GENERAL FIRE PROTECTION NOTES

- 1. ALL WORK AND MATERIAL NOT SPECIFICALLY DESCRIBED, BUT REQUIRED FOR A COMPLETE AND PROPER INSTALLATION OF THE FIRE PROTECTION SYSTEMS SHALL BE PROVIDED BY THE FIRE PROTECTION SPRINKLER CONTRACTOR AND SHALL BE NEW, AND FIRST QUALITY OF THEIR RESPECTIVE KINDS, AND SUBJECT TO THE APPROVAL BY THE ARCHITECT/ENGINEER AND ALL AUTHORITIES HAVING JURISDICTION.
- NOTE: ALL MATERIAL FOR THE COMPLETE FIRE PROTECTION SYSTEM MUST BE F.M. AND BS&A/MEA N.Y.C. APPROVED TYPE. WHERE, DUE TO UNION REGULATIONS OR TRADE AGREEMENTS, ANY OF THE WORK SHOWN ON THE DRAWINGS OR DESCRIBED IN SPECIFICATIONS IS NOT CONSIDERED THE FIRE PROTECTION CONTRACTOR'S WORK, THE FIRE PROTECTION CONTRACTOR SHALL SUBCONTRACT THIS WORK IN QUESTION, BUT THE FIRE PROTECTION CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE COMPLETE INSTALLATION.
- DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE FULLY COOPERATIVE AND TO AGREE, BUT SHOULD ANY DISCREPANCY OR APPARENT DIFFERENCES OCCUR BETWEEN THE DRAWINGS AND SPECIFICATIONS OR SHOULD OCCUR IN THE WORK OF OTHERS AFFECTING THE WORK, THE FIRE PROTECTION SYSTEMS, THE F.P. CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER AT ONCE. IF THE FIRE PROTECTION CONTRACTOR PROCEEDS WITH THE AFFECTED WORK WITHOUT INSTRUCTIONS FROM THE ARCHITECT/ENGINEER, HE SHALL MAKE GOOD FOR ANY RESULTANT DAMAGE, DEFECT OR VIOLATIONS OF THE APPLICABLE FIRE PROTECTION CODES AT HIS OWN EXPENSE. ALL MISUNDERSTANDINGS OF DRAWINGS AND SPECIFICATIONS SHALL BE CLARIFIED BY THE ARCHITECT/ENGINEER.
- 4. ANY AND ALL SPRINKLER HEADS PLACED IN LOCATION WHERE THEY ARE LIABLE TO BE ACCIDENTALLY DAMAGED IN THE NORMAL COURSE OF EVENTS SHALL BE PROVIDED WITH HEAVY WIRE GUARDS.
- 5. SPRINKLER HEADS, IN GENERAL, SHALL HAVE ORDINARY DEGREE TEMPERATURE RATING, UNLESS OTHERWISE NOTED. ALL HEADS SUBJECT TO ABNORMAL CONDITIONS, AS THOSE IN VICINITY OF HEATING UNITS, BOILERS, OR VERY CLOSE TO HOT PIPING. SHALL BE OF SUFFICIENTLY HIGH TEMPERATURE RATING BASED ON NFPA #13 REQUIREMENTS TO PREVENT THEIR ACCIDENTAL DISCHARGE WHEN NO FIRE IS PRESENT. COORDINATE LOCATION OF ALL THE ABOVE MENTIONED EQUIPMENT WITH HVAC CONTRACTOR AND INDICATE ON THE SHOP DRAWINGS PRIOR TO SUBMITTAL.
- 6. SPRINKLER HEADS IN ALL AREAS ARE TO BE INSTALLED IN THE CENTER OF THE TILE, AND CENTERED WITH LIGHTS, DIFFUSERS OR SIMILAR ELEMENTS AS INDICATED ON ARCHITECTURAL REFLECTED CEILING DRAWINGS. SPRINKLER HEADS SHALL ALSO BE INSTALLED ON A TRUE AXIS LINE IN BOTH DIRECTIONS WITH A TOLERANCE OF +/- 1/2". AT THE COMPLETION OF THE INSTALLATION, IF ANY SPRINKLER HEADS ARE FOUND TO EXCEED THE ABOVE SPECIFIED TOLERANCES, THE FIRE PROTECTION CONTRACTOR SHALL RELOCATE ALL SPRINKLER HEADS THAT ARE NOT INSTALLED PROPERLY. ANY ADJOINING WORK OF ANOTHER TRADE THAT MAY BE DISTURBED IN RELOCATING MISALIGNED SPRINKLER HEADS SHALL BE REPAIRED AT NO COST TO THE OWNER.
- 7. PIPING AND FITTINGS SHALL BE ERECTED SO THAT THE ENTIRE SYSTEM MAY BE THOROUGHLY DRAINED. ON DRY-PIPE SYSTEMS, BRANCH LINES SHALL BE PITCHED 1/2" IN 10': CROSS AND FEED MAINS SHALL BE PITCHED 1/4" IN 10' MINIMUM. ALL FIRE PROTECTION SYSTEMS DRAIN LINES MUST BE PIPED TO A SAFE LOCATION BY THE FIRE PROTECTION CONTRACTOR. FOR EXACT LOCATIONS OF ALL DRAINAGE RECEPTACLES SUCH AS FLOOR DRAINS. SPRINKLER FUNNEL DRAINS, SUMP PITS, ETC. BY THE PLUMBING CONTRACTOR, COORDINATE WITH
- 8. INSTALL O.S.&Y. TYPE GATE VALVES AND OTHER TYPES OF VALVES IN HORIZONTAL POSITION (WITH STEMS POINTED UP OR IN VERTICAL POSITION) WHERE POSSIBLE, BUT IN NO CASE WITH STEMS POINTED DOWNWARD.
- 9. INSTALLATION OF CHECK VALVES:
- A. SWING CHECK VALVES: INSTALL IN HORIZONTAL POSITION WITH HINGE PIN LOCATED ON THE UPSIDE OF THE PIPE AND PERPENDICULAR TO THE PIPE'S CENTERLINE.
- WAFER CHECK VALVES: INSTALL BETWEEN 2 FLANGES IN HORIZONTAL OR VERTICAL POSITION.
- C. ALL SIAMESE FIRE DEPT. CONNECTION CHECK VALVES SHALL BE PROVIDED WITH AUTO-BALL DRIPS WITH DRAIN PIPING.
- 10. ALL FIRE PROTECTION SYSTEMS SHALL BE TESTED IN THE PRESENCE OF THE ARCHITECT/ENGINEER OR THEIR REPRESENTATIVES, THE OWNER OR HIS REPRESENTATIVES AND THE LOCAL AUTHORITIES HAVING JURISDICTION OF THE WORK TO BE TESTED, AS MAY BE DIRECTED. AT LEAST 72 HOURS NOTICE SHALL BE GIVEN IN ADVANCE TO ALL PARTIES CONCERNED OF ALL TESTS.
- A. THE WORK OF THIS CONTRACTOR SHALL INCLUDE THE FURNISHING OF ALL TESTING INSTRUMENTS, GAUGES, PUMPS AND OTHER EQUIPMENT REQUIRED OR NECESSARY FOR TESTS, REQUIRED BY LAWS, RULES AND REGULATIONS AND AS SPECIFIED.
- B. PROVIDE ALL ADDITIONAL TESTS REQUIRED BY LOCAL INSPECTORS AND ALL OTHER AUTHORITIES HAVING JURISDICTION. C. ALL DEFECTS DISCLOSED IN THE WORK BY TESTS AND OTHERWISE, SHALL BE MADE GOOD (BY THE FIRE PROTECTION CONTRACTOR) OR THE WORK REPLACED WITHOUT ADDITIONAL COST TO THE OWNER. NO CAULKING OR PATCHING OF SCREWED JOINTS, CRACKS OR HOLES IN PIPING SYSTEM WILL NOT BE ACCEPTABLE.
- 11. PORTABLE FIRE EXTINGUISHERS AND FIRE EXTINGUISHER CABINETS, IF REQUIRED, THROUGHOUT THE BUILDING SHALL BE PROVIDED BY THE OWNER.
- 12. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT AND LOCATION OF EQUIPMENT, PIPING, SPRINKLER HEADS, ETC. THE FIRE PROTECTION CONTRACTOR SHALL MAKE ALL REQUIRED MODIFICATIONS IN THE LAYOUT WORK THAT MAY BE REQUIRED TO SUIT ACTUAL JOB CONDITIONS WITHOUT EXTRA COMPENSATION.
- 13. THE FIRE PROTECTION CONTRACTOR SHALL ASCERTAIN THAT ALL HIS EQUIPMENT, SUCH AS VALVES, CONTROL PANELS FOR PRE-ACTION SYSTEMS, ETC. IS MADE EASILY ACCESSIBLE FOR OPERATION AND MAINTENANCE, AS MAY BE NECESSARY TO BE REACHED FROM TIME TO TIME FOR OPERATION AND MAINTENANCE.

- 14. THE FIRE PROTECTION CONTRACTOR SHALL PROVIDE SPRINKLER SYSTEM HYDRAULIC CALCULATIONS AND SUBMIT THEM AS PART OF THE SHOP DRAWINGS. THE CALCULATIONS SHALL BE PREPARED IN ACCORDANCE WITH N.F.P.A. CHAPTER 13 AND REQUIREMENTS SPECIFIED HEREIN. CALCULATIONS SHALL BE PREPARED FOR AS MANY AREAS OF APPLICATION PER FLOOR, AND FOR ALL FLOORS AS REQUIRED TO DEMONSTRATE TO THE SATISFACTION OF THE ARCHITECT/ ENGINEER THAT THE WHOLE SYSTEM MEETS THE OUTLINED DESIGN CRITERIA
- 15. BEFORE STARTING ANY WORK, THE FIRE PROTECTION CONTRACTOR SHALL CONSULT THE ARCHITECT'S DETAILED DRAWINGS AND STRUCTURAL DRAWINGS FOR SPACES AND HEADROOM ALLOWED FOR THE INSTALLATION OF ALL PIPING, EQUIPMENT, ETC. SHOULD ANY PIPING OR EQUIPMENT REQUIRE MORE SPACE THAN ALLOWED FOR, OR ENCROACH UPON SUSPENDED CEILINGS OR AVAILABLE HEADROOM AS PLANNED, THE FIRE PROTECTION CONTRACTOR SHALL CALL THE ARCHITECT'S/ ENGINEER'S ATTENTION TO SAME AND OBTAIN HIS APPROVAL BEFORE INSTALLING
- 16. REDUCING TYPE COUPLING SIMILAR TO "VICTAULIC" (OR APPROVED EQUAL) FIG. No. 750 AND FITTING STYLE FIG. No. 925 WILL NOT BE PERMITTED.
- 17. FITTINGS AND COUPLINGS FOR PLAIN END PIPE SIMILAR TO "VICTAULIC" (OR OTHER APPROVED EQUAL) FIT TYPE FITTINGS AND "ROUST-A-BOUT" AND "PLAINLOCK" COUPLINGS WILL NOT BE PERMITTED.
- 18. THE FIRE PROTECTION CONTRACTOR SHALL PROVIDE ALL NECESSARY STRUCTURAL MEMBERS, HANGERS AND SUPPORTS OF APPROVED DESIGN TO KEEP PIPING IN PROPER ALIGNMENT AND PREVENT TRANSMISSION OF INJURIOUS THRUSTS AND VIBRATIONS. IN ALL CASES, WHERE HANGERS, BRACKETS, ETC. ARE SUPPORTED FROM CONCRETE CONSTRUCTION, CARE SHALL BE TAKEN NOT TO WEAKEN CONCRETE OR PENETRATE WATERPROOFING. ALL HANGERS AND SUPPORTS SHALL BE CAPABLE OF SCREW ADJUSTMENT AFTER PIPING IS ERECTED. HANGERS SUPPORTING PIPING EXPANDING INTO LOOPS, BENDS AND OFFSETS SHALL BE SECURED TO THE BUILDING STRUCTURE IN SUCH A MANNER THAT HORIZONTAL ADJUSTMENT PERPENDICULAR TO THE RUN OF PIPING SUPPORTED MAY BE MADE TO ACCOMMODATE DISPLACEMENT DUE TO EXPANSION. ALL SUCH HANGERS SHALL BE FINALLY ADJUSTED, BOTH IN THE VERTICAL AND HORIZONTAL DIRECTION.
- A. PIPING SHALL NOT BE SUPPORTED FROM METAL DECKING.
- B. TRAPEZE TYPE HANGERS. IF REQUIRED. SHALL BE MADE UP OF ANGLES OR CHANNELS BOLTED BACK-TO-BACK FOR SUPPORTING PARALLEL LINES OF PIPING. TRAPEZE TYPE HANGERS SHALL BE SUPPORTED WITH SUSPENSION RODS HAVING DOUBLE NUTS SECURELY ATTACHED TO CONSTRUCTION WITH INSERTS, BEAM CLAMPS, STEEL FISH PLATES, CANTILEVER BRACKETS, LAG SCREWS OR OTHER APPROVED MEANS. USE APPROVED TYPE BRACKETS FOR SUPPORTING PIPING ATTACHED ALONG WALLS. FIRE PROTECTION PIPING SUPPORTED BY TRAPEZE HANGERS SHALL BE PROVIDED WITH HOLD DOWN
- C. PROVIDE NECESSARY LONGITUDINAL AND LATERAL SWAY BRACING FOR FEED AND CROSS MAINS. INDICATE LOCATION OF THE BRACES ON THE SHOP DRAWINGS. SUBMIT ALL DETAILS FOR SEISMIC HANGERS.
- D. SUPPORTS FOR VERTICAL PIPING SHALL BE DOUBLE BOLT RISER CLAMPS, WITH EACH END HAVING EQUAL BEARING ON THE BUILDING STRUCTURE. CUT EXISTING RISERS AND PROVIDE FLEXIBLE COUPLING ON ALL RISERS 4" AND LARGER AS REQUIRED BY NFPA. PROVIDE FLEXIBLE COUPLINGS AT ALL OTHER OTHER LOCATIONS AS REQUIRED BY NFPA-13. USE 4-WAY SWAY BRACE TO SECURE TOP OF EACH RISER AGAINST DRIFTING IN ANY DIRECTION.
- E. USE OF "C"-TYPE CLAMPS WITHOUT A RETAINING STRAP TO ATTACH HANGERS TO A BUILDING STRUCTURE IS PROHIBITED. USE OF "C"-TYPE CLAMPS WITH OR WITHOUT RETAINING STRAPS TO ATTACH BRACES TO THE BUILDING STRUCTURE IS PROHIBITED.
- F. THE ARCHITECT/ENGINEER MUST APPROVE METHOD OF SUPPORTING PIPES FROM BUILDING STRUCTURE BEFORE WORK IS STARTED. THIS CONTRACTOR SHALL BEAR ALL RESPONSIBILITY FOR MATERIALS AND WORKMANSHIP AS DESCRIBED IN THESE NOTES, AND SHALL MAKE SURE THAT ALL HANGERS AND SUPPORTS ARE PROPERLY AND PERMANENTLY CONNECTED TO THE BUILDING STRUCTURE.
- 19. WATERFLOW DETECTORS SHALL BE DESIGNED FOR MOUNTING ON EITHER VERTICAL OR HORIZONTAL PIPING, BUT SHALL NOT BE MOUNTED IN A FITTING OR WITHIN MINIMUM DISTANCE, AS DESCRIBED IN MANUFACTURER'S INSTALLATION RECOMMENDATIONS, OF ANY FITTING THAT CHANGES THE DIRECTION OF WATER
- 20. RISER AND BRANCH ASSEMBLIES, INCLUDING TRIMMINGS, SHALL BE INSTALLED AT LOCATIONS AS DIRECTED. APPROVED TYPE DEVICES SHALL BE INSTALLED FOR THE AUTOMATIC ANNUNCIATION OF THE FLOW OF WATER. EACH WET PIPE ASSEMBLY AND ITS APPURTENANCES SHALL BE SO ARRANGED AND EQUIPPED IN AN APPROVED MANNER THAT THE TRANSMISSION OF ACCIDENTAL WATERFLOW ALARMS (DUE TO SURGES OR RELATED CONDITIONS) WILL POSITIVELY BE PREVENTED.
- 21. DIRECT CONNECTION FROM ANY DRAIN TO ANY COMPONENT OF THE SANITARY OR STORM DRAINAGE SYSTEM SHALL BE PROHIBITED. 22. SPRINKLER HEADS INSTALLED IN FITTINGS BEFORE PIPING IS ERECTED SHALL BE
- A. TESTS ARE NOT PERMITTED TO BE MADE WITH AIR, EXCEPT WHEN SPECIFICALLY INDICATED, OR FOR DRY-PIPE SYSTEMS.

PERFORMING SYSTEMS TESTING.

- B. THIS CONTRACTOR SHALL PROVIDE ALL NECESSARY TEST PLUGS OR TEE FITTINGS DURING ERECTION OF PIPE SYSTEM FOR THE PURPOSE OF
- C. ALL PIPING WHICH IS TO BE ENCLOSED IN PARTITIONS OR SUSPENDED CEILINGS SHALL BE TESTED AND MADE TIGHT WHEN DIRECTED BY THE CONSTRUCTION SUPERVISOR AND IN ADEQUATE TIME TO PERMIT THE INSTALLATION OF PARTITIONS AND CEILINGS. WHEN NECESSARY, THIS CONTRACTOR SHALL DRAIN THE PIPING AND/OR TAKE SUCH PRECAUTIONS AS REQUIRED TO PREVENT DAMAGE BY FREEZING.

EXISTING PIPING TO REMAIN ACCESS DOOR CEILING — GATE VALVE (G.V.) CHECK VALVE —5— LOCKSHIELD VALVE (GLOBE VALVE) DOWN ——— CHECK VALVE (C.V.) ELEVATION PRESSURE REGULATING VALVE F.H.C. FIRE HOSE CABINET ——¹ SHOCK ABSORBER FIRE HYDRANT F.H.R. FIRE HOSE RACK GATE VALVE ////// PIPING COVERED WITH ELECTRIC HEAT TRACING CABLE AND INSULATION HOSE RACK —————— UNION CONNECTION N.I.C. NOT IN CONTRACT DRY PIPE VALVE OUTSIDE SCREW ALARM CHECK VALVE & YOKE ——— DF ———— DRY F.S.P. PLUGGED OUTLET UPRIGHT HEAD R.P.B. REDUCED PRESSURE BACKFLOW SIDEWALL HEAD PREVENTER HUNG CEILING, PENDANT HEAD R.C.V. RISER CONTROL HUNG CEILING RECESSED HEAD TAMPER SWITCH HUNG CEILING FLUSH HEAD U.O.S.W. UNDER ANOTHER HUNG CEILING CONCEALED HEAD SECTION OF THE WORK HUNG CEILING DRY PENDANT HEAD

KEY OF SYMBOLS

AUTOMATIC BALL

VALVED OUTLET

NOTE: THE KEY OF SYMBOLS INDICATED IS FOR CONVENIENCE ONLY AND ITEMS

XXX EXISTING PIPING TO BE REMOVED

INDICATED ARE NOT NECESSARILY WITHIN THE SCOPE OF THE WORK.

	FIRE SUPPRESSION DRAWING LIST	
SHEET	TITLE	SCALE
FX-000	FIRE SUPPRESSION SYMBOLS, ABBREVIATIONS, NOTES AND DRAWING LIST	NTS
FX-101	FIRE SUPPRESSION 1ST FLOOR PLAN	1/8" = 1'-0"
FX-500	FIRE SUPPRESSION DETAILS	NTS
FX-600	FIRE SUPPRESSION SCHEDULES	NTS
FX-700	FIRE SUPPRESSION RISER DIAGRAM	NTS

SPRINKLER DESIGN CRITERIA

- 1. THE COMPLETE FIRE PROTECTION SYSTEM FOR THIS BUILDING IS DESIGNED AS A SPRINKLER SYSTEM.
- 2. THE ENTIRE FACILITY SHALL BE FULLY SPRINKLERED INCLUDING ELECTRICAL AND TELEPHONE CLOSETS (AND OTHER SELECT AREAS INDICATED ON THE CONTRACT DRAWINGS), EXCEPT ELEVATOR MACHINE ROOMS AND SWITCHGEAR SPACES AND OTHER AREAS WITH THE (N.A.S.) "NO AUTOMATIC SPRINKLERS" NOTE. ALL AREAS WITHOUT AUTOMATIC SPRINKLER PROTECTION SHALL BE PROVIDED WITH SMOKE DETECTORS (SMOKE DETECTORS TO BE PROVIDED BY THE ELECTRICAL CONTRACTOR). SEE ELECT./TELE. SPACES NOTE, THIS DRAWING.
- IN AREAS WITH SUSPENDED CEILINGS, REFER TO THE LATEST ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT SPRINKLER HEAD LOCATIONS, BASED ON "AESTHETIC" VALUES ONLY.
- 4. ALL AREAS WITHOUT SUSPENDED CEILINGS: MECHANICAL ROOMS, STORAGE AREAS, HOUSEKEEPING CLOSETS, ETC. SHALL BE PROVIDED WITH EXPOSED UPRIGHT OR PENDENT SPRINKLER HEADS, AS REQUIRED TO SUIT CONSTRUCTION CONDITIONS. LOCATION AND TYPE OF SPRINKLER HEADS IN AREAS WITHOUT SUSPENDED CEILINGS SHALL BE FULLY COORDINATED WITH ARCHITECTURAL ELEMENTS (ACOUSTICAL PANELS, ETC.), EXPOSED STRUCTURAL ELEMENTS (BEAMS, COLUMNS, ETC.), LIGHTING EQUIPMENT AND HVAC EQUIPMENT (DUCTWORK, UNIT HEATERS, ETC.). ALL OF THE ABOVE ELEMENTS SHALL BE INDICATED ON THE SHOP
- 6. LOCATION OF ALL HVAC UNIT HEATERS SHALL BE COORDINATED WITH HVAC CONTRACTOR AND SHALL BE CLEARLY INDICATED ON THE SHOP DRAWINGS WITH PROPER RATING OF ADJACENT SPRINKLER HEADS. 7. COORDINATE LOCATION OF ALL HVAC DUCTS AND ELECTRICAL CONDUIT BANKS AND CABLE TRAYS IN AREAS WITH EXPOSED CEILINGS WITH HVAC AND ELECTRIC
- CONTRACTOR AND PROVIDE ADDITIONAL SPRINKLER HEADS AND PIPING FOR SAME UNDER DUCTS OR CLUSTER OF DUCTS, PIPING AND CONDUITS 48 INCHES IN WIDTH AND WIDER. . COORDINATE LOCATION OF ALL PENDANT LIGHTING FIXTURES WITH LIGHTING

CONTRACTOR AND INDICATE SAME ON THE SHOP DRAWINGS. TREAT ALL PENDENT

. PROVIDE HYDRAULIC CALCULATIONS AND SUBMIT THEM AS PART OF THE SHOP DRAWINGS. ALL CALCULATIONS SHALL BE PREPARED IN ACCORDANCE WITH "DESIGN CRITERIA FOR HYDRAULIC CALCULATIONS" AS INDICATED IN CONTRACT DOCUMENTS, THIS DRAWING.

LIGHTING AS AN OBSTRUCTION TO WATER DISTRIBUTION.

EXEMPT OF SPRINKLER PROTECTION.

- DESIGN CRITERIA FOR ELECTRICAL/TELEPHONE SPACES ALL SWITCHGEAR SPACES AND ELEVATOR MACHINE ROOMS SHALL BE
- ALL ELECTRICAL CLOSETS SHALL HAVE A NON-FERROUS METAL DRIP PAN DIRECTLY BELOW THE SPRINKLER PIPING ABOVE THE BUSWAY. ALL TELEPHONE SPACES SHALL BE PROVIDED WITH SPRINKLER

DESIGN CRITERIA FOR HYDRAULIC CALCULATIONS ALL SPRINKLER SYSTEMS THROUGHOUT THE BUILDING SHALL BE

- HYDRAULICALLY CALCULATED (BY THE FIRE PROTECTION SPRINKLER CONTRACTOR) BASED ON COORDINATED SHOP DRAWINGS.
- SPRINKLER SYSTEM LAYOUT AND CALCULATIONS SHALL COMPLY WITH ALL AUTHORITIES HAVING JURISDICTION.

OCCUPANCY CLASSIFICATION: LIGHT HAZARD THROUGHOUT EXCEPT

- SPACES USED AS STORAGE, MECHANICAL EQUIP. ROOMS, KITCHEN AND FOOD SERVICE AREAS AND PLACES OF ASSEMBLY.
- . SPRINKLERS PROTECTING LIGHT HAZARD OCCUPANCIES SHALL PROVIDE MINIMUM DENSITY OF DISCHARGE .10 GPM/SQ.FT. OVER MOST HYDRAULICALLY REMOTE 1,500 SQ. FT. MAXIMUM COVERAGE PER SPRINKLER HEAD 225 SQ. FT
- PLACES OF ASSEMBLIES, STORAGES, MECHANICAL EQUIPMENT ROOMS, KITCHEN AND FOOD SERVICE AREA SHALL BE CLASSIFIED AS ORDINARY HAZARD GROUP 1 OCCUPANCY. SPRINKLERS PROTECTING THESE SPACES SHALL PROVIDE A MINIMUM DENSITY OF DISCHARGE 0.16 GPM/SQ. FT OVER MOST HYDRAULICALLY REMOTE 1,500 SQ. FT., MAXIMUM COVERAGE PER SPRINKLER HEAD 130 SQ. FT.
- MINIMUM PRESSURE AT ANY SPRINKLER HEAD SHALL BE AS REQUIRED FOR THE MINIMUM DISCHARGE OF THE HEAD, BUT IN NO CASE LESS THAN 7 PSI. SPRINKLER HEADS LOCATED AT WATER CURTAIN SHALL PROVIDE MINIMUM 3 GPM PER LINEAR FOOT.

REGENERON

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Building #17 Campus Expansion Child Day-care Center

899 Old Saw Mill River Road Mount Pleasant, NY 10591

Project No. B17-DAYCARE

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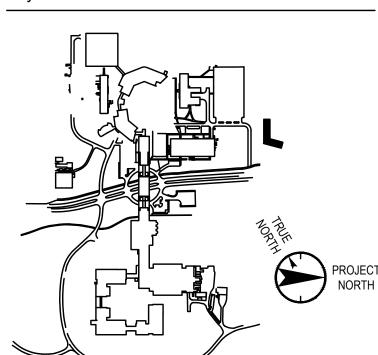
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Key Plan



No. Date Description 0 05.20.2022 ISSUED FOR PERMIT 1 06.20.2022 100% CONSTRUCTION DOCUMENTS 07.01.2022 100% CONSTRUCTION DOCUMENTS-1

Plot Date: 07.01.2022

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Professional Seal and Signature

Vendor Name: COSENTINI Vendor Project No.: 210104 Discipline: Fire Suppression Drawn By: DH FIRE SUPPRESSION SYMBOLS, ABBREVIATIONS,

Floor: N/A Scale: NTS

Alterations or additions to this engineering document

TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGMENT, THESE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE

2020 ENERGY CONSERVATION CODE OF NYS

This plan is approved only for work indicated on the application 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.

by an unlicensed person is a violation of Chapter 1 Title VIII, Article 145 § 7209.2 of the New York State Education Law.

AND DRAWING LIST

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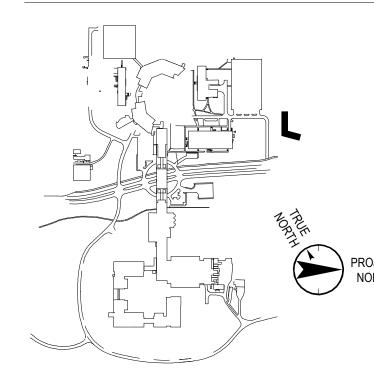
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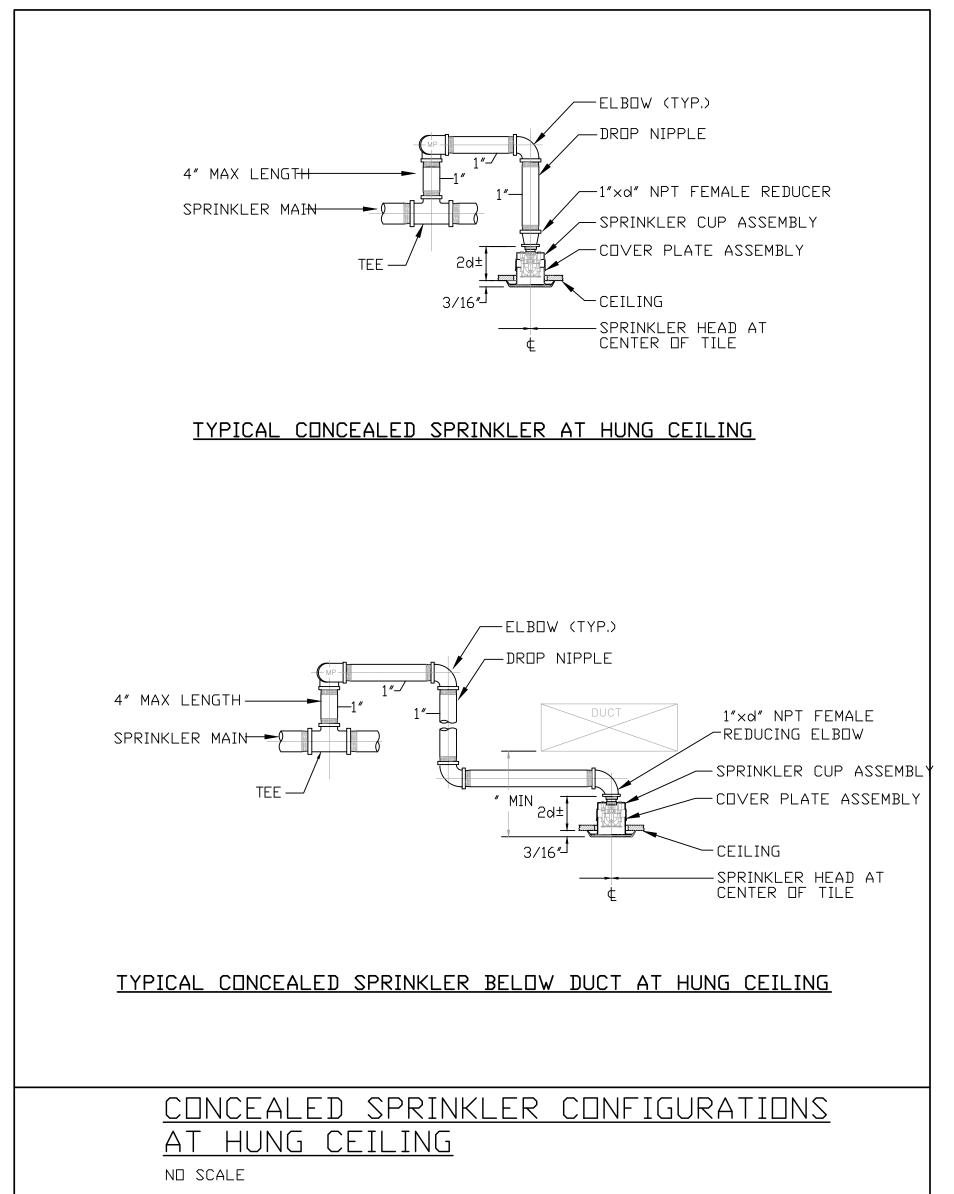
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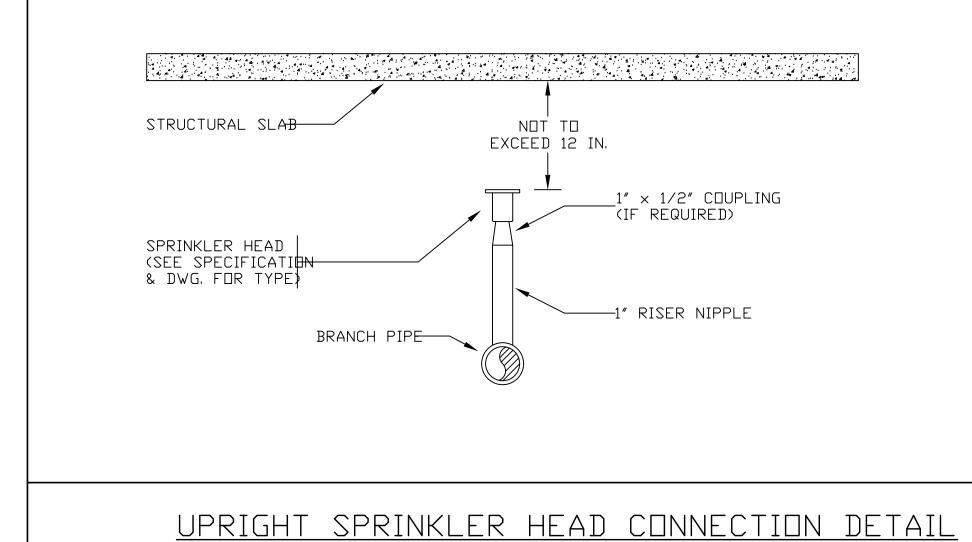
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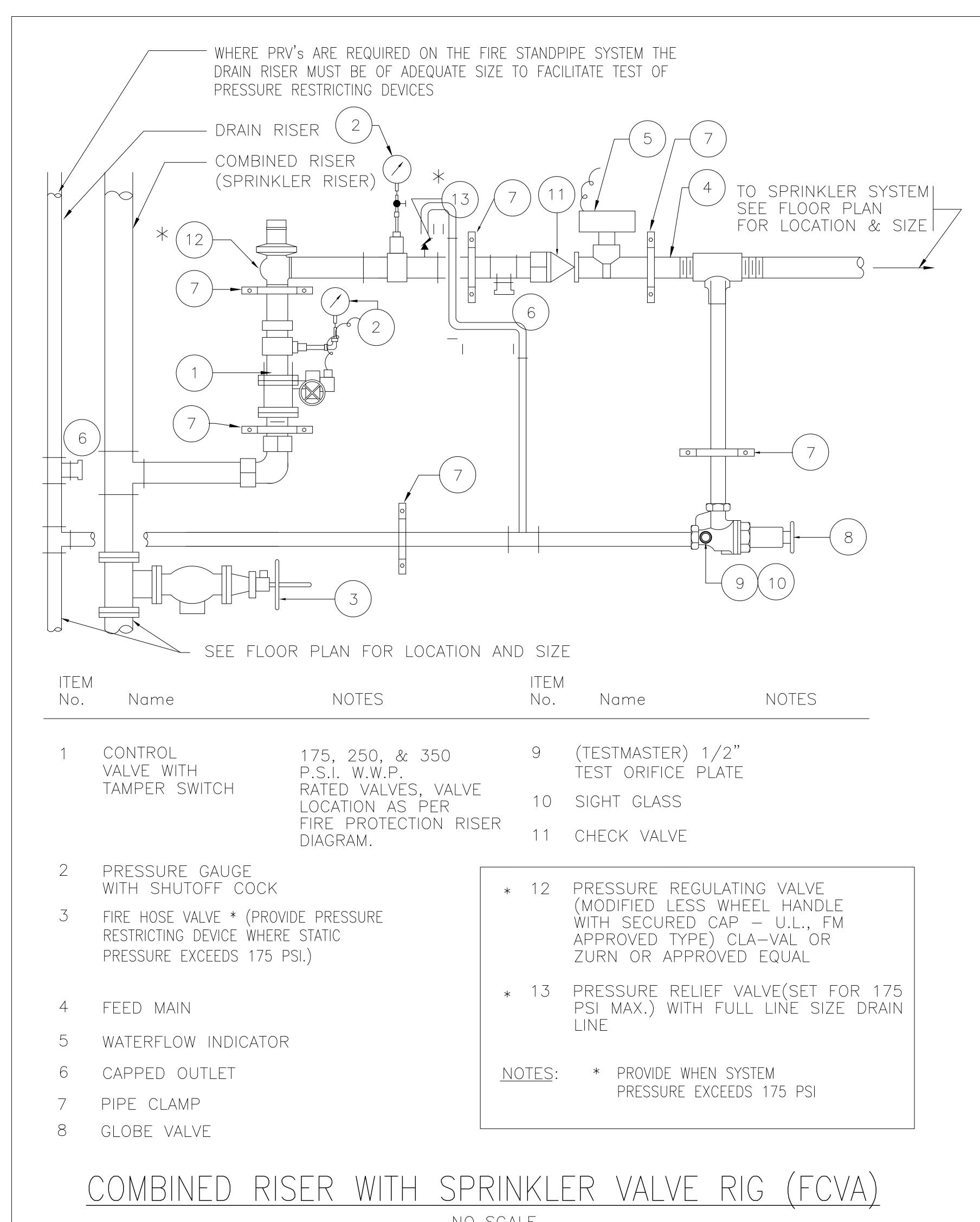
Vendor Name: COSENTINI
Vendor Project No.: 210104
Discipline: Fire Suppression Drawn By: DH
FIRE SUPPRESSION 1ST FLOOR PLAN

Scale: 1/8" = 1'-0" Floor: 1ST

2020 ENERGY CONSERVATION CODE OF NYS







TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGMENT, THESE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE 2020 ENERGY CONSERVATION CODE OF NYS

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Floor: N/A Scale: NTS FX-500

DETAILS

Discipline: Fire Suppression Drawn By: DH
FIRE SUPPRESSION

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Landscape Architect

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Civil Engineer

'A' 007 ZEROFLEX UL/FM APPROVED WITH LT. WALL PIPE ROLL GROOVE 350 PSI WWP 'B' 007 ZEROFLEX UL/FM APPROVED WITH LT. WALL PIPE ROLL GROOVE 400 PSI WWP 'C' 77 UL/FM APPROVED WITH LT. WALL PIPE ROLL GROOVE 450 PSI WWP 'D' 75 UL/FM APPROVED WITH LT. WALL PIPE ROLL GROOVE 450 PSI WWP

GENERAL NOTE: 1. FITTINGS AND PRESSURE RATINGS ARE UL LISTED. REFER TO MANUFACTURER FOR FACTORY MUTUAL APPROVED FITTING PRESSURE RATING.

• FIRE PROTECTION	<u>1 M</u>	AT	EF	7 1/	٩L	S	îC	HE	D	UL	Ē											
SYSTEM							IPE						ITTI	NGS	3				JOI	NTS	<u> </u>	
 NOTES: FOR REQUIRED PRESSURE RATINGS, REFER TO RISER DIAGRAM. ALL MATERIALS SELECTED ON THIS SCHEDULE MUST BE APPROVED BY THE LOCAL AUTHORITIES. TO BE USED DOWNSTREAM OF SPRINKLER FLOOR CONTROL VALVE (2½" AND LARGER ONLY). TO BE USED ON RISERS, MAINS, AND SPRINKLER BRANCH PIPING UP TO 2". COPPER TUBING TO BE USED FOR MRI AREA OF PRE-ACTION SPRINKLER SYSTEM ONLY USE OF ANY PIPING OR TUBING WITH I.D. OR O.D OTHER THAN SCHEDULE 10 OR SCHEDULE 40 IS NOT PERMITTED. 	KED	TYPE 'K' OR 'L' COPPER TUBING	z	M	STEEL SCHED 10	STEEL SCHED 30		ן	GALVANIZED	CEMENT LINED	MALLEABLE IRON	CLASS D	LINED	BLACK	VICTALIIIC	DUCTILE IRON	15		IT-FL	VICTAULIC (AS PER SPEC)	CAULKED	BRAZED
BURIED BUILDING FIRE SERVICE			•	•						•		•	•			•					•	
FIRE STANDPIPE						•		•			•		- 0		•) •					_	
SPRINKLER (SEE NOTE 3)	-							•			•	\perp			•		1	1			\dashv	
SPRINKLER (SEE NOTE 4)	$ \vdash$						_	•			•					•	+			\vdash	\dashv	
SPRINKLER DRAIN PIPE DRY SPRINKLER	-						<u> </u>								-	+	+		+		\dashv	
PRE—ACTION SPRINKLER (SEE NOTE 5)		•							•						+		•	•				•

SCHEDULE OF SPRINKLER HEADS MANUFACTURER SP. HD. MIN. FACTOR COVERAGE ORIFICE | FLOW PRESS. APPROVALS SYMBOL FINISH & REMARKS | RATING TYPE LOCATION & MODEL No. "VIKING" MODEL FINISHED CEILINGS Where indicated on RECESSED PENDENT AS APPROVED 155° UP TO FM CLASS 2015, 2017, & 2043 VK3021 BY ARCHITECT 15'X15' QUICK RESPONSE RECESSED NP-2 "VIKING" MICROSFAST | UPRIGHT AS APPROVED 1/2" | 0.20 155° UP TO FM CLASS EXPOSED CEILINGS MDDEL VK300 QUICK INDICATED ON 2002 & 2020 BY ARCHITECT 15'X15' RESPONSE PLANS UPRIGHT 1/2" | 0.20 "VIKING" MICROSFAST | EXPOSED SIDEWALL AS APPROVED UP TO FM CLASS TEL/DATA ROOM 155°

BY ARCHITECT

1. SPRINKLER HEADS SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS.

MODEL VK305 QUICK

SIDEWALL

RESPONSE HORIZONTAL

2. PROVIDE METAL WIRE GUARDS WHERE SPRINKLERS ARE SUBJECT TO DAMAGE, SUCH AS SPRINKLER HEADS LOCATED UNDER HVAC DUCTS IN MECHANICAL EQUIPMENT ROOMS WHEN LOCATED LOWER THAN 7'-O" A.F.F.

3. ALL SPRINKLER HEADS THROUGHOUT THE FACILITY SHALL BE 4. SPRINKLER HEADS MINIMUM FLOW & MINIMUM OF THE ORDINARY TEMPERATURE RATING EXCEPT AS FOLLOWS:

a. SPRINKLER HEADS LOCATED CLOSE TO HEATERS, STEAM PIPING OR LOW-PRESSURE BLOW-OFF VALVE SHALL BE OF THE TEMPERATURE RATING AS REQUIRED BY NFPA 13.

b. ALL HEAT GENERATING EQUIPMENT WHICH CAN AFFECT THE TEMPERATURE RATING OF THE SPRINKLER HEADS SHALL BE CLEARLY IDENTIFIED ON THE SHOP DRAWINGS PRIOR TO SUBMISSION FOR APPROVAL.

PRESSURE REQUIREMENTS TO BE BASED ON HYDRAULIC CALCULATION DESIGN DENSITIES.

14'X14'

5. ALL SPRINKLER HEAD FINISHES TO BE APPROVED BY ARCHITECT.

2020

6. COORDINATE ALL SPRINKLER COLOR FINISHES WITH ARCHITECT. SEE ARCHITECTURAL REFLECTED CEILING NOTES.

			FIRE				TC	Έ	CT	-IC	N	\	/A	LV	/E	,	SC	Н	ΙEΙ	Dι	JL	Ε									
		VALV	E SPECIFIC		<u> [10</u>	N_																					 _	_		_	
TYPE	MANUFACTURER	FIG. NO.	SIZE	THREADED	FLANGED		GATE VALVES	N.S.S.	BRONZE B-61		1ZE B-584	CAST IRON A-126		\exists	ICAL JOIN	DUCTILE IRON A-536	Ψ	C BSA/MEA	_	INDICATOR POST	WALL POST		200# WWP	250# WWP	300# WWP	l			600# WWF	≶ ≉	1480# WWP
GATE VALVES	Z Z Z Z	T-104-0 F-607-RW M-609-RW F-609-RW F-667-0	1/2"-2" 2 1/2"-12" 4"-12" 4"-12" 2"-12"	•	•		•	•		•		•		•	•	•	•	•				•		•				<u>+</u> +	<u>+</u>	+ + +	
		F-697-0 G-607RW	2 1/2"-10" 3"-8" 2 1/2"-12" 2"-12"		•	•	•					•	•	•		•	•	•				•		•	•			<u></u>	<u>+</u>		
CHECK VALVES	ZZZZC	KT-403-W	1/2"-3" 2 1/2"-12" 2 1/2"-6" 2 1/2"-6" 2 "-12"	•	•	•				•		•	•				•	•				•	•	•			•	 	+		
BUTTERFLY VALVES	X	LD3510-8 GD47658N BBHSLS02 BVHSCS02 705W	2"-12" 2 1/2"-8" 1"-2 1/2" 2"-2 1/2" 2 1/2"-6"	•	•	•					•					•	•	•						•	•	•	_ _ _	+ + +	_ _ _	_ _ _ _	
GLOBE & ANGLE VALVES BALL		T-331-HC KT-65-UL KT-211W-UL KT-67-UL	1/2"-1"	•				•		•	•						•		•			•			•		_ _ _	† + +	-	+ + +	
VALVES WALL AND INDICATOR POSTS	N	KT-585-70-UL NIP-1AJ NIP-2AJ	1/4 -3	•							•					•	•		(•	•						+	+			

MANUFACTURE KEY

N = NIBCO BALANCE OF VALVES LISTEDM = MILWAUKEE BUTTERFLY VALVES through 2 1/2" ONLY (BBHSCSO2 SERIES) FOR FIRE SPRINKLER SYSTEM

V= VICTAULIC FIRELOCK BUTTERFLY VALVE (FOR FIRE SPRINKLER SYSTEM) C = CRANE CAST STEEL GATE & CHECK VALVES (FIGS 175,76)

ABBREVIATIONS:

N.R.S.- NON-RISING STEM AWWA- AMERICAN WATER WORKS ASSOCIATIONS BS&A- N.Y.C. BOARD OF STANDARDS AND APPEALS

FACILITIES MANAGEMENT

Campus Expansion Child

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Mount Pleasant, NY 10591

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Building #17

www.regeneron.com

Day-care Center

Project No. B17-DAYCARE

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Key Plan

No. Date Description

Plot Date: 07.01.2022

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MEP / IT / Security Engineer

REGENERON

MEA- N.Y.C. MATERIAL AND ACCEPTANCE DIVISION

Discipline: Fire Suppression Drawn By: DH FIRE SUPPRESSION SCHEDULES

Floor: N/A Scale: NTS

FX-600

REGENERON

REAL ESTATE & FACILITIES MANAGEMENT

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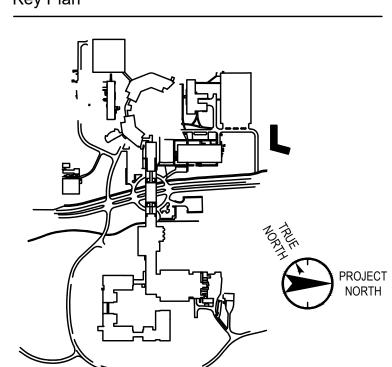
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Key Plan



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Professional Seal and Signature

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Vendor Project No.: 210104
Discipline: Fire Suppression Drawn By: DH
FIRE SUPPRESSION RISER DIAGRAM

Scale: NTS

Floor: N/A