



11/04/2019

NOVEL TURTLE CREEK

4251 IRVING AVENUE
DALLAS, TEXAS



No	Description	Date
	FOR PERMIT	11/04/19

WDG Architecture Project No:
DA18030

FIRE PROTECTION

FPO.01

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SPRINKLER SYSTEM DESIGN CRITERIA							
AREA DESCRIPTION	HAZARD CLASS	SYSTEM TYPE	DENSITY (GPM/SF)	COVERAGE AREA	HOSE STREAM	SPRINKLER TEMP. RATING	KEY NOTES
RESIDENTIAL AREAS, CORRIDORS AND AMENITIES AREAS.	LIGHT	WET NFPA 13	0.10	1500 SF	100 GPM	ORDINARY 155F	(1)(3)(6)
ATTIC AREAS, FLAT ROOF	LIGHT	DRY NFPA 13	0.10	1950 SF	100 GPM	INTERMEDIATE 200F	(2)(5)
LAUNDRY ROOMS, MECHANICAL ROOMS, POOL EQUIPMENT AREAS.	ORDINARY HAZARD GROUP 1	WET NFPA 13	0.15	1500 SF	250 GPM	INTERMEDIATE 200F	(4)
PARKING GARAGES AND DRIVE-UNDER OVERHANGS.	ORDINARY HAZARD GROUP 1	DRY NFPA 13	0.15	1950 SF	250 GPM	INTERMEDIATE 200F	(5)
GENERAL SPRINKLER SYSTEM NOTES:							
A. PRIOR TO BEGINNING THE SPRINKLER SYSTEM DESIGN, THE SPRINKLER CONTRACTOR SHALL MEET WITH THE THE OWNER OR OWNER'S REPRESENTATIVE AND DISCUSS THE TYPE, COLOR, AND GENERAL LOCATIONS OF ALL SPRINKLER HEADS IN THE PROJECT. THE SPRINKLER CONTRACTOR'S DESIGN MUST REFLECT THE AGREED UPON SPRINKLER TYPES FOR ALL AREAS. A RECORD OF THIS MEETING SHALL BE AVAILABLE TO THE ENGINEER UPON REQUEST.							
B. PRIOR TO THE MEETING BETWEEN THE OWNER AND THE SPRINKLER CONTRACTOR, SPRINKLER HEADS SHALL BE ASSUMED TO BE AS FOLLOWS UNLESS NOTED OTHERWISE ELSEWHERE: a. SPRINKLER HEADS SHALL BE CONCEALED TYPE (RECESSED WITH COVER PLATE), FAST RESPONSE SPRINKLERS IN ALL PUBLIC AREAS WITH A CEILING OF ANY TYPE, INCLUDING LAY-IN. b. SPRINKLER HEADS IN CEILING SERVING AREAS NOT VISIBLE TO THE PUBLIC MAY BE SEMI RECESSED OR CONCEALED TYPE. c. SPRINKLER HEADS SHALL BE UPRIGHT PENDANT, FAST RESPONSE SPRINKLERS IN ALL AREAS WITHOUT A CEILING. d. SIDE WALL SPRINKLER HEADS MAY NOT BE USED WHERE A CEILING CAVITY EXISTS THAT WILL ALLOW FOR THE INSTALLATION OF SPRINKLERS IN THE CEILING. e. SIDE WALL HEADS MAY ONLY BE USED INSIDE THE BUILDING IF THE PIPING FOR A SPRINKLER HEAD LOCATED ON THE CEILING WOULD BE EXPOSED TO A FREEZING CONDITION. f. IF SPRINKLER CONTRACTOR AND OWNER AGREE TO USING DIFFERENT HEAD TYPES FOR CERTAIN AREAS CONTRACTOR MUST INCLUDE LETTER FROM OWNER STATING THE CHANGE IS ACCEPTED PER THE PROVISIONS IN ITEM "A" ABOVE.							
C. MULTI-STORY BUILDINGS EXCEEDING TWO STORIES IN HEIGHT SHALL HAVE A FLOOR CONTROL VALVE, CHECK VALVE, MAIN DRAIN VALVE, AND A FLOW SWITCH FOR ISOLATION, CONTROL, AND ANNUNCIATION OF WATER FLOW AT EACH LEVEL. IN A NON-HIGH RISE BUILDING, THE TOP FLOOR MAY BE SUPPLIED FROM THE CONTROL ASSEMBLY ON THE FLOOR BELOW. LIGHT HAZARD BUILDINGS WITH A TOTAL COMBINED FLOOR AREA OF LESS THAN 52,000 SQ. FT. ARE EXEMPT FROM THIS REQUIREMENT UNLESS REQUIRED BY THE LOCAL AHJ.							
D. THE VELOCITY OF WATER IN THE SPRINKLER PIPING SYSTEM SHALL BE LIMITED TO 15 FEET PER SECOND OR LESS.							
E. IF, AT THE TIME OF CONSTRUCTION, ONE OR MORE AREAS ARE NOT CLEARLY DEFINED, THE SPRINKLER DESIGN SHALL BE BASED ON THE HYDRAULICALLY MOST DEMANDING CRITERIA OF THE POSSIBLE CHOICES.							
F. LISTED, EXTENDED HEADS, MAY BE USED WHERE APPROPRIATE ON THIS PROJECT.							
G. SEE CIVL SITE PLAN AND SPECIFICATIONS FOR BACKFLOW PREVENTOR REQUIREMENTS FOR THE FIRE PROTECTION WATER SERVICE UNLESS BACKFLOW PREVENTOR IS NOTED ON PLUMBING PLANS AS LOCATED INSIDE THE BUILDING.							
H. SEE CIVL OR OTHER AVAILABLE SITE DRAWINGS FOR LOCATION OF WATER MAIN TAP AND INFORMATION ON PUBLIC WATER MAIN CHARACTERISTICS.							
I. ALL SPRINKLER COMPONENTS SHALL COMPLY WITH THE LISTING AND/OR PERFORMANCE REQUIREMENTS OF NFPA 13.							
J. CPVC SPRINKLER PIPING MAY BE USED WHERE ALLOWED BY NFPA, THE LOCAL FIRE MARSHAL, AND THE LISTING DOCUMENTATION OF THE CPVC PIPING. USE OF CPVC PIPING MUST BE APPROVED BY THE OWNER PRIOR TO INSTALLATION.							
K. THE CONTRACTOR MUST COMPLY WITH ALL LOCAL CODES, ORDINANCES, AND OTHER REQUIREMENTS FOR THE SPRINKLER SYSTEM DESIGN. THIS MAY INCLUDE PROVIDING SPRINKLERS FOR AREAS THAT ARE NOT INDICATED ABOVE.							
L. ANY DEVIATIONS FROM THE REQUIREMENTS LISTED IN THIS SCHEDULE SHOULD BE CLEARLY MARKED ON THE SPRINKLER DRAWINGS WITH THE RELEVANT CODE SECTION ALLOWING THE DEVIATION NOTED.							
M. NO WET SPRINKLER PIPING SHALL BE RUN IN A LOCATION SUBJECT TO FREEZING TEMPERATURES. THIS INCLUDES RUNNING PIPE ABOVE ISOLATED UNHEATED AREAS OF THE BUILDING, EVEN IF INSIDE THE INSULATED ENVELOPE OF THE BUILDING.							
N. ALL SPRINKLER PIPING SHALL BE RUN TIGHT TO STRUCTURE ABOVE (OR INSIDE JOIST SPACE IF APPLICABLE) IN ORDER TO MAXIMIZE THE POTENTIAL FOR THE CEILING TO BE RAISED TO A HIGHER ELEVATION IN THE FUTURE WITH MINIMAL IMPACT TO THE SPRINKLER PIPING SYSTEM. ONLY PIPING FOR INDIVIDUAL SPRINKLER HEADS MAY BE DROPPED TO THE CEILING ELEVATION IN AREAS WITH LARGE ABOVE CEILING CAVITIES UNLESS DIRECTED OTHERWISE IN WRITING BY THE OWNER, ARCHITECT, OR PLUMBING ENGINEER.							
SPRINKLER SYSTEM KEY NOTES:							
(1) PROVIDE DRY PENDANT OR SIDEWALL, FAST RESPONSE SPRINKLERS AT ALL BALCONIES, PORCHES, OUTDOOR CORRIDORS, UNHEATED STORAGE ROOMS, UNHEATED ELECTRICAL ROOMS, AND BELOW ALL EXTERIOR OVERHANGS, ROOFS, OR CANOPIES EXCEEDING 4 FEET IN WIDTH.							
(2) SPRINKLERS IN ATTIC SHALL BE QUICK RESPONSE TYPE LISTED FOR DRY PIPE SYSTEMS.							
(3) RESIDENTIAL AREAS SHALL COMPLY WITH NFPA 13 NOT NFPA 13R.							
(4) SPRINKLERS LOCATED IN ROOMS WITH INDOOR SWIMMING POOLS, HOT TUBS, POOL EQUIPMENT, OR HAVING POOL CHEMICAL STORAGE, SHALL BE PROTECTED AGAINST CORROSION.							
(5) COVERAGE AREA HAS BEEN INCREASED BY 30% FOR A DRY PIPE SYSTEM.							
(6) SPRINKLER HEADS SHALL HAVE A TEMPERATURE RATING OF 175F WHEN PROVIDED IN APARTMENT HVAC CLOSETS OR IN CLOSETS WITH STACKED WASHERS AND DRYERS.							

FIRE PROTECTION SYSTEMS – UNHEATED SPACES
THERE ARE SEVERAL SPACES ON THIS PROJECT THAT ARE LOCATED IN AREAS WHERE FREEZING CONDITIONS MAY OCCUR. THE CONTRACTOR SHALL PROVIDE A SPRINKLER SYSTEM IN THESE AREAS THAT WILL BE PROTECTED FROM FREEZING TEMPERATURES. THE CONTRACTOR SHALL ALSO PROTECT ANY SUPPLY PIPING THAT IS ROUTED THROUGH THESE AREAS FROM FREEZING. PROTECTION MAY BE IN THE FORM OF DRY SYSTEMS, DRY TYPE HEADS, HEAT TRACE, ANTIFREEZE SOLUTIONS, OR A COMBINATION OF THESE SYSTEMS AS APPROVED BY THE LOCAL AUTHORITY.
FIRE PROTECTION PIPE SHALL NOT BE RUN THROUGH AN UNHEATED SPACE WHERE AN ALTERNATE ROUTE THROUGH A HEATED SPACE EXISTS.
AT THE TIME OF DESIGN, THE SPACES LISTED BELOW ARE KNOWN TO BE UNHEATED AND SUBJECT TO FREEZING. OTHER AREAS NOT LISTED MAY ALSO BE SUBJECT TO FREEZING TEMPERATURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING THE FULL SET OF DRAWINGS FOR THE PROJECT, INCLUDING ALL ARCHITECTURAL AND HVAC PLANS AND IDENTIFYING THESE ADDITIONAL AREAS.
1. BALCONIES 2. PORCHES 3. STAIRWELLS 4. GARAGE 5. STORAGE ROOMS 6. ATTIC AREAS 7. LOADING DOCKS 8. TRASH ROOMS

STANDPIPE NOTES
ALL BUILDINGS FOUR STORIES OR MORE IN HEIGHT SHALL BE PROVIDED WITH STANDPIPE SYSTEMS MEETING THE FOLLOWING REQUIREMENTS:
1. CONTRACTOR SHALL PROVIDE STANDPIPES IN ALL STAIRS AND OTHER LOCATIONS AS INDICATED ON PLANS.
2. CONSULT ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF ALL STANDPIPES.
3. STANDPIPES LOCATED IN STAIRWELLS SHALL BE ON INTERMEDIATE OR MAIN LANDINGS AS DIRECTED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
4. ALL STANDPIPE SYSTEMS MUST COMPLY WITH THE REQUIREMENTS OF NFPA 14.
5. STANDPIPE HOSE VALVES SHALL BE MOUNTED BETWEEN 36" AND 48" ABOVE THE FINISHED FLOOR.
6. WET STANDPIPE SYSTEMS MAY BE USED AS COMBINATION STANDPIPES TO SUPPLY WATER TO THE BUILDING FIRE SPRINKLER SYSTEM.
7. STANDPIPES LOCATED IN UNHEATED AREAS SHALL BE DRY STANDPIPES.
8. STANDPIPES IN HIGH RISE BUILDINGS SHALL BE AUTOMATIC STANDPIPES WITH AN OUTLET PRESSURE OF 100 PSI ON THE TOP FLOOR.

FIRE PUMP SYSTEM SCHEDULE						
EQUIPMENT	DESIGN BASIS	PUMP TYPE	GPM	PRESSURE BOOST	MOTOR HP	
FIRE PUMP	SPRINKLER SYSTEM	VERTICAL IN-LINE	1000	185 PSI	155	
JOCKEY PUMP	PRESSURE MAINTENANCE	VERTICAL MULTISTAGE	10	200 PSI	5	

FIRE PUMP GENERAL REQUIREMENTS:

- PROVIDE A UL LISTED, FM APPROVED FIRE PUMP SYSTEM MEETING THE PERFORMANCE SCHEDULED ABOVE. THE FIRE PUMP SYSTEM SHALL CONSIST OF A FIRE PUMP WITH CONTROLLER, JOCKEY PUMP WITH JOCKEY PUMP CONTROLLER, AND ALL ACCESSORIES LISTED BELOW AND SHOWN ON THE FIRE PUMP DETAIL OR FIRE PROTECTION PLANS.
- THE COMPLETED FIRE PUMP SYSTEM SHALL BE IN ACCORDANCE WITH NFPA-20, LATEST EDITION, NFPA 13, AND LOCAL CODE REQUIREMENTS.
- FIRE PUMP, CONTROLLER, ALL VALVES ASSOCIATED WITH THE FIRE PUMP SYSTEM, AND ALL ACCESSORIES REQUIRED TO BE MONITORED BY NFPA 20 OR NFPA 13 SHALL BE CONNECTED TO THE NEAREST BUILDING FIRE ALARM CONTROL PANEL FOR SUPERVISION AND ALARM.
- THE CONTRACTOR MAY PROVIDE A SKID MOUNTED PUMPING SYSTEM OR BUILD THEIR OWN FIRE PUMP SYSTEM. ALL CONTROL WIRING BETWEEN COMPONENTS MUST BE PROVIDED BY THE CONTRACTOR WHERE THE CONTRACTOR HAS CHOSEN TO BUILD THEIR OWN SYSTEM.
- IF THE CONTRACTOR MUST PROVIDE A SEPARATE 1/4" PER FOOT SCALE DRAWING OF THE FIRE PUMP ROOM TO THE ARCHITECT AND ENGINEER PRIOR TO ORDERING EQUIPMENT. THIS DRAWING MUST SHOW ALL EQUIPMENT THAT WILL BE LOCATED IN THE ROOM, REGARDLESS OF TRADE (I.E. DOMESTIC BOOSTER PUMPS, BACKFLOW PREVENTORS, ETC), ALONG WITH REQUIRED SERVICE CLEARANCES. THE PURPOSE OF THIS DRAWING IS TO ENSURE THAT ALL COMPONENTS WILL FIT WITHIN THE ROOM PROVIDED BEFORE EQUIPMENT IS ON SITE. THE FIRE PUMP PACKAGE WILL NOT BE APPROVED UNTIL THIS DRAWING HAS BEEN APPROVED BY THE MEP DESIGN TEAM AND THE ARCHITECT.
- FIRE PUMP SHALL BE TESTED ON SITE WITH THE AHJ PRESENT DURING THE TEST IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA 20 FOR A "FIELD ACCEPTANCE TEST". RESULTS OF THIS TEST SHALL BE AVAILABLE TO THE ENGINEER ON REQUEST AND SHALL BE MADE PART OF THE O&M MANUAL PROVIDED TO THE OWNER. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND ARCHITECT WITHIN 24 HOURS IF THE RESULTS OF THE "FIELD ACCEPTANCE TEST" DO NOT CORRESPOND TO THE VALUES USED FOR THE HYDRAULIC CALCULATIONS USED IN THE SPRINKLER CONTRACTOR SHOP DRAWING SUBMITTAL.
- FIRE PUMPS AND JOCKEY PUMPS SHALL HAVE A NOMINAL MOTOR RPM VALUE OF 3600 RPM OR LESS.

PROVIDE THE FOLLOWING ACCESSORIES:

- SUCTION DISKY GATE VALVE – MONITORED BY FIRE ALARM SYSTEM
- DISCHARGE BUTTERFLY VALVE – MONITORED BY FIRE ALARM SYSTEM
- SILENT CHECK VALVE
- SUCTION & DISCHARGE PRESSURE GAUGES – 3.5" GAUGES WITH 1/2" GAUGE VALVE
- VENTURI FLOW METER
- AIR RELIEF VALVE
- SENSING LINE
- TEST HEADER ON EXTERIOR WALL
- JOCKEY PUMP
- FITTINGS SHALL BE ANSI.
- JOCKEY PUMP CONTROLLER ALL FACTORY WIRED WITH THE FOLLOWING:
A. HAND – OFF – AUTOMATIC SWITCH
B. INTEGRAL OVERCURRENT PROTECTION
- FIRE PUMP CONTROLLER ALL FACTORY WIRED WITH THE FOLLOWING:
A. SOLID STATE REDUCED VOLTAGE STARTER SET AT 65% OF LOCK ROTOR AMPERES
B. INTEGRAL DISCONNECT
C. INTEGRAL OVERCURRENT PROTECTION
D. INTEGRAL TRANSFER SWITCH FOR CONNECTION TO BACK-UP POWER.
E. VALIDATE COMPATIBILITY WITH PUMP MOTOR PRIOR TO INSTALLATION.
- SEE ELECTRICAL DRAWINGS FOR VOLTAGE AND PHASE REQUIREMENTS FOR ALL COMPONENTS.
- HYDROSTATICALLY TEST AT FACTORY AT 200 PSI AND PROVIDE A FIELD ACCEPTANCE TEST.
- WARRANTY: 18 MONTHS FROM DATE OF SHIPMENT OR 12 MONTHS FROM STARTUP (WHICHEVER IS LONGER).
- SEE FIRE PUMP DETAIL FOR ADDITIONAL INFO.

FIRE PROTECTION SCOPE – NEW SYSTEM
THE CONTRACTOR SHALL PROVIDE A RISER AND FULL DISTRIBUTION PIPING, SPRINKLER HEADS, AND ALL OTHER COMPONENTS TO PROVIDE A COMPLETE SYSTEM. PROVIDE SPRINKLER HEADS AND PIPING TO MEET THE CEILING TYPE AND HAZARD CLASSIFICATION (DESIGN CRITERIA). THE SYSTEM SHALL BE HYDRAULICALLY DESIGNED. SUBMIT SHOP DRAWINGS INCLUDING HYDRAULIC CALCULATIONS DETAILING THE SYSTEM DESIGN AND PERFORMANCE.
SPRINKLER CONTRACTOR SHALL OBTAIN A NEW FLOW TEST UPON AWARDING OF THE PROJECT TO THE SPRINKLER CONTRACTOR. THE SPRINKLER SYSTEM SHALL BE DESIGNED TO WORK WITHIN THE PRESSURE AND FLOW LIMITS OF THIS FLOW TEST WITHOUT THE USE OF A FIRE PUMP UNLESS A FIRE PUMP HAS BEEN INDICATED ON THIS SET OF DRAWINGS. IF THE SYSTEM CANNOT BE MADE TO WORK WITHOUT THE USE OF A FIRE PUMP, THE CONTRACTOR SHALL PROVIDE THE ENGINEER A WRITTEN NOTIFICATION OF THE NEED FOR A FIRE PUMP. THIS NOTIFICATION SHALL INCLUDE HYDRAULIC CALCULATIONS FOR THE SYSTEM SHOWING THAT THE AVAILABLE PRESSURE IS INADEQUATE.
FOLLOW THE SPECIFICATIONS, NOTES, AND SCHEDULES IN THIS DRAWING SET FOR ADDITIONAL REQUIREMENTS.
NOTE:
1. THE FIRE SPRINKLER CONTRACTOR SHALL PROVIDE AND INSTALL A BACKFLOW PREVENTER (LISTED) AT A LOCATION INDICATED BY THE PLUMBING AND/OR CIVIL DRAWINGS. BFP SHALL BE SIZED TO MINIMIZE PRESSURE DROP. IF THE BACKFLOW PREVENTER IS LOCATED OUTSIDE OF THE SPRINKLER CONTRACTOR'S SCOPE OF WORK (I.E. IS IN A VAULT AND PART OF SITE UTILITY WORK), THE SPRINKLER CONTRACTOR, THE INSTALLING CONTRACTOR, AND THE GENERAL CONTRACTOR SHALL HAVE A FACE TO FACE MEETING TO COORDINATE THE NEEDS OF THE SPRINKLER DESIGN AND CHARACTERISTICS OF THE BACKFLOW PREVENTOR PRIOR TO THE BFP BEING ORDERED. RECORDS OF THIS MEETING, INCLUDING MEETING MINUTES AND ATTENDEES, SHALL BE MADE AVAILABLE TO THE OWNER AND THE DESIGN TEAM UPON REQUEST. THE BACKFLOW PREVENTOR MUST COMPLY WITH THE CHARACTERISTICS REQUIRED OF THE SPRINKLER DESIGN AND SHALL MATCH THE CHARACTERISTICS USED IN THE SPRINKLER HYDRAULIC CALCULATIONS.
2. HYDRAULIC CALCULATIONS SHALL TAKE INTO ACCOUNT THE BFP AND EXTERIOR PIPING FROM THE FLOW TEST HYDRANT.
3. CONTRACTOR SHALL CONFIRM THAT WATER FLOW AND PRESSURE IS ADEQUATE FOR THE DESIGN AND IF NOT NOTIFY THE ARCHITECT AND ENGINEER PRIOR TO INSTALLING OR ORDERING SYSTEM COMPONENTS.
4. ALL PIPING ABOVE GRADE SHALL BE PROPERLY SUPPORTED FROM THE BUILDING STRUCTURE AND SHALL NOT REST ON CEILING TILES OR BE SUPPORTED FROM CEILING TILES.
5. FIRE PROTECTION PIPING IS NOT TO BE INSTALLED IN ELECTRICAL ROOMS OR CLOSETS, OR TELEPHONE ROOMS EXCEPT THAT PIPING SERVING THAT SPECIFIC ROOM.
6. LOCATE ALL SECTIONAL OR MAIN CONTROL VALVES WITHIN 1'-0" FROM ACCESS PANELS, CEILING TILES, OR OTHER POINT OF ACCESS.
7. PROVIDE A MANUFACTURED EXPANSION DEVICE OR FABRICATED EXPANSION LOOP ON ALL PIPING SYSTEMS CROSSING BUILDING EXPANSION JOINTS.
8. CONTRACTOR SHALL COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL FIRE PROTECTION EQUIPMENT WITH THE ELECTRICAL DRAWINGS AND THE ELECTRICAL CONTRACTOR, AND SHALL FURNISH EQUIPMENT WIRED FOR THE VOLTAGES SHOWN THEREIN.
9. THE FIRE PROTECTION CONTRACTOR, ELECTRICAL CONTRACTOR, HVAC CONTRACTOR, PLUMBING CONTRACTOR, GENERAL CONTRACTOR, AND ANY OTHER CONTRACTOR THAT MAY HAVE INSTALLATION WORK TO PERFORM WHERE SPRINKLER PIPING IS TO BE INSTALLED, SHALL HAVE A FACE TO FACE MEETING PRIOR TO BEGINNING CONSTRUCTION TO COORDINATE THE INSTALLATION NEEDS OF THE SPRINKLER SYSTEM WITH OTHER TRADES FOR THE PURPOSE OF IDENTIFYING AND AVOIDING INSTALLATION CONFLICTS DURING CONSTRUCTION. RECORDS OF THIS MEETING, INCLUDING MEETING MINUTES AND A LIST OF ATTENDEES, SHALL BE MADE AVAILABLE TO THE OWNER AND THE DESIGN TEAM UPON REQUEST.
10. ALL PIPE PENETRATIONS OF FIRE AND/OR SMOKE-RATED ASSEMBLIES SHALL BE FIRE-STOPPED AS REQUIRED TO RESTORE ASSEMBLY TO ORIGINAL INTEGRITY. FIRE BARRIER PRODUCTS SHALL BE AS MANUFACTURED BY 3M COMPANY, CP25 CALK, CS195 COMPOSITE PANEL, FS195 WRAP/STRIP, OR PSS 7900 SERIES SYSTEMS AS RECOMMENDED BY MANUFACTURER FOR PARTICULAR APPLICATION, OR EQUIVALENT SYSTEM AS APPROVED BY LOCAL CODE OFFICIALS.

DRY PIPE SYSTEM NOTES
PROVIDE A DRY PIPE SYSTEM IN COMPLIANCE WITH NFPA 13 FOR THE AREAS INDICATED IN THE DESIGN CRITERIA NOTED ON THIS SHEET. SYSTEM SHALL BE HYDRAULICALLY DESIGNED AND ALL COMPONENTS SHALL BE LISTED FOR FIRE PROTECTION SERVICE.
DRY PIPE VALVE SHALL BE ACCESSIBLE AND IN THE HEATED RISER ROOM.
SYSTEM SHALL HAVE A MAXIMUM 750 GALLON SYSTEM CAPACITY ON ONE DRY VALVE UNLESS DESIGNED TO HAVE WATER FLOW WITHIN 60 SECONDS TO THE TEST CONNECTION. BRANCH LINES SHALL BE PITCHED 1/2" PER 10 FT BACK TO MAIN, AND THE MAIN LINE SHALL BE PITCHED MINIMUM OF 1/4" PER 10 FT BACK TO THE SOURCE. ALL WATER SHALL BE CAPABLE OF DRAINING FROM SYSTEM. SYSTEM SHALL BE TESTED AND COMPLETELY DRIED OUT PRIOR TO PLACING IN SERVICE.
SYSTEM SHALL HAVE AN AUTOMATIC AIR COMPRESSOR MOUNTED ON THE PIPE, WITH VIBRATION ISOLATION, AND THE SYSTEM SHALL BE SUPPLIED WITH PRESSURIZED AIR (NOT NITROGEN GAS). COMPRESSOR SHALL BE CAPABLE OF FILLING SYSTEM WITHIN 30 MINUTES. COMPRESSOR SHALL BE SINGLE STAGE OIL FREE TYPE, AIR COOLED, ELECTRIC MOTOR DRIVEN EQUIPPED WITH A CHECK VALVE, PRESSURE SWITCH, PRESSURE MAINTENANCE DEVICE, AND A SAFETY RELIEF VALVE SET AT 10 PSI IN EXCESS OF THE SYSTEM OPERATING PRESSURE WHICH SHALL BE 20 PSI GREATER THAN THE DRY VALVE TRIP PRESSURE BASED ON THE HIGHEST NORMAL WATER PRESSURE. PROVIDE ALL GAUGES AND ACCESSORIES IN ADDITION TO THOSE ITEMS MENTIONED HERE FOR A COMPLETE SYSTEM.
THE CONNECTION PIPE FROM THE AIR COMPRESSOR SHALL BE 1/2" IN DIAMETER AND SHALL ENTER THE SYSTEM ABOVE THE PRIMING WATER LEVEL OF THE DRY PIPE VALVE.
EACH DRY PIPE VALVE SHALL BE EQUIPPED WITH A LOCAL ALARM DEVICE CONSISTING OF A HORN OR BELL, SILENCE SWITCH, LOW ALARM LIGHT, AND TROUBLE LIGHT. THE ALARM DEVICE SHALL BE ACTIVATED BY A LOW PRESSURE SWITCH. THE TROUBLE LIGHT SHALL ILLUMINATE UPON OPERATION OF THE SILENCE SWITCH AND SHALL BE DEENERGIZED UPON RETURN OF THE SYSTEM TO ITS NORMAL POSITION. PRESSURE SWITCH SHALL BE ADJUSTABLE AND SHALL BE CAPABLE OF BEING WIRED FOR A NORMALLY OPEN OR NORMALLY CLOSED CIRCUIT.
PIPE AND COMPONENTS SHALL BE AS INDICATED IN THE FIRE PROTECTION SPECS LISTED ON THIS SHEET.
HANGARS SHALL BE INSTALLED WHERE ARM OVERS EXCEED 12 INCHES.
PROVIDE AN AIR PRESSURE TEST IN ADDITION TO THE REQUIRED HYDROSTATIC TEST. AIR PRESSURE TEST SHALL BE PERFORMED.

FLOW TEST DATA	
UPON AWARDING OF CONTRACT THE FIRE PROTECTION CONTRACTOR SHALL PERFORM A FLOW TEST ON THE TWO HYDRANTS NEAREST THE SITE AND FORWARD THE DATA TO THE ENGINEER AND ARCHITECT.	
PROVIDER OF TEST	CITY OF DALLAS
DATE OF TEST	11/20/2018
TIME OF DAY OF TEST	10:30 AM
LOCATION OF FLOW HYDRANT	#4211
ELEVATION OF HYDRANT	—FT
STATIC PRESSURE	56 PSI
RESIDUAL PRESSURE	50 PSI
FLOW	1259 GPM