

FIRE PROTECTION ABBREVIATIONS

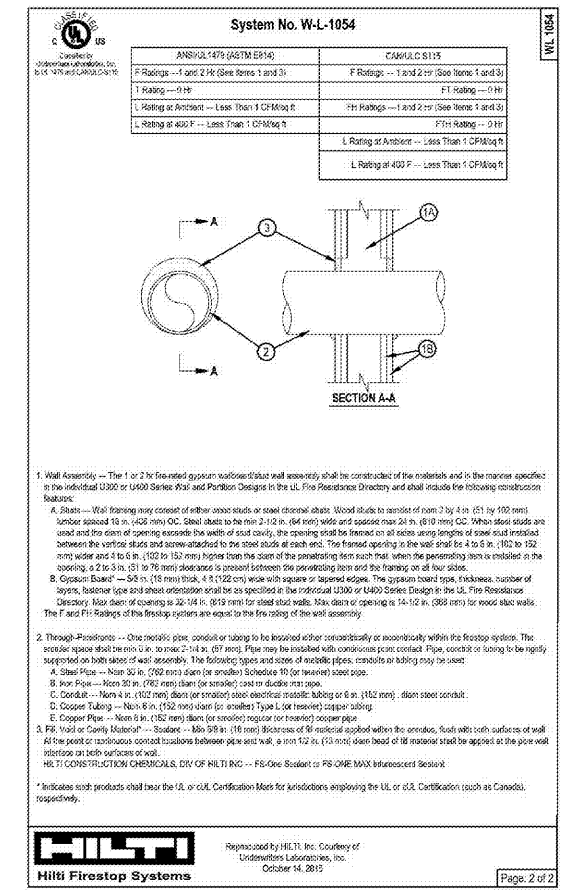
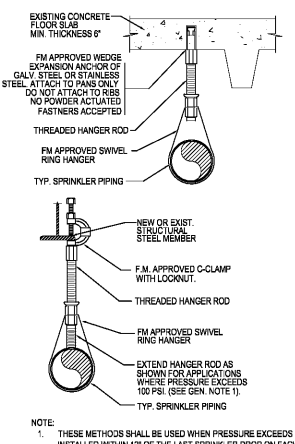
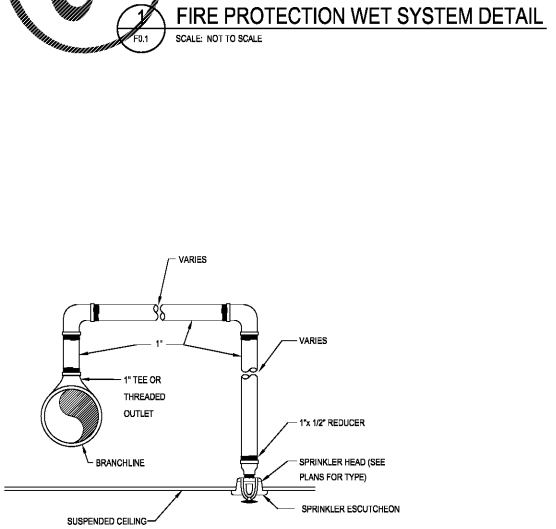
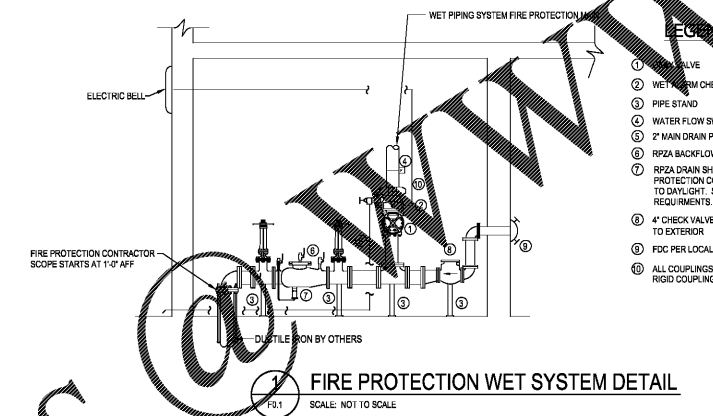
ABBREVIATION	DEFINITION	ABBREVIATION	DEFINITION	ABBREVIATION	DEFINITION
CL	CENTER LINE	FL	FLOOR	P	PUMP
PL	PLATE	FLEX	FLEXIBLE	P.C.	PLUMBING CONTRACTOR
ANG	ANGLE	FLG	FLANGE	PICU	PEDIATRIC INTENSIVE CARE UNIT
R	ROUND, DIAMETER OR PHASE	FP	FIRE PROTECTION	PLBG	PLUMBING
#	POUNDS OR NUMBER	FPM	FEET PER MINUTE	PRS	PRESSURE REDUCING STATION
A	COMPRESSED AIR	FPS	FEET PER SECOND	PRV	PRESSURE REDUCING VALVE
ABV/CLG	ABOVE CEILING	FS	FLOW SWITCH	PS	PRESSURE SWITCH
ACFM	ACTUAL CUBIC FEET PER MINUTE	FT	FOOT/FEET	PSIA	POUNDS PER SQUARE INCH ABSOLUTE
ACU	AIR CONDITIONING UNIT	FTG	FOOTING	PSIG	POUNDS PER SQUARE INCH GAUGE
AFD	ABOVE FINISHED FLOOR	GA	GAGE		
AHU	AIR HANDLING UNIT	GAL	GALLONS		
ALUM	ALUMINUM	GALVZ	GALVANIZED	PVC	POLYVINYL CHLORIDE
ANSI	AMERICAN NATIONAL STANDARD ASSOCIATION	GC	GENERAL CONTRACTOR	QTY	QUANTITY
		GM	GALLONS PER MINUTE	REIN	REINFORCING
AP	ACCESS PANEL	HVC	HEATING, VENTILATING, AND AIR CONDITIONING CONTRACTOR	REQD	REQUIRED
APPROX	APPROXIMATE	REV	REVISION	RM	ROOM
ARCH	ARCHITECTURAL	HR	HANGER	RPM	REVOLUTIONS PER MINUTE
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS	H.CAB.	HOSE CABINET	RZ	REDUCED PRESSURE ZONE BACKFLOW PREVENTER
ASV	AUTOMATIC SPRINKLER VALVE	HORZ	HORIZONTAL	R.S.	RISING STEM
AUTO	AUTOMATIC	HP	HIGH PRESSURE OR HORSEPOWER	S.C.	SITE CONTRACTOR
AWWA	AMERICAN WATER WORKS ASSOCIATION	HR	HOUR	SCH	SCHEDULE
BFF	BELOW FINISHED FLOOR	HTG	HEATING	SECT.	SECTION
BFP	BACKFLOW PREVENTER	HVAC	HEATING, VENTILATING AND AIR CONDITIONING	SPFC	SPECIFICATION
BP	BRAKE HORSEPOWER	HYD	HYDRANT	SPR	SPRINKLER
BP	BOTTOM OF PIPE	I.D.	INSIDE DIAMETER	SQ	SQUARE
C	CELSIUS	IN	INCH	STA	STEEL
CONN.	CONNECTION	KW	KILOWATT	STRUCT.	STRUCTURAL
CONT.	CONTINUATION	MAX.	MAXIMUM	SYM	SYMBOL OR SYMMETRICAL
CONSTR.	CONSTRUCTION	MECH.	MECHANICAL	SYS	SYSTEM
CONTR.	CONTRACTOR	MEZZ	MEZZANINE	T.O.P.	TOP OF PIPE
COORD.	COORDINATE	MFG.	MANUFACTURING	T.O.S.	TOP OF STEEL
COP	COEFFICIENT OF PERFORMANCE	MFR.	MANUFACTURER	TS	TAMPER SWITCH
CTR	CENTER	MIN.	MINIMUM	TYP.	TYPICAL
CU	COPPER	MJ	MECHANICAL JOINT	U.F.	UNDER FLOOR
CU.FT.	CUBIC FOOT	MTD	MOUNTED	UL	UNDERWRITERS LABORATORIES
CW	COLD WATER OR CITY WATER	NC	NORMALLY CLOSED	UNO	UNLESS NOTED OTHERWISE
CU.YD.	CUBIC YARD	NEC	NATIONAL ELECTRIC CODE	VERT.	VERTICAL
D.I.	DUCTILE IRON	NEPA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION	W.V.	WALVE
DN	DOWN	N.F.P.A.	NATIONAL FIRE PROTECTION ASSOCIATION	W/O	WITHOUT
DWG.	DRAWING	N.I.C.	NOT IN CONTRACT	X	EXISTING
E.C.	ELECTRICAL CONTRACTOR	NO	NORMALLY OPEN		
ECC	ECCENTRIC	NO.	NUMBER		
EFF	EFFICIENCY	NPSH	NET POSITIVE SUCTION HEAD		
EJ	EXPANSION JOINT	N.R.S.	NON RISING STEM		
EL	ELEVATION	N.T.S.	NOT TO SCALE		
ELEC.	ELECTRICAL	O.C.	ON CENTER		
EQ	EQUAL	O.D.	OUTSIDE DIAMETER		
EQUIP.	EQUIPMENT	OPNG	OPENING		
EQUIV.	EQUIVALENT	O.R.	OPERATING ROOM		
FIN.	FINISHED	OSD	OPEN SIGHT DRAIN		
		O.S.&Y.	OUTSIDE SCREW AND YOKER		

SYMBOLS	DEFINITION	SYMBOLS	DEFINITION	SYMBOLS	DEFINITION
	PIPE TURNING UP		PENDANT SPRINKLER HEAD		KEYED NOTE
	PIPE TURNING DOWN		CONCEALED SPRINKLER HEAD		REVISION NUMBER
	TEE DOWN		UPRIGHT SPRINKLER HEAD		CONNECT TO EXISTING
	TEE UP		DRY PENDANT SPRINKLER HEAD		REMOVE TO THIS POINT
	45° OFFSET		SIDEWALL SPRINKLER HEAD		DETAIL CALLOUT
	DIRECTION OF FLOW IN PIPE		DRY SIDEWALL SPRINKLER HEAD		DETAIL CALLOUT
	PIPE SLOPED IN DIRECTION OF ARROW		HEAD WITH GUARD		DETAIL CALLOUT
	PIPE CAP		PENDANT SPRINKLER HEAD W/GUARD		DETAIL CALLOUT
	CONCENTRIC REDUCER		DRY PILOT DETECTION HEAD		DETAIL CALLOUT
	ECCENTRIC REDUCER		PLUGGED TEE		DETAIL CALLOUT
	PIPE UNION		HYDRAULIC CALCULATION NODE (SPRINKLER SYSTEM)		DETAIL CALLOUT
	GATE VALVE		HYDRAULIC CALCULATION NODE (STANDPIPE SYSTEM)		DETAIL CALLOUT
	CHECK VALVE		ALARM CHECK VALVE		DETAIL CALLOUT
	BUTTERFLY VALVE		DRY PIPE VALVE WITH EXHAUSTOR OR ACCELERATOR		DETAIL CALLOUT
	BALL VALVE		DELUGE VALVE		DETAIL CALLOUT
	SOLENOID VALVE		PREACTION VALVE		DETAIL CALLOUT
	PRESSURE REDUCING VALVE		HOSE END VALVE		DETAIL CALLOUT
	SAFETY RELIEF VALVE		TAMPER SWITCH (SHOWN ON VALVE)		DETAIL CALLOUT
	BACKFLOW PREVENTER ASSEMBLY (TYPE INDICATED)		PRESSURE SWITCH		DETAIL CALLOUT
	Y-TYPE STRAINER		FLOW SWITCH		DETAIL CALLOUT
	BASKET STRAINER		DOUBLE DETECTOR CHECK VALVE		DETAIL CALLOUT
	PRESSURE GAUGE (1/2" BALL VALVE)		ANGLE VALVE (PLAN VIEW)		DETAIL CALLOUT
	PIPE ANCHOR		ANGLE VALVE (PLAN VIEW)		DETAIL CALLOUT
	FLEXIBLE PIPE CONNECTION		FIRE RISERANT WITH CHECK VALVE (HANDY WAY)		DETAIL CALLOUT
	PUMP		FIRE RISERANT WITH CHECK VALVE (HANDY WAY)		DETAIL CALLOUT
	FIRE HOSE CABINET		FIRE RISERANT WITH CHECK VALVE (HANDY WAY)		DETAIL CALLOUT
	FIRE HOSE CABINET		FIRE RISERANT WITH CHECK VALVE (HANDY WAY)		DETAIL CALLOUT

FIRE PROTECTION GENERAL NOTES

- FIRE PROTECTION CONTRACTOR SHALL COORDINATE WORK OF THIS TRADE WITH OTHER TRADE CONTRACTORS.
- INSTALL CHROME PLATED ESCUTCHEON PLATES AT ALL LOCATIONS THAT A SPRINKLER HEAD PENETRATES A CEILING.
- SPRINKLER CONTRACTOR SHALL VERIFY LATEST ARCHITECTURAL ROOM, WALL, AND CEILING LAYOUTS PRIOR TO DESIGN OF SYSTEM.
- THE ENTIRE SPRINKLER SYSTEM SHALL BE TESTED AT 200 PSI FOR A MINIMUM OF 2 HOURS UPON COMPLETION OF INSTALLATION. ALL LEAKS SHALL BE PROPERLY SEALED OR CORRECTED PRIOR TO TURNKEY TO OWNER.
- ALL MATERIALS AND EQUIPMENT UTILIZED IN THIS INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OUTLINED IN NFPA 13 (2013 EDITION), CHAPTER 12, "SYSTEM COMPONENTS".
- SEAL ALL PIPING THROUGH NON RATED ASSEMBLIES TO REDUCE TRANSFER OF SOUND THROUGH THE ASSEMBLIES. GYPSUM WALLBOARD "MUD" MAY BE USED FOR THIS PROCESS. ALL PIPING PENETRATING FIRE-RATED ASSEMBLIES SHALL BE SEALED WITH A UL LISTED MATERIAL.
- PIPING ELEVATIONS ARE TO BE FIELD VERIFIED BY CONTRACTOR PRIOR TO START OF CONSTRUCTION.
- NEW SPRINKLER INSTALLATION IS TO BE DESIGNED TO MEET THE REQUIREMENTS OF NFPA 13 (2013 EDITION), LIGHT HAZARD AND ORDINARY HAZARD GROUP 1, GROUP 2, AND CLASSIFICATION.
- SPRINKLER CONTRACTOR SHALL ROUTE PIPING AS CLOSE TO BUILDING STRUCTURE (FLOORS, WALLS, COLUMNS, AND BEAMS) AS POSSIBLE AND SHALL COORDINATE INSTALLATION WITH ALL OTHER TRADES.
- SPRINKLER CONTRACTOR SHALL PROVIDE AT LEAST 1 SPARE HEAD OF EACH TYPE USED IN THE SYSTEM AS INSTALLED, AND OF THE APPROPRIATE TEMPERATURE RATING. SPRINKLER CONTRACTOR SHALL ALSO PROVIDE THE APPROPRIATE TYPE WRENCH FOR EACH TYPE OF SPRINKLER HEAD.
- SPRINKLER CONTRACTOR SHALL COORDINATE INSTALLATION OF ALL ACCESS DOORS AND HATCHES WITH GENERAL CONTRACTOR. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF DOORS OR HATCHES.
- ONLY NEW MATERIALS AND EQUIPMENT ARE TO BE INSTALLED, AND SHALL BE OF THE LATEST DESIGN FROM EACH MANUFACTURER. ONLY EQUIPMENT AND MATERIALS APPROVED AND LISTED BY UL AND THE UNDERWRITER ARE TO BE INSTALLED. ONLY MATERIALS AND EQUIPMENT MANUFACTURED WITHIN THE UNITED STATES WILL BE INSTALLED. ALL SPRINKLER SYSTEM COMPONENTS SHALL HAVE A WORKING PRESSURE SUITABLE FOR THE CONDITIONS INDICATED BY THE FLOW TEST.
- SYSTEM MUST BE HYDRAULICALLY CALCULATED IN ACCORDANCE WITH NFPA 13 USING CURRENT (LESS THAN ONE YEAR OLD) WATER SUPPLY INFORMATION.
- CONTRACTOR SHALL SIZE PIPING AND HYDRAULICALLY CALCULATE MOST REMOTE AREA FOR A WET SYSTEM.
- ALL HANGERS WILL CONFORM TO NFPA 13 (2013 EDITION) CRITERIA.

SPRINKLER DESIGN DATA			
PROJECT NAME:	WINSTON-SALEM FIRE STATION NO. 3	SYSTEM NO.:	1
PROJECT LOCATION:	2905 N. LIBERTY ST WINSTON-SALEM, NC 27105	SYSTEM SQUARE FOOTAGE:	14,593
DESIGNED BY:	ENGINEERED DESIGNS	PHONE:	(919) 851-8481
OCCUPANCY DESCRIPTION:		CEILING HEIGHT:	8'6"
		TOTAL BUILDING HEIGHT:	24'4"
		HAZARD CLASS:	SEE BELOW
FIRE PROTECTION DESIGN SUMMARY			
DESIGN METHOD	TO BE HYDRAULICALLY CALCULATED	TO BE HYDRAULICALLY CALCULATED	TO BE HYDRAULICALLY CALCULATED
SYSTEM IDENTIFICATION #	#1	#2	#3
LOCATION	FIRST FLOOR	KITCHEN/MECH. ROOM/STORAGE	APPARATUS BAY
TYPE OF HAZARD	WET	WET	WET
HAZARD CLASS	LIGHT	ORDINARY GROUP 1	ORDINARY GROUP 2
CRITERIA FROM	NFPA 13	NFPA 13	NFPA 13
DESIGN AREA	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED
SPRINKLER SPACING	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED
DENSITY	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED
K-FACTOR	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED
HOSE ALLOWANCE	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED
# DESIGN SPRINKLER	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED
REQUIREMENTS @	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED
GPM REQUIRED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED
PSI REQUIRED	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED
NODE #	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED
SAFETY FACTOR	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED
GPM	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED
PSI	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED
NODE #	TO BE DETERMINED	TO BE DETERMINED	TO BE DETERMINED
WATER SUPPLY INFORMATION			
TESTED BY:	TECHNICAL RESERVES CITY OF WINSTON-SALEM		
DATE/TIME:	7/25/19 - 11:00 AM		
PRESSURE HYDRANT	200 PSI		
FLOW HYDRANT	200 GPM		
STATIC (PSI)	67		
RESIDUAL (PSI)	58		
W (GPM)	1000		



ERSOY BRAKE APPEYARD ARCHITECTS, P.A.
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City of Winston-Salem
FIRE STATION 3
WINSTON-SALEM • NORTH CAROLINA

Hilti
Hilti Firestop Systems
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