

**NYC BUILDING DEPT. NOTES**

- THIS WORK IS FILED FOR ALT-2.
- ALL CONSTRUCTION WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA 13 2007 # BC 201.4.
- THE INSTALLATION COMPONENTS, SIZING, SPACING, CLEARANCE, POSITION AND TYPE OF SYSTEM SHALL CONFORM TO APPENDIX Q, SECTION BC 0102 # BC 903. 17.
- ALL CORE WALLS ARE EXISTING AND RATED 20 (2) HOUR FARE RATED (MINIMUM) AND ALL OPENINGS THEREIN ARE PROTECTED WITH EXISTING 3/4 HOUR OR 1 1/2 HOUR F.P.S.C. DOORS AS REQUIRED.
- THE ENTIRE FLOOR AREA SHALL BE MECHANICALLY VENTILATED AS PER SECTION 27-776 AND SUBCHAPTER 12 ARTICLE 7 AND 8 OF THE BUILDING CODE.
- ALL WOOD USED SHALL BE FIRE RETARDANT TREATED WOOD AS PER SECTION 27-350 AND R55-3, R55-4, AND R55-5 OF THE BUILDING CODE.
- NEW SUSPENDED CEILING SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 27-350 AND R55-1 G OF THE BUILDING CODE.
- ALL WORK SHALL COMPLY WITH BC 201.4.
- ILLUMINATED EXIT SIGNS AND DIRECTIONAL SIGNS SHALL COMPLY WITH CHAPTER 1 SUBCHAPTER 6 ARTICLE 7 AND 8.
- NO WORK AT SITE COMMENCE UNTIL PLAN HAS BEEN APPROVED AND PERMIT ISSUED BY THE DEPARTMENT OF BUILDINGS.
- ECCCNYS COMPLIANCE: THE WORK PROPOSED IN THIS APPLICATION IS EXEMPT FROM THE ECCCNYS BECAUSE PER CHAPTER 1 OF THE ECCCNYS IT IS "AN ALTERATION BUT NOT A SUBSTANTIAL ALTERATION"

**GENERAL CONSTRUCTION NOTES**

- THE CONTRACTOR SHALL CHECK AND VERIFY DIMENSIONS, DETAILS AND JOB CONDITIONS PRIOR TO COMMENCING ANY WORK, AND REPORT ANY DISCREPANCY TO ATTENTION OF ENGINEER.
- THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE REQUIREMENTS OF SAFETY OF PUBLIC AND PROPERTY DURING CONSTRUCTION, AND SHALL BE HELD RESPONSIBLE FOR SAFE MAINTENANCE UNTIL COMPLETION OF ALL WORK.
- NO DRAWINGS TO BE SCALED. DIMENSIONS ARE TO BE USED.
- ARCHITECT/ENGINEER HAS NOT BEEN RETAINED FOR THE FULL SUPERVISION OF WORK AND IT REMAINS INCUMBENT ON THE CONTRACTOR TO INFORM THE BUILDING DEPARTMENT OR ARCHITECT/ENGINEER OF ANY DISCREPANCY OR CHANGE ON THE APPROVED PLANS AND OF ANY UNFORESEEN DEVELOPMENT THAT MAY OCCUR DURING THE COURSE OF CONSTRUCTION. ANY DEVIATION FROM THE APPROVED PLANS REQUIRE AN AMENDMENT AND APPROVAL OF SAME BY THE BUILDING DEPARTMENT.
- LOCATIONS OF EQUIPMENT SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENT AS NECESSARY.
- ALL WIRING, OUTLETS APPURTENANCES TO COMPLY WITH THE REQUIREMENTS OF THE N.Y.S. ELECTRICAL CODE. ALL OUTLETS, SWITCHES, BELL SYSTEMS, ETC. TO BE LOCATED AS DIRECTED BY THE OWNER IF NOT SHOWN ON PLANS.
- CEILING OPENINGS FOR ELECTRICAL OUTLET BOXES AND RECESSED LIGHTING FIXTURE MAY NOT EXCEED 16 SQ. FT. FOR EACH 90 SQ. FT. OF CEILING AREA.
- PIPING AND EQUIPMENT ARE INDICATED IN SCHEMATIC FORM. THE CONTRACTOR SHALL PROVIDE NECESSARY FITTINGS, TRANSITIONS, BENDS, AND ADJUSTMENT IN LOCATION SUBJECT APPROVAL OF ENGINEER.
- SUSPENDED CEILING SHALL COMPLY WITH APPLICABLE SECTION OF BUILDING CODE, WITH METAL HANGERS, PURING AND RUNNERS AS REQUIRED.

**GENERAL REQUIREMENTS**

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CITY OF NEW YORK ZONING CODE, AND THE DIRECTIONS OF THE CITY OF NEW YORK BUILDING DEPARTMENT SHOULD ANYTHING CONTAINED IN THE CONTRACT DOCUMENTS BE A VARIANCE WITH SAID CODES, CONTRACTORS SHALL IMMEDIATELY INFORM THE ARCHITECT.
- WRITTEN DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS ON THESE DOCUMENTS. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS OF THE WORK AND THE ARCHITECT SHALL BE NOTIFIED OF ANY VARIATION FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THE DRAWINGS.
- CONTRACTORS SHALL PROVIDE ALL ITEMS AND LABOR NECESSARY FOR THE COMPLETION OF THE WORK SHOWN ON THE CONTRACT DOCUMENTS WHETHER THOSE ITEMS ARE EXPRESSLY SPECIFIED OR NOT, INCLUDING, BUT NOT LIMITED TO TAX, PURCHASE, DELIVERY ARRANGEMENTS AND STORAGE.
- PRIOR TO THE SUBMISSION OF BIDS, CONTRACTORS SHALL FAMILIARIZE THEMSELVES WITH CONSTRUCTION DOCUMENTS AND INSPECT THE EXISTING CONDITIONS AND ADVISE THE ARCHITECT OF ANY CONDITIONS WHICH MIGHT INTERFERE WITH THE WORK OR CAUSE ANY MODIFICATIONS TO THE PROPOSED NEW CONSTRUCTION.
- CONTRACTORS SHALL PROVIDE SUPERVISION ADEQUATE FOR THE COMPLETION OF THE WORK.
- CONTRACTORS SHALL COORDINATE ALL LABOR AND MATERIALS INVOLVED IN THE PROJECT AND BE RESPONSIBLE FOR SCHEDULING OF TRADES INVOLVED.
- CONTRACTORS SHALL BE LICENSED AND INSURED FOR LIABILITY AND PROPERTY DAMAGE AS REQUIRED BY LAW AND THE BUILDING OWNER SHALL SUBMIT SUCH PROOF TO THE OWNER AND ARCHITECT TO AVOID THAT ANY CLAIMS AND/OR LIENS ON THE WORK BE ASSOCIATED WITH THE OWNER AND ARCHITECT.
- CONTRACTORS SHALL CARRY INSURANCE FOR A MINIMUM OF 100 PERCENT OF THE VALUE OF WORK IN PLACE AND SHALL COMPLY WITH ANY AND ALL ADDITIONAL SUCH REQUIREMENTS.
- CERTIFICATES OF INSURANCE TO BE FILED WITH THE BUILDING OWNER AND ARCHITECT LISTING EACH AS CO-INSURED.
- CONTRACTORS SHALL BE RESPONSIBLE FOR AND SHALL OBTAIN AND PAY FEES FOR ANY AND ALL PERMITS NECESSARY TO COMPLETE THE WORK, INCLUDING, BUT NOT LIMITED TO, PLUMBING, MECHANICAL AND ELECTRICAL INSPECTIONS AND WORK.
- NO EXTRA WORK SHALL BE PERFORMED OR ADDITIONAL CHARGES BE MADE UNLESS AUTHORIZATION IS OBTAINED IN WRITING FROM THE OWNER AND ARCHITECT PRIOR TO SUCH WORK.
- CONTRACTORS SHALL EXAMINE CONTRACT DOCUMENTS FOR ALL ITEMS AND VERIFY THEIR AVAILABILITY TO ASSURE THAT THE WORK WILL PROCEED WITHOUT DELAY. NO SUBSTITUTIONS WILL BE ALLOWED WITHOUT WRITTEN APPROVAL OF THE ARCHITECT.
- CONTRACTORS SHALL MAINTAIN CONTINUOUS AND ADEQUATE PROTECTION OF ALL EXISTING CONDITIONS AND NEW CONSTRUCTION, AND SHALL REPAIR OR REPLACE ANY WORK, NEW OR EXISTING, WHICH IS DAMAGED.
- CONTRACTORS SHALL KEEP JOB SITE FREE OF DEBRIS AND HAZARDOUS CONDITIONS AND BE RESPONSIBLE FOR THE REMOVAL OF ALL EQUIPMENT AND DEBRIS PRIOR TO RECEIPT OF PAYMENT. ALL WORK PROCEDURES AND METHODS SHALL COMPLY WITH OSHA AND OTHER APPLICABLE REGULATIONS.
- CONTRACTORS SHALL THOROUGHLY EXAMINE ALL CONTRACT DOCUMENTS AND IMMEDIATELY ADVISE THE ARCHITECT OF ANY ERRORS, CONFLICTS OR DISCREPANCIES IN THE DOCUMENTS IN WRITING. ARCHITECT WILL NOT BE LIABLE FOR ASSUMPTIONS MADE BY THE CONTRACTOR.
- ALL WORK AND EQUIPMENT SHALL BE FULLY GUARANTEED FOR ONE YEAR FROM THE DATE OF FINAL PAYMENT.
- THE CONTRACTOR SHALL COOPERATE WITH OTHERS REQUIRING STORAGE AT THE SITE.
- ALL WORK SHALL BE DONE IN A WORKMANLIKE MANNER AND IN ACCORDANCE WITH GOOD BUILDING PRACTICE.
- CONTRACTOR TO ENSURE ADEQUATE CLEARANCE FOR MOVING ALL MATERIALS, ASSEMBLIES AND EQUIPMENT ONTO AND OFF THE SITE AS REQUIRED.

- THE CONTRACTOR SHALL PAY ALL FEES, GIVE ALL NOTICES, FILE ALL NECESSARY DRAWINGS, ARRANGE FOR ALL INSPECTIONS, OBTAIN ALL PERMITS AND CERTIFICATES OF APPROVAL REQUIRED IN CONNECTION WITH ALL WORK UNDER THIS CONTRACT. HE SHALL COMPLY WITH ALL LOCAL LAWS, ORDINANCES, RULES AND REGULATIONS AND WITH THE CITY OF NEW YORK BUILDING CODE AND THE DIRECTION OF THE DESIGNATED BUILDING INSPECTOR.
- CONTRACTOR SHALL APPROPRIATELY COORDINATE WORK COMPLETED AND SCHEDULE ARCHITECT'S SITE OBSERVATIONS.
- CONTRACTOR SHALL COORDINATED AND COMPLY WITH BUILDING OWNER SCHEDULING REQUIREMENTS AND COMMUNICATE WITH BUILDING OWNER.
- ALL NOTES APPLY TO BOTH THE GENERAL CONTRACTOR AND THE SUBCONTRACTORS AS WELL AS ANY WORKERS AND TRADES EMPLOYED BY THE OWNER UNDER OTHER AGREEMENTS.
- CONTRACTOR SHALL SUBMIT A SUCH LIST OF WORK REMAINING AFTER SUBSTANTIAL COMPLETION TO THE ARCHITECT AND PROCEED TO COMPLETE THIS WORK WITHIN A TWO WEEK PERIOD.
- ALL MATERIALS AND EQUIPMENT SPECIFIED FOR THIS PROJECT ARE TO BE NEW AND UNUSED, BEST OF THEIR RESPECTIVE KINDS AND FREE OF DEFECTS.
- ARCHITECT CERTIFIES THAT THESE DRAWINGS ARE IN COMPLIANCE WITH HANDICAPPED CODE.
- CONTRACTOR SHALL SUBMIT SAMPLES OF ANY AND ALL MATERIALS, FINISHES, COLORS, ETC. USED FOR THIS WORK TO THE ARCHITECT FOR APPROVAL PRIOR TO PURCHASE OR INSTALLATION.
- ALL AREAS FINISHED ON SITE TO HAVE SAMPLE AREA PREPARED TO BE APPROVED BY

**SPRINKLER NOTES**

- THE INSTALLATION COMPONENTS, SIZING, SPACING, CLEARANCE, POSITION AND TYPE OF SYSTEM SHALL CONFORM TO APPENDIX Q, SECTION BC 0102 # BC 903. 17.
- ONLY APPROVED MATERIALS SHALL BE USED AS PER CHAPTER 6 OF APPENDIX Q, SECTION BC 0102.
- DIRECT CONNECTION OF SPRINKLERS TO THE PUBLIC WATER SYSTEM SHALL CONFORM TO SECTION BC 0102.1 SEE 15.2.1 AND 15.1.1.(d).
- SPRINKLERS SHALL BE PROTECTED AGAINST FREEZING AND INJURY AS PER APPENDIX Q BC 0102, SEC. 8.15.3 # 6.2.8.
- INSPECTIONS AND TESTS OF SPRINKLERS SHALL BE CONDUCTED AS PER 901.5 # APPENDIX Q, SEC. BC 0102, CH. 16.
- THE OCCUPANCY OF THE AREAS TO BE SPRINKLERED IN ACCORDANCE WITH SECTIONS 5.2 # A.5.2 OF APPENDIX Q SEC. BC 0102.
- WATER SUPPLY TEST PIPES AND GAUGES SHALL BE PROVIDED AS PER 8.16.1 # 8.16.4 OF APPENDIX Q SEC. BC 0102.
- PIPING, FITTINGS, SPECIFICATIONS, PIPE SCHEDULES, SYSTEM TEST PIPES, PROTECTION AGAINST CORROSION, DAMAGE, VALVES, HANGERS, SPRINKLER GUARDS AND SHIELDS SHALL BE AS PER APPENDIX Q SECTION BC 0102, CHAPTERS 6 # 9.
- STOCK OF EXTRA SPRINKLERS SHALL BE FURNISHED AS PER SECTION 6.2.9 APPENDIX Q SECTION BC 0102(REQUIRED FOR EACH TEMPERATURE RATING).
- SPRINKLER ALARM WILL BE IN ACCORDANCE WITH SECTION 8.16.1 OF APPENDIX Q SECTION BC 0102.
- SPACING, LOCATION AND POSITION OF SPRINKLERS WILL BE AS PER SECTION 8 OF APPENDIX Q SECTION BC 0102.
- ALL BLIND SPACES EXCEEDING 6" IN WIDTH OR DEPTH WHICH CONTAIN COMBUSTIBLE MATERIAL WILL BE SPRINKLERED.
- ALL PIPING PASSING THROUGH THE WALLS WILL COMPLY WITH SECTION BC 71.2.
- THERE IS NO HIGH PILED STORAGE AS DEFINED IN SECTION 3-3.12 OF APPENDIX Q SECTION BC 0102.
- DISTANCE OF SPRINKLERS FROM HEAT SOURCE SHALL BE AS PER TABLES 9.3.2.5(a) # 8.3.2.5.(b).
- AS PER SECTION BC 903.1.2 PROVIDE DEPARTMENT OF WATER SUPPLY LETTER WITH FLOW TEST DATA IF THERE IS A DIRECT CONNECTION TO THE STREET WATER SUPPLY.
- ALL PIPES PASSING THROUGH FOUNDATION WALLS SHALL BE PROTECTED AS PROVIDED BY SECTION 305.5 OF THE PLUMBING CODE.
- THIS APPLICATION IS NOT FILED AS A RESULT OF ACTIONS BY THE FIRE COMMISSIONER AS AUTHORIZED BY BA # A TO MODIFY THE CERTIFICATE OF OCCUPANCY NOR IS SUCH ACTION PENDING.
- ALL VALVES SHALL BE IDENTIFIED AS REQUIRED BY SECTION 6-7.4 OF APPENDIX Q SECTION BC 0102.
- DRAINAGE SHALL CONFORM TO SECTION 8.15.2 OF APPENDIX Q SECTION BC 0102.
- A ONE PIECE REDUCING FITTING OF GOOD DESIGN SHOULD BE USED WHEREVER A IS MADE IN THE SIZE OF PIPE, AS PER SECTION 6.4.6. OF APPENDIX Q SECTION BC 0102.
- ALL VALVES ON CONNECTION TO WATER SUPPLY TO SPRINKLERS SHALL BE APPROVED OS # Y GATE VALVES AS MANUFACTURED BY "STOCKHAM" # FIG. NO. 634
- DRAIN VALVE AND TEST VALVES SHALL BE APPROVED TYPE AS PER SECTION 6.7.3. OF APPENDIX Q SECTION BC 0102.
- HANGERS SHOULD BE SUPPORTED BY WROUGHT IRON U TYPE OR APPROVED ADJUSTABLE HANGER. HANGERS SHALL BE OF THE TYPE APPROVED FOR USE WITH THE PIPE OR TUBE INVOLVED, AS PER CHAPTER 9 OF APPENDIX Q SECTION BC 0102.
- PROVISIONS SHOULD BE MADE TO FACILITATE FLUSHING SYSTEM PIPING BY PROVIDING A FLUSHING CONNECTION CONSISTING OF A CAPPED NIPPLE 4" LONG ON END OF A CROSS MAIN AS PER SECTION 8.14.16 OF APPENDIX Q SECTION BC 0102.
- SPRINKLERS SHALL BE AN APPROVED TYPE AS PER SECTION 8.3 OF APPENDIX Q APPENDIX Q SECTION BC 0102.
- TEMPERATURE RATING SHALL COMPLY WITH SECTION 8.3 OF APPENDIX Q SECTION BC 0102.
- 18" MINIMUM CLEARANCE BELOW SPRINKLERS DEFLECTOR AS PER SECTION 8.5.6. OF APPENDIX Q SECTION BC 0102.
- SPACING AND LOCATION OF SPRINKLER SHALL COMPLY CHAPTER 8 OF APPENDIX Q SECTION BC 0102.
- SPRINKLER SYSTEM COMPLIES WITH NFPA 13-2002, AS MODIFIED BY APPENDIX Q SECTION BC 0102.
- SOURCES OF WATER SUPPLY FOR SPRINKLER SYSTEMS AS PER CHAPTER 15 OF APPENDIX Q SECTION BC 0102.
- PIPE SCHEDULE SYSTEMS SHALL BE IN ACCORDANCE WITH SECTION 14.5 OF APPENDIX Q SECTION BC 0102.
- AUTOMATIC INTERLOCK OUTOFF SWITCH FOR VENTILATION WILL CONFORM TO CHAPTER 6 OF THE MECHANICAL CODE (APPLICABLE ONLY IF THERE IS AN AIR SYSTEM UTILIZING RECIRCULATED AIR AND REQUIRING A THERMOSTATIC DEVICE)
- HYDRAULICALLY DESIGNED SPRINKLER SYSTEMS SHALL BE IN ACCORDANCE WITH CHAPTER 14 OF APPENDIX Q SECTION BC 0102.
- MINIMUM BRANCH PIPE SIZE TO BE ONE INCH.
- THIS APPLICATION IS MADE ONLY FOR WORK INDICATED ON THE SPECIFICATION SHEET. ALL OTHER MATTERS SHOWN ARE NOT TO BE RELIED UPON OR TO BE CONSIDERED AS EITHER BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODES.

**QUALITY ASSURANCE**

**TESTING AND ADJUSTMENT**

A. WORK OF THIS CONTRACTOR SHALL INCLUDE FURNISHINGS OF ALL TESTING INSTRUMENTS, GAUGES, PUMPS AND OTHER EQUIPMENT REQUIRED OR NECESSARY FOR TESTS, REQUIRED BY THE CODE AND REGULATIONS OR AS REQUIRED BY THE LOCAL INSPECTOR.

B. SPRINKLER SYSTEM SHALL BE TESTED AT 200 PSI FOR TWO HOURS IN ACCORDANCE WITH NFPA PAMP JET # 13 AND NYC BUILDING CODE REQUIREMENT.

**PIPING AND MATERIALS**

A. SPRINKLER PIPING SHALL BE SUITABLE FOR 175 PSIG WORKING PRESSURE IN ACCORDANCE WITH ANSI B36.1.1 AND SHALL BE BLACK STEEL PIPE.

B. PIPING 2" AND SMALLER SHALL BE SCHEDULE 10 WITH FITTINGS SPECIFICALLY APPROVED FOR USE IN SPRINKLER SYSTEM. FITTINGS MAY BE CAST IRON OR MALLEABLE IRON WITH SCREWED JOINTS.

C. PIPING 2 1/2" AND LARGER SHALL BE SCHEDULE 40 WITH GROOVED END FITTINGS SIMILAR TO THOSE AS MANUFACTURED BY VICTAULIC AND SPECIFICALLY INTENDED FOR SPRINKLER SYSTEM. JOINTS SHALL BE MADE WITH GROOVED END COUPLINGS AS OUTLINED HEREIN OR APPROVED EQUAL.

D. APPROVED VICTAULIC FITTING AND COUPLING SCHEDULE:

ITEM	VICTAULIC FIG. #	TO BE USED ON
ZERO-FLEX COUPLING	07	ALL VERTICAL RISERS
FLEXIBLE COUPLING	75	ALL HORIZONTAL RISERS
VIC-FLANGE ADAPTER	741	FOR CONNECTION OF FLANGED COMPONENTS INTO A GROOVED SYSTEM
ELBOWS	10,11,12, 13	THROUGHOUT
REDUCER	50, 51	THROUGHOUT
TEES	20	THROUGHOUT
REDUCING TEES	25, 29	THROUGHOUT
CROSS	35	THROUGHOUT
MECHANICAL TEE	920	FOR BRANCH SIZES 2 1/2" # LARGER

REDUCING COUPLING SIMILAR TO VICTAULIC FIGURE 750 WILL NOT BE ACCEPTED

E. TO ASSURE SYSTEM INTEGRITY AND PERFORMANCE, ALL MECHANICAL COUPLINGS, FITTINGS, FLANGED GROOVED VALVES AND BOLTED BRANCH OUTLETS SHALL BE FURNISHED BY THE SAME MANUFACTURER. ALL GASKETS SHALL BE OF THE CENTRAL CAVITY PRESSURE-RESPONSIVE DESIGN

**SPRINKLER HEADS**

A. SPRINKLER HEADS SHALL BE AS MANUFACTURED BY RELIABLE AUTOMATIC SPRINKLER CO. # OR APPROVED EQUAL AND SHALL BE AS FOLLOWS:

- HUNG CEILING AREAS FULLY RECESSED, CONCEALED TYPE, MODEL G5-56
- AREAS WITHOUT HUNG CEILING STANDARD UPRIGHT OR PENDANT TYPE CHROME PLATED, MODEL G4\* (MEA # 587-75-5A)
- ALL SPRINKLER HEADS SHALL BE UL AND BS # A LISTED AND FM APPROVED.
- PROVIDE GUARD FOR ALL SPRINKLER HEADS EXPOSED TO POTENTIAL DAMAGE.
- ALL HEADS SHALL BE 1/2" ORIFICE AT 165' F RATED UNLESS OTHERWISE NOTED

**QUALITY ASSURANCE**

**PIPING SYSTEM VALVES**

A. THE VALVES USED IN SPRINKLER SYSTEM SHALL BE OF THE FOLLOWING TYPE, FIGURE NO. AND MANUFACTURER, AS INDICATED BELOW.

- ALL GATE VALVES INSTALLED ON THE FIRE MAINS SHALL BE FLANGED OS # Y GATE VALVES AS MANUFACTURED BY "STOCKHAM" # FIG. NO. 634
- THE CHECK VALVES SHALL BE SWING TYPE AS MANUFACTURED BY "STOCKHAM" # FIG. NO. 939 FLANGED, OR FIG. NO. 937 THREADED AS REQUIRED BY PIPING SYSTEM IN WHICH THEY ARE INSTALLED.
- ALL VALVES INSTALLED ON SPRINKLER SYSTEMS AS ZONE CONTROL VALVE SHALL BE AS MANUFACTURED BY VICTAULIC AND SHALL BE AS FOLLOWS:
  - SERIES 727 - FOR SIZES 2", 2 1/2", 3"
  - SERIES 708 - FOR SIZES 4" AND LARGER
- DRAIN VALVES SHALL BE 3/4" HEAVY CAST BRASS WITH COMPOSITION WASHERS AND MALE THREADS FOR HOSE CONNECTIONS.

B. ALL VALVES IN SPRINKLER SYSTEM SHALL BE PROVIDED WITH A SUPERVISORY TAMPER SWITCH.

C. THE INSPECTOR'S TEST AND DRAIN UNIT FOR WET PIPE SYSTEM SHALL BE AS MANUFACTURED BY "VICTAULIC" # MODEL NO. 718 OR APPROVED EQUAL

D. IDENTIFICATION SIGNS INDICATING THE PORTION OF THE SYSTEM CONTROLLED BY EACH VALVE SHALL BE PROVIDED. THE IDENTIFICATION SHOULD BE MINIMUM 25 GAUGE CORROSION RESISTANT METAL. IF MADE OF A CORRODIBLE METAL SUCH AS STEEL, THE SIGN SHOULD BE OF ENAMELED LETTERING IN CONTRASTING COLOR. IN CHARACTER AT LEAST 2" HIGH EMBOSSED PLASTIC TAPE, PENCIL, INK, CRAYON ETC. ARE NOT CONSIDERED PERMANENT MARKINGS). SIGNS SHOULD BE SECURED WITH APPROVED BRASS CHAINS.

**HANGERS AND SUPPORTS**

A. HANGERS AND SUPPORTS SHALL BE PROVIDED FOR HORIZONTAL AND VERTICAL PIPING. THE HANGER DESIGN SHALL CONFORM TO ALL REQUIREMENTS OF NFPA NO. 13.

B. PIPES AND SUPPORTS SHALL BE OF THE FOLLOWING TYPES AND FIGURE NO., MANUFACTURED BY C # P, F # M, GRINNELL OR APPROVED EQUAL.

	C # P	F # M	GRINNELL
BEAM CLAMP	268	282	-----
CLEVIS: HANGER	100	239	260

**MISCELLANEOUS**

A. TAMPER SWITCHES  
1. TAMPER SWITCHES SHALL BE INSTALLED ON ALL VALVES CONTROLLING WATER SUPPLY TO THE SPRINKLER SYSTEM.

2. TAMPER SWITCH SHALL BE ACME TYPE 441 OR EQUIVALENT MODE OF OTHER APPROVED MANUFACTURER.

B. WATER FLOW DETECTORS  
1. WATER FLOW DETECTORS SHALL BE INSTALLED ON THE SPRINKLER SYSTEM PIPING WHERE INDICATED ON THE DRAWINGS.

2. WATER FLOW ALARMS SHALL BE EQUAL TO ACME TYPE 430, PADDLE TYPE WITH ADJUSTABLE PNEUMATIC - RETARD DEVICE AS PART OF THE WATER FLOW ALARM TO PREVENT FALSE ALARMS DUE TO WATER SURGES.

STANDARDS AND CODES  
A. NEW YORK CITY BUILDING CODE  
B. NFPA PAMPHLET # 13  
C. DDC "DETAILED SCOPE OF WORK" OF 07/16/2016  
D. BUILDING OWNER STANDARDS AND REQUIREMENTS

**DESIGN CRITERIA**

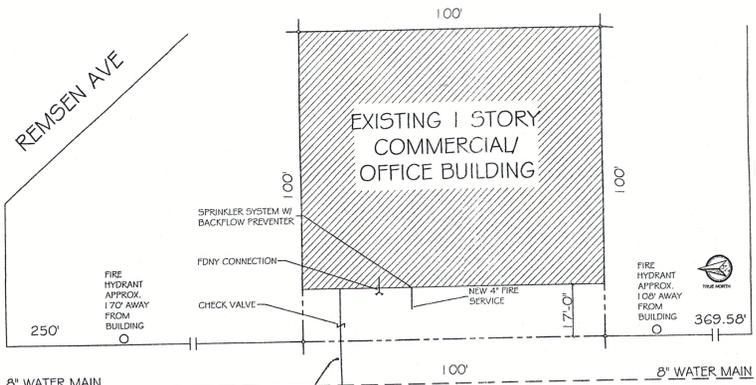
OCCUPANCY CLASSIFICATION: LIGHT HAZARD - CHURCH  
DENSITY: .10 GPM/1500  
AREA OF APPLICATION: 957 SQ.FT.  
HYDRAULIC CALCULATIONS: I.A.W. NFPA 13  
COVERAGE PER SPRINKLER: 120 SQ.FT.  
TYPE OF SPRINKLERS CALCULATED: RELIABLE MODEL G5-56 CONCEALED SPRINKLER  
"K" FACTOR: 5.6  
TOTAL WATER REQUIRED (INCLUDING HOSE): 302.4 GPM  
FLOW AND PRESSURE (AT BASE OF RISER): 202.4 GPM @ 12.7 PSI  
TYPE OF SYSTEM: WET

**NOTE:**  
DESIGN CRITERIA:  
PROPOSE SPRINKLER SYSTEM IS BASED ON NFPA 13R TABLE 7.4 2013 EDITION PIPE SCHEDULE DESIGN REQUIREMENT.  
PROPOSE CORRECT PRESSURE BASED ON HAZARD IS BASED ON NFPA 13-2007 TABLE 11.2.2.1  
PROPOSE CORRECT PRESSURE BASED ON HAZARD IS BASED ON NFPA 13-2007 TABLE 8.5

**ORDINARY HAZARD SPRINKLER SYSTEM**

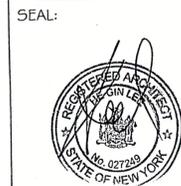
USING RELIABLE SPRINKLER EQUIPMENT  
MODEL G5-56 STANDARD COVERAGE, CONCEALED PENDENT SPRINKLER  
NOMINAL K-FACTOR - (K 5.6)  
MAX. WORKING PRESSURE - 175 PSI (12 BAR) 250 PSI (17 BAR)  
SPRINKLER TEMPERATURE RATINGS - 165°F (74°C), 212°F (100°C)  
LISTINGS AND APPROVALS - ULUS LISTED (LIGHT # HAZARD ONLY)  
FM APPROVED, LPCB APPROVED, VDS APPROVED (165°F (74°C) ONLY), CE LISTED

PIPE SIZE	SPRINKLER HEADS
1" PIPE	2 SPRINKLER HEADS
1 1/4"	3 SPRINKLER HEADS
1 1/2"	5 SPRINKLER HEADS
2"	10 SPRINKLER HEADS
2 1/2"	20 SPRINKLER HEADS
3"	40 SPRINKLER HEADS
3 1/2"	65 SPRINKLER HEADS
4"	100 SPRINKLER HEADS



**PLOT PLAN**

SCALE: N.T.S



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**AS PER NFPA 13-2007 - TABLE 8.6.2.2.1(A)**

THE MAXIMUM ALLOWABLE PROTECTION AREA OF COVERAGE FOR A SPRINKLER (AS) SHALL BE IN ACCORDANCE WITH THE VALUE INDICATED IN TABLE 8.6.2.2.1(A) THROUGH TABLE 8.6.2.2.1(D).

CONSTRUCTION TYPE	SYSTEM TYPE	PROTECTION AREA		
		FT <sup>2</sup>	M <sup>2</sup>	FT
NONCOMBUSTIBLE UNOBSTRUCTED AND UNOBSTRUCTED AND COMBUSTIBLE UNOBSTRUCTED WITH MEMBERS 3 FT (0.91 M) OR MORE ON CENTER	HYDRAULICALLY CALCULATED	225	20.9	15
COMBUSTIBLE UNOBSTRUCTED OR UNOBSTRUCTED WITH MEMBERS 3 FT (0.91 M) OR MORE ON CENTER	ALL	168	15.6	15
COMBUSTIBLE UNOBSTRUCTED OR UNOBSTRUCTED WITH MEMBERS LESS THAN 3 FT (0.91 M) ON CENTER	ALL	130	12.1	15
COMBUSTIBLE CONCEALED SPACE UNDER A FINISHED ROOF OR UNDER A CONCEALED SPACE EVEN WITH COMBUSTIBLE WOOD JOIST OR WOOD TRUSS CONSTRUCTION WITH MEMBERS LESS THAN 3 FT (0.91 M) ON CENTER WITH SLOPES HAVING A PITCH OF 4IN 12 OR GREATER.	ALL	120	11.1	15

PARALLEL TO THE SLOPE  
PERPENDICULAR TO THE SLOPE

\* WHERE THE DIMENSION PERPENDICULAR TO THE SLOPE EXCEEDS 8 FT. (2.4 M), THE MINIMUM PRESSURE SHALL BE 20 PSI.

**AS PER NFPA 13-2007 - SEC. 8.15.1.1**

**CONCEALED SPACES REQUIRING SPRINKLER PROTECTION**  
ALL CONCEALED SPACES ENCLOSED WHOLLY OR PARTIALLY BY EXPOSED COMBUSTIBLE CONSTRUCTION SHALL BE PROTECTED BY SPRINKLERS EXCEPT IN CONCEALED SPACES WHERE SPRINKLERS ARE NOT REQUIRED TO BE INSTALLED BY 8.15.1.2.1 THROUGH 8.15.1.2.16.

8.15.1.2.1 CONCEALED SPACES OF NONCOMBUSTIBLE AND LIMITED-COMBUSTIBLE CONSTRUCTION WITH MINIMAL COMBUSTIBLE LOADING HAVING NO ACCESS SHALL NOT REQUIRE SPRINKLER PROTECTION. THE SPACE SHALL BE CONSIDERED A CONCEALED SPACE EVEN WITH SMALL OPENINGS SUCH AS THOSE USED AS RETURN AIR FOR A PLENUM. (FOR ADDITIONAL INFORMATION ON COMBUSTIBLE LOADING, SEE A.8.15.1.2.1.)  
8.15.1.2.2 CONCEALED SPACES OF NONCOMBUSTIBLE AND LIMITED-COMBUSTIBLE CONSTRUCTION WITH LIMITED ACCESS AND NOT PERMITTING OCCUPANCY OR STORAGE OF COMBUSTIBLES SHALL NOT REQUIRE SPRINKLER PROTECTION. THE SPACE SHALL BE CONSIDERED A CONCEALED SPACE EVEN WITH SMALL OPENINGS SUCH AS THOSE USED AS RETURN AIR FOR A PLENUM.  
8.15.1.2.3 CONCEALED SPACES FORMED BY STUDS OR JOISTS WITH LESS THAN 6 IN. (152 MM) BETWEEN THE INSIDE OR NEAR EDGES OF THE STUDS OR JOISTS SHALL NOT REQUIRE SPRINKLER PROTECTION. FIGURE 8.6.4.1.1.  
8.15.1.2.4 CONCEALED SPACES FORMED BY BAR JOISTS WITH LESS THAN 6 IN. (152 MM) BETWEEN THE ROOF OR FLOOR DECK AND CEILING SHALL NOT REQUIRE SPRINKLER PROTECTION.  
8.15.1.2.5 CONCEALED SPACES FORMED BY CEILINGS ATTACHED DIRECTLY TO OR WITHIN 6 IN. (152 MM) OF WOOD JOIST CONSTRUCTION SHALL NOT REQUIRE SPRINKLER PROTECTION.  
8.15.1.2.6 CONCEALED SPACES FORMED BY CEILING CHANNELS NOT EXCEEDING 1 IN. (25.4 MM) IN DEPTH, PROVIDED THE JOIST CHANNELS ARE FIRESTOPPED INTO VOLUMES EACH NOT EXCEEDING 160 FT<sup>3</sup> (4.53 M<sup>3</sup>) USING MATERIALS EQUIVALENT TO THE WEB CONSTRUCTION AND AT LEAST 3/8 IN. (9.5 MM) OF BATT INSULATION IS INSTALLED AT THE BOTTOM OF THE JOIST CHANNELS WHEN THE CEILING IS ATTACHED UTILIZING METAL CHANNELS, SHALL NOT REQUIRE SPRINKLER PROTECTION.

8.15.1.2.7 CONCEALED SPACES ENTIRELY FILLED WITH NONCOMBUSTIBLE INSULATION SHALL NOT REQUIRE SPRINKLER PROTECTION.  
8.15.1.2.8 CONCEALED SPACES WITHIN WOOD JOIST CONSTRUCTION AND COMPOSITE WOOD JOIST CONSTRUCTION HAVING NONCOMBUSTIBLE INSULATION FILLING THE SPACE FROM THE CEILING UP TO THE BOTTOM EDGE OF THE JOIST OF THE ROOF OR FLOOR DECK, PROVIDED THAT IN COMPOSITE WOOD JOIST CONSTRUCTION THE JOIST CHANNELS ARE FIRESTOPPED INTO VOLUMES EACH NOT EXCEEDING 160 FT<sup>3</sup> (4.53 M<sup>3</sup>) TO THE FULL DEPTH OF THE JOIST WITH MATERIAL EQUIVALENT TO THE WEB CONSTRUCTION, SHALL NOT REQUIRE SPRINKLER PROTECTION.  
8.15.1.2.9 CONCEALED SPACES OVER ISOLATED SMALL ROOMS NOT EXCEEDING 55 FT<sup>2</sup> (5.1 M<sup>2</sup>) IN AREA SHALL NOT REQUIRE SPRINKLER PROTECTION.  
8.15.1.2.10 CONCEALED SPACES WHERE RIGID MATERIALS ARE USED AND THE EXPOSED SURFACES HAVE A FLAME SPREAD INDEX OF 25 OR LESS, AND THE MATERIALS HAVE BEEN DEMONSTRATED NOT TO PROPAGATE FIRE WHEN TESTED IN ACCORDANCE WITH NFPA 255, STANDARD METHOD OF TEST OF SURFACE BURNING CHARACTERISTICS OF BUILDING MATERIALS, EXTENDED FOR AN ADDITIONAL 30 MINUTES IN THE FORM IN WHICH THEY ARE INSTALLED, SHALL NOT REQUIRE SPRINKLER PROTECTION.

8.15.1.2.11 CONCEALED SPACES IN WHICH THE EXPOSED MATERIALS ARE CONSTRUCTED ENTIRELY OF FIRE-RETARDANT TREATED WOOD AS DEFINED BY NFPA 703, STANDARD FOR FIRE RETARDANT-TREATED WOOD AND FIRE-RETARDANT COATINGS FOR BUILDING MATERIALS, SHALL NOT REQUIRE SPRINKLER PROTECTION.  
8.15.1.2.12 NONCOMBUSTIBLE CONCEALED SPACES HAVING EXPOSED COMBUSTIBLE INSULATION WHERE THE TREAT CONTENT OF THE FACING AND SUBSTRATE OF THE INSULATION MATERIAL DOES NOT EXCEED 1000 Btu/ft<sup>2</sup> (11,356 KJ/m<sup>2</sup>) SHALL NOT REQUIRE SPRINKLER PROTECTION.  
8.15.1.2.13 CONCEALED SPACES BELOW INSULATION THAT IS LAID DIRECTLY ON TOP OF OR WITHIN WOOD JOISTS OR COMPOSITE WOOD JOISTS USED AS CEILING JOISTS IN AN OTHERWISE SPRINKLERED CONCEALED SPACE, WITH THE CEILING ATTACHED DIRECTLY TO THE BOTTOM OF THE JOISTS, SHALL NOT REQUIRE SPRINKLER PROTECTION.  
8.15.1.2.14 VERTICAL PIPE CHASES UNDER 10 FT 2 (0.93 M 2), WHERE PROVIDED IN MULTI-FLOOR BUILDINGS WHERE THE CHASES ARE FIRESTOPPED AT EACH FLOOR USING MATERIALS EQUIVALENT TO THE FLOOR CONSTRUCTION, AND WHERE SUCH PIPE CHASES SHALL CONTAIN NO SOURCES OF IGNITION, PIPING SHALL BE NONCOMBUSTIBLE AND PIPE PENETRATIONS AT EACH FLOOR SHALL BE PROPERLY SEALED AND SHALL NOT REQUIRE SPRINKLER PROTECTION.  
8.15.1.2.15 EXTERIOR COLUMNS UNDER 10 FT 2 (0.93 M 2) IN AREA, FORMED BY STUDS OR WOOD JOIST SUPPORTING EXTERIOR CANOPIES THAT ARE FULLY PROTECTED WITH A SPRINKLER SYSTEM, SHALL NOT REQUIRE SPRINKLER PROTECTION.

8.15.1.2.16 CONCEALED SPACES FORMED BY NONCOMBUSTIBLE OR LIMITED-COMBUSTIBLE CEILINGS SUSPENDED FROM THE BOTTOM OF WOOD JOISTS, COMPOSITE WOOD JOISTS, WOOD BAR JOISTS, OR WOOD TRUSSES THAT HAVE INSULATION FILLING ALL OF THE GAPS BETWEEN THE BOTTOM OF THE TRUSSES OR JOISTS, AND WHERE SPRINKLERS ARE PRESENT IN THE SPACE ABOVE THE INSULATION WITHIN THE TRUSSES OR JOISTS, SHALL NOT REQUIRE SPRINKLER PROTECTION. THE HEAT CONTENT OF THE FACING, SUBSTRATE, AND SUPPORT OF THE INSULATION MATERIAL SHALL NOT EXCEED 1000 BTU/FT<sup>2</sup> (11,356 KJ/M<sup>2</sup>).

**DOB STAMP:**  
ACCEPTABLE FOR PERMIT UNDER DIRECTIVE NO. 1475  
AUG 11 2019  
BOURCAR SOW

SCOPE OF WORK	WORK TYPE	CONTROLLED INSPECTION	LEGEND
NEW FIRE SPRINKLER SYSTEM IN CONJUNCTION WITH ALT 1 APPLICATION 320548494.	SP. PL.	TRI-SPECIAL INSPECTION CATEGORIES - SPRINKLER SYSTEM CODE/SECTION: BC 1704.22 - FIRE PENETRATIONS CODE/SECTION: BC 1704.27 TRI-PROGRESS INSPECTIONS CATEGORIES - ENERGY CODE COMPLIANCE INSPECTIONS, BC1 10.3.5	EXISTING STRUCTURE PROPERTY LINE EXISTING WALL

CONTROLLED INSPECTION	LEGEND
TRI-SPECIAL INSPECTION CATEGORIES - SPRINKLER SYSTEM CODE/SECTION: BC 1704.22 - FIRE PENETRATIONS CODE/SECTION: BC 1704.27	EXISTING STRUCTURE PROPERTY LINE EXISTING WALL
TRI-PROGRESS INSPECTIONS CATEGORIES - ENERGY CODE COMPLIANCE INSPECTIONS, BC1 10.3.5	EXISTING WALL

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TEL: (718)461-9100 FAX: (718)460-0843

SCALE: N.T.S

ARCHITECT ASSUMES NO RESPONSIBILITY FOR ANY WORK FROM APPROVED PLANS THE CONTRACTOR MUST OBTAIN WRITTEN APPROVAL FOR ANY CHANGES FROM ARCHITECT BEFORE COMMENCING SUCH WORK

LOCATION:	471 UTICA AVE	SCALE: AS NOT
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