

100 School Chapel Dr

Address

Historic District

Chapel, St. Marys School
Historic Property

COA-0093-2025
Certificate Number

7/22/2025

Date of Issue

1/22/2026

Expiration Date

This card must be kept posted in a location within public view until all phases of the described project are complete. The work must conform with the code of the City of Raleigh and laws of the state of North Carolina. When your project is complete, you are required to ask for a final zoning inspection in a historic district area. Telephone the RHDC office at 832-7238 and commission staff will coordinate the inspection with the inspections Department. If you do not call for this final inspection, your Certificate of Appropriateness is null and void.

CERTIFICATE OF APPROPRIATENESS PLACARD

for Raleigh Historic Resources

Project Description:

Install new fire sprinkler

Signature, Collettu K

Raleigh Historic Development Commission

Pending the resolution of appeals, commencement of work is at your own risk.

Type or print the	ne followina:			
Applicant name: Saint Mary's School attn: Eric I				
Mailing address:900 Hillsborough Street				
City:Raleigh State:NC	Zip code:27603			
y i tanoigii	Daytime phone #:919-795-5608			
Email address:eposs@sms.edu	24yama phana m. 3 13 1 30 3000			
Applicant signature:				
Applicant signature.				
Minor work (staff review) – one copy	Office Use Only			
Major work (COA committee review) - ten	Transaction #:			
copies	File #: <u>COA-0093-2025</u>			
Additions > 25% of building sq. footage	Fee:			
New buildings	Amount paid:			
Demolition of building or structure	Received date:			
All other	Received by:			
Post approval re-review of conditions of				
approval				
Property street address: 100 School Chapel Dr.				
Historic district: Raleigh				
Historic property/Landmark name (if applicable):Sai	nt Mary's Chapel			
Owner name:Saint Mary's College Campus				
Owner mailing address:eposs@sms.edu				
For applications that require review by the COA of and stamped envelopes for owners for all proper as well as the property Owner Name & Address	, ,			

Property Owner Name & Address

I understand that all major work applications that require review by the Raleigh Historic Development Commission's COA Committee must be submitted by 4 p.m. on the date of the application deadline; otherwise, consideration will be delayed until the following committee meeting. An incomplete application will not be accepted.

Yes No		ation tax credits for this project? filing the application?	Office Use Only Type of work:50
Desi	gn Guidelines: please	cite the applicable sections of the de	esign guidelines (<u>www.rhdc.org</u>).
Section/Page	Topic	Brief description of work (a	ttach additional sheets as needed).
Certificate of A Please post the Certificate shal	ppropriateness. It is valid e enclosed placard form of I not relieve the applican ny law. Minor Works are	Minor Work Approval (office use of the Planning Director or designee, this d until 22,202) of the certificate as indicated at the bott, contractor, tenant, or property owner subject to an appeals period of 30 days	tom of the card. Issuance of a Minor Work from obtaining any other permit required by

2018 APPENDIX B BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS (EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES) (NCDOA - 2018 NC Administrative Coc

		en e		and the second s		AOLI II AND 2-IA	THE DWEL		SAND	TOWN	NHOUSE	O (NCDC	0A - 2018 NC Adm
Address: 100 SCHOOL CH	ARY'S SCHOOL - CHAPEL - NEW SPRINKL APEL DRIVE, RALEIGH, NORTH CAROLINA ANGUS DE CLASSES	Zip 0	Cods: 27603			ALLOWABLE HEIGHT	ALLOWA	BLE I	SHOWN ON		CODE		
Owned By: City Cou	ANGUS M. CLARK, P.E. Phone® 919. nty Ø Private 🗆 State			arkengineering.com		Building Height in Fast (Table 504)	(TABLE !	903)	PLANS Feet 33		REFERENCE		
	ction: City CITY OF RALEIGH C	ounty 🗆 🗅 St	ats			Building Height in Stories (Table 50	94.4) Stories 3		Stories 1				
CONTACT: JOHN W. FARAE DESIGNER	BOW, JR, AIA FIRM	NAME	LICENSE* T	FI FRUNE*	EMAIL	Provide code reference if the "Sho	itro! towers must complu :	uith Table	41231	3 or 504.4	4.		
Architectural Civil	N/A JONES & CNOSSEN ENGINEERING PLLC	-				The maximum area of open parking g	arages must comply with	Table 40	65.4.				
Electrical	NA	_			-	BUILDING ELEMENT	FIRE	T	RATING	DETAIL	DESIGN	SHEET *	SHEET *
Fire Alarm Plumbing	ANGUS CLARK ENGINEERING PC N/A	ANGUS M. CLARK, PE			angus aangus clarkeng ineering com -		SEPARATION DISTANCE (FEET)	REQ'D	PROVIDED	* AND SHEET	* FOR RATED	FOR RATED	FOR RATED
Mechanical Sprinkler-Standpipe	N/A CAROLINA FIRE PROTECTION INC	JEFFERY R. DUNN, PE				Structural frame, including	(bis 1/	-	REDUCTION)	•	ASSEMBLY	PENETRATION	JOINTS
Structural Retaining Walls 5' #2 High	N/A	-			-	columns, girders, trusses Bearing walls	N/A	N/A	-	-	<u> </u>	-	-
Other ()	N/A	•			•	Exterior North	N/A	N/A	-				
	ms and individuals such as truss, precast, p	ors-engineered, interior design	gners, etc.)			East	N/A	N/A	-	-	-	-	-
2018 NC BUILDING CODE:	☐ New Construction ☐ Addition ☐ R	denovation 🗆 let Time Interio	or Completion			West South	N/A N/A	N/A N/A	-		-	-	-
2018 NC EVISTING BUILDIN	☐ Phased Construction - Shell/Core					Interior Non-bearing walls and partition	ne N/A	N/A	-				-
CONSTRUCTED: (DATE)) (Ch. 3): EDUCATIONAL	. (E)		SEC IEST DESCRIPTION	Exterior Walls North	N/A	N/A		· <u>-</u>		-	-
RENOVATED: (DATE) N. RISK CATEGORY (TABLE)	16045): CURRENT:		. (E) - NO CHAN	IGE IN OCCUPANCY(5)	INSTALL NEW DRY PIPE SPRINKLER SYSTEM AND FIRE ALARM. REPLACE	East West	N/A N/A	N/A N/A	-	-	-	-	-
	PROPOSED: [] XIII []				EXISTING MAIN ELECTRICAL PANEL. EXTEND EXISTING FIRE LINE TO NEW	South Interior walls and partitions	N/A N/A	N/A N/A	•	-	-	-	-
BASIC BUILDING DATA Construction Type:	-A	ПШ-В ПІУ ПУ-А	∏v-B		SPRINKLER RISER	Floor Construction including supporting beams and		N/A	-	-	-	<u> </u>	-
Sprinklers: ⊠No □ F	Partial □ Yes □ Partial □ NFPA 13 □ Ges □ Class I □ Class II □ Class III	NEPA ISR INFPA ISD	2.2			Floor Ceiling Assembly	-	N/A	-	-	-	-	-
	'es (Primary) Flood Hazard Area: 🛛 No	☐ Yes				Columns Supporting Floors Roof Construction	- I totals	N/A	-	-	-	•	-
Gross Building Area:	Д. Б. 190				the party of the second management	Including supporting beams and Roof Ceiling Assembly		N/A N/A	-	-	-	<u> </u>	-
FLOOR EXISTING (6Q FT) NEW (6Q FT) RENO/ALTER		AL (6Q FT)			Columns Supporting Roof Shaft Enclosures - Exit	-	N/A N/A	-	-	-	-	-
Attic N/A 3rd Floor N/A	N/A N/A N/A N/A	-				Shaft Enclosures - Other Corridor Separation	-	N/A N/A	-	-	-	-	-
2nd Floor N/A Mezzanine N/A	N/A N/A N/A N/A	-				Occupancy/Fire Barrier Separa		N/A	-		-	-	-
lst Floor 3,787 SF. Basement N/A	N/A 3,787 S.F. N/A N/A	3,787 SF.				Party/Fire Wall Separation Smoke Barrier Separation	-	N/A N/A	-	-	-	-	-
	147	TOTAL: 3,787 SF.	NO CHANGE			Smoke Partition Tenant/Dwelling Unit/	_	N/A N/A	-	-	-	•	-
ALLOWABLE AREA Primary Occupancy Classifi	cation: SELECT ONE		The second of th	and the second s	and a realizable framer is substituted as a final property of the property of	Sleeping Unit Separation Incidental Use Separation		N/A	-	-	-	-	-
Business:	□ A-2 □ A-3 □ A-4 □ A-5					· Indicate section number permitting	reduction						
	derate 🗆 F-2 Low					PERCENTAGE OF WALL OPENING CAL	CULATIONS						
institutional: □i-1 Co		□ H-4 Health □ H-5 HPM				FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	DEGREE OF OPE		ALLOWA AREA	ABLE (%)	ACTUAL ON PLA	SHOWN NS (%)	N/A
□I-3 <i>Co</i>	ndition:□ □2 ndition:□ □2 □3 □4 □5					-	-		-		-		
□I-4 Mercantile: □						-	-						
Residential: R-1 Storage: 3-1 Mo	derate 8-2 Low High-Piled					LIFE SAFETY SYSTEM REQUIREMENTS							
Utility and Miscellaneou		pair Garage				Emergency Lighting: Mino Exit Signs:	□ Yes ⊠ Yes						
incidental Uses (Table 509						Fire Alarm: No Smoke Detection Systems: No	⊠Yes □Yes □Partial						
☐ Rooms with boilers w	iny piece of equipment is over 400,000 i here the largest piece of equipment is ov	Btu per hour input ver 15 psi and 10 horsepower				Carbon Monoxide Detection: 🛛 No	□ Yes						
☐ Refrigerant machinery ☐ Hydrogen fuel gas re	y room pome, not classified as Group H					LIFE SAFETY PLAN REQUIREMENTS LIFE SAFETY Plan Sheet: N/A							
☐ Incinerator rooms ☐ Paint shops, not class	eified as Group H, located in occupancies	other than Group F				☐ Fire and/or smoke rated wall loc ☐ Assumed and real property line	ations (Chapter 7) locations (if not on the	site plan)					
☐ In Group 1-2 occupan	iles, Laboratories and vocational shops, no cies, Laboratories not classified as Group cilities, Laboratories not classified as Gro) H.				 □ Exterior wall opening area with r □ Occupancy use for each area as 	espect to distance to a	ssumed p	ropertu lines (7	05.8) 00412)			
☐ Laundry rooms over 1	cities, Laboratories not classified as Gro 100 square feet rooms over 100 square feet	рир н.				 □ Occupant loads for each area □ Exit access travel distances (id 				<u>-</u> ,			
☐ In Group 1-2, Laundrie ☐ Group 1-2 commercial	se equal to or less than 100 square feet					☐ Common path of travel distance☐ Dead end lengths (1020.4)	e (10062.1 4 100632(1))						
Group 1-2 rooms or s	paces that contain fuel-fired heating equi aroup 1-2 patient rooms equipped with page	pment dded surfaces				☐ Clear exit widths at each exit d ☐ Maximum calculated occupant lo		oor can a	occommodate ba	ased on ea	aress width (16	0053)	
☐ Group 1-2, physical p	lant maintenance shops cilities or Group 1-2 occupancies, waste ar		containers that he	31/4		☐ Actual occupant load for each ☐ A separate schematic plan indic	exit door						cubancu sebaratio
and aggregate volum	ne of 10 cubic feet or greater ory care facilities and Group 1-2 occupanc				/ m . u . u .	 □ Location of doors with panic ha □ Location of doors with delayed 	rdware (1010.1.10)				provided for	pa posos 0. 00	supulay opporation
square reet	cilities or Group 1-2 occupancies, storage					 □ Location of doors with electrom □ Location of doors with equippe 	nagnetic egress locks (19	(e.e.l.@l					
lead-acid, nickel cad	attery systems having a liquid electrolyte Imium or VRLA, or more than 1,000 pounds	capacity of more than 50 ga for lithium-ion and lithium met.	lions for flooded	or		☐ Location of emergency escape ☐ ☐ The square footage of each fire	windows (1030)						
facility standby power Fuel storage rooms in	er, emergency power or uninterruptible pow n public schools and boiler rooms in public	er supplies. Sechools	, ,			☐ The square footage of each smo ☐ Note any code exceptions or ta	oke compartment for Occ	supancy C	lassification 1-2	(407.5)	shove		
Special Uses: (Chapter 4 Li	neath grandstands or bleacher seats cont. ist Code Sections)						TLE						
□ 413 □ 414 □ 415	4 405 406 401 408 409	1410 411 412 N/A 1421 422 423				-						,	
pecial Provisions: (Chapte	□ 427 □ 428 □ 429 □ 43Ø sr 5 - List Code Sections)	N/A				-							
1ixed Occupancy: 🛭 No		sption: <u>N/A</u> HR				ACCESSIBLE DUELLING UNITS (SECTION 1101) TOTAL ACCESSIBLE ACCESS	SIBLE TYPE A	TYPE A	1YPE	В	rPE B	TOTAL	N/A
□ Non-Separated Use (1) The required type	of construction for the building sh	all be determined by app	olying the heigh	nt.		UNITS UNITS UNI REQUIRED PROV	TS UNITS	UNITS PROVIDE	UNITE	5 L		ACCESSIBLE UNITS	
restrictive type of	e for each of the applicable occup f construction, so determined, shall a 4) - See below for area calculations	apply to the entire buildi	aing. The most ing.				_		_			PROVIDED	
For each story, the ar	ea of the occupancy shall be such that the the allowable floor area for each use sha	s sum of the ratios of the ac Il not exceed 1.	tual floor area of			ACCESSIBLE PARKING (SECTION 1106)						-	
Actual Area of Occ Allowable Area of Oc	cupancy A Actual Area of Occupa	incy B				LOT OR PARKING AREA TOTAL .	OF PARKING SPACES		ACCESSIBLE SF			TOTAL *	N/A
-	ccupancy A * Allowable Area of Occup	•	100			REQUIR		REGULA ' ACCES	S AISLE 132" A		8' ACCESS	ACCESSIBLE PROVIDED	
STORY No. DESCRI	PTION AND USE	(Δ) (B)	(c)	(5)			-	-	Als	3LE	AISLE -	-	
DESCRI	I IIVII PILV UOE	BLDG AREA PER STORY AREA	AREA FOR	ALLOWABLE AREA PER		TOTAL -	-	-		-	-	-	
		(ACTUAL)	FRONTAGE INCREASE®	STORY OR UNLIMITED 23		PLUMBING FIXTURE REQUIREMENTS (T.	ABLE 29/021)			***************************************	1		-
			-	-		USE U	JATER CLOSETS URI	NALS	LAYATORIES			RINKING FOUNTA	N/A
			-	-		- EXISTING -	FEMALE UNISEX		LE FEMALE U	NISEX	TUB6 RE	GULAR ACCESSI	BLE
-	s Snow Gardian Edit 2		-	-		NEW - REQUIRED -		-		-	-		
a. Perimeter which	es from Section 5063 are computed thue: fronts a public way or open space having	20 feet minimum width =	(F)			- EXISTING -		-		-			
c. Ratio (F/P) =	Perimeter = - (P) - (F/P) h of public way (III)					REQUIRED -		-	- -	-	-		
e. Percent of front	h of public way = $$ (W) age increase I_f = 100 (F/P - 025) x W/30 bis under conditions of Section 507:) =(%)				SPECIAL APPROVALS	Delegation						
Maximum Building are	sa = total number of atories in the k	pullding xD (maximum 3 st. with Table 406.5.4.	ories) (5062).			Special approval: (Local Jurisdiction, 1	pepartment of insurance,	USC, DP	1, DHH5, etc., de	sscribe be	elow)		N/A
"Frontage increase is ba	open parking garages must comply ased on the unsprinklered area value in Ta	ble 5 <i>0</i> 62.				-							

d Policies)	
ENERGY SUMMARY	
ENERGY REQUIREMENTS:	N/A
The following data shall be considered minimum and any se	oecial attribute required to meet the North Carolina
Energy Conservation Code shall also be provided. Each project information for the plan data sheet. If performance for the property of the property designs and the property of the provided the pr	designer shall furnish the meduired portions of the
coet for the proposed design.	
Existing building envelope complies with code: No	Yes (The remainder of this section is not applicable)
Exempt Building: No Yes Provide code or statuto	ry reference:
Method of Compliance	
☐ Performance ☐ Prescripted	
☐ ASHRAE 90.1 ☐ Perfiromance ☐ Prescripted	(If "Other" specify source here
THERMAL ENVELORE (Prescriptive method only) Roof/Ceiling Assembly (each Assembly)	
Description of assembly	
U-Value of total assembly	
R-Value of insulation	
Skylighte in each assembly U-value of Skylight	
Total equare footage of skylights in each asso	embly
Exterior Walls (each Assembly)	
Description of assembly .	
u-value of total assembly	
R-Value of insulation Openings (windows or doors with glazing).	
Illuvelye of accomply	
Solar Heat gain coefficient .	
D = == D \ / a \	
Walls below grade (each assembly)	
Description of assembly	
U-Value of total assembly R-Value of insulation	
Floors over unconditioned space (each assembly)	
Description of assembly .	
U-Value of total assembly	
R-Value of insulation	
Description of assembly	
U-Value of total assembly	
R-Value of insulation Horizontal/Vertical requirement	
Slab Heated .	
2018 APPE	ENDIX B
BUILDING CODE SUMMARY FOR	ALL COMMERCIAL PROJECTS N/A
6TRUCTURAL PROVIDE ON THE STRUCTURAL	L DESIGN AL SHEETS IF APPLICABLE)
DESIGN LOADS:	
Importance Factore: Snow (16) Seismic (15)	
Live Loads: Roof psf	
Mezzanine pef	
Floor - psf	
Ground Snow Load:psf Wind Load: Uitimate Wind Speed mph (ASC	CE-1)
Exposure Category	22-17
SEISMIC DESIGN CATEGORY A B C D	
Provide the following Seismic Design Parameters:	
Rick Category (Table 16045)	
Spectral Response Acceleration S ₆ %g S ₁ %g Site Classification (ASCE 1)	F (1)#
Data Source: Sield Test Spresumptive S	
Basic Structural System	
☐ Bearing Wall ☐ Dual w/ Special Moment Frame	
☐ Building Frame ☐ Dual w/ Intermediate R/C or Span	ecial Steel
Analysis Procedure: Simplified Equivalent Lateral Force	⊋ □ Dynamic
Architectural, Mechanical, Components anchored? Yes	No
LATERAL DESIGN CONTROL: Earthquake Wind SOIL BEARING CAPACITIES:	
	pef
☐ Presumptive Bearing Capacityp	pef
Pile size, type, and capacity -	
2018 APPE	NDIX B
BUILDING CODE SUMMARY FOR A	ALL COMMERCIAL PROJECTS N/A
(PROVIDE ON THE MECHANICA	L SHEETS IF APPLICABLE)
MECHANICAL SUMMARY	
MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT Thermal Zone	
winter dry bulb:	
summer dry bulb:	
interior design conditions	
winter dry bulb:	
relative humidity:	
Building heating load:	
Building cooling load: Mechanical Spacing Conditioning System	
Unitary	
description of unit:	
heating efficiency:	
cooling efficiency:	
Boller	
size category. If oversized, state reason:	
Chiller	
size category. If oversized, state reason:	
List equipment efficiencies: _	
2018 APPE	NDIX B
BUILDING CODE SUMMARY FOR A	ALL COMMERCIAL PROJECTS N/A
ELECTRICAL (PROVIDE ON THE ELECTRICAL	_ DESIGN
ELECTRICAL SUMMARY	
ELECTRICAL SYSTEM AND EQUIPMENT	
Method of Compliance	
Method of Compliance Energy Code: Prescriptive Performance	
Method of Compliance Energy Code: Prescriptive Performance ASHRAE 30.1: Prescriptive Performance	
Method of Compliance Energy Code: Prescriptive Performance ASHRAE 30.1: Prescriptive Performance Lighting Schedule	
Method of Compliance Energy Code: Prescriptive Performance ASHRAE 90.1: Prescriptive Performance Lighting Schedule lamp type required in fixture	
Method of Compliance Energy Code: Prescriptive Performance ASHRAE 30.1: Prescriptive Performance Lighting Schedule lamp type required in fixture number of lamps in fixture	
Method of Compliance Energy Code: Prescriptive Performance ASHRAE 90.1: Prescriptive Performance Lighting Schedule lamp type required in fixture number of lamps in fixture ballast type in fixture number of ballasts in fixture	
Method of Compliance Energy Code: Prescriptive Performance ASHRAE 30.1: Prescriptive Performance Lighting Schedule lamp type required in fixture _ number of lamps in fixture _ ballast type in fixture _ number of ballasts in fixture _ total wattage per fixture _	
Method of Compliance Energy Code: Prescriptive Performance ASHRAE 90.1: Prescriptive Performance Lighting Schedule lamp type required in fixture	
Method of Compliance Energy Code: Prescriptive Performance ASHRAE 30.1: Prescriptive Performance Lighting Schedule lamp type required in fixture number of lamps in fixture ballast type in fixture number of ballasts in fixture total wattage per fixture total interior wattage specified vs. allowed: (whole building or space by space)	
Method of Compliance Energy Code: Prescriptive Performance ASHRAE 30.1: Prescriptive Performance Lighting Schedule lamp type required in fixture number of lamps in fixture ballast type in fixture number of ballasts in fixture total wattage per fixture total interior wattage specified vs. allowed: (whole building or space by space) total exterior wattage specified vs. allowed	
Method of Compliance Energy Code: Prescriptive Performance ASHRAE 30.: Prescriptive Performance Lighting Schedule lamp type required in fixture number of lamps in fixture ballast type in fixture number of ballasts in fixture total wattage per fixture total interior wattage specified vs. allowed: (whole building or space by space) total exterior wattage specified vs. allowed Additional Efficiency Package Options (When using the 2018) C4062 More Efficient HVAC Equipment Performance	NCECC - not required for ASHRAE 90.1)
Method of Compliance Energy Code: Prescriptive Performance ASHRAE 90.1: Prescriptive Performance Lighting Schedule lamp type required in fixture number of lamps in fixture ballast type in fixture number of ballasts in fixture total wattage per fixture total interior wattage specified vs. allowed: (whole building or space by space) total exterior wattage specified vs. allowed Additional Efficiency Package Options (When using the 2018)	NCECC - not required for ASHIRAE 90.1)

H R ASSOCIATES PA ARCHITECTURE PLANNING INTERIOR DESIGN 2202 WRIGHTSVILLE AVENUE SUITE 212 WILMINGTON, NC 28403 WILMINGTON: T. 910.343.6008 F. 910.343.8761 RALEIGH, I WILMINGTON. N. STREET, 900 HILLSBOROUGH PROJECT ARCHITECT JOHN W. FARABOW, JR. AIA PROJECT MANAGER JOHN W. FARABOW, JR. AIA CHECKED BY JOHN W. FARABOW, JR. AIA DRAWN BY PAULA MILLER-JOYCE ISSUE DATE 7/29/2022 PERMIT/CONSTRUCTION SET - NEW SPRINKLER SYSTE REVISIONS

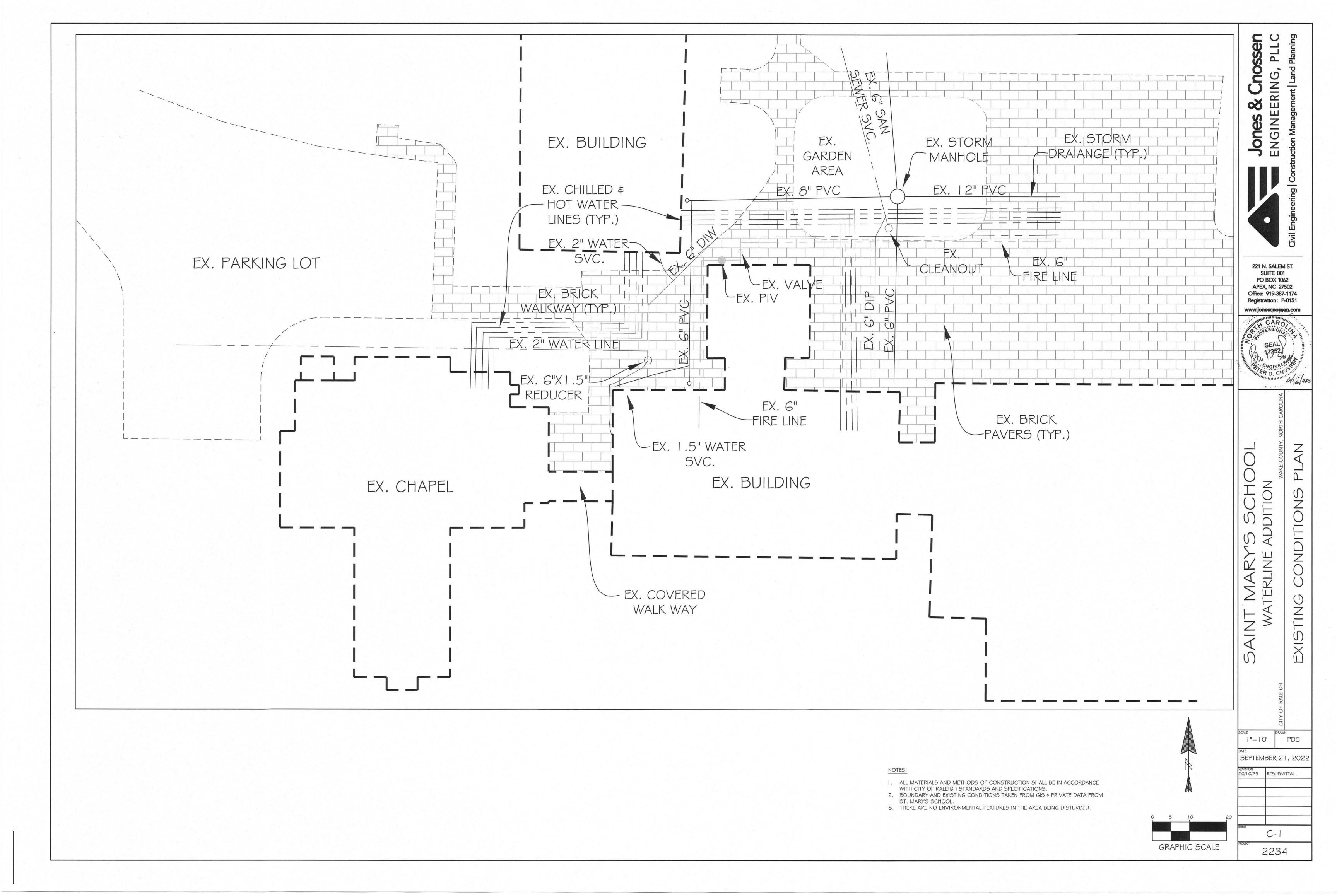
SAINT MARY'S SCHO

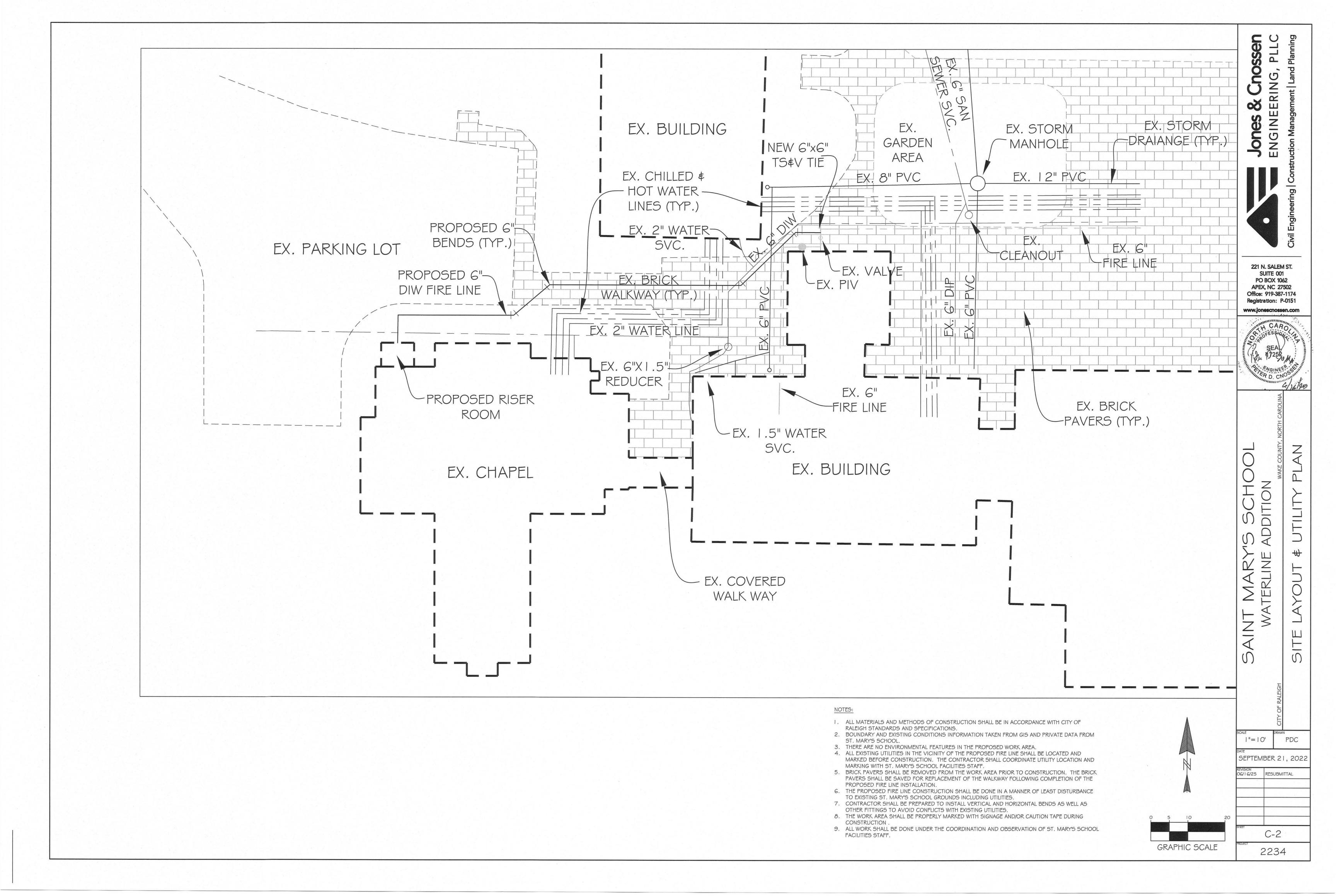
29 JULY 2022

PROJECT NUMBER

DRAWING TITLE/NUMBER

CODE DATA SHEET





GENERAL NOTES AND REQUIREMENTS.

- WORKMANSHIP SHALL CONFORM TO NECA PUBLICATION "STANDARDS OF INSTALLATION".
- INSTALLATION SHALL COMPLY WITH NATIONAL ELECTRICAL CODE, STATE BUILDING CODE, AND ALL REQUIREMENTS OF THE LOCAL INSPECTOR (FURNISH INSPECTION CERTIFICATE). ALL WORK SHALL BE BY LICENSED ELECTRICAL CONTRACTOR.
- THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR FLOOR PLAN DIMENSIONS. DO NOT SCALE THESE DRAWINGS.
- 4. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ANY AND ALL WORK WITH OTHER TRADES INVOLVED IN THE PROJECT, PRIOR TO INSTALLATION OF ELEC. EQUIPMENT, SO AS TO AVOID CONFLICTS DURING CONSTRUCTION AND TO ALLOW FOR OPTIMUM MAINTENANCE AND WORKING SPACE.
- ALL BRANCH CIRCUITS SHALL BE IN ZINC-COATED EMT, OR RIGID CONDUIT AS PERMITTED OR REQUIRED BY THE NATIONAL ELECTRICAL CODE. TYPE MC CABLE MAY BE USED AS PERMITTED BY THE NATIONAL ELECTRICAL CODE. SCHEDULE 40 PVC CONDUIT MAY BE USED ONLY FOR THE SECONDARY UNDERGROUND SERVICE. THE UNDERGROUND TELEPHONE SERVICE CONDUIT, AND BRANCH TELEPHONE SYSTEM CONDUITS LOCATED BELOW THE FLOOR SLAB ON GRADE OR BURIED ON THE EXTERIOR OF THE BUILDING, OR IN CONCRETE BLOCK WALLS. ALL CONDUIT SHALL BE A 1/2" MINIMUM SIZE. EMT FITTINGS SHALL BE STEEL COMPRESSION TYPE.
- PROVIDE 4"WIDE PLASTIC TAPE, MAGNETIC DETECTABLE TYPE, COLORED RED WITH SUITABLE WARNING LEGEND DESCRIBING BURIED ELECTRICAL LINES OR ORANGE DESCRIBING BURIED TELEPHONE LINES.
- ALL CONDUCTORS SHALL BE COPPER TYPE THHN, OR XHHW, SOLID FOR #10 AWG OR #12 AWG, AND
- STRANDED FOR ALL LARGER SIZES.
- 8. ALL WIRING SHALL BE CONCEALED IN WALLS, UNDER SLAB, OR ABOVE SUSPENDED CEILING SPACE. 9. ALL WIRE AND CONDUIT SIZES ARE BASED ON 75°C THHN WIRE UNLESS OTHERWISE NOTED.
- 10. CONDUITS MAY BE RUN EXPOSED IN MECHANICAL AREAS. CONDUITS SHALL BE RUN PARALLEL OR
- PERPENDICULAR TO STRUCTURAL ELEMENTS AND SHALL BE RUN IN GROUPS. SEAL ALL PENETRATIONS TIGHT AROUND ALL CONDUITS WHEN PASSING INTO MECHANICAL ROOMS.
- 11. ALL LIGHT FIXTURES SHALL BE SUPPORTED INDEPENDENTLY OF THE SUSPENDED CEILING SYSTEM.
- 12. WHERE FIRST OUTLET ON BRANCH CIRCUIT IS GREATER THAN FIFTY (50) FEET FROM THE PANELBOARD, USE #10 AWG MINIMUM TO THE FIRST OUTLET.
- 13. ALL MOUNTING HEIGHTS ARE GIVEN TO THE CENTERLINE OF THE DEVICE UNLESS OTHERWISE NOTED. RECEPTACLES, DATA AND TELEPHONE OUTLET TO BE MOUNTED 18"AFF UNLESS OTHERWISE NOTED. LIGHT SWITCHES TO BE MOUNTED 48"AFF UNLESS OTHERWISE NOTED.
- 14. THE LOCATION OF ALL WALL MOUNTED DEVICES, INCLUDING MOUNTING HEIGHTS, SHALL BE FIELD VERIFIED WITH THE ARCHITECT PRIOR TO INSTALLATION.
- 15. ALL FUSES, DISCONNECT SWITCHES, AND BREAKER SIZES, SHOWN FOR MECHANICAL EQUIPMENT, SHALL BE VERIFIED BEFORE THE PURCHASE OR INSTALLATION OF SAID EQUIPMENT, WITH THE EQUIPMENT SUPPLIER AND
- 16. ALL DISCONNECT SWITCHES ARE TO BE FUSIBLE TYPE. FUSE IN ACCORDANCE WITH THE NAMEPLATE DATA WITH DUAL ELEMENT TYPE FUSES BY BUSSMAN OR EQUAL.
- 17. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY DISCONNECTS, SWITCHES, AND RECEPTACLES UNDER THE ELECTRICAL BID AND SHALL INCLUDE ALL NECESSARY CIRCUITS TO AND FINAL CONNECTIONS TO THE EQUIPMENT PROVIDED BY ALL SUPPLIERS, UNLESS NOTED OTHERWISE BY OTHER DISCIPLINES. COORDINATE CLOSELY.
- 18. ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED SO THAT ALL CODE-REQUIRED AND MANUFACTURER-RECOMMENDED SERVICING CLEARANCES ARE MAINTAINED. INSTALLATIONS SHALL FULLY COMPLY WITH NEC 110-16(A) AND NEC 384-4 FOR CLEARANCE REQUIREMENTS.
- 19. COORDINATE LOCATIONS OF ALL LIGHT FIXTURES WITH THE REFLECTED CEILING PLANS. LIGHT FIXTURES INSTALLED IN MECHANICAL AREAS SHALL AVOID MECHANICAL PIPING, EQUIPMENT, DUCTWORK, ETC.
- 20. GROUND SHALL BE PER N.E.C. PROVIDE SEPARATE GROUNDING CONDUCTOR FOR ALL CIRCUITS. PROVIDE
- DRIVEN AND COLD WATER GROUND FOR MAIN SERVICE. 21. GROUND TELEPHONE EQUIPMENT PER NEC.
- 22. THE ELECTRICAL CONTRACTOR SHALL PATCH ANY WALL, CEILING, OR FLOOR OPENING AND PENETRATIONS RESULTING FROM DEMOLITION OR NEW WORK IN EXISTING AREAS.
- 23. ALL WIRING SHALL BE CONCEALED IN METALLIC CONDUIT.
- 24. COMBINE HOMERUNS IN CONDUIT AS DESIRED (3 ON 3-PHASE, 2 ON SINGLE PHASE). DO NOT OVERLOAD
- 25. ALL CIRCUITS SHALL BE TESTED WITH 500 VOLT TESTER PRIOR TO ENERGIZING
- 26. ALL WALL OUTLET BOXES SHALL BE STEEL CITY OR RACO
- 27. RECEPTACLES, SWITCHES, COVERPLATES, ETC. SHALL BE HUBBELL, LEVITON, OR LEGRAND EXCEPT AS SPECIFIED. COLOR SPECIFIED BY ARCHITECT, VERIFY COLOR PRIOR TO PURCHASE.
- 28. PROVIDE PULL WIRE IN ALL EMPTY CONDUIT.

"I-LINE" AS REQUIRED.

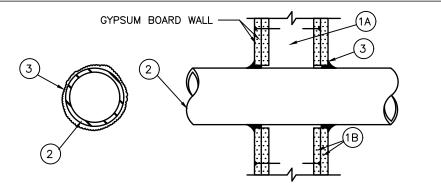
- 29. CONDUIT SHALL BE LABELED EVERY TEN FEET.
- 30. ALL RECEPTACLE AND SWITCH PLATES SHALL BE LEGIBLY MARKED WITH LABEL MARKER TO CLEARLY INDICATE PANELBOARD ORIGIN AND CIRCUIT NUMBER. LABEL SHALL BE ON THE BACKSIDE OF PLATES.
- 1. PROVIDE PHENOLIC LABELS ON ALL MAJOR EQUIPMENT INCLUDING SWITCHBOARDS, MOTOR CONTROL CENTERS, PANELBOARDS, INDIVIDUAL STARTERS, SAFETY SWITCHES, AND TRANSFORMERS. PROVIDE ENGRAVED THREE-LAYER LAMINATED PLASTIC, WHITE LETTERS ON BLACK BACKGROUND.
- 32. ALL CIRCUIT BREAKERS IN PANEL SHALL BE SERIES RATED WITH MAIN BREAKER OR FULLY RATED FOR THE
- 33. CONTRACTOR SHALL PROVIDE ENGINEER A MINIMUM OF 3 COPIES OF SHOP DRAWINGS FOR LIGHTS, SWITCHGEAR, PANELS, ETC.
- 34. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE W/ ALL OTHER TRADES REGARDING VOLTAGES, LOADS, CIRCUIT BREAKERS, ETC. PRIOR TO BEGINNING ANY WORK.
- 35. AS USED ON THESE DOCUMENTS, THE WORD "PROVIDE" SHALL MEAN TO FURNISH AND INSTALL THE ITEM OR EQUIPMENT AND MAKE THE FINAL CONNECTION AS REQUIRED.
- 36. PANELS SHALL BE BY SQUARE "D", G.E. AND SIEMENS. PANELS SHALL BE SQUARE "D" TYPE NQOD OR
- 37. FOR NEW OR MODIFIED SERVICES, PRIOR TO ENERGIZATION AND AFTER UTILITY FAULT CURRENT CONFIRMATION AT THE DELIVERY POINT, PROVIDE PLAQUE AT SERVICE EQUIPMENT STATING MAXIMUM AVAILABLE FAULT
- CURRENT AND DATE OF CALCULATION PER NEC 110.24. 38. OPERABLE DEVICES SHALL BE ACCESSIBLE IN COMPLIANCE WITH ANSI A117.1, SECTION 309, OPERABLE
- 39. RECESSED LIGHTING FIXTURES INSTALLED IN THE BUILDING THERMAL ENVELOPE SHALL BE IC RATED AND

PARTS. WHERE GFI RECEPTACLES ARE NOT ACCESSIBLE, PROVIDE GFI BREAKER.

LABELED AS MEETING ASTM E283. OR SHALL BE TENTED TO REMOVE THEM FROM THE THERMAL ENVELOPE

40. BRANCH CIRCUITS SERVING EXIT & EMERGENCY FIXTURES SHALL BE CLEARLY LABELED ON THE PANELBOARD

- DIRECTORY PER NEC 110.22(A), 408.4 & 700.12(F). 41. UPON PROJECT COMPLETION, THE EC SHALL PROVIDE TYPED CIRCUIT DIRECTORIES FOR ALL NEW AND
- ALTERED PANELBOARDS WITH CIRCUIT DESIGNATIONS COMPLYING WITH THE REQUIREMENTS OF NEC 408.4(A).
- 42. ALL EXIT AND EMERGENCY LIGHTING SHALL BE FED FROM LOCAL BRANCH CIRCUIT AND HAVE A MINIMUM OF 90 MINUTE BATTERY BACKUP PER NEC 700.12(F)(2).
- 43. ALL ELECTRICAL MATERIALS, DEVICES, APPLIANCES AND EQUIPMENT SHALL BE LABELED AND LISTED BY A THIRD PARTY AGENCY. THE THIRD PARTY AGENCY SHALL BE AMONG THOSE ACCEPTABLE TO THE NC BUILDING CODE COUNCIL TO LABEL ELECTRICAL AND MECHANICAL EQUIPMENT.



U.L. #WL1001

1. Wall Assembly - The 1,2,3, or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the follow-

A. Studs - Wall framing may consist of either wood studs (max 2 h fire rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC with nom 2 by 4 in. lumber end plateds and cross braces. Steel studs to be min 3-5/8 in. wide by 1-3/8 in. deep channels spaced max 24 in. OC.

B. Wallboard, Gypsum* - Nom 1/2 or 5/8 in. thick, 4ft. wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 13-1/2 in.

2. Pipe or Conduit - Nom 12 in. diam (or smaller) Schedule 10 (or heavier) steel pipe, nom 12 in. diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in. diam (or smaller) Class 50 (or heavier) ductile iron pressure pipe, nom 6 in. diam (or smaller) steel conduit, nom 4 in. diam (or smaller) steel electrical metallic tubing or Type L or (or heavier) copper tubing or nom 1 in. (or smaller) flexible steel conduit. When copper pipe or flexible steel conduit is used, max F Rating of firestop system (Item 3) is 2h. Steel pipes or conduits larger than nom 4 in. diam may only be used in wall constructed using steel channel studs. A max of one pipe or conduit is permitted in the firestop system. Pipe or conduit to be installed near center of stud cavity width and to be rigidly supported on both sides of wall assembly.

3. Fill, Void or Cavity Material* - Caulk - Caulk fill material installed to completely fill annular space between pipe or conduit and gypsum wallboard and with a min 1/4 in. diam bead of caulk applied to perimeter of pipe or conduit at its egress from the wall. Caulk installed symmetrically on both sides of wall assembly. The hourly F Rating of the firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The T Rating of the firestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is installed, as tabulated below:

Max Pipe or Conduit Diam, In	Annular Space, In	F Rating, Hr	T Rating, Hr
1	0 to 3/16	1 or 2	0+, 1 or 2
1	1/4 to 1/2	3 or 4	3 or 4
4	0 to 1/4	1 or 2	0
4	0 to 1-1/2#	1 or 2	0
6	1/4 to 1/2	3 or 4	0
12	3/16 to 3/8	1 or 2	0

+ When copper pipe is used, T Rating is 0 h

*Bearing the UL Classification Marking

0 to 1-1/2 in. annular space applies only when Type CP-25 WB+ caulk is used.

Minnesota Mining & Mfg. Co. - Types CP-25 S/L, CP-25 N/S, CP-25 WB, CP-25 WB+. (NOTE: L Rating apply only when Type CP-25 WB+ caulk is used).

3 RATED WALL PENETRATION DETAIL E1 /SCALE: NTS

ABBREVIATIONS

- A AMPS, AMPERES AIC AMPS INTERRUPTING CURRENT ATS AUTOMATIC TRANSFER SWITCH AMP FUSE
- AFC ABOVE FINISHED CEILING AFF ABOVE FINISHED FLOOR AFG ABOVE FINISHED GRADE AHJ AUTHORITY HAVING JURISDICTION
- BRKR CIRCUIT BREAKER BLDG BUILDING CONDUIT CKT CIRCUIT
- CLG CEILING CTR COUNTER - DEVICE MOUNTED ABOVE DISC DISCONNECT SWITCH EXISTING TO REMAIN
- ELECTRICAL CONTRACTOR ECB ENCLOSED CIRCUIT BREAKER EXHAUST FAN EMERGENCY
- ELECTRICAL METALLIC TUBING EXISTING FIRF ALARM GENERAL CONTRACTOR
- GFCI GROUND FAULT CURRENT INTERRUPTER GROUND HP HORSEPOWER IMC INTERMEDIATE METAL CONDUIT
- JB JUNCTION BOX KW KILOWATT

DEDICATED SPACE CONTINUES TO

6'-0" ABOVE THE EQUIPMENT OR

TO THE STRUCTURAL CEILING,

ARTICLE 110-26(f).

LIGHT FIXTURE

EXCLUSIVELY

ELECTRICAL

EQUIPMENT

EXCLUSIVELY

DEDICATED SPACE

DEDICATED SPACE

WHICHEVER IS LOWER, PER NEC

CEILING

SUSPENDED

CEILING

- KVA KILOVOLT-AMPERES LTG LIGHTING
- MC METAL CLAD CABLE MCA MINIMUM CIRCUIT AMPACITY MCB MAIN CIRCUIT BREAKER
- MLO MAIN LUGS ONLY NCSBC NORTH CAROLINA STATE BUILDING CODE NEC NATIONAL ELECTRICAL CODE
- NEMA NATIONAL ELECTRICAL MANUFACTURER'S ASSOC. NF NON-FUSED NL NIGHT LIGHT - UNSWITCHED
- NIC NOT IN CONTRACT NTS NOT TO SCALE MC MECHANICAL CONTRACTOR
- POLES PC PLUMBING CONTRACTOR
- PH PHASE PNL PANELBOARD R RELOCATED
- SW SHOW WINDOW RECEP, 18"MAX ABOVE WINDOW TAMPER RESISTANT RECEPTACLE UL UNDERWRITER'S LABORATORIES
- ULSEUL SERVICE ENTRANCE UON UNLESS OTHERWISE NOTED
- VOLTS
- W WIRE W/ WITH
- W/O WITHOUT WP WEATHERPROOF

TABLE "A" WORKING CLEARANCES

WURKIN	G ULE	.ARA	INCE2	
OLTAGE TO GROUND, NOMINAL		MINIMUN	M CLEAR DISTANCE	(FEET)
TOLINOL TO ONCOME, HOMINAL	CONDITION:	1	2	3
0-150		3	3	3
151-600		3	3 1/2	4

ELECTRICAL SYSTEM AND EQUIPMENT (SECTION C405)

LAMP TYPE REQUIRED IN FIXTURE

NUMBER OF LAMPS IN FIXTURE

TOTAL WATTAGE PER FIXTURE

ADDITIONAL EFFICIENCY PACKAGE OPTIONS

BALLAST TYPE USED IN FIXTURE

NUMBER OF BALLASTS IN FIXTURE

SECTION C405.1

TOTAL INTERIOR WATTAGE SPECIFIED VS ALLOWED: 42W VS 56W

TOTAL EXTERIOR WATTAGE SPECIFIED VS ALLOWED: 26W VS 90W

■ C406.3 REDUCED LIGHTING POWER DENSITY (below 90% of allowed watts)

☐ C406.2 MORE EFFICIENT HVAC EQUIPMENT PERFORMANCE

☐ C406.7 REDUCED ENERGY USE IN SERVICE WATER HEATING

TO THE BEST OF MY KNOWLEDGE AND BELIEF. THE DESIGN OF THIS BUILDING

COMPLIES WITH THE ELECTRICAL SYSTEM AND EQUIPMENT REQUIREMENTS OF

THE NORTH CAROLINA STATE BUILDING CODE, ENERGY CODE 2018 EDITION

ANGUS M. CLARK PE

ELECTRICAL ENGINEER

☐ C406.4 ENHANCED DIGITAL LIGHTING CONTROLS

☐ C406.5 ON—SITE RENEWABLE ENERGY

☐ C406.6 DEDICATED OUTDOOR AIR SYSTEM

SEE LIGHTING

FIXTURE SCHEDULE

METHOD OF COMPLIANCE

LIGHTING SCHEDULE

DESIGNER STATEMENT:

WHERE THE "CONDITIONS" ARE AS FOLLOWS:

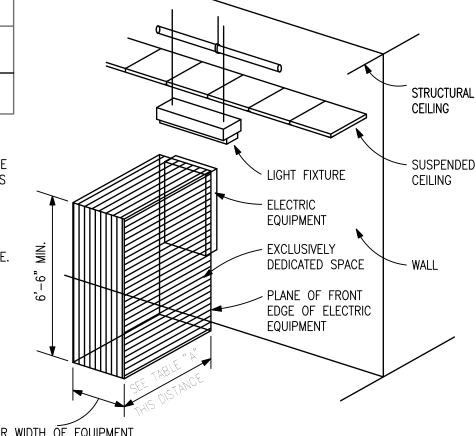
- 1. EXPOSED LIVE PARTS ON ONE SIDE AND NO LIVE OR GROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES EFFECTIVELY GUARDED BY SUITABLE WOOD OR OTHER INSULATING MATERIALS. INSULATED WIRE OR INSULATED BUSBARS OPERATING AT <u>NOT</u> OVER 300 VOLTS SHALL <u>NOT</u> BE CONSIDERED LIVE PARTS.
- 2. EXPOSED LIVE PARTS ON ONE SIDE AND GROUNDED PARTS ON THE OTHER SIDE.

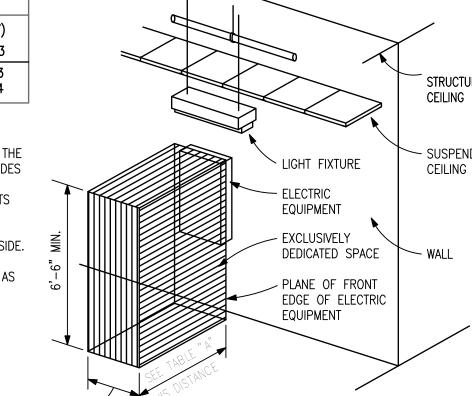
WORKING CLEARANCE FOR ELECTRICAL EQUIPMENT

3. EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORK SPACE (NOT GUARDED AS PROVIDED IN CONDITION 1) WITH THE OPERATOR BETWEEN

THIS FIGURE ILLUSTRATES THE WORKING SPACE IN FRONT OF ELECTRIC EQUIPMENT REQUIRED BY SECTION 110.16 OF THE NATIONAL ELECTRICAL CODE.

E1 /SCALE: NTS





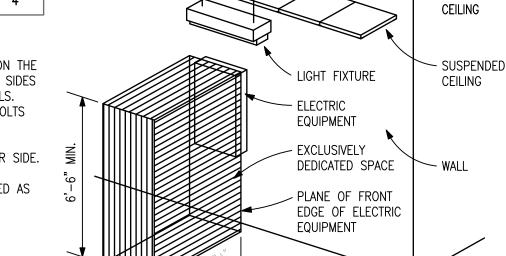
DEDICATED SPACE FOR ELECTRICAL EQUIPMENT E1 /SCALE: NTS

THIS FIGURE ILLUSTRATES THE ADDITIONAL EXCLUSIVELY DEDICATED SPACE

SECTION 110.26(F) OF THE NATIONAL ELECTRICAL CODE.

REQUIRED OVER AND UNDER THE ELECTRICAL EQUIPMENT FOR THE CABLES,

RACEWAYS, ETC... TO AND FROM THE ELECTRICAL EQUIPMENT REQUIRED BY



30" MINIMUM OR WIDTH OF EQUIPMENT

ELECTRICAL LEGEND

(ALL SYMBOLS MAY NOT BE USED ON THIS PROJECT)

HOMERUN TO POWER SOURCE, 2#12,#12G 1/2"C UON BRANCH CIRCUIT WIRING CONCEALED IN WALLS AND CEILINGS

BRANCH CIRCUIT WIRING CONCEALED UNDER FLOOR OR UNDERGROUND

RECESSED LIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE

WALL MOUNTED LIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE

SURFACE MOUNTED LIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE

QUADRUPLEX RECEPTACLE

GFCI RECEPTACLE

TAMPER RESISTANT RECEPTACLE

SHOW WINDOW RECEPTACLE MOUNTED 18"MAX ABOVE WINDOW

FLUSH MOUNTED FLOOR RECEPTACLE

FLUSH MOUNTED RECEPTACLE AND DATA

FUSED DISCONNECT SWITCH

NON-FUSED DISCONNECT SWITCH

PANELBOARD

DRY TYPE TRANSFORMER

WALL MOUNTED DUAL TECH OCCUPANCY SENSOR SWITCH (LINE VOLTAGE)

CEILING OR WALL MOUNTED DUAL TECH OCCUPANCY SENSOR (LINE VOLTAGE)

DIMMER SWITCH. 1500W SLIDER TYPE

DIMMER SWITCH, 0-10V

WALL MOUNTED DECORATOR DIGITAL TIMER SWITCH WITH ON/OFF BUTTON, 48"AFF, 120/277V PROGRAMMABLE . INTERMATIC E1400 SERIES OR EQUAL.

LIGHTING CONTACTOR, MECHANICALLY HELD

COMBINATION TELEPHONE/DATA OUTLET, EMPTY SINGLE GANG BOX WITH 3/4"C STUBBED ABOVE

CABLE TV OUTLET, EMPTY SINGLE GANG BOX WITH 3/4"C STUBBED ABOVE CEILING. COORDINATE EXACT MOUNTING HEIGHT WITH GC PRIOR TO ROUGH-IN.

CARD READER ROUGH-IN, WITH EMPTY 3/4"C STUBBED ABOVE CEILING

EXISTING EQUIPMENT TO BE REMOVED

BUILDING GROUND CONNECTION POINT, 3/8" COPPER STUD WITH #6G WIRE ROUTED TO GROUND GND BUS AT SERVICE DISCONNECT

PHOTOCELL, MOUNT WITH SENSOR FACING NORTH, EXACT LOCATION TO BE DETERMINED

DOWNLIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE

EXIT SIGN, DIRECTIONAL ARROWS AS INDICATED. REFER TO LUMINAIRE SCHEDULE

EMERGENCY LIGHT, REFER TO LUMINAIRE SCHEDULE

EXIT/EMERGENCY LIGHT COMBINATION, REFER TO LUMINAIRE SCHEDULE

 \bigcirc DUPLEX RECEPTACLE

SIMPLEX RECEPTACLE, AMP RATING AS NOTED, OR MATCH BREAKER SIZE

GFI

WEATHERPROOF WHILE N USE GFCI RECEPTACLE

JUNCTION BOX FOR POWER CONNECTION

EQUIPMENT POWER CONNECTION

SINGLE POLE SWITCH

THREE WAY SWITCH

LOW VOLTAGE LIGHTING CONTROL SWITCH

LIGHTING CONTROL PANEL

CEILING.

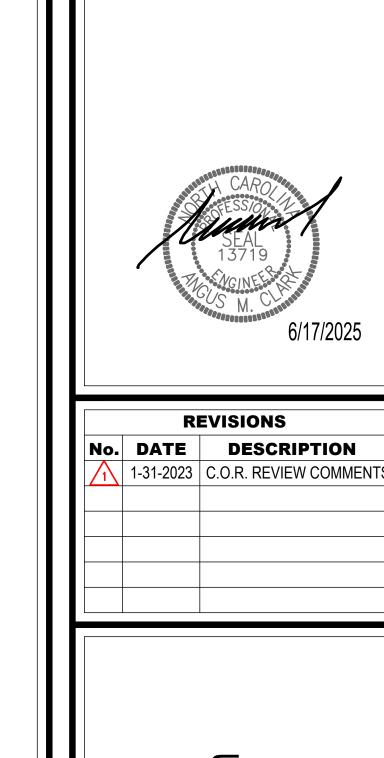
EXISTING EQUIPMENT TO REMAIN

EXISTING EQUIPMENT TO BE RELOCATED

ELECTRICAL COVER SHEET

CHECKED BY:

SHEET No.



ANGUS CLARK

ENGINEERING PC

NCBEES #C-2726

543 KEISLER DRIVE

SUITE 101

919 859.2674

919 859.2675 FAX

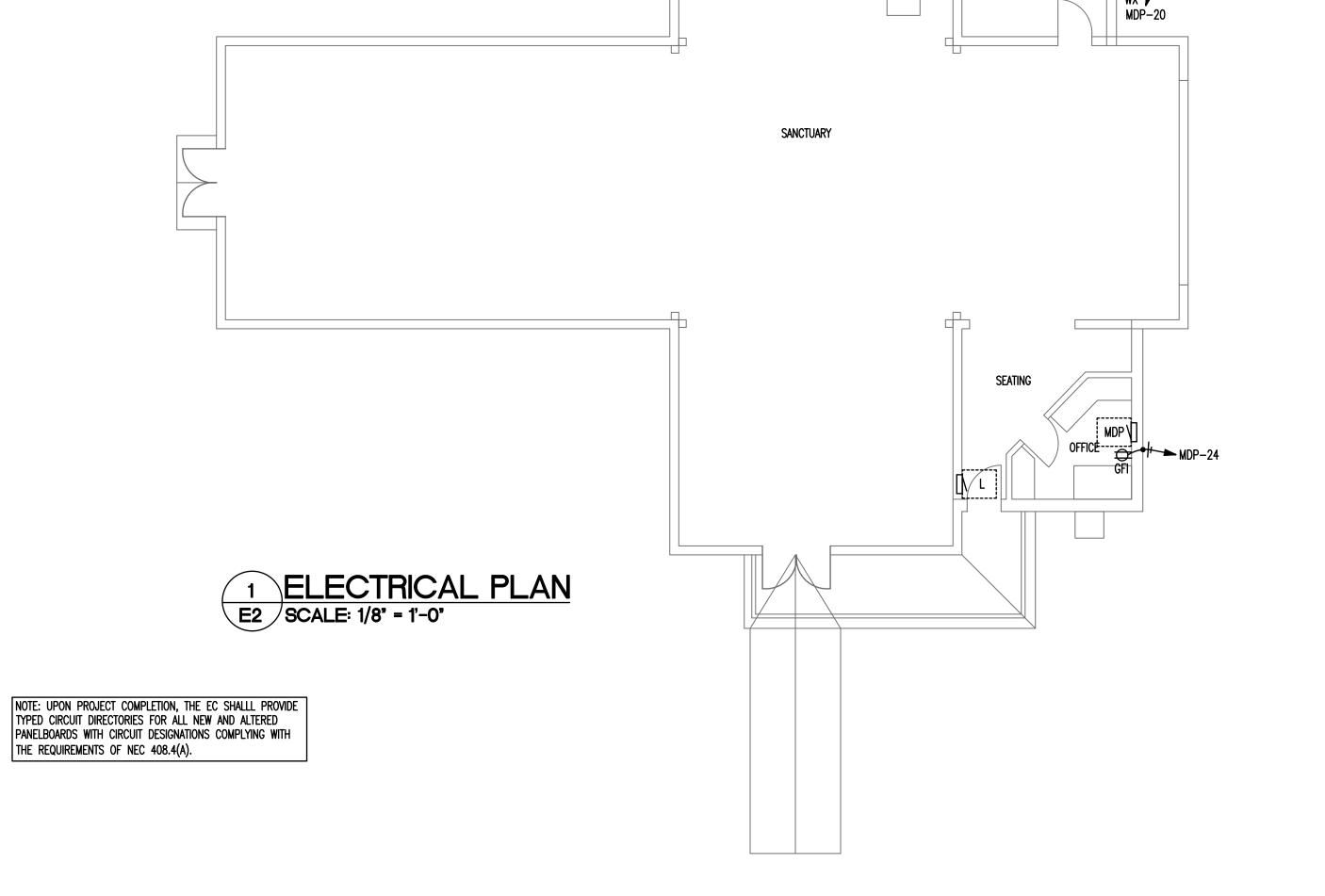
CARY NORTH CAROLINA 27518

Addition Chapel S Alarm 8 Fire

22-116 PROJECT NUMBER: 8/2/2022 DATE DRAWN: DRAWN BY: AMC

LED LU	MINAIRE SCHEI	DULE						
CALLOUT	SYMBOL	DESCRIPTION	MODEL	LAMP	MOUNTING	INPUT WATTS	VOLTS	NOTE 1
D	0	4' LENSED STRIPLIGHT	COLUMBIA LCL-4-35-ML-ED-U	(1) LED	SURFACE	42	120V 1P 2W	
WX	н	EXTERIOR WALL PACK (EMERGENCY)	RAB WPLED/E	(1) LED	WALL	26	120V 1P 2W	UNSWITCHED EMERGENCY
XX	C,	EMERGENCY LIGHT	COMPASS CU2	(1) LED	WALL/CEILIN	G 1	MULTIPLE	UNSWITCHED

M [DP													
	NTING SU FROM U	TILIY	BREAKER #18	E	BUS AMI IEUTRAL	208Y/12 PS 225 100% NDLE LC	•	4W		AIC 22,000 MAIN BKR 2 LUGS STAND				
СКТ	CKT				L	OAD KV	A	СКТ	CKT			L	OAD KV	A
#	BKR	CIRCUIT	DESCRIPTION		Α	В	С] #	BKR	CIRCUIT DESCRIPTION		Α	В	С
1 3	20/3	EXIST. C	CIRC PUMP		1.67	1.67		2 4	20/3	JOCKEY PUMP		0.80	0.80	
5 7 9	 100/3 	PANEL L	-		4.40	4.40	1.67	6 8 10	 20/3 	COMPRESSOR		0.96	0.96	0.80
11 13	 	SPACE			0.00		6.20	12 14	30/2	UNIT HEATER		2.50		0.96
15 17 19	-/1 -/1 -/1	SPACE SPACE SPACE			0.00	0.00	0.00	16 18 20	 20/1 20/1	FIRE ALARM PANEL		0.04	2.50	0.50
21 23	-/1 -/1	SPACE SPACE			0.00	0.00	0.00	22 24	20/1 -/1	RECEPTACLE SPACE		0.01	0.18	0.00
25 27 29	-/1 -/1 -/1	SPACE SPACE SPACE			0.00	0.00	0.00	26 28 30	-/1 -/1 -/1	SPACE SPACE SPACE		0.00	0.00	0.00
31 33	-/1 -/1	SPACE SPACE			0.00	0.00		32 34	-/1 -/1	SPACE SPACE		0.00	0.00	
35 37 39	-/1 -/1 -/1	SPACE SPACE SPACE			0.00	0.00	0.00	36 38 40	-/1 -/1 -/1	SPACE SPACE SPACE		0.00	0.00	0.00
41	_/i _/1	SPACE				0.00	0.00	42	-/1	SPACE			0.00	0.00
									ТО	TAL CONNECTED KVA	BY PHASE	10.37	10.51	10.13
_			CONN KVA	CALC KVA	1					CONN KVA	CALC KVA			
мото	EST MOTOR		7.64 5.00 10.28 3.38	9.55 1.25 10.28 3.38	(125 (255 (100 (505	%)		CONTIN NONCO HEATING COOLIN	ntinuous G	2.30 5.00 2.40 2.40	2.88 5.00 2.40 0.00	(125% (100% (100% (0%)	s)	
								TOTAL BALANC	LOAD ED 3-PHAS	E LOAD	34.74 96.42 A	_		



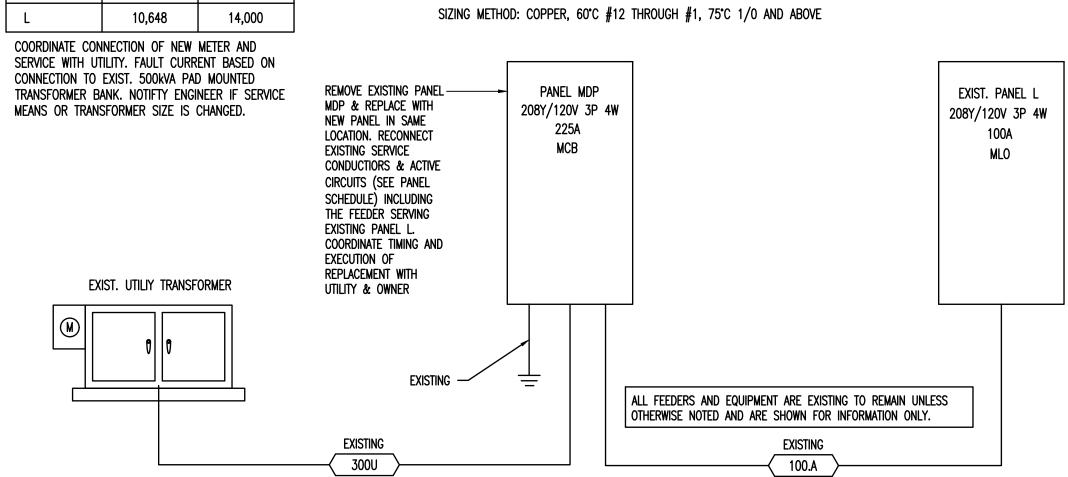
EXIT, EMERGENCY AND NIGHT LIGHTS (NL) SHALL BE CONNECTED "UNSWITCHED" TO LIGHTING CIRCUIT SERVING ROOM WHERE THEY ARE LOCATED (TYPICAL)

MDP-2,4,6

JOCKEY PUMP —

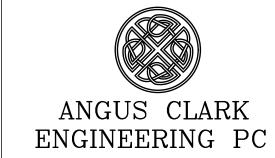
FAULT (CURRENT LE	
DEVICE	FAULT	AIC RATING
MDP	16,176	22,000
L	10,648	14,000

FEEDER	SCHEDUL	.E	
ID	FEEDER AMPS	CONDUIT AND FEEDER	FEEDING THESE DEVICES
(100.A)	100	1-1/2°C,3#1,#1N,#8G	L
300U	300	3"C,3#350kcmil,#350kcmil N	MDP

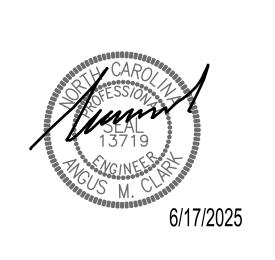


EQUIPME	ENT SCHE	DULE				
CALLOUT	SYMBOL	VOLTAGE	BREAKER	CIRCUIT	WIRING	NOTE 1
COMPRESSOR	6 □	208V 3P	20/3	MDP-8,10,12	3#12,#12N,#12G	
FIRE ALARM PANEL	٥	120V 1P	20/1	MDP-18	1#12,#12N,#12G	
JOCKEY PUMP	6 □	208V 3P	20/3	MDP-2,4,6	3#12,#12N,#12G	
UNIT HEATER	6 □ □	208/120V 2P	30/2	MDP-14,16	1/2°C,2#10,#10N,#10G	

GENERAL NOTE: VERIFY BREAKER & WIRE SIZES WITH EQUIPMENT NAMEPLATES.



NCBEES #C-2726 543 KEISLER DRIVE SUITE 101 CARY NORTH CAROLINA 27518 919 859.2674 919 859.2675 FAX



	REVISIONS						
No.	DATE	DESCRIPTION					
1	1-31-2023	C.O.R. REVIEW COMMENTS					

St. Mary's Chapel Fire Alarm Addition 900 Hillsborough Street Raleigh, NC 27603

SHEET TITLE:
ELECTRICAL PLAN, RISER,
SCHEDULES

PROJECT NUMBER: 22-116

DATE DRAWN: 8/2/2022

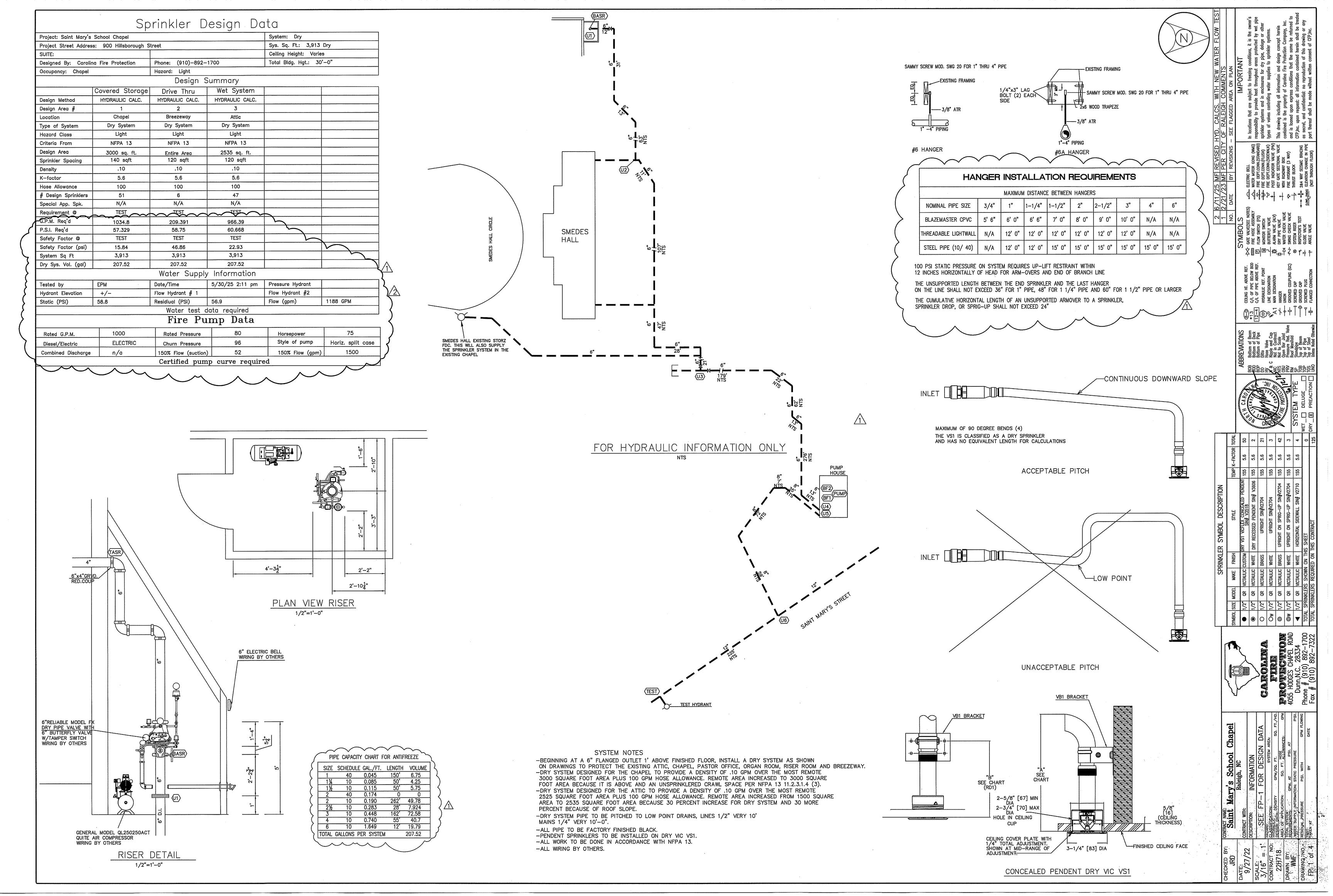
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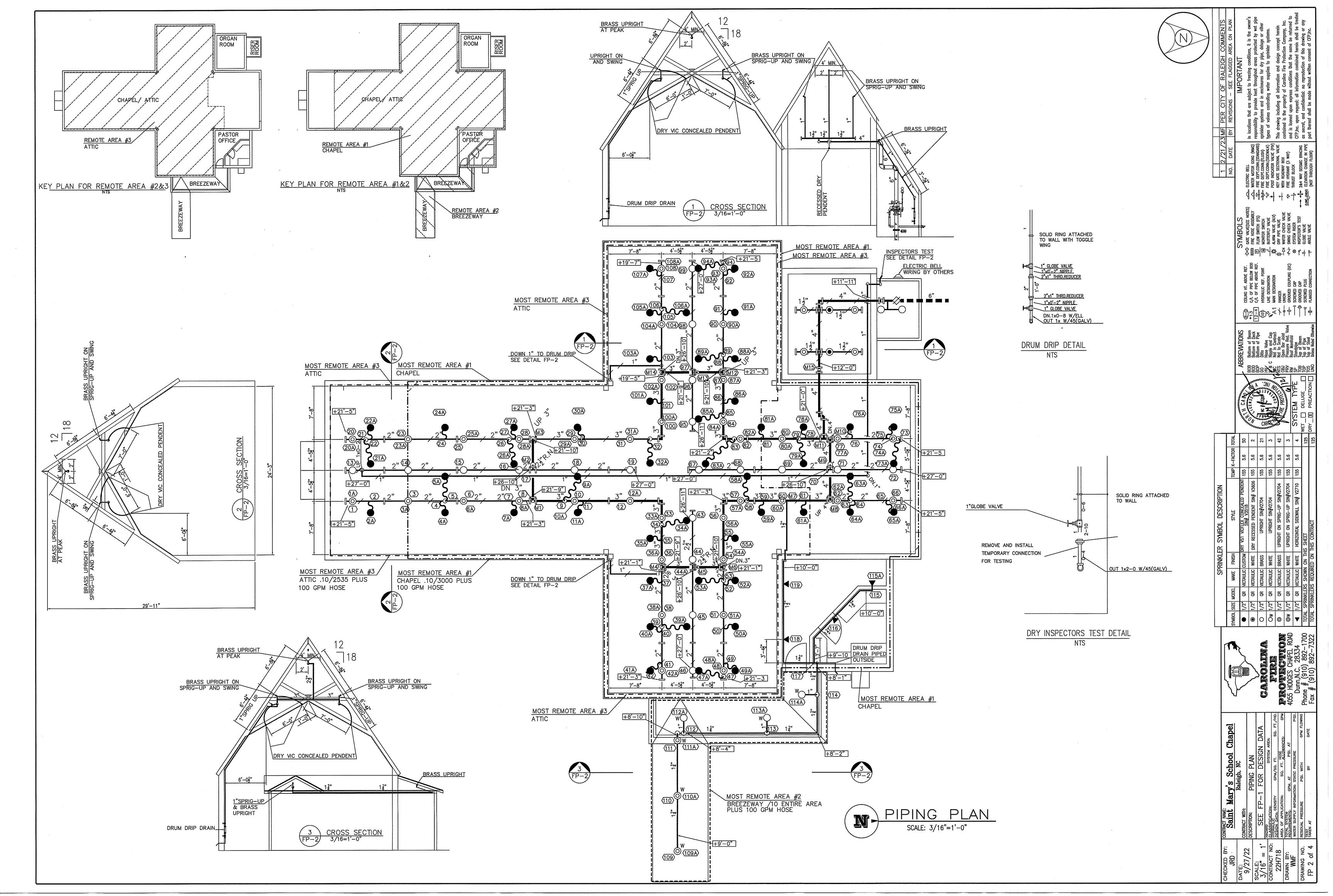
CHECKED BY: AMC

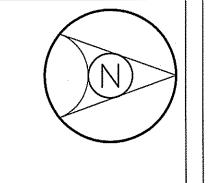
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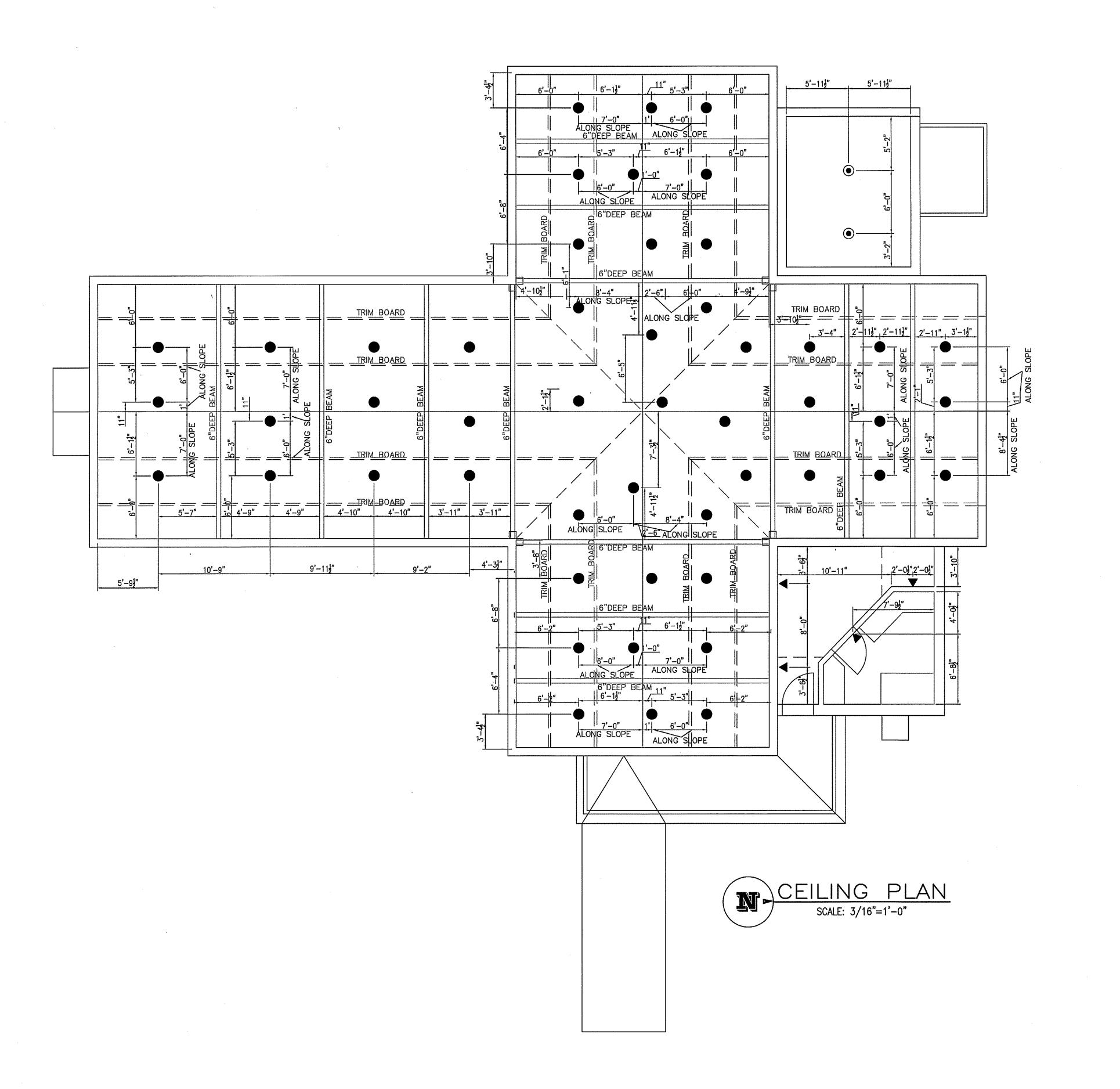
 E_2

1 RISER DIAGRAM E2 SCALE: NTS

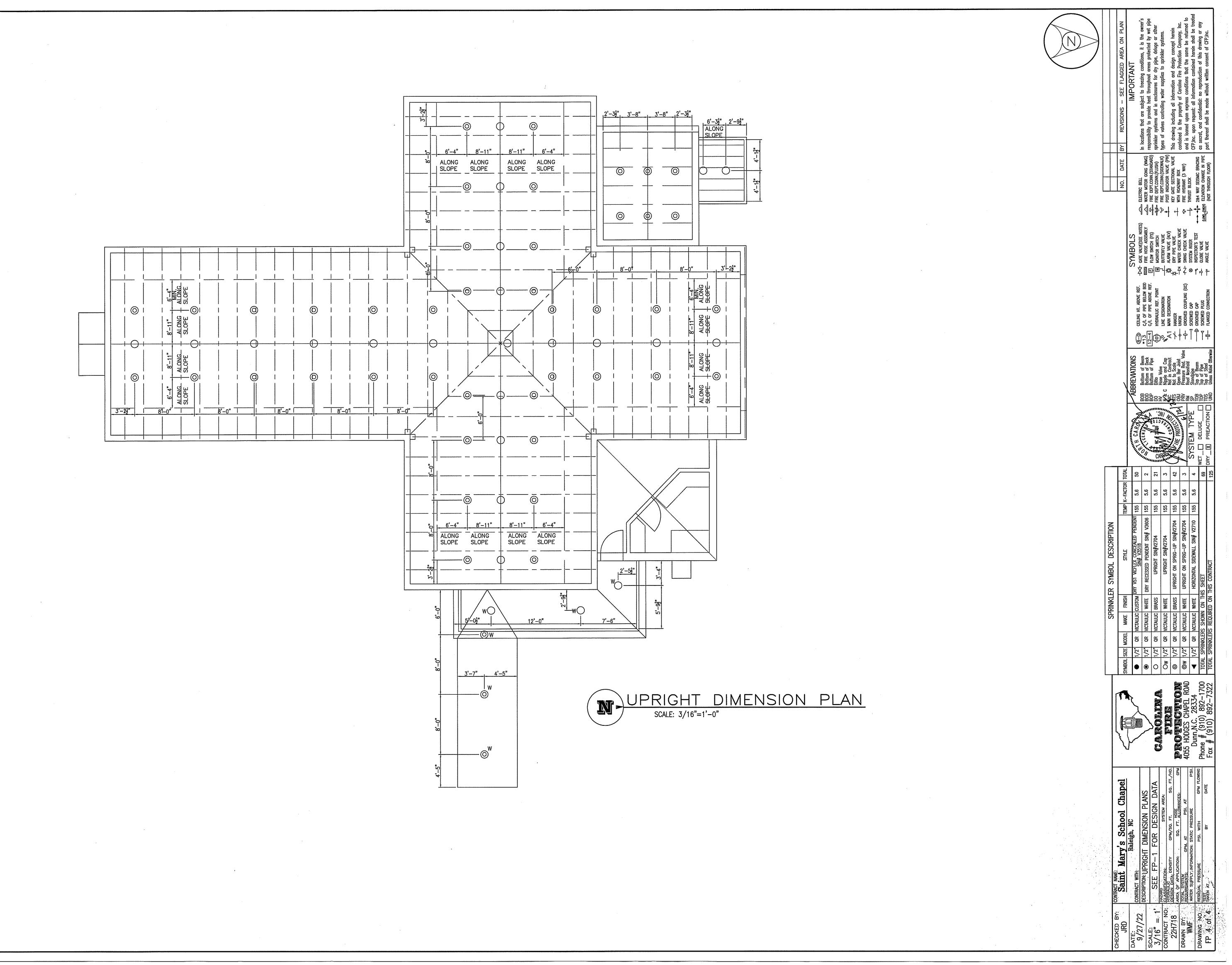


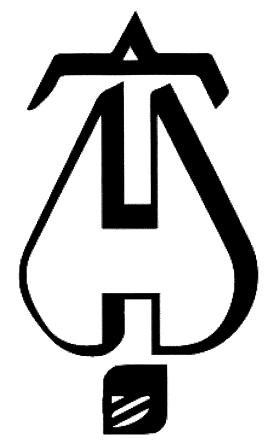






	REVISIONS — SEE FLAGGED AREA ON PL	IMPORTANT In locations that are subject to freezing conditions, it is the own responsibility to provide heat throughout areas protected by wet sprinkler systems and in enclosures for dry pipe, deluge or other types of valves controlling water supplies to sprinkler systems. This drawing including all information and design concept herein contained is the property of Carolina Fire Protection Company, I and is loaned upon express conditions that the same be return CFP, Inc. upon request: all information contained herein shall be as secret, and confidential: no reproduction of this drawing or opart thereof shall be made without written consent of CFP, Inc.
	NO. DATE BY	HECTRIC BELL WATER MOTOR GONG (WAG) FIRE DEPT.CONN.(STANDARD) FIRE DEPT.CONN.(STANDARD) FIRE DEPT.CONN.(SIDEWALK) FOST INDICATOR VALVE (PN) KEY GATE SECTIONAL VALVE WITH ROADWAY BOX WITH ROADWAY BOX FIRE HYDRANT (3 WAY) THRUST BLOCK CONTGINE CEP,ING. GLOM, CHAGH (NOT THROUGH FLOOR) PAT THROUGH FLOOR) GLOM, CHAGH (NOT THROUGH FLOOR)
		HT. ABOVE REF. PIPE BELOW BOD PIPE ABOVE REF. IN CAP CAP CAP CAP CAP CAP CAP CAP
		ABBREVIATIONS BOB Bottom of Beam *13 BOB Bottom of Pipe BOP Bottom of Pipe BOP Bottom of Pipe BOP Bottom of Pipe BOP BOTTOM NIC Not in Contract NIC Not in Scale Open Bor Joist PRW Pressure Red. Valve Pressure Red. Valve Pressure Pressure Red. Valve Pressur
	TEMP K-FACTOR TOTAL	
CDDINKI ED CYMBOL DECCRIPTION	MAKE FINISH STATE	WHITE DRY RECESSED BRASS UPRIGHT BRASS UPRIGHT ON S WHITE UPRIGHT ON S WHITE HORIZONTAL S I ON THIS SHEET
	SYMROI SIZE MODEI	Ow 1/2" TOTAL SPRIN
	Lywy A	CAROLINA ETRE FIRE PROTECTION 4055 HOBGES CHAPEL ROAD Dunn, N.C. 28334 Phone # (910) 892-1700 Fax # (910) 892-7322
	CONTRACT NAME: Saint Mary's School Chapel	Raleigh, NC CONIRACT WITH: DESCRIPTION: SEE FP—1 FOR DESIGN DATA HAZARD CLASSIEICATION: CLASSIEICATION: CLASSIEICATION: CLASSIEICATION: CLASSIEICATION: CLASSIEICATION: CLASSIEICATION: CLASSIEICATION: CPW/SQ. FI. SQ. FT./HD. AREA OF APPLICATION: CPW. AT TOTAL SYSTEM TOTAL S
·	CHECKED BY: 00	22





Hydraulic Calculations by HydraCALC

Carolina Fire Protection, Inc. 4055 Hodges Chapel Road FS- 23769

Dunn, NC 28334

910-892-1700

Job Name

: St. Mary's School Chapel (Remote Area #1 Pendent)

Drawing

: Chapel

Location

: 900 Hillsborough Street

Remote Area : 1

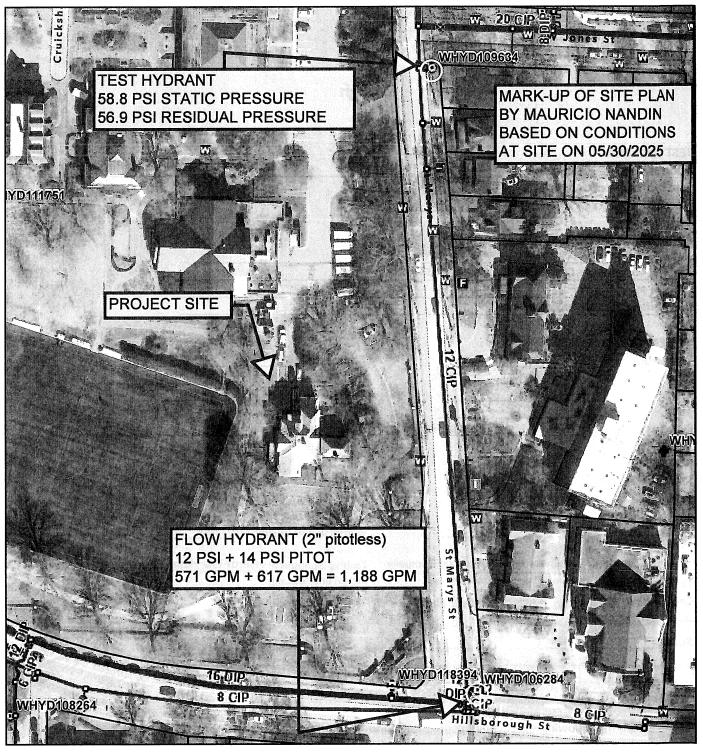
Contract

: 22H718

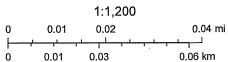
Data File

: Pendents remote area 1 2025.WXF

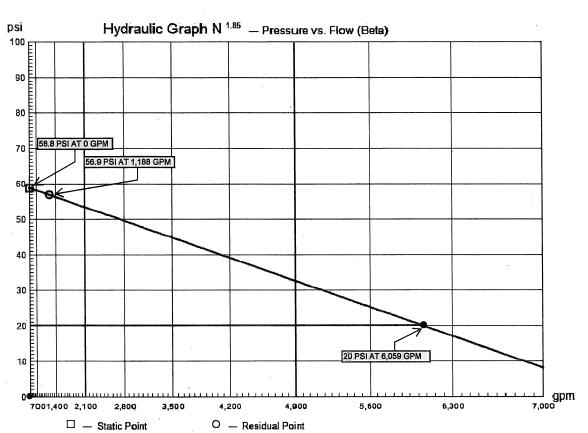
900 Hillsborough Street



6/2/2025, 6:59:01 AM



City of Raleigh and Wake County, Lee Kimmel, Sarah Lanier, Andrew Hayes







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11	547	555		42	1068	1084		7
12	571	579		43	1081	1096		٦
13	594	603		44	1093	1109		1
14	617	626		45	1106	1122		
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18	699	709		49	1154	1170		
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34	961	975		65	1329	1348		
35	975	989		66	1339	1358		
36	989	1003		67	1349	1369		
37	1002	1017	4	68	1359	1379		
38	1016	1031		69	1369	1389		
39	1029	1044		70	1379	1399		
40	1042	1057						

The readings on this chart are based on which device the Pitotless Nozzle is connected to.

PSI

9.5

11.7

20.7

36.8

46.6

82.8

21/2 Hose Monster

Open Almosphere

PSI

9.1

11.3

20.1

35.8

45.3

80.5

Key from test points

GPM

500 562.5

750

1000

1125

1500

It is the user's responsibility to verify that the correct chart and column is being used.

• 2 ½" Hose Monster Model II or Flusher with flow splitter (HM2H, **HM2HF).** Use this column if the Pitotless Nozzle is connected to the 2 %" Hose Monster or Flusher. The built-in pitot or flow splitter must be installed for accuracy. If you do not have the built-in pitot or flow splitter, please contact us.

• Open Atmosphere. Use this column when the Pitotless Nozzle is connected directly to a test header or hydrant flowing openly to atmosphere.

This chart is FM Approved for flow rate accuracy. Please call us or instruct the Authority Having Jurisdiction to call us if there are any questions. Additional copies of flow charts are available at: www.hosemonster.com/literature.html





Updated Jun. 2015

MANUFACTURED BY: Hydro Flow Products, Inc. 888.202.9987 TOLL FREE 847.434.0073 FAX Service@FlowTest.com EMAIL www.HoseMonster.com



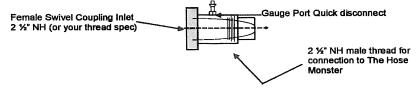
US Patent 6,874,375

The Pitotless Nozzle Threaded (PN#THD) must be used with the 2 ½" Hose Monster Model II (HM2H, HM2HF) or attached directly to a hydrant or test header valve discharging into open atmosphere. Note: If you intend to use the Pitotless Nozzle with the Little Hose Monster (HML), then a Pitotless Nozzle Grooved (PN#GRV) is required. Do not use the Pitotless Nozzle Threaded (PN#THD) with the Little Hose Monster. Call us if you are considering a configuration not listed here.

SETUE

The gauge connection on the Pitotless Nozzle is a factory-installed male end of a quick disconnect coupling. One female counterpart is included and additional ones can be purchased separately. Attach the female end of the quick disconnect coupling directly to the gauge or remote reader adapter and use the quick disconnect feature to attach and remove. Do not remove the male quick disconnect from the Pitotless Nozzle as it will damage the threads on the Pitotless Nozzle.

We recommend a gauge with an accuracy rating of ½% or better and of a suitable range.



Using the Pitotless Nozzle with the 2 1/2" Hose Monster® or Flusher

Insert the male outlet end of the Pitotless Nozzle into the swivel coupling of the Hose Monster. Hand-tighten plus about a quarter turn using a common rocker lug spanner wrench on the swivel coupling and a hole type spanner wrench (WSPA104) for a holdback. Attach the male end of a hose into the swivel coupling on the Pitotless Nozzle, hand-tighten plus about a quarter turn using spanner wrenches. The pitot/flow splitter must be installed on either unit in order to collect accurate flow rates.

If using the Pitotless Nozzle without the Hose Monster

The Pitotless Nozzle must be attached securely to a pump test header valve or hydrant. Secure the female swivel coupling of the Pitotless Nozzle directly to a hydrant nozzle or test header valve. The Pitotless Nozzle points in the direction the water will flow. Clear water discharge path.

Flow Charts

Pitotless Nozzle flow charts must be used to determine discharge flow rate. The use of flow charts of a different device or size will result in incorrect readings. Within the flow chart is a column for "2 ½" Hose Monster Model II" and for "Open Atmosphere". Use the "2 ½" Hose Monster Model II" flows if the Pitotless Nozzle is attached to a 2 ½" Hose Monster Model II. Use the "Open Atmosphere" flows if the Pitotless Nozzle is attached directly on a hydrant or test header valve discharging out into the open. Flow charts are provided with the Pitotless Nozzle and additional copies are available on our website at www.HoseMonster.com/literature.html

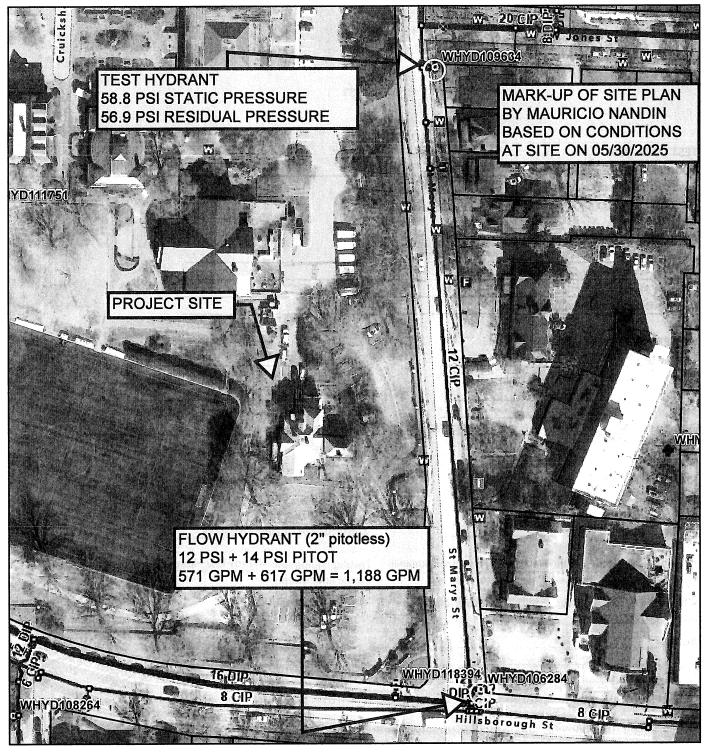
WARNING:

- Do not attach the Pitotless Nozzle to the end of a hose unless the Hose Monster is attached to it or unless
 it is permanently secured.
- Do not attach a hose to the male outlet end of the Pitotless Nozzle under any circumstance. The resulting backpressure will distort flow rate measurement.
- Do not remove the quick disconnect gauge port fitting. The aluminum threads will be damaged. Contact Hydro Flow Products directly for any repairs.

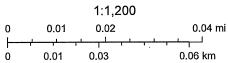


MANUFACTURED BY: Hydro Flow Products, Inc. (888) 202-9987 Toll Free (847) 434-0073 Fax Service@FlowTest.com www.HoseMonster.com

900 Hillsborough Street



6/2/2025, 6:59:01 AM



City of Raleigh and Wake County, Lee Kimmel, Sarah Lanier, Andrew Hayes









120 St. Mary's Street Raleigh, NC 27605 9 1 9 . 8 3 3 . 0 4 9 5 LysaghtAssociates.com Firm No. C-0621

April 15, 2022

Eric Poss Saint Mary's School 900 Hillsborough Street Raleigh NC 27603-1689 EPoss@sms.edu

RE: St. Mary's Chapel Fire Sprinklers

L&A Project #13666

Dear Eric,

I met with Dave on 4/7 and have completed my review of the fire sprinkler system. I have the following recommendations and conclusions.

- 1. OK to hang sprinklers from the roof framing in the main Sanctuary space.
- 2. OK to hang sprinklers from the walls in the wing on the right, rear side of the chapel.
- 3. OK to hang, or support, sprinklers on the lower ceiling above the wing on left, rear side of the chapel.
- 4. Contact me to review the installation once it is complete.

Please let me know if you have any questions about this letter.

Sincerely,

Chuck Lysaght, P.E.

4/15/2022