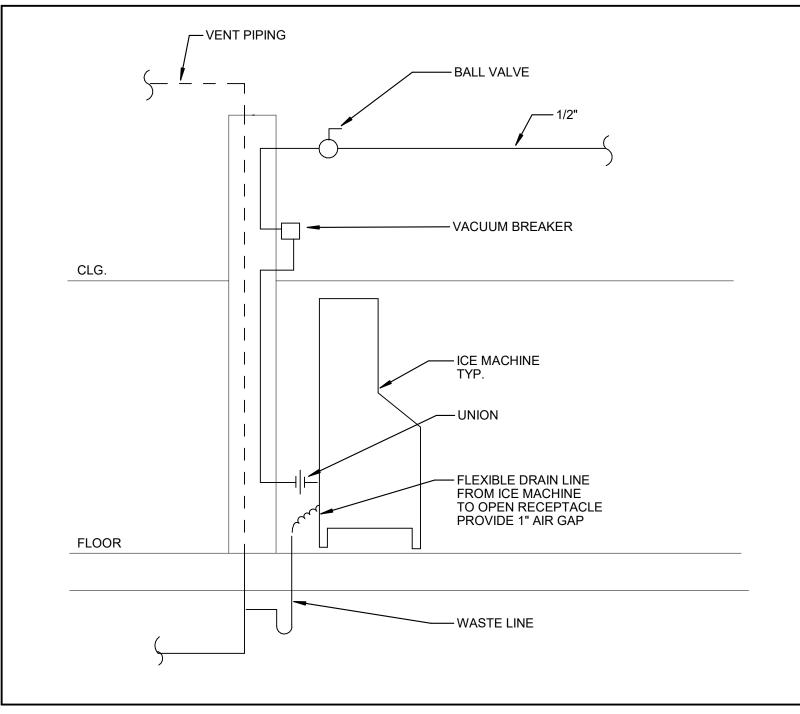
DOMESTIC

UTILITIES PLAN FOR

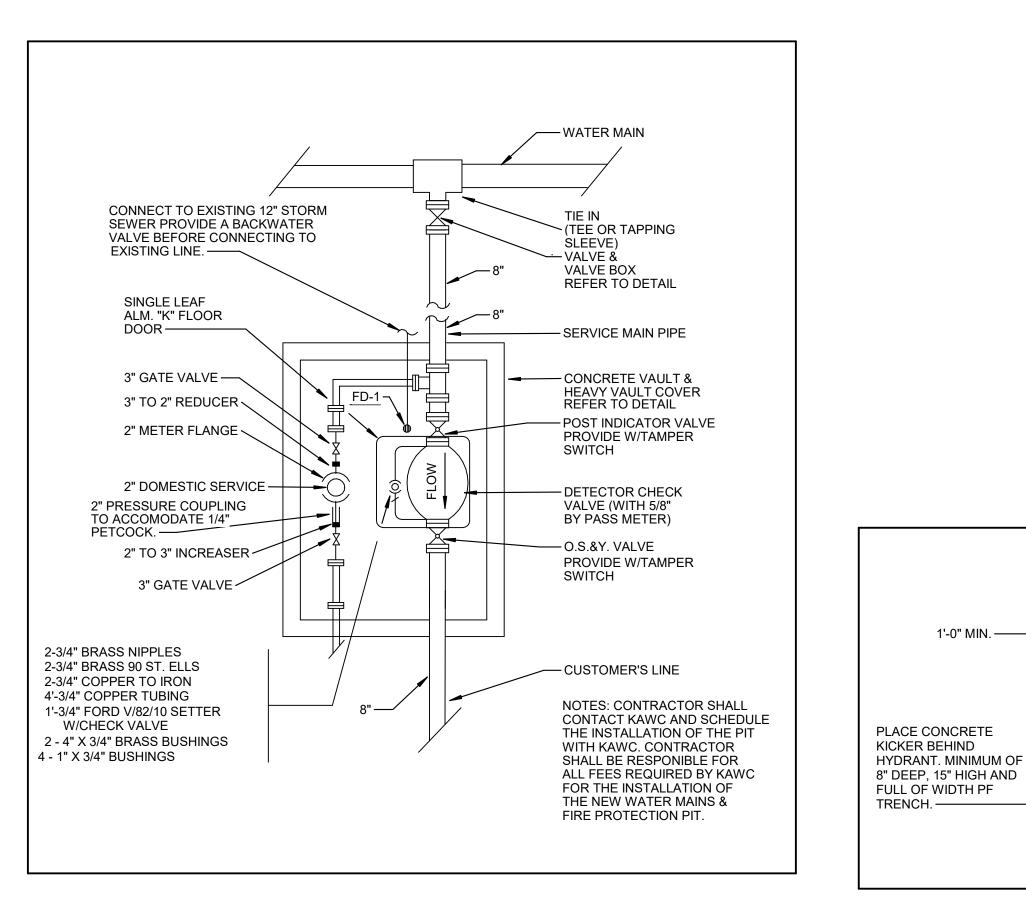
(1) SCALE: NONE



2 SCALE: NONE

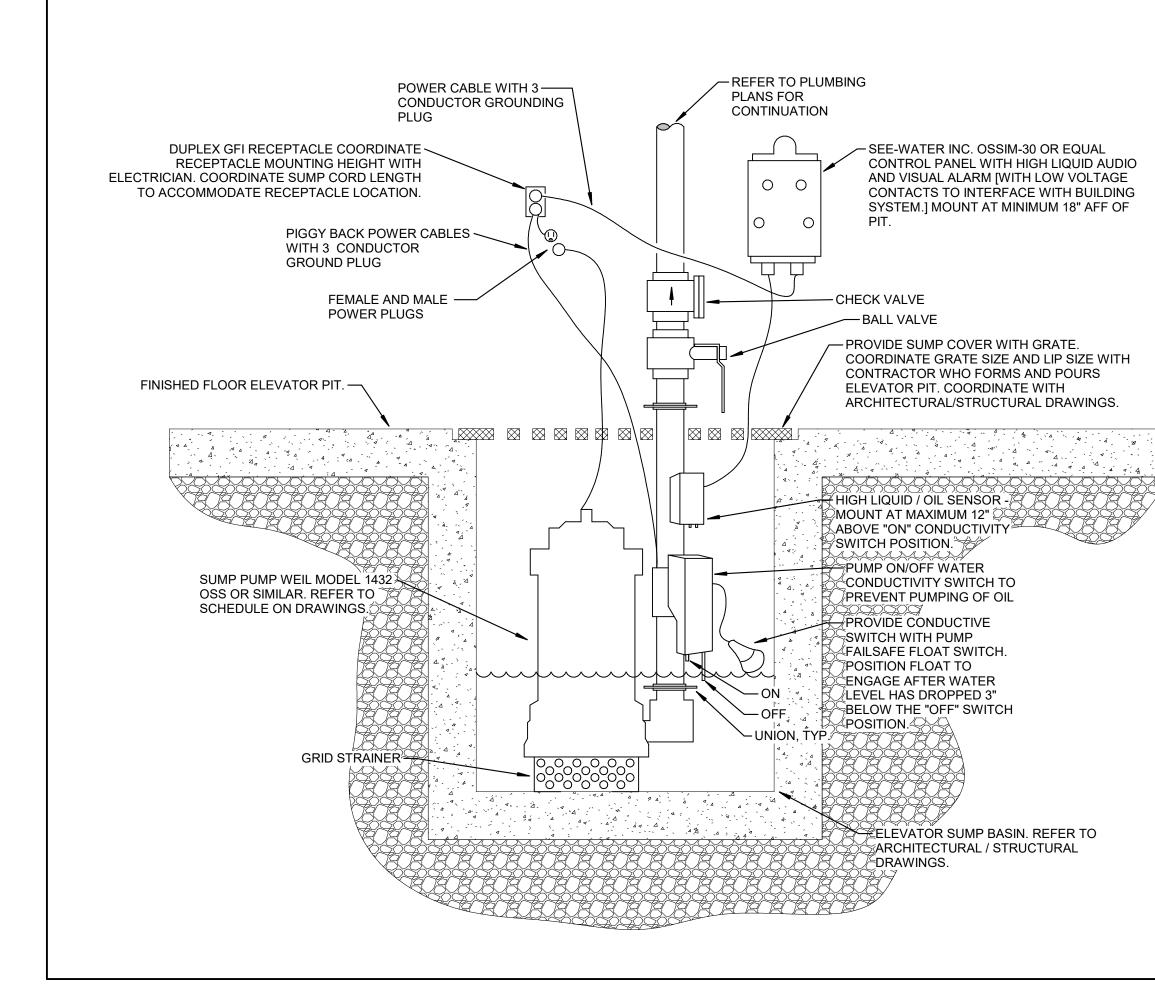


3 ICE MACHINE PIPING SCHEMATIC SCALE: NONE

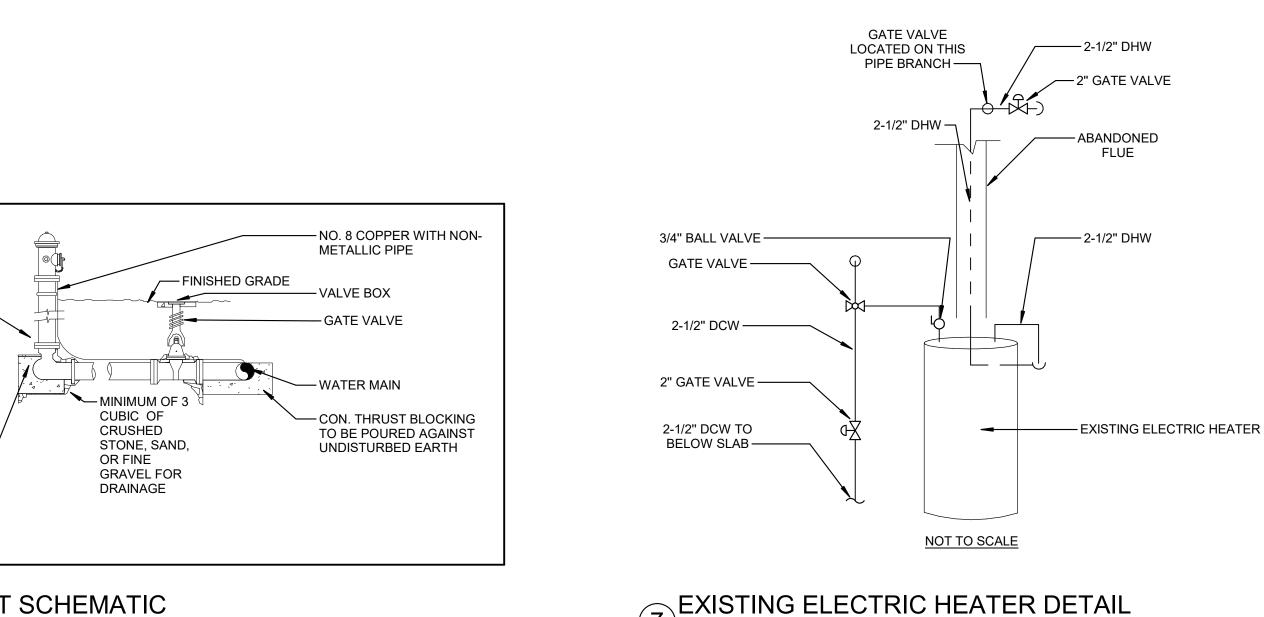


5 FIRE & DOMESTIC WATER VALVE & METER PIT

## 1000 GALLON GREASE TRAP DETAIL



#### AIR CONTROL VALVE DETAIL 4 SCALE: NONE

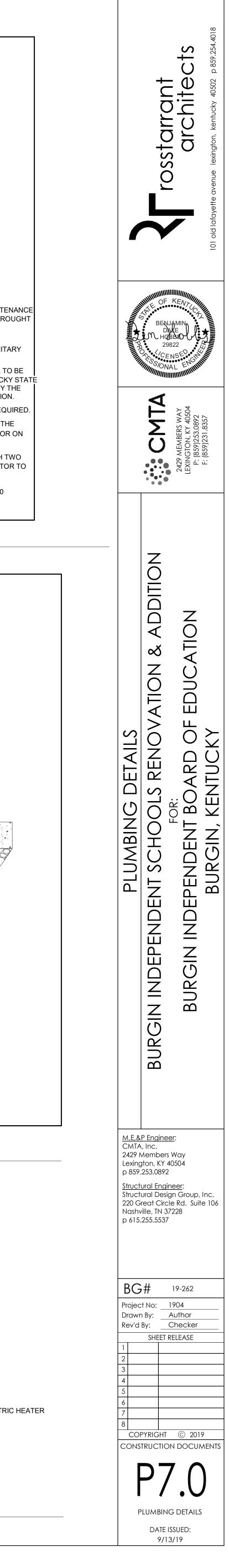


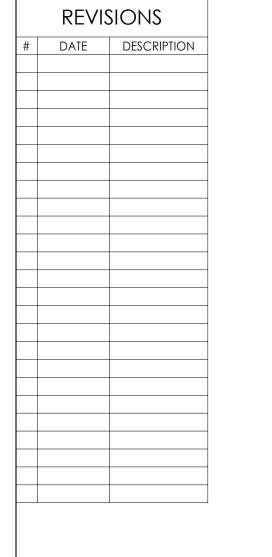
SCALE: NONE

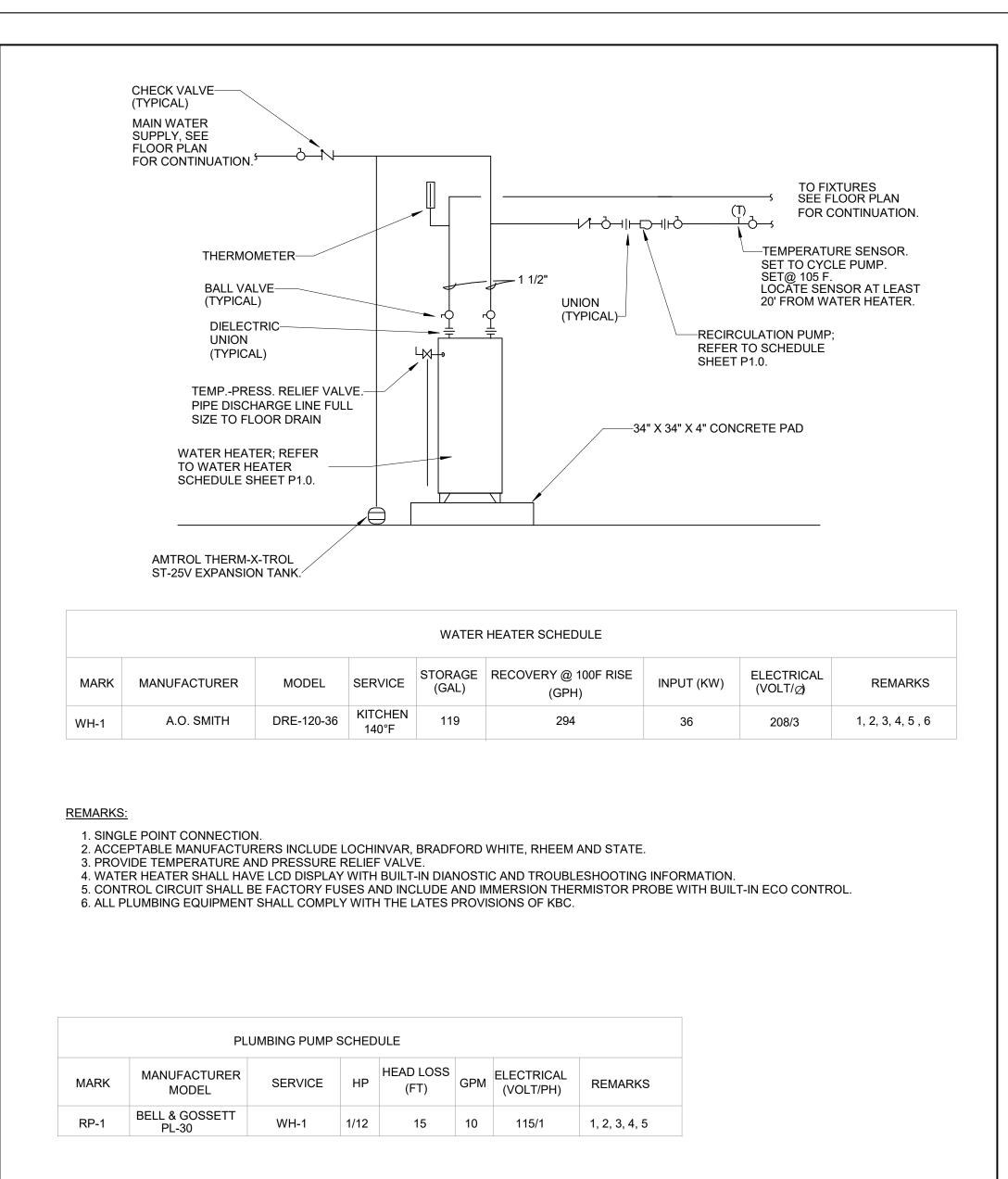
FIRE HYDRANT SCHEMATIC

1'-0" MIN. ——

6 SCALE: NONE







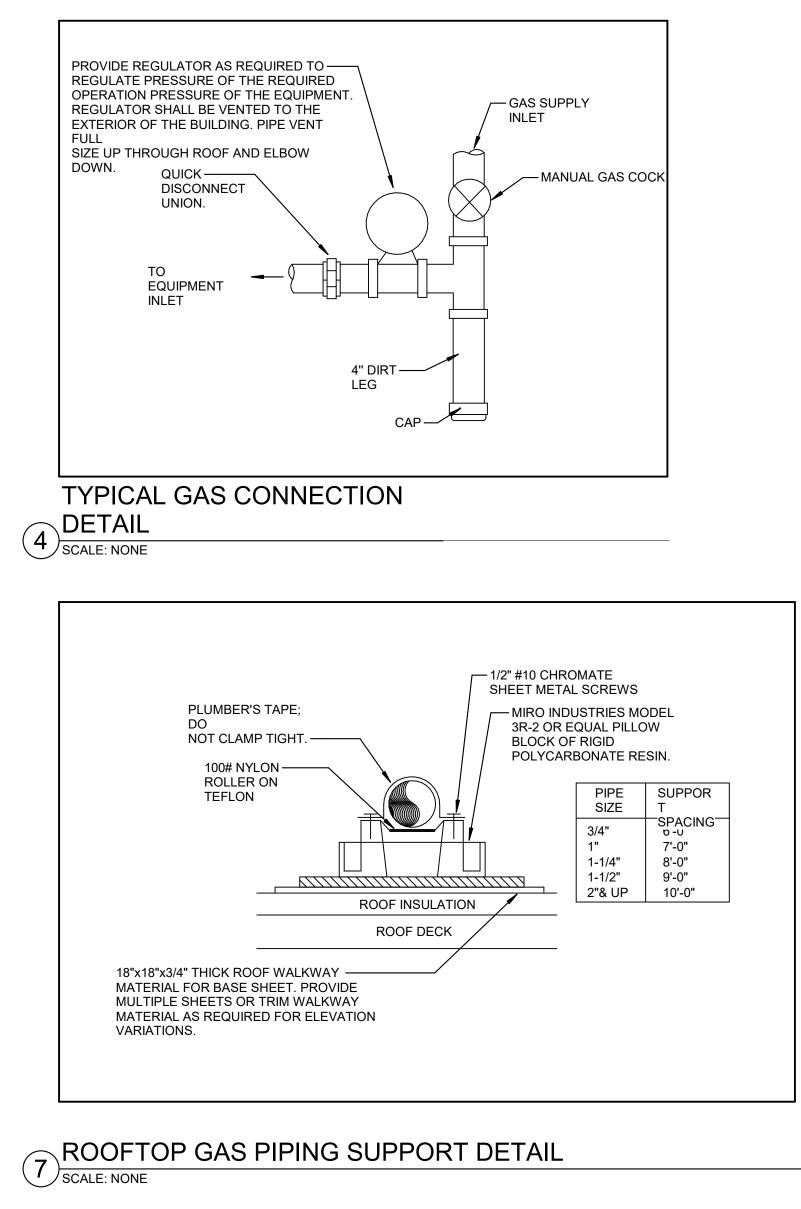
REMARKS

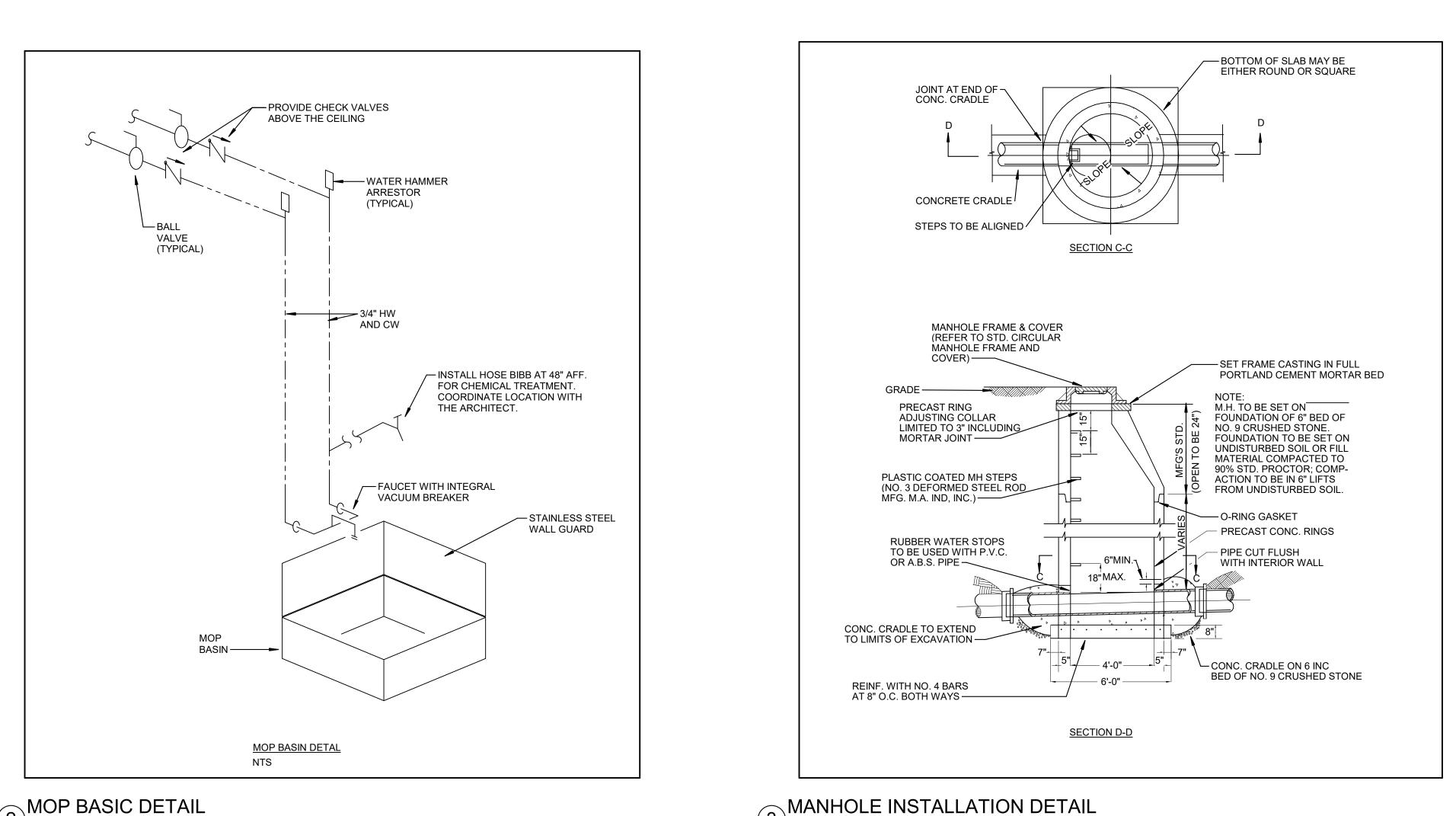
1. SINGLE POINT ELECTRICAL CONNECTION. BRONZE PUMP BODY FOR POTABLE WATER APPLICATION.

REFER TO MECHANICAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. PROVIDE WITH ECM METER WITH BAS INTERFACE.

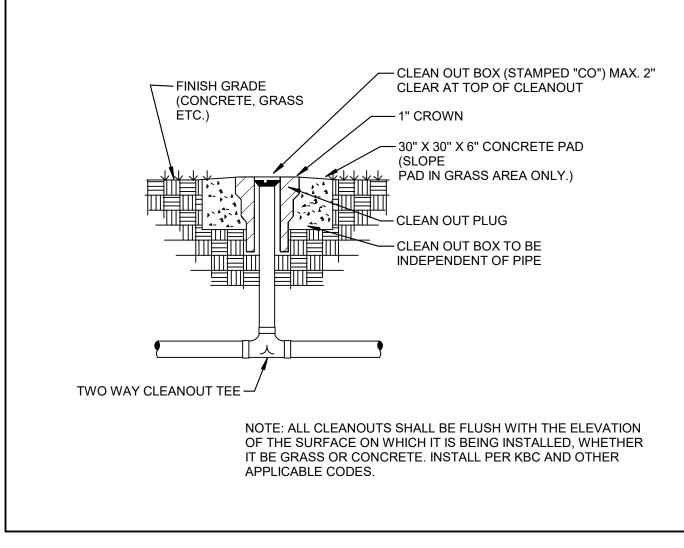
5. EQUALS SHALL INCLUDE THRUSH AND ARMSTRONG. 6. EQUALS SHALL INCLUDE ZOELLER.

#### SINGLE WATER HEATER WITH RECIRC - PIPING SCHEMATIC SCALE: NONE

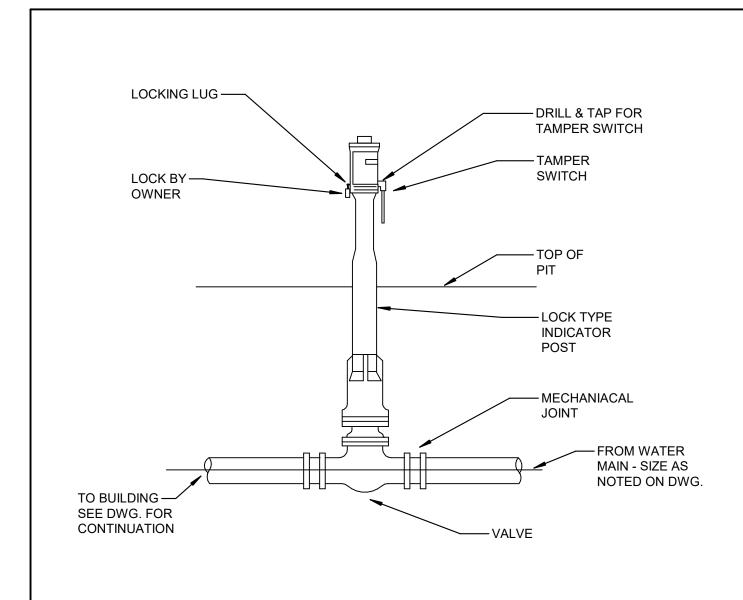




2 MOP BASIC DETAIL SCALE: NONE

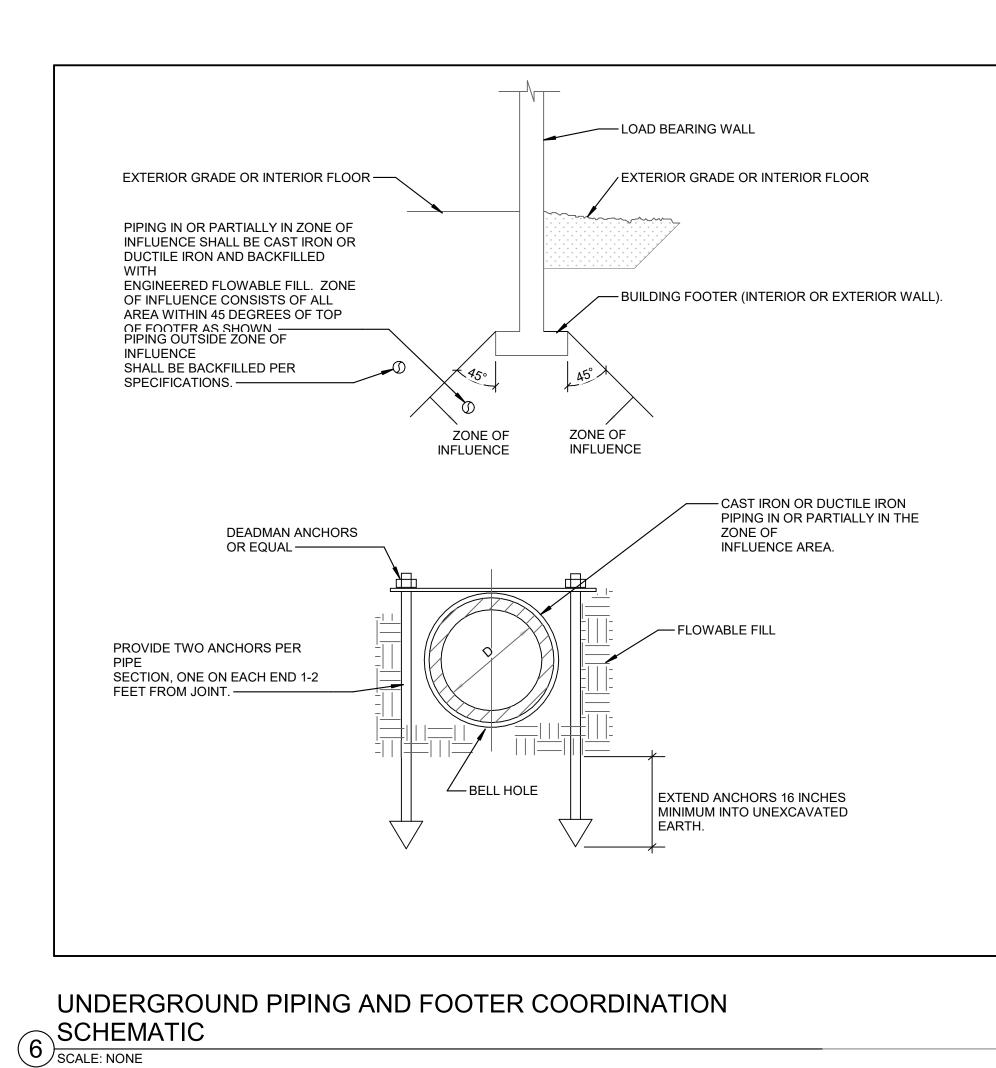


**SEXTERIOR CLEANOUT DETAIL** (5)

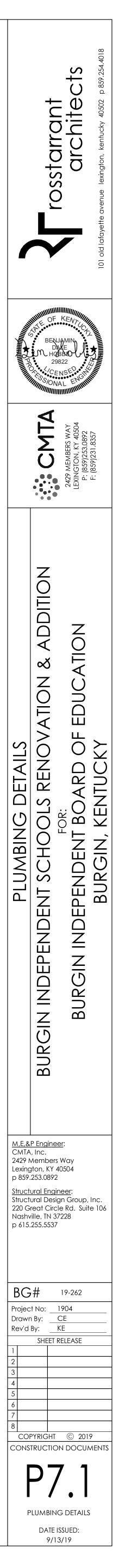


8 POST INDICATOR VALVE (P.I.V.) DETAIL SCALE: NONE





ACCEPTABLE MANUFACTURERS FOR PLUMBING FIXTURES, TRIM, AND EQUIPMENT WATER CLOSETS, LAVATORIES, URINALS MOP SINKS AND SERVICE SINKS WASH FOUNTAINS TRAP PRIMER FIAT PRODUCTS, AMERICAN STANDARD, ELJER, BRADLEY, ACORN, WILLOUGHBY, INTERSAN PPP, SIOUX CHIEF AMERICAN STANDARD, KOHLER, CRANE, ZURN KOHLER, FLORESTONE, STERN-WILLIAMS EMERGENCY FIXTURES - EYEWASH, FAUCETS AND TRIM FIXTURE CARRIERS WATER HEATE <u>SHOWERS</u> AMERICAN STANDARD, KOHLER, CHICAGO, ZURN, WADE, JOSAM, WATTS _OCHINVAR, AO SMITH, GUARDIAN, BRADLEY, SPEAKMAN DELTA, T&S BRASS COMMERCIAL, ZURN, JUST, WHITE, STATE, PVI, SPEAKMAN, MOEN COMMERCIAL TEMPERING VAL STAINLESS STEEL SINKS FLUSH VALVES P-TRAP INSULATION KIT (TRAP WRAP) LEONARD, LAWLER, BRADLEY, AMERICAN STANDARD, SLOAN, ZURN, MOEN ELKAY, JUST, MOEN, STERLING TRUEBRO, BROCAR, PLUMBEREX SYMMONS SHOWER STALLS FIXTURE SEATS EXPANSION TANKS FLOOR DRAINS CLARION, UNIVERSAL-RUNDLE, AQUA-BATH, BEMIS, CHURCH, OLSONITE AMTROL, WATTS, BELL & GOSSET1 ZURN, WADE, JOSAM, WATTS AQUA-GLASS, AQUARIUS SHOWER VALVES ELECTRIC WATER COOLERS WALL HYDRANTS AND HOSE BIBBS WASHER BOX LEONARD, LAWLER, BRADLEY, ELKAY, HALSEY TAILOR, HAWS, OASIS ZURN, WOODFORD, WATTS GUY GRAY, WOLVERINE, OATEY POWERS



<u>RS</u> F, ZURN
<u>ers</u> I, bradford I, rheem
LVES

REVISIONS				
#	DATE	DESCRIPTION		

#### **GENERAL NOTES - MECHANICAL**

- A. COORDINATE THE LOCATION OF DRAINS, THERMOSTATS, GA ETC., WITH ALL CASEWORK EQUIPMENT, MECHANICAL ROOM ETC., PRIOR TO COMMENCING INSTALLATION. WORK THAT I COORDINATED SHALL BE REMOVED AND PROPERLY INSTALLE EXPENSE OF THE CONTRACTOR.
- B. THE CONTRACTOR SHALL EXERCISE EXTREME CARE IN THE ( THEIR WORK SO AS TO ENSURE THAT THEY DO NOT INTERR EXISTING SERVICE. FOR SAFETY PURPOSES, PAY PARTICUL TO THIS PRECAUTION RELATIVE TO NATURAL GAS AND ELEC VERIFY THE LOCATION, SIZE, TYPE, ETC., OF EACH UNDERGE OVERHEAD UTILITY. ALL WORK SHALL BE PERFORMED IN AC ALL FEDERAL, STATE AND/OR LOCAL RULES, REGULATIONS, S AND SAFETY REQUIREMENTS. UTILITIES SHALL BE INSTALLE
- WITH THE APPLICABLE MUNICIPALITY OR UTILITY COMPANY IN ALL CASES, THE MOST STRINGENT REQUIREMENT SHALL C. WHERE WORK IS REQUIRED ABOVE EXISTING LAY-IN, PLASTE BOARD CEILINGS, THE CONTRACTOR SHALL BE RESPONSIBLE REMOVAL AND REINSTALLATION (OR REPLACEMENT, IF DAMA CEILING OR TILE AND GRID MEMBERS NECESSARY TO PERFO NEW TILE AND GRID SHALL MATCH THE SURROUNDING AREA PATCHING WORK SHALL MATCH ADJACENT SURFACES.
- D. ALL NEW WORK SHALL BE HUNG FROM STRUCTURE, NOT FRO OF OTHER TRADES, WHETHER EXISTING OR NEW. E. COORDINATE ALL WORK WITH PROJECT PHASING REQUIREM F. PATCH, REPAIR AND PAINT OR PROVIDE WALL COVERING FOR STANDARDS) EXISTING WALLS, CEILINGS, ETC., THAT ARE TO DAMAGED DURING CONSTRUCTION. REPAIRS SHALL MATCH
- SURFACES TO THE SATISFACTION OF THE ARCHITECT AND O G. OBSERVE ALL APPLICABLE CODES, RULES AND REGULATIONS APPLY TO THE WORK UNDER THIS CONTRACT. (CITY, COUNT FEDERAL, MUNICIPALITY, UTILITY COMPANY, COMMONWEALT KENTUCKY, ETC.)
- H. CONTRACTOR SHALL BE AWARE OF UNSEEN PLUMBING, HVAC ELECTRICAL WORK DURING DEMOLITION. IF ITEMS ARE UNCO DURING DEMOLITION THEN FIELD VERIFY THE USE OF THE I PLAN AN ALTERNATE ROUTE TO RUN THESE ITEMS. CONTACT ENGINEERS TO REVIEW THE ROUTING. I. IF AREA OF CONSTRUCTION HAS A POST TENSION FLOOR SLA
- CONTRACTOR SHALL USE ULTRA SOUND OR OTHER APPROVE SURVEY THE EXISTING FLOOR STRUCTURE BEFORE MAKING A FLOOR PENETRATIONS. J. WHERE FIRE PROOFING IS SPRAYED ON EXISTING STRUCTUR EXISTING CONDUITS, WATER, HYDRONIC, STEAM, CHILLED \
- PROTECTION LINES, ETC. SHALL BE LOWERED TO BE BELOW THICKNESS OF FIRE PROOFING WITH NO INTERFERENCE. K. ALL PENETRATIONS OF FIRE AND SMOKE RATED ASSEMBLIES APPROPRIATELY FIRE STOPPED PER AN APPROVED U.L. LISTE CONTRACTOR SHALL PAY PARTICULAR ATTENTION TO INSULA PENETRATIONS.
- L. ALL WORK REQUIRING DOWNTIME OF ANY AREA IN THE BUIL BE SCHEDULED 2 WEEKS IN ADVANCE, AND SHALL COMPLY LIFE SAFETY MEASURES. M. ALL DUCTWORK, PIPING, CONDUITS, ETC. IN ROOMS WITH CE
- BE ABOVE CEILING EXCEPT AS NOTED. N. INSTALL AIR VENTS AT HIGH POINTS IN PIPING AND DRAINS POINTS. USE CARE TO AVOID FREEZING OF EXTERIOR VENTS O. LOCATIONS OF PIPING, DUCTS AND EQUIPMENT ARE APPROX SUBJECT TO MINOR ADJUSTMENTS IN THE FIELD. DO NOT SU
- DRAWINGS. P. ALL OFFSETS IN DUCTS AND PIPING ARE NOT NECESSARILY PROVIDE ADDITIONAL OFFSETS WHERE NECESSARY. Q. COORDINATE ALL HVAC WORK WITH ELECTRICAL, PLUMBING TRADES TO AVOID INTERFERENCE WITH PIPING, DUCTS, CON OTHER EQUIPMENT.
- R. INSTALL ALL PIPING, DUCTWORK AND EQUIPMENT IN STRICT WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. IF IN WITH THE DESIGN INDICATED IN CONTRACT DOCUMENTS, A ENGINEERS PRIOR TO INSTALLATION FOR CLARIFICATION. RECOMMENDED ACCESS AND SERVICE CLEARANCES FOR ALL
- S. SEAL AIRTIGHT AROUND ALL DUCTS AND PIPING PENETRATI WALLS, FLOORS AND ROOF. PROVIDE FIRE STOPPING IN FIRE T. SEAL ALL NEW DUCTWORK JOINTS WITH UNITED MCGILL, IR OR EQUAL WATER BASED SEALANT. U. ALL MOTOR DRIVEN EQUIPMENT SHALL BE INSTALLED WITH
- CONNECTIONS TO DUCTWORK, PIPING, ETC., UNLESS OTHER V. THE CONTRACTOR SHALL RELOCATE OR AVOID ANY EXISTING APPURTENANCES, ETC., THAT CONFLICT WITH NEW WORK. W. WHERE MOUNTING HEIGHTS ARE NOT INDICATED OR ARE IN WITH ANY OTHER BUILDING SYSTEM, CONTACT THE ENGINE INSTALLATION. REFER ALSO TO ARCHITECTURAL WALL INTE
- EXTERIOR WALL ELEVATIONS, CEILING HEIGHTS AND OTHER THESE DOCUMENTS. X. DOUBLE WIDTH TURNING VANES SHALL BE INSTALLED IN ALL RETURN, AND EXHAUST DUCTWORK ELBOWS. TURNING VANE REQUIRED FOR KITCHEN EXHAUSTS.
- Y. ANY VIBRATING, OSCILLATING OR OTHER NOISE OR MOTION EQUIPMENT SHALL BE ISOLATED FROM SURROUNDING SYSTE APPROVED MANNER. NOISY OR STRUCTURALLY DAMAGING I SHALL BE SATISFACTORILY REPLACED OR REPAIRED AT THE CONTRACTOR'S EXPENSE. THE FINAL DECISION ON THE SUIT PARTICULAR INSTALLATION'S ACCEPTABILITY SHALL BE THAT
- ENGINEER. Z. DEVIATIONS IN SIZE, CAPACITIES, FIT, FINISH, ETC. FOR EQU THAT USED AS BASIS OF DESIGN SHALL BE THE RESPONSIBI PURCHASER OF THAT EQUIPMENT. ANY PROVISIONS REQUIR ACCOMMODATE A DEVIATION, WHETHER APPROVED BY THE
- NOT, SHALL BE THE RESPONSIBILITY OF THE PURCHASER. AA. VALVES, BALANCING DAMPERS OR ANY MECHANICAL/ELECTR REQUIRING ACCESS SHALL NOT BE LOCATED ABOVE A HARD THIS IS NOT POSSIBLE, THEN AN APPROPRIATELY SIZED ACC SHALL BE PLACED UNDER THE ITEM TO ALLOW EASY MAINTE ADJUSTMENT. ADDITIONALLY ALL SUCH ITEMS SHALL NOT B UNREASONABLE DISTANCE ABOVE THE CEILINGS. IN GENERA ITEMS UNLESS INDICATED OTHERWISE SHALL BE MOUNTED S INCHES ABOVE THE CEILING. IF IN DOUBT, CONTACT ENGINE
- INSTALLING. BB. ALL MANHOLES, VAULTS AND SIMILAR UNDERGROUND STRUC HAVE THE TOP ELEVATION SET FLUSH WITH FINISHED GRADE SPECIFICALLY NOTED OTHERWISE.
- CC. WHEN ROUTING ANY TYPE OF PIPING BELOW A FOOTER, OR OF INFLUENCE THE PIPING SHALL BE BACKFILLED WITH CEMI FLOWABLE FILL PER SPECIFICATIONS. WHENEVER POSSIBLE, PIPING OUTSIDE OF THE ZONE OF INFLUENCE. THE ZONE OF THE AREA UNDER THE FOOTER WITHIN A 45 DEGREE ANGLE DOWN FROM THE BOTTOM EDGE OF THE FOOTER OF ALL SID FOOTER. ADDITIONALLY, GREASE TRAPS, MANHOLES, VAULT UNDERGROUND STRUCTURES SHALL BE HELD AWAY FROM E
- FAR ENOUGH TO BE OUTSIDE OF THE ZONE OF INFLUENCE. DD. WORK IN CONFINED AREAS SHALL BE IN ACCORDANCE WITH THE OWNER'S SAFETY POLICY REQUIREMENTS.

## **GENERAL NOTES - DEMOLITION**

- A. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR AREAS IN WHICH THE CEILING IS REMAINING. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE EXISTING CEILING AS REQUIRED AND REINSTALLATION. TEMPORARILY SUPPORT LIGHTS, DIFFUSERS, CEILING ETC. REPLACE BROKEN CEILING TILES WITH NEW AT NO ADDITIONAL COST TO OWNER. FIELD VERIFY EXACT REQUIREMENTS.
- B. ALL OUTAGES SHALL BE SCHEDULED THROUGH THE PROJECT REPRESENTATIVE FOR PROPER COORDINATION. A REQUEST FOR AN OUTAGE SHALL BE SUBMITTED IN WRITING A MINIMUM OF TWO WEEKS IN ADVANCE.
- C. DURING SPRINKLER SYSTEM OUTAGES THE CONTRACTORS SHALL PROVIDE FIRE WATCH OF AREAS WITH OUTAGES. D. ALL WALLS AND FLOOR SLABS SHALL BE REPAIRED TO MATCH EXISTING
- AND TO A LIKE NEW CONDITION. ALL RATED WALLS AND FLOOR SLABS SHALL BE PATCHED AND REPAIRED TO MAINTAIN RATING. E. ALL EXISTING BUILDING FINISHES SHALL BE PROTECTED DURING THE
- DEMOLITION PHASE. F. HEAVY DASHED LINES INDICATE ITEMS FOR REMOVAL (U.O.N) AND LIGHT SOLID LINES INDICATE EXISTING ITEMS TO REMAIN.
- G. COORDINATE DISPOSAL OF ALL FIXTURES, DEVICES, ETC. (INDICATED FOR DEMOLITION) WITH THE OWNER.

## PHASING NOTES

SERVICES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE AND PHASE ALL TIE-INS AND INTERRUPTIONS OF EXISTING SERVICES TO MINIMIZE OR ELIMINATE DOWNTIME. AS AN EXAMPLE, MAIN GAS SERVICE, WATER SERVICE, ELECTRICAL SERVICE, HVAC SERVICES, ETC., WILL BE AFFECTED AND REPLACED OR MOVED DURING THIS PROJECT. THE CONTRACTOR SHALL INSTALL ALL NEW SERVICES AND EQUIPMENT AND HAVE THEM TESTED AND FULLY AND RELIABLY FUNCTIONAL PRIOR TO INTERRUPTING, RELOCATING OR REMOVING ANY EXISTING SERVICES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO BARE ANY AND ALL COSTS ASSOCIATED WITH THIS PHASING, INCLUDING TEMPORARY SERVICES, TEMPORARY RELOCATION, PREMIUM TIME WORK, ETC. CONTRACTOR SHALL COORDINATE ALL SAID WORK WITH THE OWNER AND

	ABBREVIA	TIONS	ABBREVIAT	TIONS (CONTINUED)	ABBREVI	ATIONS (CONTINUED)	GENERAL	SYMBOLS	MECHANIC	AL PIPING LEGEND
S, GAS OUTLETS, OOM EQUIPMENT,	AC	ALTERNATING CURRENT	FD	FIRE DAMPER	NO	NORMALLY OPEN <b>OR</b> NUMBER	<b>(</b> # <b>)</b>	TAGGED NOTE DESIGNATOR	—o	PIPE ELBOW TURNING UP
IAT IS NOT FALLED AT THE	ADJ	ADJUSTABLE	FL	FLOOR	NTS	NOT TO SCALE	$\bigwedge$	REVISION TRIANGLE		PIPE ELBOW TURNING DOWN
THE COURSE OF TERRUPT ANY	AFF	ABOVE FINISHED FLOOR	FLA	FULL LOAD AMPS	OC	ON CENTER	ROOM NAME	ROOM TAG		PIPE TEE; CONNECTION ON TOP
CULAR ATTENTION ELECTRICAL LINES.	AFR	ABOVE FINISHED ROOF	FOB	FLAT ON BOTTOM	OD	OUTSIDE DI (-AMETER, -MENSION)	TAG XXX-# INSTANCE XXXX	EQUIPMENT TAG		PIPE TEE; CONNECTION ON BOTTOM
ERGROUND OR IN ACCORD WITH	AFUE	ANNUAL FUEL UTILIZATION EFFICIENCY	FOT	FLAT ON TOP	CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED	•	POINT OF CONNECTION / CONNECT TO EXISTING		PIPE CAP
ONS, STANDARD TALLED IN ACCORD	AHJ	AUTHORITY HAVING JURISDICTION	FPC	FIRE PROTECTION CONTRACTOR	OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED	<b>~</b>	POINT OF DEMOLITION	——BFW——	BOILER FEEDWATER
PANY STANDARDS. ALL APPLY.	AMP	AMPERE (AMP, AMPS)	FPM	FEET PER MINUTE	OFOI	OWNER FURNISHED, OWNER INSTALLED			CAI/E	COMBUSTION AIR INTAKE/EXHAUST
ASTER OR GYPSUM SIBLE FOR DAMAGED) OF ALL	ANSI	AMERICAN NATIONAL STANDARD INSTITUTE	FPS	FEET PER SECOND	OR	OPEN RECEPTACLE			CBS/R	CHILLED BEAM SUPPLY/RETURN
ERFORM HIS WORK. AREAS. ALL	APD	AIR PRESSURE DROP		FEET <b>OR</b> FOOT	OZ	OUNCE (-S)				CONDENSATE
FROM THE WORK	ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATION, AND		FUTURE	PC	PLUMBING CONTRACTOR				UNDERSLAB CONDENSATE
IREMENTS.	ATU	AIR-CONDITIONING ENGINEERS		FACE VELOCITY	PD	PRESSURE DROP				CHILLED WATER SUPPLY/RETURN
G FOR (TO OWNER'S RE TO REMAIN IF										
NTCH ADJACENT ND OWNER. IONS THAT MAY	AVG	AVERAGE		GAGE/GAUGE	PH	PHASE [ELECTRICAL]				DUAL TEMP. WATER SUPPLY/RETURN
OUNTY, LOCAL, VEALTH OF	BAS	BUILDING AUTOMATION SYSTEM		GALLON (-S)	PLBG	PLUMBING		SUPPLY AIR DIFFUSER		GEOTHERMAL WATER SUPPLY/RETURN
HVAC AND	BHP	BREAK HORSEPOWER	GC	GENERAL CONTRACTOR	PPM	PARTS PER MILLION		RETURN AIR DIFFUSER	—HPS/R—	HEAT PUMP WATER SUPPLY/RETURN
UNCOVERED THE ITEMS AND	BTU	BRITISH THERMAL UNIT	GPD	GALLONS PER DAY	PRS	PRESSURE REDUCING STATION		EXHAUST AIR DIFFUSER	—HRS/R—	HEAT RECOVERY SUPPLY/RETURN PIPING
	САР	CAPACITY	GPH	GALLONS PER HOUR	PRV	PRESSURE REDUCING VALVE (STEAM, WATER, GAS)		TRANSFER AIR DIFFUSER W/ SOUND ATTENUATING BOOT	—HWS/R—	HEATING WATER SUPPLY/RETURN
R SLAB, ROVED METHODS TO	CAV	CONSTANT AIR VOLUME	GPM	GALLONS PER MINUTE	PSF	POUNDS PER SQUARE FOOT	_	SIDEWALL DIFFUSER/GRILLE	D(XXX)	PIPING TO BE DEMOLISHED - (XXX) DENOTES S
ING ANY AND ALL	CD	CONDENSATE DRAIN	GR	GRAINS	PSI	POUNDS PER SQUARE INCH		SIDEWALL DIFFUSER/GRILLE	—E(XXX)—	EXISTING PIPING - (XXX) DENOTES SYSTEM
LED WATER, FIRE	CFM	CUBIC FEET PER MINUTE	Н	HUMIDITY	PSIG	PPSI GAUGE	TAG (XXX) AIRFLOW #,###	AIR DEVICE TAG (REGISTER, GRILLE, DIFFUSER,LOUVER)	⊢ X	TWO-WAY CONTROL VALVE
E. BLIES SHALL BE	C.I.	CAST IRON	HD	HEAD	RH	RELATIVE HUMIDITY [%]	##/##	RECTANGULAR DUCT		THREE-WAY CONTROL VALVE
LISTED STANDARD. NSULATED PIPING	CLG	CEILING	HG	MERCURY	RLA	RUNNING LOAD AMPS	#ø	ROUND/SPIRAL DUCT		AUTOMATIC AIR VENT (AAV)
BUILDING SHALL	CLR	CLEAR	HORIZ	HORIZONTAL	RPM	REVOLUTIONS PER MINUTE	<i>##/##Φ</i>	FLAT OVAL DUCT	<u> </u>	MANUAL AIR VENT (MAV)
PLY WITH INTERIM	СО	CARBON MONOXIDE	HP	H (-ORSEPOWER, -EAT PUMP)	SD	SMOKE DAMPER	SA T	SUPPLY AIR DUCT		MANUAL BALANCING VALVE (BV)
TH CEILINGS SHALL AINS IN LOW	CO2	CARBON DIOXIDE		HOUR (-S)	SP	STATIC PRESSURE		RETURN AIR DUCT		BALL VALVE
VENTS. PROXIMATE AND	COND	CONDENS (-ER, -ING, -ATION, -ATE)		HEATING, VENTILATING, & AIR-CONDITIONING	SQ	SQUARE		EXHAUST AIR DUCT		BUTTERFLY VALVE
OT SCALE THE										TRIPLE DUTY VALVE (TDV)
RILY SHOWN.		CONTINU (-ED, -OUS)		HERTZ	SQ FT	SQUARE FEET OR FOOT				· · ·
BING AND OTHER 5, CONDUIT AND	CU FT	CUBIC FEET	ID	I (-DENTIFICATION, -NSIDE DIAMETER, -NSIDE DIMENSION)	SQ IN	SQUARE INCH <b>OR</b> INCHES		TRANSFER AIR DUCT		
IRICT ACCORDANCE	CU IN	CUBIC INCHES	IN	INCH (-ES)	ТАВ	TESTING AND BALANCING	SA -	SA AIR DUCT TURNING UP		MANUAL ISOLATION VALVE
TS, ADVISE THE DN. PROVIDE	CV	VALVE FLOW COEFFICIENT	INSUL	INSULAT (-ED, -ION)	TBD	TO BE DETERMINED	× SA	SA AIR DUCT TURNING DOWN		GLOBE VALVE
R ALL EQUIPMENT.	dB	DECIBEL	INT	INTER (-IOR, -ERVAL)	TE	TOP ELEVATION	RA	RA AIR DUCT TURNING UP		OS&Y (GATE) VALVE
I FIRE PARTITION. L, IRONGRIP 601	DB	DRY BULB	IPS	IRON PIPE SIZE	TEMP	TEMPERATURE	RA	RA AIR DUCT TURNING DOWN		PRESSURE REDUCING VALVE (STEAM, GAS, WATER
/ITH FLEXIBLE	DBT	DRY BULB TEMPERATURE	kW	KILOWATT	TSP	TOTAL STATIC PRESSURE	EA	EA AIR DUCT TURNING UP	— <b>Z</b> —	AUTO-FLOW CONTROL VALVE
THERWISE NOTED. STING EQUIPMENT	DC	DIRECT CURRENT	kWh	KILOWATT HOUR	TYP	TYPICAL	K EA	EA AIR DUCT TURNING DOWN		CHECK VALVE
rk. RE IN CONFLICT GINEERS BEFORE	DD	DUCT SMOKE DETECTOR	LAT	LEAVING AIR TEMPERATURE	UNO	UNLESS NOTED OTHERWISE	E(XXX)	EXISTING DUCT - (XXX) DENOTES SYSTEM		DOUBLE CHECK VALVE ASSEMBLY
INTERIOR AND THER DETAIL OF	DDC	DIRECT DIGITAL CONTROLS	LBS	POUNDS	V	VOLT (-AGE, -S)		DUCT TO BE DEMOLISHED - (XXX) DENOTES SYSTEM		FLEXIBLE PIPE CONNECTION
N ALL SUPPLY,	DEG	DEGREE (-S)	LF	LINEAR FEET/FOOT	VAR	VARI (-ABLE, -IES)	ತ್ರ್ಯ	MITERED ELBOW WITH TURNING VANES		FLOW METER (VENTURI)
VANES NOT	DIA	DIAMETER (-S)	LRA	LOCKED ROTOR AMPS	VAV	VARIABLE AIR VOLUME	X+++++4	FLEXIBLE DUCT		PIPING UNION
TION PRODUCING SYSTEMS IN AN	DN	DOWN	LWT	LEAVING WATER TEMPERATURE	VEL	VELOCITY		THERMOSTAT	Fs	FLOW SWITCH
NG INSTALLATIONS THE INSTALLING	DWG	DRAWING		MAXIMUM	VFD	VARIABLE FEQUENCY DRIVE	 ©	CARBON DIOXIDE SENSOR	Ps	PRESSURE SWTICH
SUITABILITY OF A THAT OF THE	EAT	ENTERING AIR TEMPERATURE		BTU PER HOUR [THOUSANDS]	W	WATT (-AGE, -S)	<u> </u>	CONTRACTOR SHALL REBALANCE EXISTING SUPPLY DIFFUSER	<b>D</b> TS	TAMPER SWITCH
r equipment from NSIBILITY of the		ELECTRICAL CONTRACTOR		MINIMUM CIRCUIT AMPS	WB		XXX CFM <u>E(RAD)</u>	INDICATED CFM. CONTRACTOR SHALL REBALANCE EXISTING RETURN DIFFUSER	<u></u>	THERMOMETER
Quired to The Engineers or	EC						XXX CFM XXX CFM <u>E(EAD)</u>	TO INDICATED CFM CONTRACTOR SHALL REBALANCE EXISTING EXHAUST DIFFUSE	_	
R. ECTRICAL ITEM	ELEV	ELEVA (-TION, -TOR)		MANUFACTURER	WBT		XXX CFM	TO INDICATED CFM.		REFRIGERANT SUPPLY/RETURN PIPING
ARD CEILING. IF	ENGR	ENGINEER		MIN (-IMUM, -UTE)	WPD	WATER PRESSURE DROP	<b>. . .</b>	MANUAL BALANCING/VOLUME DAMPER		
INTENANCE AND OT BE LOCATED AN ENERAL ALL SUCH	EQ	EQUAL		MISCELLANEOUS	WT	WEIGHT		FIRE DAMPER		
TED SIX TO TWELVE	ESP	EXTERNAL STATIC PRESSURE	MOCP	MAXIMUM OVERCURRENT PROTECTION [AMPS]	W/	WITH		SMOKE DAMPER		
TRUCTURES SHALL	ETR	EXISTING TO REMAIN	MTG	MOUNTING	W/O	WITHOUT		COMBINATION FIRE & SMOKE DAMPER		
GRADE UNLESS	EVAP	EVAPORAT (-E, -ING, -ED, -OR, -ION)	N/A	NOT APPLICABLE	%	PERCENT				
, OR IN THE ZONE CEMENTITIOUS	EWT	ENTERING WATER TEMPERATURE	NC	NOISE CRITERIA <b>OR</b> NORMALLY CLOSED	ΔΡ	DIFFERENTIAL PRESSURE				
IBLE, LOCATE	EXP	EXPANSION	NEBB	NATIONAL ENVIRONMENTAL BALANCING BUREAU	ΔΤ	TEMPERATURE DIFFERENCE				
NGLE PROJECTING L SIDES OF THE AULTS AND OTHER	EXT	EXTERIOR	NIC	NOT IN CONTRACT	¢	CENTERLINE				
OM BUILDING WALLS	FA	FREE AREA								heet List - Mechanical
VITH THE OWNER'S								-	SHEET # M2.0	SHEET NAME MECHANICAL DEMOLITION PLANS

A. THIS PROJECT INTERFACES EXTENSIVELY WITH EXISTING BUILDING

APPLICABLE UTILITIES PER THE CONTRACT DOCUMENTS.

## HAZARDOUS MATERIALS NOTES

A. THE CONTRACTOR IS HEREBY ADVISED THAT IT IS POSSIBLE THAT ASBESTOS AND/OR OTHER HAZARDOUS MATERIALS ARE OR WERE PRESENT IN THIS BUILDING(S). ANY WORKER, OCCUPANT, VISITOR, ETC., WHO ENCOUNTERS ANY MATERIAL OF WHOSE CONTENT THEY ARE NOT CERTAIN SHALL PROMPTLY REPORT THE EXISTENCE AND LOCATION OF THAT MATERIAL TO THE OWNER. FURTHERMORE, THE CONTRACTOR SHALL INSURE THAT NO ONE COMES NEAR TO OR IN CONTACT WITH ANY SUCH MATERIAL OR FUMES THEREFROM UNTIL ITS CONTENT CAN BE ASCERTAINED TO BE NON-HAZARDOUS.

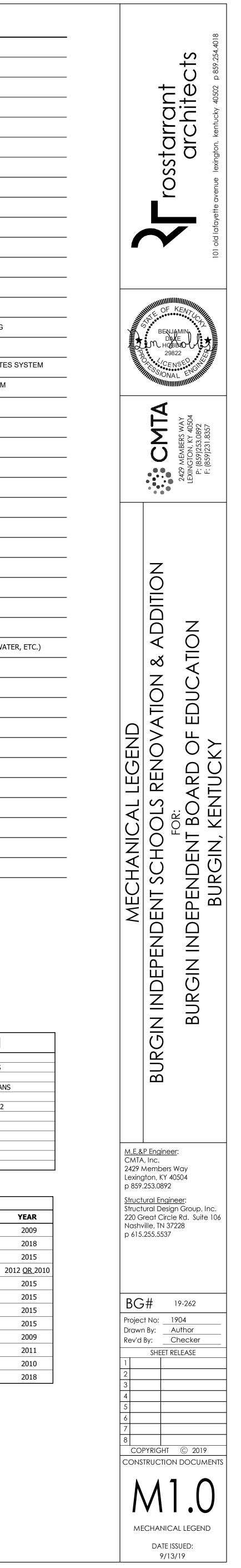
B. CMTA, INC. HAS NO EXPERTISE IN THE DETERMINATION OF THE PRESENCE OF ANY HAZARDOUS MATERIAL. THEREFORE, NO ATTEMPT HAS BEEN MADE BY CMTA TO IDENTIFY THE EXISTENCE OR LOCATION OF ANY SUCH HAZARDOUS MATERIAL. FURTHERMORE, CMTA NOR ANY AFFILIATE HEREOF WILL NOT OFFER OR MAKE ANY RECOMMENDATIONS RELATIVE TO THE REMOVAL, HANDLING OR DISPOSAL OF SUCH MATERIAL C. IF THE WORK WHICH IS TO BE PERFORMED INTERFACES, CONNECTS OR

RELATES IN ANY PHYSICAL WAY WITH OR TO EXISTING COMPONENTS WHICH CONTAIN OR BEAR ANY HAZARDOUS MATERIAL, ASBESTOS BEING ONE, THEN IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO CONTACT THE OWNER AND SO ADVISE HIM/HER IMMEDIATELY. D. THE CONTRACTOR BY EXECUTION OF THE CONTRACT FOR ANY WORK AND/OR BY THE ACCOMPLISHMENT OF ANY WORK THEREBY AGREES TO

BRING NO CLAIM RELATIVE TO HAZARDOUS MATERIALS FOR NEGLIGENCE, BREACH OF CONTRACT, INDEMNITY, OR ANY OTHER SUCH ITEM AGAINST CMTA, ITS PRINCIPALS, EMPLOYEES, AGENTS OR CONSULTANTS. ALSO, THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD CMTA, ITS PRINCIPALS, EMPLOYEES, AGENTS AND CONSULTANTS HARMLESS FROM ANY SUCH RELATED CLAIMS WHICH MAY BE BROUGHT BY ANY SUBCONTRACTORS, SUPPLIERS OR ANY OTHER THIRD PARTIES. E. THE CONTRACTOR IS DIRECTED TO THE SPECIFICATIONS FOR FURTHER INFORMATION.

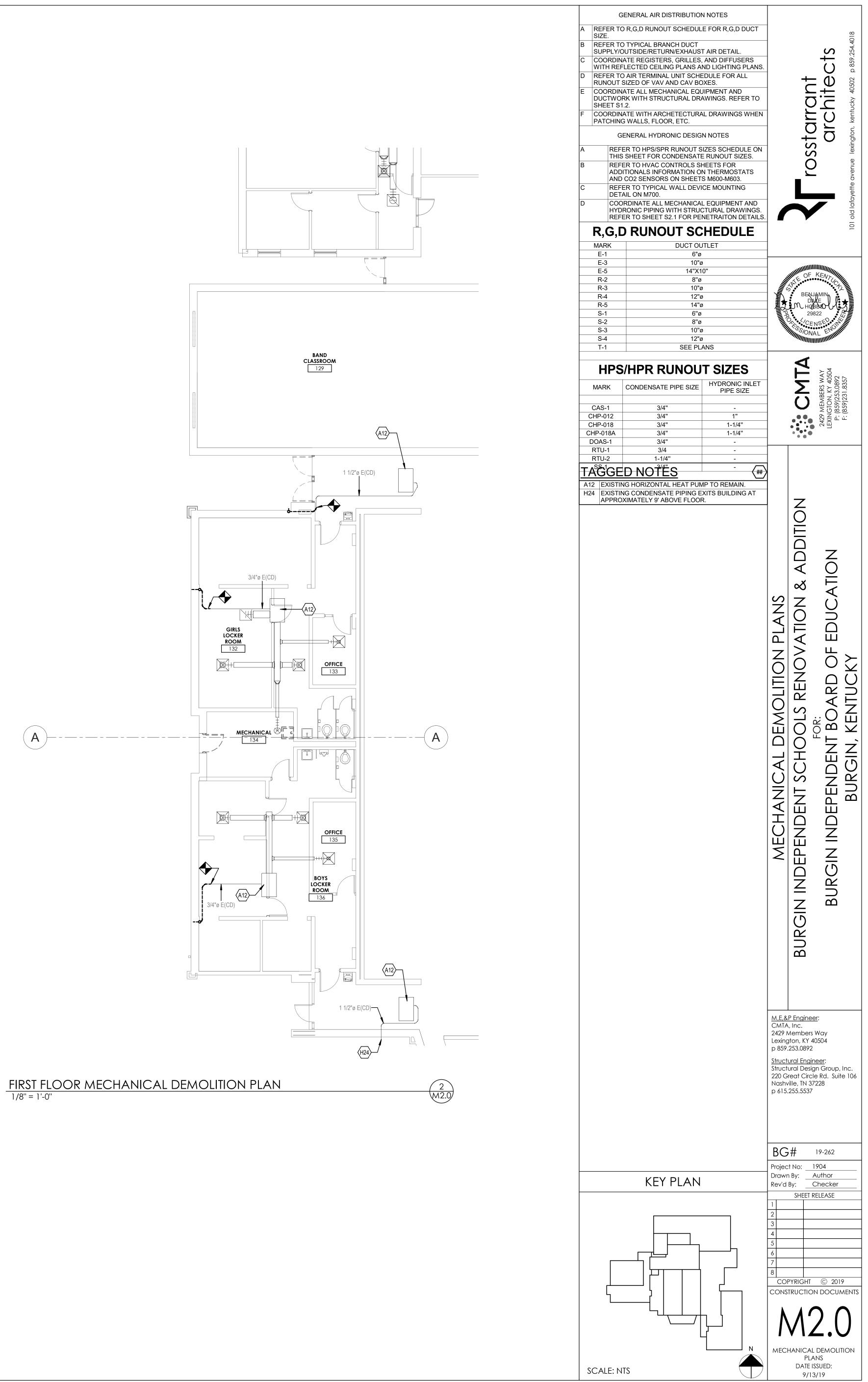
	Sheet List - Mechanical				
SHEET #	SHEET NAME				
M2.0	MECHANICAL DEMOLITION PLANS				
M3.0	MECHANICAL PLANS				
M3.1	MECHANICAL ROOF DEMOLITION PLANS				
M3.2	MECHANICAL ROOF PLANS				
M3.3	MECHANICAL ALTERNATES #1 & #2				
M4.0	MECHANICAL SECTIONS				
M5.0	MECHANICAL DETAILS				
M6.0	MECHANICAL CONTROLS				
M6.1	MECHANICAL CONTROLS				
M7.0	MECHANICAL SCHEDULES				
M1.0	MECHANICAL LEGEND				

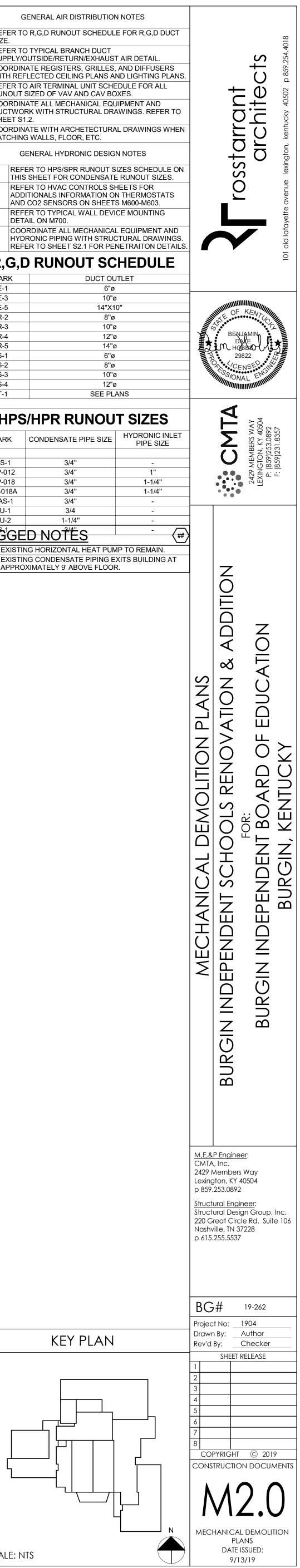
APPLICABLE BUILDING CO	DES	
APPLICABLE BUILDING CODES	DOCUMENT	
ACCESSIBLE AND USEABLE BUILDINGS AND FACILITIES	ANSI A117.1	
FIRE SPRINKLER CODE	NFPA13	
INTERNATIONAL BUILDING CODE (IBC)	STATE EDITION	
INTERNATIONAL ENERGY CONSERVATION CODE (IECC) OR ASHRAE 90.1	STATE EDITION	2
INTERNATION FIRE CODE (IFC)	STATE EDITION	
INTERNATION FUEL GAS CODE (IFGC)	STATE EDITION	
INTERNATION MECHANICAL CODE (IMC)	STATE EDITION	
INTERNATION PLUMBING CODE (IPC)	STATE EDITION	
INTERNATION EXISTING BUILDING CODE (IEBC)	STATE EDITION	
NATIONAL ELECTRIC CODE (NEC)	NFPA 70	
NATIONAL FIRE ALARM & SIGNALING CODE	NFPA 72	
UNIFORM STATEWIDE BUILDING CODE		



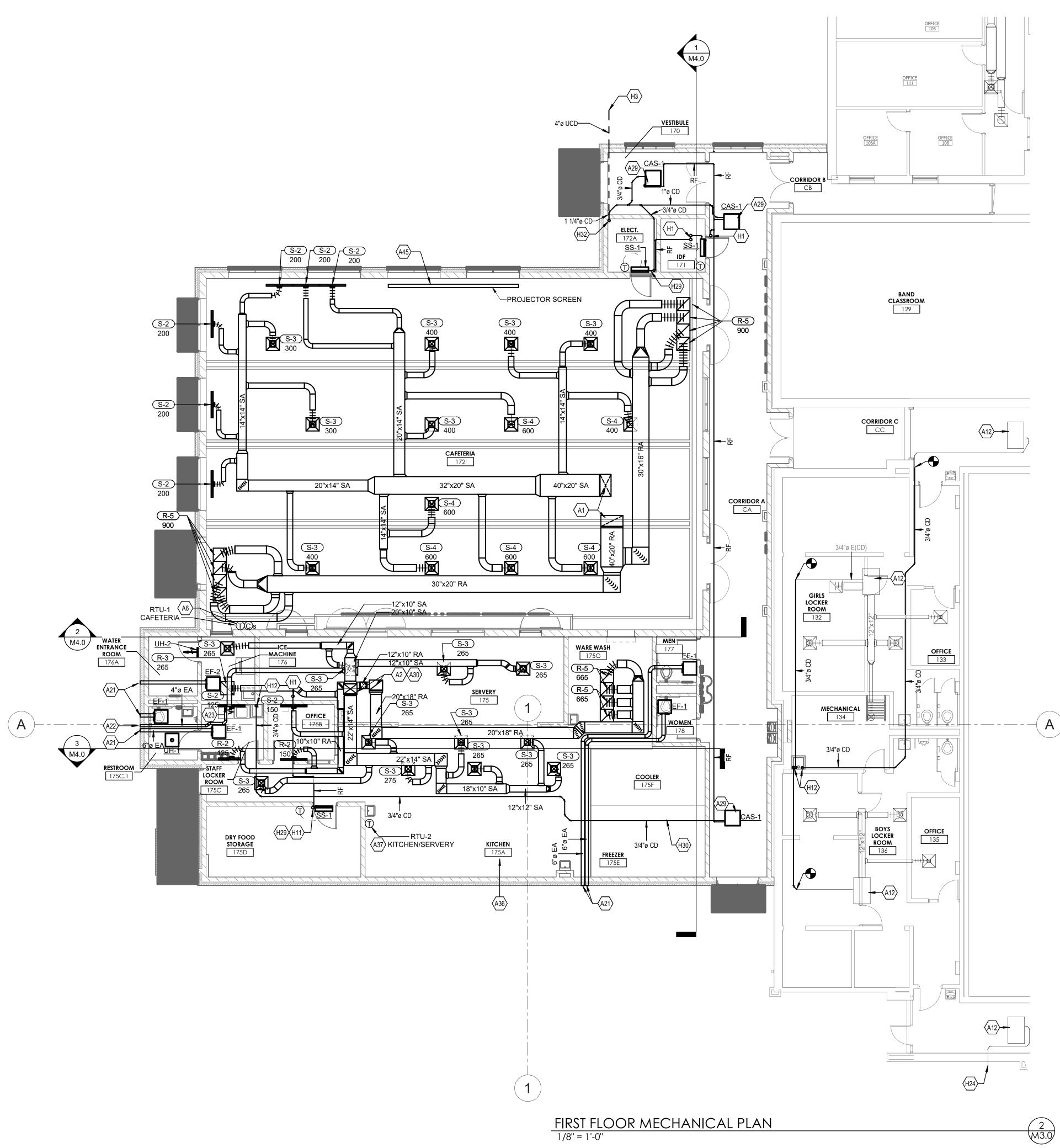
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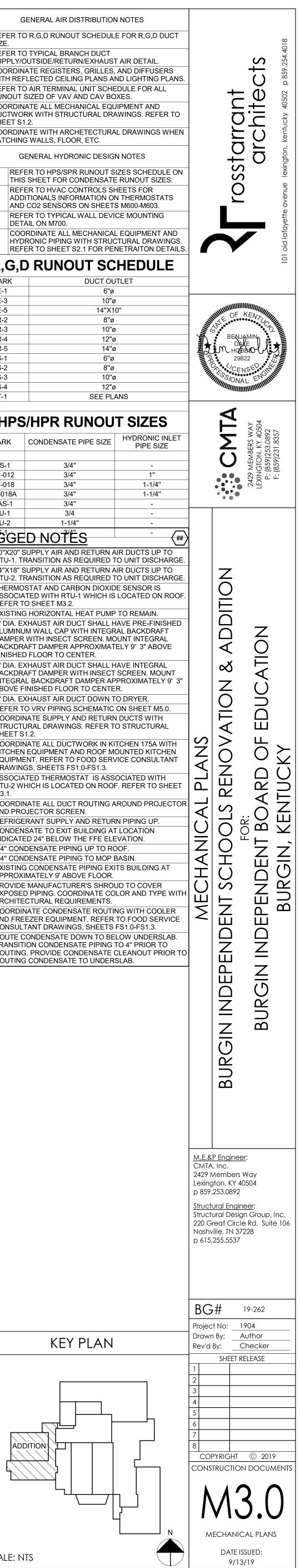




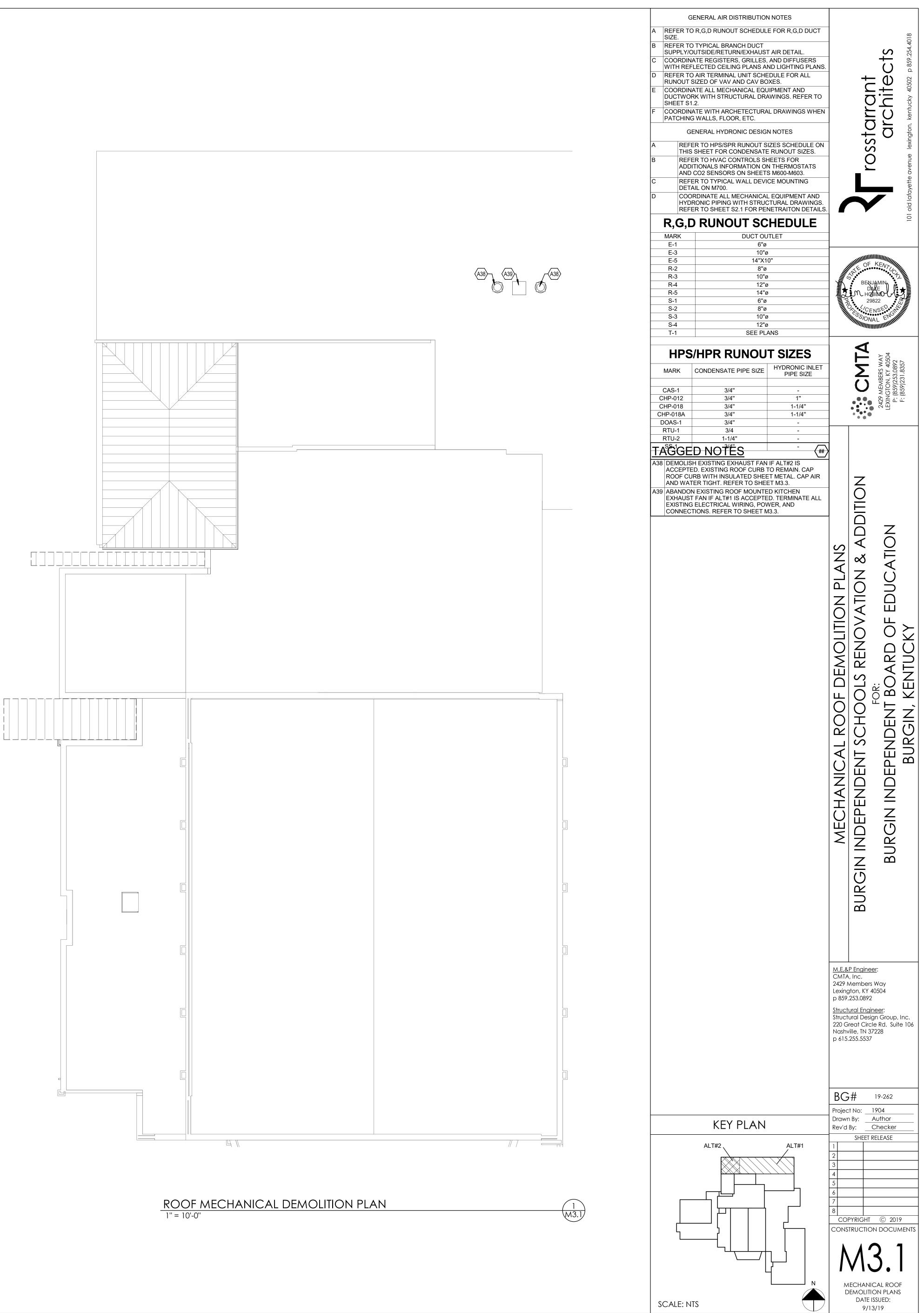
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	CAS-1	+			3/4"
С	HP-012	=			3/4"
-	HP-018 HP-018A	+			3/4" 3/4"
C	OAS-1				3/4"
	RTU-1 RTU-2	_			3/4 1-1/4''
Τ/	<u>SS-1</u> -				3/4"
A1	40"X20		_		
	RTU-1.	. TR	ANSI	ΓΙΟΝ	AS R
A2	24"X18 RTU-2.				
A6	THERM	NOS	TAT		CARE
_	ASSOC REFEF	R TC	SHE	ET M	3.2.
A12					
A21	6" DIA. ALUMI	NUN	/ WAI	LL CA	AP WI
	DAMPE				
	FINISH	IED	FLOC	DR TO	
A22	BACKE	DRA	FT DA	AMPE	R WI
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A23	4" DIA.	EX	HAUS	T AIF	R DUC
A29 A30					
M3U	STRUC	CTU	RAL D		
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1700	KITCH	EN E	EQUIF	PMEN	IT AN
	EQUIP DRAW				
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A45	COOR AND P				
H1	REFRI	GEF	RANT	SUP	PLY A
H3					
H11	3/4" CC	DND	ENSA	ATE F	PIPIN
H12 H24					
H24	APPRO	DXIN	/ATEI	_Y 9'	ABO
H29	PROVI				
	ARCHI	TEC	TUR/	AL RE	EQUIF
H30	COOR AND F				
1.1-	CONSI	ULT	ANT E	DRAV	VING
H32	TRANS	SITIC	ON CO	ONDE	NSA
			PRO		CON
			CUNL	)FNS	SATE
	ROUTI		CONE	DENS	SATE
			CONE	DENS	SATE

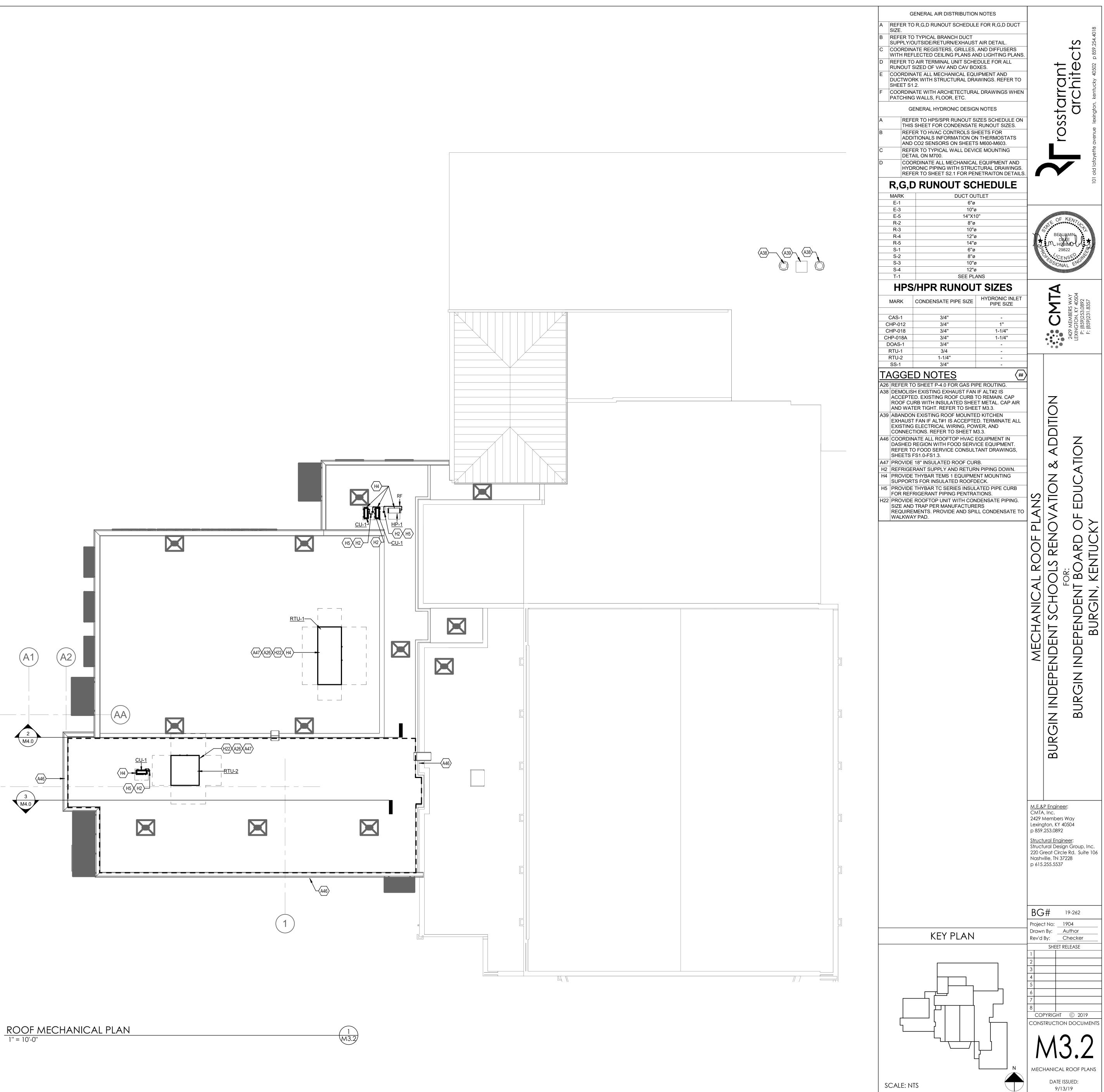


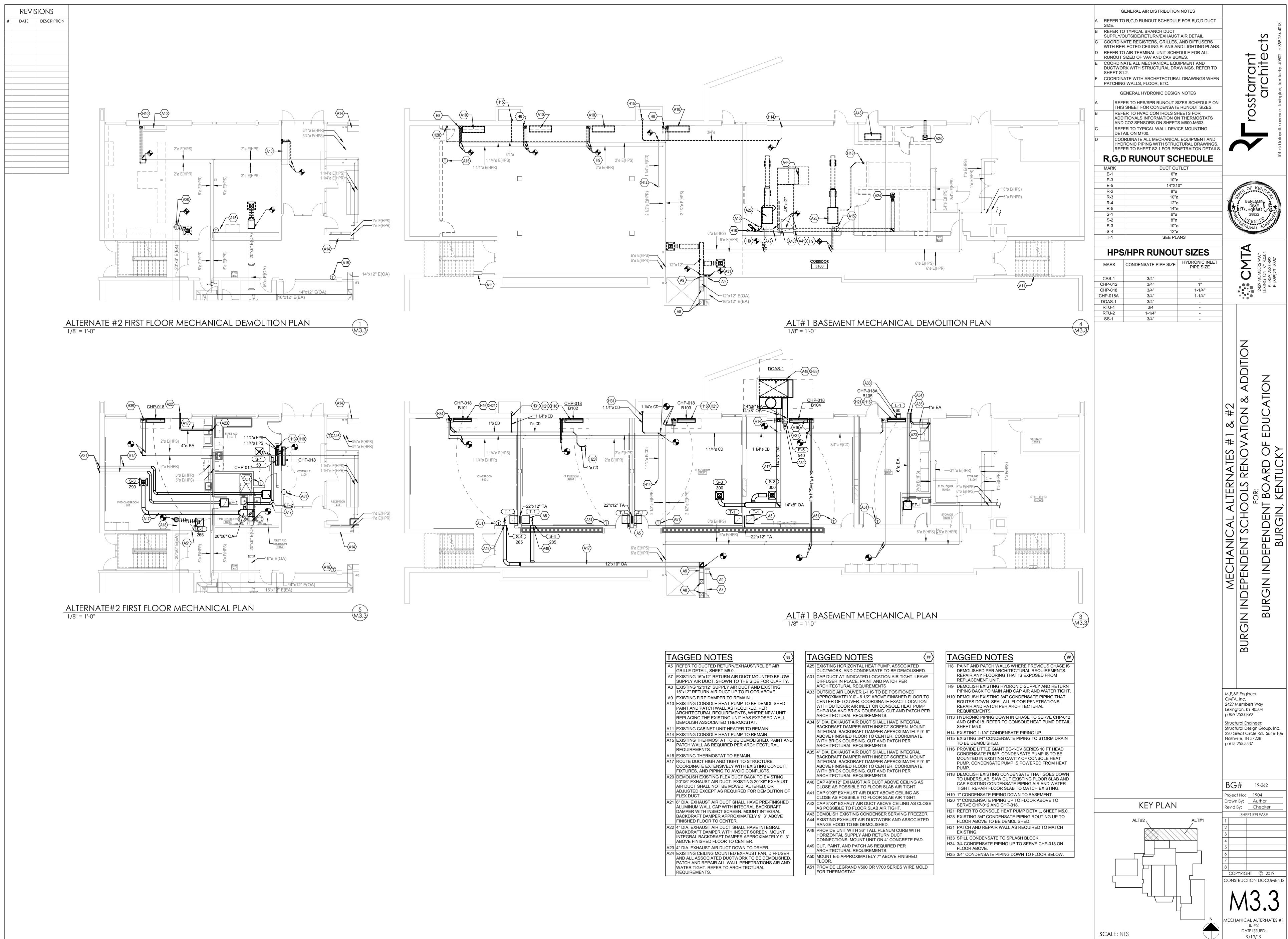
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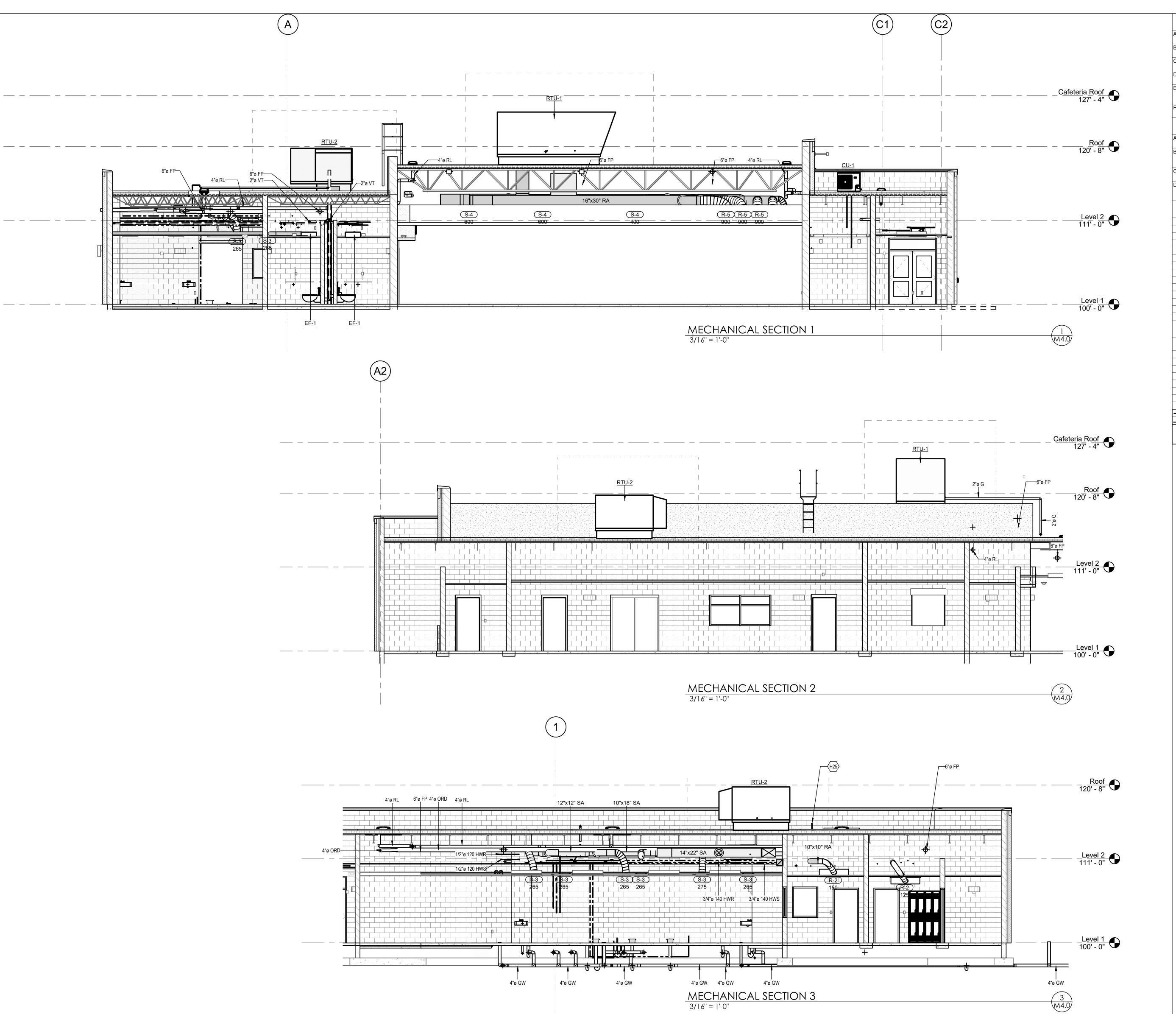
(A)





TA	AGGED NOTES
A5	REFER TO DUCTED RETURN/EXHAUS GRILLE DETAIL, SHEET M5.0.
A7	EXISTING 16"x12" RETURN AIR DUCT SUPPLY AIR DUCT. SHOWN TO THE S
A8	EXISTING 12"x12" SUPPLY AIR DUCT / 16"x12" RETURN AIR DUCT UP TO FLC
A9	EXISTING FIRE DAMPER TO REMAIN.
A10	EXISTING CONSOLE HEAT PUMP TO B PAINT AND PATCH WALL AS REQUIRE ARCHITECTURAL REQUIREMENTS, W REPLACING THE EXISTING UNIT HAS DEMOLISH ASSOCIATED THERMOSTA
A11	EXISTING CABINET UNIT HEATER TO
A14	EXISTING CONSOLE HEAT PUMP TO F
	EXISTING THERMOSTAT TO BE DEMO PATCH WALL AS REQUIRED PER ARC REQUIREMENTS.
A16	EXISTING THERMOSTAT TO REMAIN.
A17	ROUTE DUCT HIGH AND TIGHT TO ST COORDINATE EXTENSIVELY WITH EX FIXTURES, AND PIPING TO AVOID CO
A20	DEMOLISH EXISTING FLEX DUCT BAC 20"X6" EXHAUST AIR DUCT. EXISTING AIR DUCT SHALL NOT BE MOVED, AL ADJUSTED EXCEPT AS REQUIRED FC FLEX DUCT.
A21	6" DIA. EXHAUST AIR DUCT SHALL HA ALUMINUM WALL CAP WITH INTEGRA DAMPER WITH INSECT SCREEN. MOL BACKDRAFT DAMPER APPROXIMATE FINISHED FLOOR TO CENTER.
A22	4" DIA. EXHAUST AIR DUCT SHALL HA BACKDRAFT DAMPER WITH INSECT S INTEGRAL BACKDRAFT DAMPER APP ABOVE FINISHED FLOOR TO CENTER
A23	4" DIA. EXHAUST AIR DUCT DOWN TO
A24	EXISTING CEILING MOUNTED EXHAUS AND ALL ASSOCIATED DUCTWORK TO PATCH AND REPAIR ALL WALL PENET WATER TIGHT. REFER TO ARCHITECT REQUIREMENTS.

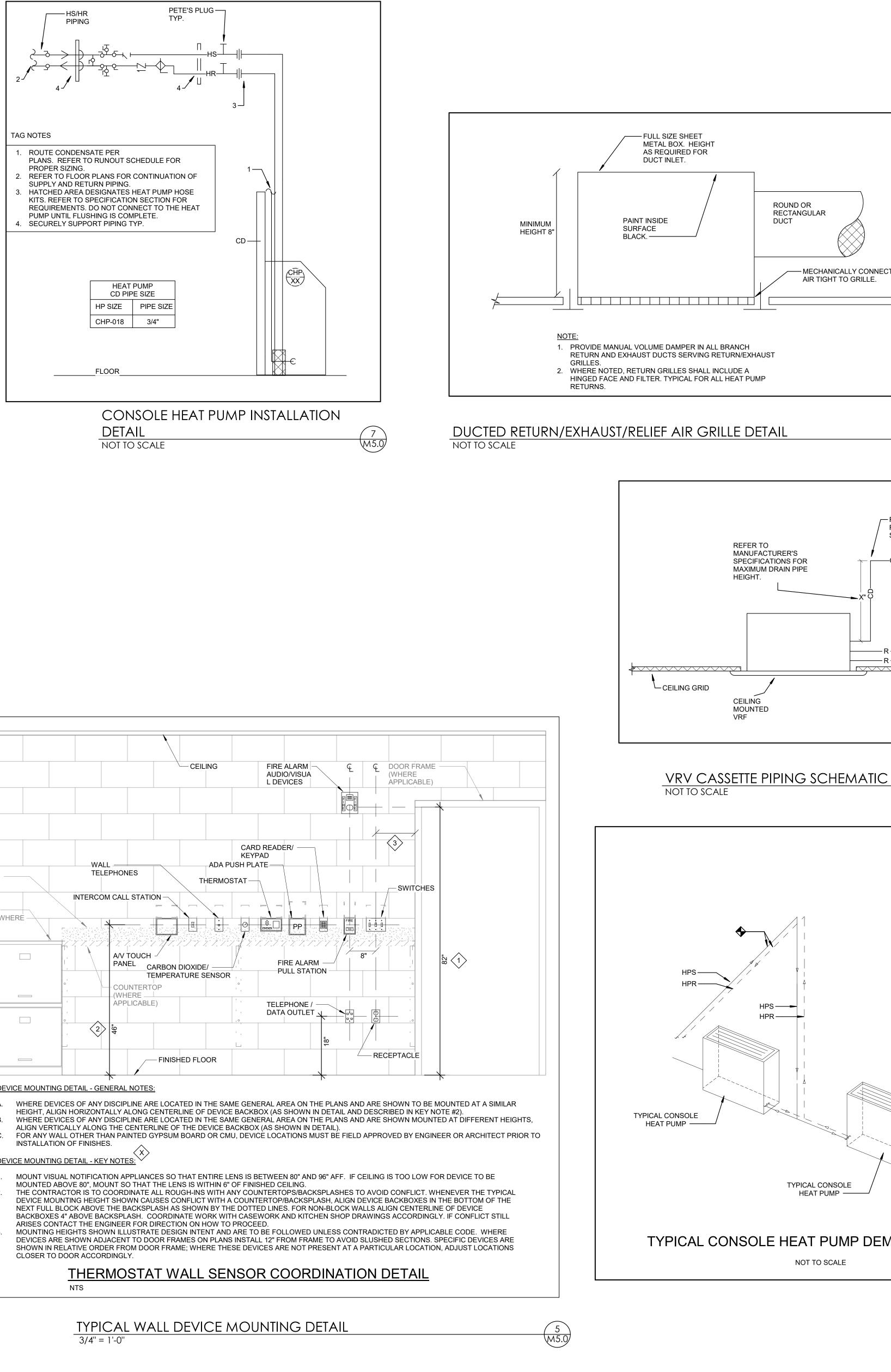
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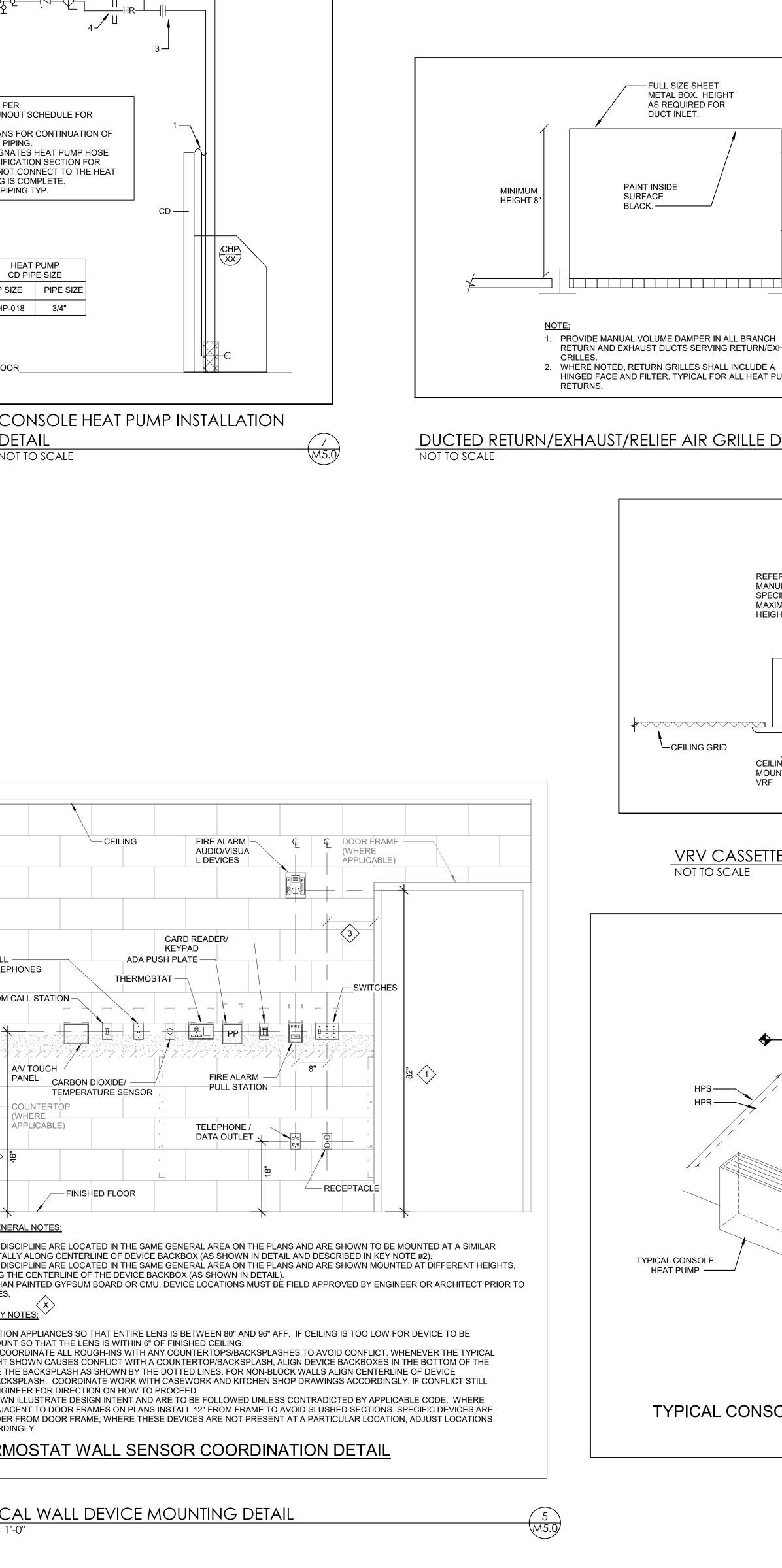


TASGIGED NOTE H25 SPILL 3/4" CONDENSATE SERIES PIPE PENETRAT ACCOMMODATE GOOSE

JTSIDE/RETURN/EXHAUST AIR DETAIL. TE REGISTERS, GRILLES, AND DIFFUSERS LECTED CEILING PLANS AND LIGHTING PLANS AIR TERMINAL UNIT SCHEDULE FOR ALL IZED OF VAV AND CAV BOXES. TE ALL MECHANICAL EQUIPMENT AND K WITH STRUCTURAL DRAWINGS. REFER TO 2. TE WITH ARCHETECTURAL DRAWINGS WHEN WALLS, FLOOR, ETC. WERAL HYDRONIC DESIGN NOTES R TO HYS/SPR RUNOUT SIZES SCHEDULE ON SHEET FOR CONDENSATE RUNOUT SIZES. R TO HVAC CONTROLS SHEETS FOR TIONALS INFORMATION ON THERMOSTATS CO2 SENSORS ON SHEETS M600-M603. R TO TYPICAL WALL DEVICE MOUNTING IL ON M700. RDINATE ALL MECHANICAL EQUIPMENT AND CONIC PIPING WITH STRUCTURAL DRAWINGS R TO SHEET S2.1 FOR PENETRAITON DETAIL DUCT OUTLET 6"ø 10"ø 10"ø 14"X10" 8"ø 10"ø 12"ø 14"%10" 6"ø 10"ø 12"ø SEE PLANS <b>/HPR RUNOUT SIZES</b> CONDENSATE PIPE SIZE 3/4" 1-1/4" 3/4" 1-1/4" 3/4" 1-1/4" 3/4" 1-1/4" - NOTES 4"CONDENSATE TO ROOF. PROVIDE TCC PIPE PENETRATION SYSTEM TO	A Lafayette avenue lexington, kentucky 40502 p	DALE DALE 29822 CENSED ONAL ENGINE	2429 MEMBERS WAY LEXINGTON, KY 40504 P: (859)253.0892 F: (859)231.8357	MECHANICAL SECTIONS BURGIN INDEPENDENT SCHOOLS RENOVATION & ADDITION FOR: BURGIN INDEPENDENT BOARD OF EDUCATION BURGIN, KENTUCKY	M,E,&P Engineer: CMTA, Inc. 2429 Members Way Lexington, KY 40504 p 859.253.0892 <u>Structural Engineer</u> : Structural Design Group, Inc. 220 Great Circle Rd. Suite 106 Nashville, TN 37228 p 615.255.5537
R,G,D RUNOUT SCHEDULE TYPICAL BRANCH DUCT JTSIDE/RETURN/EXHAUST TE REGISTERS, GRILLES, J. ECTED CEILING PLANS AN AIR TERMINAL UNIT SCHEI IZED OF VAV AND CAV BOX TE ALL MECHANICAL EQUIN K WITH STRUCTURAL DRA 2. TE WITH ARCHETECTURAL WALLS, FLOOR, ETC. INERAL HYDRONIC DESIGN R TO HPS/SPR RUNOUT SI SHEET FOR CONDENSATE R TO HVAC CONTROLS SH TIONALS INFORMATION ON CO2 SENSORS ON SHEETS R TO TYPICAL WALL DEVIC IL ON M700. RDINATE ALL MECHANICAL CONIC PIPING WITH STRUCC R TO SHEET S2.1 FOR PEN <b>RUNOUT OUT</b> 6"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø 10"ø	AIR DETAIL. AIR DETAIL. AND DIFFUSERS ID LIGHTING PLANS. DULE FOR ALL KES. PMENT AND WINGS. REFER TO DRAWINGS WHEN I NOTES ZES SCHEDULE ON RUNOUT SIZES. EETS FOR THERMOSTATS M600-M603. CE MOUNTING EQUIPMENT AND TURAL DRAWINGS. IETRAITON DETAILS.	rlet " NS	HYDRONIC INLET PIPE SIZE - 1" 1-1/4"	- (##)	
	R,G,D RUNOUT SCHEDUL TYPICAL BRANCH DUCT UTSIDE/RETURN/EXHAUS ATE REGISTERS, GRILLES, LECTED CEILING PLANS AN AIR TERMINAL UNIT SCHE SIZED OF VAV AND CAV BC ATE ALL MECHANICAL EQU XK WITH STRUCTURAL DRA 2. ATE WITH ARCHETECTURA WALLS, FLOOR, ETC. ENERAL HYDRONIC DESIG R TO HPS/SPR RUNOUT S SHEET FOR CONDENSATE R TO HVAC CONTROLS SH TIONALS INFORMATION ON CO2 SENSORS ON SHEET R TO TYPICAL WALL DEVI IL ON M700. RDINATE ALL MECHANICAL RONIC PIPING WITH STRUC R TO SHEET S2.1 FOR PEI	DUCT OU 6"ø 10"ø 14"X1 8"ø 10"ø 12"ø 14"ø 6"ø 8"ø 10"ø 12"ø 2000 12"ø 2000 2000 2000 2000 2000 2000 2000 2	CONDENSATE PIPE SIZE 3/4" 3/4" 3/4" 3/4" 3/4"	D NOTES 4" CONDENSATE TO ROOF	

	REVIS	sions
#	DATE	DESCRIPTION





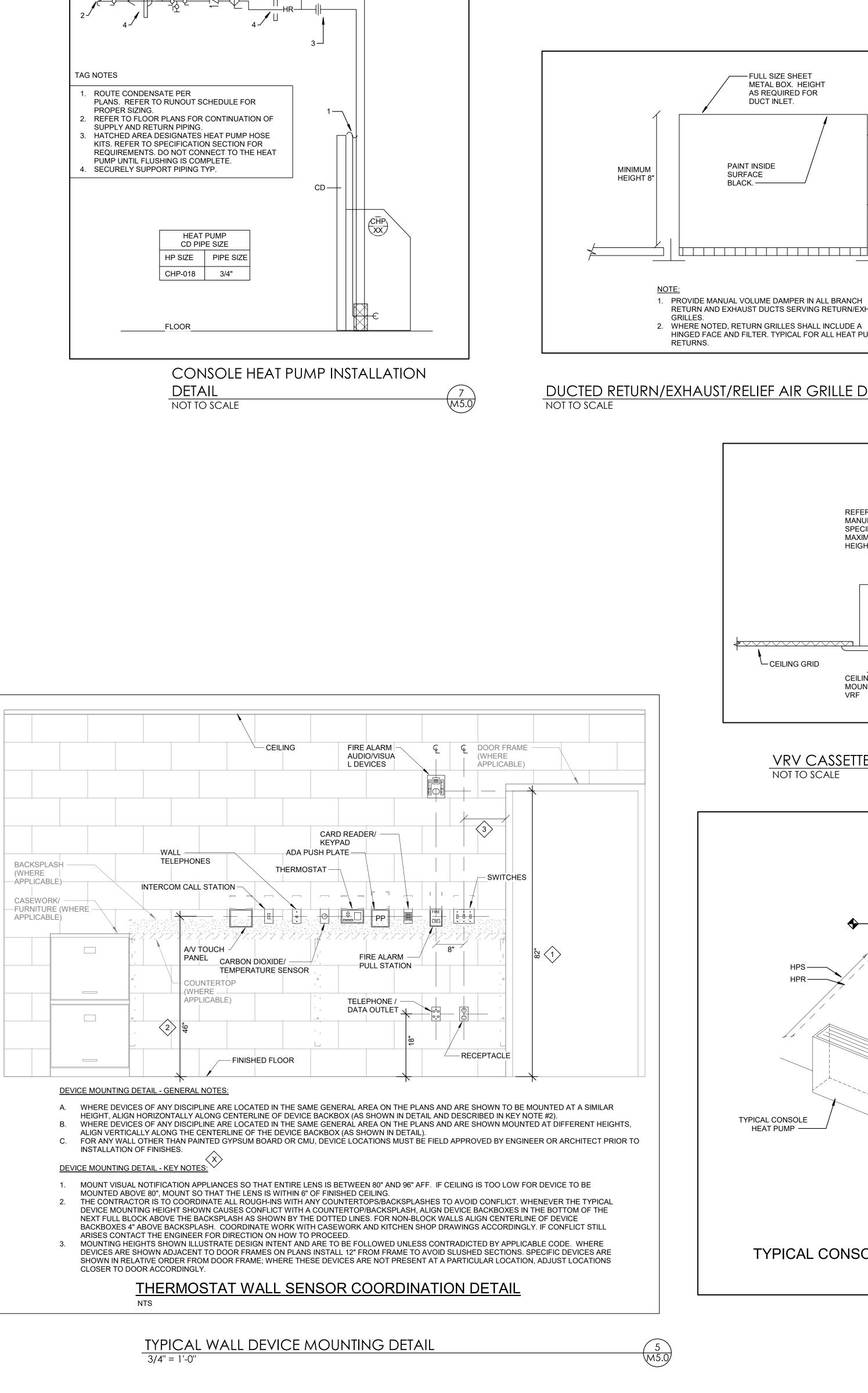
ROUND OR

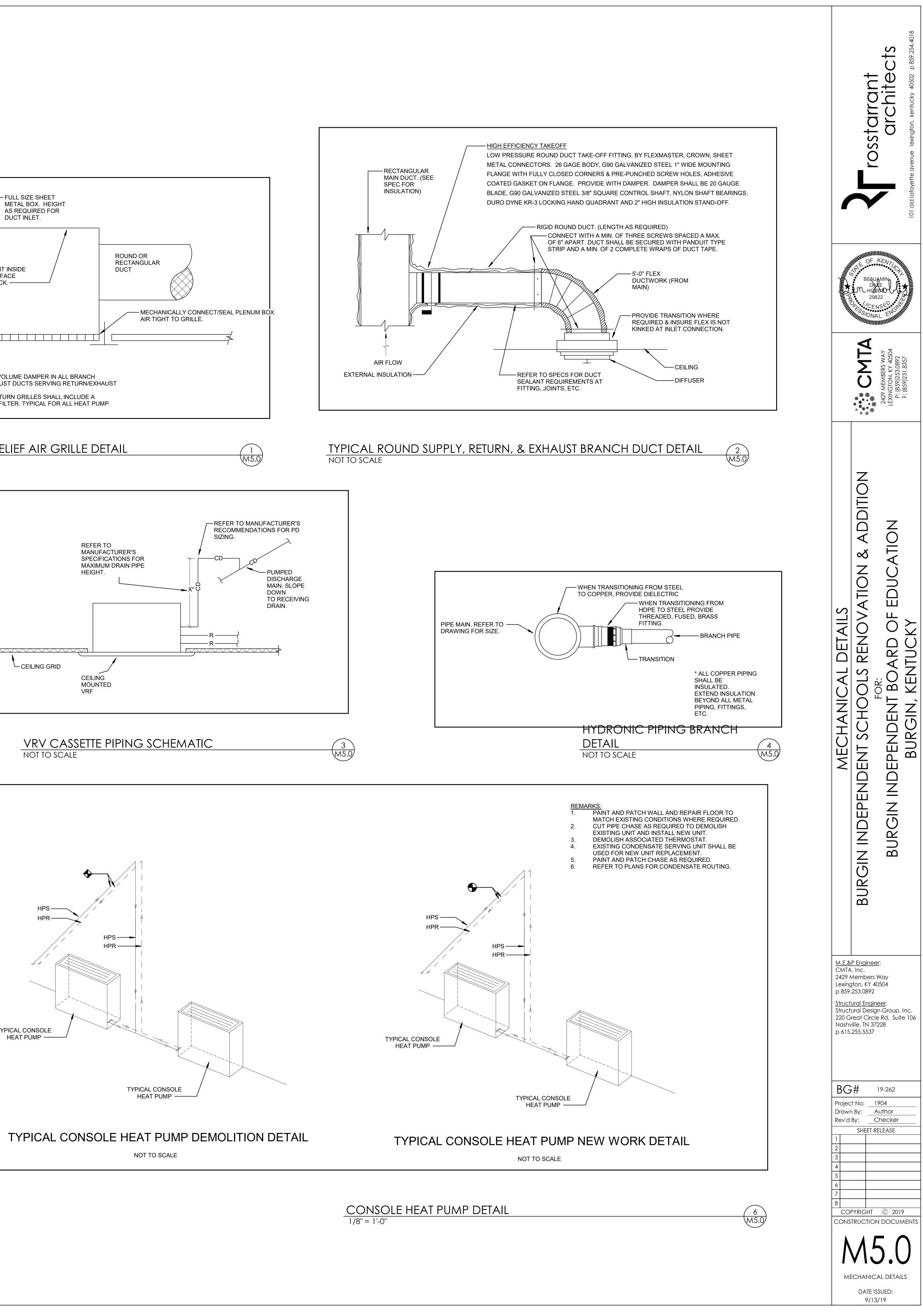
DUCT

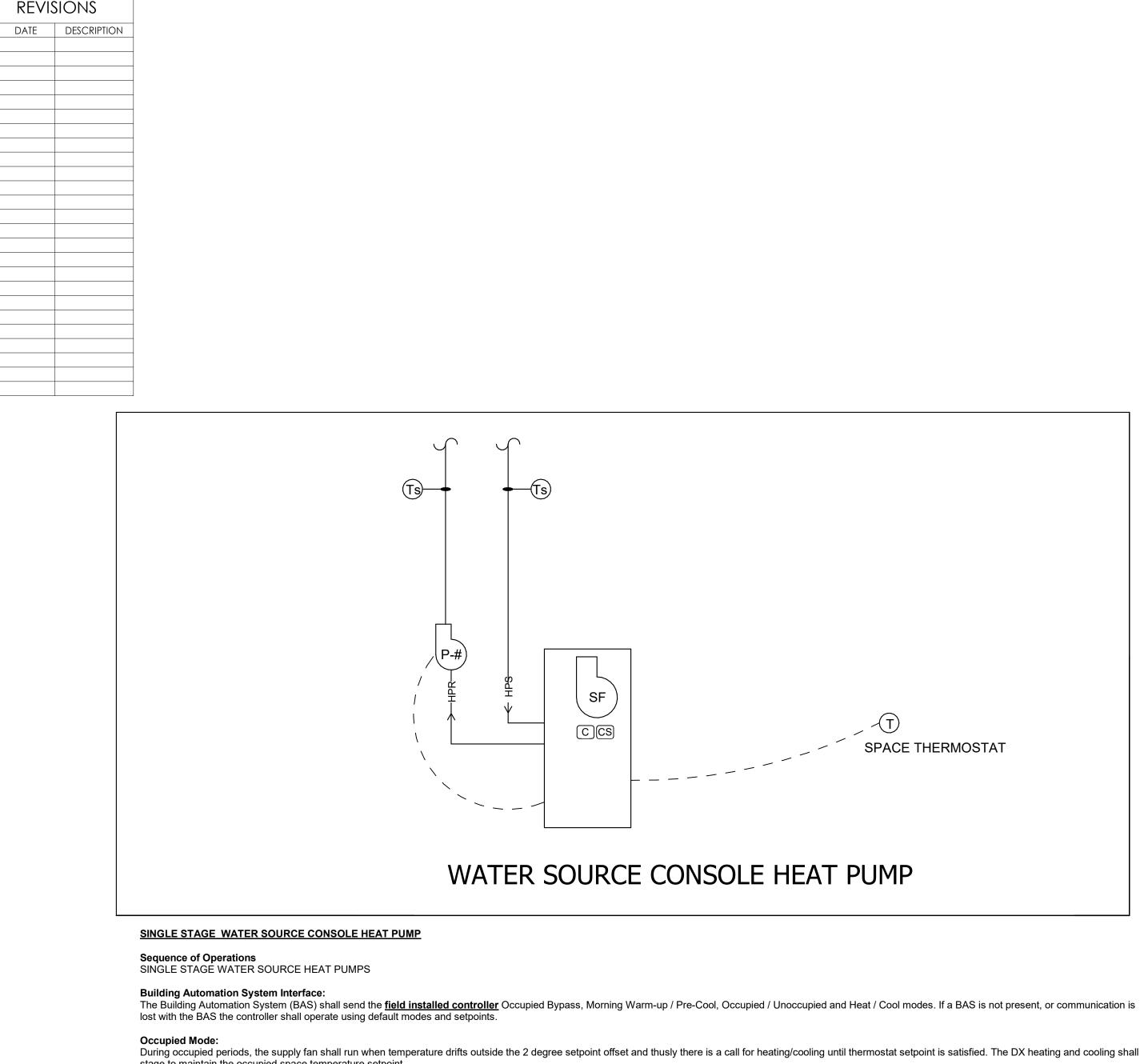
RECTANGULAR

HEAT PUMP —

NOT TO SCALE







During occupied periods, the supply fan shall run when temperature drifts outside the 2 degree setpoint offset and thusly there is a call for heating/cooling until thermostat setpoint is satisfied. The DX heating and cooling shall stage to maintain the occupied space temperature setpoint. Unoccupied Mode:

When the space temperature is below the unoccupied heating setpoint of 60.0 deg. F (adj.) the supply fan shall start and the DX heating shall be enabled. When the space temperature rises above the unoccupied heating setpoint of 60.0 deg. F (adj.) plus the unoccupied differential of 4.0 deg. F (adj.) the supply fan shall stop and the DX heating shall be disabled. When the space temperature is above the unoccupied cooling setpoint of 85.0 deg. F (adj.) the supply fan shall start and the DX cooling shall be enabled. When the space temperature falls below the unoccupied cooling setpoint of 85.0 deg. F (adj.) minus the unoccupied differential of 4.0 deg. F (adj.) the supply fan shall stop, the DX cooling shall be disabled.

REVISIONS

**Optimal Start:** The BAS shall monitor the scheduled occupied time, occupied space setpoints and space temperature to calculate when the optimal start occurs.

Morning Warm-Up Mode: During optimal start, if the space temperature is below the occupied heating setpoint a morning warm-up mode shall be activated. When morning warm-up is initiated the unit shall enable the heating and supply fan. When the space temperature reaches the occupied heating setpoint (adj.), the unit shall transition to the occupied mode. Pre-Cool Mode:

During optimal start, if the space temperature is above the occupied cooling setpoint, pre-cool mode shall be activated. When pre-cool is initiated the unit shall enable the fan and cooling. When the space temperature reaches occupied cooling setpoint (adj.), the unit shall transition to the occupied mode. **Optimal Stop:** 

The BAS shall monitor the scheduled unoccupied time, occupied setpoints and space temperature to calculate when the optimal stop occurs. When the optimal stop mode is active the unit controller shall maintain the space temperature to the space temperature offset setpoint. Occupied Bypass: The BAS shall monitor the status of the "on" and "cancel" buttons of the space temperature sensor. When an occupied bypass request is received from a space sensor, the unit shall transition from its current occupancy

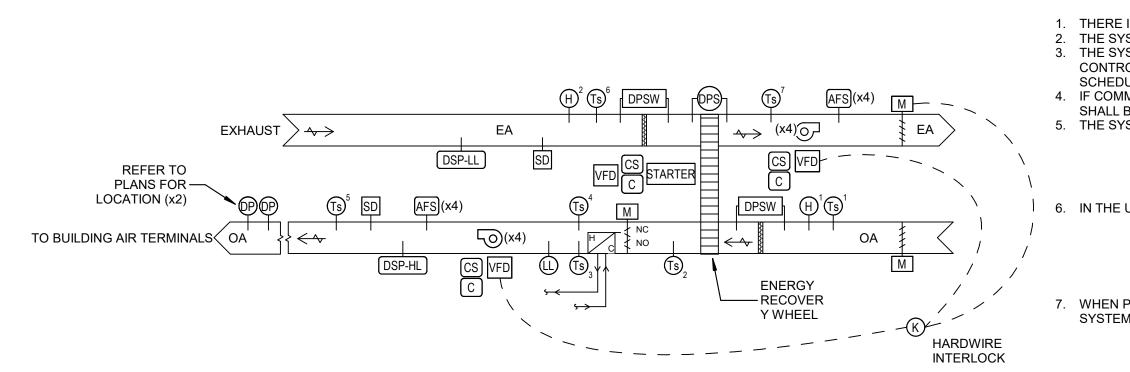
mode to occupied bypass mode and the unit shall maintain the space temperature to the occupied setpoints (adj.). Cooling Mode:

The unit controller shall use space temperature and space temperature setpoint to determine when to stage the cooling. When the space temperature rises above the setpoint, the unit controller shall stage the DX cooling as required to maintain the space temperature setpoint. When the space temperature falls below the setpoint the controller shall disable DX cooling. Heating Mode:

The unit controller shall use the space temperature and space temperature setpoint to determine when to initiate requests for heat. When the space temperature drops below the setpoint, the unit controller shall enable DX heating to maintain the space temperature setpoint. Once the space temperature rises above the setpoint the DX heating shall be disabled.

Supply Fan:

								E DAMPER			
Supply Fan:								E DAMPER STATUS	OA INT DAMP ST	X	
The supply fan shall be enabled while in the oc	ccupied mode and when ter	mperatui	re set p	point is not satisfi	ied. A differential pressure switch	shall monitor th	differential pressure across the fan. If the switch does not open OA INTAKE	E DAMPER OVERIDE	OA INT DAMP OVRD		
within 30 seconds (adj.) after a request for fan	operation a fan failure alarr	m shall b	be anni	unciated at the B	BAS, the unit shall stop, requiring a	manual reset.	EARELIEF	DAMPER	EA INT DAMP C		-
Filter Timer:							EARELIEF	DAMPER STATUS	EA INT DAMP ST	X	
	e filter maintenance timer s	etnoint	Once t	the setnoint is rea	ached a filter timer alarm diagnosti	ic shall he annu	ciated at the BAS. When the diagnostic is cleared, the filter-	DAMPER OVERIDE	EA INT DAMP OVRD		
maintenance timer is reset to zero, and the tim								AIR TEMPERATURE SENSOR 1	OA TEMP S 1		Х
······································								AIR TEMPERATURE SENSOR 2	OA TEMP S 2		X
Smoke Detector:								AIR H/C TEMPERATURE SENSOR 3	OA TEMP S 3		X
Provide a smoke detector in BOTH supply and	I return of all ducts serving	heat pur	mps tha	at provide 2000 0	CFM of supply air or greater.				OA TEMP S 4		X
									OA TEMP S 5		X
								AIR T3/T4 AVERAGE TEMPERATURE	OA TEMP S AVG 3&4		
									OA FLTR DP S		X
								E HUMIDITY SENSOR 1	OA RH S		X
SINGLE STA	GE WATER SOURCE CON	NSOLE I	HEAT	PUMP CONTRO	I S POINTS			ING FACE AND BYPASS DAMPER	OA FBYP DAMPER		
			,					FREEZE STAT	LL-FRZ STAT	X	
POINT DESCRIPTION	POINT NAME	BI E	BO B'	V AI AO AV	/ ALARM TYPE	GRAPHIC	SCHEDULE		OCC S		<b>x</b>
PUMP START/STOP	P_RUN_C	X	<b>(</b>			YES		E START/STOP	OGC_S OAFAN RUN C		<u> </u>
PUMP START/STOP OVERIDE	P_RUN_C_OVRD		X			YES		START/STOP START/STOP OVERRIDE	OAFAN_RUN_C	· · · · · · · · · · · · · · · · · · ·	_
PUMP STATUS	P_RUN_ST	X			BOOLEAN COMMAND FAIL	YES					•
DISCHARGE AIR TEMPERATURE LOCAL	SA_T			X	OUT OF RANGE	YES	OA FANS S		OAFAN_RUN_ST	X	
ENTERING WATER TEMPERATURE LOCAL	EWT T			X		YES	OA FANS V		OAFAN_VFDFLT_S	X	_
LEAVING WATER TEMPERATURE LOCAL	LWT T			X		YES		VFD SPEED	OAFAN_VFD_SPD_C		_
SPACE TEMPERATURE LOCAL	ST LOCAL			X		YES		VFD SPEED OVERRIDE	OAFAN_VFD_SPD_OVRD		
SPACE TEMPERATURE SETPOINT LOCAL	ST STP LOCAL			X		YES	FAN 1 OA A		OAFAN1_AF_CFM		X
COMPRESSOR 1 STATUS	COMP S	X				YES	FAN 2 OA A		OAFAN2_AF_CFM		X
CONDENSATE OVERFLOW DETECTION LOCAL	-	X			BOOLEAN CHANGE OF STATU		OA TOTAL		OA_AF_CFM_TOTAL		X
SUPPLY FAN STATUS LOCAL OPEN	SA FAN S	X			BOOLEAN COMMAND FAIL	YES		E DETECTOR	OA_SMOKE_DET	Х	
COMPRESSOR 1 START/STOP			(			YES		C PRESSURE	OA_SP_S		X
SUPPLY FAN START/STOP	SA FAN C					YES		C PRESSURE SETPOINT	OA_SP_SETP		
OCCUPANCY SCHEDULE	OCC SCHD		<b>`</b>	x		YES		C PRESSURE RESET SETPOINT	OA_SP_RESET_SETP		
OCCUPIED COOLING SETPOINT	OCC CLG STP					YES		D COOLING SETPOINT	OCC_CLG_SETP		
OCCUPIED HEATING SETPOINT	OCC HTG STP					YES	OCCUPIED	D HEATING SETPOINT	OCC_HTG_SETP		
OCCUPIED STANDBY COOLING SETPOINT	OCC STBY CLG STP					YES	DUCT STA	TIC PRESSURE HIGH LIMIT	OA_DSP_HL	X	
OCCUPIED STANDBY HEATING SETPOINT	OCC STBY HTG STP					YES	DUCT STA	TIC PRESSURE LOW LIMIT	EA_DSP_LL	X	
UNOCCUPIED COOLING SETPOINT		_				YES		PIED BUILDING WARMUP HEATING	UNOCC_WARMUP_HTG_SETP		
UNOCCUPIED HEATING SETPOINT	UNOCC_CLG_STP UNOCC HTG STP					YES	SETPOINT	-			
	OCC BYP OVRD					TES		E DETECTOR	EA_SMOKE_DET	X	
OCCUPIED BYPASS TIMER									EA_TEMP_S_6		X
	STP_T_OFFSET			X			EXHAUST	AIR TEMPERATURE SENSOR 7	EA_TEMP_S_6		X
	COMP_ENBL			X			EA PREFIL	_TER STATUS	EA_FLTR_DP_S		X
	FAN_MODE			X			ENERGY R	RECOVERY WHEEL DIFF. PRESS. SENSOR	ERW_DP_S		X
	APP_MODE			X			ENERGY R	RECOVERY WHEEL START/STOP	ERW_RUN_C	X	
	EFF_OCC			X		YES	ENERGY R	RECOVERY WHEEL START/STOP OVERIDE	ERW_RUN_OVRD	×	K
EFFECTIVE HEAT/COOL MODE	EFF_HTG_CLG_MODE			X		YES	ENERGY R	RECOVERY WHEEL STATUS	ERW_RUN_ST	X	
EFFECTIVE SPACE TEMPERATURE	EFF_SPACE_T			X		YES	ENERGY R	RECOVERY WHEEL FREEZE CONTROL	ERW_FRZ_C	X	<
EFFECTIVE SPACE SETPOINT	EFF_SPACE_STP			X			EA FANS S	START/STOP	EAFAN_RUN_C		
LOCAL SETPOINT	LOC_STP			X		YES	EA FANS S	START/STOP OVERRIDE	EAFAN_RUN_OVRD		
HEAT OUTPUT	HTG_OP			X	-	YES	EA FANS S		EAFAN_RUN_ST	X	
COOL OUTPUT	CLG_OP			X		YES	EA FANS V		EAFAN VFDFLT S	X	
ALARM	ALARM			X		YES		VFD SPEED	EAFAN VFD SPD C		
SPACE HEATING/COOLING SETPOINT	SPACE_HTG_CLG_STP			X				VFD SPEED OVERRIDE	EAFAN VFD SPD OVRD		+
MAINTENANCE REQUIRED	MAINT_REQ_ALARM			X		YES	FAN 1 EA A		EAFAN1 AF CFM		X
		I					FAN 2 EA A		EAFAN2 AF CFM		X



BI BO BV AI AO AV

X

Х

X

# OUTSIDE AIR SYSTEM (DOAS-1) SCHEMATIC

POINT NAME

OAFAN3 AF CFM

OAFAN4 AF CFM

OAFAN3_AF_CFM

OAFAN4 AF CFM

DT PUMP SPD OVRD

DT PUMP SPD

OA DHUM SPT

OA HUM S 1

EA_HUM_S_2

OA INT DAMP (

EA_AF_CFM_TOTAL

TERM_UNIT_CFM_TOTAL

BLDG SP

**DOAS-1 POINTS LIST** 

NOT TO SCALE

DISPLAY NAME

FAN 3 OA AIR CFM

FAN 4 OA AIR CFM

FAN 3 EA AIR CFM

FAN 4 EA AIR CFM

OA INTAKE DAMPER

EA TOTAL CFM

SUM OF CONNECTED TERMINAL UNITS

BUILDING STATIC PRESSURE (X2)

DEHUMIDIFICATION SETPOINT

OA INTAKE HUMIDITY SENSOR 1

EA DISCHARGE HUMIDITY SENSOR 2

DUAL TEMP MODULATING ECM PUMP SPEED

DUAL TEMP MODULATING ECM PUMP OVERIDE

## MECHANICAL CONTROL LEGEND

AFF	ABOVE FINISHED FLOOR BUILDING AUTOMATION SYSTEM	Ts	TEMPERATURE SENS
BAS CO ₂	CARBON DIOXIDE	(H)	HUMIDITY SENSOR
TCC	TEMPERATURE CONTROL CONTRACTOR		LOW LIMIT TEMPERAT
DP EA	DEWPOINT EXHAUST AIR PATH	P	PRESSURE SENSOR
RA	RETURN AIR PATH	-	
SA	SUPPLY AIR PATH	œ	DUCT STATIC PRESSU
HPS/R	HEAT PUMP WATER SUPPLY/RETURN	DPSW	DIFFERENTIAL PRESS
NC	NORMALLY CLOSED	(DPS)	DIFFERENTIAL PRESS
OA	OUTSIDE AIR PATH	UF3	Dirrententinernteoo
000	OCCUPANCY	С	START/STOP COMMAN
PRESS	PRESSURE	Μ	MOTORIZED DAMPER
DI		F	FLOW METER
DO			
AI	ANALOG INPUT ANALOG OUTPUT	CS	CURRENT SENSOR
AO VFD	VARIABLE FREQUENCY DRIVE	SD	DUCT SMOKE DETECT
RH	RELATIVE HUMIDITY		CONDENSATE OVERF
MAU	MAKE-UP AIR UNIT	COS	CONDENSATE OVERI
O/H O/C	OCCUPIED HEATING SETPOINT OCCUPIED COOLING SETPOINT	DSP-HL	DUCT STATIC PRESSU
U/H	UNOCCUPIED HEATING SETPOINT	DSP-LL	DUCT STATIC PRESSU
U/C (K)	UNOCCUPIED COOLING SETPOINT EMERGENCY HVAC/VENTILATION KILL BUTTON	ZN-DP	ZONE DEW POINT
Ta	AVERAGING TEMPERATURE SENSOR	ZN-CO2	ZONE CARBON DIOXIE
_		ZN-OCC	ZONE OCCUPANCY SE
		ZN-T	ZONE TEMPERATURE
		CO2	AVERAGING TEMPERA
		ଡ଼	CENTRIFUGAL FAN
		AFS	AIR FLOW MONITORIN
		VFD	VARIABLE FREQUENC

# **OUTSIDE AIR SYSTEMS**:

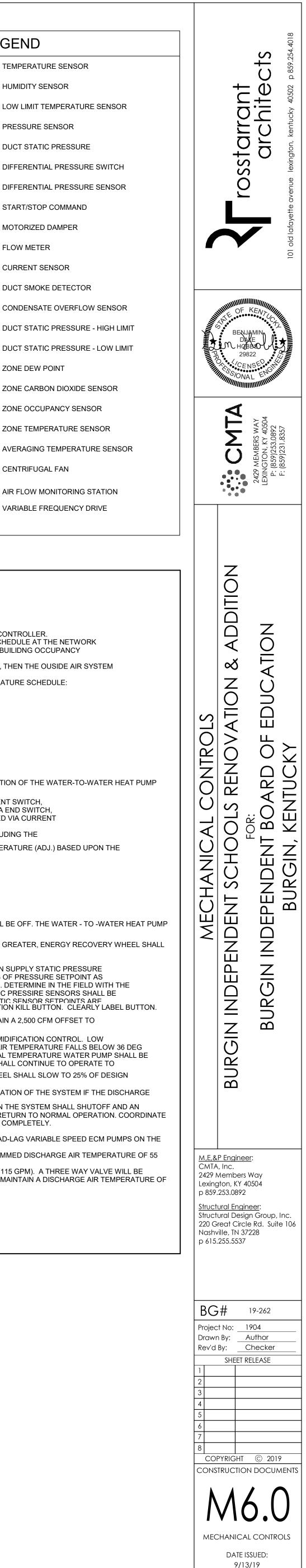
68 DEG F (ADJ.)

VARIES

		00451
AV		GRAPH C
AV	OUT OF RANGE	YES
	OUT OF RANGE	YES
	OUT OF RANGE	YES
	OUT OF RANGE	YES
	OUT OF RANGE	YES
	BOOLEAN COMMAND FAIL	YES
Х	BOOLEAN COMMAND FAIL	YES
X		YES
^		YES
		YES
	BOOLEAN COMMAND FAIL	YES
	BOOLEAN COMMAND FAIL	
v		YES
Х		YES
	BOOLEAN COMMAND FAIL	YES
		YES
Х		YES
		YES
Х		YES
	OUT OF RANGE	YES
		YES
		YES
	OUT OF RANGE	YES
		YES
	BOOLEAN COMMAND FAIL	YES
	BOOLEAN COMMAND FAIL	YES
	BOOLEAN COMMAND FAIL	YES
	BOOLEAN COMMAND FAIL BOOLEAN CHANGE OF STATUS	YES
	BOOLEAN CHANGE OF STATUS	
V		YES
Х		YES
	OUT OF RANGE	YES
	OUT OF RANGE	YES
		YES
	BOOLEAN CHANGE OF STATUS	YES
		YES
Х		YES
	OUT OF RANGE	YES
	OUT OF RANGE	YES
Х		YES
	BOOLEAN COMMAND FAIL	YES
		YES
		YES
	OUT OF RANGE	YES
	OUT OF RANGE	YES
	BOOLEAN COMMAND FAIL	YES
	BOOLEAN COMMAND FAIL	YES
	BOOLEAN COMMAND FAIL	YES
_		YES
	BOOLEAN COMMAND FAIL	YES
Х	BOOLEAN COMMAND FAIL	YES
	BOOLEAN COMMAND FAIL	YES
	BOOLEAN CHANGE OF STATUS	YES
		YES
Х		YES
~	OUT OF RANGE	YES
	OUT OF RANGE	YES
		1 1 2 3
Х		YES

#### THERE IS ONE OUTSIDE AIR UNIT THAT SERVES THIS FACILITY. THE SYSTEM SHALL OPERATE UNDER THE CONTROL OF A LOCAL. STAND-ALONE MICROPROCESSOR BASED DDC CONTROLLER. THE SYSTEM SHALL BE PLACED INTO THE OCCUPIED/UNOCCUPIED MODE BASED UPON THE USER ADJUSTABLE SCHEDULE AT THE NETWORK

- CONTROLLER. THESE SYSTEMS SHALL BE IN THE OCCUPIED MODE DURING REGULAR SCHOOL HOURS ONLY. SEE BUILIDNG OCCUPANCY SCHEDULE. 4. IF COMMUNICATION IS LOST BETWEEN THE NETWORK CONTROLLER AND THE OUTISDE AIR SYSTEM CONTROLLER, THEN THE OUSIDE AIR SYSTEM SHALL BE PLACED INTO THE UNOCCUPIED MODE UNTIL COMMUNICATION IS RESTORED. THE SYSTEM WILL BE PLACED INTO A MODE OF OPERATION BASED UPON THE FOLLOWING ADJUSTABLE TERMPERATURE SCHEDULE:
  - MODE OF OPERATION COOLING MODE OUTSIDE AIR TEMPERATURE 78 DEG F OR GREATER (ADJ.) BETWEEN 50 DEG F AND 78 DEG F (ADJ.) ECONOMIZER MODE
- 50 DEG F OR LESS (ADJ.) HEATING MODE IN THE UNOCCUPIED MODE OR FREEZESTAT (LOW LIMIT SET AT 36 DEGREES F) MODE:
  - THE SUPPLY FAN AND EXHAUST SHAL BE OFF. THE ENERGY RECOVERY WHEEL SHALL BE OFF. • THE OUTSIDE AIR DAMPER AND EXHAUST AIR DAMPER SHALL BE FULLY CLOSED,
  - FACE AND BYPASS DAMPER SHALL BE IN FULL FACE POSITION.
- 7. WHEN PLACED INTO THE OCCUPIED MODE, THE FOLLOWING SHALL OCCUR IN SEQUENTIAL ORDER AFTER OPERATION OF THE WATER-TO-WATER HEAT PUMP SYSTEM HAS BEEN PROVED: THE ENERGY RECOVERY WHEEL SHALL START AND OPERATION SHALL BE PROVED VIA CURRENT SWITCH, • THE OUTSIDE AIR DAMPER AND EXHAUST AIR DAMPER SHALL FULLY OPEN AND BE PROVED VIA END SWITCH,
  - THE SUPPLY FAN/VFD AND EXHAUST FAN/VFD SHALL START AND OPERATION SHALL BE PROVED VIA CURRENT SWITCH • THE SYSTEM SHALL NOT START IF ANY ONE COMPONENT DOES NOT PROVE OPERATION, INCLUDING THE
- HYDRONIC WATER-TO-WATER HEAT EXCHANGER SYSTEM 8. IN THE OCCUPIED MODE, THE FACE AND BYPASS DAMPERS SHALL MODULATE TO MAINTAIN DISCHARGE AIR TEMPERATURE (ADJ.) BASED UPON THE FOLLOWING SCHEDULE: DISCHARGE AIR TEMPERATURE
  - MODE OF OPERATION COOLING MODE ECONOMIZER MODE
  - 65 DEG F (ADJ.) HEATING MODE (NOTE THAT THERE SHOULD BE NOT BE MORE THAN APPROXIMATELY 60% AIRFLOW NECESSARY ACROSS THE COOLING/HEATING COIL TO MAINTAIN REQUIRED DISCHARGE
- AIR TEMPERATURE. SET DAMPER ACTUATOR CONTROL ACCORDINGLY.) 9. IN ECONOMIZER MODE BOTH THE FACE AND BYPASS SHALL BE FULL OPEN. THE ENERGY RECOVERY WHEEL SHALL BE OFF. THE WATER - TO -WATER HEAT PUMP SYSTEM SHALL REMAIN OFF. THE COOLING/HEATING COIL SHALL BE OFF. THE FANS SHALL REMAIN ON. 10. DEHUMIDIFICATION MODE: WHEN THE DUCT-MOUNTED EXHAUST AIR RELATIVE HUMIDITY SENSOR READS 65% OR GREATER, ENERGY RECOVERY WHEEL SHALL
- BE ON AND THE UNIT SHALL BE PLACED INTO COOLING MODE UNTIL EXHAUST AIR RELATIVE HUMIDITY IS BELOW 60%. 11. THE SUPPLY FAN SHALL BE CONTROLLED BY THE VFD BASED ON FIELD-MOUNTED DUCT PRESSURE SETPOINT. FAN SUPPLY STATIC PRESSURE OPTIMIZATION SHALL BE UTILIZED BY POLLING OF ASSOCIATED VAV/CAV BOX DAMPER POSITIONS AND RESETTING OF PRESSURE SETPOINT AS ALLOWED. DDC SYSTEM DETERMINES VAV BOX WITH GREATEST DAMPER OPEN POSITION ONCE EVERY TEN MINUTES. DETERMINE IN THE FIELD WITH THE TAB CONTRCTOR THE STATIC PRESSURE SETPOINT TO OBTAIN ACCEPTABLE AIRFLOW AS DESIGNED. (X2) DUCT STATIC PRESSIRE SENSORS SHALL BE PROVIDED SUPPLY FANS SHALL WORK TO SATISFY WORSE CASE DUCT STATIC SENSOR SUCH THAT BOTH DUCT STATIC SENSOR SETPOINTS ARE 12. THARDWARE INTERLOCK SUPPLY FAN, EXHAUST FAN, AND ISOLATION DAMPERS WITH EMERGENCY HVAC/VENTILATION KILL BUTTON. CLEARLY LABEL BUTTON. 13. THE EXHAUST FAN SHALL TRACK THE OUTSIDE AIR FAN VIA AN AIRFLOW MONITORING STATION AND SHALL MAINTAIN A 2,500 CFM OFFSET TO
- MAINTAIN A POSITIVE BUILDING PRESSURIZATION. 14. THE COIL IS A FULL FLOW COIL WITH FACE AND BYPASS DAMPER CONTROL FOR FREEZE PROTECTION AND DEHUMIDIFICATION CONTROL. LOW TEMPERATURE CUTOUT IS LOCATED ON THE DISCHARGE OF THE COIL AND SHALL BE ACTIVATE WHEN THE LEAVING AIR TEMPERATURE FALLS BELOW 36 DEG F. THE SUPPLY AND EXHAUST FANS SHALL STOP, OUTSIDE AIR AND EXHAUST AIR DAMPERS SHALL CLOSE, AND DUAL TEMPERATURE WATER PUMP SHALL BE ENABLED TO RUN UNTIL ALARM IS RESET. DURING LOW TEMPERATURE CUTOUT THE WATER TO WATER HEATPUMP SHALL CONTINUE TO OPERATE TO 15. VFD DEFROST CONTROL-WHEN THE OUTSIDE AIR TEMPERATURE IS BELOW 5 DEGREES F (ADJ.). THE ENERGY WHEEL SHALL SLOW TO 25% OF DESIGN SPEED FOR A PERIOD OF 3 MINUTES, IT SHALL DO THIS EVERY 60 MINUTES. 16. A MANUAL RESET LOW LIMIT INSTALLED DOWNSTREAM OF THE CHILLED/HOT WATER COIL SHALL STOP THE OPERATION OF THE SYSTEM IF THE DISCHARGE
- TERMPATURE FALLS BELOW 36 DEG F. 17. A SMOKE DETECTOR SHALL BE LOCATED IN THE EXHAUST AND SUPPLY AIR SYSTEM. IF SMOKE IS DETECTED, THEN THE SYSTEM SHALL SHUTOFF AND AN AUDIO/VISUAL ALARM SHALL ACTIVATE. UPON CORRECTION OF PROBLEM, THE SYSTEM SHALL BE RESET AND SHALL RETURN TO NORMAL OPERATION. COORDINATE WITH FIRE ALARM SYSTEM. ANY ACTIVATION OF THE BUILDING'S FIRE ALARM SYSTEM SHALL SHUTDOWN THE OA UNIT COMPLETELY. 18. COOLING/HEATING COIL TEMPERATURE MODULATION CONTROL: THE WWHP SYSTEM WILL BE PROVIDED WITH LEAD-LAG VARIABLE SPEED ECM PUMPS ON THE
- DUAL TEMPERATURE LOOP THAT WILL SERVE THE OA-1 UNIT. COOLING: OA-1 WILL CONTROL THE SPEED OF THE ECM PUMPS WITH A 0-10V OUTPUT IN ORDER TO ACHIEVE PROGRAMMED DISCHARGE AIR TEMPERATURE OF 55 DEGREES F AND MODULATE THE VOLUME OF CHILLED WATER FLUID PASSING THROUGH THE COIL. HEATING: ECM PUMP SHALL BE CONSTANT VOLUME AND SET TO A SPEED TO ACHIEVE DESIGN FLOW THROUGH COIL (115 GPM). A THREE WAY VALVE WILL BE MODULATED TO CONTROL HOT WATER TEMPERATURE BEING DELIVERED TO DUAL TEMPERATURE COIL IN ORDER TO MAINTAIN A DISCHARGE AIR TEMPERATURE OF 90 DEGREES F.



	REVIS	SIONS
#	DATE	DESCRIPTION

		RF-	SS-1 CAS-1
CU-1 HP-1	RF		
VRV Al	ND SPLI	T SYS	STEN
SCHEN	/IATIC		

NOT TO SCALE

1. VRV AND SPLIT SYSTEM SS-1 AND CAS-1

1.1. These units shall be provided with factory controls. The DDC system shall monitor space temperature and provide a high temperature alarm. Provide all necessary wiring conduit, etc. as required to interlock the DDC thermostat with unit and condensing unit. Rooms shall have space temperature and the split system shall control to maintain space a minimum of 72°F (adj.).

1.2. The DDC system shall have the ability to start and stop the split system. These shall be provided with a BACnet over MSTP communication and all points shall be available to the DDC system.

V	VRV/SPLIT SYSTEM HEAT PUMP CONTROLS POINTS									
POINT DESCRIPTION	POINT NAME	BI	BO	BV	AI	AO	AV	ALARM TYPE	GRAPHICS	
ROOM TEMPERATURE ACTUAL	VRW_ROOM_T				Х			OUT OF RANGE	YES	
TEMPERATURE SETTING	VRW_TS					Х			YES	
HEATING_COOL MODE	VRW_H_C					Х			YES	
OCCUPIED SCHEDULE	OCC_S						Х		YES	
UNOCCUPIED SCHEDULE	UNOCC_S						Х		YES	

RTU-1	AND R1	ru-2 poi	NTS LIS	Т		
POINT NAME	BI	BO	AI	AO	SETPOINT	ALARM
DX COMPRESSOR 1 ENABLE/DISABLE		Х				
DX COMPRESSOR 2 ENABLE/DISABLE		Х				
DEHUMIDIFICATION SETPOINT					Х	
ECONOMIZER MIXED AIR TEMP SETPOINT					Х	
ECONOMIZER MIXED AIR TEMP SETPOINT OVERRIDE					Х	
SUPPLY AIR TEMP SETPOINT					Х	
EMERGENCY SHUTDOWN	Х					Х
MIXED AIR DAMPERS				X		
MIXED AIR DAMPERS OVERRIDE				X		
MIXED AIR TEMP			Х			
OCC COOLING SETPOINT					X	
OUTSIDE AIR DAMPER STATUS	Х					Х
OUTSIDE AIR DAMPERS	-			X		
OUTSIDE AIR DAMPERS OVERRIDE					X	
OUTSIDE AIR TEMP			Х			
PREFILTER STATUS	Х					Х
PREHEATING MIXED AIR TEMP SETPOINT					X	
PREHEATING MIXED AIR TEMP SETPOINT OVERRIDE					X	
RETURN AIR HUMIDITY			х			
RETURN AIR SMOKE DETECTOR	Х					Х
RETURN AIR TEMP			X			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
SCHEDULE					Х	
SUPPLY AIR TEMP			X			Х
SUPPLY AIR TEMP SETPOINT					X	X
SUPPLY FAN START/STOP		X				
SUPPLY FAN START/STOP OVERRIDE		Λ			Х	
SUPPLY FAN STATUS	Х					Х
UNOCC COOLING SETPOINT	Λ				X	Χ
UNOCC HEATING SETPOINT					X	
SUPPLY AIR TOTAL CFM			X		~	
RETURN AIR TOTAL CFM			X			
SUPPLY FAN AIR CFM			X			
RETURN FAN AIR CFM			X			
RETURN AIR HUMIDITY SENSOR			X			
RELIEF AIR DAMPER STATUS	Х		^			Х
	Λ			v		<u> </u>
RELIEF AIR DAMPERS RELIEF AIR DAMPERS OVERIDE				X	X	
	Х				Å	v
MIXED AIR DAMPER STATUS	Å		v			X X
	V		Х			
	Х					Х
GAS REHEAT VALVE				X		

ELECTRIC HEATER		
ELECTRIC H	EATER	
All electric heaters shall be set to All electric heaters shall be scheo		n classroom

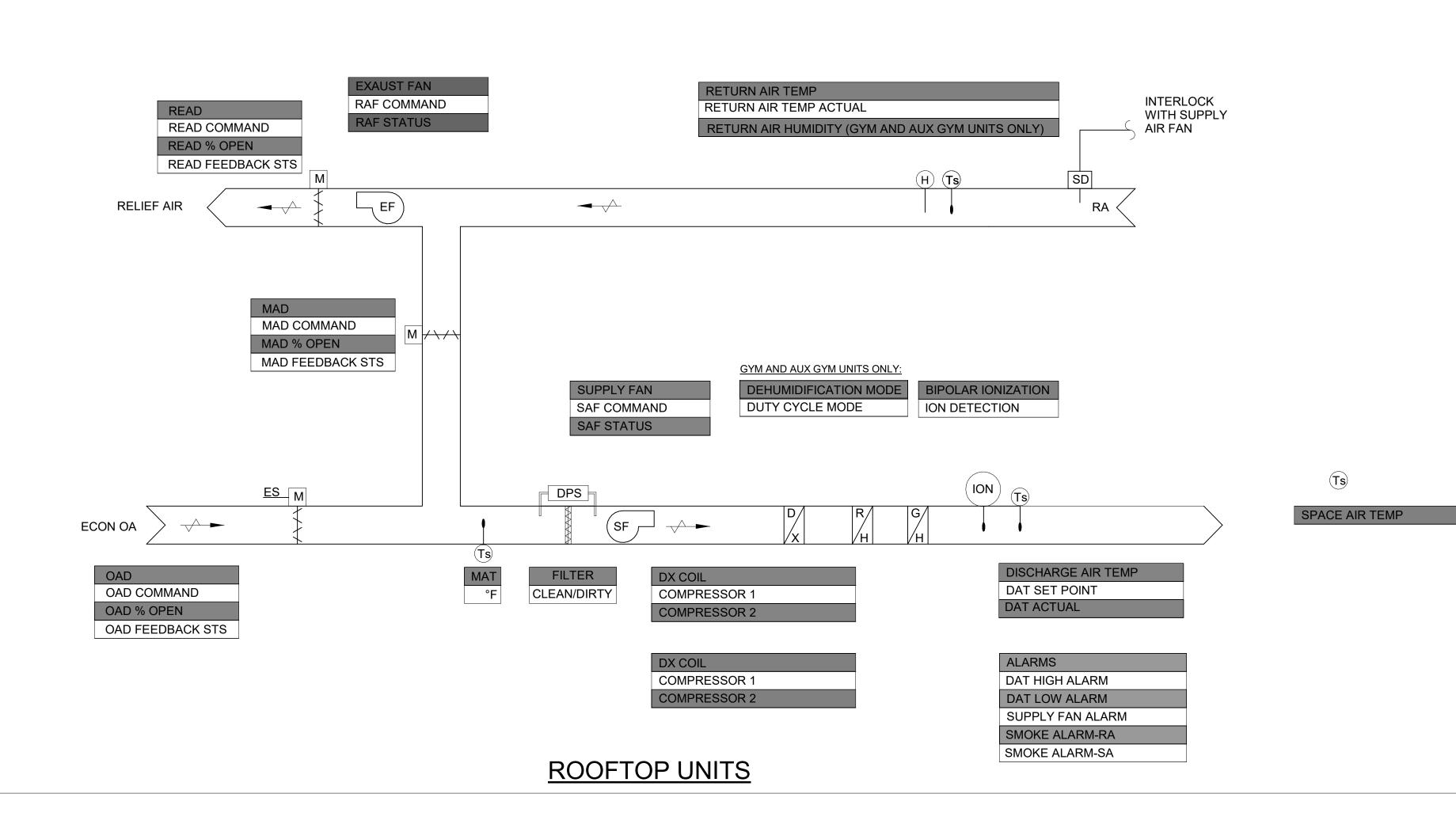
occupied and unoccupied times.

	E	ELECT	RIC HI	EATEF	rs co	NTRO	LS PC	DINTS	
DISPLAY NAME	POINT NAME	BI	BO	BV	AI	AO	AV	ALARM TYPE	GRAPHIC
START/STOP	EH_C		Х					BOOLEAN COMMAND FAIL	YES
START/STOP OVERRIDE	EH_C_OVRD			Х				BOOLEAN COMMAND FAIL	YES
STATUS	EH_S	Х						BOOLEAN COMMAND FAIL	YES
SCHEDULE	OCC_S			Х					
SPACE TEMPERATURE	EH_SPT				Х				

# —(T) THERMOSTAT **M CONTROLS**

NT	ROLS	9 POIN	ITS
ΔI		Δ\/	

#### RTU#: LOCATION: AREA SERVED: OCCUPIED/UNOCCUPIED



#### Rooftop Units 1.

1.1. <u>Occupancy</u> Schedule:

1.1.1. 7am to 4pm Monday Thru Friday. Contractor to verify schedule with owner.

1.1.2. The unit shall be placed into occupied/unoccupied, morning warm-up or morning cool-down mode from the BAS control system.

1.2. Outside Air/Return Air/Relief Air Damper Control: In occupied mode, the outside air damper shall maintain minimum outside air ventilation rate unless in economizer mode. The return air damper shall modulate inversely to the outside air damper. The relief air damper shall modulate to a minimum position during normal mode and shall fully open when in economizer mode with the exhaust fan active. In the unoccupied mode, the outside and relief air damper shall be closed.

1.3. Supply and Exhaust Fan Control

1.3.1. Supply fan will be started and stopped from the local BAS Panel per the ATC schedule. When the start command is issued the supply air fan shall be engaged. If the fan status does not match the commanded value an alarm will be generated. When the supply fan status indicates the fan has started, the control sequence will be enabled.

1.3.2. The exhaust fan shall be enabled when the unit enters economizer mode and shall be disabled when in normal mode.

1.4. <u>Supply Air Temperature Controls - Cooling/Heating</u>

1.4.1 Building Automation System Interface: The Building Automation System (BAS) shall send the unit's controller Occupied/Unoccupied and Heat/Cool modes. The BAS shall also send the discharge air temperature setpoint and the duct static pressure setpoint. If a BAS is not present, or communication is lost with the BAS the controller shall operate using default modes and setpoints.

1.4.2 Occupied: During occupied periods, the supply fan shall run continuously. The DX cooling shall stage compressors to maintain the discharge air temperature set point 55 Deg. F (adj.). If economizing is enabled the outside air damper shall also modulate to maintain the discharge air temperature set point 55 Deg F (adj.). If the discharge air temperature sensor fails the DX compressors shall disable and an alarm shall be annunciated at the BAS. If the space temperature falls below 70 deg F (adj.) setpoint, then the gas heating valve shall modulate to maintain space temperature setpoint. The unit shall not simultaneously heat and cool.

1.4.3 Economizer: The discharge air temperature sensor shall measure the dry bulb temperature of the air leaving the cooling coil while economizing. When economizing is enabled and the unit is operating in the cooling mode, the economizer damper shall be modulated between its minimum position and 100% to maintain the discharge air temperature setpoint 55 Deg. F. The economizer damper shall modulate toward minimum position in the event the mixed air temperature falls below the low temperature limit setting 50 Deg. F (adj.)

Reference Dry Bulb: Outside air (OA) temperature shall be compared with a reference dry bulb setpoint 56 Deg. F (adj.). The economizer shall enable when the OA temperature is less than reference dry bulb setpoint. The economizer shall be disabled when OA temperature is greater than reference dry bulb setpoint + 2.0 deg. F.

### 1.5. <u>Smoke Shutdown</u>:

1.5.1. Smoke detectors shall be located in the return air streams. If smoke is detected, the supply and return fans shall de-activate and an audio/visual alarm shall activate. Upon correction of the problem, the system shall be reset and unit shall return to normal operation. The smoke detectors shall provide a supervisory signal to the Fire Alarm System. This shall be reset automatically when smoke is no longer present.

#### 1.6. <u>Unoccupied Mode</u>:

shall be placed into occupied mode until the space temperatures are 76 deg. F (adj.).

100% recirculating. 1.6.3. Morning Cool Down (The Building temperature is allowed to raise to 80°F adj.): Under morning cool-down the unit shall be activated at a time provided by the BAS control system. During this cool down the outside air damper and relief air damper shall remain closed. The unit shall circulate air through the building and the supply air temperature shall be controlled to 55 F (adj.) until the temperature drops to 75°F (adj.) When the space temperature has been lowered to 75°F (adj.) the unit shall go into normal operation. This shall occur 2 hours (adj.) before the occupied schedule. The unit shall do this via the DX cooling coil and staging of associated compressors.

1.6.4. Optimal Start: The BAS shall monitor the scheduled occupied time, occupied space setpoints and space temperature to calculate the optimal start time in order for the building to reach occupied setpoint by the occupied time.

1.6.5. Optimal Stop: The BAS shall monitor the scheduled unoccupied time, occupied setpoints and space temperature to calculate when the optimal stop occurs. When the optimal stop mode is active the unit controller shall maintain the space temperature to the space temperature offset setpoint.

1.6.6. All systems shall be disabled in the unoccupied mode. If the system is required to be enabled in the unoccupied mode due to space conditions, then all relevant PID loops shall be enabled as well to maintain appropriate control. 1.7. Dehumidification Mode (Gym and Aux Gym units only)

1.7.1. Dehumidification Mode: The unit shall have the capability of going into dehumidification mode. When return air humidity exceeds 65% RH (adj.) as detected by the return air humidity sensor, the hot gas reheat system shall be enabled. Under the dehumidification mode, the discharge air temperature shall be cooled to 55F (adj.) and the hot gas reheat system shall heat the discharge air to a room neutral 72 deg F (adj.). When engaged in dehumidification mode the unit shall run for a minimum of 30 min. (adj.).

1.8. Filter Status

1.8.1 A filter pressure differential sensor shall be provided across the filter bank and shall monitor filter static pressure. Provide an alarm if pressure drop exceeds 0.6" W.G. (adj.).

1.9. Bipolar Ionization Detection

1.9.1 An ionization detection sensor shall detect ion particles to prove system status. If no ionization particles are detected an alarm shall be generated at the front end.

1.10 Existing Auditorium RTUs Control

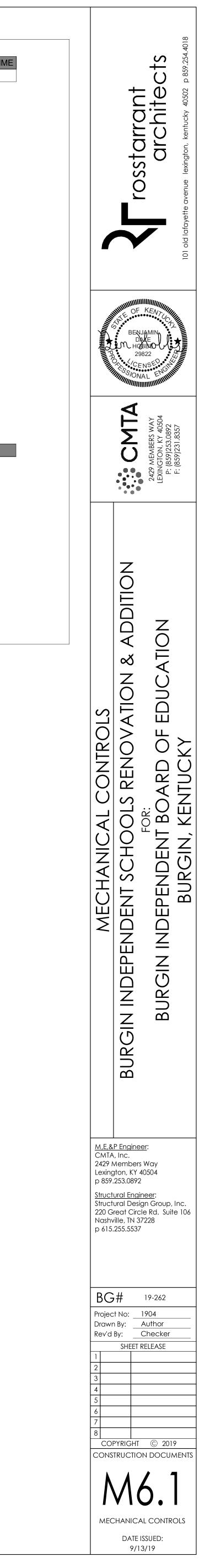
1.10.1 The ATC shall enable/disable existing unit controls based on occupied/unoccupied schedules. unoccupied mode.

1.3.3 Supply Fan and Exhaust Fan: Each fan shall have a current switch monitoring motor status and provide an alarm at the BAS for fan failures.

1.6.1. In the unoccupied mode, the air handling unit shall be "off". The outside air damper and exhaust air damper shall be closed and the return air damper shall be open. If the building space temperature is above 80 deg. F (adj.) the unit

1.6.2. Morning Warm-Up (Building temperature is allowed to drop to 63°F): Under morning warm-up the unit shall be activated at a time provided by the BAS control system. Morning warm-up shall occur via indirect gas burner. Unit shall be

1.10.2ATC shall monitor a discharge and space temperature sensor and provide a front end alarm if temperature falls 5 deg F (adj.) above or below 72 deg F (adj.) when in occupied mode or 10 def F (adj.) above or below 72 deg F (adj.) in



	REVIS	sions
#	DATE	DESCRIPTION

												OUTSIDE AIF	R UNIT SCHEDUL	E (PART	⁻ 1)									
					OUTSIDE	AIR FAN			XHAUST AIR FAN					COOLING PE	RFORMANCE	[		E	ELECTRIC HE	ATING PERFORM	NCE		HOT GAS	REHEAT C
MARK	MANUFACTU	URER MOD	EL CONFIGURATION	MAX # OF CFM FANS	```	HP (EA) VOLT		MAX # OF CFM FANS	E.S.P. (IN HP WG) (EA) VC		OP. FREQ # OF FIN . ROWS SPACING	G TOTAL COOLING CAP	SENSIBLE COOLING CAP. (BTU/HR)	EAT (DB/WB) (°F)	LAT (DB/WE (°F)	B) MAX FACE VELOCIT (FPM)	Y MAX. AIR PRESSURE DROP (IN. WG.)	TOTAL HEATING CAP. (BTU/HR)	. EAT (°F)	LAT (°F) SIZE (K'	MAX. AIR PRESSU DROP (IN. WG.			A PRES DROP (
DOAS-1	DAIKIN	N DPS0	D3A DOAS WITH HOT GAS REHEAT, ENERGY WHEEL, AND ELECTRIC HEAT	600 1	1.4	1.3 208 V	3 60	540 1	0.5 1.3 20	8V 3	60 3 1/16"	32460	20596	79.9	48.5	124.2	0.08	20478	50	81.4 6	0.05	15313	4.5	0
															OUTS		<b>SCHEDULE (PAR</b>	<b>T 2)</b>						
																	TOTAL ENERGY RECOVERY WHE	EL			PRIMARY FI	TER SECTION	[	DIMENSIO
																WINTER OPERATION		SUMMER OPERAT	ΓΙΟΝ					
														0.1		RECOVER ED EA CAPACITY		EA EA CAPACI		TOTAL			AIR	
								MARK	MANUFACTURE		LOCA	TION	CONFIGURATION	OA EAT	OAT EA		TOTAL OA OA EN EFF EAT LAT	EAT LAT (BTU/HF	R) SEN EFF	TOTAL EFF		OCITY TY / FPM) SIZE	PRESSURE N DROP	NOM. SIZE (IN.)
								DOAS-1	DAIKIN	DPS003		SROOM B104 DOA	S WITH HOT GAS REHEAT, ENER WHEEL, AND ELECTRIC HEAT		50 °F 68 °F	50 °F 37727		75 °F 79.9 °F 25076	0.8	0.76 C		34.5 4/6"X16' 'X2"		.5"X40.8"X

																		F	KUUF	IOPL	JNII SC	HEDULI																	
					PHYS	SICAL DATA					SU	PPLY FAN						EXI	HAUST FAN	l						COOL	ING						GAS HEATIN	G			E	ELECTRICAL	L DATA
MAR RTU	K MANUFACTURE	ER MODEL #	PACKAGED	WIDTH N (IN.) 77	LENGTH (IN.) 162	I HEIGHT (IN.) 71	WEIGHT (LBS) 3782	TOTAL SA CFM 7200	FAN MOTOR TYPE SWSI AF	# OF FANS 1	FAN RPM 2159	E.S.P. (" WC) 1.00	T.S.P. (" WC) 2.01	RATED H.P. (PER FAN) 5	B.H.P. (PER FAN) 4.91	TOTAL RA CFM 3520	FAN MOTOF TYPE SWSI AF	R # OF FANS 1	FAN RPM 1812	E.S.P. (" WC) 0.50	RATED H.P (PER FAN) 4		COOLING CAPACITY (BTU/HR) 200858	SENSIBLE COOLING CAPACITY (BTU/HR) 171097	EAT/LAT DB 78.2/55.8	EAT/LAT WB 64.9/55.6	FINS/INCH 15	COMPRESSOR TYPE INVERTER	# OF COMPRES SORS	6 EER IEER 10.8 19.5	TYPE S GAS	STAGES 5	SIZE (BTU/HR) 300000	TOTAL CAPACITY (BTU/HR) 240000	EDB LI 57.4 89	DB VC 9.3 20	DLT. PH. )8 V 3	MCA 93 A	MOCP
RTU	2 DAIKIN	DPS007A	ROFOTOP PACKAGED ROOFTOP	97	91	57	2285	3200	ECM	1	1822	0.75	1.13	4	1.05	3200	ECM	1	2321	0.50	2	1.02	88503	76583	75.6/53	62.6/52.9	15	SCROLL INVERTOR SCROLL+FIXED	2	12.1 19.8	GAS MO		200000	160000	60 10	07.8 20	)8 V 3	43 A	50
			NOOFTOP																									SCROLL			TU	URNDOWN							

REMARKS: 1. PROVIDE SINGLE POINT ELECTRICAL CONNECTION. 2. PROVIDE 18" INSULATED CURBS FOR NEW ROOFTOP UNITS WHERE DUCTS ROUTE DIRECTLY FROM BOTTOM OF UNIT AND THRU ROOF.

	E	XHAUST AIR FAN						COOLIN	<b>G PERF</b>	ORMANCE						EATING P	RFORMANCE				HOT G/	AS REHEAT
MAX CFM	# OF FANS	E.S.P. (IN HP WG) (EA) VOL			OF FIN WS SPACI	TOTAL COOLIN G (BTU/HF		. EAT (DB (°F)	WB) I	LAT (DB/WB) (°F)	MAX FACE VELOCITY (FPM)	MAX. AIR PRESS	· ·	TOTAL HEATING CAF (BTU/HR)	EAT (°F)	LAT (°F)	SIZE (KW)	MAX. AIR PRES DROP (IN. V		CAPACITY (BTU/HR)		
540	1	0.5 1.3 208	V 3	60	3 1/16	32460	20596	79.9		48.5	124.2	0.0	8	20478	50	81.4	6	0.05		15313	4.5	C
											DE AIR UNIT		•						·			
-												TOTAL ENERGY R	•					PRIMARY	Y FILTER S	ECTION		DIMENSIO
													•					PRIMARY			AIR	DIMENSIC
	MARK	MANUFACTURER	MODEL		LOC	TION	CONFIGURATION	O	A 0/		VINTER OPERATION RECOVER ED EA CAPACITY		•	EL SUMMER OPERA	R Y	TO1				QUANTI	AIR PRESSURE DROP	DIMENSIO NOM. SIZE (IN.)

2. PROVIDE NEC COMPLIANT DISCONNECT MEANS. 3. PROVIDE 36" TALL PLENUM CURB WITH HORIZONTAL SUPPLY AND RETURN DUCT CONNECTIONS.

<b>ROOF TOP UNIT SCHEDULE</b>	
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										WATER	SOUR	CE H	IEAT	r pu	MP S	CHED	ULE									
					FA	N						ELE	CTRICA	L				HEATING					COOLING	G		
																					SENSIBLE	TOTAL				
					NOM.			WATER PD	WEIGHT	SIZE						CAPACITY	EAT	EWT	HE		CAPACITY	CAPACITY	EAT	EWT	HR	(
MARK	MANUFACTURER	MODEL	TYPE	STAGES	CFM	HP	GPM	(FT. H20)	(LB)	(LxWxH)	VOLTAGE	PHASE	FLA	MCA	MOCP	(BTU/HR)	(DB)	(DEG. F)	(BTU/HR)	COP	(BTU/HR)	(BTU/HR)	(DB/WB)	(DEG. F)	(BTU/HR)	EER
CHP-012	DAIKIN	WMHC2012	CONSOLE	1	360	0.033	2.9	13.53	146	46"X25"X10.75"	208 V	1	4.7	5.8	15	14393	70	70	11389	4.79	8342	11510	80	85	14321	13.98
CHP-018	DAIKIN	WMHC2018	CONSOLE	1	475	0.056	4.6	11.03	201	54"X25"X10.75"	208 V	1	6.7	8.2	15	20876	70	70	16597	4.9	10192	16837	80	85	20293	16.6
CHP-018A	DAIKIN	WMHC2018	CONSOLE	1	475	0.056	4.6	11.03	201	54"X25"X10.75"	208 V	1	6.7	8.2	15	17836	68	55	13857	3.4	9824	16132	75	85	20293	15.3
REMARKS:				1																						

1. PROVIDE NEC COMPLIANT DISCONNECT MEANS.

MARK	MANUFACTUREF
CAS-1	DAIKIN
CAS-1	DAIKIN
CAS-1	DAIKIN
	CAS-1 CAS-1

	MA
MARK	
E-1	
E-3	
E-5	
R-2	
R-3	
R-4	
R-5	
S-1	
S-2	
S-3	
S-4	
T-1	

REMARKS: 1. ACCEPTABLE MANUFACTURER'S ARE TITUS, PRICE, AND KRUEGER. COORDINATE MOUNTING TYPE WITH CEILING TYPE AND ARCHITECTURAL CEILING PLANS PRIOR TO FABRICATION/INSTALLATION.
 COORDINATE FINAL COLOR/FINISH WITH ARCHITECT PRIOR TO FABRICATION/INSTALLATION. 4. PROVIDE WITH INTEGRAL HINGED FILTER HOUSING AND FILTER.

					SPLIT	SYSTI	EM INC	DOOF	R UNIT	SCHE	EDU	LE	
						DIM	IENSIONS (II	N.)		AIRFL	ow	E	LECTRICAL
		MA	RK	MODEL #	MANUF.	LENGTH	WIDTH	HEIGHT	WEIGHT (LB	S) (CFN	1)	VOLTA	GE P
		SS	-1 FTX12	2NMVJU-RX12NM	IVJU DAIKIN	30	11	9	18	434		208 V	
				ENSIONS (IN.)	STEM OL	TOTAL			HEATING			El	ECTRICAL
					WEIGHT	COOLING	SENSIB			MINIMUM		MOC	
MARK	MANUF.	MODEL #	LENGTH	WIDTH HEI	GHT (LBS)	(MBH)	COOLING		(MBH)	SEER	MCA	Р	VOLTAGE

1. PROVIDE NEC COMPLIANT DISCONNECT MEANS. ACCEPTABLE MANUFACTURER'S ARE TRANE, MITSUBISHI, SAMSUNG, AND LG.
 SINGLE POINT CONNECTION (SS-1 PROVIDES POWER FOR CU-1).

## VARIABLE REFRIGERANT FLOW INDOOR UNIT SCHEDULE

				TOTAL COOLIN	IG CAPACITY	SENSIBLE COOLING	TOTAL HEATIN	G AIRF	LOW		NOMINAL SIZE		
CTURER	MODEL	R	OOM	(MB	H)	CAPACITY (MBH)	CAPACITY (MBH	H) (CF	FM)	(DBA)	(WXHXD)	VOLTAGE	PHASE
KIN	FXZQ12TAVJU	CORRI	DOR A-CA	10.9	17	6.942	13.99	35	53	26-34 2	22.6X10.2X22.6	208 V	1
KIN	FXZQ12TAVJU	CORRI	DOR A-CA	10.9	17	6.942	13.99	35	53	26-34 2	22.6X10.2X22.6	208 V	1
KIN	FXZQ12TAVJU	VESTI	BULE-170	10.9	17	6.942	13.99	35	53	26-34 2	22.6X10.2X22.6	208 V	1
			1	VARI							SCHED		
					MINIMUM ACTU		NO	/INAL SIZE (	IN)			ELECTI	RICAL
					INSTALLED					-			
		MARK	MANUFACTURER	MODEL #	COOLING	HEATING (MBH		WIDTH	HEIGHT	WEIGHT (	LBS) VOLTAGE	(V) PHAS	E MCA
		HP-1	DAIKIN	RXTQ36TAVJ9	32.2	16.4	39	37	13	172	208 V	1	17 A
		REMARKS:											

PROVIDE NEC COMPLIANT DISCONNECT MEANS.
 ACCEPTABLE MANUFACTURER'S ARE TRANE, MITSUBISHI, SAMSUNG, AND LG.

					EXHA	UST FAN	I SCHE	DULE				
				AIRFLOW				MAX INPUT	E	LECTRICAL DAT	A	
MARK	MANUFACTURER	MODEL #	TYPE	(CFM)	E.S.P.	DRIVE	RPM	WATTS	VOLTAGE	PHASE	HZ	SC
EF-1	GREENHECK	SP-B110	CEILING	110	0.13	DIRECT	950	80.20	120 V	1	60	
EF-2	GREENHECK	SP-B80	CEILING	75	0.13	DIRECT	900	18.60	120 V	1	60	

REMARKS: 1. PROVIDE FACTORY-MOUNTED NEC DISCONNECT SWITCH.

SINGLE POINT CONNECTION.
 EXHAUST FAN IS TO BE CONTROLLED BY LIGHT SWITCH SUCH THAT IT TURNS ON WHEN LIGHT IS ACTIVATED.

PROVIDE WITH BACKDRAFT DAMPER.
 PROVIDE WITH 8" PAINTABLE ALUMINUM WALL CAP WITH BIRD/INSECT SCREEN.

		E	LECTRIC UNIT HEA	TER SC	HEDUL	E
				AIRFLOW	ELE	ECTRICAL DA
MARK	MANUF.	MODEL #	TYPE	(CFM)	KW	VOLTAGE
UH-1	MARKEL	HF3384D-RP	CEILING MOUNTED	175	1.5	208 V
UH-2	MARKEL	HF1B5103N	WALL MOUNTED	400	2.5	208 V
REMARKS	:					·

PROVIDE NEC COMPLIANT INTEGRAL DISCONNECT MEANS.
 PROVIDE 24 V THERMOSTAT.

3. PROVIDE THERMAL OVERLOAD PROTECTION

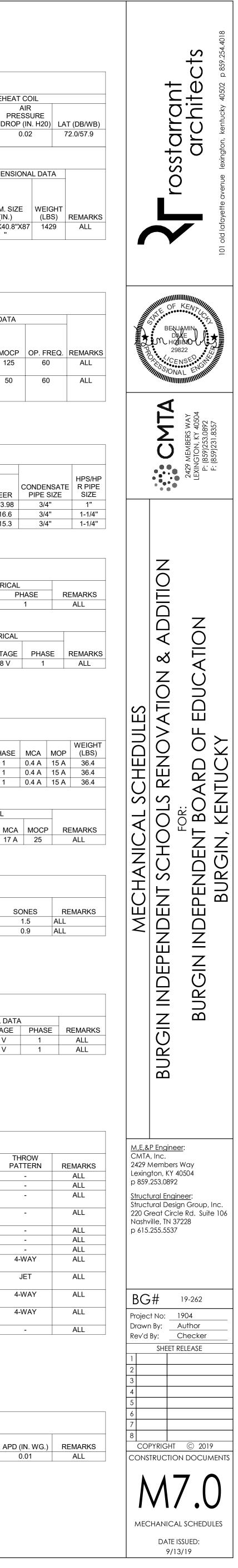
4. COLOR TO BE SELECTED BY ARCHITECT.

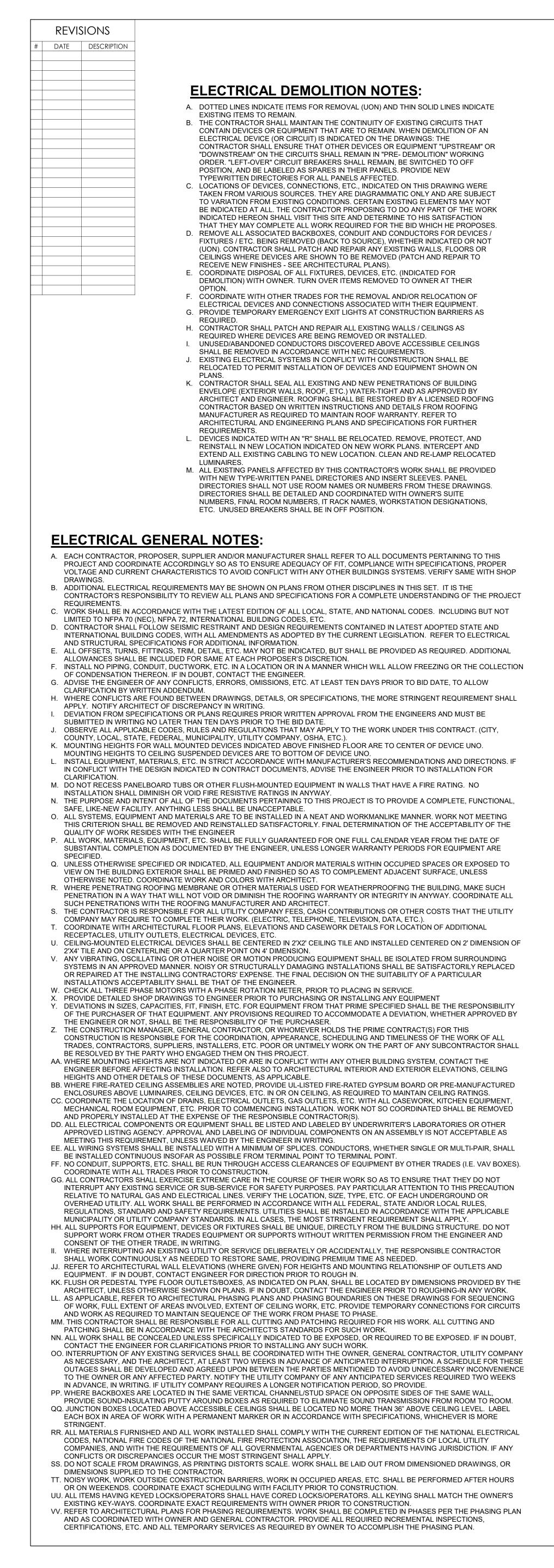
## **REGISTERS, GRILLES, AND DIFFUSERS**

			REGR		JRILLES	, AND L	IFFUJERJ				
к	MANUFACTUR ER	MODEL #	TYPE	GRILLE SIZE	PANEL SIZE	DUCT INLET SIZE	DUCT BRANCH SIZE	MAX CFM	P.D.	NOISE CRITERIA	TH PA1
	TITUS	50F	ALUMINUM 1/2" EGG CRATE	24"X24"	24"X24"	6"ø	6"ø	100	0.05	25	
	TITUS	50F	ALUMINUM 1/2" EGG CRATE	24"X24"	24"X24"	10"ø	10"ø	400	0.05	25	
	TITUS	350RL	ALUMINUM 3/4" DEFLECTION EXHAUST GRILLE	14"X10"	16"X12"	14"X10"	14"X10"	540	0.08	21	
	TITUS	FL-10	ALUMINUM LINEAR SLOT DIFFUSER, 1" SLOT	1"X48"	2.75"X48"	8" OVAL	8"ø	225	0.15	25	
	TITUS	50F	ALUMINUM 1/2" EGG CRATE	24"X24"	24"X24"	10"ø	10"ø	400	0.05	25	
	TITUS	50-F	ALUMINUM 1/2" EGG CRATE	24"x24"	24"x24"	12"ø	12"ø	600	0.05	25	
	TITUS	50-F	ALUMINUM 1/2" EGG CRATE	24"X24"	24"X24"	14‴ø	14"ø	950	0.05	25	
	TITUS	TDCA-AA	ALUMINUM ADJUSTABLE SQUARE DIFFUSER	24"x24"	24"X24"	6"ø	6"ø	100	0.05	25	4-'
	TITUS	FL-10	ALUMINUM LINEAR SLOT DIFFUSER, 1" SLOT	1"X48"	2.75"X48"	8" OVAL	8"ø	225	0.15	25	
	TITUS	TDCA-AA	ALUMINUM ADJUSTABLE SQUARE DIFFUSER	24"X24"	24"X24"	10"ø	10"ø	400	0.05	25	4-'
	TITUS	TDCA-AA	ALUMINUM ADJUSTABLE SQUARE DIFFUSER	24"X24"	24"X24"	15'X15"	12"ø	600	0.05	25	4-'
	TITUS	50F	ALUMINUM 1/2" EGG CRATE	24"X24"	24"X24"	SEE PLANS	SEE PLANS	400	0.05	25	

					LOUVE	R SCHE	DULE			
1	MARK	MANUFACTURER	MODEL #	SERVICE	CFM	WIDTH (IN)	HEIGHT (IN)	FREE AREA	VELOCITY (FPM)	APE
	L-1	RUSKIN	ELF375DX	CHP-018A	60	12	12	0.3	200	
REM	ARKS:									

1. COLOR TO BE SELECTED BY ARCHITECT.





## REFER TO TYPICAL WALL DEVICE MOUNTING DETAIL ON SHEET E7.0

DESCRIPTION	MOUNTIN HEIGHT (T CENTER OI BOX)	DRAWING SYMBOL
LIGHTING CONTROL SWITCHES	46"	
LIGHT SWITCH: LOW VOLTAGE EXAM LIGHT SWITCH	46"	\$ \$×
NIGHT LIGHT SWITCH WITH CONSTANTLY ILLUMINATED HANDLE	46"	\$ N
	46" 46"	\$SL
LOW VOLTAGE DIMMER SWITCH	46"	\$D \$LV
LINE VOLTAGE THREE-WAY SWITCH	46"	\$3
LINE VOLTAGE FOUR-WAY SWITCH	46"	\$LV4
KEYED SWITCH OCCUPANCY OR VACANCY SENSOR SWITCH	46"	\$к \$os,\$
LIGHT SWITCH FOR UNDER-CABINET LIGHTS	46"	Φ00,Φ \$U
ILLUMINATED HANDLE LIGHT SWITCH (ILLUMINATED WHEN LOAD IS OFF)	46"	\$1∟
PILOT LIGHT SWITCH (ILLUMINATED WHEN LOAD IS ON)	46"	\$PL
NON-REVERSING MOTOR STARTER SNAP SWITCH	AS NOTED	\$М \$MC
HAND-OFF-AUTO 3-POSTION SWITCH	46"	\$ НОА
TIMER SWITCH	46"	\$⊤
OCCUPANCY OR VACANCY SENSOR, CEILING MOUNT	CLG	(), (V
OCCUPANCY OR VACANCY SENSOR, CORNER MOUNT	CLG	$\checkmark$
PHOTO-CELL AS NOTED	AS NOTED	PC
EMERGENCY AUTOMATIC TRANSFER SWITCH FOR LIGHTING CONTROLS (REFER TO DETAIL)	CLG	ER
POWER OUTLETS SIMPLEX RECEPTACLE	1'-6"	đ
DUPLEX RECEPTACLE-SAFETY TYPE,	1'-6"	⊖ ⊖ s
TAMPER-RESISTANT DUPLEX RECEPTACLE	1'-6"	) (
SLASH THROUGH ANY DEVICE INDICATES MOUNTING ABOVE COUNTERTOP 4" ABOVE		Ø.
BACKSPLASH	41.57	
FILLED CENTER BAR INDICATES INTEGRAL GROUND FAULT PROTECTION (GFCI)	1'-6"	
DEAD FRONT GFCI DEVICE, LABEL AND INSTALL IN READILY ACCESSIBLE LOCATION FILLED OUTER BARS INDICATES INTEGRAL INTEGRAL	41.0"	
USB OUTLETS IN ADDITION TO POWER RECEPTACLES	1'-6"	
GANG RECEPTACLE IN COMBINATION WITH SWITCH (PROVIDE DIVIDER IF LIGHTING CIRCUIT IS 277V)	46"	€±c
DUPLEX RECEPTACLE, CEILING MOUNTED	CLG	$\bigoplus_{\#}$
QUADRUPLEX RECEPTACLE JUNCTION BOX, CEILING OR WALL	1'-6"	∯– □,€
VOLTAGE/1PH RECEPTACLE, AS NOTED	AS NOTED	
VOLTAGE/3PH RECEPTACLE, AS NOTED	1'-6"	ŧ
"DOG-HOUSE" TYPE TWIN DUPLEX RECEPTACLE WITH ONE DUPLEX RECEPTACLE ON BOTH SIDES	ON CNTR.	• DP
SS INDICATES SURGE SUPPRESION TYPE OUTLET(S)		⊖– s
WEATHER-PROOF "WHILE IN USE" TYPE DIE-CAST METAL COVERPLATE WITH LOCKABLE	2'-2"	<del>)                                    </del>
ENCLOSURE AT OUTLET - SEE SPECIFICATIONS		
COORDINATE EXACT LOCATION WITH PLUMBING CONTRACTOR TO CONCEAL OUTLET BEHIND COOLER, PROVIDE READILY ACCESSIBLE GFI DEVICE AT 18" ADJACENT TO WATER COOLER		€
FIRE ALARM		
MAIN VOICE FIRE ALARM CONTROL PANEL CENTRAL PROCESSING UNIT (CPU)	6'-6" TO TOP	FACP
PULL STATION : DOUBLE ACTION	46" TO LEVER	F
KEYED, LOCKED PULL STATION : DOUBLE ACTION. STATION SHALL ONLY BE OPERABLE VIA KEY IN POSSESSION OF STAFF.	46" TO LEVER	ΓK
AUDIO/VISUAL NOTIFICATION APPLIANCE	WALL, CLG	F,
AUDIO-ONLY NOTIFICATION APPLIANCE	WALL, CLG WALL, CLG	A,
BELL / LIGHT	80"	■ , BL
BELL ONLY	80"	В
PHOTO-ELECTRIC SMOKE DETECTOR	CLG	SD
PHOTO-ELECTRIC SMOKE DETECTOR FOR PATIENT ROOM MONITORING (SEE RISER)	CLG	SD P
PROJECTED BEAM SMOKE DETECTOR; EMITTER (BE) AND RECEIVER (BR)		BE ,
HEAT DETECTOR	CLG	HD
	ABV CLG	CD
CARBON MONOXIDE ALARM: SINGLE STATION W/SOUNDER BASE	CLG	СМ
CARBON MONOXIDE AUDIO/VISUAL NOTIFICATION APPLIANCE	WALL	F
DOOR HOLDER : WALL TYPE	WALL	DH
DOOR HOLDER : CLOSURE TYPE	ABV DOOR	DH C
	ABV CLG	DD
CONNECTION TO SPRINKLER FLOW SWITCH WITH ADDRESSABLE MODULE		FS
CONNECTION TO SPRINKLER TAMPER SWITCH WITH ADDRESSABLE MODULE		TS
	E 4"	PS
REMOTE L.C.D. FIRE ALARM ANNUNCIATOR	54" 54"	FAA FAAM
REMOTE FIRE ALARM ANNUNCIATOR W/ MICROPHONE POST INDICATOR VALVE		PIV
POWER SUPPLY/CONTROL FOR AUDIO/VISUAL DEVICES	46"	NAC
TRANSPONDER CABINET	46"	TRAN
GRAPHICS DISPLAY TERMINAL		GDT EXT
ISOLATION MODULE	WALL	
ZONE ADDRESSABLE MODULE		z
H.V.A.C. SMOKE DAMPER CONNECTION		SM
FLUSH MOUNTED REMOTE ALARM INDICATING	7'-6"	RI
STATION/TEST SWITCH FIREMAN'S PHONE JACK	4'-6"	
FIREMAN'S PHONE JACK	-	FP
		KB
ADDRESSABLE RELAY MODULE		R
VANDAL PROOF COVERS SHALL BE UL LISTED FOR USE WITH THE SPECIFIC DEVICE THEY ARE PROTECTING		PC
		СН
INDICATES CHIME AUDIBLE NOTIFACTION		
INDICATES CHIME AUDIBLE NOTIFACTION DEVICE USED FOR ELEVATOR CONTROL		EL

	DESCRIPTION	MOUNTIN HEIGHT (1 CENTER 0 BOX)	DRAWING SYMBOL
	LIGHTING		
	REFER TO LUMINAIRE SCHEDULE FOR EXACT FIXTURE SPECIFICATIONS, MOUNTING HEIGHTS,		
	ETC. SURFACE OR SUSPENDED CEILING FIXTURE (SLASH		⊕,○,
	POLE MOUNTED AREA LIGHT EMERGENCY BATTERY WALL-PACK		₽₽  ₽¦}
	WALL MOUNT FIXTURE		₩,Ю
	FLOODLIGHT SURGICAL/EXAM LIGHT		∽ (◯ sl, xl
	EXIT LIGHT (CEILING, END, WALL MOUNT)		€€
	STRIP FIXTURE CROSS-HATCHING INDICATES LIGHT IS POWERED		
	FROM THE EMERGENCY-CRITICAL BRANCH PARALLEL-HATCHING INDICATES LIGHT IS		
	POWERED FROM THE EMERGENCY-LIFE SAFETY BRANCH		
	MISCELLANEOUS		GROUND
	CONDUIT CONCEALED IN WALLS OR IN CEILING SPACE: ARROW(S) INDICATE(S) HOME RUN & # OF CIRCUITS: HASHMARKS INDICATE # OF CONDUCTORS. DASHED LINE INDICATES CONDUIT BELOW FLOOR.		PHASE
	DISCONNECT SWITCH	5'-0"	
	MAGNETIC STARTER MAGNETIC COMBINATION STARTER	5'-0" 5'-0"	
	VARIABLE FREQUENCY DRIVE	5'-0"	
	ENCLOSED FLUSH MTD. CIRCUIT BREAKER BOX ON ANY DEVICE INDICATES SURFACE MOUNTED	5'-0"	
	BACKBOX/WIREMOLD		
	CIRCLE ON ANY DEVICE INDICATES DEVICE FED FROM STUB UP CONDUIT		
	WIREWAY WITH REMOVABLE COVER (SIZE AS NOTED)	AS SHOWN	
	TRENCH DUCT (SIZE AS NOTED) PUSHBUTTON STATION	AS SHOWN 46"	
	FLEXIBLE CONDUIT	40	
	PANELBOARD, SURFACE OR FLUSH MOUNTED, HATCHING INDICATES EMERGENCY	6'-6" TO TOP	
	TRANSFORMER	AS NOTED	
	EQUIPMENT TAG, REFER TO EQUIPMENT SCHEDULE TAGGED NOTE		
	REVISION TAG MECHANICAL EQUIPMENT DESIGNATOR		$\land$
	(SEE MECH. SCHEDULES) WIRE BASKET CABLE TRAY, SIZE AS NOTED	AS SHOWN	
	LADDER CABLE TRAY, SIZE AS NOTED	AS SHOWN	
	SOLID BOTTOM CABLE TRAY, SIZE AS NOTED	AS SHOWN	
	LOW VOLTAGE CABLE PATH DOORBELL PUSHBUTTON STATION, PROVIDE COMPLETE WITH TRANSFORMER (MOUNT ABOVE CEILING IN CORRIDOR NEAR PUSH-BUTTON) AND ALL ACCESSORIES, POWER FROM NEAREST AVAILABLE 120V NORMAL POWER GENERAL RECEPTACLE CIRCUIT, NUTONE OR EQUAL	46"	DB
	DOORBELL AUDIO/VISUAL STATION, PROVIDE PROVIDE CONNECTION TO PUSHBUTTON STATION IN AREA. COORDINATE EXACT AUDIO SOUND (CHIME, BUZZER, ETC.) DESIRED WITH OWNER/ARCHITECT, NUTONE OR EQUAL	7'-6"	БВО
	EQUIPMENT HARDWIRE CONNECTION (SEE DETAIL)		\$ \$
	CONNECTION (SEE DETAIL) MOTOR CONNECTION, REFER TO EQUIPMENT		K
	CONNECTION SCHEDULE WIREGUARD - PROVIDE MANUFACTURER'S		
	SPECIFIC GUARD FOR DEVICE NOTED		WG
	WEATHERPROOF - NEMA-3R, WET LOCATION LISTED. PROVIDE COVERS, RATINGS, ETC, AS SUITABLE FOR OUTDOORS.		WP
	EXPLOSION PROOF - PROVIDE WIRING METHODS, ENCLOSURES, RATINGS, ETC. AS SUITABLE FOR HAZARDOUS LOCATION.		XP
	WIREGUARD - PROVIDE MANUFACTURER'S SPECIFIC GUARD FOR DEVICE NOTED		
	PLUMBING FIXTURE SOLENOID VALVE/ELECTRIC EYE SENSOR CONNECTION. COORDINATE EXACT CONNECTION REQUIREMENTS WITH MANUFACTURER.		$  \phi$
	PLUMBING FIXTURE ELECTRIC EYE TRANSFORMER CONNECTION. TRANSFORMER SHALL BE 120V-24V. MOUNT ABOVE SUSPENDED ACCESSIBLE CEILING IN J- BOX. PROVIDE ADDITIONAL TRANSFORMERS OF SAME TYPE AS/IF NEEDED		$\otimes$
_	PROVIDE CONNECTION TO HAND DRYER (SEE ARCHITECTURAL SPECIFICATIONS)	VERIFY WITH ARCHITECT	ø
	SURGE PROTECTION DEVICE		SPD
	GENERATOR ANNUNCIATOR PANEL - SEE SPECIFICATIONS	46"	GEN-A
	THERMOSTAT PROVIDED BY MECHANICAL CONTRACTOR, ELECTRICAL CONTRACTOR SHALL PROVIDE BACK-BOX CONDUIT STUB-UP, REFER TO MECHANICAL DRAWINGS FOR LOCATIONS		T
_	CONDUIT UP CONDUIT DOWN		•
1	GROUND BUS BAR ON INSULATED STANDOFES	2'-0"	

2'-0"

GROUND BUS BAR ON INSULATED STANDOFFS

BUS DUCT, AMPERAGES AS NOTED

AS SHOWN

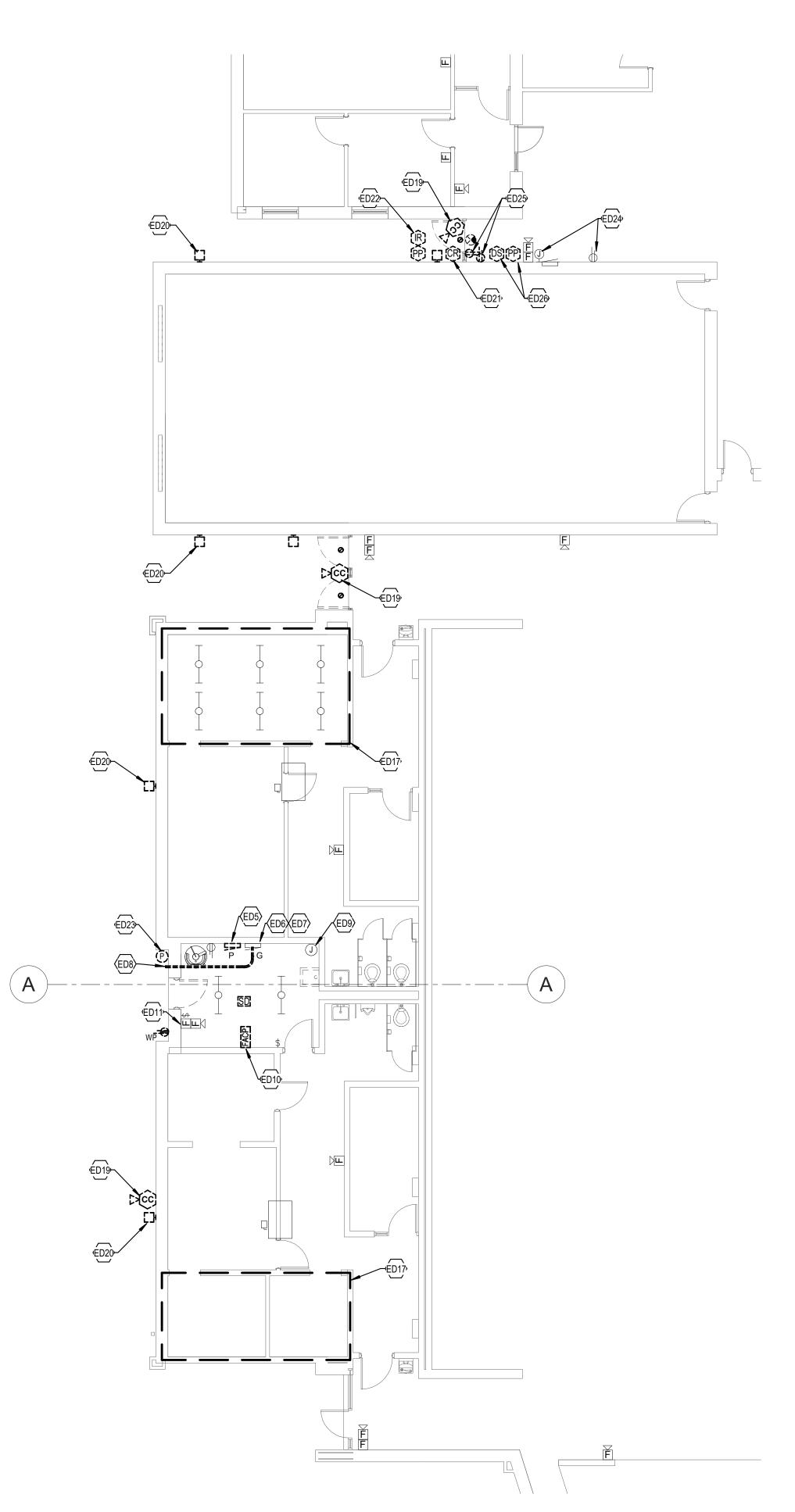
DESCRIPTION	N N N N N N N N N N N N N N N N N N N	SY SY
ABBREVIATIONS	1	
UNLESS OTHERWISE NOTED OWNER FURNISHED CONTRACTOR INSTALLED		UON OFCI
OWNER FURNISHED OWNER INSTALLED		OFOI
CONTRACTOR FURNISHED CONTRACTOR INSTALLED		CFCI CFOI
INDICATES EMERGENCY POWER		E, EM
SPECIAL OUTLETS		
FLOORBOX, POWER ONLY, AS SCHEDULED	FLOOR	Φ
FLOORBOX, COMBINATION POWER AND LOW VOLTAGE, REFER TO FLOORBOX SCHEDULE	FLOOR	
FIRE RATED POKE THOUGH FLOOR BOX, COORDINATE	FLOOR	
FINISHES, DEVICES AS SCHEDULED AUDIO/VISUAL SYSTEM OUTLET WITH DUPLEX	1'-6"	
RECEPTACLE, REFER TO ASSOCIATED DETAIL FOR ADDITIONAL INFORMATION COMBINATION POWER AND DATA OUTLET LOCATION.	1'-6"	AV
REFER TO ASSOCIATED DETAIL FOR ADDITIONAL INFORMATION	1-0	K)
COMBINATION POWER AND DATA OUTLET LOCATION, GFCI DUPLEX RECEPTACLE, REFER TO ASSOCIATED DETAIL FOR ADDITIONAL INFORMATION	1'-6"	H
OVERHEAD PROJECTOR: PROVIDE DUPLEX RECEPTACLE, ONE DATA, HDMI, 3.5mm AUDIO, AND VGA OUTLET ON (3) PLATES	CLG	¢©
SPECIAL VIDEO SYSTEM SIGNAL INPUT		
SURFACE PLUG-MOLD		
SURFACE WIRE-MOLD		
TELEVISION TELEVISION SPLITTERS/AMPLIFIERS/DISTRIBUTION	46"	TV-HE
	46" 7'-0"	
RECEPTACLE, COORDINATE LOCATION WITH WALL BRACKET WHERE APPLICABLE		KD _T
OVERHEAD PAGING PAGING SPEAKER: CEILING	CLG	
		s sv
	CLG 8'-0"	
PAGING SPEAKER: WALL RECESSED WALL MOUNTED PAGING SPEAKER	8'-0" 8'-0"	<del>K</del> s≻
DUKANE 5A606 SPEAKER. ATLAS 417-8WD		
WALL MOUNTED PAGING HORN	9'-0" SEE	KHX   ^
MOUNTED PAGING SPEAKER. QUAM VP1	FLOOR PLANS SEE	KS> _{WP}
EXTERIOR VANDAL PROOF / WEATHERPROOF WALL MOUNTED PAGING SPEAKER, SHALL BE PAINTED COLOR SELECTED BY ARCHITECT/OWNER. QUAM VP6	SEE FLOOR PLANS	KS EXT.
CALL INITIATION STATION	46"	н¢
WALL VOLUME CONTROL	46"	ΗŴ
LCD WALL DISPLAY		
PAGING MICROPHONE	1'-6"	M
PAGING SYSTEM AMPLIFIER/TUNER CABINET	46"	PA
CLOCKS		
ANALOG CLOCK	84"	⊕
ELAPSED TIMER		
DIGITAL CLOCK: SINGLE FACE	84" 84"	
DIGITAL CLOCK: DUAL FACE CLOCK SYSTEM HEAD END	84" 84"	
CLASSROOM A/V EQUIPMENT		
A/V SYSTEM CABLING TERMINATIONS / WALLPLATE		K AV
CLASSROOM PROJECTOR SPEAKER		HSS
SMARTBOARD		SB
SMARTBOARD WITH INTEGRAL PROJECTOR		P SB
CART / CEILING / WALL PROJECTOR (AS NOTED)		P
LOCAL SOUND		
WALL MICRO-PHONE OUTLET : SINGLE	1'-4"	HM
WALL MICRO-PHONE OUTLETS(# AS NOTED)	1'-4"	HM 2 ,3 4
FLOOR MICRO-PHONE OUTLET : SINGLE	FLOOR	⊙м
FLOOR MICRO-PHONE OUTLETS(# AS NOTED)	FLOOR	• M2, M3, M4
CAFETERIA SYSTEM SOUND SPEAKER	SEE SPECS	CS
	1'-4"	
	1'-4"	HBD HAV
AV INPUT MODULE		
TOUCHSCREEN AV CONTROLLER	SEE SPECS	
WIRELESS MICROPHONE ANTENNA	CEILING	~~

DESCRIPTION	MOUNTING HEIGHT (TO CENTER OF BOX)	DRAWING
SECURITY PANIC ALARM		
PANIC ALARM BUTTON PANIC ALARM ANNUNCIATOR	46" 46"	PB P
AMBER STROBE	80''	AS
PANIC ALARM POWER SUPPLY CABINET	46"	SEC
AUDIO/VIDEO INTERCOM STATION: MASTER WITH		
SELECTIVE DOOR CONTROLS, POWER SUPPLIES & DOOR RELAY CONTACTS AS REQUIRED FOR	18"	
OPERATION OF ANY DOOR IN THE SYSTEM AND VIEWING OF ANY AUDIO/VIDEO INTERCOM REMOTE ON THE SYSTEM. AIPHONE#AX-MV W/DESK STAND -		
COLOR BY ARCHITECT. SAME AS "IM" EXCEPT WALL MOUNTED	46"	
AUDIO/VIDEO INTERCOM STATION: REMOTE WITH	46"	
FLUSH-MTD S.S. ENCLOSURE. AIPHONE #AX-DVF.	-	
DOOR ALARM/POSITION SWITCH	DOOR FRAME	
MAGNETIC LOCK(S)	ABV DOOR	
DOOR POWER SUPPLY DOOR DELAYED EGRESS/ELECTRIFIED PANIC	ABV CLG ABV DOOR	
ELECTRIC STRIKE	AT LATCH	ES
AUTOMATIC DOOR CONNECTION (MAY ALSO HAVE ELECTRIC STRIKE/MAG-LOCK/ELECTRIFIED PANIC	CLG	
CONNECTION - SEE ARCHITECTURAL HARDWARE SPECIFICATIONS)		
DOOR RELEASE PUSH-PLATE / INFRA-RED OPERATOR STATION. PROVIDE ANY ADDITIONAL ROUGH-IN FOR "EMERGENCY RELEASE" OPERATOR STATIONS AS	46"	PP
REQUIRED.	6'-0"	Г Кs
DOOR RELEASE KEYPAD STATION	46"	KP
DOOR RELEASE CARD READER STATION. PROVIDE ANY ADDITIONAL ROUGH-IN FOR "EMERGENCY	46"	
RELEASE" OPERATOR STATIONS AS REQUIRED. SAME AS "CR" EXCEPT MULLION MOUNT	46"	
MOTION SENSOR DOOR CONTROL	CEIL.	M
PUSH-TO-EXIT BUTTON	46"	
ACCESS CONTROL POWER SUPPLIES/CONTROL PANEL SECURITY CCTV VIDEO SURVEILLANCE	46"	SEC
REMOTE DOOR RELEASE PUSH-BUTTON	8" ACT	RR
CCTV CAMERA: CEILING MOUNT DOME	CLG	
CCTV CAMERA: WALL MOUNT DOME	WALL	
CONDITIONS, WET LOCATION LISTED, WITH AUXILLARY HEATER		WP
INDICATES CAMERA WITH PAN/TILT/ZOOM FUNCTION CCTV POWER SUPPLIES/CONTROL PANEL	46"	PTZ SEC
SECURITY INTRUSION DETECTION	I	
MOTION DETECTOR	CLG	MD
MOTION DETECTOR KEYPAD CONTROLLER	46"	MK
SECURITY SYSTEM HEAD END	46"	SEC
DATA / VOICE	[	- #D
DATA OUTLET : NUMBER BESIDE OUTLET INDICATES NUMBER OF DATA JACKS	1'-6"	#D   ▽   #V
VOICE OUTLET : NUMBER BESIDE OUTLET INDICATES NUMBER OF VOICE JACKS	1'-6"	V
COMBINATION OUTLET : NUMBER BESIDE OUTLET INDICATES NUMBER OF DATA/VOICE JACKS	1'-6"	#D/#\ <b>V</b>
SLASH THROUGH ANY DEVICE INDICATES MOUNTING ABOVE COUNTERTOP 4" ABOVE BACKSPLASH		#D ₩
RF TRACKER ANTENNA	CLG	
TELEMETRY ANTENNA	CLG	
OUTLET (VOICE ONLY) : PAYPHONE TYPE	AS REQ'D.	PAY
MAIN DISTRIBUTION FRAME - REFERENCE DATA SYSTEM SCHEMATICS AND DETAILS FOR ADDITIONAL REQUIREMENTS		MD
INTERMEDIATE DISTRIBUTION FRAME - REFERENCE DATA SYSTEM SCHEMATICS AND DETAILS FOR		
ADDITIONAL REQUIREMENTS TELECOMMUNICATIONS SYSTEM BACKBOARD.		
PROVIDE 96"H x 3/4"D FIRE-RETARDENT PLYWOOD BACKBOARD WITH TWO (2) COATS OF NON-		
CONDUCTIVE, FIRE-RETARDANT LIGHT GRAY PAINT, # 3/0 TO GROUND BAR AT MAIN SERVICE SWITCHBOARD, 30-PT GROUND BAR AND A 6'-0'', #3 AWG PIGTAIL AT		
BACKBOARD. INSTALL BOARD AT 2' AFF. (LENGTH OF BOARD AS INDICATED ON FLOOR PLAN)		
WIRELESS ACCESS POINT OUTLET WITH PROVISIONS FOR (1 DATA OUTLET FOR ANTENNA. PROVIDE A COMPLETE DATA OUTLET WITH FACEPLATE ABOVE		
CEILING, MOUNTED AT AN ACCESSIBLE HEIGHT NO MORE THAN 24" ABOVE CEILING. AT EACH OUTLET,		
PROVIDE A 20' COIL OF CABLE AHEAD OF THE OUTLET FOR ADJUSTMENT OF FINAL OUTLET LOCATION. THE CONTRACTOR SHALL COORDINATE EXACT LOCATIONS		
WITH THE OWNER AND ADJUST OUTLET LOCATIONS AT SUBSTANTIAL COMPLETION TO ACCOMMODATE		
OWNER'S WAP LOCATIONS.		
PANEL FURNITURE PANEL FURNITURE DUPLEX RECEPTACLE. PROVIDE		
ALL WIRING AS REQUIRED, COORDINATE EXACT INSTALLATION REQUIREMENTS AND LOCATIONS WITH OWNER'S PANEL FURNITURE VENDOR		
PANEL FURNITURE DATA/VOICE OUTLET. PROVIDE ALL		
WIRING AS REQUIRED, COORDINATE EXACT INSTALLATION REQUIREMENTS AND LOCATIONS WITH OWNER'S PANEL FURNITURE VENDOR		
POWER CONNECTION TO PANEL FURNITURE, PROVIDE SEAL-TIGHT CONDUIT CONNECTION FROM	1'-6"	
RECESSED WALL BOX TO PANEL FURNITURE, PROVIDE FINAL CONNECTIONS TO PANEL FURNITURE AS REQUIRED BY PANEL FURNITURE	1-0	
VENDOR COMBINATION POWER AND LOW VOLTAGE		
CONNECTION TO PANEL FURNITURE, PROVIDE SEAL- TIGHT CONDUIT CONNECTION FROM RECESSED WALL BOX TO PANEL FURNITURE, PROVIDE FINAL	1'-6"	Ю
CONNECTIONS TO PANEL FURNITURE, PROVIDE FINAL CONNECTIONS TO PANEL FURNITURE AS REQUIRED BY PANEL FURNITURE VENDOR		]

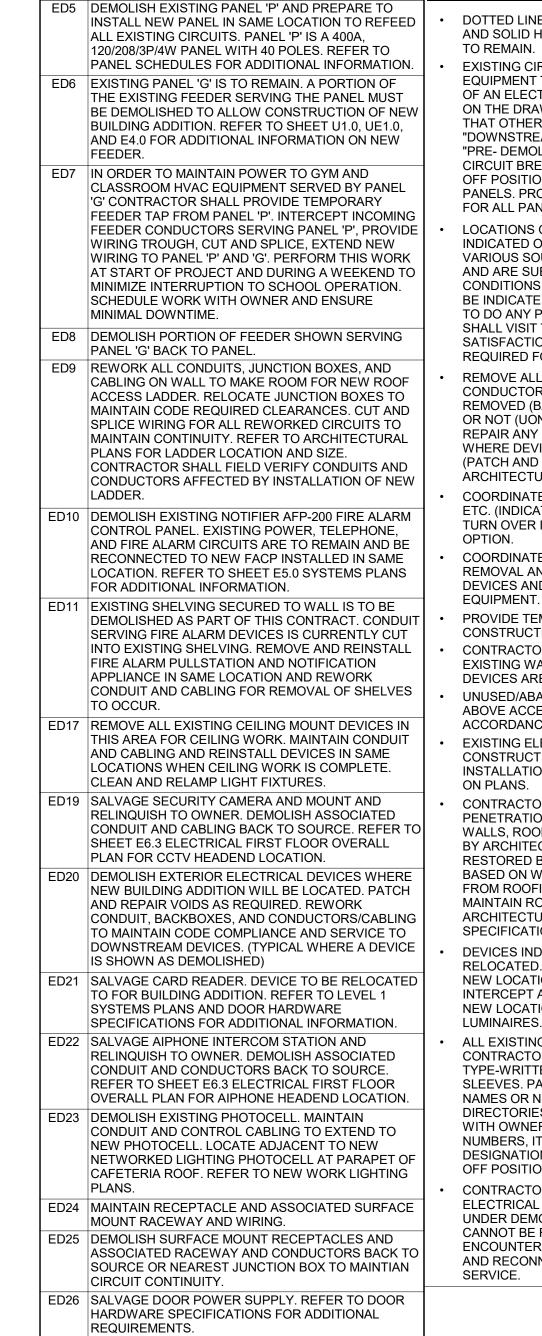
ESCRIPTION YSTEM ESPONSIBILITY IATRIX	EM USED ON PROJECT		DEVICES - O F O I
STEM	ITEN		DEV
ERHEAD PAGING			
E ALARM	ullet		
CURITY: PANIC ALARM			
CURITY: ACCESS CONTROL	ullet		
CURITY: INTERCOM			
CURITY: CCTV			
TA PROCESSING			
EPHONE			
TIENT ROOM MOTION DETECTION			
CAL SOUND			
STEM RESPONSIBILITY GENERAL NOTE	<u>S:</u>		
REFER TO VENDOR DRAWINGS FOR C TO VENDOR-FURNISHED EQUIPMENT. DRAWINGS SHALL BE INCLUDED BY T REFER TO ARCHITECTURAL DOOR HA ACCESS CONTROL DEVICE SPECIFICA PROVIDE BACKBOXES AND CONDUIT SYSTEMS. CONTRACTOR SHALL VERI AND EXACT INSTALLATION LOCATION VENDORS OF ALL SYSTEMS PRIOR TO AT ALL SYSTEMS EQUIPMENT CABINE CONTRACTOR SHALL PROVIDE SIZE A TO CABLE PATHS AS REQUIRED BY S' CONDUITS AT CABINETS/ON BACKBO/ EXACT REQUIREMENTS WITH APPROI CONSTRUCTION.	ALL HE ( ARD) ATIO WIT FY E S/RE S/RE D CC T/TE ARD PRIA	CON VAR NS J H PU BACH EQU NST EQU NST ERM S AS	DRM TR E S ANI JLL KBC IRE TRU INA MBE /EN S R VEI
REFER TO SPECIFICATIONS FOR REQ SYSTEMS INCLUDING CABLING, CABL GROUNDING, TESTING, LABELING, ET WHERE INDICATED AS CFCI, THE CON SYSTEM COMPLETE, INCLUDING ALL F POWER, ETC. THE CONTRACTOR SHA PRICING PRIOR TO BID. ALL SYSTEMS STANDARDS AND BE FULLY COMPATI SYSTEM VENDORS SHALL COORDINA WITH OWNER PRIOR TO BID. NEW CO INTERCONNECTED WITH EXISTING SY SYSTEM DESIGNS AND PROGRAMMIN	E M/ C. ITR/ ROU LL C SH/ BLE TE E MPC 'STE	ANA GH- CON ALL WIT EXAC DNEI EMS	GEI DR INS TAC MA TAC MA TAC TS VTS WF

JOBANS PA C-P W A	DESCRIPTION SYSTEM RESPONSIBILI MATRIX SYSTEM OVERHEAD PAGINO FIRE ALARM SECURITY: PANIC A SECURITY: ACCESS SECURITY: INTERCO	LARM	Image: Second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the se	DEVICES - O F O I	Ч 0 Г		CABLING/CONDUCTORS - O F O I	ЧΟ-	~	SYSTEM SYMBOL			architects	101 old lafayette avenue lexington, kentucky 40502 p 859.254.4018
	SECURITY: CCTV AV DATA PROCESSING TELEPHONE PATIENT ROOM MO LOCAL SOUND													
	SYSTEM RESPONSI           A.         REFER TO VEN TO VENDOR-FL DRAWINGS SH.           B.         REFER TO ARC ACCESS CONT           C.         PROVIDE BACK SYSTEMS. CON AND EXACT INS VENDORS OF A           D.         AT ALL SYSTEM CONTRACTOR TO CABLE PAT CONDUITS AT C EXACT REQUIN CONSTRUCTIO           E.         REFER TO SPE SYSTEMS INCL GROUNDING, T           F.         WHERE INDICA SYSTEM COMP POWER, ETC. 1 PRICING PRIOF STANDARDS AN SYSTEM VEND WITH OWNER F INTERCONNEC	BILITY GENERAL NOTE DOR DRAWINGS FOR ( RNISHED EQUIPMENT ALL BE INCLUDED BY T HITECTURAL DOOR HA ROL DEVICE SPECIFIC/ BOXES AND CONDUIT TRACTOR SHALL VERI STALLATION LOCATION LL SYSTEMS PRIOR TO IS EQUIPMENT CABINE SHALL PROVIDE SIZE A IS AS REQUIRED BY S CABINETS/ON BACKBO. EMENTS WITH APPRO N. CIFICATIONS FOR REQUING CABLING, CABL ESTING, LABELING, CABL ESTING, LABELING, ET TED AS CFCI, THE CON LETE, INCLUDING ALL I HE CONTRACTOR SHA IS O BID. ALL SYSTEMS ND BE FULLY COMPATI DRS SHALL COORDINA RIOR TO BID. NEW CO TED WITH EXISTING SN NS AND PROGRAMMIN	COMPL ALL W HE CO ARDWA ATIONS FY BAC IS/REQ CONS T/TER AND NU YSTEM ARDS / PRIATE UIREM C. NTRAC S SHAL BLE W MPONI YSTEM	VORK WNTRA RE SI S AND PULL-: CUIREN STRUC MINAL JMBEN I VENI AS RE E VEN I VENI S CON S	INDIG CTOI PECIR STRIII & SIZ MENT CTION BOAS QUIF BOAS QUIF CONS QUIF CONS CONS QUIF CONS CONS CONS CONS CONS CONS CONS CONS	CATED R. FICATI THER NGS FO ES, CO S WIT N. RD LC COND S, TER COND S, TER ED. CO S PRIC LICAB INSTA LICAB INSTA LICAB INSTA LICAB N REO LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV LICAB PROV PROV LICAB PROV LICAB PROV PROV PROV LICAB PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PROV PRO	ON V ONS REQU OR AI DONDU H SU DONDU H SU DONTU UIT S MINA OORI DOR TC LE TC ALLAT VIDE ED VIC ED VI	VENI FOR JIRE LL JIT, ECCE IONS STUB TE DINA DO ALL STEI EME ALL	DOR MEN TC. SSFU 3,-OUT TE L DR FI TY MS. A NTS NEW	TS. JL TS OR ALL		CMTA CMTA	2429 MEMBERS WAY LEXINGTON, KY 40504 P: (859)253.0892	
		TO ORDERING. ALL PF THE OWNER. PROVIDE								S	ELECTRICAL LEGEND	BURGIN INDEPENDENT SCHOOLS RENOVATION & ADDITIO	BURGIN INDEPENDENT BOARD OF EDUCATION	BURGIN, KENTUCKY
FP FF CABLE AND CONDU SYSTEM HVAC CONTROLS	IT COLOR SCHED	JLE CONDUIT COLOR GREEN	JAC N/A	K IN	SER		<b>CAB</b> REFE SPEC	R T	C		CMTA 2429 I Lexing p 859 Struct 220 G Nashv	P Enginee , Inc. Members gton, KY 4 253.0892 ural Engin ural Desig reat Circl rille, TN 37 255.5537	Way 0504 <u>eer</u> : In Group, e Rd. Suit	
VOICE/DATA WAP SECURITY CAMERAS INTERCOM LIGHTING CONTROLS FIRE ALARM	BLUE ORANGE WHITE GRAY PURPLE RED	BLUE ORANGE WHITE GRAY PURPLE RED	BLU ORA N/A N/A N/A	E NGE			CAT6 CAT6 CAT6 REFE SPEC CAT5 REFE	ER TO DIFIC	D ATIC	DNS	BG Projec Drawr Rev'd	t No:1 n By:0 By:0	19-262 904 CH CJC	
							<u>SPEC</u>				CONS		© 2011 N DOCUM	AENTS

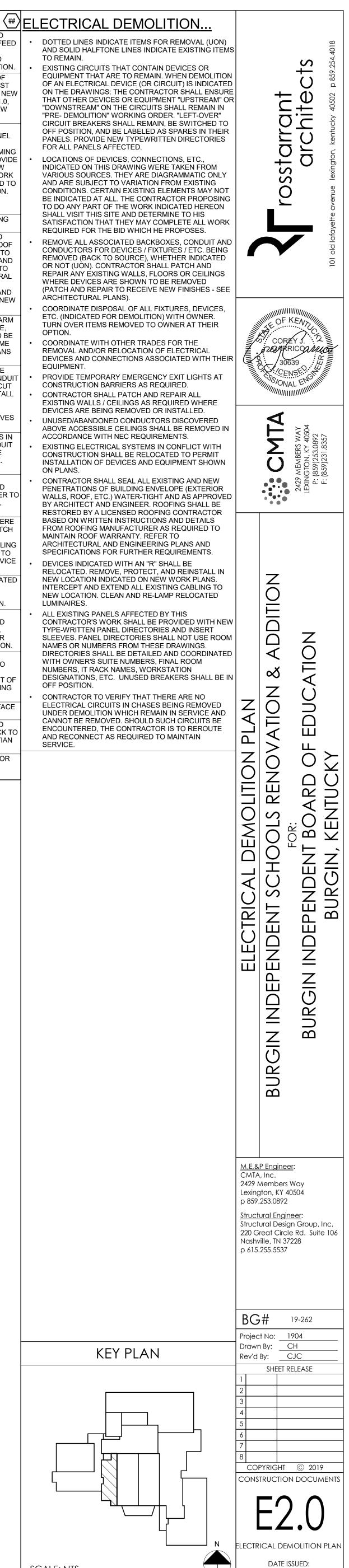
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FIRST FLOOR ELECTRICAL DEMOLITION PLAN 1/8" = 1'-0"



TAGGED NOTES

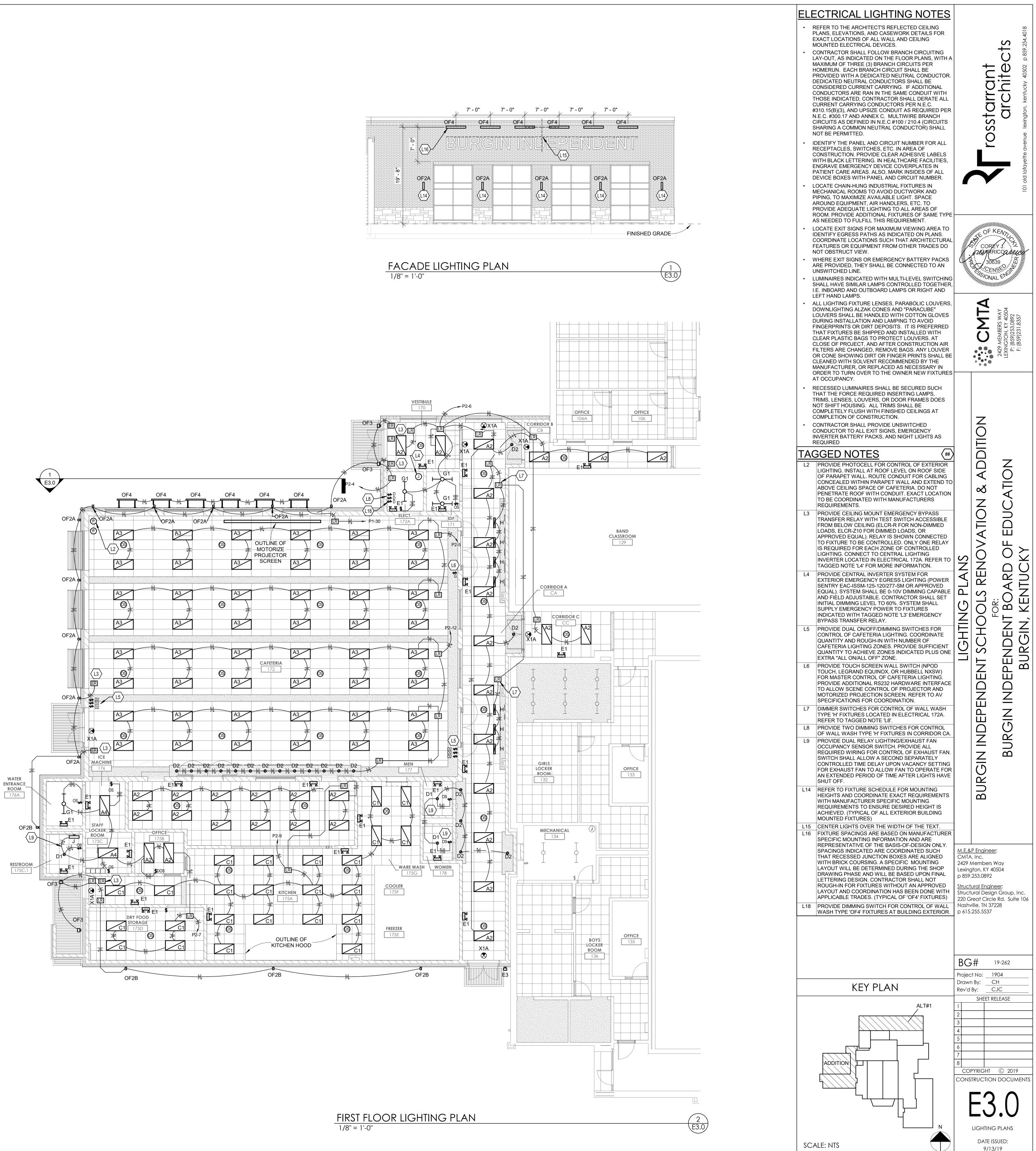


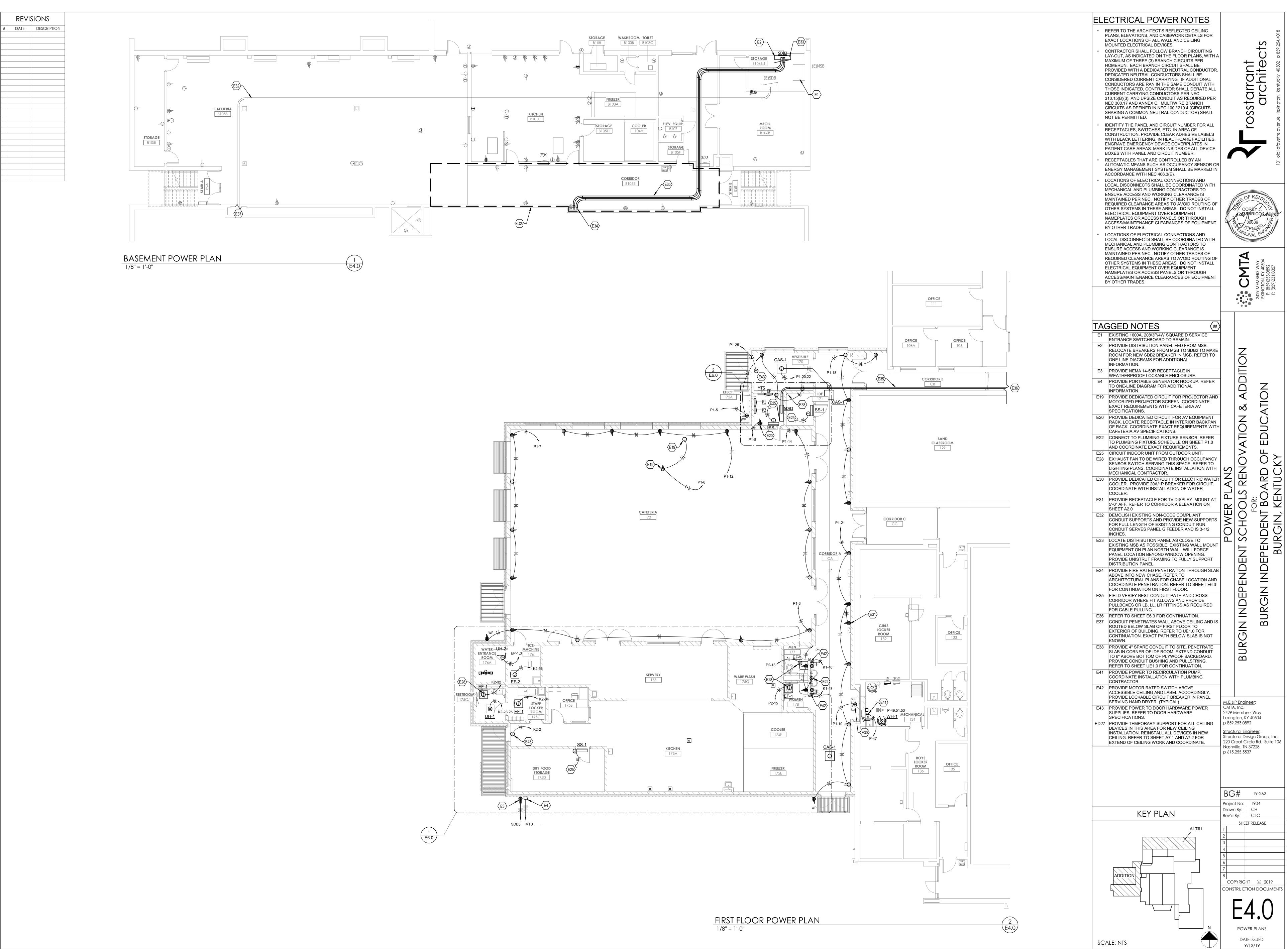


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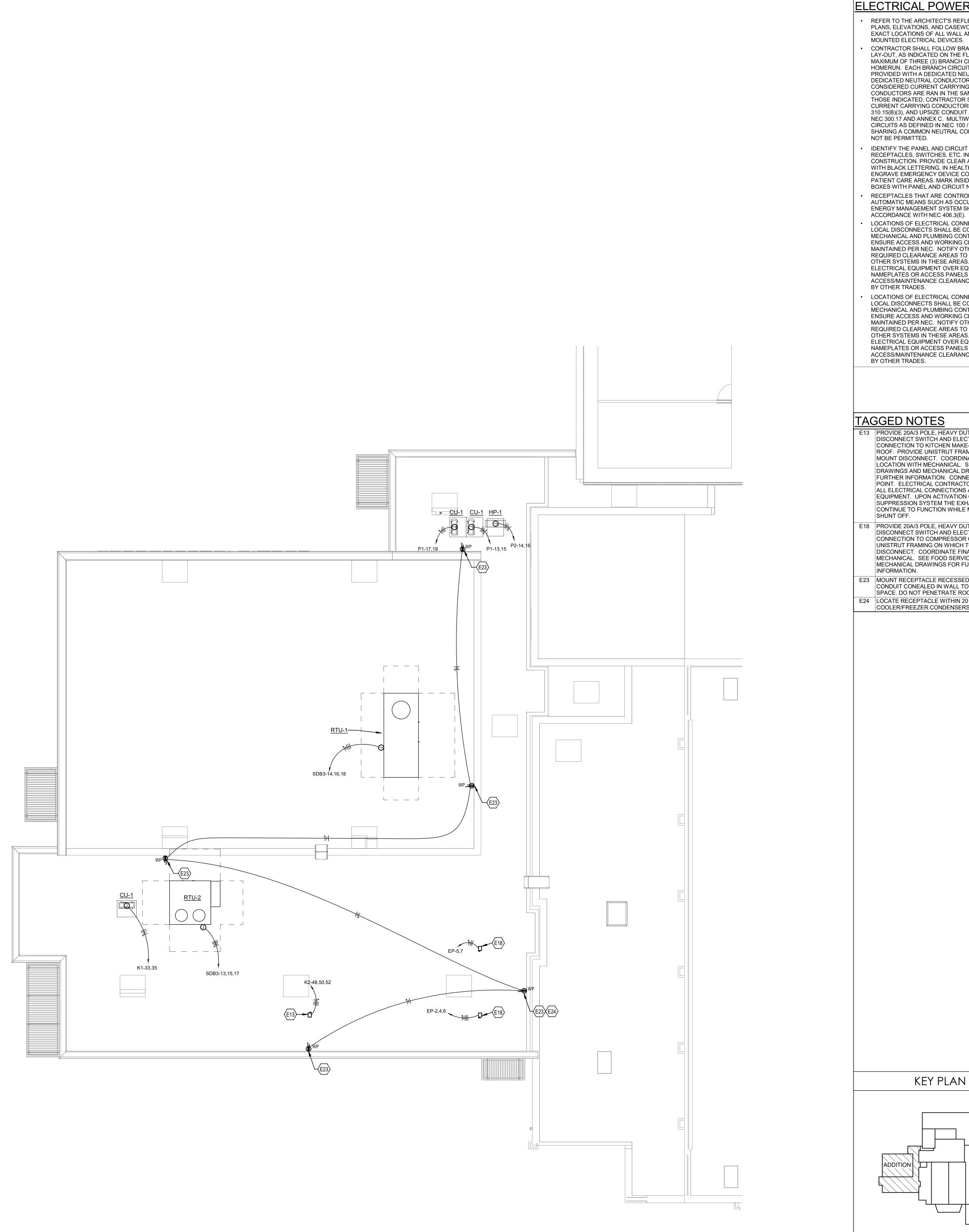
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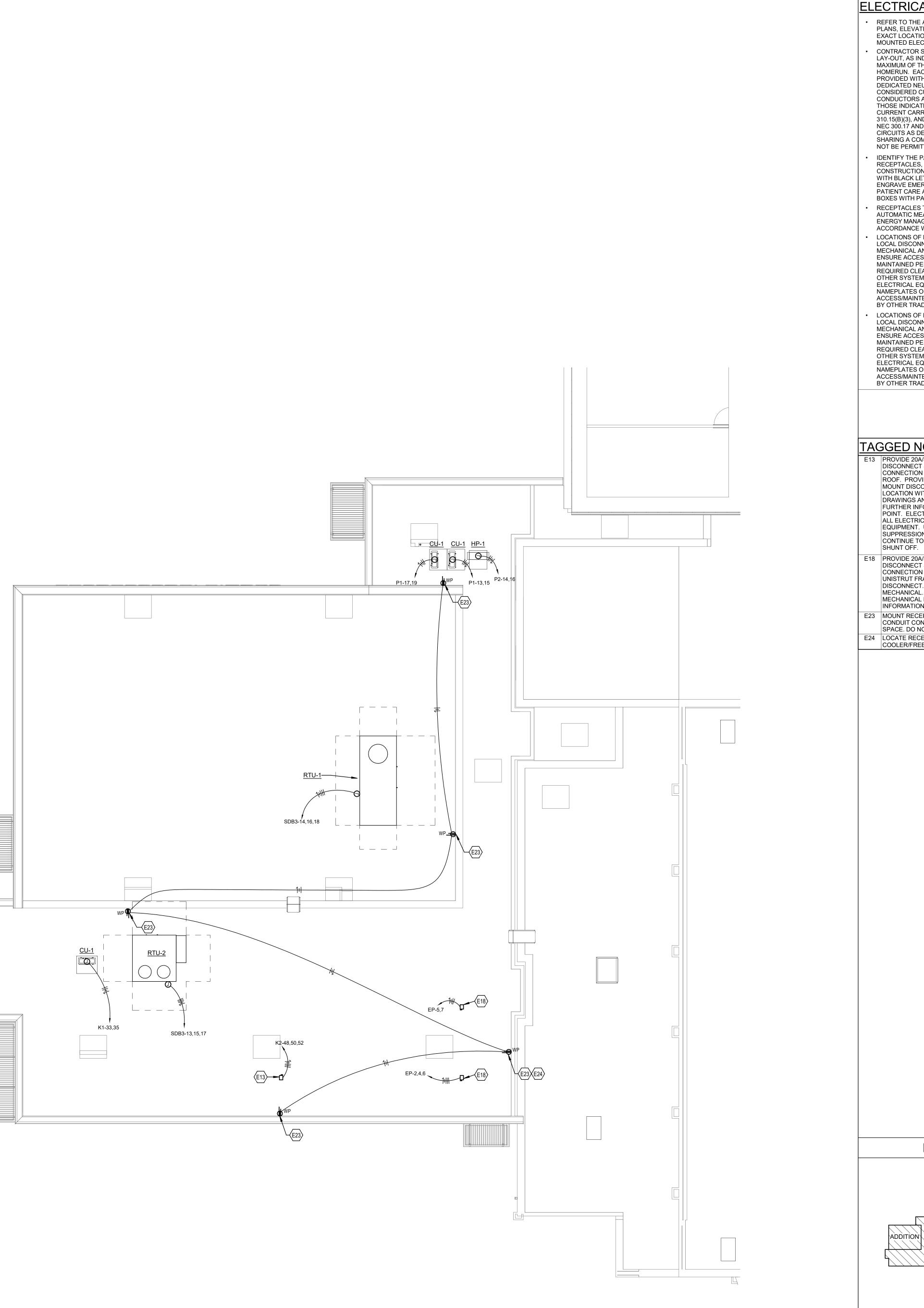


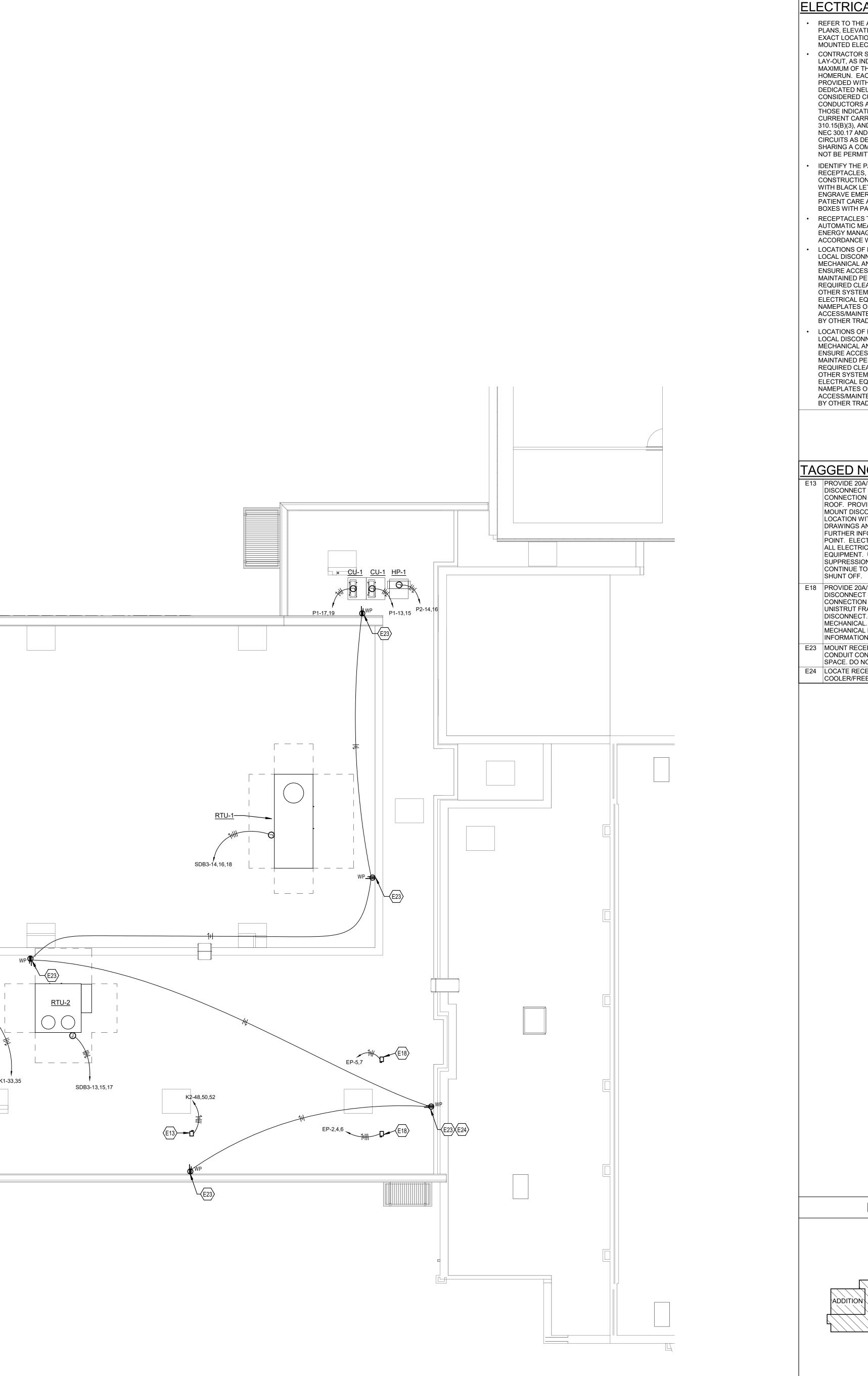


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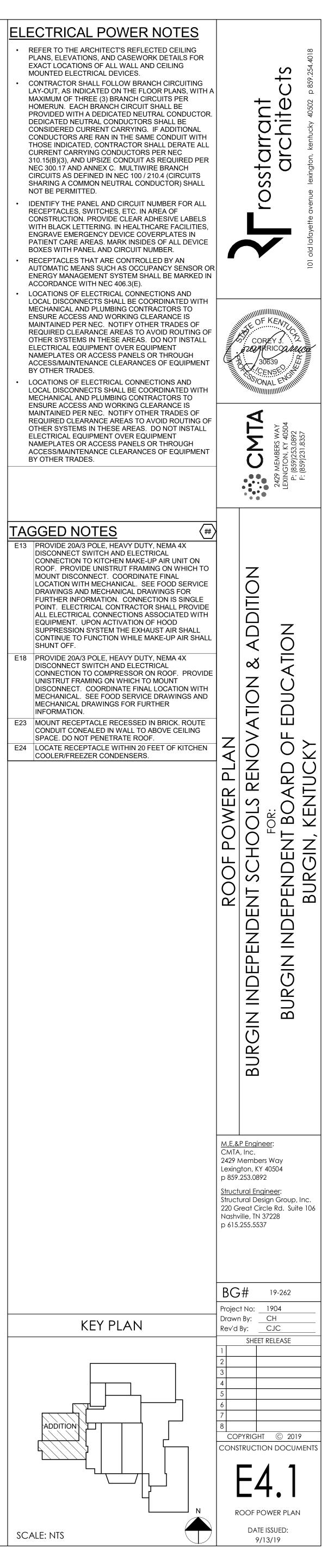




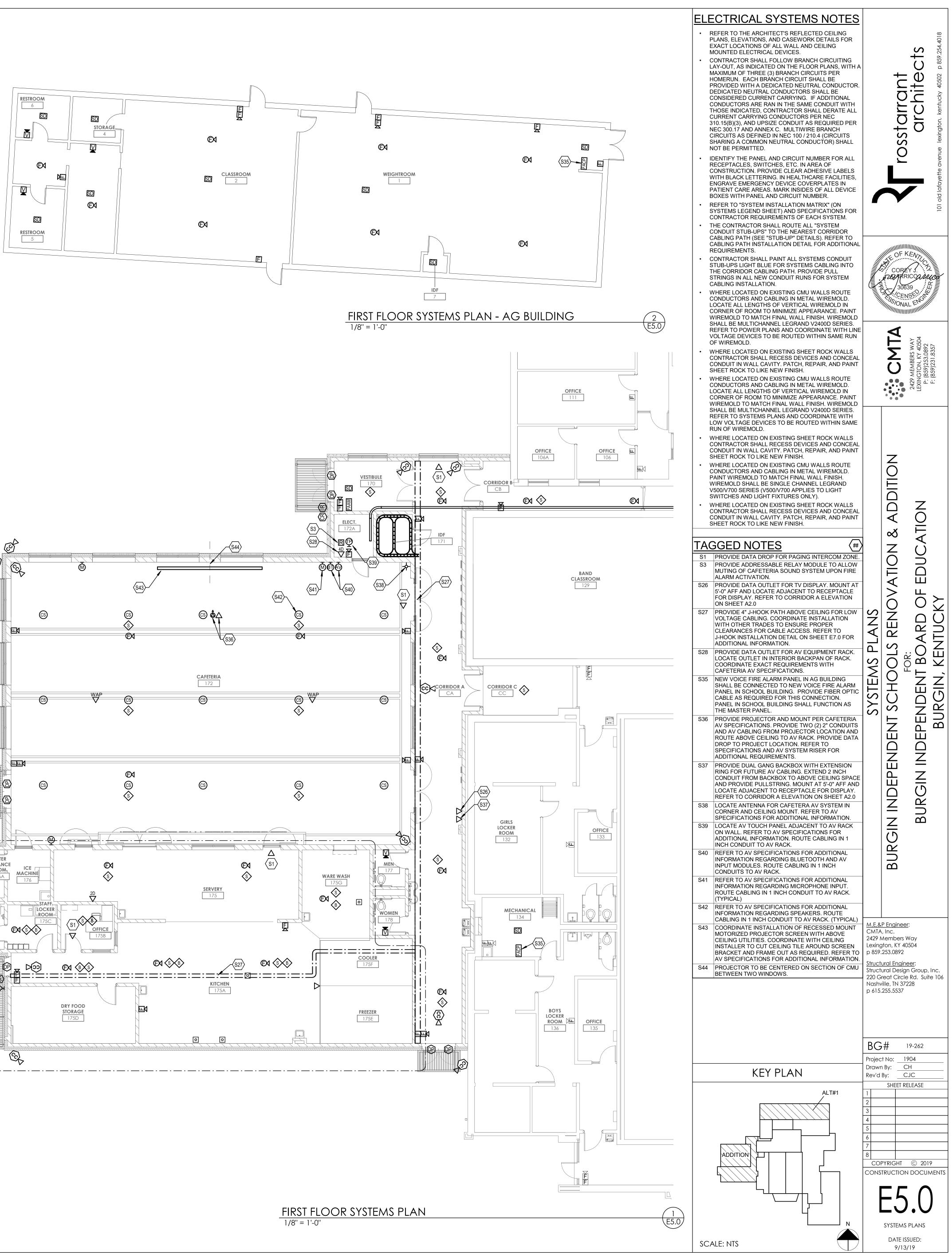


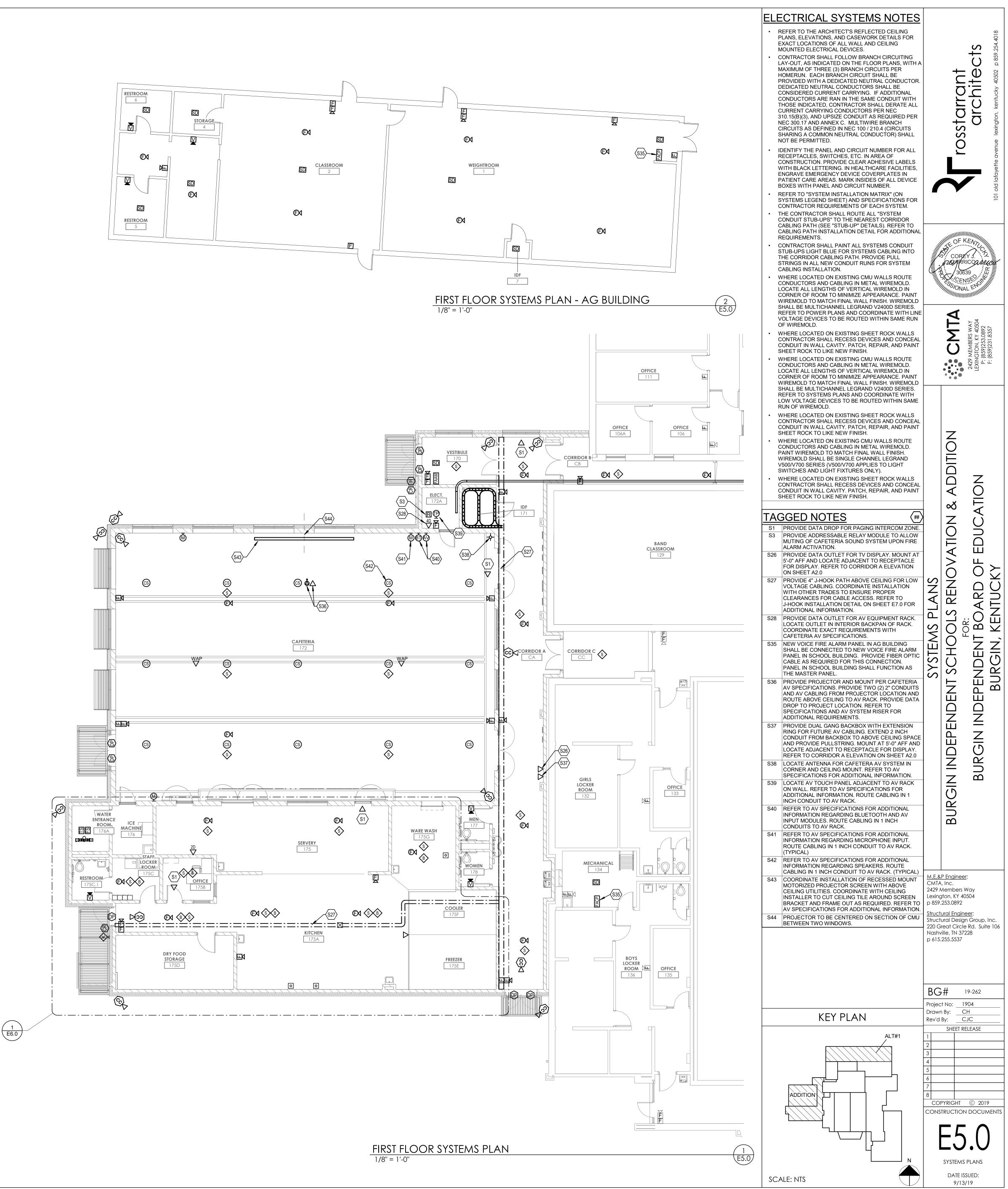
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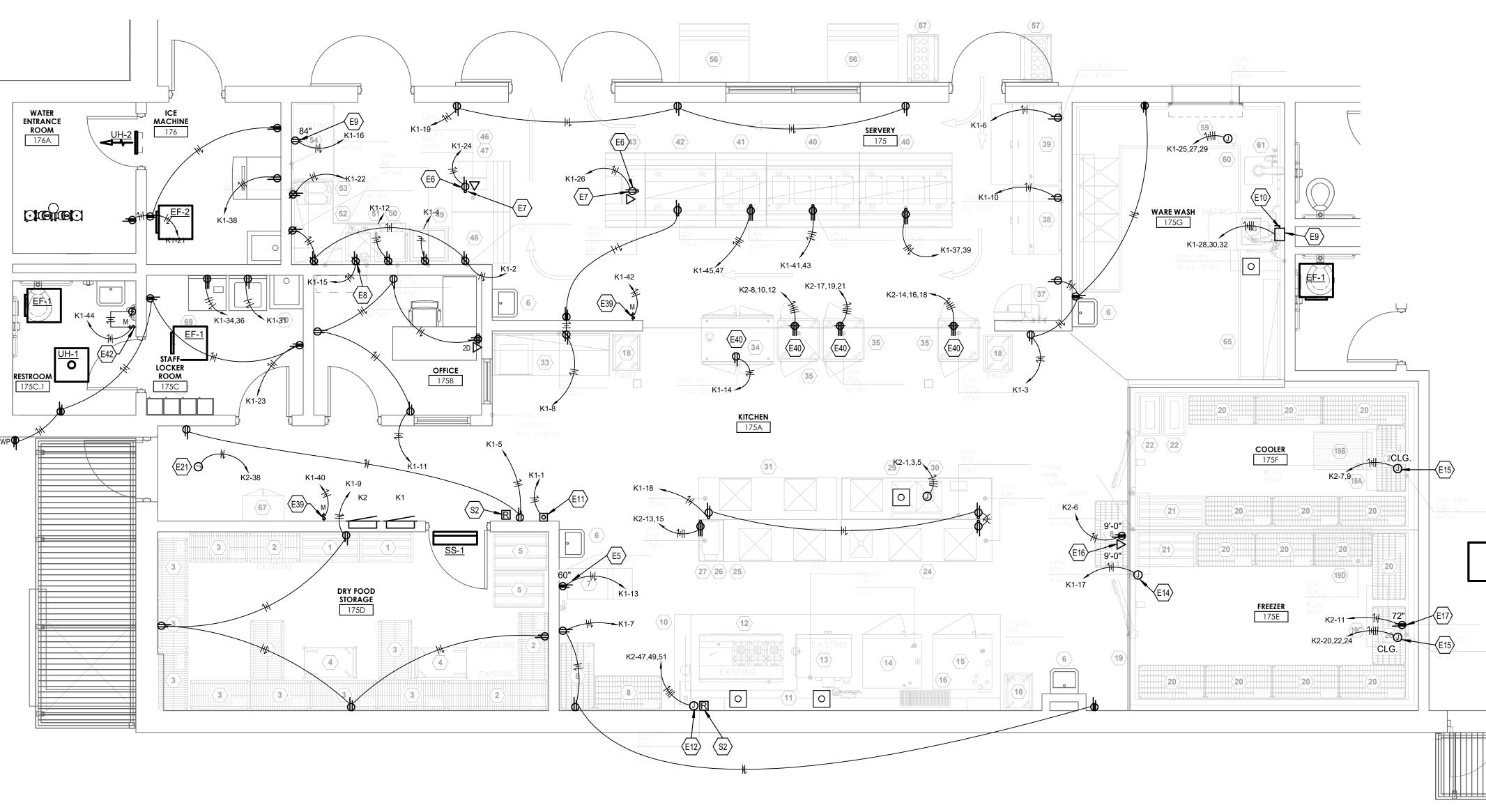
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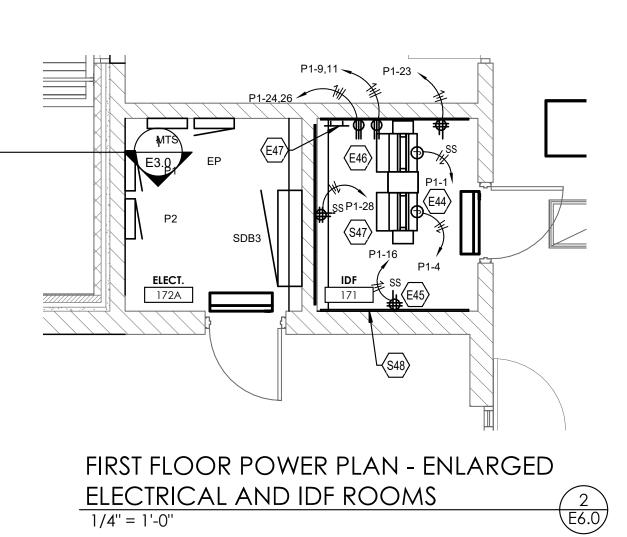


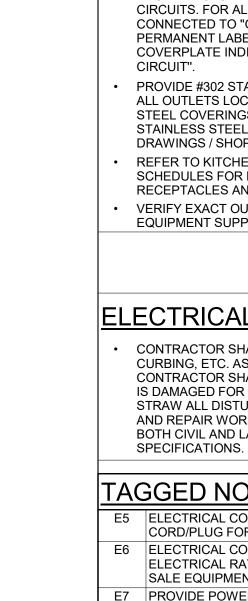
	1	_		WA		<u>KITC</u>	HEN	IEQ	UIPME			ULE			GAS	R	ESPON	SIBILI	TY	_	
EM IO.	NO. REQ'	D	DESCRIPTION		COLD	WASTE	KW.	HP	V/PH	AMPS	CONN.	MTG. HT.	3 PH KW LOAD'G		BTU'S			00	NINI	ĖC	MANUFACTURER
1	2	_	DUNNAGE RACK - DRY STORAGE													-	. K.E.C.	$\square$	_		-
2 3	1 LO	_	SHELVING - DRY STORAGE EXISTING SHELVING - DRY STORAGE													O.S. K.E.C.	K.E.C. K.E.C.	$\vdash$	+	+	1
4	2	_	UTILITY CART													K.E.C.	-	$\square$	+	+	
5	2		CAN RACK EXISTING													0.S.	K.E.C.		_	_(	1
6	4				4 (0)				000/4	0.7	BLUG	001455				P.C.	P.C.	$\square$	+	+	2
7 8	1	-	ICE MACHINE W/STORAGE BIN SHELVING - POT & PAN		1/2"	FD			208/1	9.7	PLUG	60"AFF				K.E.C. K.E.C.		$\vdash$	+	+	3
9			OPEN NUMBER															$\square$	+	+	
10	1		HOOD - CANOPY						120/1	2.6	DIR	ABV				-	K.E.C.				456
	1	_	HOOD - EXHAUST AIR FAN HOOD - SUPPLY AIR & FURNACE					2	208/3	40.05	DIR	@PBLBG ROOF @ BLDG		4"	564.25M		K.E.C.	$\square$	_		<u>479</u>
11	1	-	ENERGY DISTRIBUTION SYSTEM	3/4"	1"			2	208/3 120/208/3	13.95 50	DIR DIR	RÓÓF FRÓM ABV CEILING		1" 1-1/2"	1,158M	K.E.C.	-	$\vdash$	+		<u>4789</u> 9(10(1)(12)
12	1		6-BURNER RANGE W/GRIDDLE & OVENS EXISTING									CEILING		3/4"	278M	0.S.	K.E.C.	$\square$	+	_	1210
13	1		CONVECTION OVEN - DBL. STACK EXISTING					[	(2)120/1	7.7 EA.	PLUG			3/4"	100M	0.S.	K.E.C.	$\square$	T	(	1210
14	1	+	COMBI OVEN - DBL. STACK COMBI OVEN - ROLL-IN		(4)3/4"	FS			(2)208/1	3.7 EA.	PLUG PLUG			(2)3/4" 3/4"	106M EA. 336M	K.E.C. K.E.C.	-	$\vdash$	+		10(13(14) 10(13(14)
15 16	1	+	FLOOR TROUGH		(2)3/4"	FS 4"		-	208/1	7.69	FLUG			3/4"	JJOIN	_	K.E.C.	$\vdash$	+	f	10(13(14)
17	Ė		OPEN NUMBER																+	+	
18	3		BUN PAN RACKS EXISTING						(2) 4 20 /4	(0)00		000				0.S.	K.E.C.		T		1
19	1	_	WALK-IN COOLER/FREEZER BLOWER COIL - COOLER						(2)120/1 115/1 208/1	(2)20	(1)DIR (2)PLUG	SEE FLOOR 84"AFF				+	K.E.C.	$\vdash$	+'		16(17(18)
	1	+	COMPRESSOR - COOLER			FD			208/1 208/1	9.8 10.1	DIR DIR	© BLDG ROOF				K.E.C. K.E.C.		$\vdash$	+,		19) 20)(22) COMPRESSOR WGT:
	1		BLOWER COIL - FREEZER			FD			208/3	13.25	DIR	84"AFF				K.E.C.	-		+		19 ^{LBS}
	1	_	COMPRESSOR - FREEZER						208/3	14.23	DIR	© BLDG ROOF				-	K.E.C.	$\square$	'	* 🤅	2)22 COMPRESSOR WGT:
20 21	1 LO 2	т	SHELVING - COOLER/FREEZER DUNNAGE RACKS - COOLER/FREEZER													K.E.C.	K.E.C.	$\vdash$	+	+	
21 22	2		MILK CRATE DOLLY													-	K.E.C.	$\vdash$	+	+	
23			OPEN NUMBER																+	+	
24	1		WORK TABLE W/SINK	1/2"	1/2"	2"										-	. K.E.C.		*	_(	3
25 26	1	_	WORK TABLE HOT WATER DISPENSER	1/4"			5		208/1	24	PLUG	5"AFF				K.E.C. K.E.C.	K.E.C.	$\vdash$	*	+	23
27	1		WORK TABLE	1/4			5		200/1	24	1100	3711				-	K.E.C.	$\vdash$	+	+	9
28			OPEN NUMBER																+	+	
29	1		PREP SINK W/CHASE	1/2"	1/2"	FS										-	K.E.C.	<u> </u>	*		<u> </u>
30 31	1	_	DISPOSER WORK TABLE		1/2"	3"		1-1/4	208/3	3.7	DIR	5"AFF				K.E.C.	K.E.C.	$\left  \right $	* 1	+	23)
32	<u> </u>		OPEN NUMBER													R.E.O.		$\vdash$	+	+	
33	1		BAKER'S TABLE W/CANTILEVER OVERSHELF														K.E.C.			$\pm$	
34	1	_	PASS-THRU REFRIGERATOR PASS-THRU HEAT & HOLD				12	1/3	115/1 208/3	10.7	PLUG PLUG	90"AFF 90"AFF					K.E.C.	$\vdash$	+	*	
35 36	3	-	OPEN NUMBER				12		206/3		PLUG	SU AFF				K.E.C.	. R.E.C.	$\vdash$	+	+	
37	1		HOSE REEL - 30 FT.	1/2"	1/2"											K.E.C.	K.E.C.	Ħ	*	+	
38	1	_	MILK COOLER					1/3	115/1	8.2	PLUG	18"AFF				-	K.E.C.	$\square$	$\mp$	$\bot$	
39	1	_	MILK COOLER HOT/COLD/FROZEN FOOD TABLE			FD		1/2	115/1 120/208/1	4.2	PLUG PLUG	18"AFF 5"AFF				-	K.E.C.	$\vdash$	+	*	
40 41	1	+	HOT/COLD/FROZEN FOOD TABLE			FD		1	120/208/1	9.6	PLUG	5 AFF 5"AFF				_	K.E.C.	++	_	*	
42	1	_	SOLID TOP TABLE													-	K.E.C.		1	1	
43	1	_						<u> </u>	120/1	12	PLUG	5"AFF				-	K.E.C.	$\left  \right $	+	+	2020
44 45	1	+	POINT OF SALE OPEN NUMBER						120/1	10	PLUG					B.O.	B.O.	$\vdash$	+	+¢	24)25
+5 46	1		CASHIER STATION					L	120/1	12	PLUG	5"AFF				K.E.C.	K.E.C.		+	+	
47	1	_	POINT OF SALE					[	120/1	10	PLUG					B.O.	B.O.	$\square$	1		2425
48	1	_	SOLID TOP TABLE ICE CREAM DISPLAY FREEZER						115/1	3.5	PLUG	48"AFF				-	K.E.C.	$\vdash$	+	+	
49 50	1	_	HEATED DISPLAY PREEZER HEATED DISPLAY MERCHANDISER				1.39		115/1	3.5 11.3	PLUG	48"AFF 48"AFF				-	K.E.C.	$\vdash$	+	+	
51	1		TWIN COFFEE BREWER		1/2"				120/208/1	28.3	PLUG	48"AFF				-	K.E.C.		* 1	*	
52	1	_	WORK TABLE W/OVERSHELVES						4000		D:	40"** ==				-	K.E.C.	$\downarrow \downarrow$	$\bot$	1	
53 54	1	_	DUAL SLUSHIE MACHINE GLASS DOOR MERCHANDISER EXISTING		1/2"		1.44		120/1 115/1	12 8.8	PLUG PLUG	48"AFF 84"AFF				-	K.E.C.	$\vdash$	+	+	1(2)
54 55		+	OPEN NUMBER					1		0.0	. 200	2.741				0.0.		++	+	+	<u></u>
56	2	_	SOLID TOP TABLE													-	K.E.C.		1	1	
57	2		TRAY & FLATWARE CART OPEN NUMBER					<u> </u>								K.E.C.	K.E.C.	$\left  \right $	+	+	
58 59	1	+	SOILED DISH TABLE W/SCRAP & POT SINKS	(2)1/2"	(2)1/2"	2" & FS										K.E.C	K.E.C.	$\vdash$	*	+	
59 60	1		DISPOSER	. ,	1/2"	3"		2	208/3	6	DIR	18"AFF				-	K.E.C.		* '	* (	20
61	1		HOSE REEL - 30 FT.	1/2"	1/2"											K.E.C.	K.E.C.		*	1	
32 30			OPEN NUMBER	1/0"	1/0"	F0		<u> </u>	200/0	AE 4		10"455				0.0	K F O	$\left  \right $	*	+	
53 54	1	+	DISHWASHER EXISTING OPEN NUMBER	1/2"	1/2"	FS			208/3	45.4	DIR	18"AFF				U.S.	K.E.C.	$\left  \right $	+		1214
65	1	+	CLEAN DISH TABLE W/OVERSHELF					1								K.E.C.	K.E.C.	+	+	+	
66			OPEN NUMBER																1	1	
67	1	_						<u> </u>									K.E.C.	$\square$	+	+	
68 69	1 LO 1 SE	·	EMPLOYEE LOCKERS CLOTHES WASHER & DRYER													B.O. B.O.	B.O. B.O.	$\vdash$	+	+	
121	1 I OE			1				i.												- I	

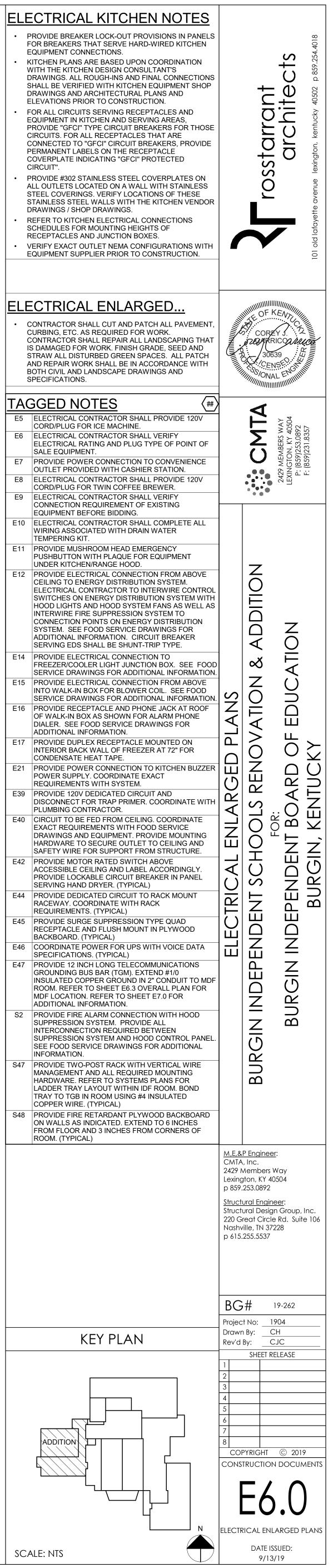
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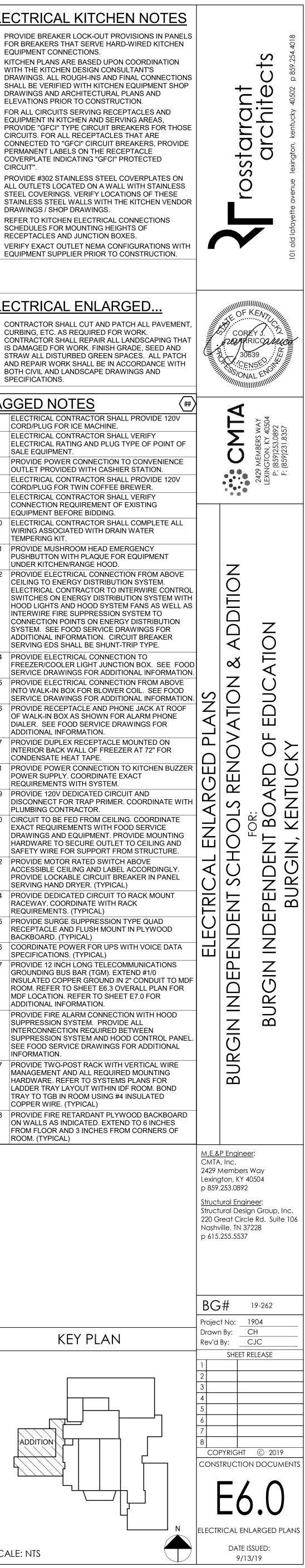


# FIRST FLOOR ENLARGED ELECTRICAL KITCHEN PLAN

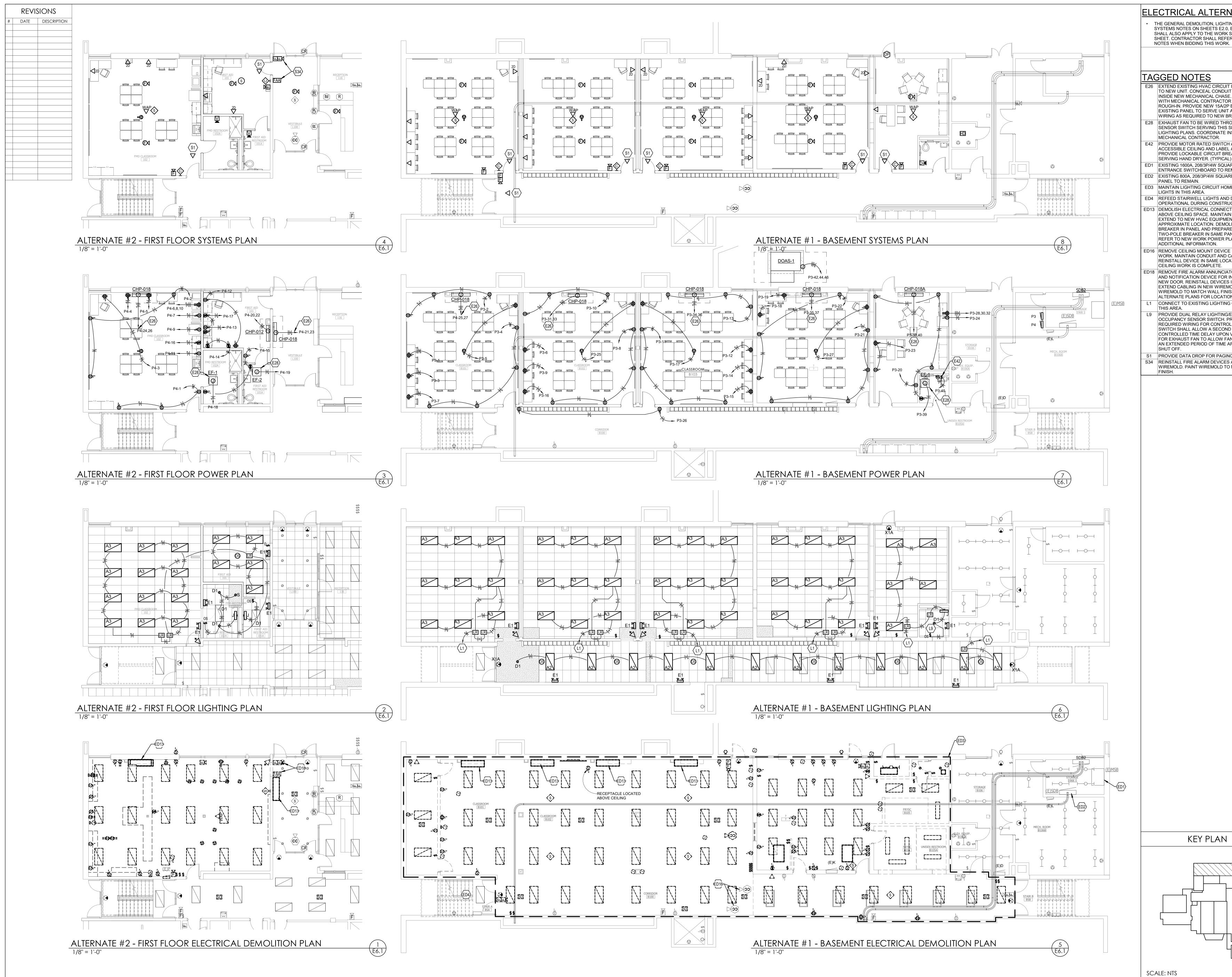


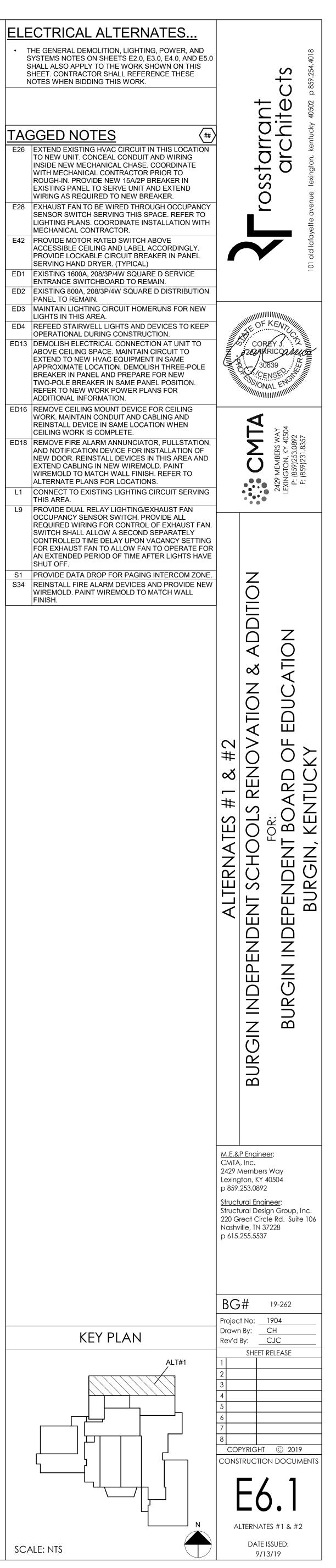


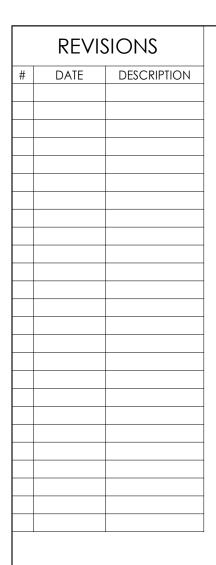


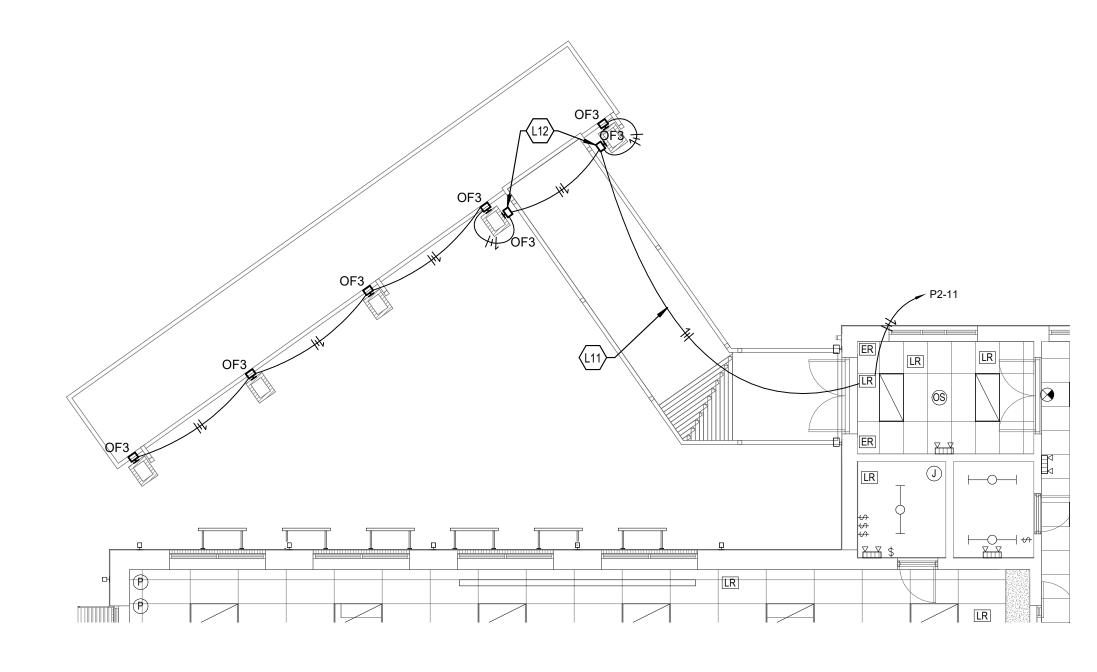


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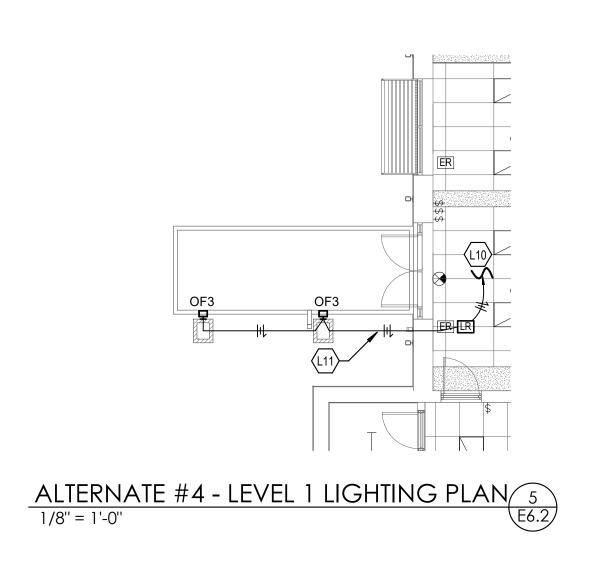


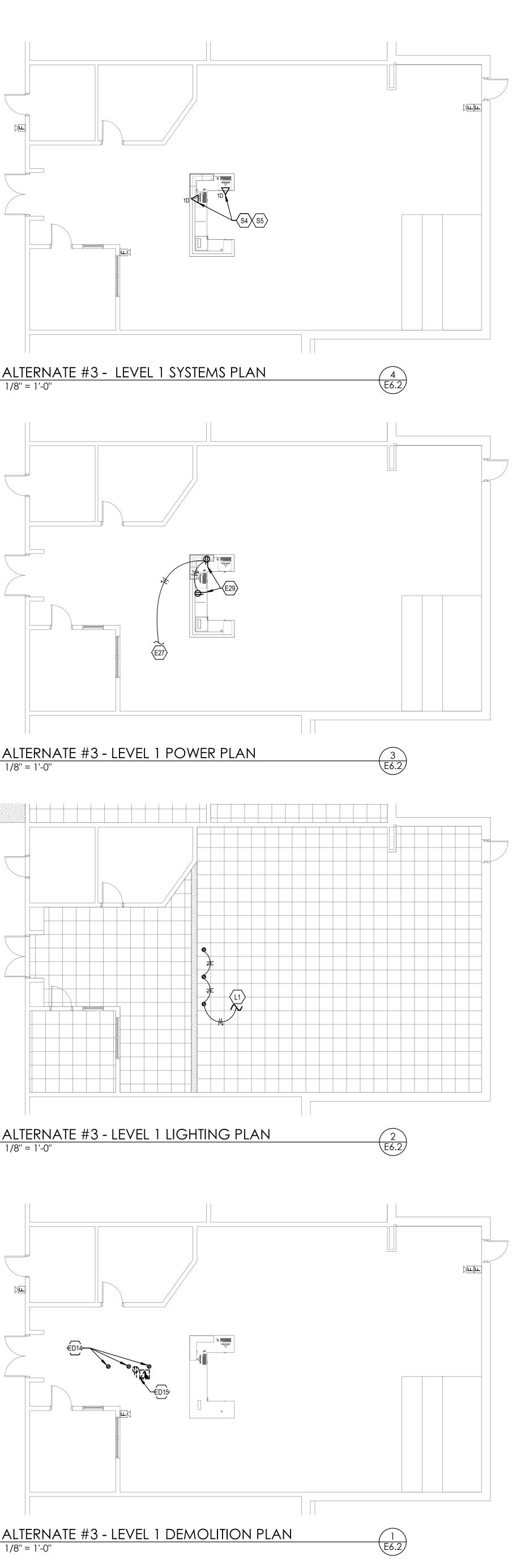


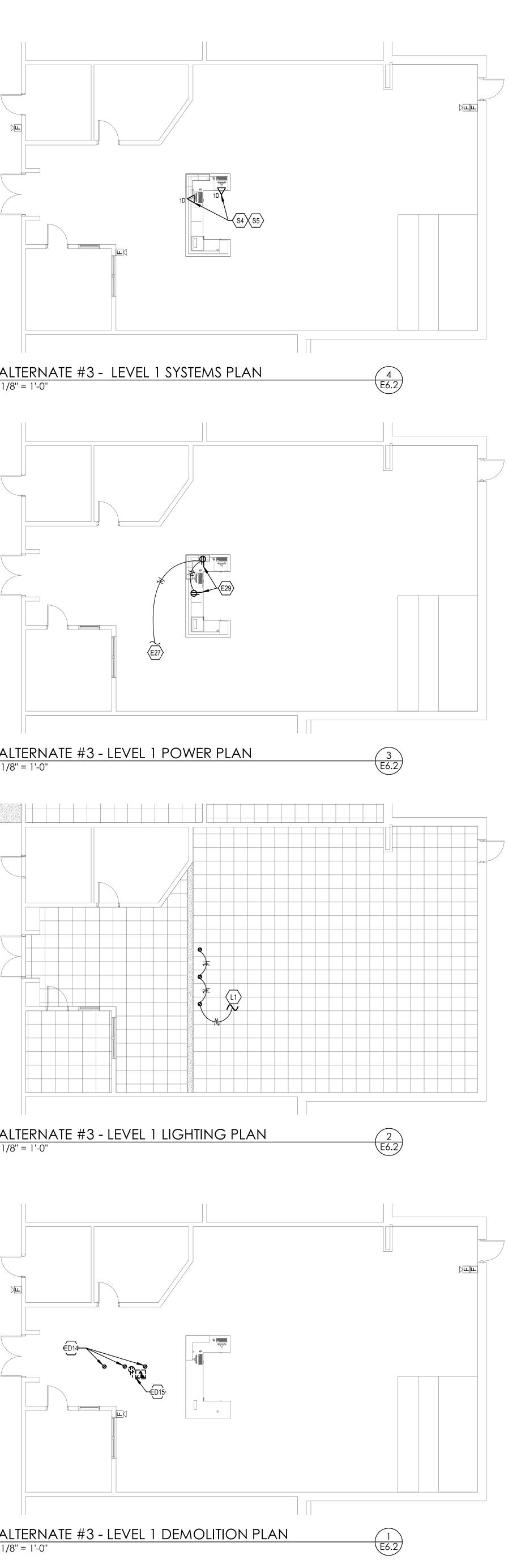


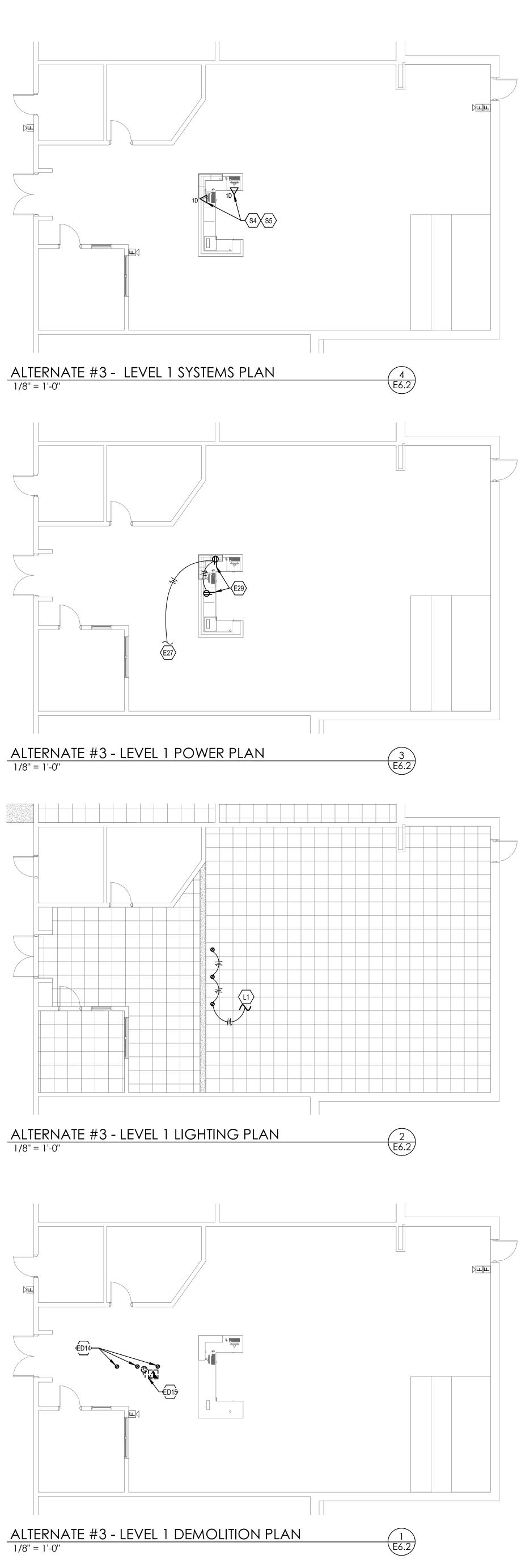


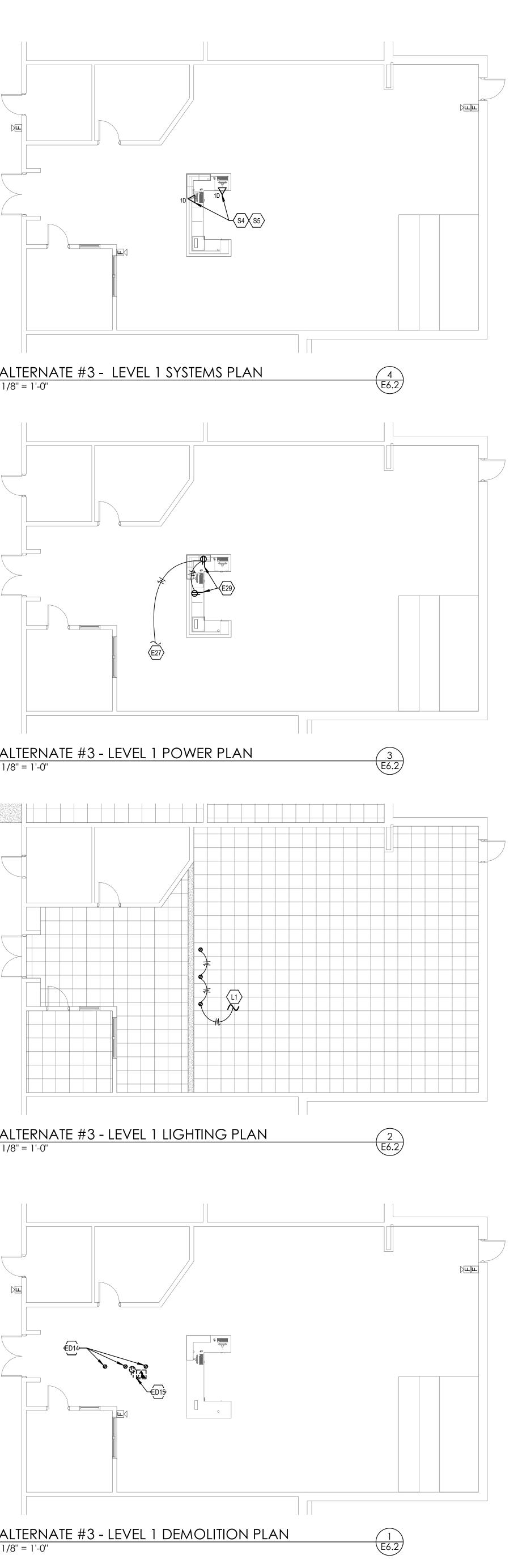


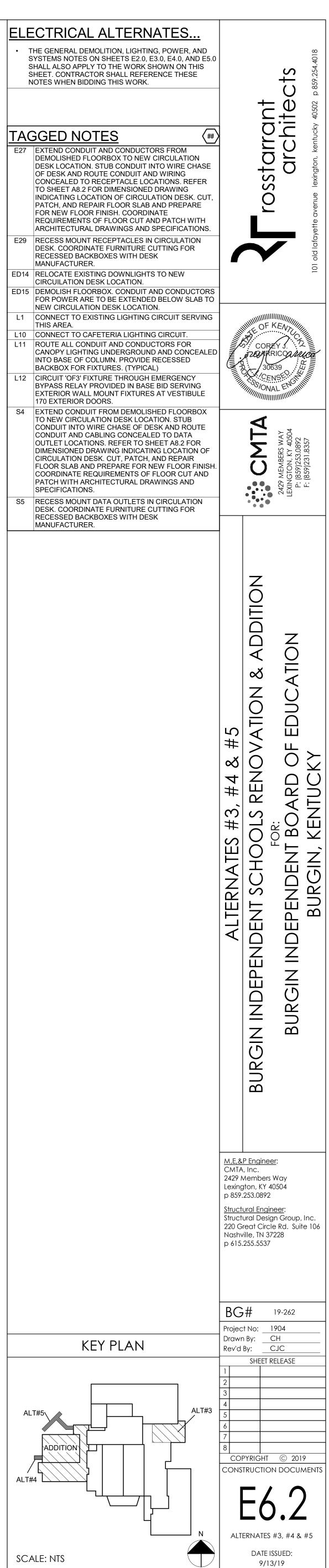


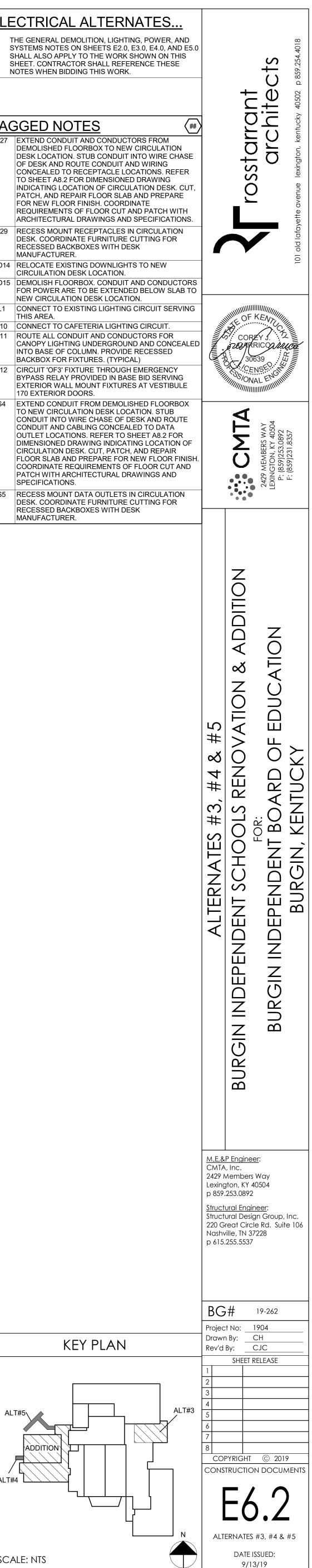


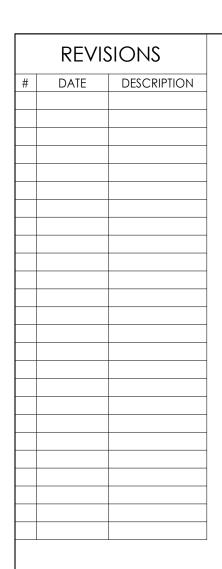




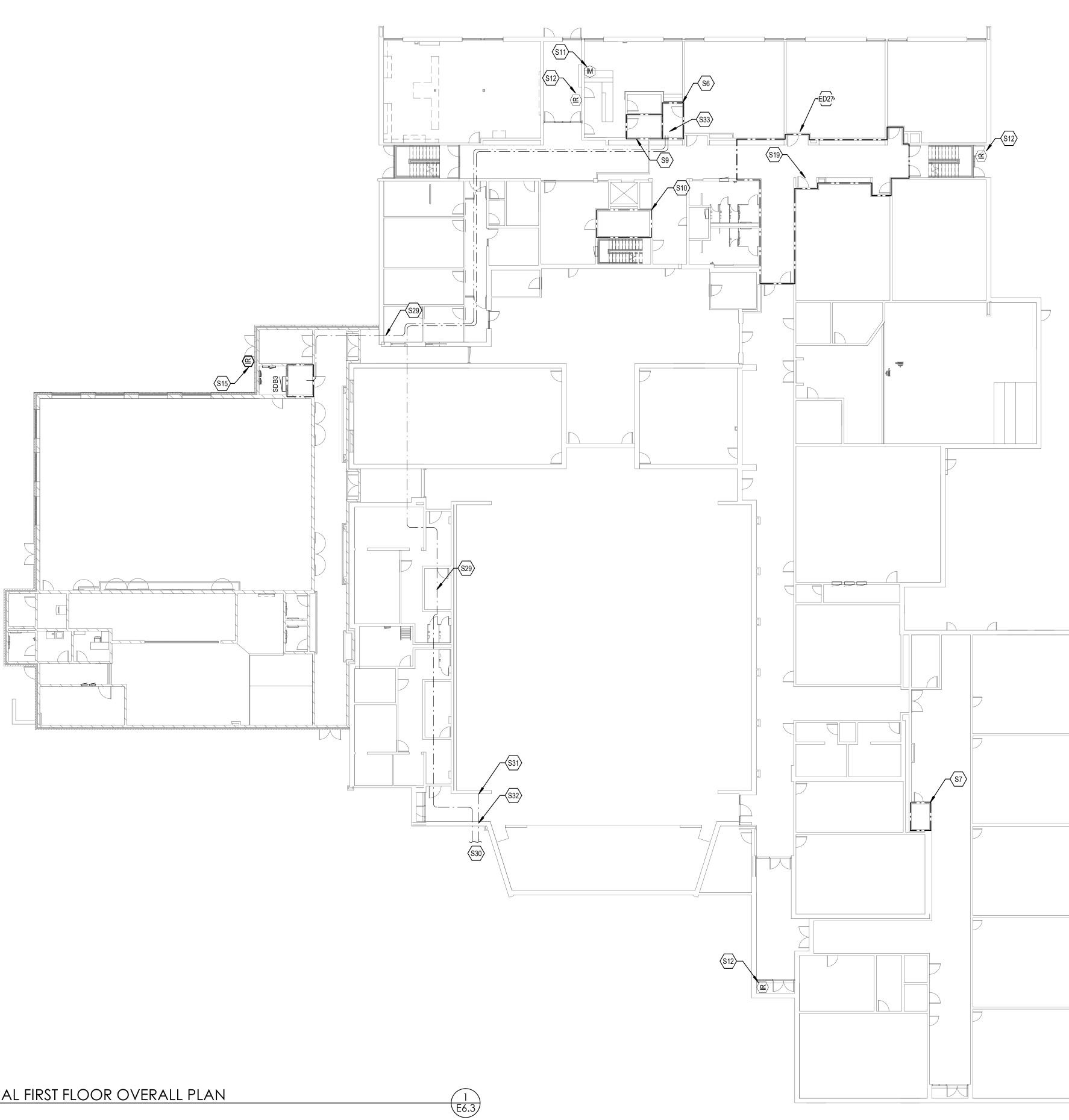




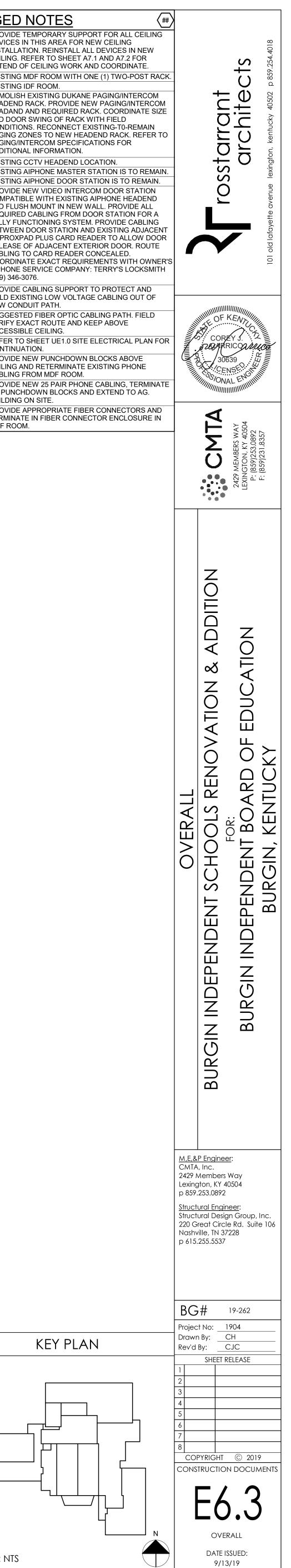




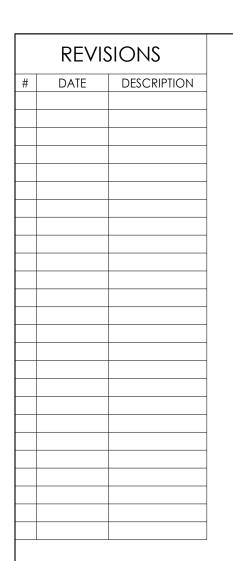


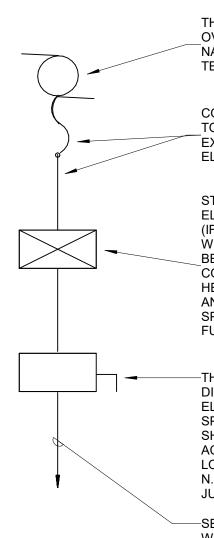


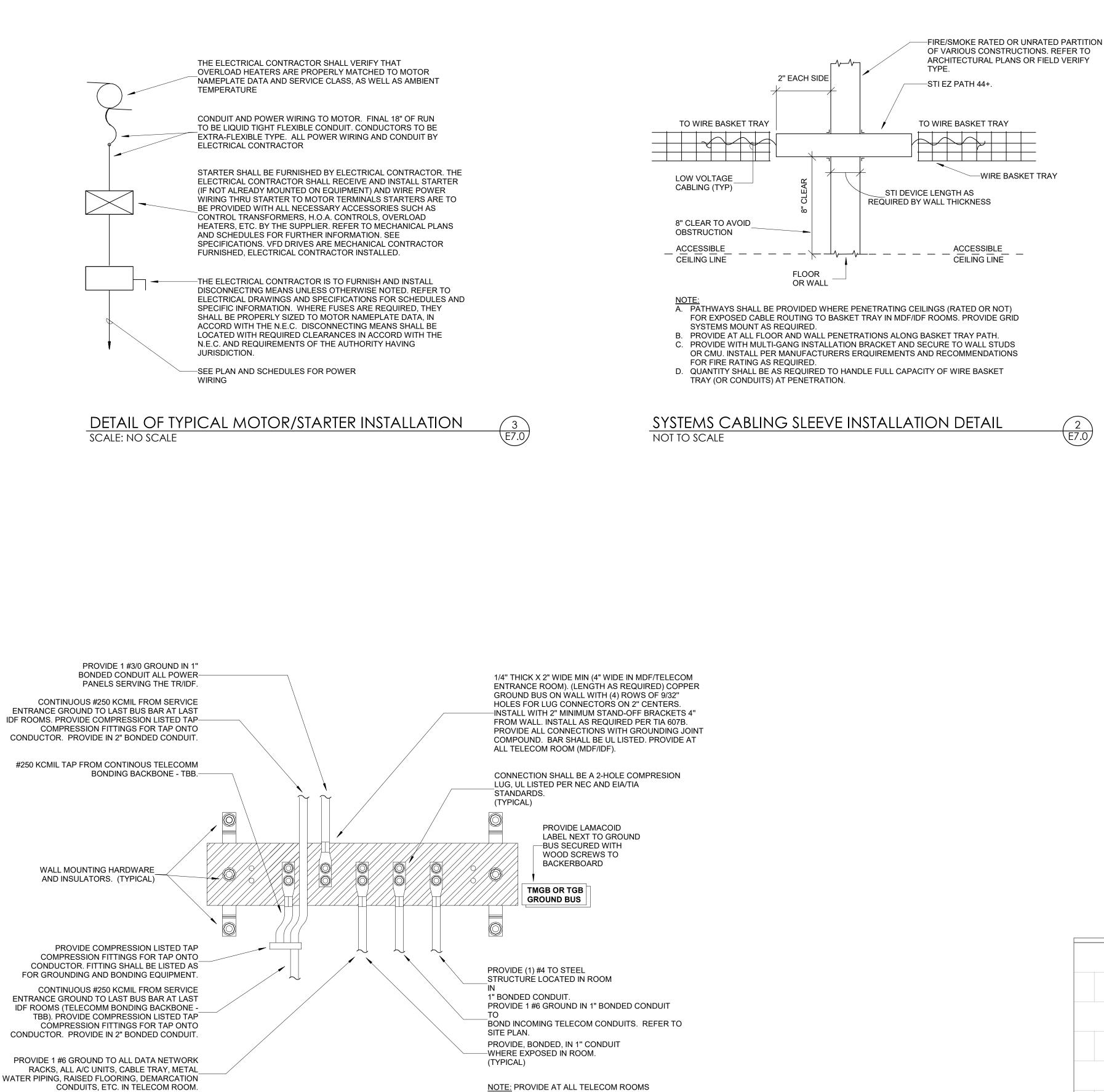
<u>TAC</u>	GGED NOTE
ED27	PROVIDE TEMPORAN DEVICES IN THIS ARI INSTALLATION. REIN CEILING. REFER TO EXTEND OF CEILING
S6	EXISTING MDF ROOM
S7	EXISTING IDF ROOM
S9	DEMOLISH EXISTING HEADEND RACK. PR HEADAND AND REQU AND DOOR SWING C CONDITIONS. RECO PAGING ZONES TO N PAGING/INTERCOM ADDITIONAL INFORM
S10	EXISTING CCTV HEA
S11	EXISTING AIPHONE
S12	EXISTING AIPHONE
S15 S19	PROVIDE NEW VIDEO COMPATIBLE WITH E AND FLUSH MOUNT I REQUIRED CABLING FULLY FUNCTIONING BETWEEN DOOR ST/ IEI PROXPAD PLUS O RELEASE OF ADJAC CABLING TO CARD R COORDINATE EXACT AIPHONE SERVICE O (859) 346-3076. PROVIDE CABLING S
519	HOLD EXISTING LOW
S29	SUGGESTED FIBER ( VERIFY EXACT ROUT ACCESSIBLE CEILING
S30	REFER TO SHEET UE CONTINUATION.
S31	PROVIDE NEW PUNC CEILING AND RETER CABLING FROM MDF
S32	PROVIDE NEW 25 PA TO PUNCHDOWN BL BUILDING ON SITE.
S33	PROVIDE APPROPRI TERMINATE IN FIBER MDF ROOM.



SCALE: NTS





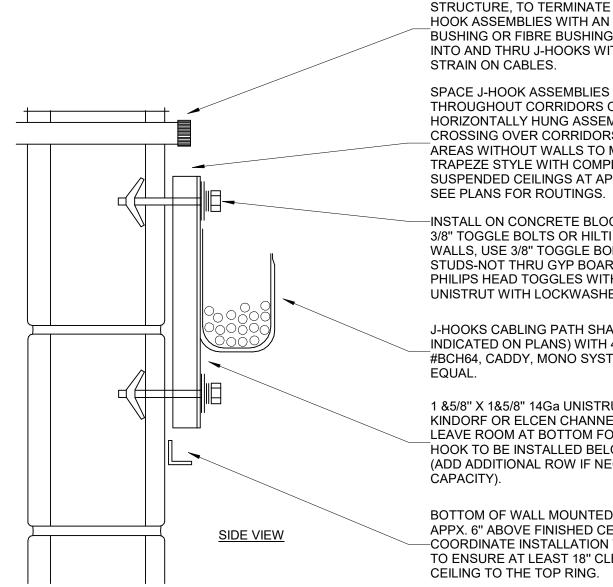


 TELECOM GROUNDING BUS BAR DETAIL (TGMB & TGB)
 6

 SCALE: NO SCALE
 6

(WHERE APPLICABLE)

NOT TO SCALE



J-HOOK INSTALLATION DETAIL SCALE: NO SCALE

STUB CONDUITS OUT OF ROOM, HOLDING HIGH IN STRUCTURE, TO TERMINATE JUST ABOVE THE J-HOOK ASSEMBLIES WITH AN INSULATED THROAT BUSHING OR FIBRE BUSHING. PULL CABLES DOWN INTO AND THRU J-HOOKS WITHOUT CREATING A STRAIN ON CABLES.

SPACE J-HOOK ASSEMBLIES 48" ON CENTER THROUGHOUT CORRIDORS OF BUILDING, PROVIDING HORIZONTALLY HUNG ASSEMBLIES WHERE CROSSING OVER CORRIDORS OR LARGE OPEN AREAS WITHOUT WALLS TO MOUNT ON. HANG TRAPEZE STYLE WITH COMPLETE ACCESS THRU SUSPENDED CEILINGS AT APPX. 18" ABOVE CEILING.

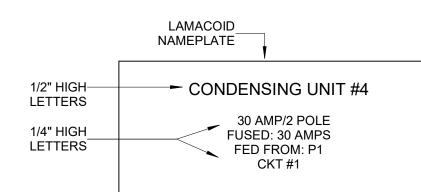
-INSTALL ON CONCRETE BLOCK AND ICF WALLS WITH 3/8" TOGGLE BOLTS OR HILTI ANCHORS. ON DRYWALL WALLS. USE 3/8" TOGGLE BOLTS PLACED THRU METAL STUDS-NOT THRU GYP BOARD. USE CAP SCREWS OR PHILIPS HEAD TOGGLES WITH SQUARE WASHER ON UNISTRUT WITH LOCKWASHER BELOW HEAD.

J-HOOKS CABLING PATH SHALL BE THREE TIER (AS INDICATED ON PLANS) WITH 4" HOOKS. B-LINE #BCH64, CADDY, MONO SYSTEMS OR APPROVED EQUAL.

1 &5/8" X 1&5/8" 14Ga UNISTRUT OR EQUIVALENT KINDORF OR ELCEN CHANNEL OF LENGTH SHOWN. LEAVE ROOM AT BOTTOM FOR AN ADDITIONAL J-HOOK TO BE INSTALLED BELOW THE THREE SHOWN (ADD ADDITIONAL ROW IF NECESSARY FOR CAPACITY).

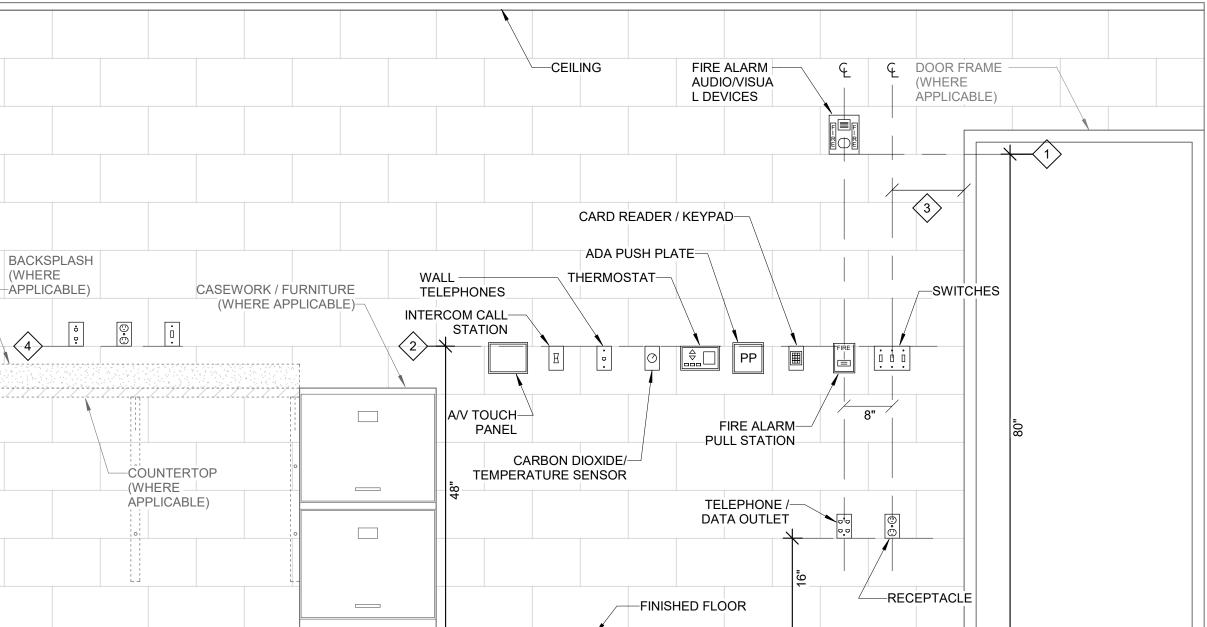
BOTTOM OF WALL MOUNTED ASSEMBLIES TO BE AT APPX. 6" ABOVE FINISHED CEILING HEIGHT-TO ENSURE AT LEAST 18" CLEAR ACCESS ABOVE CEILING TO THE TOP RING.

E7.0



NORMAL POWER LABELS SHALL BE BLACK WITH WHITE LETTERS. EMERGENCY POWER LABELS SHALL BE RED WITH WHITE LETTERS. UTILIZE SKREW-ON LAMACOID PLATES.

<b>DISCONNECT &amp; STARTER</b>	
NAMEPLATE DETAIL	$\overline{4}$
SCALE: NO SCALE	E7.0



## **DEVICE MOUNTING DETAIL - GENERAL NOTES:**

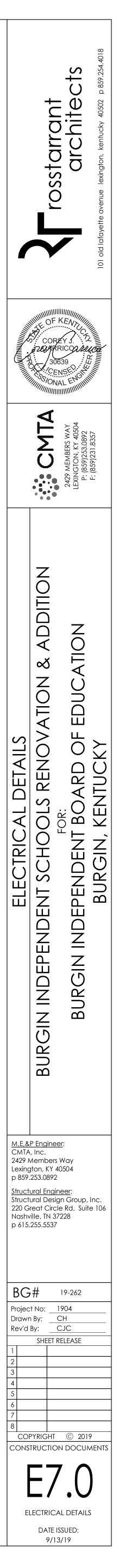
- A. WHERE DEVICES OF ANY DISCIPLINE ARE LOCATED IN THE SAME GENERAL AREA ON THE PLANS AND ARE SHOWN TO BE MOUNTED AT A SIMILAR HEIGHT, ALIGN HORIZONTALLY ALONG TOP OF DEVICE BACKBOX (AS SHOWN IN DETAIL AND DESCRIBED IN KEY NOTE #2). B. WHERE DEVICES OF ANY DISCIPLINE ARE LOCATED IN THE SAME GENERAL AREA ON THE PLANS AND ARE SHOWN MOUNTED AT DIFFERENT HEIGHTS, ALIGN VERTICALLY ALONG THE CENTERLINE OF THE DEVICE BACKBOX (AS SHOWN IN DETAIL).
- C. FOR ANY WALL OTHER THAN PAINTED GYPSUM BOARD OR CMU, DEVICE LOCATIONS MUST BE FIELD APPROVED BY ENGINEER OR ARCHITECT PRIOR TO INSTALLATION OF FINISHES.

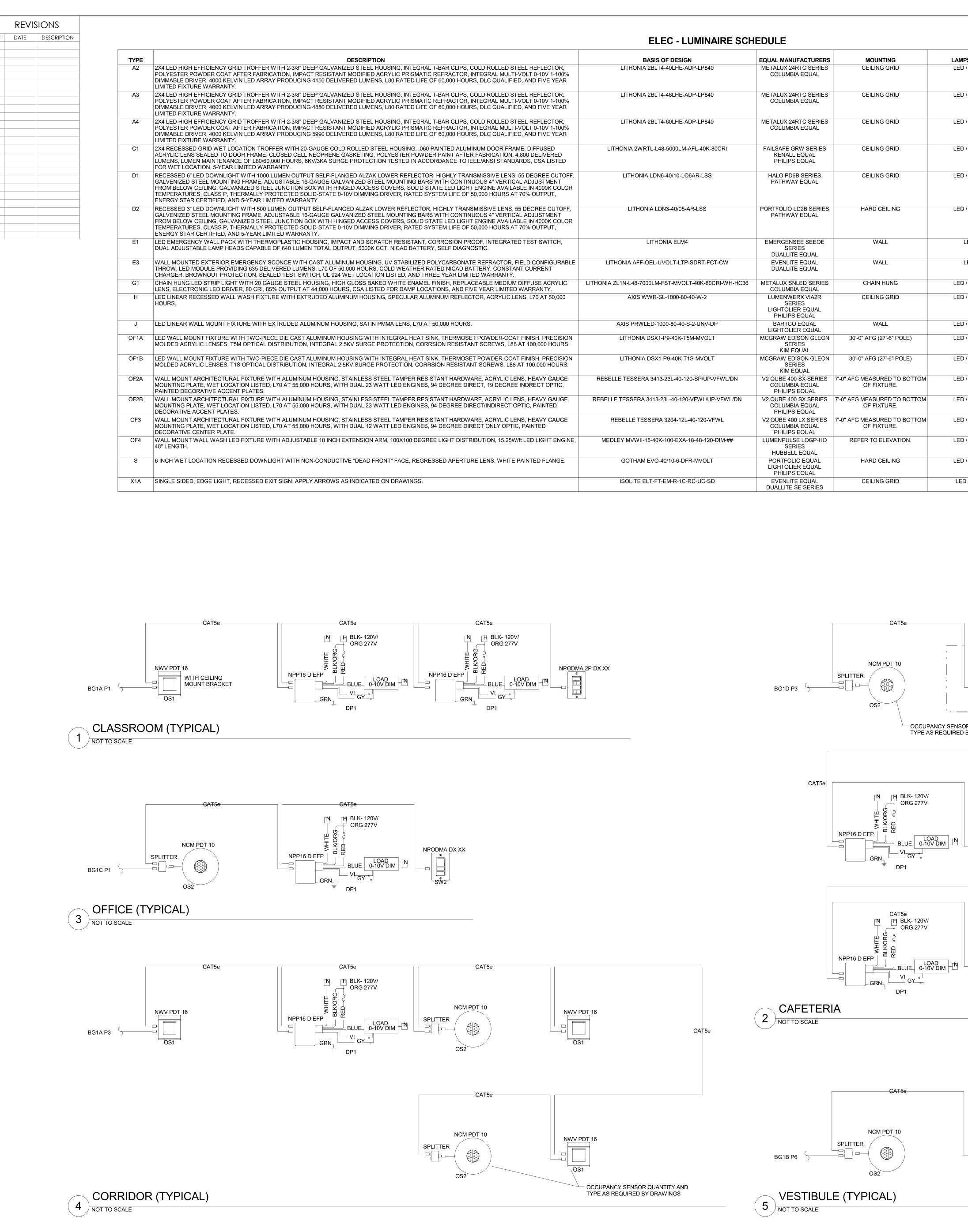
DEVICE MOUNTING DETAIL - KEY NOTES:

- 1. MOUNT VISUAL NOTIFICATION APPLIANCES SO THAT ENTIRE LENS IS BETWEEN 80" AND 96" AFF. IF CEILING IS TOO LOW FOR DEVICE TO BE MOUNTED ABOVE 80", MOUNT SO THAT THE LENS IS WITHIN 6" OF FINISHED CEILING.
- 2. ALIGN BACKBOXES OF DEVICES AT THE MOUNTING HEIGHT INDICATED. MEASURE TO THE TOP OF THE BACKBOX FOR STANDARD OUTLET BOXES. NON-STANDARD BACKBOXES ARE TO BE INSTALLED SUCH THAT THE FINISHED DEVICES ARE ALIGNED ALONG THEIR RESPECTIVE CENTERLINES. 3. MOUNTING HEIGHTS SHOWN ILLUSTRATE DESIGN INTENT AND ARE TO BE FOLLOWED UNLESS CONTRADICTED BY APPLICABLE CODE. WHERE
- DEVICES ARE SHOWN ADJACENT TO DOOR FRAMES ON PLANS INSTALL 12" FROM FRAME TO AVOID SLUSHED SECTIONS OR BRACING, SPECIFIC DEVICES ARE SHOWN IN RELATIVE ORDER FROM DOOR FRAME; WHERE THESE DEVICES ARE NOT PRESENT AT A PARTICULAR LOCATION, ADJUST LOCATIONS CLOSER TO DOOR ACCORDINGLY.
- 4. THE CONTRACTOR IS TO COORDINATE ALL ROUGH-INS WITH ANY COUNTERTOPS/BACKSPLASHES TO AVOID CONFLICT. ALIGN DEVICE BACKBOXES IN THE BOTTOM OF THE NEXT FULL BLOCK ABOVE THE BACKSPLASH AS SHOWN. FOR NON-BLOCK WALLS ALIGN BOTTOM OF DEVICE BACKBOXES 4" ABOVE BACKSPLASH. COORDINATE WORK WITH CASEWORK AND KITCHEN SHOP DRAWINGS ACCORDINGLY. IF CONFLICT STILL ARISES CONTACT THE ENGINEER FOR DIRECTION ON HOW TO PROCEED.

TYPICAL WALL DEVICE MOUNTING DETAIL

(E7.0)

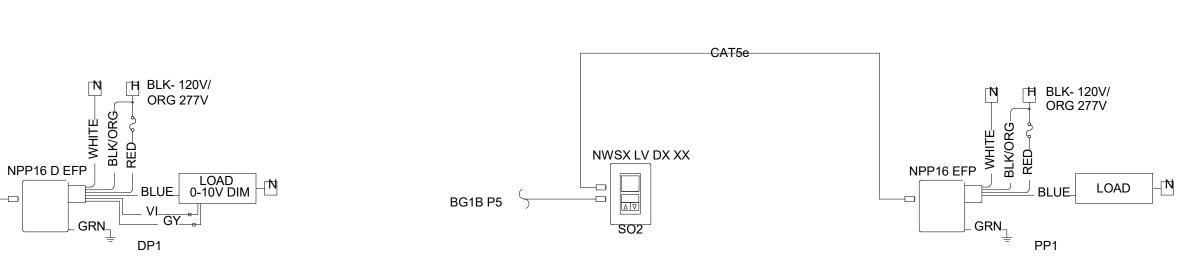


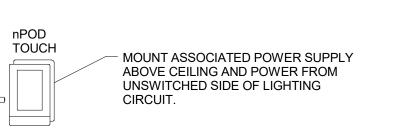


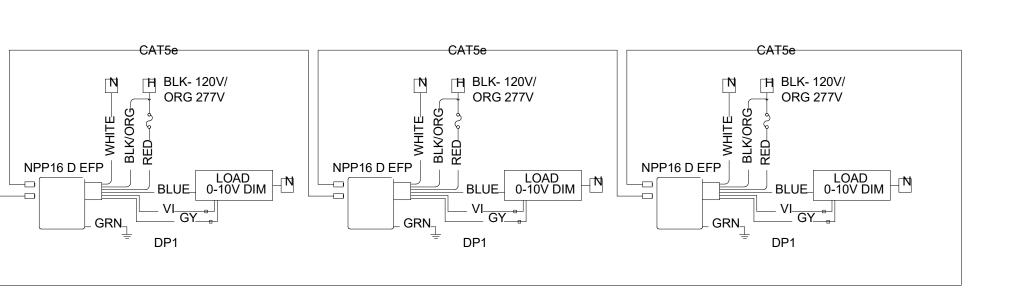
	BASIS OF DESIGN	EQUAL MANUFACTURERS	MOUNTING	LAMPS / CCT	DRIVER	MINIMUM LUMENS	MAXIMUM WATTAGE	VOLTAGE	REMARKS
LIPS, COLD ROLLED STEEL REFLECTOR, CTOR, INTEGRAL MULTI-VOLT 0-10V 1-100% HOURS, DLC QUALIFIED, AND FIVE YEAR	LITHONIA 2BLT4-40LHE-ADP-LP840	METALUX 24RTC SERIES COLUMBIA EQUAL	CEILING GRID	LED / 4000K	0-10V DIM TO 1%	4,150	29	120	-
LIPS, COLD ROLLED STEEL REFLECTOR, CTOR, INTEGRAL MULTI-VOLT 0-10V 1-100% HOURS, DLC QUALIFIED, AND FIVE YEAR	LITHONIA 2BLT4-48LHE-ADP-LP840	METALUX 24RTC SERIES COLUMBIA EQUAL	CEILING GRID	LED / 4000K	0-10V DIM TO 1%	4,850	34	120	-
LIPS, COLD ROLLED STEEL REFLECTOR, CTOR, INTEGRAL MULTI-VOLT 0-10V 1-100% HOURS, DLC QUALIFIED, AND FIVE YEAR	LITHONIA 2BLT4-60LHE-ADP-LP840	METALUX 24RTC SERIES COLUMBIA EQUAL	CEILING GRID	LED / 4000K	0-10V DIM TO 1%	5,990	43	120	-
ALUMINUM DOOR FRAME, DIFFUSED AFTER FABRICATION, 4,800 DELIVERED E TO IEEE/ANSI STANDARDS, CSA LISTED	LITHONIA 2WRTL-L48-5000LM-AFL-40K-80CRI	FAILSAFE GRW SERIES KENALL EQUAL PHILIPS EQUAL	CEILING GRID	LED / 4000K	0-10V DIM TO 10%	4,800	39	120	-
Y TRANSMISSIVE LENS, 55 DEGREE CUTOFF, ONTINUOUS 4" VERTICAL ADJUSTMENT LIGHT ENGINE AVAILABLE IN 4000K COLOR FE OF 50,000 HOURS AT 70% OUTPUT,	LITHONIA LDN6-40/10-LO6AR-LSS	HALO PD6B SERIES PATHWAY EQUAL	CEILING GRID	LED / 4000K	0-10V DIM TO 10%	1,050	13	120	-
TRANSMISSIVE LENS, 55 DEGREE CUTOFF, ONTINUOUS 4" VERTICAL ADJUSTMENT LIGHT ENGINE AVAILABLE IN 4000K COLOR E OF 50,000 HOURS AT 70% OUTPUT,	LITHONIA LDN3-40/05-AR-LSS	PORTFOLIO LD2B SERIES PATHWAY EQUAL	HARD CEILING	LED / 4000K	0-10V DIM TO 10%	550	6	120	-
ON PROOF, INTEGRATED TEST SWITCH, DIAGNOSTIC.	LITHONIA ELM4	EMERGENSEE SEEOE SERIES DUALLITE EQUAL	WALL	LED	LED	350	3	120	CIRCUIT TO UNSWITCHED SIDE O NEAREST LIGHTING CIRCUIT.
BONATE REFRACTOR, FIELD CONFIGURABLE CAD BATTERY, CONSTANT CURRENT R LIMITED WARRANTY.	LITHONIA AFF-OEL-UVOLT-LTP-SDRT-FCT-CW	EVENLITE EQUAL DUALLITE EQUAL	WALL	LED	LED	450	12	120	CIRCUIT TO UNSWITCHED SIDE O NEAREST LIGHTING CIRCUIT.
REPLACEABLE MEDIUM DIFFUSE ACRYLIC	LITHONIA ZL1N-L48-7000LM-FST-MVOLT-40K-80CRI-WH-HC36	METALUX SNLED SERIES COLUMBIA EQUAL	CHAIN HUNG	LED / 4000K	NO DIMMING REQUIRED	6,785	52	120	-
EFLECTOR, ACRYLIC LENS, L70 AT 50,000	AXIS WWR-SL-1000-80-40-W-2	LUMENWERX VIA2R SERIES LIGHTOLIER EQUAL PHILIPS EQUAL	CEILING GRID	LED / 4000K	0-10V DIM TO 10%	2,000	25	120	-
OURS.	AXIS PRWLED-1000-80-40-S-2-UNV-DP	BARTCO EQUAL LIGHTOLIER EQUAL	WALL	LED / 4000K	0-10V DIM TO 10%	2,000	18	120	-
RMOSET POWDER-COAT FINISH, PRECISION SISTANT SCREWS, L88 AT 100,000 HOURS.	LITHONIA DSX1-P9-40K-T5M-MVOLT	MCGRAW EDISON GLEON SERIES KIM EQUAL	30'-0" AFG (27'-6" POLE)	LED / 4000K	NO DIMMING REQUIRED	28,635	241	208	-
RMOSET POWDER-COAT FINISH, PRECISION SISTANT SCREWS, L88 AT 100,000 HOURS.	LITHONIA DSX1-P9-40K-T1S-MVOLT	MCGRAW EDISON GLEON SERIES KIM EQUAL	30'-0" AFG (27'-6" POLE)	LED / 4000K	NO DIMMING REQUIRED	27,550	241	208	-
ARDWARE, ACRYLIC LENS, HEAVY GAUGE EE DIRECT, 19 DEGREE INDRECT OPTIC,	REBELLE TESSERA 3413-23L-40-120-SP/UP-VFWL/DN	V2 QUBE 400 SX SERIES COLUMBIA EQUAL PHILIPS EQUAL	7'-0" AFG MEASURED TO BOTTOM OF FIXTURE.	LED / 4000K	0-10V DIM TO 1%	2,730-UP / 2,900 DN	52	120	-
ARDWARE, ACRYLIC LENS, HEAVY GAUGE EE DIRECT/INDIRECT OPTIC, PAINTED	REBELLE TESSERA 3413-23L-40-120-VFWL/UP-VFWL/DN	V2 QUBE 400 SX SERIES COLUMBIA EQUAL PHILIPS EQUAL	7'-0" AFG MEASURED TO BOTTOM OF FIXTURE.	LED / 4000K	0-10V DIM TO 1%	2,900-UP / 2,900 DN	52	120	-
ARDWARE, ACRYLIC LENS, HEAVY GAUGE EE DIRECT ONLY OPTIC, PAINTED	REBELLE TESSERA 3204-12L-40-120-VFWL	V2 QUBE 400 LX SERIES COLUMBIA EQUAL PHILIPS EQUAL	7'-0" AFG MEASURED TO BOTTOM OF FIXTURE.	LED / 4000K	0-10V DIM TO 1%	1,450	14	120	-
DISTRIBUTION, 15.25W/ft LED LIGHT ENGINE,	MEDLEY MVWII-15-40K-100-EXA-18-48-120-DIM-##	LUMENPULSE LOGP-HO SERIES HUBBELL EQUAL	REFER TO ELEVATION.	LED / 4000K	0-10V DIM TO 1%	3,592	61	120	REFER TO FACADE LIGHTING ELEVATION ON SHEET E3.0 FOR MOUNTING INFORMATION.
PERTURE LENS, WHITE PAINTED FLANGE.	GOTHAM EVO-40/10-6-DFR-MVOLT	PORTFOLIO EQUAL LIGHTOLIER EQUAL PHILIPS EQUAL	HARD CEILING	LED / 4000K	0-10V DIM TO 10%	1,075	12	120	-
	ISOLITE ELT-FT-EM-R-1C-RC-UC-SD	EVENLITE EQUAL DUALLITE SE SERIES	CEILING GRID	LED / RED	LED	-	2	120	CIRCUIT TO UNSWITCHED SIDE OI NEAREST LIGHTING CIRCUIT.

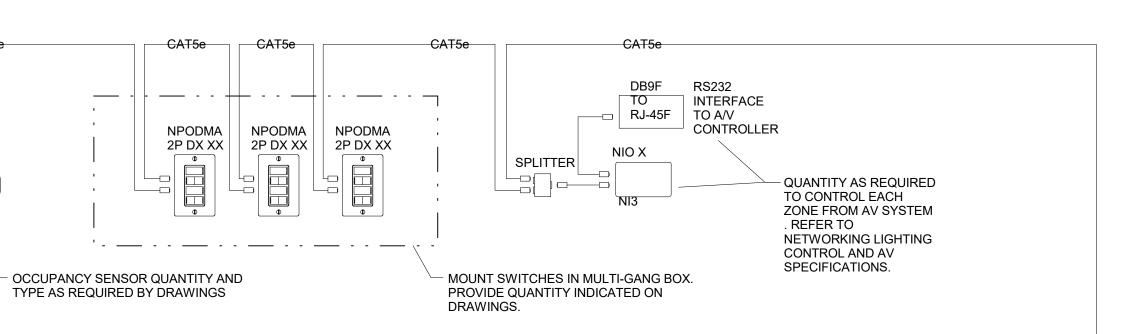
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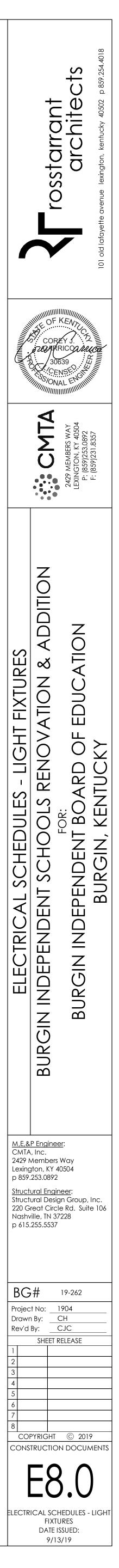




**GENERAL NOTES (LUMINAIRE SCHEDULE):** 

- A. ALL LUMINAIRES AND COMPONENTS SHALL BE UL LISTED. B. CONTRACTOR SHALL FOCUS, AIM AND ADJUST LUMINAIRES UNDER THE SUPERVISION AND DIRECTION OF THE ENGINEER AND ARCHITECT.
- ALLOW LABOR FOR FINAL FOCUS AND ADJUSTMENTS AFTER DARK. LIFTS AND SCAFFOLDING SHALL BE AVAILABLE. C. ALL LAY-IN FIXTURES SHALL BE PROVIDED WITH SCREW ON HOLD D. EXIT SIGNS AND FIXTURES THAT ARE HATCHED OR WHERE THE
- DOWN CLIPS AND MAXIMUM 6'-0" LONG FLEXIBLE CONDUIT WHIPS.
- FIXTURE TYPE CONTAINS THE SUFFIX "E" FOR EMERGENCY OPERATION SHALL HAVE AN INTEGRAL 90 MINUTE BATTERY INVERTER IF NOT POWERED FROM AN EMERGENCY GENERATOR.
- E. ALL BATTERY POWERED FIXTURES SHALL HAVE TEST SWITCHES FACTORY INSTALLED INTEGRAL TO THE REFLECTOR, REMOTE TEST

SWITCHES WILL NOT BE ACCEPTED.



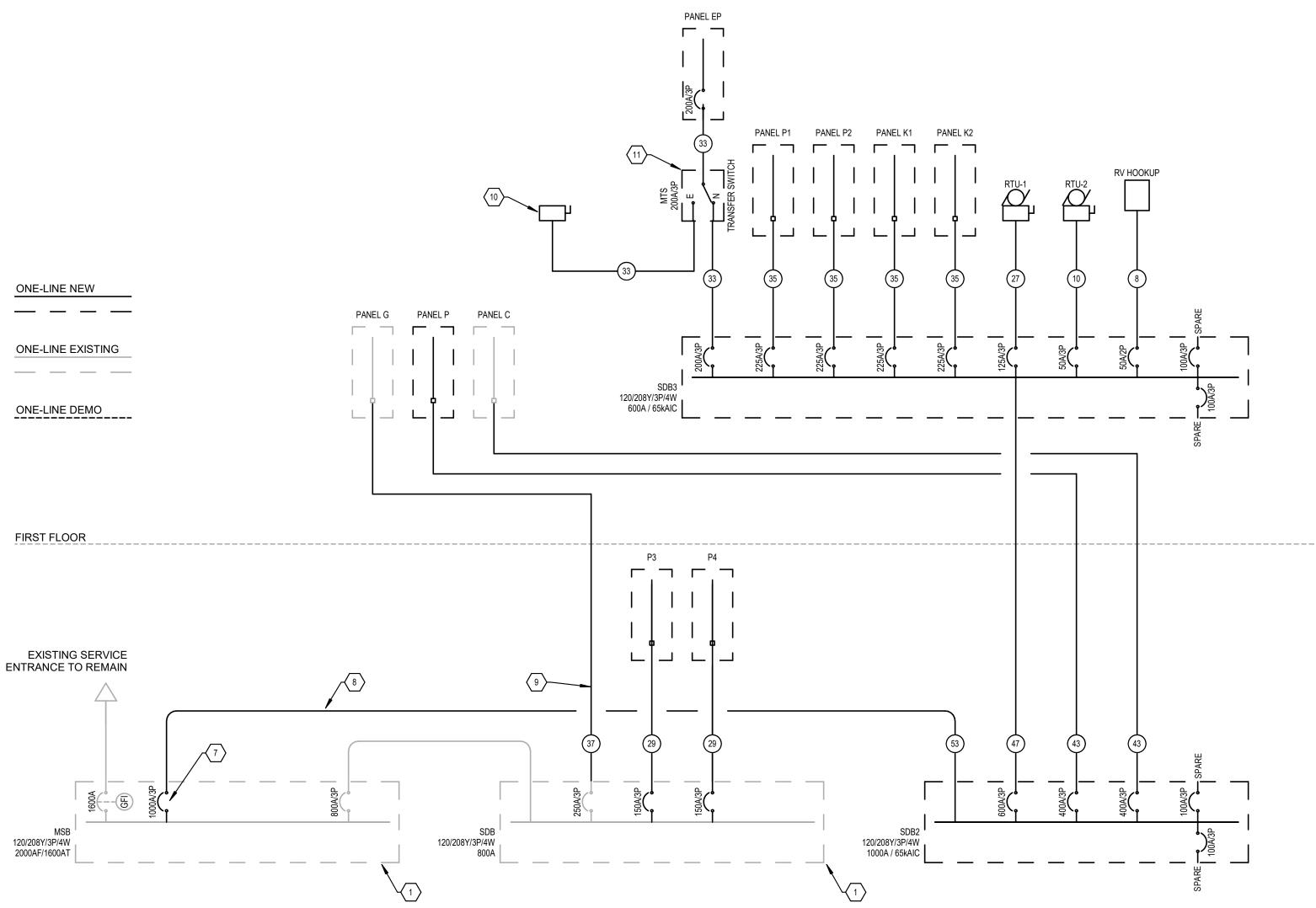
	REVI	sions
#	DATE	DESCRIPTION

	ELEC - ONE-LINE FEEDER SCHEDULE											
TAG	OCPD SETTING	WIRE SIZE	EQUIP. GROUND	CONDUIT SIZE								
			1									
8	40/2 OR 50/2 (3W)	(3) #8	(1) #10	3/4"								
10	40/3 OR 50/3 (4W)	(4) #8	(1) #10	1"								
27	125/3 (4W)	(4) #1	(1) #6	1-1/2"								
29	150/3 (4W)	(4) #1/0	(1) #6	2"								
33	200/3 (4W)	(4) #3/0	(1) #6	2"								
35	225/3 (4W)	(4) #4/0	(1) #4	2-1/2"								
37	250/3 (4W)	(4) #250 KCMIL	(1) #4	3"								
43	400/3 (4W)	(4) #500 KCMIL	(1) #3	3-1/2"								
47	600/3 (4W)	2 RUNS OF (4) - #350 KCMIL/PHASE	(1) #1	3"								
53	1000/3 (4W)	3 RUNS OF (4) - #500 KCMIL/PHASE	(1) #2/0	3-1/2"								

ONE-LINE EXISTING	

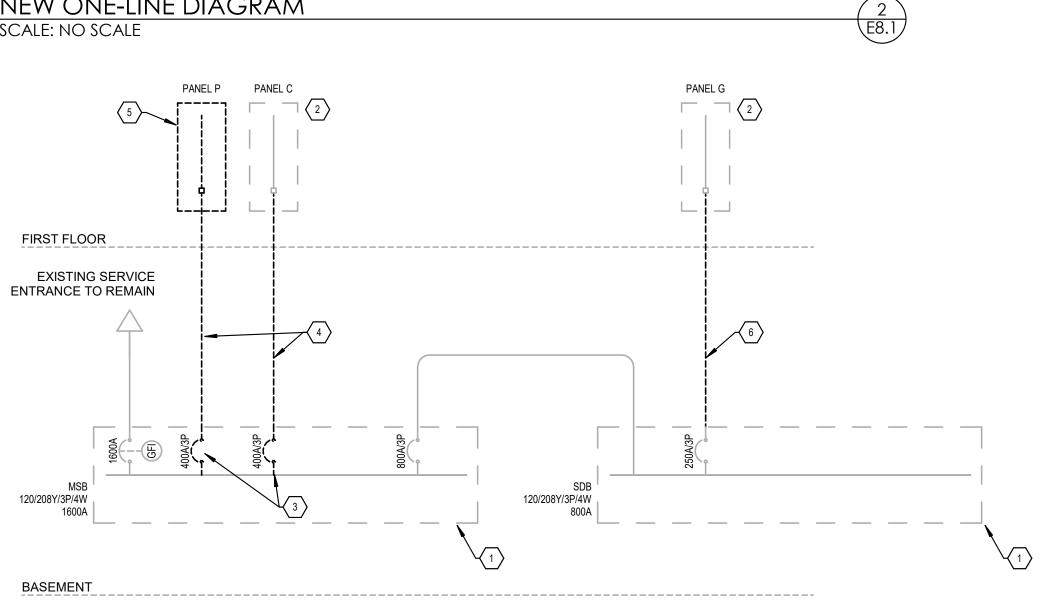
#### ELEC - ONE-LINE TAGGED NOTES TAG DESCRIPTION 1 FOR CLARITY NOT ALL EQUIPMENT AND BREAKERS ARE SHOWN. 2 PANEL IS EXISTING TO REMAIN AND SHALL BE REFED FROM NEW LOCATION. REFER TO NEW ONE-LINE DIAGRAM. DEMOLISH BREAKER SERVING PANEL TO MAKE ROOM FOR NEW BREAKER. 4 DEMOLISH CONDUCTORS AND PORTION OF CONDUIT AS REQUIRED TO REFEED PANEL FROM NEW DISTRIBUTION PANEL. REFER TO NEW ONE-LINE DIAGRAM. 5 DEMOLISH PANEL AND REPLACE WITH NEW. MAINTAIN CIRCUITS AND EXTEND TO NEW PANEL. REFER TO DEMOLITION AND NEW WORK POWER PLANS. 6 DEMOLISH CONDUCTORS AND EXTERIOR PORTION OF CONDUIT TO ALLOW CONSTRUCTION OF NEW BUILDING ADDITION. REFEED PANEL FROM NEW DISTRIBUTION PANEL. REUSE INTERIOR PORTION OF CONDUIT LOCATED IN BASEMENT AND INDICATED BY TAGGED NOTES E32 AND E37 ON SHEET E4.0. REFER TO SITE DEMOLITION AND ELECTRICAL DEMOLITION PLANS FOR ADDITIONAL INFORMATION. PROVIDE NEW BREAKER IN SPACE MADE AVAILABLE BY DEMOLITION OF BREAKERS 7 SERVING PANELS P AND C. 8 REFER TO ELECTRICAL OVERALL SHEET E6.3 FOR ROUTING AND ADDITIONAL INFORMATION. 9 PROVIDE NEW CONDUCTORS IN EXISTING CONDUIT WHERE POSSIBLE. PROVIDE NEW CONDUIT AT BUILDING EXTERIOR AND IN MECHANICAL ROOM. REFER TO SITE ELECTRICAL AND POWER PLANS FOR ADDITIONAL INFORMATION. 10 PROVIDE 200A EXTERIOR RATED GENERATOR CONNECTION PANEL WITH CAMLOCKS. REFE TO POWER PLANS FOR LOCATION. MODEL # SHALL BE TRYSTAR GDR-02-3-W-LM-J OR APPROVED EQUAL.

11 PROVIDE 200A/3P/4W MANUAL TRANSFER SWITCH.



BASEMENT

# NEW ONE-LINE DIAGRAM SCALE: NO SCALE



	PANEL: P1				MA	AINS TYPE	: MLO			PANEL INTERRUPTING RATING: 10,000												
	<b>VOLTAGE:</b> 208Y/120V,3P,4V	V		SPD: No													N: ELECT. 172A					
	<b>AMPERES:</b> 225 A			MOUNTING: SURFACE											SUPPLY FROM: SDB3							
NOTES	I	HOT, NEUT, GND	OCP	Р	CKT		A	E	3		с	CKT	Ρ	OCP	HOT, NEUT, GND		IRCUIT DESCRIPTION	NOTES				
	DATA RACK - 171	1-#12, 1-#12, 1-#12	20	1	1	0.2	0.5					2	1	20	1-#12, 1-#12, 1-#12							
	REC - 172	1-#8, 1-#8, 1-#8	20	1	3	-		0.9	0.2			4	1	20	1-#12, 1-#12, 1-#12							
	REC - 170, 172A, OUTDOOR 172A	1-#12, 1-#12, 1-#12	20	1	5					0.7	1.0	6	1	20	1-#12, 1-#12, 1-#12							
	REC - 172	1-#10, 1-#10, 1-#10	20	1	7	0.7	0.2					8	1	20	1-#12, 1-#12, 1-#12	REC - ²	172A					
	DE0 474		00	<b>_</b>	9			0.2	0.2			10	1	20		EWC -						
	REC - 171	2-#12, 1-#12, 1-#12	20	2	11					0.2	0.7	12	1	20	1-#12, 1-#12, 1-#12	REC - 1	172					
		0 #40 4 #40 4 #40	00		13	1.3	0.7					14	1	20	1-#12, 1-#12, 1-#12	REC - '	172					
	CU-1 - ROOF	2-#12, 1-#12, 1-#12	20	2	15			1.3	0.4			16	1	20	1-#12, 1-#12, 1-#12	REC - '	171					
		0 #40 4 #40 4 #40	45	<u> </u>	17					1.3	0.9	18	1	20	1-#12, 1-#12, 1-#12	REC - 0	CA, CB					
	CU-1 ROOF	2-#12, 1-#12, 1-#12	15	2	19	1.3	0.2					20	2	45	2-#12, 1-#12, 1-#12	040.4	470					
	REC - CA	1-#8, 1-#8, 1-#8	20	1	21			1.3	0.2			22	2	15	Z-#1Z, 1-#1Z, 1-#1Z	CAS-1	- 170					
	REC - 171	1-#12, 1-#12, 1-#12	20	1	23					0.4	0.2	24	2	20	0 #10 1 #10 1 #10	REC - ²	171					
	DOOR HARDWARE - VESTIBULE	1-#12, 1-#12, 1-#12	20	1	25	0.2	0.2					26	2	20	2-#12, 1-#12, 1-#12	REC -	171					
	SPARE		20	1	27			0.0	0.4			28	1	20	1-#12, 1-#12, 1-#12	REC - 1	171					
	SPARE		20	1	29					0.0	0.4	30	1	20	1-#12, 1-#12, 1-#12	LTNG E	BUILDING LETTERING					
	SPARE		20	1	31	0.0	0.0					32	1	20		SPARE						
	SPARE		20	1	33			0.0	0.0			34	1	20		SPARE						
	SPARE		20	1	35					0.0	0.0	36	1	20		SPARE						
	SPARE		20	1	37	0.0	0.0					38	1	20		SPARE						
	SPARE		20	1	39			0.0	0.0			40	1	20		SPARE						
	SPARE		20	1	41					0.0	0.0	42	1	20		SPARE						
						5.3	kVA	4.8	kVA	5.7	kVA											
					-	4	5 A	40	A (	48	3 A											
LOAD		CONNECT		)	DE	MAND F	ACTOR	ESTIN	IATED DE	MAND					PANEL TOT	ALS						
EQUIP		1500				100.00			1500 VA						TOTAL CONNECTED		15806 VA					
HVAC		5300				80.00			4240 VA						TOTAL ESTIMATED DE							
LTNG		366				100.00			366 VA						TAL CONNECTED CU							
REC		8640	VA			100.00	%		8640 VA				10	IAL ESI	IMATED DEMAND CUP	RENT:	41 A					

(1) (E8.1)

	PANEL: P2						MA	AINS TYPE	: MLO						PANEL INTERRUPTING	<b>RATING:</b> 10.000	
	<b>VOLTAGE:</b> 208Y/120V,3P,4	4W						SPD								OCATION: ELECT. 172A	
	AMPERES: 225 A						Ν		: SURFAC	E						LY FROM: SDB3	
DTES	CIRCUIT DESCRIPTION	HOT, NEUT, GND	OCP	Р	СКТ		4		В		2	СКТ	Р	OCP	HOT, NEUT, GND	CIRCUIT DESCRIPTION	NOTE
					1	0.6	0.6					2	1	20	1-#8, 1-#8, 1-#8	REC SITE POLE	
	LTNG SITE POLES	2-#8, 1-#8, 1-#8	20	2	3			0.6	0.6			4	1	20	1-#10, 1-#10, 1-#10	LTNG - OUTDOOR OF2	
	LTNG - 172	1-#10, 1-#10, 1-#10	20	1	5					0.8	0.9	6	1	20	1-#10, 1-#10, 1-#10	LTNG - 170, CA, CB, CC	
	LTNG - 175B, 175C, 175D	1-#12, 1-#12, 1-#12	20	1	7	0.4	0.2					8	1	20	1-#12, 1-#12, 1-#12	LTNG - OUTDOOR OF1	
	LTNG - 175A, 175G	1-#8, 1-#8, 1-#8	20	1	9			1.1	0.1			10	1	20	1-#12, 1-#12, 1-#12	LTNG - 177, 178, CA	
	LTNG RELAY - 170	1-#12, 1-#12, 1-#12	20	1	11					0.1	0.9	12	1	20	1-#10, 1-#10, 1-#10	LTNG - 172	
	EF-1, MEN'S 177	1-#12, 1-#12, 1-#12	15	1	13	0.2	1.3					14	2	25	2-#10, 1-#10, 1-#10	HP-1	
	EF-1, WOMEN'S 178	1-#12, 1-#12, 1-#12	15	1	15			0.2	1.3			16	_		2 // 10, 1 // 10, 1 // 10		
	SPARE		20	1	17					0.0	0.0	18	1	20		SPARE	
	SPARE		20	1	19	0.0	0.0					20	1	20		SPARE	
	SPARE		20	1	21			0.0	0.0		0.0	22	1	20		SPARE	_
	SPARE		20	1	23	0.0	0.0			0.0	0.0	24	1	20		SPARE	
	SPARE SPARE		20	1	25	0.0	0.0	0.0	0.0			26	1	20		SPARE SPARE	_
	SPARE		20 20	1	27 29			0.0	0.0	0.0	0.0	28 30	1	20 20		SPARE	
	SPARE		20	1	29 31	0.0	0.0			0.0	0.0	30	1	20		SPARE	
	SPARE		20	1	33	0.0	0.0	0.0	0.0			34	1	20		SPARE	
	SPARE		20	1	35			0.0	0.0	0.0	0.0	36	1	20		SPARE	
	SPARE		20	1	37	0.0	0.0			0.0	0.0	38	1	20		SPARE	
	SPARE		20	1	39	0.0	0.0	0.0	0.0			40	1	20		SPARE	
	SPARE		20	1	41			0.0	010	0.0	0.0	42	1	20		SPARE	
	-					3.2	kVA	3.8	kVA	2.7							
							3 A		3 A	22							
	LASSIFICATION	CONNECT		<u>ח</u>											PANEL TOT	ALS	
AC		2900				80.00%		Lorin	2320 VA						TOTAL CONNECTED		
'NG		6219				100.00			6219 VA						TOTAL ESTIMATED DE		
															TAL CONNECTED CU		
EC		600	VA			100.00	70		600 VA					-			
													10	IAL ES	IMATED DEMAND CU	RRENT: 25 A	
DTES:	WHERE NOT LISTED, WIRE AN	ND CONDUIT SHALL BE B	E MININ	IUM F	PER SP	ECIFICAT	IONS. SP	ARE BREA	KERS TO E	BE 20A/1P.							

## PANELBOARD AND WIRING SCHEDULE

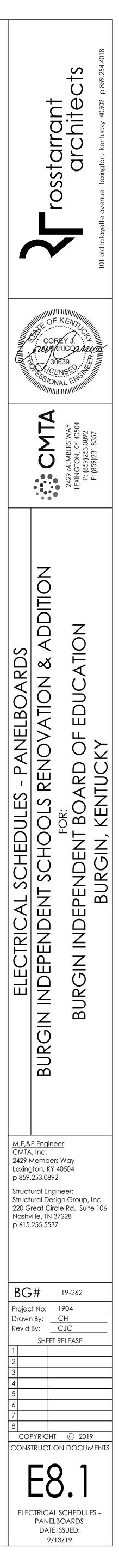
	PANEL: P3 VOLTAGE: 208Y/120V,3P, AMPERES: 225 A	4W						AINS TYPE SPD IOUNTING	: No	;F						G RATING: 10,000 OCATION: MECH. ROOM B1 LY FROM: SDB2
NOTES	i	HOT, NEUT, GND	OCP	Р	СКТ		<u>.</u>	-	B		с	СКТ	Р	OCP	HOT, NEUT, GND	
NOTES	REC - B101	1-#12, 1-#12, 1-#12	20	1		0.4	0.7					2	1	20	1-#8, 1-#8, 1-#8	REC - B101
	REC - B101	1-#12, 1-#12, 1-#12	20	1		0.4	0.7	0.4	0.7			4	1	20	1-#8, 1-#8, 1-#8	REC - B101
	REC - B101	1-#8, 1-#8, 1-#8	20	1				0.4	0.7	0.9	0.4	6	1	20	1-#12, 1-#12, 1-#12	REC - B102
	REC - B101	1-#12, 1-#12, 1-#12	20	1	_	0.4	0.7			0.5	0.4	8	1	20	1-#10, 1-#10, 1-#10	REC - B102
	REC - B102	1-#12, 1-#12, 1-#12	20	1	_	0.4	0.1	0.4	0.7			10	1	20	1-#10, 1-#10, 1-#10	REC - B102
	REC - B103	1-#10, 1-#10, 1-#10	20	1	_			0.1	0.1	0.9	0.4	12	1	20	1-#12, 1-#12, 1-#12	REC - B103
	REC - B103	1-#10, 1-#10, 1-#10	20	1		0.7	0.4			0.0	0.4	14	1	20	1-#12, 1-#12, 1-#12	REC - B103
	REC - B103	1-#12, 1-#12, 1-#12	20	1	-	0.1	0.1	0.4	0.4			16	1	20	1-#12, 1-#12, 1-#12	REC - B102
	REC - B103	1-#10, 1-#10, 1-#10	20	1	17			0.1	0.1	0.9	0.4	18	1	20	1-#12, 1-#12, 1-#12	REC - B104
	REC - B104	1-#12, 1-#12, 1-#12	20	1		0.2	0.9			0.0	0.1	20	1	20	1-#12, 1-#12, 1-#12	REC - B105, B105A
	REC - B104	1-#10, 1-#10, 1-#10	20	1	21	0.2	0.0	0.7	0.7			22	1	20	1-#12, 1-#12, 1-#12	REC - B104
	REC - B105	1-#12, 1-#12, 1-#12	20	1	-			0.1	0.1	0.5	0.2	24	1	20	1-#12, 1-#12, 1-#12	REC - B105
	REC - B102	1-#10, 1-#10, 1-#10	20	1	25	0.9	0.4			0.0	0.2	26	1	20	1-#12, 1-#12, 1-#12	REC - B100
	REC - B104	1-#12, 1-#12, 1-#12	20	1	_	0.0	0.1	0.9	0.1			28	<u> </u>			
	LTNG - B103	1-#12, 1-#12, 1-#12	20	1				0.0	0.1	0.0	0.1	30	3	50	3-#6, 1-#6, 1-#10	REC - B105
					21	0.3	0.1			0.0	0.1	32	Ŭ	00		1.20 0100
	CHP-018 - B102	2-#12, 1-#12, 1-#12	20	2	33	0.0	0.1	0.3	0.3			34				
					35			0.0	0.0	0.3	0.3	36	2	20	2-#12, 1-#12, 1-#12	CHP-018 - B103
	CHP-018 - B104	2-#12, 1-#12, 1-#12	20	2	37	0.3	0.3			0.0	0.0	38				
	EF-1 - B105A	1-#12, 1-#12, 1-#12	20	1	39	0.0	0.0	0.5	0.3			40	2	20	2-#12, 1-#12, 1-#12	CHP-018 B105
					/1			0.0	0.0	0.0	2.7	42				
	SS-1 - 175D	2-#12, 1-#12, 1-#12	20	2	43	0.0	2.7			0.0		44	3	40	3-#8, 1-#8, 1-#10	DOAS-1
	HAND DRYER B105A	1-#10, 1-#10, 1-#10	20	1	45			1.5	2.7			46				
	SPARE		20	1	_					0.0	0.0	48	1	20		SPARE
	SPARE		20	1	_	0.0	0.0					50	1	20		SPARE
	SPARE		20	1	-			0.0	0.0			52	1	20		SPARE
	SPARE		20	1	53					0.0	0.0	54	1	20		SPARE
			_			9.1	kVA	10.7	' kVA	7.7	kVA				I	
						7	8 A	9	1 A	6	4 A	-				
		CONNEC	TED LOA	n		EMAND F			MATED DE						PANEL TOT	ALS
EQUIP			0 VA			100.00		Lorm	1500 VA						TOTAL CONNECTED	
HVAC			44 VA			80.00			8595 VA						TOTAL ESTIMATED DE	
LTNG			VA		_	0.00%			0 VA						DTAL CONNECTED CU	
Motor			00 VA		_	100.00			2000 VA				тс	TAL ES	TIMATED DEMAND CU	RRENT: 66 A
REC		133	20 VA			87.54	%		11660 VA							
NOTES	: WHERE NOT LISTED, WIRE A			11 11/1												

### PANELBOARD AND WIRING SCHEDULE

	PANEL: <b>P4</b> VOLTAGE: 208Y/120V,3P, AMPERES: 225 A	4W						-	: MLO : No : SURFAC	E						GRATING: 10,000 OCATION: MECH. ROOM LY FROM: SDB2
NOTES	CIRCUIT DESCRIPTION	HOT, NEUT, GND	OCP	Ρ	CKT		A		В		С	CKT	Ρ	OCP	HOT, NEUT, GND	CIRCUIT DESCRIPT
	REC - 102	1-#10, 1-#10, 1-#10	20	1	1	0.5	0.5					2	1	20	1-#10, 1-#10, 1-#10	REC - 102
	REC - 102	1-#8, 1-#8, 1-#8	20	1	3			0.9	0.4			4	1	20	1-#12, 1-#12, 1-#12	REC - 102
	REC - 102	1-#12, 1-#12, 1-#12	20	1	5					0.4	1.0	6				
	REC - 102	1-#6, 1-#6, 1-#6	20	1	7	1.2	1.0					8	3	50	3-#6, 1-#6, 1-#10	REC - 102
	REC - 102	1-#6, 1-#6, 1-#6	20	1	9			1.2	1.0			10				
	REC - 102	1-#6, 1-#6, 1-#6	20	1	11					1.2	0.4	12	1	20	1-#12, 1-#12, 1-#12	REC - 101
	REC - 101	1-#8, 1-#8, 1-#8	20	1	13	1.2	0.4					14	1	20	1-#12, 1-#12, 1-#12	REC - 101
	REC - 101, 102A, 101A	1-#10, 1-#10, 1-#10	20	1	15			0.5	0.2			16	1	20	1-#12, 1-#12, 1-#12	REC - 102
	REC - 101	1-#12, 1-#12, 1-#12	20	1	17					0.4	0.2	18	1	20	1-#12, 1-#12, 1-#12	EF-1 - 102A
	EF-2 - 101A	1-#12, 1-#12, 1-#12	20	1	19	0.2	0.3					20	2	20	0 #40 4 #40 4 #40	CHP-012 - 101
	CHP-018 - L100	0 #40 4 #40 4 #40		2	21			1.2	0.3			22	2	20	2-#12, 1-#12, 1-#12	CHP-012 - 101
	CHP-018 - L100	2-#10, 1-#10, 1-#10	20	2	23					1.2	1.2	24	2	20	0 #0 4 #0 4 #0	010 040 400
		0 #40 4 #40 4 #40	0	2	25	0.3	1.2					26	2	20	2-#8, 1-#8, 1-#8	CHP-018 - 102
	CHP-018 - B101	2-#12, 1-#12, 1-#12	20	2	27			0.3	0.0			28	1	20		SPARE
	SPARE		20	1	29					0.0	0.0	30	1	20		SPARE
	SPARE		20	1	31	0.0	0.0					32	1	20		SPARE
	SPARE		20	1	33			0.0	0.0			34	1	20		SPARE
	SPARE		20	1	35					0.0	0.0	36	1	20		SPARE
	SPARE		20	1	37	0.0	0.0					38	1	20		SPARE
	SPARE		20	1	39			0.0	0.0			40	1	20		SPARE
	SPARE		20	1	41					0.0	0.0	42	1	20		SPARE
						6.8	kVA	5.9	kVA	5.9	) kVA					
						50	6 A	49	9 A	4	9 A					
LOAD C		CONNECT		)	D	EMAND F	ACTOR	ESTIN		MAND					PANEL TOT	ALS
EQUIP		3000	VA			100.00	%		3000 VA						TOTAL CONNECTED	LOAD: 18500 VA
HVAC		6240				80.00			4992 VA						TOTAL ESTIMATED DE	-
Motor		500				100.00			500 VA							
REC		8760				100.00			8760 VA				тс	-		
REC		0700	VA			100.00	70		0700 VA					TAL ES		
NOTES	: WHERE NOT LISTED, WIRE AN										)					

0	
H. ROOM B106B	
DESCRIPTION	NOTES
	_
05A	
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RIPTION	NOTES



	REVIS	sions
#	DATE	DESCRIPTION

	PANEL: K1							M	AINS TYPE	: MLO					PAN	IEL INTERRUPTING	<b>GRATIN</b>	<b>G:</b> 10,000	
	VOLTAGE: 208Y/120V,3P,	,4W							SPD	): No						L	OCATIO	N:	
	AMPERES: 225 A							Ν	OUNTING	: FLUSH						SUPP	LY FRO	M: SDB3	
OTES	CIRCUIT DESCRIPTION	HOT, NEUT, O	GND O	CP	Ρ	СКТ		A		В		<b>C</b>	СКТ	D 00	CP F	IOT, NEUT, GND	(	CIRCUIT DESCRIPTION	NOTE
	KITCHEN E-STOP - 175A	1-#12, 1-#12, 1	-#12 2	0	1	1	0.0	0.5					2	1 2	0 1.	-#12, 1-#12, 1-#12	REC -	175	1
1	REC - 175G	1-#12, 1-#12, 1	-#12 2	0	1	3			0.7	0.4			4	1 2	0 1·	-#12, 1-#12, 1-#12	REC -	ICE CREAM FREEZER - 175	5 1
1	REC - 175A	1-#12, 1-#12, 1	-#12 2	0	1	5					0.4	1.0	6	1 2	0 1·	-#10, 1-#10, 1-#10	REC -	MILK COOLER - 175A	1
1	REC - 175A	1-#12, 1-#12, 1	-#12 2	0	1	7	0.5	0.5					8	1 2	0 1·	-#12, 1-#12, 1-#12	REC -	175	1
1	REC - 175D	1-#12, 1-#12, 1	-#12 2	0	1	9			0.7	0.5			10	1 2	0 1·	-#12, 1-#12, 1-#12	REC -	MILK COOLER - 175A	1
1	REC - 175B	1-#12, 1-#12, 1	-#12 2	0	1	11					0.9	1.4	12	1 2	0 1·	-#12, 1-#12, 1-#12	REC -	HEATED DISPLAY - 175	1
1	REC - ICE MACHINE - 175A	1-#12, 1-#12, 1	-#12 2	0	1	13	1.1	1.6					14	1 2	0 1·	-#10, 1-#10, 1-#10	REC -	PASS THRU REF - 175A	1
1	REC - TWIN COFFEE - 175	1-#8, 1-#8, 1-	#10 4	0	1	15			3.4	0.2			16	1 2	0 1·	-#12, 1-#12, 1-#12	REC -	DOOR MERCH - 175	1
	FREEZER/COOLER LIGHTS	1-#8, 1-#8, 1	-#8 2	0	1	17					2.4	0.5	18	1 2		-#12, 1-#12, 1-#12	REC -	175A	1
1	REC - 175	1-#12, 1-#12, 1		0	1	19	0.5	0.9					20	1 2		1-#8, 1-#8, 1-#8	REC -	EXTERIOR	
1	REC - 176	1-#12, 1-#12, 1		0	1	21			0.5	1.4			22	1 2		-#12, 1-#12, 1-#12		SLUSH MACHINE - 175	1
1	REC - 175C	1-#12, 1-#12, 1		0	1	23					0.7	1.4	24	1 2		-#12, 1-#12, 1-#12		CASHIER STATION - 175	1
				-		25	0.7	1.4			•		26	1 2		-#10, 1-#10, 1-#10		CASHIER STATION - 175	1
	FOOD DISPOSER - 175G	3-#12 1-#12 1	-#12 2	0	3	27	0.1		0.7	5.5			28				1.20		· ·
		3-#12, 1-#12, 1-#12		•	Ŭ	29			0.1	0.0	0.7	5.5		3 6	0	3-#6, 1-#6, 1-#10	DISHV	VASHER - 175G	
1	WASHER - 175C	1-#12, 1-#12, 1	-#12 2	0	1	31	1.2	5.5			0.7	0.0	32			0 //0, 1 //0, 1 //10	Bioin	Monent 1100	
		, ,		-		33	1.2	0.0	1.3	2.5			34			0 110 4 110 4 1140			
	CU-1	2-#12, 1-#12, 1	-#12 2	0	2	35			1.0	2.0	1.3	2.5	36	2 5	0   1	2-#6, 1-#6, 1-#10	DRYE	R - 175C	1
						37	1.5	1.0			1.0	2.0	38	1 2	0 1.	-#12, 1-#12, 1-#12	REC -	ICE MACHINE 176	1
1	SERVING TABLE	2-#12, 1-#12, 1	-#12 2	0	2	39	1.0	1.0	1.5	0.5			40	1 2		-#12, 1-#12, 1-#12		PRIMER	<u> </u>
						41			1.0	0.0	1.5	0.5	40	1 2		-#12, 1-#12, 1-#12		PRIMER	
1	SERVING TABLE	2-#12, 1-#12, 1	-#12 2	0	2	43	1.5	1.5			1.0	0.0	44	1 2		-#12, 1-#12, 1-#12		DRYER 175C.1	
						45	1.0	1.0	1.0	1.5			46	1 2		1-#8, 1-#8, 1-#8		DRYER 177	
1	SERVING TABLE - SMALL	2-#12, 1-#12, 1	-#12 2	0	2	47			1.0	1.0	1.0	1.5	48	1 2		1-#8, 1-#8, 1-#8		DRYER 178	
	SPARE			0	1	49	0.0	0.0			1.0	1.5	50		0		SPAR		
	SPARE			0	1	51	0.0	0.0	0.0	0.0			52		0		SPAR		
	SPARE			0	1	53			0.0	0.0	0.0	0.0	54		0		SPAR		
			2	0	I	55	20.7	l kVA	22.2	3 kVA		kVA	54		0		JEAN	<u> </u>	
													_						
								57 A		9 A		6 A							
	CLASSIFICATION	CO	NECTED L	OAD		D	EMAND F		ESTIN	MATED DEI	MAND					PANEL TOT			
QUIP			7900 VA				100.00	%		7900 VA					тс	DTAL CONNECTED	LOAD:	65556 VA	
/AC			2500 VA				80.00	%		2000 VA					TOT	AL ESTIMATED DE	MAND:	51737 VA	
С			36638 VA				63.65	%		23319 VA					TOTAL	CONNECTED CUP	RRENT:	182 A	
ГСН			18518 VA				100.00	%		18518 VA				ΤΟΤΑΙ	ESTIMA	TED DEMAND CUF	RRENT:	144 A	
							FOILT												
	S: WHERE NOT LISTED, WIRE A	ND CONDUIT SHAL	L BE BE M	NIMU	JM P	'ER SP	ECIFICAT	IONS. SP.	ARE BREA	KERS TO E	3E 20A/1P								
RE	AKER TO BE GFCI TYPE.																		

	PANEL: EP						M	AINS TYPE	: MCB						PANEL INTERRUPTING	<b>GRATING:</b> 14,000	
	VOLTAGE: 208Y/120V,3P,4\	N						SPD	: No						L	OCATION: ELECT. 172A	
	AMPERES: 200 A						ľ	MOUNTING	: SURFAC	Έ					SUPP	LY FROM: SDB3	
OTES	CIRCUIT DESCRIPTION	HOT, NEUT, GND	OCP	Ρ	СКТ		A		3		C	CKT	Ρ	OCP	HOT, NEUT, GND	CIRCUIT DESCRIPTION	NOTE
	UH-2, WATER ENT. 176A	2-#10, 1-#10, 1-#10	20	2	1 3	1.3	1.7	1.3	1.7			2	3	20	3-#10, 1-#10, 1-#10	FREEZER COMPRESSOR - ROOF	
	COOLER COMPRESSOR - ROOF	2-#10, 1-#10, 1-#10	20	2	5 7	1.1	0.0			1.1	1.7	6 8				SPACE	
	SPACE				9			0.0	0.0			10				SPACE	
	SPACE				11					0.0	0.0	12				SPACE	
	SPACE				13	0.0	0.0					14				SPACE	
	SPACE				15			0.0	0.0			16				SPACE	
	SPACE				17					0.0	0.0	18				SPACE	
	SPACE				19	0.0	0.0					20				SPACE	
	SPACE				21			0.0	0.0			22				SPACE	
	SPARE		20	1	23					0.0	0.0	24	1	20		SPARE	
	SPARE		20	1	25	0.0	0.0					26	1	20		SPARE	
	SPARE		20	1	27			0.0	0.0			28	1	20		SPARE	
	SPARE		20	1	29					0.0	0.0	30	1	20		SPARE	
						-	kVA		kVA		kVA						
						34	4 A		δA		3 A						
OAD C	LASSIFICATION	CONNECT	ED LOAD	)	D	EMAND F	ACTOR	ESTIN	IATED DE	MAND					PANEL TOT	ALS	
VAC		9728	8 VA			80.00	%		7782 VA						TOTAL CONNECTED	LOAD: 9728 VA	
															TOTAL ESTIMATED DE	MAND: 7782 VA	
														тс	TAL CONNECTED CU	RRENT: 27 A	
													TO	TAL ES	IMATED DEMAND CU	RRENT: 22 A	

	PANEL: <b>K2</b> VOLTAGE: 208Y/120V,3P,4V	N					MA	AINS TYPE SPD	: MLO : No						PANEL INTERRUPTING	GRATING: 10,000 OCATION:
	<b>AMPERES:</b> 225 A						Ν									LY FROM: SDB3
IOTES	CIRCUIT DESCRIPTION	HOT, NEUT, GND	OCP	Р	СКТ		Α	1	В		С	СКТ	Ρ	OCP	HOT, NEUT, GND	CIRCUIT DESCRIPTIO
		. ,		+	1	0.4	0.2					2	1	20	1-#12, 1-#12, 1-#12	DOOR HARDWARE - KITCH
	FOOD DISPOSER - 175A	3-#12, 1-#12, 1-#12	15	3	3			0.4	0.0			4	1	20		SPARE
					5					0.4	0.6	6	1	20	1-#12, 1-#12, 1-#12	REC - ALARM PHONE DIAL
	COOLER BLOWER - 175F	2-#12, 1-#12, 1-#12	20	2	7	1.0	4.0					8				
				2	9			1.0	4.0			10	3	50	3-#6, 1-#6, 1-#10	PASS THRU HEAT & HOLD
2	REC - HEAT TAPE - 175E	1-#6, 1-#6, 1-#6	20	1	11					2.4	4.0	12				
1	REC - HOT WATER DISP - 175A	2-#8, 1-#8, 1-#10	35	2	13	2.5	0.7					14				
'		2 #0, 1 #0, 1 #10	00	-	15			2.5	0.7			16	3	50	3-#6, 1-#6, 1-#10	PASS THRU HEAT & HOLD
					17					4.0	0.7	18				
1	PASS THRU HEAT & HOLD - 175A	3-#6, 1-#6, 1-#10	50	3	19	4.0	1.6					20				
					21			4.0	1.6			22	3	20	3-#12, 1-#12, 1-#12	FREEZER BLOWER - 175E
	UH-1	2-#12, 1-#12, 1-#12	15	2	23					0.8	1.6	24				
		,,		<u> </u>	25	0.8	0.0					26	1	20		SPARE
	SPARE		20	1	27			0.0	0.0			28	1	20		SPARE
	SPARE		20	1	29	0.0	0.0			0.0	0.0	30	1	20		SPARE
	SPARE		20	1	31	0.0	0.2	0.0	0.0			32	1	15	1-#12, 1-#12, 1-#12	EF-1, RESTROOM 175C.1
	SPARE		20	1	33			0.0	0.2	0.0	0.0	34	1	15	1-#12, 1-#12, 1-#12	EF-1, STAFF LOCKER 1750
	SPARE		20	1	35	0.0	0.5			0.0	0.2	36	1	15	1-#12, 1-#12, 1-#12	EF-2, ICE MACH. 176
	SPARE SPARE		20 20	1	37 39	0.0	2.5	0.0	0.0			38 40	1	20 20	1-#12, 1-#12, 1-#12	KITCHEN BUZZER PSU SPARE
	SPARE		20	1	41			0.0	0.0	0.0	0.0	40	1	20		SPARE
	SPARE		20	1	41	0.0	0.0			0.0	0.0	42	1	20		SPARE
	SPARE		20	1	43	0.0	0.0	0.0	0.0			44	1	20		SPARE
	SPARE		20		45			0.0	0.0	6.0	1.7	40	1	20		JPARE
3	ENERGY DISTRIBUTION - 175A	3-#4, 1-#4, 1-#8	70	3	47	6.0	1.7			0.0	1.7	50	3	20	3-#12, 1-#12, 1-#12	KITCHEN MAU - ROOF
5	ENERGI DISTRIBUTION - 1/5A	3-#4, 1-#4, 1-#0	10	3	49 51	0.0	1.7	6.0	1.7			52	3	20	J-#1Z, 1-#1Z, 1-#1Z	KITCHEN WAU - ROOF
	SPACE FOR SHUNT TRIP				53			0.0	1.7	0.0	0.0	54				SPACE FOR SHUNT TRIP
					00	25.6	i kVA	22.1	kVA		kVA					
							3 A		4 A		6 A	-				
		CONNECT														
	LASSIFICATION	CONNECT		J		EMAND F		ESTIN		WAND					PANEL TOT	
QUIP		9312			_	100.00			9312 VA						TOTAL CONNECTED	
IVAC		7326				80.00			5861 VA						TOTAL ESTIMATED DE	
REC		34000	) VA			64.719	%		22000 VA					тс	TAL CONNECTED CU	RRENT: 194 A
ITCH		19346	6 VA		_	100.00	%		19346 VA				TC	TAL ES	TIMATED DEMAND CUI	RRENT: 157 A

	PANEL: $\mathbf{P}$						MA	AINS TYPE	: MLO					1	PANEL INTERRUPTING	G RATING: 10,000	
	VOLTAGE: 208Y/120V,3P,4	4W						SPD	: No						L	OCATION: MECH. 3	
	<b>AMPERES:</b> 400 A						N	OUNTING	: SURFAC	E					SUPP	LY FROM: MSB	
OTES	CIRCUIT DESCRIPTION	HOT, NEUT, GND	OCP	Ρ	СКТ		A	I	3	(	C	CKT	Ρ	OCP	HOT, NEUT, GND	CIRCUIT DESCRIPTION	NOTES
1	*EXISTING CIRCUIT		20	1	1	0.0	0.0					2	1	20		*EXISTING CIRCUIT	1
1	*EXISTING CIRCUIT		20	1	3			0.0	0.0			4	1	20		*EXISTING CIRCUIT	1
1	*EXISTING CIRCUIT		20	1	5					0.0	0.0	6	1	20		*EXISTING CIRCUIT	1
1	*EXISTING CIRCUIT		20	1	7	0.0	0.0					8	1	20		*EXISTING CIRCUIT	1
1	*EXISTING CIRCUIT		20	1	9			0.0	0.0			10	1	20		*EXISTING CIRCUIT	1
1	*EXISTING CIRCUIT		20	1	11					0.0	0.0	12	1	20		*EXISTING CIRCUIT	1
1	*EXISTING CIRCUIT		20	1	13	0.0	0.0					14	1	20		*EXISTING CIRCUIT	1
1	*EXISTING CIRCUIT		20	1	15			0.0	0.0			16	1	20		*EXISTING CIRCUIT	1
1	*EXISTING CIRCUIT		20	1	17					0.0	0.0	18	1	20		*EXISTING CIRCUIT	1
1	*EXISTING CIRCUIT		20	1	19	0.0	0.0					20	1	20		*EXISTING CIRCUIT	1
1	*EXISTING CIRCUIT		20	1	21			0.0	0.0			22	1	20		*EXISTING CIRCUIT	1
					23					0.0	0.0	24	1	20		*EXISTING CIRCUIT	1
1	*EXISTING CIRCUIT		20	3	25	0.0	0.0					26					
					27			0.0	0.0			28	3	30		*EXISTING CIRCUIT	1
					29					0.0	0.0	30					
1	*EXISTING CIRCUIT		30	3	31	0.0	0.0					32					
					33			0.0	0.0			34	3	20		*EXISTING CIRCUIT	1
1	*EXISTING CIRCUIT		20	1	35					0.0	0.0	36					
			-	-	37	0.0	0.0					38					
1	*EXISTING CIRCUIT		70	2	39			0.0	0.0			40	2	30		*EXISTING CIRCUIT	1
	SPARE		20	1	41					0.0	0.0	42	1	20		SPARE	
	SPARE	-	20	1	43	0.0	0.0					44	1	20		SPARE	
	SPARE		20	1	45			0.0	0.0			46	1	20		SPARE	
	RP-1	1-#12, 1-#12, 1-#12	20	1	47					0.5	0.0	48	1	20		SPARE	
					49	12.0	0.0					50	1	20		SPARE	
	WH-1	3-#1, 1-#1, 1-#6	125	3	51			12.0	0.0			52	1	20		SPARE	
					53					12.0	0.0	54	1	20		SPARE	
						12.0	kVA	12.0	kVA		kVA	-	-				
							0 A	10			4 A	_					
		CONNECTE		<b></b>											PANEL TOT		
		36500		<u> </u>		100.00			36500 VA						TOTAL CONNECTED		
QUIF			٧A			100.00	/0		J0J00 VA						TOTAL ESTIMATED DE		
					_										TAL CONNECTED CU	-	
					_								то	TAL EST	IMATED DEMAND CU	RRENT: 101 A	

SCHEDULE. CONTRACTOR SHALL DOCUMENT EXISTING CIRCUIT DESCRIPTION UTILIZING EXISTING PANEL SCHEDULE AND TRANSFER CIRCUIT DESCRIPTIONS TO NEW PANEL. NO CIRCUIT SHALL READ "EXISTING CIRCUIT" AT COMPLETION OF PROJECT.

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DESCRIPTION ARE - KITCHEN	NOTES
PHONE DIALER	1
EAT & HOLD - 175A	1
EAT & HOLD - 175A	1
WER - 175E	
DM 175C.1 DCKER 175C H. 176 ZER PSU	
- ROOF	3
HUNT TRIP	
Δ	
A	

