

FIRE SPRINKLER PLAN - FLOOR PLAN
SCALE: N.T.S.

FIRE PROTECTION WATER SUPPLY	
<input checked="" type="checkbox"/> PUBLIC	<input type="checkbox"/> PUBLIC + PUMP
<input type="checkbox"/> FIRE PUMP	<input type="checkbox"/> TANK
PUBLIC FLOW TEST: 120 PSI STATIC; 91 PSI RESIDUAL; 1500 GPM FLOW	
SOURCE OF TEST:	
DATE OF TEST: 03-08-2024 AT 9:30 AM	
TEST LOCATION: HYDRANT AT THE PROPERTY, ABOUT 200' AWAY FROM THE BUILDING	
FIRE PUMP DATA: CAPACITY :	
STORAGE TANK SIZE:	MISC. NOTES:

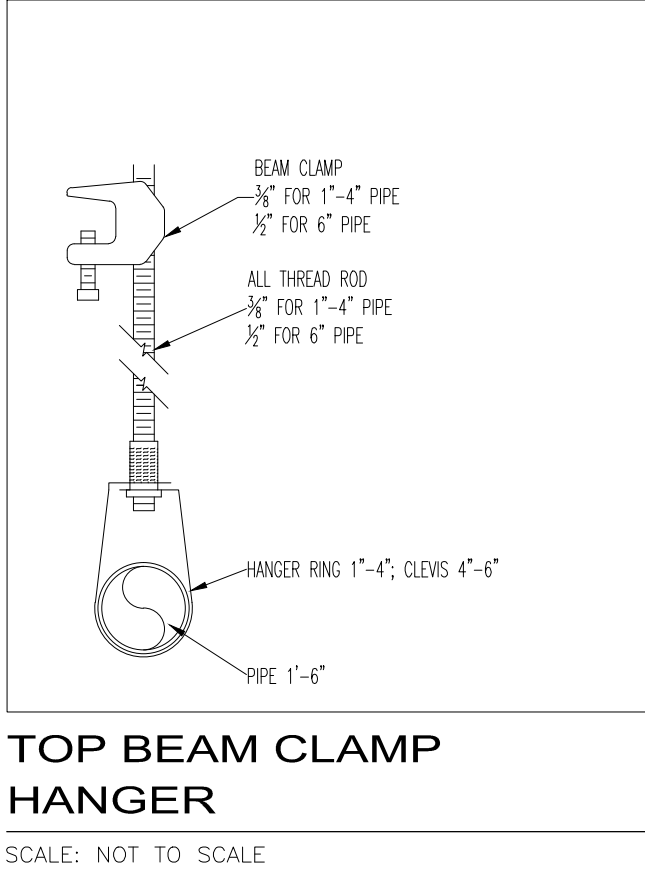
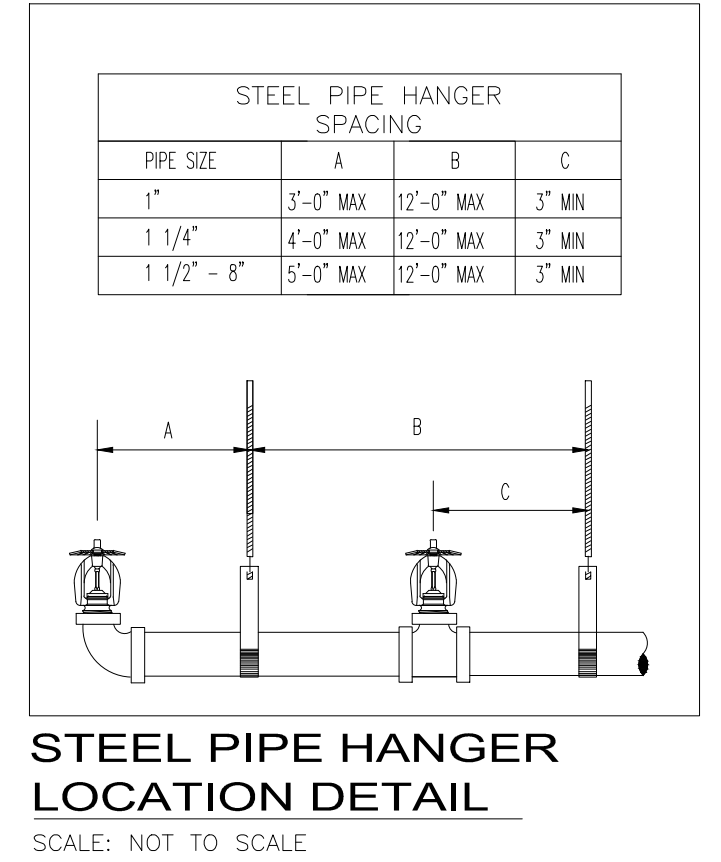
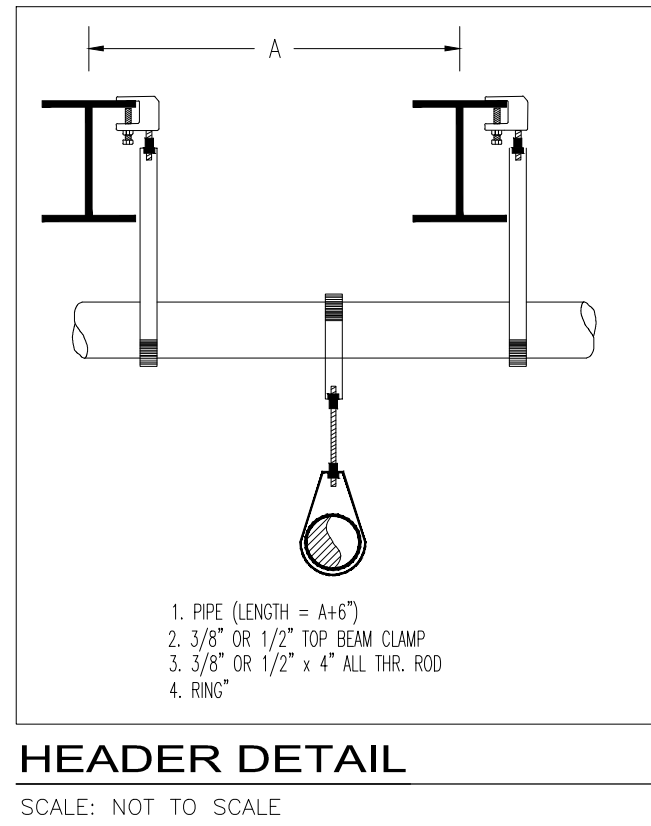
FIRE PROTECTION DESIGN CRITERIA	
OVERALL DESCRIPTION: THE EXISTING BUILDING WILL CONSISTS OF AN APPROXIMATELY 6,500 SQFT. ONE (1) STORY BUILDING. THE RENOVATED SPACE WILL BE USED FOR CLASSROOM SPACE AT THE KINGDOM CULTURE ACADEMY. THE EXISTING BUILDING CONSTRUCTION IS NON-COMBUSTIBLE CONSTRUCTION THROUGHOUT.	
AREA CLASSIFICATIONS: THE BUILDING AND NON-COMBUSTIBLE CONCEALED CEILING SPACE SHALL BE CLASSIFIED AS LIGHT HAZARD THROUGHOUT. THE STORAGE ROOMS SHALL BE CLASSIFIED AS ORDINARY TEMPERATURES AND HAZARD GROUP 1. THE OFFICE AND CLASSROOMS SHALL BE CLASSIFIED AS LIGHT HAZARD OCCUPANCY.	
DESIGN APPROACH: THE SYSTEM SHALL BE COMPRISED OF A WET-PIPE RISER SERVING ALL AREAS.	
LIGHT HAZARD AREAS SHALL BE DESIGNED FOR 0.10 GPM/SQFT OVER THE MOST DEMANDING DESIGN AREA PER NFPA 13, 2016 REQUIREMENTS PLUS APPROPRIATE HOSE ALLOWANCE, USING QUICK RESPONSE SPRINKLERS RATED FOR ORDINARY TEMPERATURES AND SPACED AT A MAXIMUM COVERAGE AS DEFINED IN NFPA 13, 2016.	
WATER SUPPLY CHARACTERISTICS: THE WATER SUPPLY IS FROM A 12" CITY MAIN RUNNING NEARBY THE PROPERTY. A 4" UNDERGROUND MAIN WILL BE CONNECTED TO THE EXISTING FIRE HYDRANT UNDERGROUND PIPING. A 4" BACKFLOW PREVENTER, WILKINS 350DA, 4X2.5X2.5 FIRE DEPARTMENT CONNECTION WILL BE INSTALLED RIGHT AFTER CONNECTION TO THE WATER MAIN. A 4" FIREWATER MAIN WILL THEN BE ROUTED TO THE RISER ROOM AS SHOWN ON THIS SHEET. THE DURATION OF THE SUPPLY WILL BE ADEQUATE FOR THIS APPLICATION.	

SYMBOL DESCRIPTION	
	NEW CONNECTION
	ELEVATION - FINISHED FLOOR TO CENTER LINE OF THE PIPE
	CEILING HEIGHT
	ROOM NUMBER
	ELEVATION- FINISH FLOOR TO BOTTOM OF THE STEEL
	HANGER
	HYDRAULIC POINT
	HYDRAULICALLY CALCULATED REMOTE AREA
	1x4 RECESSED FLUORESCENT LIGHT
	DOWNLIGHT, SCONE FIXTURE
	2x4 RECESSED FLUORESCENT LIGHT
	SWITCH, OCCUPANCY SENSOR, CEILING MOUNTED
	SWITCH, DAYLIGHT SENSOR, CEILING MOUNTED
	LIGHTING FIXTURE, FLUORESCENT, WALL MOUNTED
	1'x4' LIGHTING FIXTURE, RECESSED, CEILING MOUNTED
	EXIT/AREA REFUGE LIGHT, UNIVERSAL MOUNTED
	SMOKE DETECTOR, CEILING MOUNTED
	DIFFUSER GRILLE
	RETURN AIR GRILLE
	GYPSUM WALLBOARD CEILING
	2x2 LAY-IN ACOUSTICAL CEILING

FIRE PROTECTION GENERAL NOTES	
1.	FIRE PROTECTION SYSTEM(S) TO COMPLY WITH NFPA 13 (2016), NFPA 24 (2016)
2.	ADHERE TO AND OBTAIN ALL PERMITS, LICENSES
3.	FINAL INSPECTION AND APPROVAL BY FIRE MARSHAL AND ARCHITECT/ENGINEER.
4.	CUTTING OF STRUCTURAL AND/OR ARCHITECTURAL MEMBERS TO BE DONE ONLY WITH THE WRITTEN APPROVAL OF THE ARCHITECT.
5.	PIPE ROUTING SHOWN SHALL BE USED AND ANY ADDITIONAL OFFSETS OR FITTINGS REQUIRED FOR PROPER INSTALLATION, COORDINATION WITH OTHER TRADES, AND/OR TO MAINTAIN PROPER CLEARANCES SHALL BE PROVIDED. VERIFY STRUCTURAL, MECHANICAL, ELECTRICAL INSTALLATIONS.
6.	PIPE SHALL BE REAMED AND CLEANED BEFORE ASSEMBLY.
7.	METHODS OF HANGING PIPES, HEADERS, AND BRANCHES SHALL BE IN ACCORDANCE WITH NFPA 13.
8.	PROTECT ALL PENETRATIONS OF SMOKE/FIRE WALLS, CEILINGS, FLOORS, ETC. (SEE DETAIL).
9.	PROVIDE ACCESS PANELS AND SIGNS TO ALL VALVES ABOVE NON-ACCESSIBLE CEILINGS (BY OTHERS).
10.	SPRINKLER HEADS ARE TO BE COORDINATED WITH ALL DIFFUSERS, SPEAKERS, LIGHTING FIXTURES, AND CEILING SYSTEMS.
11.	PROVIDE HEAD GUARDS ON SPRINKLER HEADS ALL LOCATIONS WHERE SPRINKLERS ARE SUBJECT TO DAMAGE.
12.	AUTOMATIC SPRINKLER TEMPERATURE RATINGS TO BE IN ACCORDANCE WITH NFPA 13.
13.	ALL COMPONENTS SHALL BE LISTED BY UNDERWRITER'S LABORATORIES (UL)
14.	ALL COMPONENTS SHALL BE LISTED FOR THE MAXIMUM SYSTEM PRESSURE, 175 PSI MINIMUM.
15.	VALVES ON THE FIRE PROTECTION SYSTEM TO BE ELECTRICALLY SUPERVISED
16.	TYPE AND EXACT LOCATION OF FLOW, PRESSURE, AND SUPERVISORY SWITCHES SHALL BE COORDINATED BETWEEN THE DIFFERENT RESPONSIBLE TRADES. ADDITIONAL WIRING OR DEVICES REQUIRED SHALL BE PROVIDED.
17.	ALL POWER WIRING SHALL BE ACCOMPLISHED UNDER THE ELECTRICAL DIVISION.
18.	SPRINKLERS SHALL COVER THE ENTIRE AREA OF THE ROOM INCLUDING ALCOVES.
19.	PROVIDE SPRINKLERS ABOVE AND BELOW EXPOSED DUCTWORK OR OBSTRUCTIONS 4 FEET OR LARGER.
20.	SPRINKLERS TO BE LOCATED IN THE CENTER-OF-TILE IN ALL AREAS WITH ACOUSTICAL CEILING TILES.
21.	PROVIDE HYDRAULIC DESIGN INFORMATION SIGNS AT EACH SYSTEM RISER.
22.	ALL UPRIGHT SPRINKLERS (EXCLUDING SPRINKLERS BELOW THE DUCT) TO HAVE A DISTANCE OF 1" TO 12" BELOW THE BOTTOM OF DECK.
23.	ALL SYSTEMS TO HYDROSTATICALLY TESTED AT 200PSI FOR 2 HOURS AND THE MATERIAL TEST CERTIFICATE SHALL BE PROVIDED TO THE OWNER
24.	PROVIDE LOW POINT DRAINS FOR ALL PORTIONS OF SYSTEMS WITH 5 GALLONS OR MORE OF TRAPPED WATER
25.	PROVIDE STOCK OF SPARE SPRINKLERS AND HEAD WRENCH IN A MOUNTED CABINET AS REQUIRED.

FIRE PROTECTION PIPE TYPE	
WET PIPE SYSTEM(S):	
1" - 1 1/2" PIPING (IF THREADED)	BLACK STEEL, SCHEDULE 40
1 1/2" - 6" PIPING (IF GROOVED OR WELDED)	BLACK STEEL, SCHEDULE 10
UNDERGROUND PIPE (INSTALLED BY OTHERS):	
4" PIPING (NEW)	BLUBR150-C900-DR18
6" & 8" PIPING (EXISTING)	DUCTILE IRON

HANGER SPACING TABLE MAXIMUM DISTANCE BETWEEN HANGERS IN ACCORDANCE TO NFPA 13									
PIPE SIZE	1"	1 1/2"	2"	2 1/2"	3"	4"	4 1/2"	6"	8"
SCH. 10 - 40	12'-0"	12'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"



FLEXIBLE SPRINKLER DROP HOSE
UNBRAIDED CONNECTIONS

- Save Time & Money
- No cutting, no welding, no threading
- Perfect for retrofit applications
- Easy to move for layout changes

TECHNICAL DATA

- UL Approved for Unbraided
- Rated Pressure: 203 PSI (14 Bar)
- Max. Burst Pressure: 875 PSI (70 Bar)
- Maximum Ambient Temperature: 225°F (107°C)
- Maximum Sprinkler K-factor for 1/2" outlet: 8.0 gal/min/(psi)^{1/2}
- Maximum Sprinkler K-factor for 3/4" outlet: 14.0 gal/min/(psi)^{1/2}
- Designed for use in wet and dry systems
- Flexibility Type: Limited
- Hose Diameter: O.D. 1-1/16" / Flow 7/8"

UNBRAIDED		1/2" NPT		3/4" NPT		Max. # of Bends	Min. Bending Radius
Length	ITEM #	Equivalent Length of 1 ft Sch 40 Pipe*	ITEM #	Equivalent Length of 1 ft Sch 40 Pipe*	ITEM #		
AR-LUB FLEX-07 28' (0.6 m)	6530160	18 ft.	6530170	24 ft.	1	4"	
AR-LUB FLEX-10 40' (0.9 m)	6530161	33 ft.	6530171	41 ft.	2	4"	
AR-LUB FLEX-12 48' (1.2 m)	6530162	43 ft.	6530172	46 ft.	2	4"	
AR-LUB FLEX-15 60' (1.6 m)	6530163	63 ft.	6530173	64 ft.	3	4"	
AR-LUB FLEX-18 72' (1.8 m)	6530164	78 ft.	6530174	80 ft.	4	4"	

COMPONENT LIST


NO	Part Name	Material	QTY
1	Corrugated Tube	304 Stainless Steel	1
2	Nut	Galv Steel (ASTM A593)	2
3	Isolation Ring	Nylon 66	1
4	O-Ring	EPDM	1
5	Reducer	Zinc Plated Steel	1
6	Nipple	Galv Steel (ASTM A593)	1
7	Center Bracket	Galv Steel (ASTM A593)	1
8	End Bracket	Galv Steel (ASTM A593)	2
9	Square Bar	Galv Steel (ASTM A593)	1

Anchoring components are intended for use with drop ceilings conforming to ASTM C635 and other major standards when installed in accordance with the standard practice for installation of metal ceiling suspension systems for acoustical tile and lay-in panel, ASTM C635 or other equivalent standards.

System No.	Location	Spec Section	Paragraph
Submitted By	Date	Approved	Date

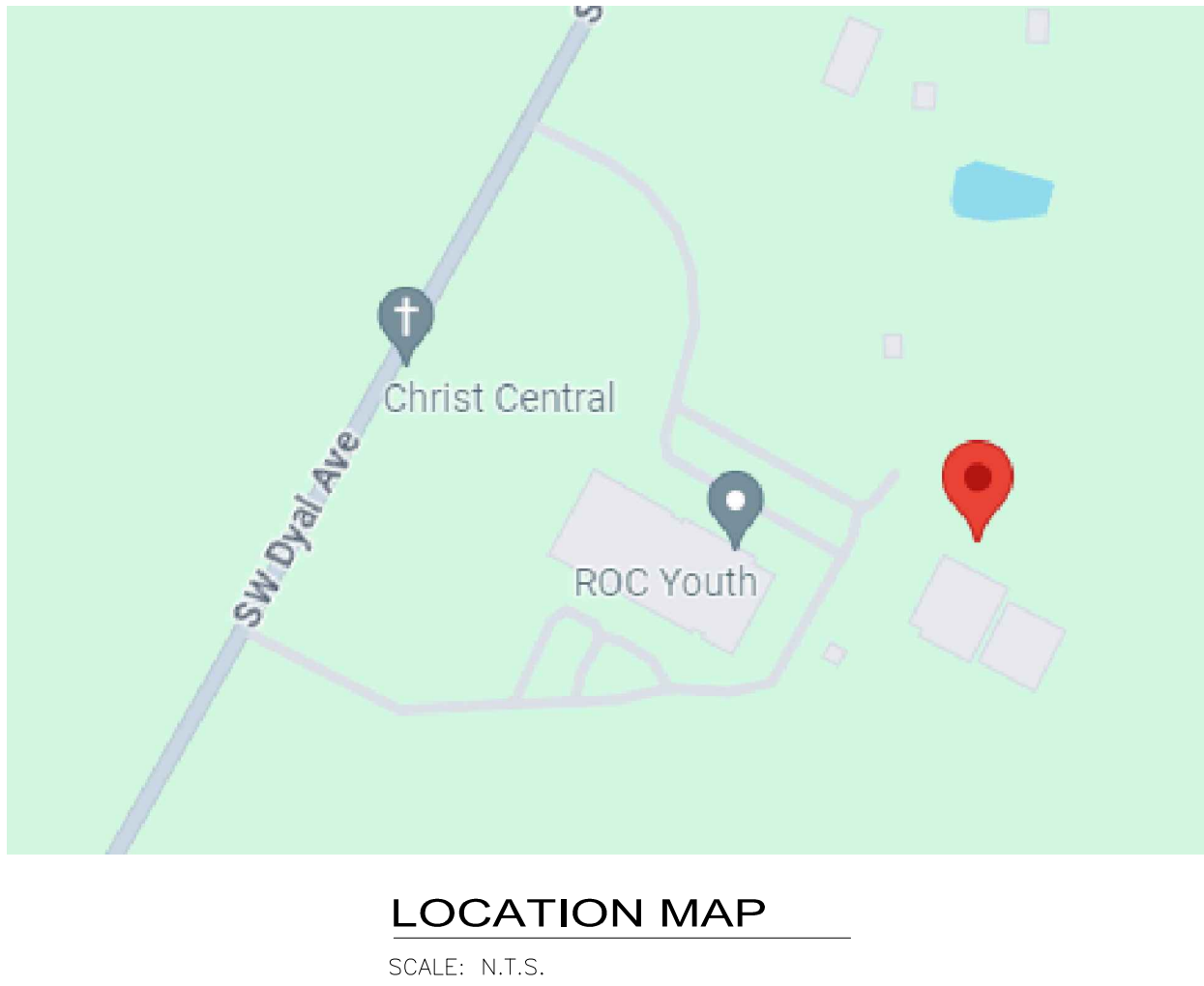
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ALUMINUM ROLLING GROUP OF COMPANIES



LOCATION MAP
SCALE: N.T.S.

FIRE PROTECTION DRAWING LEGEND	
SHEET NUMBER	SHEET TITLE
FP - 1	FIRE SPRINKLER PLAN - SITE PLAN, DETAILS AND NOTES
FP - 2	FIRE SPRINKLER PLAN - FLOOR PLAN AND SECTION

STAR

FIRE SPRINKLERS

- ENGINEERING
- DESIGNING
- FABRICATION
- INSTALLATION
- INSPECTION
- BFP TESTING

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E-MAIL:
INFO@STARFIRESPRINKLERS.COM

KINGDOM CULTURE ACADEMY
- RENOVATION
359 SW DYAL AVE LAKE CITY, FL 32024

PROJECT NAME:

SHEET TITLE:

FIRE SPRINKLER PLAN - SITE PLAN, DETAILS AND NOTES

DATE:	04-09-2024
DESIGNED BY:	DESIGNER
DRAWN BY:	DESIGNER
SCALE:	AS NOTED
JOB No:	NA
SHEET OF:	1 OF 2
SHEET No:	FP - 1