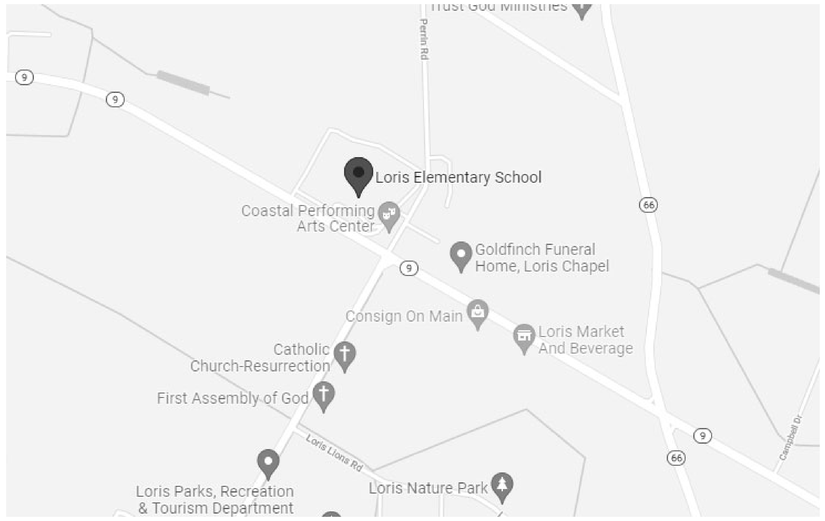
LORIS ELEMENTARY SCHOOL
MAU REPLACEMENT

901 SC-9 BUSINESS, LORIS, SC 29569

DRAWING INDEX

LOCATION MAP



NOTES

GENERAL NOTES (APPLICABLE TO ALL SHEETS)

A. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS.

B. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO PROCURING ANY EQUIPMENT OR MATERIALS, AND PRIOR TO FABRICATING ANY WORK.

Reviewed for Code Compliance

This review for code compliance does not relieve the owner, design professional, contractor or their representatives from the responsibility to comply with OSF regulations, local, state and national codes in effect at the time of permit issuance. This plan review does not prevent the Building Official from requiring corrections to errors and omissions. Approval of these documents shall be approved by the Building Official - Office of School Facilities.

Stamped plans and specifications are required to be on site for inspections.

Project: Loris Elementary MAU Replacement

Plans Examiner: DATE

Date: 11/09/2021

Time: 5:00 PM

SIGNATURE

PROJECT TEAM

OWNER

HORRY COUNTY SCHOOL DISTRICT

OWNER'S REPRESENTATIVE: MR. JOE BURCH

ENGINEER

WHOLE BUILDING SYSTEMS, LLC
P.O. BOX 1845
MT. PLEASANT, SC 29465

P.O. BOX 1845
MT. PLEASANT, SC 29465

CONTACT: DENNIS KNIGHT
PHONE: 843-437-3847
EMAIL: DKNIGHT@WHOLEBUILDINGSYSTEMS.COM

ARCHITECT

THOMAS & DENZINGER ARCHITECTS

CONTACT: BRYAN BOLIN, AIA
PHONE: 843-723-6651
EMAIL: bbolin@thomasanddenzinger.com

STRUCTURE

ADC ENGINEERING

CONTACT: CHRIS GILGER, P.E.
PHONE: 843-735-5178
EMAIL: chrisg@adcengineering.com

CODES AND STANDARDS

APPLICABLE BUILDING CODES AND STANDARDS

THE FOLLOWING CODES AND STANDARDS APPLY TO THE WORK OF THIS PROJECT:
A. ALL CURRENTLY ADOPTED BUILDING CODES AND STATUTES ADOPTED BY THE STATE OF SOUTH CAROLINA INCLUDING, BUT NOT LIMITED TO:
1. THE SOUTH CAROLINA BUILDING CODE , 2018 EDITION WITH SC MODIFICATIONS,
2. THE SOUTH CAROLINA MECHANICAL CODE , 2018 EDITION,
3. THE SOUTH CAROLINA FIRE CODE , 2018 EDITION WITH SC MODIFICATIONS,
4. THE INTERNATIONAL ENERGY CONSERVATION CODE (IECC), 2009 EDITION,
5. THE NATIONAL ELECTRICAL CODE (NFPA-70), 2017 EDITION

SEISMIC AND WIND DESIGN CRITERIA

WIND RESTRAINT LOADING:
1. ULTIMATE WIND SPEED (3 SEC GUST), Vult: 157 MPH
2. NOMINAL WIND SPEED, Vasd: 121.6 MPH
3. BUILDING CLASSIFICATION (RISK) CATEGORY: III
4. IMPORTANCE FACTOR: 1.15
5. SURFACE ROUGHNESS: B
6. EXPOSURE CATEGORY: B
7. MINIMUM 10 LB/SQ FT MULTIPLIED BY AREA OF THE MECHANICAL COMPONENT PROJECTED ON A VERTICAL PLANE THAT IS NORMAL TO THE WIND DIRECTION, AND 45 DEGREES EITHER SIDE OF NORMAL.

SEISMIC RESTRAINT LOADING:
1. BUILDING CLASSIFICATION (RISK) CATEGORY: III
2. SITE CLASSIFICATION: D
3. Ss = 1.229
4. S1 = 0.396
5. SDS = 0.826
6. SD1 = 0.425
7. SEISMIC DESIGN CATEGORY: D (IBC 2015, TABLE 1613.3.5 (1) & (2).

SEE SEISMIC AND WIND LOAD SCHEDULE ON SHEET M001 FOR ADDITIONAL INFORMATION REGARDING EQUIPMENT SEISMIC AND WIND LOAD REQUIREMENTS.

Whole Building Systems

Whole Building Systems,LLC
P.O. Box 1845
Mt. Pleasant, South Carolina
29465
PH:(843)637-3358
Wholebuildingsystems.com

11/09/2021

MALCOM KNIGHT
WHOLE BLDG. SYSTEMS, LLC
No. C04305
CERTIFICATE OF AUTHORIZATION

LORIS ELEMENTARY SCHOOL MAU REPLACEMENT
901 SC-9 BUSINESS, LORIS, SC 29569

PROJ. NO.	2109001
DATE:	11/09/2021
DESIGNED BY:	MDK
DRAWN BY:	BRW
CHECKED BY:	MDK

REVISIONS

NO.	DATE	NOTES

TITLE PAGE

G001

100% CD SUBMITTAL

FORM F3 BUILDING CODE ANALYSIS FORM

PROJECT: LORIS ELEMENTARY SCHOOL MAU REPLACEMENT		DISTRICT: HORRY COUNTY, SC	
SUBMITTAL:	SCHEMATIC	DESIGN DEVELOPMENT	CONSTRUCTION DOCUMENTS - XXX
DATE: 11/02/2021	CODE & EDITION: SCBC 2018	GUIDE EDITION: 2020	

BASIC BUILDING CODE INFORMATION

DESIGNATED AREAS OF BUILDING	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6
CONSTRUCTION CLASSIFICATION TYPE (IBC 602)	EXISTING	NA	NA	NA	NA	NA
OCCUPANCY GROUP (indicate all)...	E					
OCCUPANCY GROUP (indicate most restrictive) (IBC Tabl...	E					
Does building require Incidental Use Area Separation?...	X no yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Does building have Accessory Occupancy (ies)? What percent of story is accessory occupancy? (IBC 508.2)	X no yes SF %	☐ no ☐ yes SF %	☐ no ☐ yes SF %	☐ no ☐ yes SF %	☐ no ☐ yes SF %	☐ no ☐ yes SF %
Mixed Occupancy (IBC 508)	X no yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Non separated (IBC 508.3)	X no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Separated...	X no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
OTHER FIRE PROTECTION SYSTEMS, DEVICES or FEATURES If the building has any special or notable fire protection or safety feature or hazard the designers should list them here, describe the performance characteristics and refer to locations in construction documents. (e.g. fire extinguishers, smoke- evacuation/control/compartments. Note...						

BUILDING AREA

DESIGNATED AREAS OF BUILDING	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6
AREA LIMIT BY PER STORY (IBC Table 503) (Do not indicate increases for sprinklers & street frontage.)	EXISTING	SF	SF	SF	SF	SF
MAXIMUM AREA MODIFICATION PER STORY FROM EQUATION 5-1 OF IBC (Insert equation from IBC 506.1 with completed calculations in this box) (Equation 5-1) Aa = At + [At x If] + [At x Is] Aa = Allowable area per floor (square feet). At = Tabular area per floor in accordance with Table 503 If = Area increase factor due to frontage (percent) as calculated in accordance with Section 506.2. Is = Area increase due to sprinkler protection as calculated in accordance with Section 506.3. (Repeat equation for each story of differing occupancies, IBC 506.5.2)...	SF	SF	SF	SF	SF	SF
MAXIMUM AREA PER STORY	SF	SF	SF	SF	SF	SF
TOTAL ALLOWED AREA OF BUILDING (Summary of all stories)	SF	SF	SF	SF	SF	SF
AREA AS DESIGNED PER STORY (Repeat for each story)	SF	SF	SF	SF	SF	SF
Total Designed Area of Building	SF	SF	SF	SF	SF	SF

BUILDING HEIGHT

DESIGNATED AREAS OF BUILDING		Area 1		Area 2		Area 3	
HEIGHT		DESIGNED	ALLOWED	DESIGNED	ALLOWED	DESIGNED	ALLOWED
Without any Allowable Increase (IBC Table 503)	In Feet						
	In Stories						
Allowable Height Increase (IBC 504.2)	In Feet						
	In Stories						
Total Height including any Allowable Increase	In Feet	EXISTING	EXISTING				
	In Stories	1	1				

BUILDING HEIGHT

DESIGNATED AREAS OF BUILDING		Area 4		Area 5		Area 6	
HEIGHT		DESIGNED	ALLOWED	DESIGNED	ALLOWED	DESIGNED	ALLOWED
Without any Allowable Increase (IBC Table 503)	In Feet						
	In Stories						
Allowable Height Increase (IBC 504.2)	In Feet						
	In Stories						
Total Height including any Allowable Increase	In Feet						
	In Stories						

Per IBC Chapter 10. List individual space occupancy load on life safety or architectural plans.

BUILDING DESIGN OCCUPANT LOAD

DESIGNATED AREAS OF BUILDING	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6
Story	EXISTING					
Story						
Story						
Total						

GENERAL FIRE PROTECTION REQUIREMENTS

DESIGNATED AREAS OF BUILDING	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6
SEPARATIONS						
Fireblocking Required (IBC Section 717)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Draftstopping Required (IBC Section 717)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Smoke Control System Required (IBC Section 909)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Smoke Barriers Required (IBC Sections 407 and 408)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Smoke Partitions Required (IBC Section 407)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Fire Partition Required (IBC Section 420)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Fire Barrier Required (IBC Section 707)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
ALARM & DETECTION						
Fire Alarm System Required (IFC Section 907)	no X yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Emergency Alarm System Required (IFC 908)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
SUPPRESSION						
Standpipes Required (IFC Section 905)	X no yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Sprinklers Required (IFC Section 903)	X no yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Sprinklers Provided?	X no yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Portable extinguishers required (IFC 906)	no X yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Other suppression systems required (IFC 904)	X no yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Smoke & heat vents required (IFC 910)	X no yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes

OTHER FIRE AND LIFE SAFETY FEATURES

DESIGNATED AREAS OF BUILDING	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6
AREA OF REFUGE						
Separation required (IBC 1007.6.2)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Two-way communication provided (IBC 1007.6.3)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Instruction provided (IBC 1007.6.4)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
EXTERIOR AREA FOR ASSISTED RESCUE						
Separation required (IBC 1007.8)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
Identification provided (IBC 1007.8.3)	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
OTHER						
	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes
	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes	☐ no ☐ yes

FIRE RESISTANCE RATING OF BUILDING ELEMENTS

DESIGNATED AREAS OF BUILDING		Area 1	Area 2	Area 3	Area 4	Area 5	Area 6
Structural Frame (IBC Table 601)	As Required, Hrs	EXISTING					
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key...						
Bearing Walls, Exterior (IBC Table 601)	As Required, Hrs	EXISTING					
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM,...						
	Wall/Partition Key Code						
Bearing Walls, Interior (IBC Table 601)	As Required, Hrs	EXISTING					
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						
Nonbearing Walls & Partitions, Exterior (IBC Table 601 & 602)	As Required, Hrs	EXISTING					
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key...						

FIRE RESISTANCE RATING OF BUILDING ELEMENTS

DESIGNATED AREAS OF BUILDING		Area 1	Area 2	Area 3	Area 4	Area 5	Area 6
Nonbearing Walls & Partitions (IBC Table 601 & 602) Exterior Interior	As Required, Hrs	EXISTING					
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key...						
Floor Construction including supporting beams & joists (IBC Table 601)	As Required, Hrs	EXISTING					
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM,...						
	Wall/Partition Key Code						
Roof Construction including supporting beams & joists (IBC Table 601)	As Required, Hrs	EXISTING					
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						
Fire Walls (IBC Section 706)	As Required, Hrs	EXISTING					
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key...						

FIRE RESISTANCE RATING OF BUILDING ELEMENTS

DESIGNATED AREAS OF BUILDING		Area 1	Area 2	Area 3	Area 4	Area 5	Area 6
Fire Barriers (IBC Section 707)	As Required, Hrs	EXISTING					
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key...						
Shaft Enclosures (IBC Section 708)	As Required, Hrs	NA					
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM,...						
	Wall/Partition Key Code						
Fire Partitions (IBC Section 709)	As Required, Hrs	EXISTING					
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key Code						
Opening & Protective Listing by Category (fire shutters, doors, etc.) (IBC Section 715)	As Required, Hrs	EXISTING					
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key...						

FIRE RESISTANCE RATING OF BUILDING ELEMENTS

DESIGNATED AREAS OF BUILDING		Area 1	Area 2	Area 3	Area 4	Area 5	Area 6
Others (as required by Designer)	As Required, Hrs	NA					
	As Designed, Hrs						
	Testing Agency & Design No.(UL, FM, etc)						
	Wall/Partition Key...						

FLOOD HAZARD INFORMATION and FLOOD LOADS

FLOOD HAZARD AREA: EXISTING	
Base Flood Elevation (NGVD or FIRM)	MSL
Design Flood Elevation IBC 1612.3 and ASCE 24	MSL
NON HIGH-VELOCITY WAVE ACTION	
Elevation of Lowest Proposed Floor (Meet ASCE 24 Sectio...	MSL
Dry floodproofing ASCE 24	☐ no ☐ yes
HIGH-VELOCITY WAVE ACTION	
Elevation of bottom of Lowest Horizontal Structural Membe...	MSL
Flotation resistant (ASCE 24)	☐ no ☐ yes
Breakaway wall per ASCE 24	☐ no ☐ yes

Per IBC Chapter 16 and ASCE 7 – Structural tables may be shown on initial Structural Sheet of the drawings or on Sheet with other code information. List floor design loads on structural plans.

STRUCTURAL DESIGN INFORMATION, AREA

OCCUPANCY CATEGORY (IBC Table 1604.5)		AREA 1					
LIVE LOAD FOR EACH CCUPANCY TYPE (IBC Figure 1608.2 or ASCE 7)	Floor Live Load, Fll	EXISTING PSF	PSF	PSF	PSF	PSF	PSF
	Roof Live Load, Rll	EXISTING PSF	PSF	PSF	PSF	PSF	PSF
	Ground Snow Load, pg	EXISTING PSF	PSF	PSF	PSF	PSF	PSF
MISCELLANEOUS LOADS BY SPECIAL USE AREA (ARCHITECTURAL, MECHANICAL, DATA...		EXISTING PSF	PSF	PSF	PSF	PSF	PSF

SOILS & SITE

SOILS INVESTIGATION REQUIRED? (IBC 1803.2)	X no ☐ yes
SOILS CLASSIFICATION	psf
Seismic Site Class (IBC 1613.5.2)	
Classes Soil of Materials...	
Allowable Footing Bearing Pressure	
MINIMUM DESIGN SOIL BEARING LOAD (IBC Table...	psf
COMPACTION	
Subgrade (ASTM D698, ASTM D1557) or (AASHTO only for paving & roads)	%
Base (ASTM D698, ASTM D1557) or (AASHTO only for paving & roads)	%
Other (ASTM D698, ASTM D1557)...	%
MINIMUM DESIGN SOIL LATERAL LOAD...	psf
FOOTINGS	
Undisturbed footings	☐ no ☐ yes
Compacted Fill Material (IBC 1804.5)	☐ no ☐ yes
ELEVATIONS	
Elevation of Water Table	MSL
Elevation of lowest footing	MSL
Elevation of lowest floor or basement	MSL

STRUCTURAL DESIGN INFORMATION, BUILDING -SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION

	Analysis Procedure (ASCE 7 or IBC 1609.6)	
	Basic Wind Speed, MPS (3 sec gust IBC Fig...	V3S = 153
	Exposure Category	C
	Wind Importance Factor (ASCE 7 Table 6.1)	Iw =
	Internal Pressure Coefficient (ASCE 7)	GCpi =
	External Pressure Coefficient (ASCE 7)	GCp = +/- 0.18
SEISMIC LOADS	Seismic Importance Factor (ASCE 7)	I = 1
	Soil Class (IBC 1613.5.2)	
	Mapped Spectral Response Accelerations	Ss = 1.389 S1= 0.435
	Design Spectral Response Acceleration Parameters	SDS = 0.926 SD1 = 0.29
	Seismic Use Group (ASCE 7 and Seismic Occupancy Category IBC)	III
	Seismic Design Category (IBC Tables 1613.5.6(1) & 1613.5.6(2))	D
	Basic Seismic Force Resisting System	ORD SHEAR...
	Design Base Shear	K...
	Seismic Response Coefficient(s) ASCE 7	Cs =
	Response Modification Factor(s) ASCE 7	R =
	Analysis Procedure	

The Designer(s) of Record shall determine the material and/or work on the project requiring Special Inspections. The Special Inspection requirements shall be based on Section 1704 of the 2006 International Building Code. Any deviations from the requirements of Section 1704 must be approved by OSF. Per IBC Chapter 16 and ASCE 7 – This information may be shown on initial Structural Sheet of the drawings or on Sheet with other code information. List floor design loads on structural plans.

STATEMENT OF SPECIAL INSPECTIONS

MATERIAL	TYPE OF INSPECTION	FREQUENCY	SPECIFICATION REFERENCE	INSPECTION BY
NONE	NONE			

Provide a table for each structure.

PLUMBING INFORMATION

WATER SYSTEM - EXISTING		
Service Line Size	Inches	
Distribution Design Criteria (IP...	Fixture Units	
Maximum Flow Rate (IPC Table 604.4)	GPM	
Backflow	Location	
	Type	
Test Pressure	psi	
SANITARY SEWER SYSTEM - EXISTING		
Service Line Size	Inches	
Drainage Design Criteria (IPC Tables 709.1 and 709.2)	Fixture Units	
Maximum Flow Rate	GPD	
Slope (IPC Table 704.1)	Inches/Ft	
MINIMUM PLUMBING FIXTURES REQUIRED/PROVIDED (IPC...		
For structures with multiple building areas and/or occupancy groups, show...		
Applicable area(s)		
Most restrictive area		
Fixture counts required		

CODE REQUIRED BUILDING FIXTURE COUNTS - EXISTING

Water Closets	Male-Required	
	Male WC -Provided	
	Male Urinal -Provided	
	Female-Required	
	Female-Provided	
Lavatories	Male-Required	
	Male-Provided	
	Female-Required	
	Female-Provided	
Showers	Male-Required	
	Male-Provided	
	Female-Required	
	Female-Provided	
Drinking Fountains	Required	
	Provided	
Unisex toilet	Required	
	Provided	
Service Sink	Required	
	Provided	
Others (list)	Required	
	Provided	

FIRE SERVICE INFORMATION - EXISTING

Service Line Size		Inches
Fire Department Connection	Location	
Backflow	Location	
	Type	
Fire Hydrant Flow Test	Date	
	Flow	GPM
	Residual	PSI
	Static	PSI

Summary of data from approved ASHRAE 90.1 compliance sheets.

MECHANICAL INFORMATION

GENERAL INFORMATION			
Building Location	HORRY COUNTY, SC		
Climate Zone			
Outdoor Design Temperature	Summer	92	deg F...
		78	deg F WB
	Winter	27	deg F...
		NA	deg F...
Indoor Design Temperature	Summer	74	deg F DB
		50	% RH
	Winter	70	deg F...
		NA	% RH
OUTSIDE AIR			
Occupied Minimum Outside Air	10/0.12	cfm per person/sf	
CO2 Demand Management	no X yes		
Supervised Control System	no X yes		
MECHANCIAL SYSTEMS, SERVICE SYSTEMS & EQUIPMENT			
Briefly describe mechanical system: PACKAGED ROOFTOP DX DEDICATED OAU MOUNTED ON OUTSIDE SLAB ON GRADE AND DUCTED INTO BUILDING			

ELECTRICAL INFORMATION - EXISTING

SERVICE TRANSFORMER	☐ By Utility	
	☐ By District	KVA Primary
		Voltage/Phase
ELECTRICALSERVICE INFORMATION		
Service Voltage/Phase		Amperes
Service Entrance Conductors Size		Qty per Phase
Total Connected Load		KVA
Estimated Maximum Demand		KVA
Available Fault Current in Symmetrical Amperes		
Interrupting Capacity of Service Overcurrent Device		
GROUNDING ELECTRODE SYSTEM COMPONEN...		
EMERGENCY SERVICE INFORMATION		
Emergency Generator	☐ no ☐ yes	KVA
		Voltage/Phase
	Fuel	
Exit/Emergency Lights Backup Power		☐ Integral Battery
		☐ Generator
Fire Alarm System	☐ Manual ☐ Automatic	☐ Addressable ☐ Class A ☐ Class B
LIGHTNING PROTECTION PROVIDED		☐ no ☐ yes

Summary of data from approved ASHRAE 90.1 compliance sheets.

ENERGY INFORMATION - EXISTING

INSULATION		
Roof	Cavity	R
	Continuous	R
Walls	Cavity	R
	Continuous	R
Underslab		R
GLAZING (each type)		
Window to wall ratio	North	%
	East	%
	South	%
	West	%
Glass Type	U Factor	
	SHG	

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Project: Loris Elementary MAU Replacement
Plans Examiner: SAFEbuilt /SCY
Date: 11/29/2021
Time: 5:00 PM
SAFEbuilt

Whole Building Systems

Whole Building Systems,LLC
P.O. Box 1845
Mt. Pleasant, South Carolina
29465
PH:(843)637-3358
Wholebuildingsystems.com

Malcom Dennis Knight No. 19427
11/09/2021

MALCOM KNIGHT
WHOLE BLDG. SYSTEMS, LLC
No. C04305

LORIS ELEMENTARY SCHOOL MAU REPLACEMENT

901 SC-9 BUSINESS, LORIS, SC 29569

PROJ. NO. 2109001
DATE: 11/09/2021
DESIGNED BY: MDK
DRAWN BY: BRW
CHECKED BY: MDK

REVISIONS

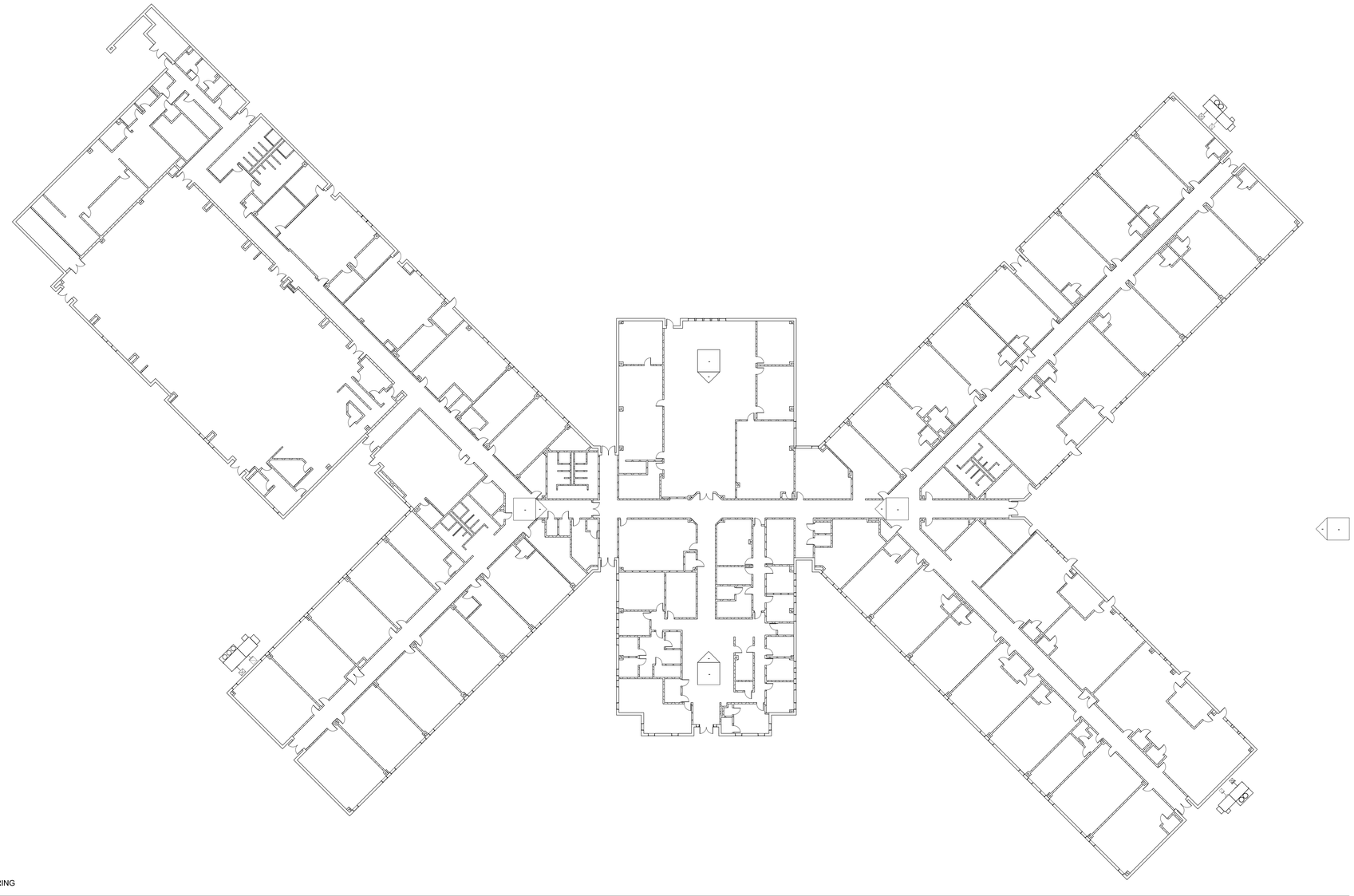
NO.	DATE	NOTES

Form F3

G002

100% CD SUBMITTAL

NO CONSTRUCTION IS ALLOWED DURING OCCUPIED HOURS. EXITS ARE TO REMAIN OPEN AND UNOBSTRUCTED AS LONG AS THERE ARE NON-CONSTRUCTION PEOPLE IN THE BUILDING. EXIT EGRESS CORRIDORS SHALL REMAIN OPEN AND UNOBSTRUCTED AS LONG AS THERE ARE NON-CONSTRUCTION PEOPLE IN THE BUILDING. IF CONSTRUCTION IS REQUIRED DURING OCCUPIED HOURS, CONTRACTOR SHALL MARK UP THIS PLAN WITH HOW EXITS AND EXIT EGRESS CORRIDORS ARE TO REMAIN PROTECTED, ACCESSIBLE AND UNOBSTRUCTED AND SUBMIT IT TO THE SC DEPARTMENT OF EDUCATION'S OFFICE OF SCHOOL FACILITIES (OSF) FOR APPROVAL PRIOR TO BEGINNING THE WORK.



1 SITE SAFETY PLAN DURING CONSTRUCTION
1" = 20'-0"

Whole Building Systems

Whole Building Systems,LLC
P.O. Box 1845
Mt. Pleasant, South Carolina
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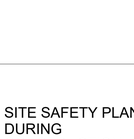
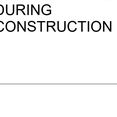
Wholebuildingsystems.com





LORIS ELEMENTARY SCHOOL MAU REPLACEMENT
901 SC-9 BUSINESS, LORIS, SC 29569

PROJ. NO.	2109001
DATE:	11/09/21
DESIGNED BY:	MDK
DRAWN BY:	BRW
CHECKED BY:	MDK

REVISIONS

NO.	DATE	NOTES

SITE SAFETY PLAN DURING CONSTRUCTION

G003

100% CD SUBMITTAL

SEISMIC AND WIND LOAD REQUIREMENTS

A. PER THE INTERNATIONAL BUILDING CODE - 2015, MECHANICAL, PLUMBING, AND ELECTRICAL EQUIPMENT AND COMPONENTS, INCLUDING THEIR SUPPORTS AND ATTACHMENTS, SHALL BE DESIGNED FOR SEISMIC FORCES IN ACCORDANCE WITH CHAPTER 13 OF ASCE 7-10.

B. EXTERIOR EQUIPMENT (INCLUDING ROOF CURBS & ROOF RAILS) EXPOSED TO WIND SHALL BE DESIGNED AND INSTALLED TO RESIST THE WIND PRESSURES DETERMINED IN ACCORDANCE WITH CHAPTERS 26 TO 29 OF ASCE 7-10.

C. WHERE DESIGN FOR SEISMIC AND WIND LOADS IS REQUIRED, THE MORE DEMANDING FORCE MUST BE USED.

D. REFERENCE THE STRUCTURAL DRAWINGS FOR SITE SPECIFIC INFORMATION ON SEISMIC DESIGN CATEGORY, WIND SPEEDS, ETC. IF STRUCTURAL DRAWINGS ARE NOT INCLUDED IN THE SCOPE OF THE CONTRACT DOCUMENTS, REFERENCE THE SITE SPECIFIC SEISMIC AND WIND LOAD DESIGN INFORMATION HEREIN.

E. ALL EQUIPMENT AND SYSTEMS FOR THIS PROJECT HAVE A COMPONENT IMPORTANCE FACTOR (Ip) OF 1.0 UNLESS NOTED OTHERWISE.

F. USE TABLE BELOW TO DETERMINE SEISMIC RESTRAINT REQUIREMENTS FOR EACH COMPONENT.

G. FOR ALL COMPONENTS/SYSTEMS REQUIRING SEISMIC RESTRAINT, THE COMPONENT SUPPORTS AND ATTACHMENTS SHALL BE DESIGNED (CALCULATIONS AND INSTALLATION DETAILS) AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER THAT IS DIRECTLY EMPLOYED BY THE SEISMIC RESTRAINT MANUFACTURER WITH AT LEAST FIVE YEARS OF SEISMIC DESIGN EXPERIENCE, LICENSED IN THE STATE OF THE JOB LOCATION. ALL RESTRAINING DEVICES SHALL HAVE A PREAPPROVAL NUMBER FROM CALIFORNIA OSHPD OR SOME OTHER RECOGNIZED GOVERNMENT AGENCY SHOWING MAXIMUM RESTRAINT RATINGS.

H. WHERE SEISMIC RESTRAINT IS REQUIRED, HOUSEKEEPING PADS NEEDED FOR THE INSTALLATION OF EQUIPMENT UNDER THIS CONTRACT MUST BE DESIGNED AND STAMPED BY THE SEISMIC ENGINEER. DO NOT POUR ANY HOUSEKEEPING PADS PRIOR TO THE RECEIPT OF AN APPROVED SEISMIC SUBMITTAL FROM THE ENGINEER OF RECORD. ALL HOUSEKEEPING PADS DESIGNED AS EXPANSIONS TO EXISTING PADS OR INSTALLED ON TOP OF EXISTING CONCRETE FLOOR SYSTEMS SHALL BE DOWELED INTO THE EXISTING SYSTEMS.

I. SEISMIC RESTRAINTS FOR DUCTWORK, PIPING, CONDUIT, CABLE TRAY, AND BUS DUCT MUST BE SHOWN ON LAYOUT DRAWINGS SHOWING SPECIFIC RESTRAINT LOCATIONS ALONG WITH ACCOMPANYING DETAILS AND CALCULATIONS PER THE SEISMIC ENGINEER.

COMPONENT/SYSTEM IMPORTANCE FACTOR (Ip) SCHEDULE AND SEISMIC DESIGN INFORMATION

Ip = 1.0	ALL SYSTEMS

SEISMIC DESIGN INFORMATION:

1. RISK CATEGORY = III
2. SITE CLASSIFICATION = D
3. SHORT PERIOD DESIGN SPECTRAL ACCELERATION (Sd1) = 0.425
4. LONG PERIOD DESIGN SPECTRAL ACCELERATION (Sds) = 0.826

SEISMIC DESIGN CATEGORY TABLE - DESIGN CATEGORIES D, E, & F

		COMPONENT IMPORTANCE FACTOR (Ip)			
		Ip = 1.0		Ip = 1.5	
		COMPONENT/SYSTEM IDENTIFICATION	ASCE 7-10 REFERENCE	COMPONENT/SYSTEM IDENTIFICATION	ASCE 7-10 REFERENCE
ROOF MOUNTED EQUIPMENT		RESTRAIN ALL (SEE NOTE 1)	13.1.4.6	RESTRAIN ALL	13.1.4.6
FLOOR MOUNTED EQUIPMENT		RESTRAIN ALL (SEE NOTES 1, 2)	13.1.4.6	RESTRAIN ALL	13.1.4.6
WALL MOUNTED EQUIPMENT		RESTRAIN ALL (SEE NOTES 1, 2)	13.1.4.6	RESTRAIN ALL	13.1.4.6
COMPONENT SUPPORTS		RESTRAIN ALL (SEE NOTE 1)	13.6.5	RESTRAIN ALL	13.6.5
SUSPENDED EQUIPMENT	INLINE WITH DUCT/PIPE	RESTRAIN IF > 75 LBS PROVIDE FLEX. CONN. (SEE NOTE 3)	13.6.7	RESTRAIN IF > 75 LBS PROVIDE FLEX. CONN. (SEE NOTE 3)	13.6.7
	NOT INLINE WITH DUCT/PIPE	RESTRAIN ALL (SEE NOTE 1)	13.1.4.6	RESTRAIN ALL	13.1.4.6
SUSPENDED DUCTILE PIPING (STEEL, ALUMINUM, COPPER, ETC.)		RESTRAIN IF >3" (SEE NOTE 4)	13.6.8.3.3.c	RESTRAIN IF >1" (SEE NOTE 4)	13.6.8.3.3.b
SUSPENDED NON DUCTILE PIPING (CAST IRON, PLASTIC, CERAMIC)		RESTRAIN ALL (SEE NOTE 4)	13.6.8.3.3	RESTRAIN ALL (SEE NOTE 4)	13.6.8.3.3
SUSPENDED PIPE ON TRAPEZE		RESTRAIN IF ANY PIPE ON TRAPEZE >3" RESTRAIN IF TOTAL WEIGHT OF PIPES ON TRAPEZE >10 LBS/FT (SEE NOTE 4)	13.6.8.3.1	RESTRAIN IF ANY PIPE ON TRAPEZE >1" RESTRAIN IF TOTAL WEIGHT OF PIPES ON TRAPEZE >10 LBS/FT (SEE NOTE 4)	13.6.8.3.1
DUCTWORK		RESTRAIN IF >6 SQFT AND >17 LBS/FT (SEE NOTES 4,5)	13.6.7	RESTRAIN IF >6 SQFT AND >17 LBS/FT (SEE NOTES 4,5)	13.6.7
MULTIPLE DUCTS ON TRAPEZE		RESTRAIN IF TOTAL WEIGHT OF DUCTS ON TRAPEZE >10LBS/FT (SEE NOTES 4,5)	13.6.7	RESTRAIN IF TOTAL WEIGHT OF DUCTS ON TRAPEZE >10 LBS/FT (SEE NOTES 4,5)	13.1.4.6
SINGLE CONDUIT		RESTRAIN IF ≥2.5" (SEE NOTE 4)	13.6.5.6	RESTRAIN IF ≥2.5" (SEE NOTE 4)	13.6.5.6
CABLE TRAY/BUS DUCT/TRAPEZED CONDUIT		RESTRAIN IF TOTAL WEIGHT OF RACEWAY >10 LBS/FT (SEE NOTE 4)	13.6.5.6	RESTRAIN IF TOTAL WEIGHT OF RACEWAY >10 LBS/FT (SEE NOTE 4)	13.6.5.6
PENDANT, LAY-IN, AND CAN LIGHTS		REQUIREED (SEE NOTE 6)	13.5.6.2	REQUIRED (SEE NOTE 6)	13.5.6.2
COMPONENT CERTIFICATION		NOT REQUIRED	13.2.2	REQUIRED (SEE NOTE 7)	13.2.2

1. EQUIPMENT 20 LBS. OR LESS IS EXEMPT IF THE COMPONENT IS POSITIVELY ATTACHED TO THE STRUCTURE, AND FLEXIBLE CONNECTIONS ARE PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT.
2. RESTRAINTS ARE NOT REQUIRED IF THE COMPONENT WEIGHS 400 LBS. OR LESS, IS MOUNTED WITH THE CENTER OF MASS AT 4 FT OR LESS ABOVE FINISHED FLOOR, IS POSITIVELY ATTACHED TO THE STRUCTURE, AND HAS FLEXIBLE CONNECTIONS BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT.
3. FLEXIBLE CONNECTIONS REQUIRED FOR DUCT, PIPE, AND ELECTRICAL CONNECTIONS.
4. RESTRAINT IS NOT REQUIRED IF THE PIPING/DUCTWORK/CONDUIT IS SUPPORTED BY HANGERS AND EACH HANGER IN THE PIPING RUN IS 12" OR LESS IN LENGTH FROM THE TOP OF THE PIPE TO THE SUPPORTING STRUCTURE. WHERE PIPES ARE SUPPORTED ON A TRAPEZE, THE TRAPEZE SHALL BE SUPPORTED BY HANGERS HAVING A LENGTH OF 12" OR LESS. WHERE ROD HANGERS ARE USED, THEY SHALL BE EQUIPPED WITH SWIVELS, EYE NUTS, OR OTHER DEVICES TO PREVENT BENDING IN THE ROD.
5. ALL DUCTWORK, REGARDLESS OF SIZE, DESIGNED TO CARRY TOXIC, HIGHLY TOXIC, OR EXPLOSIVE GASES OR USED FOR SMOKE CONTROL MUST BE RESTRAINED.
6. COMPONENT CERTIFICATION MUST BE SUPPLIED BY THE EQUIPMENT MANUFACTURER AT TIME OF SUBMITTAL FOR REVIEW BY THE ENGINEER OF RECORD.

GENERAL NOTES:

1. DRAWINGS ARE DIAGRAMMATIC IN NATURE. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS IN THE FIELD PRIOR TO STARTING WORK.
2. THE FIRST FIGURE OF DUCT SIZE INDICATES DIMENSION OF FACE SHOWN OR INDICATED. DUCT SIZES ARE NET INTERIOR DIMENSIONS.
3. SEE EQUIPMENT DETAILS FOR CONNECTIONS TO MECHANICAL EQUIPMENT.
4. AIR DISTRIBUTION DEVICES ARE EXISTING AND ARE TO REMAIN WHERE LOCATED IN EXISTING CEILINGS. FOR NEW AIR DISTRIBUTION DEVICES LOCATED IN EXISTING CEILINGS, LOCATE NEW AIR DISTRIBUTION DEVICE WHERE PREVIOUS AIR DEVICE WAS LOCATED.
5. EXISTING TO REMAIN (ETR) EQUIPMENT AND SYSTEMS ARE SHOWN FOR REFERENCE ONLY.
6. REMOVE AND PROTECT CEILING TILES DURING DEMOLITION AND CONSTRUCTION FOR REUSE IN NEW WORK. CEILING TILES BROKEN OR DAMAGED DURING THE COURSE OF DEMOLITION AND/OR CNSTRUCTION SHALL BE REPLACED IN KIND AT NO ADDITIONAL COST TO OWNER.
7. AIRFLOW VALUES ARE SHOWN FOR TAB CONTRACTOR'S REFERENCE. TAB CONTRACTOR SHALL BALANCE THE SYSTEMS TO THE AIRFLOWS INDICATED. NEW AIR DEVICES ARE SHOWN WITH TAG AND AIRFLOW VALUE. SEE AIR DISTRIBUTION SCHEDULE ON SHEET M601 AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
8. LOCATIONS OF RATED WALLS ARE SHOWN BASED ON LIFE SAFETY AS-BUILT PLANS. CONTRACTOR SHALL VERIFY ALL RATED WALL LOCATIONS IN THE FIELD.

HVAC LEGEND

- SUPPLY DUCT RISER
- RETURN DUCT RISER
- EXHAUST DUCT RISER
- WXH — NEW DUCTWORK (FIRST DIMENSION IS WIDTH IN INCHES)
- WXH — EXISTING DUCTWORK (FIRST DIMENSION IS WIDTH IN INCHES)
- FLEXIBLE DUCTWORK
- DUCTWORK TAKE OFFS (SPIN-IN, CONICAL, SHOE)
- DUCTWORK TRANSITION (CONCENTRIC)
- DUCTWORK TRANSITION (ECCENTRIC)
- DUCTWORK TEE
- TURNING VANE
- RADIUS ELBOW
- R — INCLINED RISE (R) OR DROP (D), ARROW IN DIRECTION OF AIR FLOW
- MANUAL DAMPER
- FD — HORIZONTAL FIRE (FD), SMOKE (SD), OR COMBINATION FIRE SMOKE (FSD) DAMPER
- MD — MOTORIZED (MD) OR BACKDRAFT (BDD) DAMPER
- SUPPLY DIFFUSER (24"X24" FACE UNLESS NOTED OTHERWISE)
- SUPPLY REGISTER (SIDEWALL)
- RETURN AIR GRILLE (24"X24" FACE UNLESS NOTED OTHERWISE)
- EXHAUST AIR GRILLE (24"X24" FACE UNLESS NOTED OTHERWISE)
- RETURN OR EXHAUST AIR GRILLE (SIDEWALL)
- AREA OF DEMOLITION
- DISCONNECT FROM EXISTING
- CONNECT TO EXISTING
- (E) OAU- — EXISTING OAU ('X' DENOTES EQUIPMENT TAG)
- (E) RTU-X — EXISTING RTU ('X' DENOTES EQUIPMENT TAG)
- (E) OHP-X — EXISTING SSHP OUTDOOR UNIT ('X' DENOTES EQUIPMENT TAG)
- (E) IHP-X — EXISTING SSHP INDOOR UNIT ('X' DENOTES EQUIPMENT TAG)
- (E) EF-X — EXISTING CEILING EXHAUST FAN ('X' DENOTES EQUIPMENT TAG)
- (E) EF-X — EXISTING ROOF MOUNTED EXHAUST FAN ('X' DENOTES EQUIPMENT TAG)
- DOAS-X — NEW DOAS ('X' DENOTES EQUIPMENT TAG)
- RTU-X — NEW RTU ('X' DENOTES EQUIPMENT TAG), PRECEDENT STYLE UNIT
- RTU-X — NEW RTU ('X' DENOTES EQUIPMENT TAG), IMPACK STYLE UNIT
- IHP-X — NEW SSHP INDOOR UNIT ('X' DENOTES EQUIPMENT TAG)
- OHP-X — NEW SSHP OUTDOOR UNIT ('X' DENOTES EQUIPMENT TAG)
- EF-X — NEW CEILING EXHAUST FAN ('X' DENOTES EQUIPMENT TAG)
- EF-X — NEW ROOF MOUNTED EXHAUST FAN ('X' DENOTES EQUIPMENT TAG)
- DSS-X — NEW DUCTLESS SPLIT SYSTEM INDOOR UNIT ('X' DENOTES EQUIPMENT TAG)
- CU-X — NEW DUCTLESS SPLIT SYSTEM OUTDOOR (CONDENSING) UNIT ('X' DENOTES EQUIPMENT TAG)
- T — THERMOSTAT (DOTTED LINE SHOWS ASSOCIATED UNIT(S)

ABBREVIATIONS

A/E	ARCHITECT / ENGINEER
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AFMS	AIRFLOW MEASURING STATION
AP	ACCESS PANEL
APD	AIR PRESSURE DROP
BAS	BUILDING AUTOMATION SYSTEM
BDD	BACKDRAFT DAMPER
BHP	BRAKE HORSEPOWER
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNIT PER HOUR
CC	COOLING COIL
CFM	CUBIC FEET PER MINUTE
CM	CARBON MONOXIDE
CO	CLEAN OUT
CO2	CARBON DIOXIDE
COP	COEFFICIENT OF PERFORMANCE
CU	CONDENSING UNIT
CV	CONSTANT VOLUME
DB	DRY BULB
DDC	DIRECT DIGITAL CONTROLS
DEG	DEGREE
DOM	DOMESTIC
DHWR	DOMESTIC HOT WATER RETURN
DP	DEW POINT
DX	DIRECT EXPANSION
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EER	ENERGY EFFICIENCY RATIO
ESP	EXTERNAL STATIC PRESSURE
ETR	EXISTING TO REMAIN
EX OR (E)	EXISTING
F	FAHRENHEIT
FA	FREE AREA
FC	FLEXIBLE CONNECTION
FT	FEET
HGR OR HGRH	HOT GAS REHEAT
HOA	HAND/OFF/AUTOMATIC
HP	HORSEPOWER
HX	HEAT EXCHANGER
HZ	HERTZ
I/O	INPUT/OUTPUT
IAQ	INDOOR AIR QUALITY
IN	INCHES
IN HG	INCHES OF MERCURY
IN WC	INCHES WATER COLUMN
IPLV	INTEGRATED PART LOAD VALUE
LAT	LEAVING AIR TEMPERATURE
LBS/HR	POUNDS PER HOUR
LF	LINEAR FOOT (FEET)
MAT	MIXED AIR TEMPERATURE
MAX	MAXIMUM
MBH	1000 BTUH
MCA	MINIMUM CIRCUIT AMPACITY
MERV	MINIMUM EFFICIENCY REPORTING VALUE
MIN	MINIMUM
MOCP	MAXIMUM OVERCURRENT PROTECTION
NA	NOT APPLICABLE
NC	NOISE CRITERIA
NOM	NOMINAL
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OAD	OUTDOOR AIR DAMPER
PD	PRESSURE DROP
PPM	PARTS PER MILLION
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH - GAGE
RA	RETURN AIR
RH	RELATIVE HUMIDITY
RHC	REHEAT COIL
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR
SA	SOUND ATTENUATOR
SAT	SUPPLY AIR TEMPERATURE
SCR	SILICON CONTROLLED RECTIFIER
SP	STATIC PRESSURE
SS	STAINLESS STEEL
TAB	TESTING, ADJUSTING, AND BALANCING
TSP	TOTAL STATIC PRESSURE
TSTAT	THERMOSTAT
VAV	VARIABLE AIR VOLUME
VFD	VARIABLE FREQUENCY DRIVE
W	WATTS
WB	WET BULB

Provided for code compliance

The check for code compliance does not relieve the owner, design professional, contractor or their representatives from the responsibility to comply with SC regulations, local, state or federal codes, laws, ordinances, rules or regulations. Any omissions or errors found in this office check requiring corrective during construction, the changes or alterations to these documents shall be approved by the Building Official. Office of School Facilities.

Stamped plans and specifications are required to be on site for inspections.

Project: LORIS Elementary Kitchy Replacement
Plans Examiner: CERTificate 3127
Date: 11/29/2021
Time: 8:00 AM
APPROVED

Whole Building Systems
WBS
Whole Building Systems,LLC
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Mt. Pleasant, South Carolina
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SOUTH CAROLINA — 18427 — REGISTERED ARCHITECT — JOHN DENNIS KNIGHT
11/09/2021

SOUTH CAROLINA — MALCOM KNIGHT — WHOLE BLDG. SYSTEMS, LLC. — No. COA305 — CERTIFICATE OF AUTHORIZATION

LORIS ELEMENTARY SCHOOL MAU REPLACEMENT

901 SC-9 BUSINESS, LORIS, SC 29569

PROJ. NO.	2109001
DATE:	11/09/2021
DESIGNED BY:	MDK
DRAWN BY:	BRW
CHECKED BY:	MDK

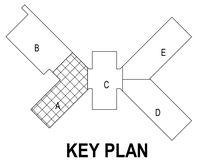
REVISIONS

NO.	DATE	NOTES

HVAC LEGEND, NOTES, AND ABBREVIATIONS

M001

100% CD SUBMITTAL

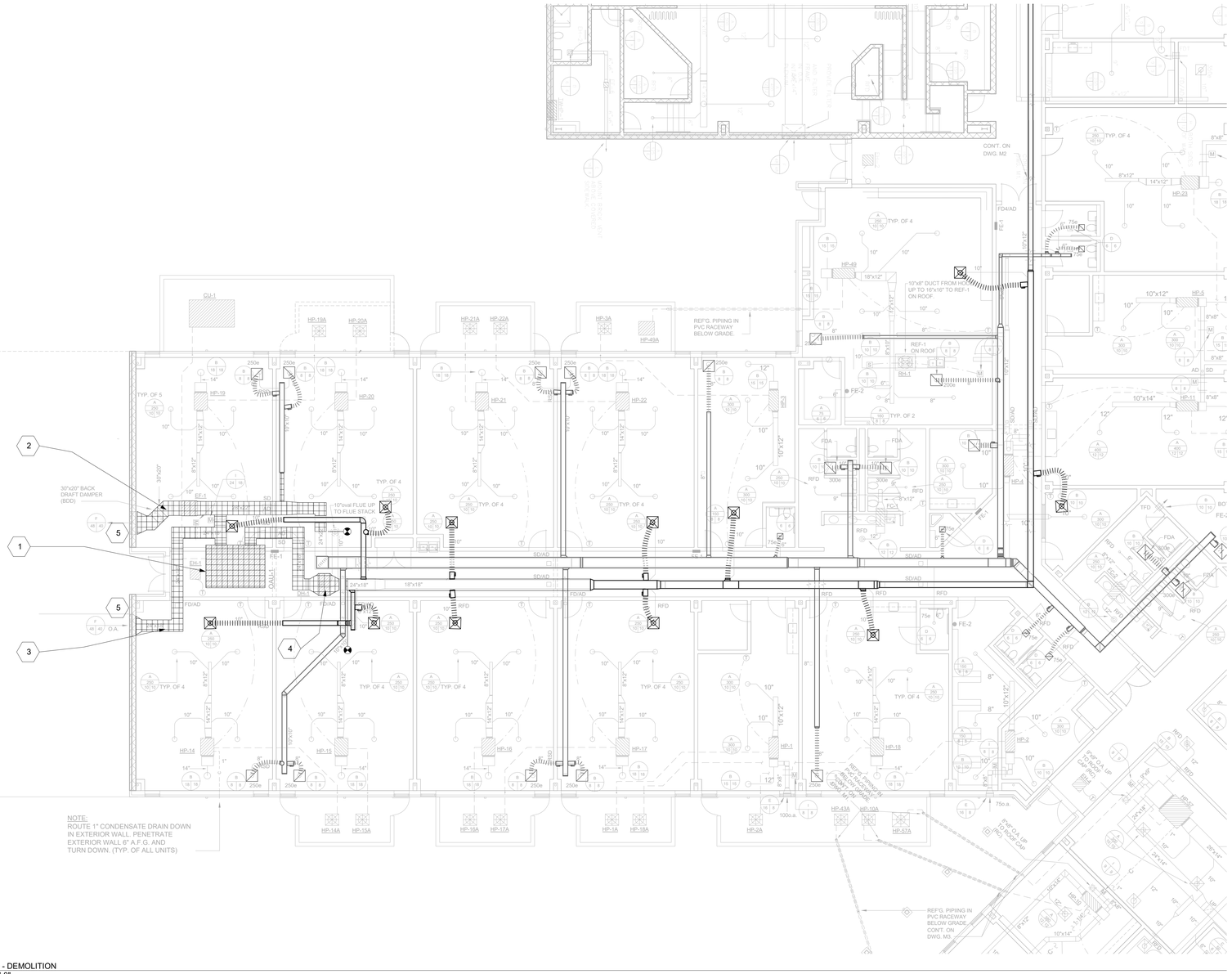


KEY PLAN

DEMOLITION WORK GENERAL NOTE

1. ALL WORK SHOWN IS EXISTING TO REMAIN UNLESS INDICATED OTHERWISE

DEMOLITION KEYNOTES	
Number	Demolition Keynote
1	REMOVE MAU COMPLETE INCLUDING, BUT NOT LIMITED TO, DUCTWORK CONNECTIONS, REFRIGERANT LINES, CONDENSATE LINES, CONTROLS, POWER CONNECTIONS, ACCESSORIES AND APPURTENANCES.
2	REMOVE EXHAUST DUCT COMPLETE FROM EXHAUST LOUVER TO POINT INDICATED INCLUDING, BUT NOT LIMITED TO, DUCT, HANGERS, INSULATION.
3	REMOVE OUTSIDE AIR INTAKE DUCT COMPLETE FROM INTAKE LOUVER TO MAU DUCT CONNECTION INCLUDING, BUT NOT LIMITED TO, DUCT, HANGERS AND INSULATION.
4	REMOVE DUCT MOUNTED GAS FIRED UNIT HEATER COMPLETE INCLUDING, BUT NOT LIMITED TO, FLUE PIPE DUCT, HANGERS, INSULATION. FLUE PIPE SHALL BE REMUVED TO JUST BELOW THE ROOF. CAPAND WEATHERPROOF THE VENT ABOVE THE ROOF
5	BLANK-OFF EXISTING LOUVER. BLANK-OFF SHALL INCLUDE 2" POLYISO CLOSED CELL BOARD 100% ADHERED TO SHEETMETAL.



1 AREA-A - DEMOLITION
1/8" = 1'-0"

Reviewed for Code Compliance

This review for code compliance does not relieve the owner, design professional, contractor or their representatives from the responsibility to comply with SC regulations, but, does relieve the plans examiner, the building official, and the state fire marshal's office and this office from requiring corrections during construction. Any changes or alterations to these documents shall be approved by the Building Official - Office of School Facilities.

Stamped plans and specifications are required to be on site for inspections.

Project: Loris Elementary MAU Replacement

Plans Examiner: SHYSHelli RICY

Date: 11/29/2021

Time: 3:00 PM

SHYSHelli

Whole Building Systems

Whole Building Systems,LLC
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Mt. Pleasant, South Carolina
29465
PH:(843)637-3358
Wholebuildingsystems.com

MALCOM DENNIS KNIGHT
SOUTH CAROLINA
19427
REGISTERED ARCHITECT
11/09/2021

MALCOM KNIGHT
WHOLE BLDG. SYSTEMS, LLC
No. C04305
SOUTH CAROLINA
CERTIFICATE OF AUTHORIZATION

LORIS ELEMENTARY SCHOOL MAU REPLACEMENT

901 SC-9 BUSINESS, LORIS, SC 29569

PROJ. NO.	2109001
DATE:	11/09/2021
DESIGNED BY:	MDK
DRAWN BY:	BRW
CHECKED BY:	MDK

REVISIONS

NO.	DATE	NOTES

AREA-A - DEMOLITION

MD101

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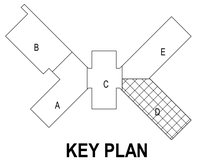

KEY PLAN

DEMOLITION WORK GENERAL NOTE

1. ALL WORK SHOWN IS EXISTING TO REMAIN UNLESS INDICATED OTHERWISE

DEMOLITION KEYNOTES	
Number	Demolition Keynote
1	REMOVE MAU COMPLETE INCLUDING, BUT NOT LIMITED TO, DUCTWORK CONNECTIONS, REFRIGERANT LINES, CONDENSATE LINES, CONTROLS, POWER CONNECTIONS, ACCESSORIES AND APPURTENANCES.
2	REMOVE EXHAUST DUCT COMPLETE FROM EXHAUST LOUVER TO POINT INDICATED INCLUDING, BUT NOT LIMITED TO, DUCT, HANGERS, INSULATION.
3	REMOVE OUTSIDE AIR INTAKE DUCT COMPLETE FROM INTAKE LOUVER TO MAU DUCT CONNECTION INCLUDING, BUT NOT LIMITED TO, DUCT, HANGERS AND INSULATION.
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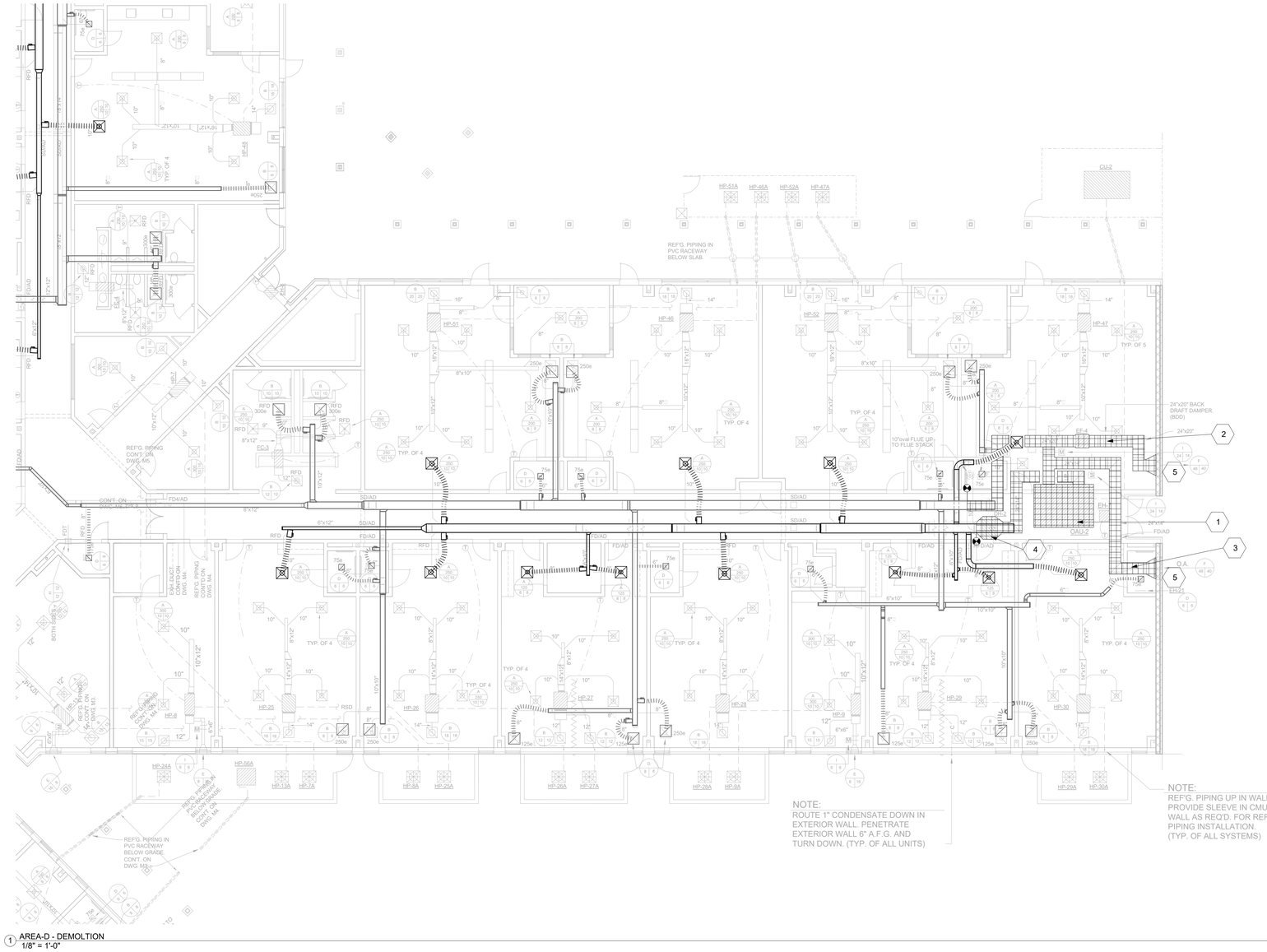
5	BLANK-OFF EXISTING LOUVER. BLANK-OFF SHALL INCLUDE 2" POLYISO CLOSED CELL BOARD 100% ADHERED TO SHEETMETAL.



1 AREA-D - DEMOLTION
1/8" = 1'-0"

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LORIS ELEMENTARY SCHOOL MAU REPLACEMENT

901 SC-9 BUSINESS, LORIS, SC 29569

PROJ. NO.	2109001
DATE:	11/09/21
DESIGNED BY:	MDK
DRAWN BY:	BRW
CHECKED BY:	MDK

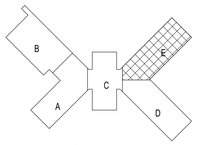
REVISIONS

NO.	DATE	NOTES

AREA-D - DEMOLITION

MD102

100% CD SUBMITTAL



KEY PLAN

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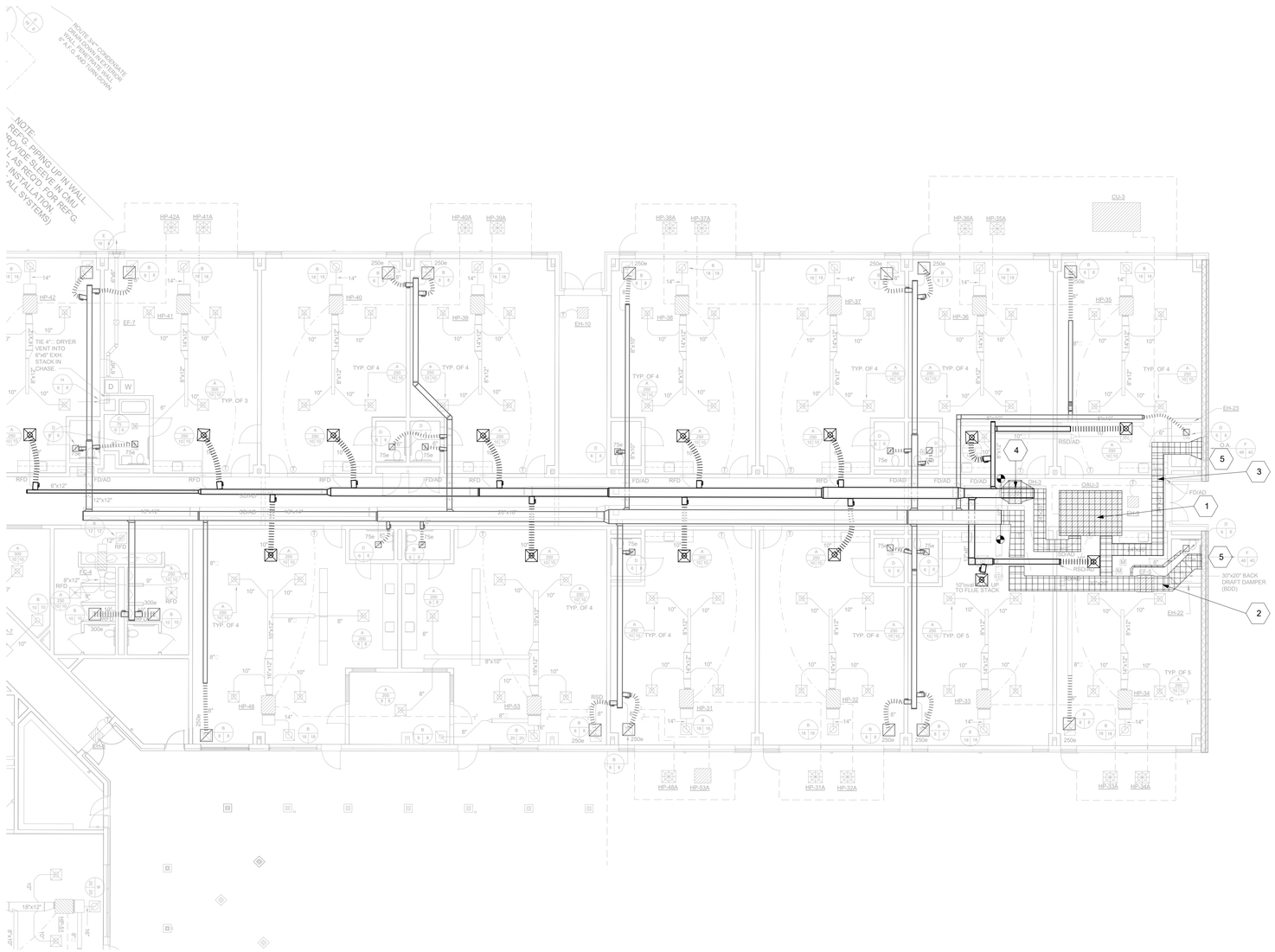
4	REMOVE DUCT MOUNTED GAS FIRED UNIT HEATER COMPLETE INCLUDING, BUT NOT LIMITED TO, FLUE PIPE DUCT, HANGERS, INSULATION. FLUE PIPE SHALL BE REMUVED TO JUST BELOW THE ROOF. CAPAND WEATHERPROOF THE VENT ABOVE THE ROOF
5	BLANK-OFF EXISTING LOUVER. BLANK-OFF SHALL INCLUDE 2" POLYISO CLOSED CELL BOARD 100% ADHERED TO SHEETMETAL.



1 AREA-E - DEMOLITION
1/8" = 1'-0"

Reviewed for Code Compliance

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Stamped plans and specifications are required to be on site for inspections.

Project: Loris Elementary MAU Replacement
Plans Examiner: SAFEBuilt (SLC)
Date: 11/29/2021
Time: 5:00 PM
SAFEbuilt

Whole Building Systems
WBS
Whole Building Systems,LLC
P.O. Box 1845
Mt. Pleasant, South Carolina
29465
PH:(843)637-3358
Wholebuildingsystems.com

SOUTH CAROLINA PROFESSIONAL ENGINEER 19427 MALCOM DENNIS KNIGHT
11/09/2021

SOUTH CAROLINA MALCOM KNIGHT WHOLE BLDG. SYSTEMS, LLC. No. CO4305 CERTIFICATE OF AUTHORIZATION

LORIS ELEMENTARY SCHOOL MAU REPLACEMENT

901 SC-9 BUSINESS, LORIS, SC 29569

PROJ. NO.	2109001
DATE:	11/09/2021
DESIGNED BY:	MDK
DRAWN BY:	BRW
CHECKED BY:	MDK

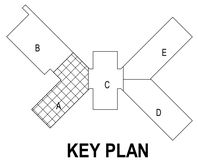
REVISIONS

NO.	DATE	NOTES

AREA-E - DEMOLITION

MD103

100% CD SUBMITTAL

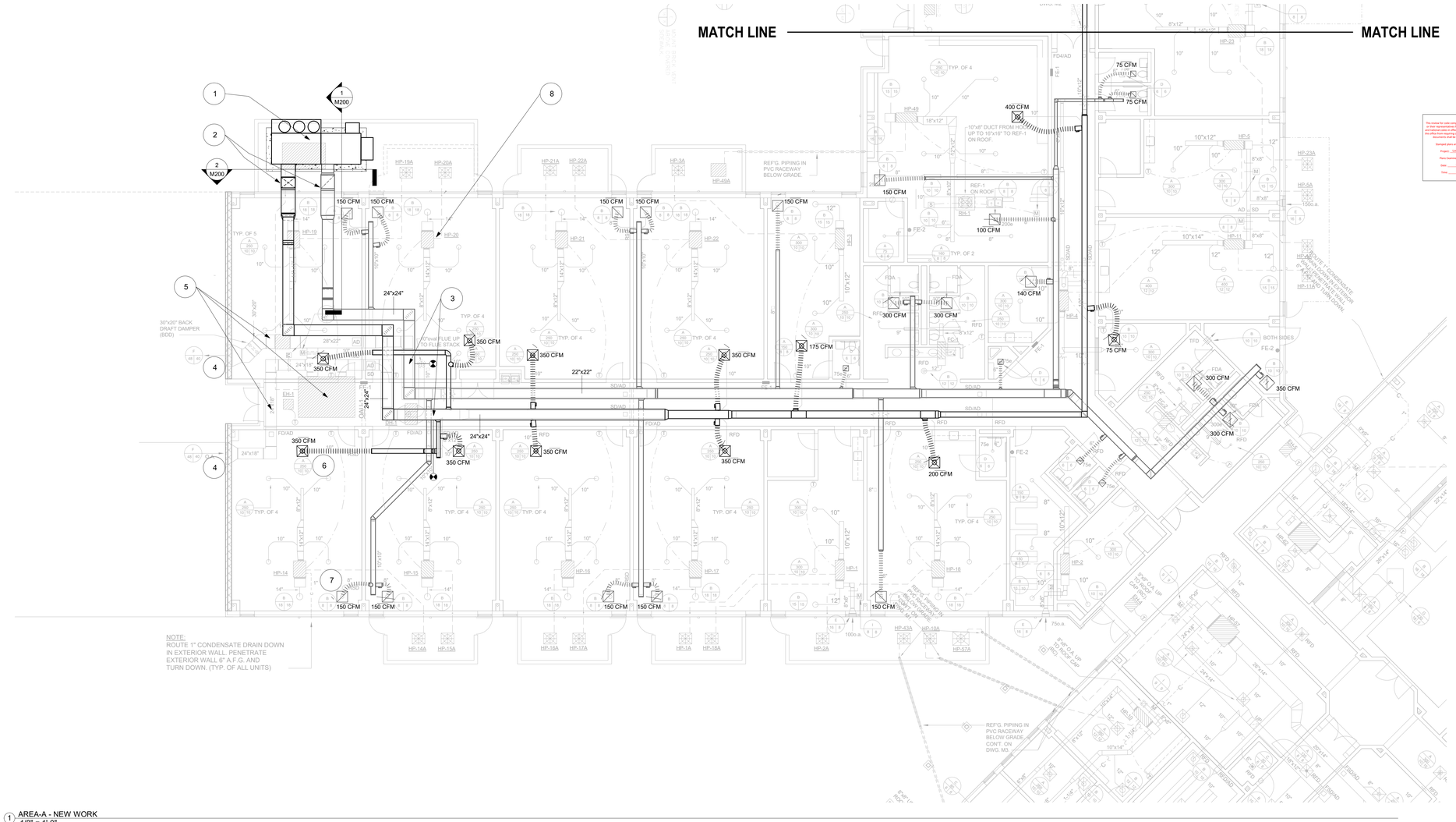


KEY PLAN

NEW WORK GENERAL NOTE

1. ALL WORK SHOWN IS NEW UNLESS INDICATED OTHERWISE

New Work Keynotes	
Number	New Work Keynote Text
1	INSTALL NEW UNIT ON NEW EQUIPMENT PAD. EQUIPMENT PAD SHALL BE12" LARGER ALL AROUND THAN NEW UNIT PROVIDED. PIPE CONDENSATE AWAY FROM UNIT TO PROVIDE PROPER DRAINAGE.
2	NEW DUCT SHALL BE INSULATED AND WRAPPED WITH WEATHERPROOF ALUMINUM JACKET. SUPPORT DUCT TO EXTERIOR WALL AND SEAL AROUND WALL OPENINGS WHERE DUCT PENETRATES INTO BUILDING.
3	TIE NEW DUCT INTO EXISTING DUCT
4	BLANK-OFF EXISTING LOUVER. BLANK-OFF SHALL INCLUDE 2" POLYISO INSULATION 100% ADHERED TO SHEETMETAL.
5	EXISTING DUCT AND EQUIPMENT SHOWN FOR REFERENCE ONLY.
6	TYPICAL FOR ALL DOAS SUPPLY GRILLES - REUSE EXISTING GRILLE AND BALANCE TO NEW AIRFLOW SHOWN
7	TYPICAL FOR ALL DOAS EXHAUST GRILLES - REUSE EXISTING GRILLE AND BALANCE TO NEW AIRFLOW SHOWN
8	ALL GREYED OUT OR LIGHT LINEWORK SYSTEMS AND EQUIPMENT ARE EXISTING TO REMAIN. EXISTING DOAS SUPPLY AND EXHAUST DUCTWORK ARE SHOWN IN HEAVY LINE WEIGHTS FOR CLARITY. - TYPICAL



1 AREA-A - NEW WORK
1/8" = 1'-0"

Whole Building Systems
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PH:(843)637-3358
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LORIS ELEMENTARY SCHOOL MAU REPLACEMENT

901 SC-9 BUSINESS, LORIS, SC 29569

PROJ. NO.	2109001
DATE:	11/09/2021
DESIGNED BY:	MDK
DRAWN BY:	BRW
CHECKED BY:	MDK

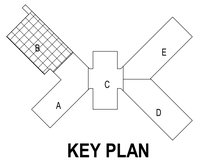
REVISIONS

NO.	DATE	NOTES

AREA-A - NEW WORK

M101

100% CD SUBMITTAL



KEY PLAN

NEW WORK GENERAL NOTE

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New Work Keynotes	
Number	New Work Keynote Text
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Reviewed by Code Consultant

This review for code compliance does not relieve the owner, design professional, contractor or any other party from responsibility for compliance with the applicable codes and standards and shall not relieve the officials of the duty of enforcing those codes. Any changes or alterations to these documents shall be approved by the building official. Office of Ballard Nesbitt...

Inspection and engineering reports and drawings shall be on site for inspections.

Project: LHS ENGINEERED WOOD TRUSS HOUSE

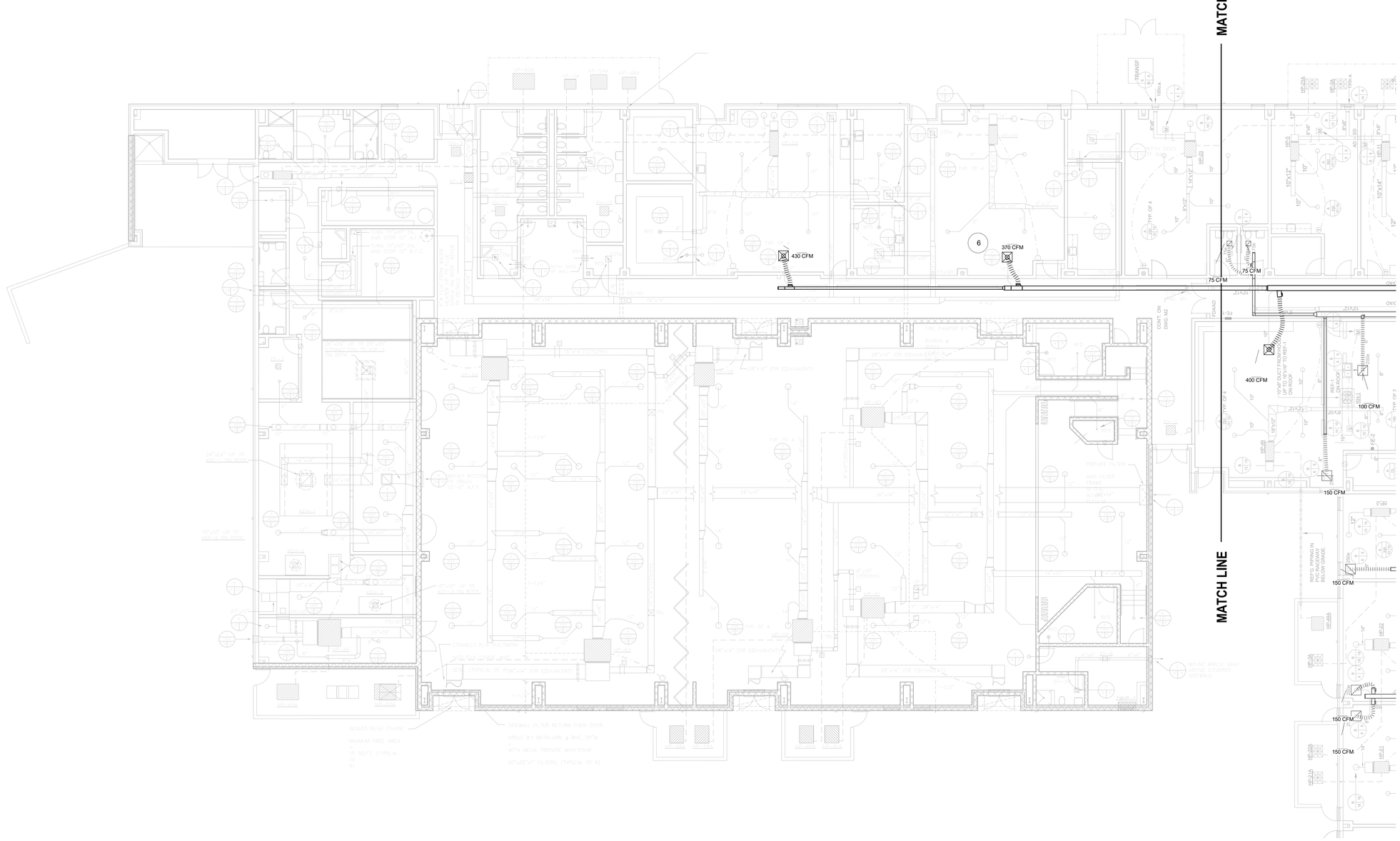
Plans Examiner: SHERIDAN TACY

Date: 11/29/2021

Time: 3:00 PM

ARRIVED

MATCH LINE



1 AREA-B - NEW WORK
1/8" = 1'-0"

Whole Building Systems,LLC
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29465
PH:(843)637-3358
Wholebuildingsystems.com

MALCOM KNIGHT
19427
REGISTERED
PROFESSIONAL
ENGINEER
11/09/2021

SOUTH CAROLINA
MALCOM KNIGHT
WHOLE BLDG. SYSTEMS, LLC
No. C04305
CERTIFICATE OF AUTHORIZATION

LORIS ELEMENTARY SCHOOL MAU REPLACEMENT

901 SC-9 BUSINESS, LORIS, SC 29569

PROJ. NO.	2109001
DATE:	11/09/21
DESIGNED BY:	MDK
DRAWN BY:	BRW
CHECKED BY:	MDK

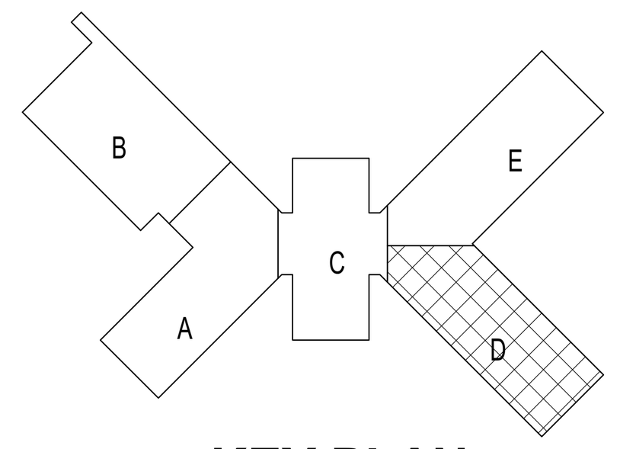
REVISIONS

NO.	DATE	NOTES

AREA-B - NEW WORK

M102

100% CD SUBMITTAL



KEY PLAN

NEW WORK GENERAL NOTE

1. ALL WORK SHOWN IS NEW UNLESS INDICATED OTHERWISE

Reviewed for Code Compliance

Project: Loris Elementary MAU Replacement
Plans Examiner: SAFEbuilt /SCY
Date: 11/29/2021
Time: 5:00 PM
SAFEbuilt

New Work Keynotes	
Number	New Work Keynote Text
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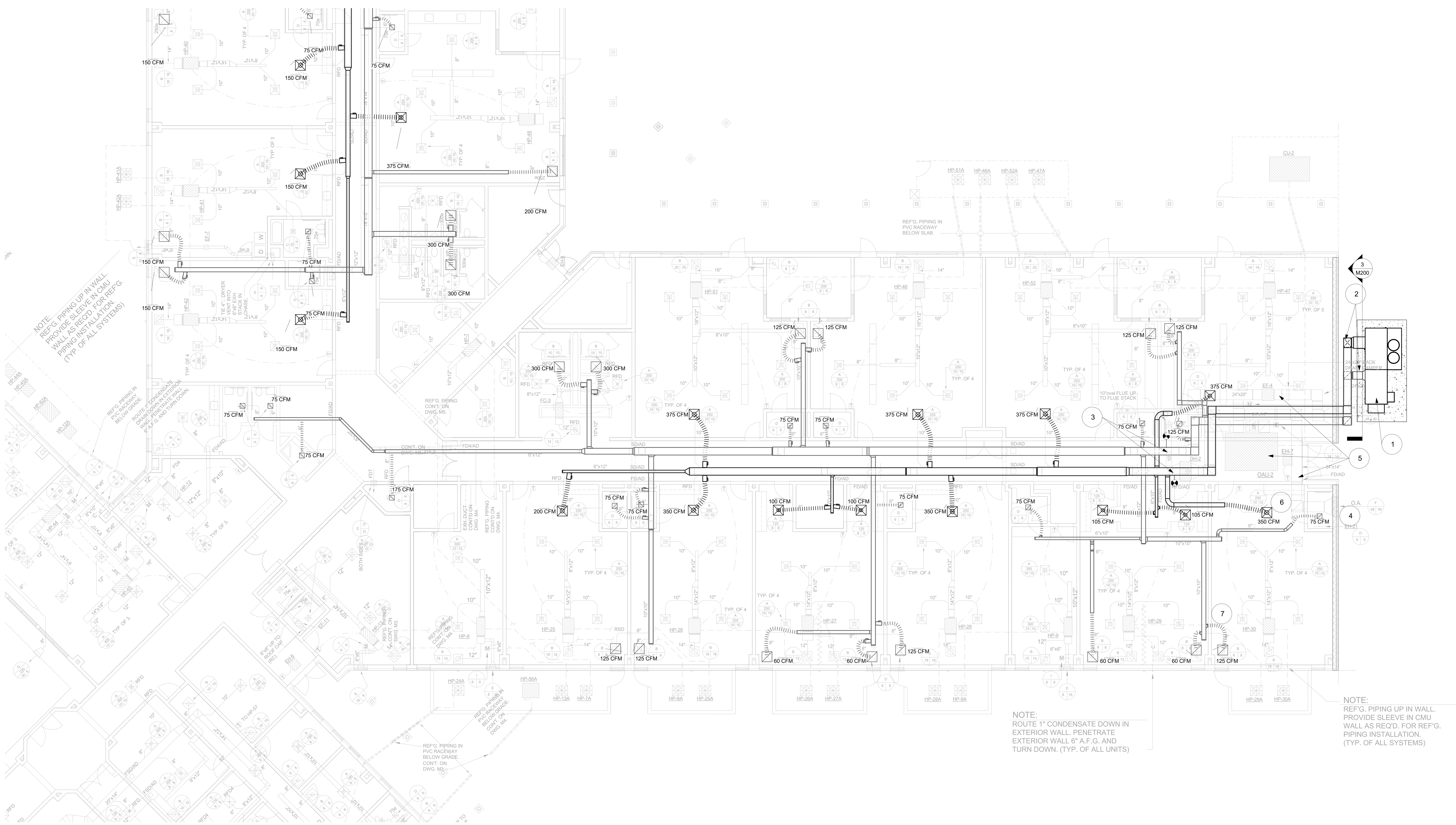

1 AREA-D - NEW WORK
1/8" = 1'-0"

Whole Building Systems,LLC
P.O. Box 1845
Mt. Pleasant, South Carolina
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PH:(843)637-3358
Wholebuildingsystems.com

11/09/2021

SOUTH CAROLINA
MALCOM KNIGHT
WHOLE BLDG. SYSTEMS, LLC
No. C04305
CERTIFICATE OF AUTHORIZATION

LORIS ELEMENTARY SCHOOL MAU REPLACEMENT

901 SC-9 BUSINESS, LORIS, SC 29569

PROJ. NO.	2109001
DATE:	11/09/2021
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

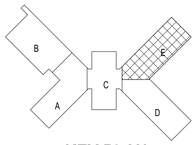
REVISIONS

NO.	DATE	NOTES

AREA-D - NEW WORK

M103

100% CD SUBMITTAL



KEY PLAN

NEW WORK GENERAL NOTE

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Reviewed for Code Compliance

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Stamped plans and specifications are required to be on site for inspections.

Project: Loris Elementary MAU Replacement

Plans Examiner: DATE/Auth ISCV

Date: 11/29/2021

Time: 6:00 PM

WDSoft

New Work Keynotes	
Number	New Work Keynote Text
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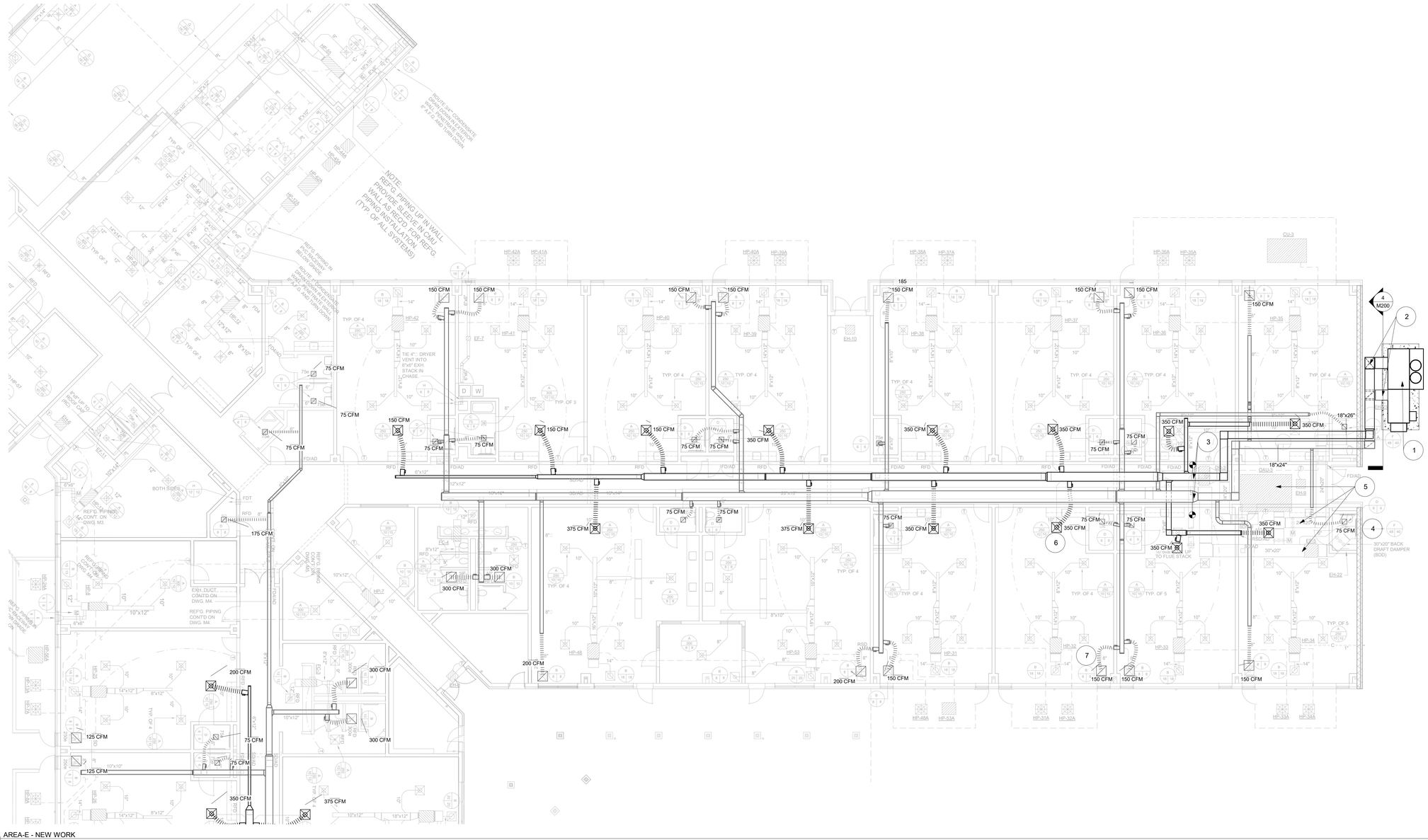

1 AREA-E - NEW WORK
1/8" = 1'-0"

Whole Building Systems
WBS
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Mt. Pleasant, South Carolina
29465
PH:(843)637-3358
Wholebuildingsystems.com

LORIS ELEMENTARY SCHOOL MAU REPLACEMENT

901 SC-9 BUSINESS, LORIS, SC 29569

PROJ. NO.	2109001
DATE:	11/09/2021
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

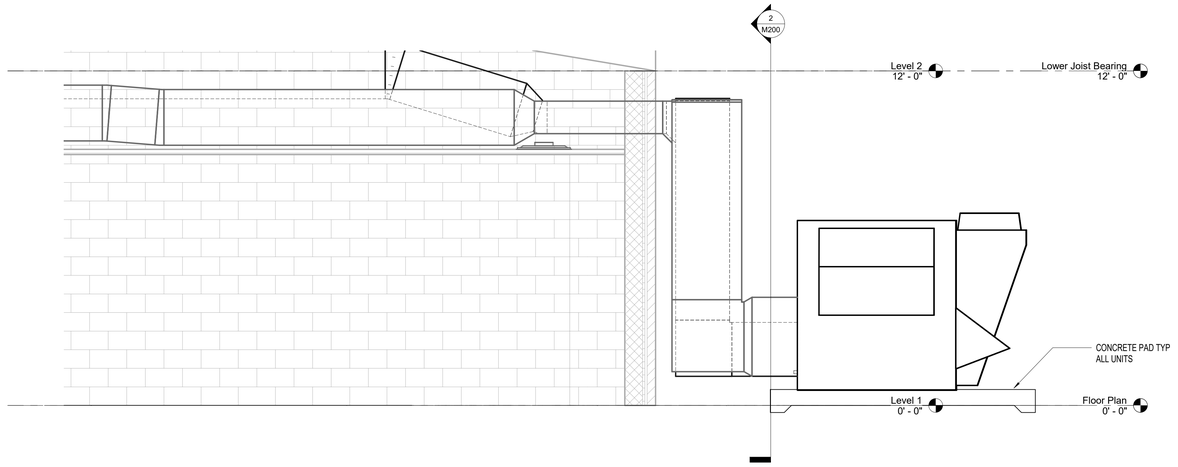
REVISIONS

NO.	DATE	NOTES

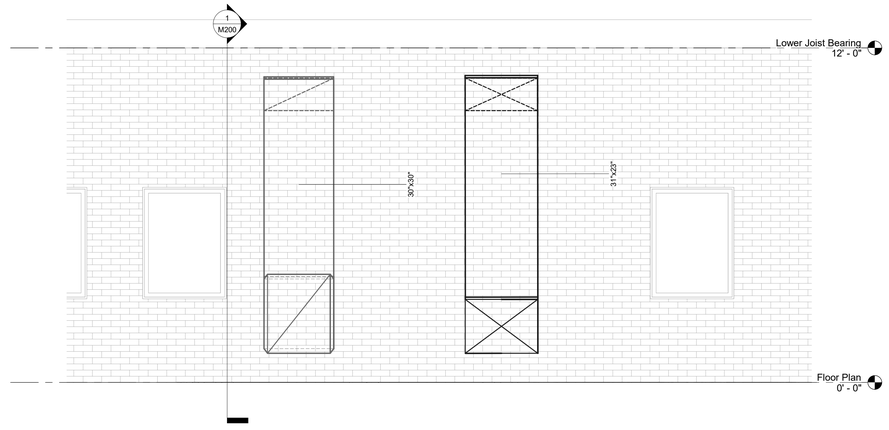
AREA-E - NEW WORK

M104

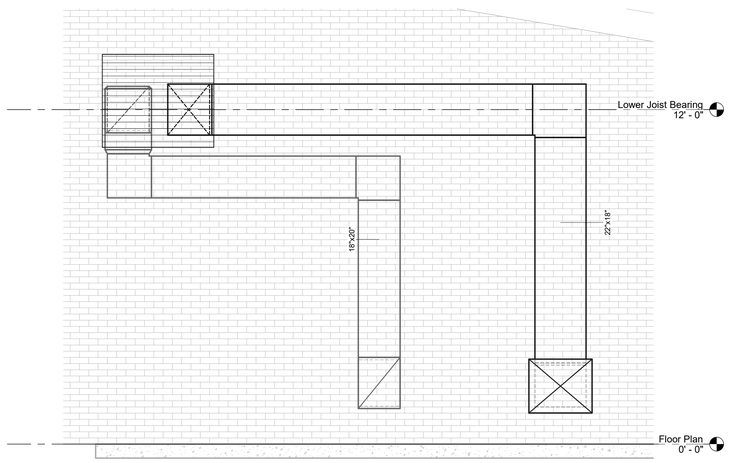
100% CD SUBMITTAL



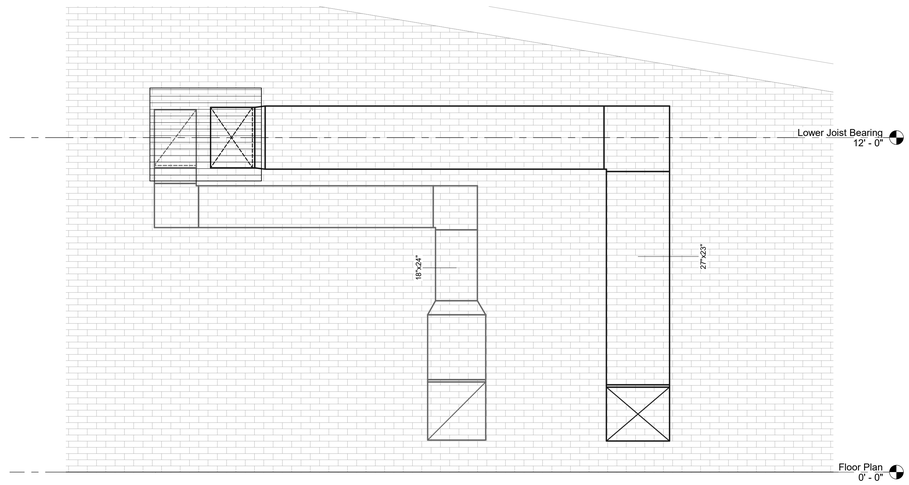
1 DOAS-1 SIDE ELEVATION
1/2" = 1'-0"



2 DOAS-1 ELEVATION
1/2" = 1'-0"



3 DOAS-2 ELEVATION
1/2" = 1'-0"



4 DOAS-3 ELEVATION
1/2" = 1'-0"

Reviewed for Code Compliance

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Stamped plans and specifications are required to be on site for inspections.

Project: Loris Elementary MAU Replacement

Plans Examiner: SAFEbuilt /SCY

Date: 11/29/2021

Time: 5:00 PM

SAFEbuilt

Whole Building Systems

Whole Building Systems,LLC
P.O. Box 1845
Mt. Pleasant, South Carolina
29465
PH:(843)637-3358
Wholebuildingsystems.com

SOUTH CAROLINA REGISTERED ARCHITECT 18427 MALCOM DENNIS KNIGHT

11/09/2021

SOUTH CAROLINA
MALCOM KNIGHT
WHOLE BLDG. SYSTEMS, LLC
No. C04305
CERTIFICATE OF AUTHORIZATION

LORIS ELEMENTARY SCHOOL MAU REPLACEMENT

901 SC-9 BUSINESS, LORIS, SC 29569

PROJ. NO.	2109001
DATE:	11/09/2021
DESIGNED BY:	MDK
DRAWN BY:	BRW
CHECKED BY:	MDK

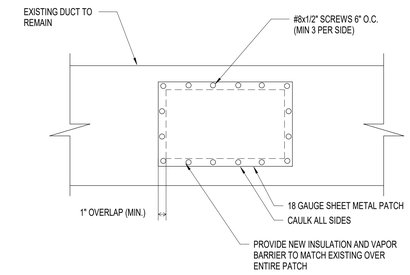
REVISIONS

NO.	DATE	NOTES

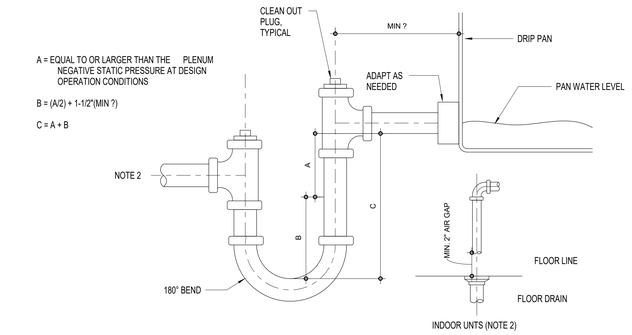
ELEVATIONS

M200

100% CD SUBMITTAL



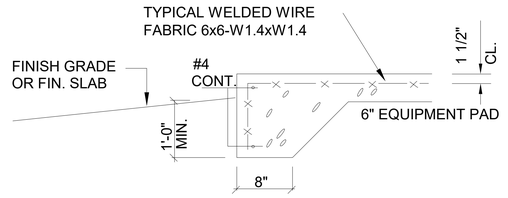
1 DUCT PATCH DETAIL
NOT TO SCALE



NOTES:
1. PROVIDE CONDENSATE DRAIN TRAP SIZED AS INDICATED, OR ALTERNATIVELY AS PER EQUIPMENT MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL COORDINATE TRAP HEIGHT WITH UNIT DRAIN LOCATION AND EQUIPMENT CURB.

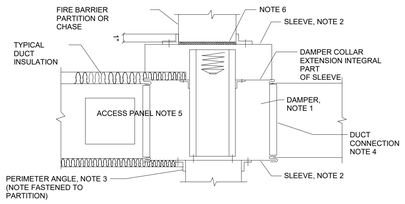
2. ROUTE DRAIN PIPING AS INDICATED ON DRAWINGS. FOR EQUIPMENT LOCATED ON ROOF, SEE PIPING SUPPORTS ON ROOF DETAIL. FOR EQUIPMENT LOCATED INDOORS, PROVIDE MINIMUM 2" AIR GAP FROM FLOOR DRAINS.

2 CONDENSATE DRAIN PIPING FOR DRAW-THRU UNIT DETAIL
NOT TO SCALE



EXTEND 12" MIN. BEYOND EQUIPMENT
OR AS NOTED ON THE DRAWING

3 PAD DETAIL
NOT TO SCALE



NOTES:
1. A VERTICAL DAMPER IS SHOWN. HORIZONTAL DAMPER INSTALLATION IS SIMILAR. FOLLOW DAMPER MANUFACTURER'S INSTRUCTIONS, INCLUDING FASTENER OPTIONS AND GAGES FOR SLEEVE AND PERIMETER ANGLES. FIRE DAMPERS MUST BE INSTALLED IN THE PARTITION OR FLOOR AND NOT OUTSIDE THE PENETRATION.
2. GLAVANIZED SLEEVE: GAGE NOT LESS THAN CONNECTING DUCT. FASTEN SLEEVE TO DAMPER FRAME AND TO PERIMETER ANGLES.
3. PERIMETER ANGLES: GALVANIZED STEEL, NOT LESS THAN 1 1/2" X 1 1/2", 14 GAGE, TO PROVIDE 1" MINIMUM OVERLAP OF OPENING ON ALL 4 SIDES.
4. BREAKAWAY DUCT CONNECTION: CONTRACTOR'S OPTION OF TYPES SHOWN IN SMACNA. ACCESS PANELS: SIZE AND LOCATION TO PERMIT SERVICING THE FUSIBLE LINK OR LINKS.
5. PROVIDE 1/4" TO 1/2" CLEARANCE ON HEIGHT AND WIDTH. FILL OPEN SPACE WITH ROCK WOOL FIRESTOP FIBER.
6. ALL DUCT WORK RISERS WHICH ARE RUN EXPOSED, SUCH AS THRU ATTIC FLOORS AND MECHANICAL ROOM FLOORS, SHALL BE PROVIDED WITH 3" HIGH CONCRETE CURB OPENING FOR DUCT.

4 FIRE DAMPER DETAIL
NOT TO SCALE

GAS PIPING CONNECTION FOR EQUIPMENT DETAIL
5 NO SCALE

NOTES:
1. GALVANIZE SUPPORT AFTER FABRICATION.

2. SUPPORT MAY BE CONSTRUCTED OF 1" SQUARE STAINLESS STEEL UNISTRUT.

3. PROVIDE ABGLE SUPPORTS MIN 3' O.C.

6 EXTERIOR DUCT SUPPORT DETAIL
NO SCALE

Reviewed for Code Compliance

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Project: Loris Elementary MAU Replacement

Plans Examiner: SAFEbuilt ISCV

Date: 11/29/2021

Time: 5:00 PM

SAFEbuilt

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MALCOM KNIGHT
11/09/2021

SOUTH CAROLINA
MALCOM KNIGHT
WHOLE BLDG. SYSTEMS, LLC
No. CO4305
CERTIFICATE OF AUTHORIZATION

LORIS ELEMENTARY SCHOOL MAU REPLACEMENT

901 SC-9 BUSINESS, LORIS, SC 29569

PROJ. NO. 2109001

DATE: 11/09/2021

DESIGNED BY: MDK

DRAWN BY: BRW

CHECKED BY: MDK

REVISIONS

NO.	DATE	NOTES

HVAC DETAILS

M500

100% CD SUBMITTAL

MAKEUP AIR UNIT (DOAS) SCHEDULE

EQUIPMENT TAG	SUPPLY FAN							EXHAUST FAN							COOLING COIL				
	AIRFLOW (CFM)	ESP (IN. WC)	FAN TYPE	DRIVE TYPE	FAN RPM	BRAKE HP	MOTOR HP	AIRFLOW (CFM)	ESP (IN. WC)	FAN TYPE	DRIVE TYPE	FAN RPM	BRAKE HP	MOTOR HP	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	EAT (°F DB/WB)	LAT OFF COIL (DB °F)	ISMRE lb/kWh
DOAS-1A	4450	2.0	PLENUM	DIRECT	1586	4.1	5	3475	1.0	PLENUM	DIRECT	1184	1.75	3	307.8	143.4	78.5/71.3	49.3/49.3	6
DOAS-2A	3160	1.8	PLENUM	DIRECT	2111	3.24	5	2775	1.0	PLENUM	DIRECT	1767	1.92	3	195.1	96.7	78.4/70.3	50.6/50.6	5.5
DOAS-3A	4350	1.7	PLENUM	DIRECT	1516	3.6	5	3850	1.0	PLENUM	DIRECT	1274	2.2	5	250.6	132.2	77.6/68.8	50/49.9	6.3
DOAS-1	4450	2.0	PLENUM	DIRECT	2059	3.94	5	3475	1.0	PLENUM	DIRECT	1365	1.87	3	268.1	142.0	77.4/68.5	48.6/48.3	
DOAS-2	3160	2	PLENUM	DIRECT	2207	2.51	3	2775	1.0	PLENUM	DIRECT	1820	1.45	2	205.5	102.0	78.2/70	49.1/48.7	
DOAS-3	4350	1.6	PLENUM	DIRECT	1960	3.42	5	3850	1.0	PLENUM	DIRECT	1352	1.82	3	241.8	130.4	77.3/68.4	50.2/50.1	

MAKEUP AIR UNIT (DOAS) SCHEDULE - CONTINUED

EQUIPMENT TAG	ENTHALPY WHEEL PERFORMANCE											
	SUMMER CONDITIONS											
	OUTSIDE AIR			VENTILATION SUPPLY			RETURN AIR			EXHAUST AIR		
	ENT AIRFLOW (CFM)	ENT AIR DB (DEG F)	ENT AIR WB (DEG F)	LVG AIRFLOW (CFM)	LVG AIR DB (DEG F)	LVG AIR WB (DEG F)	ENT AIRFLOW (CFM)	ENT AIR DB (DEG F)	ENT AIR WB (DEG F)	LVG AIRFLOW (CFM)	LVG AIR DB (DEG F)	LVG AIR WB (DEG F)
DOAS-1A	4450	84.4	80.2	4450	78.5	71.3	3475	75	62.5	3475	82.4	75.5
DOAS-2A	3160	84.4	80.2	3160	78.4	70.3	2775	75	62.5	2775	81.7	75.3
DOAS-3A	4350	84.4	80.2	4350	77.6	68.8	3850	75	62.5	3850	82.6	76.6
DOAS-1	4450	84.4	80.2	4450	77.4	68.5	3475	75	62.5	3475	82.8	77
DOAS-2	3160	84.4	80.2	3160	78.2	70	2775	75	62.5	2775	81.5	74.9
DOAS-3	4350	84.4	80.2	4350	77.3	68.4	3850	75	62.5	3850	82.8	77

EQUIPMENT TAG	ENTHALPY WHEEL PERFORMANCE											
	WINTER CONDITIONS											
	OUTSIDE AIR			VENTILATION SUPPLY			RETURN AIR			EXHAUST AIR		
	ENT AIRFLOW (CFM)	ENT AIR DB (DEG F)	ENT AIR WB (DEG F)	LVG AIRFLOW (CFM)	LVG AIR DB (DEG F)	LVG AIR WB (DEG F)	ENT AIRFLOW (CFM)	ENT AIR DB (DEG F)	ENT AIR WB (DEG F)	LVG AIRFLOW (CFM)	LVG AIR DB (DEG F)	LVG AIR WB (DEG F)
DOAS-1A	4450	27	22.7	4450	54	43.7	3475	72	55.8	3475	36.5	32.4
DOAS-2A	3160	27	22.7	3160	54.8	44.8	2775	72	55.8	2775	39.7	34.2
DOAS-3A	4350	27	22.7	4350	58.9	47.5	3850	72	55.8	3850	35.5	30.7
DOAS-1	4450	27	15	4450	59.9	45.4	3475	72	54.5	3475	34.5	24.2
DOAS-2	3160	27	15	3160	55.7	42.2	2775	72	54.5	2775	40.9	30.3
DOAS-3	4350	27	22.7	4350	60	45.6	3850	72	55.8	3850	34.4	24.1

MAKEUP AIR UNIT (DOAS) SCHEDULE - CONTINUED

EQUIPMENT TAG	HOT GAS REHEAT CAPACITY			GAS HEATER						ELECTRICAL			MANUFACTURER	MODEL	NOTES
	HGR MBH	EAT (°F DB)	LAT OFF COIL (°F DB)	FUEL	INPUT MBH	OUTPUT MBH	EAT (°F DB)	LAT OFF COIL (°F DB)	CONTROL	V/PH/HZ	MIN CIRCUIT AMPACITY (MCA)	MAX FUSE/CKT BREAKER...			
DOAS-1A	121.4	49.3	74.6	LP	300	240	54	104.0	12:1 MODULATING	460/3/60	58.6	70	GREENHECK	RVE-85-52-15H-25D-J	
DOAS-2A	72.7	50.6	71.9	LP	200	160	54.8	101.7	12:1 MODULATING	460/3/60	41.8	50	GREENHECK	RVE-40-41-30H-15D-G	
DOAS-3A	106.2	50	72.6	LP	300	240	58.9	110.0	12:1 MODULATING	460/3/60	52.3	60	GREENHECK	RVE-85-52-30L-20D-J	
DOAS-1	177.6	48.6	71.8	LP	200	160	59.9	93.1	8:1 MODULATING	460/3/61	55.1	70	TRANE	OAKD240D4	
DOAS-2	118.8	49.1	83.9	LP	150	120	55.7	90.7	8:1 MODULATING	460/3/62	41.4	50	TRANE	OADG017F3	
DOAS-3	105.7	50.2	72.7	LP	200	160	60	93.9	8:1 MODULATING	460/3/63	52.2	60	TRANE	OAKD240D4	

Notes Applicable to All Units
1. Provide units with circuit breaker disconnect sized for units MOCP.
2. Provide energy recovery wheel with MERV 13 filters on OA intake and MERV 8 filters on exhaust upstream of wheel.
3. Provide with modulating scroll compressors
4. Sea-Coast Protected Coat all Coils
5. Modulating Hot Gas Reheat.
6. Modulating LP gas heater.
7. Provide outside air intake hood. Include Open/Closed OA damper actuator and recirculating damper
for unoccupied periods or morning warmup.
8. Coordinate controls with BAS provider (CMI) prior to bid.

Reviewed for Code Compliance

This review for code compliance does not relieve the owner, design professional, contractor or their representatives from the responsibility to comply with OSF regulations, local, state and national codes in effect at the time of permit issuance. This plan review does not prevent this office from requiring corrections during construction. Any changes or alterations to these documents shall be approved by the Building Official - Office of School Facilities.

Stamped plans and specifications are required to be on site for inspections.

Project: Loris Elementary MAU Replacement
Plans Examiner: SAFEbuilt /SCY
Date: 11/29/2021
Time: 5:00 PM
SAFEbuilt

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MALCOM DENNIS KNIGHT
No. 19427
11/09/2021

MALCOM KNIGHT
WHOLE BLDG.
SYSTEMS, LLC
No. C04305

LORIS ELEMENTARY SCHOOL MAU REPLACEMENT

901 SC-9 BUSINESS, LORIS, SC 29569

PROJ. NO. 2109001
DATE: 11/09/2021
DESIGNED BY: MDK
DRAWN BY: MDK
CHECKED BY: MDK

REVISIONS

NO.	DATE	NOTES

HVAC SCHEDULES

M600

100% CD SUBMITTAL

ELECTRICAL LEGEND

PANEL

ABBREVIATIONS

A OR AMPS	AMPERES
BKR	BREAKER
C	CONDUIT
CKT	CIRCUIT
(E) OR EX	EXISTING
ELEC	ELECTRICAL
ETR	EXISTING TO REMAIN
FLA	FULL LOAD AMPS
G	GROUND
MCA	MINIMUM CIRCUIT AMPACITY
MECH	MECHANICAL
MFS	MAXIMUM FUSE SIZE
MOP OR MOCP	MAXIMUM OVERCURRENT PROTECTION

GENERAL NOTES:

1. ELECTRICAL FLOOR PLANS ARE SHOWN FOR EQUIPMENT AND PANEL LOCATION REFERENCE ONLY; REFER TO ELECTRICAL EQUIPMENT SCHEDULE ON E600 FOR ADDITIONAL INFORMATION.

2. REFER TO MECHANICAL FLOOR PLANS FOR RATED WALL LOCATIONS.

Reviewed for Code Compliance

This review for code compliance does not relieve this owner, design professional, contractor or their representatives from the responsibility to comply with 150 regulations, local, state and national codes in effect at the time of permit issuance. This plan review does not prevent the Building Official from requiring corrections to errors in the construction documents that are approved by the Building Official. Office of School Facilities.

Stamped plans and specifications are required to be on site for inspections.

Project: Loris Elementary Mau Replacement

Plans Examiner: SAMSHub ISC1

Date: 11/29/2021

Time: 5:09 PM

SAMSHub

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11/09/2021

MALCOM KNIGHT
SOUTH CAROLINA
WHOLE BLDG. SYSTEMS, LLC
No. COA305
CERTIFICATE OF AUTHORIZATION

LORIS ELEMENTARY SCHOOL MAU REPLACEMENT

901 SC-9 BUSINESS, LORIS, SC 29569

PROJ. NO.	2109001
DATE:	10/15/2021
DESIGNED BY:	MDK
DRAWN BY:	MDK
CHECKED BY:	MDK

REVISIONS

NO.	DATE	NOTES

ELECTRICAL LEGEND, NOTES, AND ABBREVIATIONS

E001

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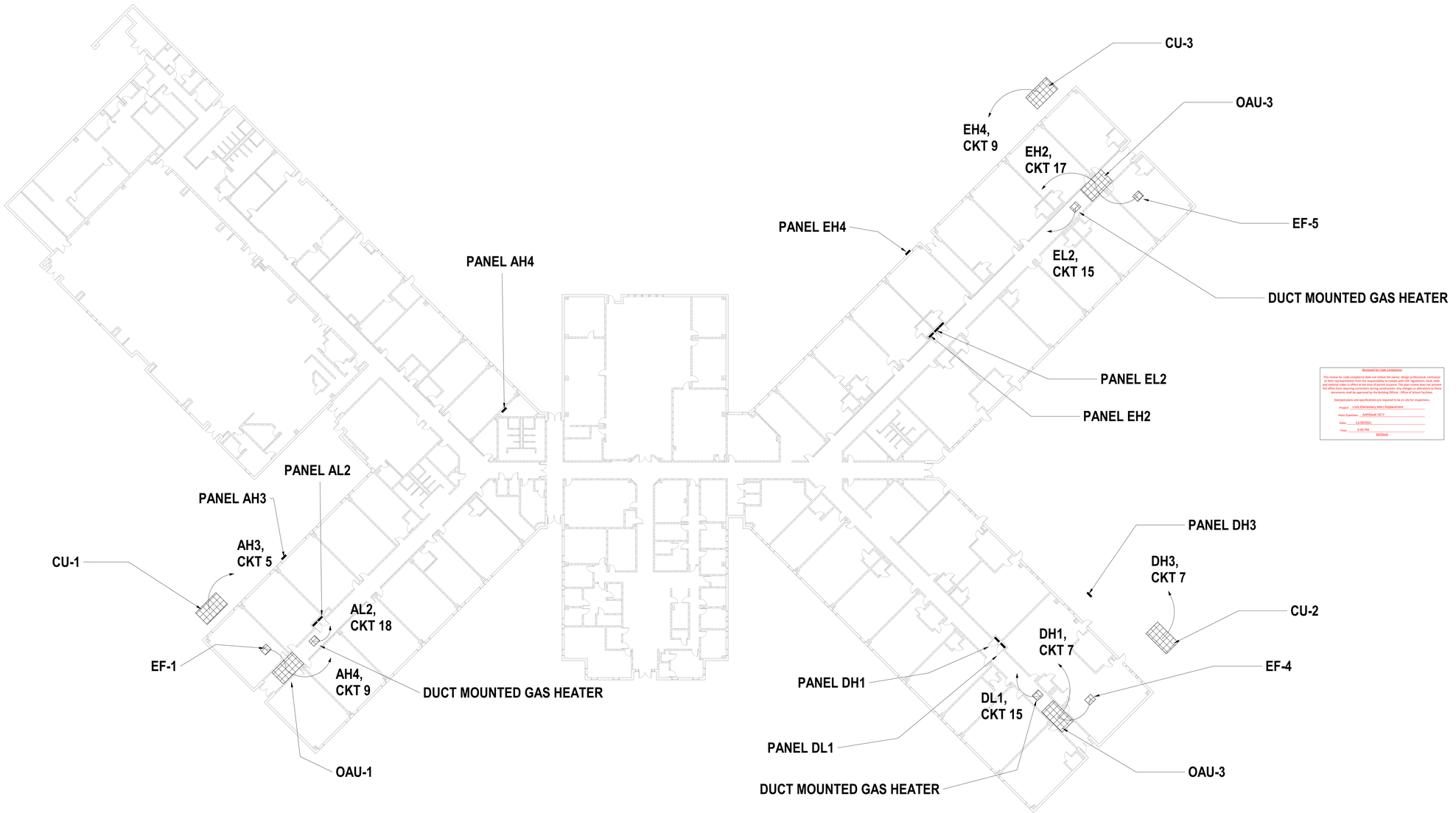
ELECTRICAL DEMOLITION KEYNOTES	
Number	Electrical Demolition Keynote Text
1	DISCONNECT POWER CIRCUIT CONDUCTORS FROM UNIT. EXHAUST FAN AND POWER PANEL. REMOVE CONDUCTORS FROM RACEWAY BETWEEN UNIT AND PANEL COMPLETE. REMOVE CONDUIT FROM UNIT TO NEAREAST JUNCTION BOX, PLUG OPENING IN JUNCTION BOX AND REPLACE COVER. REMOVE CONDUIT FROM PANEL TO NEAREST JUNCTION BOX, PLUG OPENING IN PANEL AND JUNCTION BOX AND REPLACE ALL COVERS.
2	DISCONNECT POWER CIRCUIT FROM UNIT. PROTECT CONDUCTORS AND RACEWAY FOR CONNECTION TO NEW WORK.
3	DISCONNECT 120 V POWER FROM DUCT MOUNTED GAS HEATER. REMOVE CONDUCTORS FROM RACEWAY TO NEAREAST JUNCTION BOX AND TERMINATE IN ACCORDANCE WITH NEC. REMOVE CONDUIT FROM UNIT TO NEAREAST JUNCTION BOX, PLUG OPENING IN JUNCTION BOX AND REPLACE COVER.



Reviewed for Code Compliance

This review for code compliance does not relieve the owner, design professional, contractor or their representatives from the responsibility to comply with CDP regulations, local, state and national codes in effect at the time of permit issuance. This plan review does not prevent the Building Official from requiring corrections to errors and omissions in the construction documents shall be approved by the Building Official. Office of School Facilities.

Stamped plans and specifications are required to be on site for inspections.

Project: Loris Elementary MAU Replacement

Plans Examiner: DARSHAN DEV

Date: 11/29/2021

Time: 5:00 PM

WITHdrift

1 ELECTRICAL POWER PLAN DEMOLITION
1" = 20'-0"

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MALCOM KNIGHT
SOUTH CAROLINA
19427
REGISTERED
PROFESSIONAL
ENGINEER
11/09/2021

MALCOM KNIGHT
WHOLE BLDG. SYSTEMS, LLC
No. C04305
SOUTH CAROLINA
CERTIFICATE OF AUTHORIZATION

LORIS ELEMENTARY SCHOOL MAU REPLACEMENT

901 SC-9 BUSINESS, LORIS, SC 29569

PROJ. NO.	2109001
DATE:	11/03/21
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

REVISIONS

NO.	DATE	NOTES

ELECTRICAL POWER PLAN - DEMOLITION

ED101

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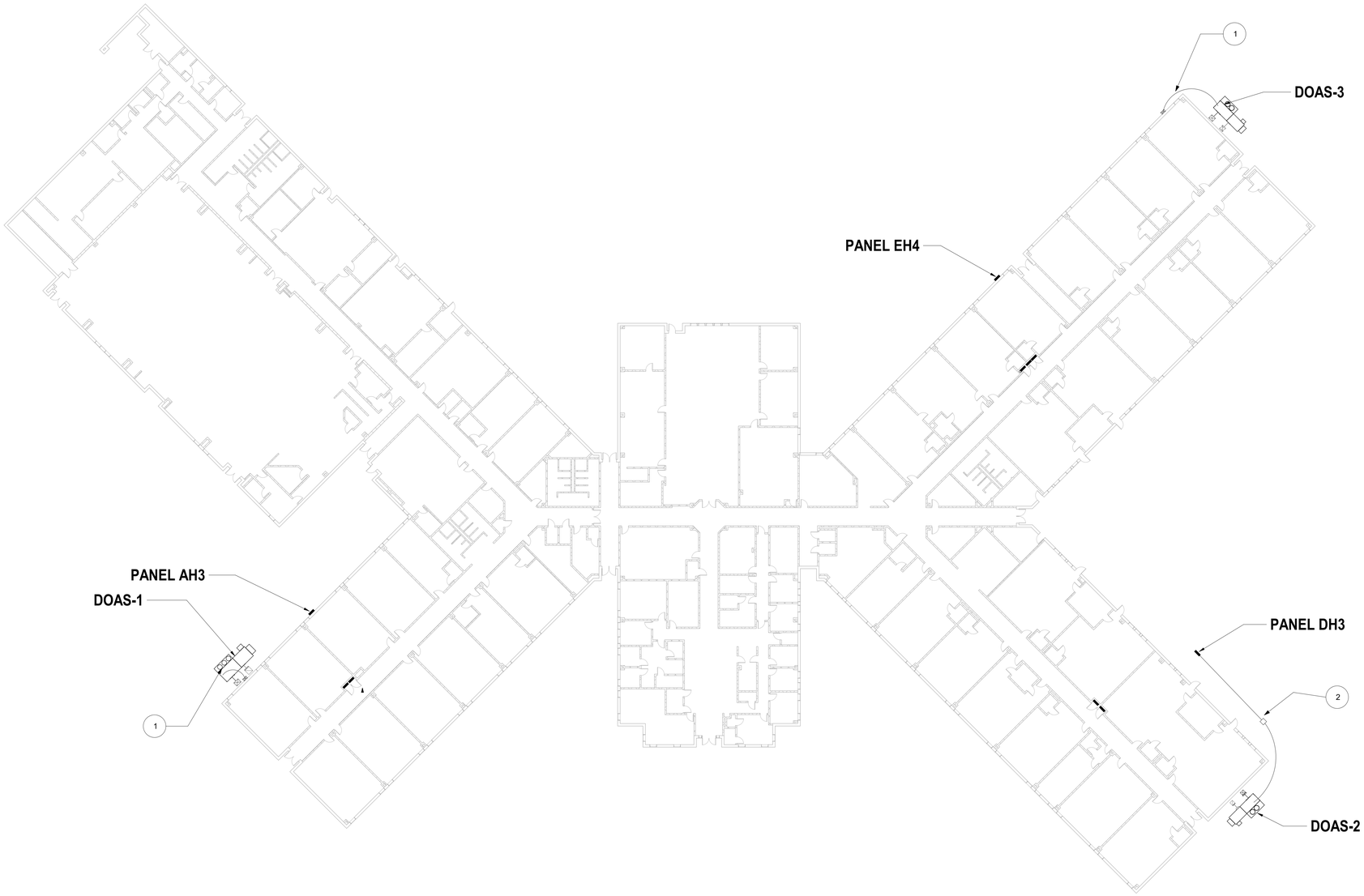
ELECTRICAL NEW WORK KEYNOTES	
Number	Electrical New Work Keynote
1	REPLACE DISCONNECT WITH 6"X6"X6" NEMA 3R JUNCTION BOX, PROVIDE 1-INCH SCH 80 PVC CONDUIT FROM JUNCTION BOX UNDERGROUND TO NEW DOAS UNIT POWER CONNECTION. SPLICE EXISTING POWER CONDUCTORS AND GROUND IN JUNCTION BOX TO NEW CONDUCTORS AND GROUND. PULL SPLICED CONDUCTORS FROM JUNCTION BOX TO DOAS UNIT AND CONNECT POWER TO UNIT'S CIRCUIT BREAKER DISCONNECT SWITCH.
2	PROVIDE MINIMUM 12"X12"X12" WATERPROOF UNDERGROUND QUAZITE ELECTRICAL ENCLOSURE. SET TOP OF ENCLOSURE FLUSH WITH EXISTING GRADE. CONNECT TO EXISTING UNDERGROUND CONDUIT/CIRCUIT FROM PANEL DH3 SERVIING EXISTING CU-2. SPLICE EXISTING POWER AND GROUND CONDUCTORS TO NEW CONDUCTORS AND GROUND IN UNDERGROUND ENCLOSURE. ROUTE 1-INCH SCH 80 PVC CONDUIT UNDERGROUND TO DOAS UNIT ELECTRICAL CONNECTION. PULL NEW CONDUCTORS AND GROUND FROM UNDERGROUND ENCLOSURE TO DOAS UNIT AND CONNECT UNIT'S CIRCUIT BREAKER DISCONNECT.



1 ELECTRICAL POWER PLAN NEW WORK
1" = 20'-0"

Reviewed for Code Compliance

This review for code compliance does not relieve the owner, design professional, contractor or their representatives from the responsibility to comply with ISD regulations, local, state and national codes in effect at the time of permit issuance. This plan review does not prevent the correction of errors and omissions discovered during construction. Approved Plans/ Plans/ documents shall be approved by the Building Official - Office of School Facilities.

Stamped plans and specifications are required to be on site for inspections.

Project: Loris Elementary MAU Replacement

Plans Examiner: SAYDAM, ZACY

Date: 11/29/2021

Time: 5:00 PM

WBS#

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SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER 19427 CHRISTOPHER DENNIS WRIGHT

11/09/2021

SOUTH CAROLINA MALCOM KNIGHT WHOLE BLDG. SYSTEMS, LLC. No. C04305 CERTIFICATE OF AUTHORIZATION

LORIS ELEMENTARY SCHOOL MAU REPLACEMENT

901 SC-9 BUSINESS, LORIS, SC 29569

PROJ. NO. 2109001

DATE: 11/04/21

DESIGNED BY: Designer

DRAWN BY: Author

CHECKED BY: Checker

REVISIONS

NO.	DATE	NOTES

ELECTRICAL POWER PLAN - NEW WORK

E101

100% CD SUBMITTAL

EQUIPMENT ELECTRICAL SCHEDULE PIS-WORKING														
TAG	UNIT TAG ON EXISTING ELECTRICAL	UNIT TYPE	EX ELECTRICAL CHARACTERISTICS					NEW ELECTRICAL REQUIREMENTS						
			EX PANEL NAME	EX VOLTAGE/PHASE	EX CIRCUIT NUMBER	EX CKT BKR SIZE (AMPERES)	EX WIRE/CONDUIT SIZE	NEW PANEL NAME	NEW VOLTAGE/PHASE	NEW CIRCUIT #	NEW CKT BKR SIZE (AMPERES)	NEW WIRE/CONDUIT SIZE	NEW EQUIPMENT MCA	NEW EQUIPMENT MOCP
DOAS-1	CU-1	DOAS	AH3	480/3	5	70	3/4"C - 3#6 & #8G	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	55.1	70
DOAS-2	CU-2	DOAS	DH3	480/3	7	50	3/4"C - 3#8 & #10G	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	41.4	50
DOAS-3	CU-3	DOAS	EH4	480/3	9	60	3/4"C - 3#6 & #10G	EXISTING	EXISTING	EXISTING	EXISTING	EXISTING	52.2	60

NOTES APPLICABLE TO ELECTRICAL EQUIPMENT SCHEDULE:

1. REUSE EXISTING CIRCUIT BREAKER, CONDUIT AND WIRE. EXISTING CIRCUIT BREAKER AND WIRE ARE SAME SIZE AS REQUIRED FOR NEW UNIT. CONNECT NEW CONDUCTORS TO UNIT MFG PROVIDED SINGLE POINT POWER CONNECTION AT CIRCUIT BREAKER DISCONNECT IN UNIT.

2. PROVIDE NEW TYPE WRITTEN PANEL LABELS IN EXISTING PANEL SCHEULE TO MATCH NEW UNIT TAGS PRIOR TO SUBSTANTIAL COMPLETION OF THE WORK.

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10/15/2021

LORIS ELEMENTARY SCHOOL MAU REPLACEMENT

901 SC-9 BUSINESS, LORIS, SC 29569

PROJ. NO. 2109001

DATE: 10/15/2021

DESIGNED BY: MDK

DRAWN BY: MDK

CHECKED BY: MDK

REVISIONS

NO.	DATE	NOTES

EQUIPMENT ELECTRICAL SCHEDULE

E600

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