FIRE PROTECTION DRAWING LIST DRAWING TITLE SCALE

NTS

/4"=1'-0"

NTS

	ABBREVIATIONS
A.B.D.	AUTOMATIC BALL DRIP
A.D.	AREA DRAIN
A.F.F.	ABOVE FINISHED FLOOR
B.O.P.	BOTTOM OF PIPE
C.M.M.	CUBIC METERS PER MINUTE
C.V.	CHECK VALVE
DIA.	DIAMETER
DR.	DRAIN
DN.	DOWN (PENETRATES FLOOR SLAB)
F.C.V.A	FLOOR CONTROL VALVE ASSEMBLY
F.H.C.	FIRE HOSE CABINET
F.H.R.	FIRE HOSE RACK
F.H.V.	FIRE HOSE VALVE
F.H.V.C.	FIRE HOSE VALVE CABINET
F.D.	FLOOR DRAIN
FL.	FLOOR
F.S.P.	FIRE STANDPIPE
G.C.	GENERAL CONTRACTOR
G.V.	GATE VALVE
GAL.	GALLONS
G.P.M.	GALLONS PER MINUTE
H.D.	HEAT DETECTOR
I.D.	INSIDE DIAMETER
K.S.M.A.	KILOS PER SQUARE METER (ABSOLUTE)
K.S.M.	KILOS PER SQUARE METER (GAUGE)
KW.	KILOWATTS
L.	LITERS
L.P.M.	LITERS PER MINUTE
MAX.	MAXIMUM
M.	METERS
M^2	SQUARE METERS
M ³	CUBED METERS
MIN.	MINIMUM
N.C.	NORMALLY CLOSED
N.I.C.	NOT IN THIS CONTRACT
N.O.	NORMALLY OPEN
N.T.S.	NOT TO SCALE
0.D.	OUTSIDE DIAMETER
OS&Y	OUTSIDE SCREW & YOKE GATE VALVE
P.R.V.	PRESSURE REDUCING VALVE
P.I.V.	POST INDICATED VALVE
S.D.	SMOKE DETECTOR
SPKR.	SPRINKLER
T.O.P.	TOP OF PIPE
T.S.	TAMPER SWITCH
U.O.N.	UNLESS OTHERWISE NOTED
UP	UP (PENETRATES FLOOR SLAB)
W.C.O.	WALL CLEAN OUT
W.F.S.	WATER FLOW SWITCH
Z.	ZONE

LEGENDS

FIRE STANDPIPE PIPING

DRY FIRE STANDPIPE PIPING

PRE-ACTION SPRINKLER PIPING

ANTIFREEZE SPRINKLER PIPING

DELUGE SPRINKLER PIPING

COMPRESSED AIR PIPING

ZONE PIPING

FOAM PIPING

SPRINKLER PIPING

DRY SPRINKLER PIPING

———F ———

----F(Z#)-----

——DF ——

——DSP ——

——РА——

——DLSP ——

------ASP------

——F0 ——

———— A ———

FP-001.00 | FIRE PROTECTION DRAWING LIST, SYMBOLS, ABBREVIATIONS, NOTES, SCHEDULES & DETAILS

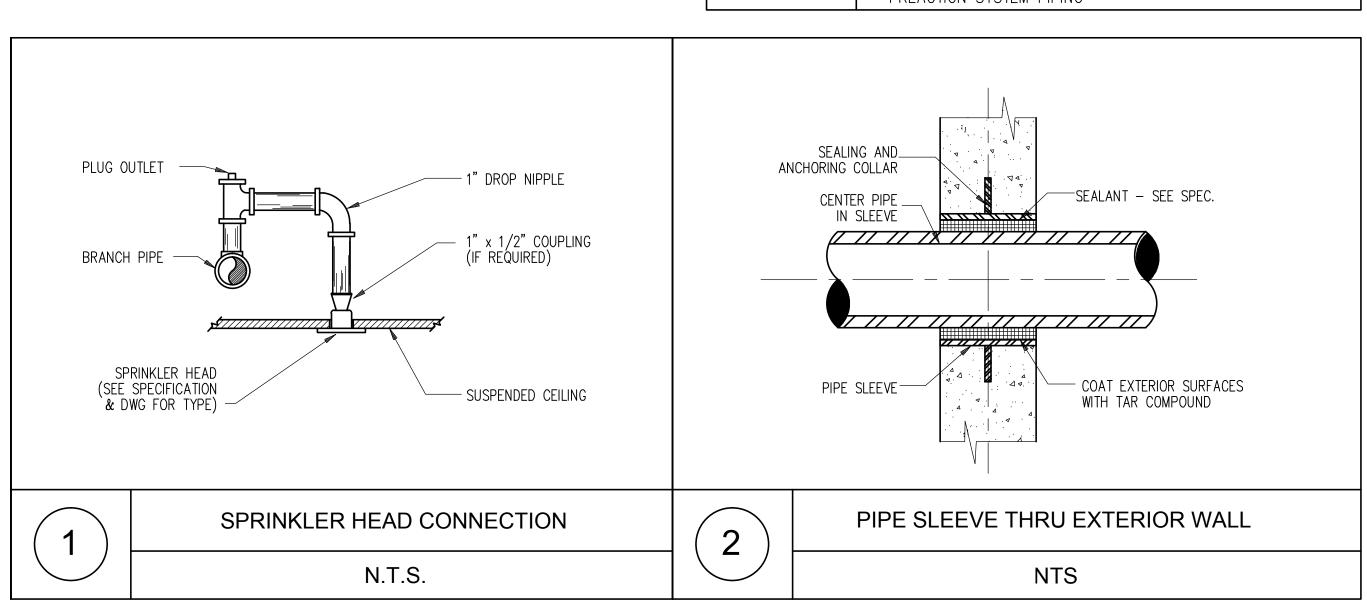
FP-300.00 | FIRE PROTECTION NEW WORK 61ST FLOOR PLAN (APT. 78A&B)

FP-500.00 | FIRE PROTECTION RISER DIAGRAM

DRAWING

NUMBER

	LEGENDS (CONTINUED)		
1		INSULATED AND HEAT TRACED PIPING	
1		SLOPED CHANGE IN PIPE ELEVATION	
1		ARROW INDICATES DIRECTION OF FLOW	
1	. \$.		
1		RELIEF VALVE	
-	 	ANGLE RELIEF VALVE	
-			
-		UNION	
1		REDUCER	
		ECCENTRIC REDUCER (E.R.)	
	+	WATER PROOF SLEEVE	
	_	SLEEVE	
	—	FIRE HOSE STATION	
1		FIRE HOSE STATION IN CABINET	
		SPRINKLER FLOOR CONTROL VALVE ASSEMBLY	
1			
1	— AC	ALARM CHECK VALVE WITH ALL RELATED APPURTENANCES	
1	— DP —	DRY PIPE VALVE WITH ALL RELATED APPURTENANCES	
1	<u>— [PA]</u>	PRE-ACTION VALVE WITH ALL RELATED APPURTENANCES	
1	——DL	DELUGE VALVE WITH ALL RELATED APPURTENANCES	
1	$\overline{}$	PORTABLE FIRE EXTINGUISHER AND TYPE	
1		(AS SPECIFIED) MOUNTED ON WALL PORTABLE FIRE EXTINGUISHER AND TYPE	
-		(AS SPECIFIED) LOCATED IN CABINET	
-		PITCH PIPE DOWN IN DIRECTION OF ARROW	
-		POINT OF NEW CONNECTION TO	
-	•	EXISTING WORK	
-		FLEXIBLE CONNECTION	
-	<u>—</u> т	HOSE BIBB	
1		FIRE DEPT. HOSE VALVE WITH CAP AND CHAIN	
4		ROOF MANIFOLD (3 WAY)	
_	——	FIRE DEPARTMENT SIAMESE CONNECTION WALL MOUNTED	
	€ <mark>°</mark>	FREE STANDING FIRE DEPARTMENT SIAMESE CONNECTION	
	e ;	NEW FIRE HYDRANT	
	¢,	EXISTING FIRE HYDRANT	
		BOTTOM PIPE CONNECTION	
		TOP PIPE CONNECTION	
	C+	ELBOW TURNED DOWN	
	0+	ELBOW TURNED UP / CONN. TO VERTICAL LINE	
	— 	VALVE IN VERTICAL	
		VALVE (SEE SCHEDULE & SPECIFICATION FOR TYPE)	
		CHECK VALVE	
1		SOLENOID VALVE	
1		PRESSURE REDUCING VALVE	
1		OS&Y (OUTSIDE SCREW & YOKE) VALVE	
1			
1		CHECK VALVE WITH A.B.D.	
1		FLOAT VALVE	
1	BPA >>-	BACKFLOW PREVENTER ASSEMBLY	
1	<u></u> 早	WATER FLOW SWITCH	
1	Q H	PRESSURE GAUGE AND COCK	
1		METER	
_			
		PUMP	
	FSP	DISED SEDVICE	
_	(135	RISER DESIGNATION RISER NUMBER	
	0	THERMAL DETECTOR	
	<u>©</u>	SMOKE DETECTOR	
	<u> </u>	HEAT DETECTOR FOR PREACTION SYSTEM	
		STROBE HORNE	
1	> ⊞	HORNE	
1	OB	BELL	
1	A	ABORT SWITCH	
1	ΗF	MANUAL RELEASE	
1	FM	FM-201 CONTROL PANEL	
1	[GA]	GRAPHIC ANNUNCIATION PANEL	
J		FM-201 PIPING AT CEILING	
		FM-201 PIPING UNDER RAISED FLOOR	
		PREACTION SYSTEM PIPING	



NEW YORK CITY BUILDINGS DEPARTMENT SPRINKLER NOTES

- . AUTOMATIC SPRINKLER SYSTEM SHALL COMPLY WITH SEC. 903 & APPENDIX Q OF NYC BUILDING CODE & NFPA 13-2007. . CONSTRUCTION DOCUMENTS FOR SPRINKLER SYSTEM SHALL CONTAIN PLANS THAT INCLUDE THE INFORMATION AND
- APPROVED AUTOMATIC SPRINKLER SYSTEM IN NEW BUILDINGS AND STRUCTURES SHALL BE PROVIDED IN THE LOCATIONS DESCRIBED IN SEC. 903.2 OF NYC BUILDING CODE. 4. AUTOMATIC SPRINKLER SYSTEM SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH SEC. 903.3.1 THROUGH 903.3.7 OF NYC BUILDING CODE.

DATA LISTED IN SEC. 903.1.2 OF NYC BUILDING CODE.

- . WHERE THE PROVISIONS OF NYC BUILDING CODE REQUIRE THAT A BUILDING OR PORTION THERE OF BE EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH SEC. 903.3.1.1, SPRINKLERS SHALL BE INSTALLED THROUGHOUT IN ACCORDANCE WITH NFPA 13 AS MODIFIED IN APPENDIX Q EXCEPT AS PROVIDED IN SEC. 903.3.1.1.1. OF NYC BUILDING CODE.
- . AUTOMATIC SPRINKLERS SHALL NOT BE REQUIRED IN THE ROOMS OR AREAS WHICH ARE LISTED IN 903.3.1.1.1 OF NYC BUILDING CODE AS LONG AS AN APPROVED AUTOMATIC FIRE DETECTION SYSTEM IN ACCORDANCE WITH SEC. 907.2 AND AN ALTERNATIVE EXTINGUISHING SYSTEM IN ACCORDANCE INSTALLED IN ACCORDANCE WITH SECTIONS 903.3.1 THROUGH WITH SECTION 904 OF NYC BUILDING CODE.
- . SPRINKLERS SHALL NOT BE OMITTED FROM ANY ROOM MERELY BECAUSE IT IS DAMP. OF FIRE-RESISTANCE-RATED CONSTRUCTION OR CONTAINS ELECTRICAL EQUIPMENT. B. WHERE AUTOMATIC SPRINKLER SYSTEM ARE REQUIRED BY NYC BUILDING CODE, QUICK-RESPONSE OR RESIDENTIAL AUTOMATIC SPRINKLERS SHALL BE INSTALLED IN THE AREAS LISTED
- 9. AUTOMATIC SPRINKLERS SHALL BE INSTALLED WITH DUE REGARD TO OBSTRUCTIONS THAT WILL DELAY ACTIVATION OR OBSTRUCT THE WATER DISTRIBUTION PATTERN. AUTOMATIC SPRINKLERS SHALL BE INSTALLED IN OR UNDER COVERED KIOSKS, DISPLAYS, BOOTH, CONCESSION STANDS, OR EQUIPMENT THAT EXCEEDS 4 FEET IN WIDTH. NOT LESS THAN 3 FOOT CLEARANCE SHALL BE MAINTAINED BETWEEN AUTOMATIC SPRINKLERS AND TOP OF PILES OF COMBUSTIBLE FIBERS SEC. 903.3.3. OF NYC BUILDING CODE.

SEC. 903.3.2 OF NYC BUILDING CODE.

- 10. WATER SUPPLIES FOR AUTOMATIC SPRINKLER SYSTEM SHALL COMPLY WITH SEC. 903.3.5 OF NYC BUILDING CODE AND SEC. 903.3.1 THE POTABLE WATER SUPPLY SHALL BE PROTECTED AGAINST BACK FLOW IN ACCORDANCE WITH THE REQUIREMENTS OF SEC.903.3.5 THE NYC PLUMBING CODE, AND RULES OF THE NYC DEPARTMENT OF ENVIRONMENTAL PROTECTION.
- CALCULATED SPRINKLER DEMAND, INCLUDING THE HOSE STREAM REQUIREMENT, SHALL BE PROVIDED FOR HIGH-RISE BUILDINGS IN THE SECONDARY WATER SUPPLY SHALL HAVE A DURATION NOT LESS THAN 30 MINUTES AS DETERMINED BY THE OCCUPANCY HAZARD CLASSIFICATION IN ACCORDANCE WITH NFPA 13-2007.
- 12. FIRE HOSE THREADS USED IN CONNECTION WITH AUTOMATIC SPRINKLER SYSTEMS SHALL BE APPROVED AND COMPATIBLE WITH FIRE DEPARTMENT HOSE THREADS. 13. ALL VALVES CONTROLLING THE WATER SUPPLY FOR AUTOMATIC SPRINKLER SYSTEM, PUMPS, TANKS, WATER LEVELS AND TEMPERATURES. CRITICAL AIR PRESSURES AND WATER—FLOW SWITCHES ON ALL SPRINKLER SYSTEM SHALL BE ELECTRICALLY SUPERVISED BY THE FIRE ALARM SYSTEM.
- 14. APPROVED SUPERVISED INDICATING CONTROL VALVES SHALL BE PROVIDED AT THE POINT OF CONNECTION TO THE RISER ON EACH FLOOR IN HIGH-RISE BUILDINGS. 15. THE DOCUMENTS OR PORTIONS THERE OF LISTED IN CHAPTER 2 OF NFPA 13-2007 ARE REFERENCED WITHIN NFPA-13 AND SHALL BE CONSIDERED PART OF THE REQUIREMENTS OF THIS DOCUMENT.
- 16. OCCUPANCY CLASSIFICATION SHALL COMPLY WITH CHAPTER 5 OF NFPA 13-2007. 7. PROTECTION REQUIREMENTS FOR MIXED COMMODITIES SHALL BE ACCORDANCE WITH SEC. 5.6.1.2 OF NFPA 13-2007. 18. REQUIREMENTS FOR CORRECT USE OF SPRINKLER SYSTEM COMPONENTS SHALL COMPLY WITH CHAPTER 6 OF NFPA 13-2007. 19. THE K-FACTOR, RELATIVE DISCHARGE, AND MARKING IDENTIFICATION FOR SPRINKLERS HAVING DIFFERENT ORIFICE SIZES SHALL BE IN ACCORDANCE WITH TABLE 6.2.3.1 OF NFPA 13-2007. 20. AUTOMATIC SPRINKLERS SHALL HAVE THEIR FRAME ARMS, DEFLECTOR, COATING MATERIAL, OR LIQUID BULB COLORED IN ACCORDANCE

ISSUES PRODUCT APPROVALS.

- 22. ALL CONTROL, DRAIN, AND TEST CONNECTION VALVES SHALL BE PROVIDED WITH PERMANENTLY MARKED WEATHERPROOF METAL OR RIGID PLASTIC IDENTIFICATION SIGNS. SEC. 6.7.4.1 OF NFPA 13-2007. 23. FIRE DEPARTMENT CONNECTIONS SHALL BE EQUIPPED WITH LISTED PLUGS OR CAPS, PROPERLY SECURED AND ARRANGED FOR EASY REMOVAL BY THE FIRE DEPARTMENT. SEC. 6.8.4 OF NFPA 13-2007.
 - 24. REQUIREMENTS OF PREACTION & DELUGE SYSTEM INSTALLATION SHALL COMPLY WITH SEC. 7.3 OF NFPA 13-2007. 25. THE MAXIMUM FLOOR AREA OR ANY ONE FLOOR TO BE PROTECTED BY A SINGLE RISER FROM A CONTROL VALVE AND ALARM DEVICE SHALL COMPLY WITH SEC. 8.2.1 OF NFPA 13-2007.

26. WHERE CIRCUMSTANCES REQUIRE THE USE OF OTHER THAN

ORDINARY TEMPERATURE-RATED SPRINKLERS, STANDARD

- RESPONSE SPRINKLERS SHALL BE PERMITTED TO BE USED SEC. 8.3.3. OF NFPA 13-2007. 27. SPRINKLERS OF INTERMEDIATE AND HIGH TEMPERATURE RATINGS SHALL BE INSTALLED IN SPECIFIC LOCATIONS AS REQUIRED BY SEC. 8.3.2 OF NFPA 13-2007.
- 28. SPRINKLERS SHALL BE LOCATED, SPACED AND POSITIONED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 8.5. 29. PROTECTION AREAS AND MAXIMUM SPACING FOR EACH HAZARD SHALL COMPLY WITH TABLE 8.6.2.2.1 (a) (b) (c) (d) OF NFPA 13-2007.

30. DRAIN CONNECTIONS FOR SYSTEMS SUPPLY RISERS AND MAINS

SHALL BE SIZED AS SHOWN IN TABLE 8.15.2.4.2 OF APPENDIX

Q-NYC BUILDING CODE. 31. TYPES OF HANGERS SHALL BE ACCORDANCE WITH THE REQUIREMENT OF SEC. 9.1. OF NFPA 13-2007.

TABLE 9.2.2.1 OF NFPA 13-2007.

33. HOSE STREAM DEMAND AND WATER SUPPLY DURATION REQUIREMENT SHALL COMPLY WITH TABLE 11.2.3.1.1 OF NFPA 13-2007 34. THE WATER SUPPLY FOR SPRINKLERS SHALL BE DETERMINED BY DENSITY/AREA CURVE, FIGURE 11.2.3.1.5 OF NFPA 13-2007. 35. HYDRAULIC DESIGN AREA REDUCTION FOR QUICK RESPONSE

32. MAXIMUM DISTANCE BETWEEN HANGERS SHALL COMPLY WITH

OF NFPA 13-2007. 36. DESIGN CRITERIA OF WATER CURTAIN SHALL COMPLY WITH SEC. 11.2.3.8 OF NFPA 13-2007. 37. TYPE OF SPRINKLER HEAD IN STORAGE SHALL COMPLY WITH SEC. 12.1.13 OF NFPA 13-2007.

SPRINKLERS SHALL COMPLY WITH FIGURE 11.2.3.2.3.1

- 1. A SECONDARY ON—SITE WATER SUPPLY EQUAL TO THE HYDRAULICALLY 38, MINIMUM OPERATING PRESSURE OF ANY SPRINKLER SHALL BE 7 PSI. SEC. 14.4.4.8.1 OF NFPA 13-2007. SEISMIC DESIGN CATEGORY "C" OR "D" AS DETERMINED BY THIS CODE, 39. NUMBER OF WATER SUPPLY FOR SPRINKLER SYSTEM SHALL COMPLY AND IN ANY HIGH-RISE BUILDING GREATER THAN 300 FEET IN HEIGHT. WITH SEC. 15.1.1 OF NFPA 13-2007 AND APPENDIX Q OF NYC
 - 40. A SPRINKLER SYSTEM ACCORDANCE WITH NFPA 13 & NYC BUILDING CODE SHALL BE PROPERLY INSPECTED, TESTED AND ACCORDANCE WITH NFPA 25 AND NYC FIRE CODE. 41. THE MINIMUM TEMPERATURE RATING OF CEILING SPRINKLERS IN GENERAL STORAGE, RACK STORAGE, RUBBER FIRE STORAGE, ROLL PAPER STORAGE,
 - AND BALED COTTON STORAGE APPLICATIONS SHALL BE 150° F. SEC. 8.3.2.7 OF NFPA 13-2007. 42. SPRINKLER HEAD DEFLECTOR POSITION FOR EXTENDED COVERAGE HEAD SHALL COMPLY WITH SEC. 8.8.4 OF NFPA 13-2007.
 - 43. LISTED CORROSION RESISTANT SPRINKLER SHALL BE INSTALLED IN LOCATIONS WHERE CHEMICALS, MOISTURE, OR OTHER CORROSIVE VAPORS SUFFICIENT TO CAUSE CORROSION OF SUCH DEVICES EXIST.
 - 44. SPRINKLERS SHALL NOT BE REQUIRED IN ELECTRICAL ROOMS SATISFIED WITH REQUIREMNET FOR SECTION 8.14.10.3 OF NFPA 13-2007. 45. INSTALLATION OF SPRINKLER SYSTEMS SHALL COMPLY WITH THE SPECIAL INSPECTION REQUIREMNETS OF CHAPTER 17 OF NYC BUILDING CODE. 46. AUTOMATIC SPRINKLERS ARE NOT REQUIRED WHERE THE FLOOR AREA USED FOR CONTESTS, PERFORMANCES OR ENTERTAINMENT PROVIDED THE ROOF CONSTRUCTION IS MORE THAN 50 FT. ABOVE THE FLOOR
 - LEVEL. SEC 1024.6.2.3. OF NYC BUILDING CODE. 47. AUTOMATIC SPRINKLERS ARE NOT REQUIRED WHERE THE PRESS BOXES AND STORAGE FACILITY LESS THAN 1,000 SQFT. SEC 1024.6.2.3. OF NYC BUILDING CODE. 48. SPRINKLERS ARE NOT REQUIRED IN ELEVATOR MACHINE ROOMS

TO THE SPRINKLER SYSTEM. SEC. 15.2.2.1 OF NFPA 13-2007.

SECTION 8.14.5 OF NFPA 13-2007 & APPENDIX Q. 49. ALL SPRINKLER PIPES SHALL BE PAINTED RED WITH THE REQUIREMENTS OF TABLE 6.2.5.1 OF NFPA 13-2007. 50. IN LIGHT HAZARD OCCUPANCIES WITH ONLY LIMITED ORDINARY HAZARD 21. MEA APPROVAL IS NOT AVAILABLE AFTER JULY 1, 2009 AREAS, AN AUTOMATIC FIRE PUMP SERVING THE LOWER 300 FEET OF PER TRANSITION FROM MEA TO OTCR. AND OTCR NO LONGER THE STANDPIPE SYSTEM MAY BE USED AS THE PRIMARY SUPPLY

<u>SPECIFICATIONS</u>

INCLUDING, BUT NOT LIMITED TO, CONNECTION TO EXISTING

PREPARE AS-BUILT DRAWINGS INDICATING ACTUAL LOCATIONS OF

SPRINKLER HEADS AND PIPING. AS BUILT DRAWINGS SHALL BE

SUBMITTED TO THE OWNER UPON COMPLETION OF INSTALLATION AND TESTING. SUBMIT THREE SETS OF PRINTS AND ONE SET OF

REPAIR AND/OR REPLACE ARCHITECTURAL COMPONENTS WHICH MAY

BECOME DAMAGED AS A RESULT OF SYSTEM INSTALLATION.

THE SPRINKLER CONTRACTOR SHALL EXAMINE THE PREMISES

FAMILIARIZE HIMSELF WITH CONDITIONS WHICH AFFECT HIS

WORK. THE SPRINKLER CONTRACTOR SHALL REPORT ANY

CONDITIONS WHICH WOULD PREVENT THE INSTALLATION OF THE

THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN INSTALLING

WORK WHICH REQUIRE SHUT-OFF OR INTERRUPTION OF SERVICES TO

INTERFERENCE TO ESTABLISH BUILDING PROCEDURE. ALL SERVICE

CLEAN-UP AND RUBBISH REMOVAL FROM THE JOB SITE DIRECTLY

DAILY AS WORK PROGRESSES AS NOT TO CAUSE INTERFERENCE

FURNISH ALL LABOR AND MATERIALS FOR ALL TESTS AS REQUIRED

THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND

OBTAIN ALL APPROVALS REQUIRED BY ALL AUTHORITIES HAVING

ALL PIPES SHALL BE MARKED TO INDICATE MANUFACTURER AND

ASTM STANDARD. EACH FULL PIPE LENGTH SHALL HAVE THE

EACH FITTING SHALL HAVE THE MANUFACTURER'S SYMBOL AND

ALL NEW COMPONENTS OF THE SPRINKLER SYSTEM MUST CONFORM

TO NEPA 13/89. THE BUILDING CODE OF THE CITY OF NEW YORK.

ASTM AND NEMA. ALL NEW PIPING AND SPRINKLER HEADS MUST

BE U.L. LISTED, FACTORY MUTUAL AND N.Y.C.B.S.A. APPROVED.

A. SPRINKLER HEADS SHALL BE AS MANUFACTURED BY CENTRAL

MANUFACTURER'S NAME CAST, STAMPED OR ROLLED ON.

PRESSURE RATING CAST, STAMPED OR ROLLED ON.

RELATED TO AND AS A RESULT OF THIS CONTRACT SHALL BE DONE

SHUTDOWNS SHALL BE SUPERVISED AND DIRECTED BY THE BUILDING

MANAGEMENT. THEL CONTRACTOR SHALL GIVE NOTICE THREE (3) DAYS

OTHE TENANTS SHALL BE MADE AT SUCH TIME AS TO CAUSE THE LEAST

NEW WORK TO THE OWNER'S REPRESENTATIVE PRIOR TO THE START

BEFORE SUBMITTING HIS BID, AND SHALL THOROUGHLY

PIPING IN FINISHED WALLS, CEILINGS AND PARTITIONS.

LOCATION AND SIZES OF ALL EXISTING PIPING SHALL BE

WITH THE NORMAL BUILDING OPERATION.

BY CODES OR AUTHORITIES HAVING JURISDICTION.

A. ALL PRIME PAINTING AND FACTORY APPLIED FINISHES.

SYSTEM SHALL BE MADE COMPLETE IN EVERY RESPECT.

PIPING, FITTINGS, HANGERS, SUPPORTS, SLEEVES,

TRADES AND EXISTING CONDITIONS.

REPRODUCIBLES.

OF ANY INSTALLATION.

PRIOR TO ANY SHUTDOWN.

VERIFIED IN THE FIELD.

JURISDICTION.

OTHER WORK INCLUDED

B. ROUGH CUTTING

QUALITY ASSURANCE

C. ROUGH PATCHING

ACCEPTABLE MANUFACTURERS

- A. ALTER THE EXISTING AUTOMATIC SPRINKLERS AND PIPING IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, UNDERWRITERS' REQUIREMENTS, CLEANING AND PROTECTION THE BUILDING CODE OF THE CITY OF NEW YORK AND OTHER AUTHORITIES HAVING JURISDICTION. CONNECT NEW PIPING A. AS SOON AS NEW SPRINKLER HEADS ARE IN PLACE, COVER EACH TO EXISTING WHERE SHOWN ON THE FLOOR PLAN. TEST ALL HEAD WITH A SMALL PAPER BAG OF AN UNDERWRITER'S APPROVED NEW WORK IN THE PRESENCE OF THE OWNERS' REPRESENTATIVE TYPE, AND REMOVE IT ONLY AFTER ALL PAINTING IS COMPLETE.
- AND ALL AUTHORITIES HAVING JURISDICTION. AFTER THE BAG IS REMOVED, CLEAN AND POLISH ALL HEADS. CONTRACTOR SHALL OBTAIN AND ADHERE TO TISHMAN SPEYER'S B. DURING INSTALLATION PROTECT PIPES WITH SUITABLE COVERINGS AS SOON AS SET. CLOSE ALL OPEN ENDS OF PIPES WITH A PLUG DESIGN REQUIREMENTS FOR TENANT ALTERATIONS. FITTING TO PREVENT OBSTRUCTION AND DAMAGE. INSTALL NEW SPRINKLERS HEADS AND PIPING WHERE SHOWN ON THE CONTRACT DRAWINGS. FURNISH ALL LABOR, MATERIALS, C. PROTECT THE SYSTEM AGAINST FREEZING. EQUIPMENT, APPLIANCES AND PERFORM ALL OPERATIONS REQUIRED
- D. THOROUGHLY BLOW OUT OR WASH OUT ALL NEW PIPING TO REMOVE FOR A COMPLETE SPRINKLER SYSTEM AS SPECIFIED HEREIN, ALL ACCUMULATION OF DIRT, CHIPS OR OTHER HARMFUL MATERIAL. ESCUTCHEONS, SIGNS, CUTTING AND PATCHING. THE ENTIRE SUBMITTALS A. PRIOR TO PURCHASE, SUBMIT A LIST OF ALL PROPOSED PIPING
- PREPARE AND SUBMIT MANUFACTURERS DATA AND INSTALLATION MATERIALS AND EQUIPMENT. SHOP DRAWINGS TO THE ENGINEER FOR REVIEW. INSTALLATION B. SUBMIT COMPLETE BACK-UP MATERIAL WHERE MANUFACTURING SHOP DRAWINGS SHALL BE COORDINATED WITH NEW WORK OF OTHER SPECIFICATION STANDARDS OF PROPOSED MATERIAL DIFFER FROM THOSE SPECIFIED.
 - . WHERE MANUFACTURER'S CATALOG INFORMATION DOES NOT SATISFACTORY DESCRIBE MATERIALS, ENGINEERING DESIGN. QUALITY OF CONSTRUCTION OR AESTHETICS OF PROPOSED MATERIALS, SAMPLES MUST BE SUBMITTED AS REQUESTED AT NO ADDITIONAL COST TO THE OWNER.

SPRINKLER CORPORATION, STAR SPRINKLER CORPORATION,

RELIABLE AUTOMATIC SPRINKLER CO. OR APPROVED EQUAL.

- . MANUFACTURER'S SPECIFICATIONS AND ENGINEERING DATA SHALL CONSIST OF A COMPLETE DESCRIPTION OF MATERIALS, PARTS. DEVICES, FINISHES AND PERFORMANCE.
- E. SUBMIT HYDRAULIC CALCULATIONS FOR REVIEW WITH SPRINKLER PIPING SHOP DRAWINGS. 7. MATERIAL DELIVERY, STORAGE AND HANDLING
- A. THE SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR THE ON-TIME DELIVERY OF HIS MATERIALS. B. THE SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR THE
- SAFE STORAGE OF ALL HIS MATERIALS EITHER ON THE SITE AS DESIGNATED BY THE OWNER'S REPRESENTATIVE OR IN HIS OWN C. ANY MATERIALS DAMAGED DURING HANDLING, STORAGE OR

INSTALLATION SHALL BE REPLACED OR REPAIRED BY THE

SPRINKLER CONTRACTOR AT NO COST TO THE OWNER.

- GUARANTEE A. THE MANUFACTURER OF MATERIALS AND INSTALLER FOR THE WORK OF THIS CONTRACT SHALL, AS PART OF THIS CONTRACT, GUARANTEE AND CERTIFY THAT ALL NEW WORK IS FREE FROM
- DEFECTIVE WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE YEAR FROM DATE OF OWNER'S FINAL ACCEPTANCE. FINAL ACCEPTANCE BY THE OWNER SHALL BE THE DATE OF THE FINAL PAYMENT TO THE CONTRACTOR. SHOP DRAWINGS
- A. THE SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING SHOP DRAWINGS OF THE NEW SPRINKLER WORK TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION. THE SPRINKLER DRAWING SHALL SHOW SPRINKLER HEAD LOCATIONS, IN COORDINATION WITH ALL EXISTING CONDITIONS. SUBMIT SHOP DRAWINGS IN TIME TO ALLOW ONE WEEK REVIEW PERIOD. SPRINKLER PLANS SHALL CONSIST OF FULLY DIMENSIONED DRAWINGS FOR THE NEW WORK INCLUDING RELATED EXISTING PIPING AND SPRINKLER HEADS. SHOP DRAWINGS SHALL BE
- SUBMITTED IN QUANTITIES AS DIRECTED BY THE ARCHITECT. B. SUBMIT SHOP DRAWINGS AND/OR SAMPLES OF SPRINKLER HEADS, ESCUTCHEON PLATES, PIPES, FITTINGS, HANGERS AND SLEEVES. SUBMIT HYDRAULIC CALCULATIONS FOR REVIEW WITH SPRINKLER
- PIPING SHOP DRAWINGS. 10. SUBSTITUTION OF SPECIFIED MATERIALS
- A. THE PRODUCTS AND/OR MATERIALS LISTED IN THESE SPECIFICA-TIONS REPRESENT DESIRED MATERIALS AND CONSTRUCTION STANDARDS FOR THE VARIOUS ITEMS OF WORK. MANUFACTURER NAMES AND MODEL NUMBERS ARE USED TO DESCRIBE TYPES, STYLES AND QUALITY. MATERIALS SUBMITTED FOR APPROVAL OTHER THAN SPECIFIED HEREIN MUST MEET OR EXCEED THESE

- A. PROVIDE SLEEVES FOR ALL PIPES PASSING THROUGH WALLS. SLEEVES WITHIN FURRED OUT ENCLOSURES, THROUGH STUD
- PARTITIONS AND BLOCK WALLS SHALL BE 18 GAUGE GALVANIZED B. PROVIDE OPENINGS WITH AN I.D. AT LEAST 1/2" GREATER THAN

THE OUTSIDE OF THE PIPE SERVED.

- C. PACK THE SPACE BETWEEN PIPES AND SLEEVES WITH FIBER-GLASS AND FINISH WITH NON-HARDENING MASTIC OR SILICONE SEALANT. D. SLEEVES THROUGH WALLS AND PARTITIONS SHALL BE FOUAL TO
- THE DEPTH OF CONSTRUCTION AND TERMINATED FLUSH WITH FINISHED SURFACES.
- SLEEVE SIZES SHALL BE TWO PIPE SIZES LARGER THAN PIPE PASSING THROUGH SLEEVE OR MINIMUM OF 1/3" CLEARANCE BETWEEN THE INSIDE OF THE SLEEVE AND OUTSIDE OF THE PIPE.
- 12. ESCUTCHEONS A. PROVIDE ESCUTCHEON ON ALL EXPOSED PIPING PASSING THROUGH
- B. ESCUTCHEONS SHALL BE HELD IN PLACE BY SET SCREWS. C. ESCUTCHEON APPLICATION SCHEDULE: ESCUTCHEON MATERIAL

CHROME PLATED BRASS

UNFINISHED SPACE PLAIN BRASS OR CAST IRON 13. SPRINKLER PIPING AND FITTINGS

FINISHED SPACE

WALLS, PARTITIONS AND CEILINGS.

- A. PIPING SHALL BE SCHEDULE 40 STANDARD WEIGHT BLACK STEEL. PIPING SHALL HAVE THREADED ENDS.
- B. STANDARD WEIGHT CAST IRON FITTINGS SHALL BE 175 PSIG WWP IN ACCORDANCE WITH NFPA 13/89 AS AMENDED BY THE BUILDING CODE OF THE CITY OF NEW YORK. FITTINGS SHALL BE
- C. PIPING CONNECTIONS TO THE EXISTING MAIN OR BRANCH PIPING CAN BE MADE WITH MECHANICAL TEES, VICTAULIC STYLE 920. 14. HANGERS AND SUPPORTS
- A. SHIELDS SHALL BE INSTALLED WHERE HANGERS AND PIPE HAVE PHYSICAL CONTACT TO PREVENT ELECTROLYTIC CORROSION OR PROVIDE HANGERS OF THE SAME MATERIAL AS THE PIPE.
- B. HANGERS FOR THE NEW HORIZONTAL PIPES SHALL BE LOCATED AT EVERY 12'-0" ON CENTER. BRANCH RUNOUTS WITHOUT HANGERS SHALL NOT EXCEED 2'-0" IN LENGTH.
- C. ALL NEW BLACK IRON HANGERS, RODS, INSERTS, CLAMPS AND BRACKETS SHALL BE DIPPED IN ZINC CHROMATE PRIMER BEFORE
- INSTALLATION. D. CHAIN STRAPS, PERFORATED BARS OR WIRE HANGERS SHALL NOT
- BE PERMITTED. E. PIPE HANGERS SHALL BE FASTENED ONLY TO THE BUILDING
- F. C-CLAMPS MUST BE INSTALLED WITH RETAINER STRAPS.
- 17. SPRINKLER HEADS A. PROVIDE AUTOMATIC SPRINKLER HEADS OF FINISH AND TYPE AS APPROVED BY THE OWNER AND THE AUTHORITIES AND INSURING AGENCIES HAVING JURISDICTION. ALL NEW SPRINKLER HEADS
- SHALL HAVE STANDARD 1/2" DISCHARGE ORIFICE (5.66 K FACTOR), AND SHALL BE OF BRONZE CONSTRUCTION.
- B. ALL NEW HEADS SHALL CONFORM TO THE ACTUAL CONDITION REQUIREMENTS. C. STANDARD AUTOMATIC UPRIGHT AND PENDENT HEADS SHALL BE
- D. CONCEALED PENDENT HEADS SHALL BE RELIABLE AUTOMATIC SPRINKLER Co. MODEL G4, WHITE COVER PLATE.

RELIABLE AUTOMATIC SPRINKLER Co. MODEL G, CHROME PLATED FINISH.

- E. ALL HEADS SHALL BE OF THE PROPER TEMPERATURE RATING FOR THE LOCATIONS IN WHICH THEY ARE INSTALLED.
- 18. VALVE TAGGING & PIPE LABELING A. ALL PIPING SHALL BE IDENTIFIED BY STENCILED LETTERING, OR SELF ADHESIVE PIPE MARKERS WHICH LEGEND CONFORMS TO LSHA/ANSI STANDARDS INCLUDING BUT NOT LIMITED TO THE IDENTIFICATION OF FLOW DIRECTION, PRSSURE, SPRINKLER ETC.
- B. TAG VALVES WITH INDENTIFYING NUMBER AND SYSTEM, NUMBER

- VALVES BY FLOOR LEVEL.
- C. FOR VALVES, ETC., USE METAL (BRASS, STAINLESS STEEL OR ALUMINUM) TAGS, 3" BACKGROUND, ATTACH TAGS WITH CHAIN OF SAME MATERIAL.

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- 19. TESTING A. PROVIDE LABOR, MATERIALS, INSTRUMENTS, POWER, ETC., AS REQUIRED FOR TESTING. ALL NEW AND EXISTING PIPING SHOWN ON THE CONTRACT DOCUMENTS SHALL BE TESTED AS HEREIN
- SPECIFIED. TESTS SHALL BE PERFORMED IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE AND SUCH OTHER PARTIES AS MAY HAVE LEGAL JURISDICTION. B. NOTIFY THE OWNER'S REPRESENTATIVE AND ALL AUTHORITIES
- HAVING JURISDICTION AT LEAST 48 HOURS IN ADVANCE OF MAKING THE REQUIRED TESTS SO THAT ARRANGEMENTS MAY BE MADE FOR THEIR PRESENCE TO WITNESS THE TESTS. PRESSURE TESTS SHALL BE APPLIED TO ALL COMPLETED OR PARTIALLY COMPLETED WORK. IN NO CASE SHALL PIPING AND
- D. ALL DEFECTIVE WORK SHALL BE PROMPTLY REPAIRED OR REPLACED AND THE TESTS SHALL BE REPEATED UNTIL THE SYSTEM AND ALL COMPONENT PARTS RECEIVE THE APPROVAL OF THE OWNER'S REPRESENTATIVE.

SPRINKLER BE SUBJECT TO PRESSURES EXCEEDING THEIR RATING.

- E. ANY DAMAGES RESULTING FROM TESTING SHALL BE REPAIRED AND/OR DAMAGED MATERIALS REPLACED, ALL TO THE SATISFACTION OF THE OWNER.
- F. TESTING SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE UNDERWRITERS' AND NEW YORK CITY BUILDING DEPARTMENT REQUIREMENTS, BUT IN NO CASE SHALL SPRINKLER PIPING BE

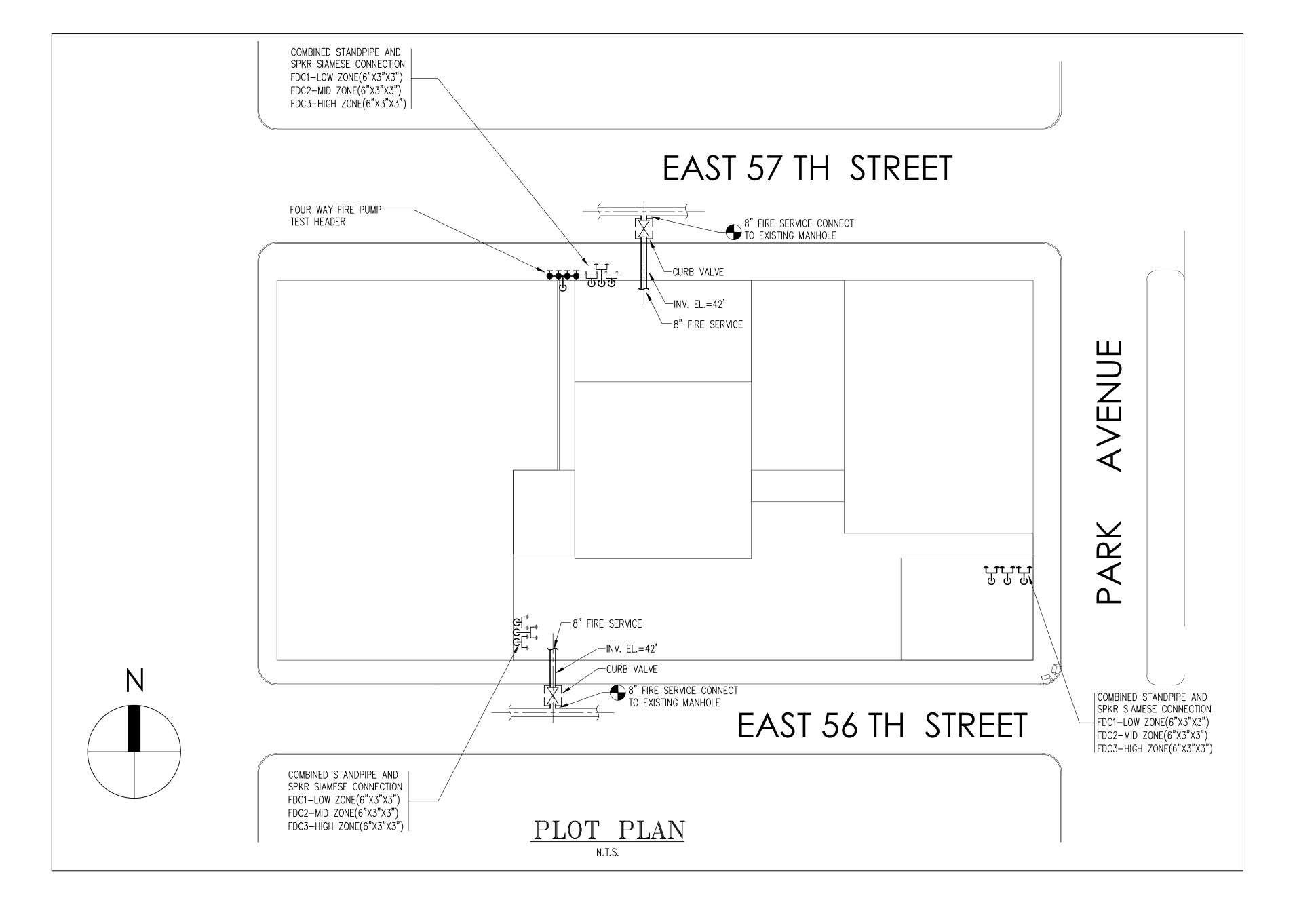
TESTED AT LESS THAN 200 PSI FOR 2 CONSECUTIVE HOURS. 20. GENERAL INSTALLATION FOR NEW PIPING

- A. RUN AND ARRANGE PIPING APPROXIMATELY AS INDICATED ON THE DRAWINGS AND AS DIRECTED DURING INSTALLATION, AS STRAIGHT AND DIRECT AS POSSIBLE, FORMING RIGHT ANGLES OR PARALLEL LINES WITH BUILDING WALLS AND OTHER PIPES, AND NEATLY SPACED. PIPING SHALL BE INSTALLED SO THAT EVERY PORTION OF THE SYSTEM CAN BE ENTIRELY DRAINED.
- B. THE SPRINKLERS DRAWING ARE GIVEN AS A GUIDE ONLY, AND THEREFORE, DO NOT RELIEVE THIS CONTRACTOR FROM PROVIDING AND INSTALLING ALL EQUIPMENT NECESSARY TO COMPLETE THE
- INSTALLATION ACCORDING TO THE CODE REQUIREMENTS. C. DO NOT INSTALL PIPES OR OTHER APPARATUS IN A MANNER WHICH MAY INTERFERE WITH THE FULL SWING OF ANY DOOR.
- D. WHERE SPRINKLERS ARE INSTALLED IN AREAS WITHOUT HUNG CEILING, INSTALL SPRINKLERS BOTH OVER AND UNDER EXISTING
- AGGREGATE OF MULTIPLE DUCTS EXCEEDS 4'-0" IN WIDTH OR E. THE ARRANGEMENTS, POSITIONS AND CONNECTIONS OF PIPES AND SPRINKLER HEADS INDICATED ON THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE, BUT THE RIGHT IS RESERVED BY THE OWNER TO CHANGE LOCATIONS AND ELEVATIONS TO ACCOMMODATE CONDITIONS WHICH MAY ARISE DURING THE PROGRESS OF THE WORK, WITHOUT ADDITIONAL COMPENSATION TO

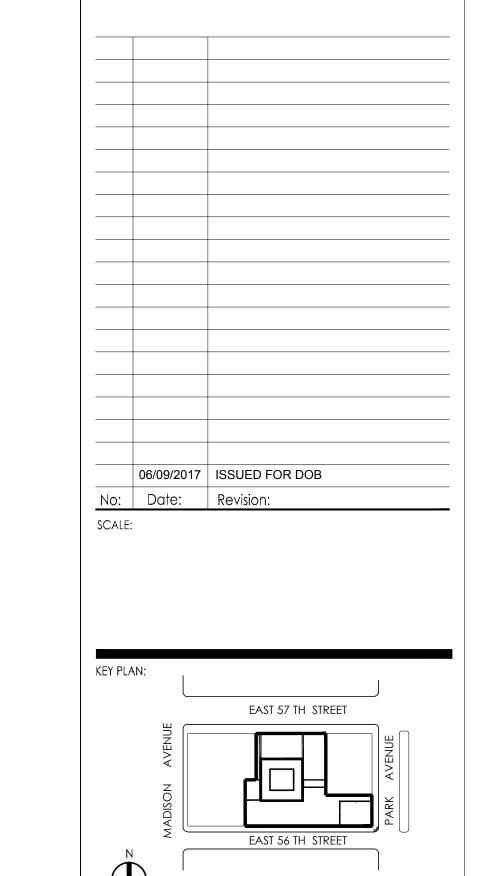
DUCTWORK 4'-0" AND LARGER IN WIDTH OR WHERE THE TOTAL

- THE CONTRACTOR FOR SUCH CHANGES, PROVIDED THAT NO ADDITIONAL HEADS ARE REQUIRED AND CHANGES ARE REQUESTED PRIOR TO INSTALLATION. F. REAM ALL PIPE SMOOTH BEFORE INSTALLATION. DO NOT BEND, SPLIT, FLATTEN OR INJURE PIPE IN ANY WAY. ANY PIPE CUT, DENTED OR DAMAGED SHALL BE REPLACED BY THIS CONTRACTOR WITHOUT ADDITIONAL EXPENSE TO THE OWNER.
- G. PIPE THREADS SHALL BE MADE WITH THE BEST DIES AND TOOLS AVAILABLE. DURING THREADING THE PIPE SHALL BE SATURATED WITH SOLVENT TO ASSURE SHARP THREADS FREE OF BURRS AND H. ALL THREADED JOINTS SHALL BE MADE WITH TEFLON TAPE CAREFULLY PLACED ON THREADS OF PIPE AND NOT FITTINGS.

. INSTALL SPRINKLER HEADS IN ALL AREAS ON A TRUE AXIS LINE IN BOTH DIRECTIONS WITH A MAXIMUM DEVIATION FROM THE AXIS LINE OF 1/2" PLUS OR MINUS. IN ACOUSTICAL TILE CEILINGS, INSTALL SPRINKLER HEADS IN THE CENTER OF THE CEILING TILES. AT THE COMPLETION OF THE INSTALLATION, REMOVE AND REINSTALL ANY HEADS FOUND TO BE IN EXCESS OF THE ABOVE MENTIONED TOLERANCES.







FIRE PROTECTION DRAWING LIST,

NOTES, SCHEDULES & DETAILS

PROJECT No:

CHECKED BY: L.B.

FP-001.00

SYMBOLS, ABBREVIATIONS

SEAL & SIGNATURE: