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FIRE PROTECTION CRITERIA	
OVERALL DESCRIPTION THE NEW CONSTRUCTION IS 3 5-STORY APARTMENT BUILDINGS WITH A NEW WET PIPE FIRE SPRINKLER SYSTEM. DESIGNED PER NFPA 13, 2013 EDITION. A NEW FIRE MAIN WILL TAP INTO THE EXISTING MAIN. THE FIRE LINE SHALL RUN UNDERGROUND TO THE FIRE RISER. THE BUILDING IS LOCATED IN CHARLOTTE, NC.	
ACCEPTANCE TESTING THE FIRE SPRINKLER ACCEPTANCE TESTING SHALL BE PROVIDED PER NFPA 13, 2013 EDITION.	
OCCUPANCY CLASSIFICATION THE BUILDINGS ARE 5-STORY APARTMENT BUILDINGS AND ARE NEW CONSTRUCTION. AMENITY AREAS AND DWELLING UNITS SHALL BE LIGHT HAZARD OCCUPANCY. MAIL ROOM AND LEASING AREA SHALL BE ORDINARY HAZARD 1.	
PREPARATION OF DOCUMENTS THE SPRINKLER SYSTEM FOR THE BUILDING WILL BE A WET PIPE SYSTEM. DESIGNED PER NFPA 13, 2013 EDITION. THE SYSTEM WILL INCLUDE USING STEEL, SCHEDULE 40 PIPING IN THE SPACE TO UPRIGHT HEADS LOCATED IN THE BUILDING. ANY EXPOSED PIPING WILL BE STEEL, SCHEDULE 40. SPRINKLERS WILL BE "QUICK RESPONSE" TYPE.	
STRUCTURAL SUPPORT STRUCTURAL SUPPORT AND STRUCTURAL OPENINGS FOR THE FIRE PROTECTION SYSTEM INCLUDING LIVE AND DEAD LOADS HAVE BEEN COORDINATED WITH THE STRUCTURAL ENGINEER. STEEL SLEEVES WILL BE SET PRIOR TO CONCRETE PLACEMENT TO PROVIDE FOR PENETRATIONS OF FIRE PROTECTION PIPING THROUGH THE FLOORS OR ROOF STRUCTURE. CORE DRILLING WILL BE ALLOWED FOR CMU WALL PENETRATIONS FOR FIRE PROTECTION PIPING AS MAY BE REQUIRED. ALL PENETRATIONS WILL BE PROPERLY FIRE-CAULKED, AS REQUIRED.	
POINT OF SERVICE POINT OF SERVICE IS A 7" FIRE MAIN LOCATED APPROXIMATELY ??? FT. FROM THE PROPOSED SPRINKLER RISER. A 7" PRIVATE FIRE LINE SHALL BE EXTENDED TO SERVE THE NEW HYDRANT AND A 7" MAIN SHALL BE EXTENDED TO SERVE THE SPRINKLER SYSTEM FOR EACH BUILDING.	
GOVERNING STANDARDS SYSTEM DESIGN AND INSTALLATION SHALL COMPLY WITH 2013 EDITION OF NFPA 13 AND THE 2014 EDITION OF NFPA 25 AS WELL AS THE 2018 N. CAROLINA BUILDING CODE AND THE 2018 EDITION FIRE PREVENTION CODE.	
DESIGN APPROACH THE SYSTEM SHALL BE A HYDRAULICALLY CALCULATED FULLY AUTOMATIC, WET SYSTEM INSTALLED THROUGHOUT THE ENTIRE BUILDING. LIGHT HAZARD OCCUPANCY AREAS OF THE BUILDING SHALL BE DESIGNED FOR 0.10 GPM/SF OVER THE MOST DEMANDING 900 SQUARE FEET USING 155°F (K=5.6) QUICK-RESPONSE HEADS (COVERAGE AREA REDUCTION BASED ON 10 FEET CEILING HEIGHTS PER NFPA 13, FIGURE 11.2.3.2.3.1) WITH A MAXIMUM COVERAGE AREA OF 225 SF PER HEAD AND MAXIMUM HEAD SPACING OF 15 FEET. ORDINARY HAZARD (GROUP 2) OCCUPANCY AREAS OF THE BUILDING SHALL BE DESIGNED FOR 0.20 GPM/SF OVER THE MOST DEMANDING 1500 SQUARE FEET USING 155°F (K=5.6) QUICK-RESPONSE HEADS WITH A MAXIMUM COVERAGE AREA OF 130 SF PER HEAD AND MAXIMUM HEAD SPACING OF 15 FEET.	
FLOW TEST INFORMATION FLOW TEST TO BE CONDUCTED PRIOR TO FINALIZING DESIGN.	
VALVING AND ALARM REQUIREMENTS INSTALL FLOW SWITCH IN FIRE RISER AND PUT TAMPER SWITCH ON CONTROL VALVE IN RISER WITH LOCAL AUDIBLE ALARM AND CENTRAL STATION MONITORING - ISOLATION VALVES ON BACKFLOW PREVENTER OUTSIDE SHALL BE CHAINED AND LOCKED OPEN.	
MIC RISK EVALUATION THERE IS A MINIMAL RISK OF MIC IN THE WATER SUPPLY FOR THIS LOCATION ACCORDING TO THE MECKLENBURG COUNTY FIRE PLAN REVIEW OFFICE.	
BACKFLOW PREVENTION DETAILS 8" RPZ BACKFLOW PREVENTER MEETING LOCAL REQUIREMENTS SHALL BE INSTALLED. MAXIMUM PRESSURE DROP ACROSS BACKFLOW PREVENTER TO BE 10 PSI.	
COMPONENT SPECIFICATIONS ALL INSIDE AND UNDERGROUND PIPING, VALVES, SWITCHES, AND OTHER COMPONENTS TO BE UL AND FM LISTED MATERIALS FOR FIRE PROTECTION. ALL UNDERGROUND PIPING SHALL BE INSTALLED BY A STATE (F9635.521) CERTIFIED CONTRACTOR, WHO SHALL BE RESPONSIBLE FOR PIPING OUTSIDE OF THE BUILDING UP TO ONE FOOT ABOVE FINISHED FLOOR INSIDE THE BUILDING.	

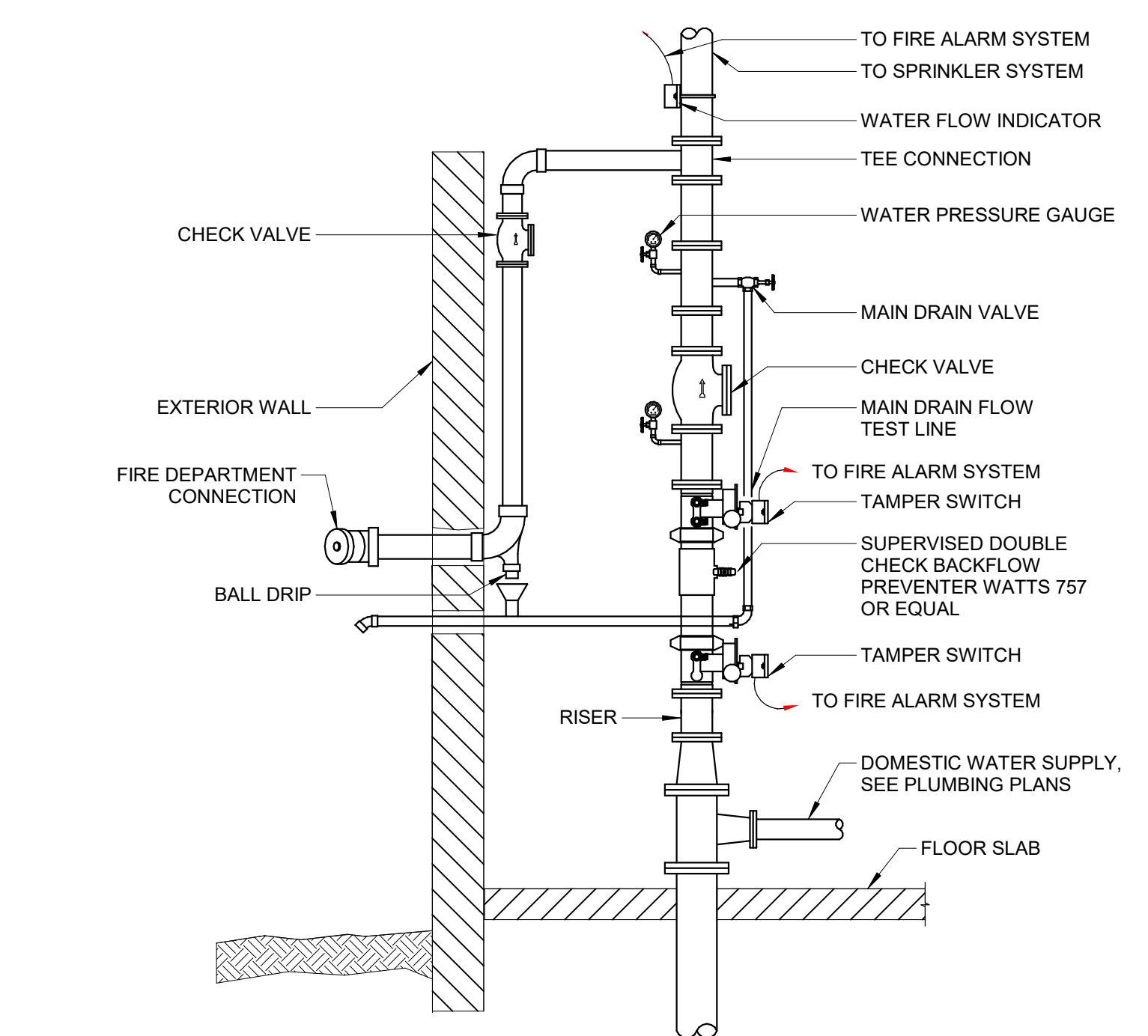
- GENERAL FIRE PROTECTION NOTES**
- SYSTEM MUST COMPLY WITH NFPA-13 (VERIFY EDITION), AND ALL APPLICABLE STATE AND LOCAL CODES.
 - ADHERE TO AND OBTAIN ALL PERMITS, LICENSES, AND ALL GOVERNMENT REQUIREMENTS.
 - FINAL INSPECTION AND APPROVAL BY LOCAL FIRE DEPARTMENT AND ARCHITECT/ENGINEER.
 - CUTTING OF STRUCTURAL AND/OR ARCHITECTURAL MEMBERS TO BE DONE ONLY WITH THE WRITTEN APPROVAL OF THE ARCHITECT.
 - SHOP DRAWING SUBMITTALS ARE ONLY REVIEWED FOR GENERAL CONFORMANCE WITH THE INFORMATION SHOWN ON THE CONSTRUCTION DOCUMENTS. THE GENERAL CONTRACTOR MUST REVIEW AND APPROVE THE SHOP DRAWINGS PRIOR TO THEIR SUBMITTAL TO THE ARCHITECT/ENGINEER. SUBMITTALS WHICH DO NOT CONTAIN THE CONTRACTOR'S SHOP DRAWING STAMP SHALL BE RETURNED WITHOUT REVIEW. ANY REQUESTED CHANGES TO THE CONTRACT DOCUMENTS SHALL BE COMMUNICATED IN WRITING PRIOR TO SUBMITTING THE SHOP DRAWINGS AND CLOUDED ON THE SHOP DRAWINGS.
 - PIPE ROUTING SHOWN SHALL BE USED AND ANY ADDITIONAL OFFSETS OR FITTINGS REQUIRED FOR PROPER INSTALLATION, COORDINATION WITH OTHER TRADES SHALL BE PROVIDED.
 - FIRE STOP ALL PENETRATIONS OF FIRE AND SMOKE/FIRE WALLS, CEILINGS, AND FLOORS.
 - PROVIDE ACCESS PANELS AND IDENTIFICATION TO ALL VALVES ABOVE NON-ACCESSIBLE CEILINGS AND CHASES.
 - PLACEMENT OF THE SPRINKLER HEADS MUST BE COORDINATED WITH ALL THE DIFFUSERS, SPEAKERS, LIGHT FIXTURES, AND CEILING SYSTEMS.
 - PROVIDE STOCK OF EXTRA SPRINKLERS IN ACCORDANCE WITH NFPA-13.
 - METHODS OF HANGING PIPES, HEADERS, AND BRANCHES SHALL BE IN ACCORDANCE WITH NFPA-13.
 - AUTOMATIC SPRINKLER TEMPERATURE RATINGS OF FUSIBLE ELEMENTS MUST BE IN ACCORDANCE WITH NFPA-13.
 - ALL VALVES FOR THE FIRE SERVICE SHALL BE LISTED BY THE UNDERWRITER'S LABORATORIES, INC. AND THE FACTORY MUTUAL. VALVES SHALL BE FACTORY MARKED "UL" AND "FM", 175 WORKING PRESSURE.
 - ALL VALVES ON THE FIRE PROTECTION SYSTEM MUST BE ELECTRICALLY SUPERVISED. TYPE AND EXACT LOCATION OF FLOW, PRESSURE, AND SUPERVISORY SWITCHES SHALL BE ACCOMPLISHED BETWEEN THE DIFFERENT RESPONSIBLE TRADES.
 - ALL POWER WIRING SHALL BE ACCOMPLISHED BY THE ELECTRICAL CONTRACTOR.
 - SPRINKLERS SHALL COVER THE ENTIRE AREA OF THE ROOM INCLUDING ALCOVES. SPRAY SHALL NOT BE BLOCKED BY WALLS OR PARTITIONS.
 - ALL SPRINKLER HEADS MOUNTED IN THE CEILING SHALL BE LOCATED A MINIMUM OF 4" AWAY FROM ANY WALLS, CEILING HEIGHT CHANGES, OR ANY OTHER VERTICAL INTERSECTING SURFACE.
 - ALL EXPOSED TO VIEW SPRINKLER PIPE AND FITTINGS MUST BE PAINTED RED. REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR PAINTING REQUIREMENTS.

FIRE PRO ABBREVIATIONS

A/C	ABOVE CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
BFF	BELOW FINISHED FLOOR
BFG	BELOW FINISHED GRADE
BHP	BRAKE HORSEPOWER
BTU	BRITISH THERMAL UNIT
CO	CLEANOUT
CW	COLD WATER
CONN	CONNECTION
Ø	DIAMETER
DW	DOMESTIC WATER
DN	DOWN
DWV	DRAIN WASTE VENT
DFU	DRAINAGE FIXTURE UNIT
ED	EQUIPMENT DRAIN
EA	EXHAUST AIR
EX	EXISTING
FL or FLR	FLOOR
FCO	FLOOR CLEANOUT
GPM	GALLONS PER MINUTE
GC	GENERAL CONTRACTOR
GCO	GRADE CLEANOUT
GW	GREASE WASTE
HW	HOT WATER
HWR	HOT WATER RETURN
IN	INCHES
IE	INVERT ELEVATION
MANUF	MANUFACTURER
MAX	MAXIMUM
MIN	MINIMUM
OST	OVERFLOW STORM
PC	PLUMBING CONTRACTOR
SAN or S	SANITARY
ST	STORM
V	VENT
VTR	VENT TO ROOF
WCO	WALL CLEANOUT
W	WASTE
WTR	WATER
WSFU	WATER SUPPLY FIXTURE UNIT
w/	WITH
w/o	WITHOUT

GENERAL SYMBOLS

	PLAN OR DETAIL NO. SHEET NUMBER.
	KEYED NOTE TO PLAN
	REVISION NUMBER
	NORTH ARROW



FP-RISER-SYSTEM RISER DETAIL 1
1
FP001 SCALE: 1/4" = 1'-0"



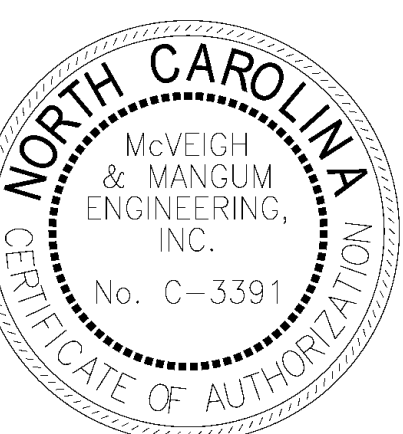
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LEGEND & GENERAL NOTES