

REV	DATE	DESCRIPTION	NAME
PROJECT NO. 14084	07/28/14	ISSUE TO PERMIT	
DRAWN BY: RSH	10/06/14	ISSUE TO BID	
CHECKED BY: SP			ELITE CONSTRUCTION GROUP
ISSUE DATE			PHONE: 572-382-0072
07/28/14			140 UNIVERSITY TOWN CENTER DRIVE - SUITE 420
			SARASOTA, FL 34243
			SPACE # 210 STORE # 786
			FIRE PROTECTION SPECIFICATIONS

UNIVERSITY TOWN CENTER

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GENERAL

THE GENERAL CONDITIONS, SUPPLEMENTARY CONDITIONS AND INSTRUCTIONS TO BIDDERS SHALL APPLY TO AND BE PART OF THIS SPECIFICATION.

CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, RULES AND REGULATIONS.

CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, CERTIFICATES OF INSPECTION AND APPROVALS REQUIRED.

CONTRACTOR SHALL SUBMIT SPRINKLER DRAWINGS TO LANDLORD'S RISK INSURER FOR APPROVAL.

SCOPE OF WORK

FIRE PROTECTION DEMOLITION OF FIRE PROTECTION DISTRIBUTION PIPING FROM EXISTING MAIN LEFT FROM DEMOLITION.

FIRE PROTECTION DISTRIBUTION PIPING FROM EXISTING MAINS AND SPRINKLERS TO NEW SPRINKLER HEAD LOCATIONS. MODIFY EXISTING SPRINKLER PIPING (MAINS AND BRANCHES) AS REQUIRED TO ACHIEVE THE DESIGN INTENT. PROVIDE ANY AND ALL ADDITIONAL SPRINKLER HEADS AS REQUIRED TO PROVIDE A COMPLETE CODE COMPLIANT SPRINKLER SYSTEM.

SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING AND REPLACING OF CEILINGS IN AREAS WHERE NEW PIPING IS TO BE INSTALLED IN THE EXISTING BUILDING.

WHERE CONCEALING SPRINKLER PIPING IS NOT POSSIBLE, SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR PAINTING ALL EXPOSED SPRINKLER PIPING IN FINISHED SPACES. COORDINATE COLOR WITH ARCHITECT.

GENERAL STANDARDS

THE APPLICABLE PROVISIONS OF THE FOLLOWING STANDARDS SHALL GOVERN:

AMERICAN SOCIETY FOR TEST MATERIALS (ASTM);
AMERICAN STANDARDS ASSOCIATION (ASA);
UNDERWRITERS LABORATORIES (UL);
NATIONAL FIRE PROTECTION ASSOCIATION (NFPA);
STATEWIDE BUILDING CODE.
OWNER'S INSURANCE UNDERWRITER
LOCAL FIRE DEPARTMENT REGULATIONS

THE INSTALLATION OF ALL SPRINKLER WORK SHALL CONFORM TO THE APPLICABLE LOCAL CODES AND STATUTES.

QUALITY ASSURANCE

MANUFACTURERS: FIRMS REGULARLY ENGAGED IN MANUFACTURE OF FIRE PROTECTION PIPING SYSTEMS PRODUCTS, OF TYPES, MATERIALS, AND SIZES REQUIRED, WHOSE PRODUCTS HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR NOT LESS THAN 5 YEARS.

INSTALLER: FIRM WITH AT LEAST 3 YEARS OF SUCCESSFUL INSTALLATION EXPERIENCE ON PROJECTS WITH FIRE PROTECTION PIPING SYSTEMS WORK SIMILAR TO THAT REQUIRED FOR PROJECT.

NFPA CODE: COMPLY WITH ANSI/NFPA 13, "INSTALLATION OF SPRINKLER SYSTEMS" AND NFPA 14, "STANDARD FOR THE INSTALLATION OF STANDPIPE AND HOSE SYSTEMS".

UL LABELS: PROVIDE FIRE SPRINKLER PIPING PRODUCTS WHICH HAVE BEEN APPROVED AND LABELED BY UNDERWRITERS LABORATORIES.

LOCAL FIRE DEPARTMENT/MARSHALL REGULATIONS: COMPLY WITH GOVERNING REGULATIONS PERTAINING TO FIRE PROTECTION PIPING.

STATE BUILDING CODE: COMPLY WITH GOVERNING REGULATIONS PERTAINING TO FIRE PROTECTION SYSTEMS.

SUBMITTALS

PRODUCT DATA: SUBMIT MANUFACTURER'S DATA FOR FIRE PROTECTION SYSTEMS, MATERIALS AND PRODUCTS.

SHOP DRAWINGS: SUBMIT SCALED LAYOUT DRAWINGS FOR FIRE PROTECTION PIPE AND FITTINGS INCLUDING, BUT NOT NECESSARILY LIMITED TO, PIPE AND TUBE SIZES, LOCATIONS, ELEVATIONS AND SLOPES OF HORIZONTAL RUNS, WALL AND FLOOR PENETRATIONS, AND CONNECTIONS. SHOW INTERFACE AND SPATIAL RELATIONSHIP BETWEEN PIPING AND PROXIMATE EQUIPMENT.

SUBMIT SHOP DRAWINGS TO ENGINEER FOR REVIEW AND APPROVAL, PRIOR TO SUBMISSION TO APPROPRIATE AUTHORITY AND PRIOR TO INSTALLATION OF ANY PORTION OF BOTH UNDERGROUND AND OVERHEAD SYSTEMS.

APPROVAL DRAWINGS: PREPARE APPROVAL DRAWINGS OF FIRE PROTECTION SYSTEMS INDICATING PIPE SIZES, PIPE LOCATIONS, FITTINGS, SHUTOFFS, EQUIPMENT, ETC. SUBMIT ONE COPY, BEARING THE STAMP AND SIGNATURE OF A LICENSED SPRINKLER CONTRACTOR, TO THE AGENCY HAVING JURISDICTION, BEFORE PROCEEDING WITH INSTALLATION.

APPROVAL CALCULATION: PREPARE HYDRAULIC CALCULATIONS OF FIRE PROTECTION SYSTEMS. SUBMIT ONE COPY, BEARING THE STAMP AND SIGNATURE OF A LICENSED SPRINKLER CONTRACTOR TO THE AGENCY HAVING JURISDICTION, BEFORE PROCEEDING WITH INSTALLATION.

CERTIFICATE OF INSTALLATION: SUBMIT CERTIFICATE UPON COMPLETION OF FIRE PROTECTION PIPING WORK WHICH INDICATES THAT WORK HAS BEEN TESTED IN ACCORDANCE WITH ANSI/NFPA 13, AND ALSO THAT SYSTEM IS OPERATIONAL, COMPLETE, AND HAS NO DEFECTS.

FIRE PROTECTION PIPING MATERIALS AND PRODUCTS

GENERAL: PROVIDE PIPING MATERIALS AND FACTORY-FABRICATED PIPING PRODUCTS OF SIZES, TYPES, PRESSURE RATINGS, TEMPERATURE RATINGS, AND CAPACITIES AS INDICATED. WHERE NOT INDICATED, PROVIDE PROPER SELECTION AS DETERMINED BY INSTALLER TO COMPLY WITH INSTALLATION REQUIREMENTS. PROVIDE SIZES AND TYPES MATCHING PIPING AND EQUIPMENT CONNECTIONS. PROVIDE FITTINGS OF MATERIALS WHICH MATCH PIPE MATERIALS USED IN FIRE PROTECTION PIPING SYSTEMS. WHERE MORE THAN 1 TYPE OF MATERIALS OR PRODUCTS ARE INDICATED, SELECTION IS INSTALLER'S OPTION.

BASIC IDENTIFICATION

GENERAL: PROVIDE IDENTIFICATION IN ACCORDANCE WITH THE FOLLOWING LISTING:

FIRE PROTECTION PIPING: PLASTIC PIPE MARKERS.

FIRE PROTECTION VALVES: PLASTIC VALVE TAGS.

BASIC PIPE, TUBE, AND FITTINGS

GENERAL: PROVIDE PIPE, TUBE, AND FITTINGS COMPLYING WITH ANSI/NFPA 13 AND NFPA 14, IN ACCORDANCE WITH THE FOLLOWING LISTING:

INTERIOR PIPING:

BLACK STEEL PIPE:

PIPE WEIGHT: SCHEDULE 40 UP TO 8", SCHEDULE 30 FOR 8" AND LARGER.
FITTINGS: CLASS 125, CAST-IRON THREADED.

PIPE WEIGHT: SCHEDULE 40 FOR LESS THAN 8", SCHEDULE 30 FOR 8" AND LARGER.
FITTINGS: MECHANICAL GROOVED PIPE COUPLINGS AND FITTINGS; CUT GROOVE TYPE.

BLACK STEEL PIPE:

PIPE WEIGHT: SCHEDULE 10 FOR 5" AND SMALLER; 0.134" WALL THICKNESS FOR 6"; AND 0.188" WALL THICKNESS FOR 8" AND 10".
FITTINGS: WROUGHT-STEEL BUTTWELDING.

PIPE WEIGHT: SCHEDULE 10 FOR 5" AND SMALLER; 0.134" WALL THICKNESS FOR 6"; AND 0.188" WALL THICKNESS FOR 8" AND 10".
FITTINGS: MECHANICAL GROOVED PIPE COUPLINGS AND FITTINGS; ROLL-GROOVE OR MECHANICAL LOCKING TYPE.

BASIC PIPING SPECIALTIES

GENERAL: PROVIDE PIPING SPECIALTIES COMPLYING WITH ANSI/NFPA 13 AND NFPA 14 IN ACCORDANCE WITH THE FOLLOWING LISTING:

PIPE ESCUTCHEONS
DIELECTRIC UNIONS
DRIP PANS
SLEEVES
SLEEVE SEALS

BASIC SUPPORTS, ANCHORS, AND SEALS

GENERAL: PROVIDE SUPPORTS, ANCHORS, AND SEALS IN ACCORDANCE WITH THE FOLLOWING LISTING:

ADJUSTABLE STEEL CLEVISES, ADJUSTABLE STEEL BAND HANGERS, ADJUSTABLE BAND HANGERS, FOR HORIZONTAL PIPING HANGERS AND SUPPORTS.

TWO-BOLT RISER CLAMPS FOR VERTICAL PIPING SUPPORTS.

STEEL TURNBUCKLES, AND MALLEABLE IRON SOCKETS FOR HANGER-ROD ATTACHMENTS.

CONCRETE INSERTS, TOP-BEAM C-CLAMPS, SIDE BEAM OR CHANNEL CLAMPS, AND CENTER BEAM CLAMPS FOR BUILDING ATTACHMENTS.

COPPER FLASHINGS FOR PIPING PENETRATIONS.

FIRE BARRIER PENETRATION SEALS.

BASIC VALVES

GENERAL: PROVIDE VALVES COMPLYING WITH ANSI/NFPA 13 AND NFPA 14 IN ACCORDANCE WITH THE FOLLOWING LISTING:

INTERIOR VALVES:

SECTIONAL: GATE VALVES.

CHECK: SWING CHECK VALVES.

FIRE PROTECTION SPECIALTIES

GENERAL: PROVIDE FIRE PROTECTION SPECIALTIES, UL LISTED, IN ACCORDANCE WITH THE FOLLOWING LISTING. PROVIDE SIZES AND TYPES WHICH MATE AND MATCH PIPING AND EQUIPMENT CONNECTIONS.

WATER FLOW INDICATORS: PROVIDE VANE TYPE WATER FLOW DETECTORS.

SUPERVISORY SWITCHES: PROVIDE PRODUCTS RECOMMENDED BY MANUFACTURER FOR USE IN SERVICE INDICATED.

AUTOMATIC SPRINKLERS: PROVIDE AUTOMATIC SPRINKLERS OF TYPE INDICATED ON DRAWINGS, AND IN ACCORDANCE WITH THE FOLLOWING LISTING. PROVIDE FUSIBLE LINKS FOR 165 DEG. F (74 DEG. C) UNLESS OTHERWISE INDICATED.

FINISH: CONCEALED WHITE PLATE FOR OCCUPIED AREAS, CAST BRASS UPRIGHT FOR UNOCCUPIED AREAS.

WHERE SUSPENDED LAY-IN CEILINGS OCCUR LOCATE HEAD IN CENTER OF TILE IN AT LEAST ONE DIRECTION.

SPRINKLER CABINET AND WRENCH: FURNISH STEEL, BAKED RED ENAMELED, SPRINKLER BOX WITH CAPACITY TO STORE 10 SPRINKLERS AND WRENCH SIZED TO SPRINKLERS.

AVAILABLE MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, MANUFACTURERS OFFERING FIRE PROTECTION SPECIALTIES WHICH MAY BE INCORPORATED IN THE WORK INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

MANUFACTURER: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE FIRE PROTECTION SPECIALTIES OF ONE OF THE FOLLOWING:

CENTRAL SPRINKLER CORP.
ITT GRINNELL
GRINNELL CORP.
RELIABLE AUTOMATIC SPRINKLER CO., INC.
VIKING CORP.
VICTAULIC
GLOBE FIRE SPRINKLER CORPORATION
POTTER ELECTRIC SIGNAL COMPANY
HONEYWELL

INSTALLATION OF PIPE, TUBE, AND FITTINGS

GENERAL: INSTALL PIPE AND PIPE FITTINGS IN ACCORDANCE WITH ANSI/NFPA 13 AND NFPA 14.

FIRE SPRINKLER PIPING SYSTEMS:

GENERAL: COMPLY WITH REQUIREMENTS OF ANSI/NFPA 13 AND NFPA 14 FOR INSTALLATION OF FIRE SPRINKLER PIPING MATERIALS. INSTALL FIRE SPRINKLER PIPING PRODUCTS WHERE INDICATED, IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS, AND IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES TO ENSURE THAT FIRE SPRINKLER PIPING COMPLIES WITH REQUIREMENTS AND SERVES INTENDED PURPOSES.

COORDINATE WITH OTHER WORK, INCLUDING PLUMBING PIPING, AS NECESSARY TO INTERFACE COMPONENTS OF ARE SPRINKLER PIPING PROPERLY WITH OTHER WORK.

SPRINKLER CONTRACTOR SHALL COORDINATE THE INSTALLATION OF HEADS WITH HVAC DUCTWORK. INSTALL HEADS ABOVE AND BELOW DUCTWORK WHERE REQUIRED TO PROVIDE COMPLETE COVERAGE.

INSTALL DRAIN PIPING AT LOW POINTS OF PIPING SYSTEMS.

INSTALL WATER FLOW INDICATORS WHERE INDICATED AND REQUIRED.

MOUNT SUPERVISORY SWITCHES ON ALL CONTROL VALVES.

INSTALL VALVED HOSE CONNECTIONS OF SIZES INDICATED, OR 3/4" SIZE IF NOT OTHERWISE INDICATED ON SPRINKLER AT ENDS OF BRANCH LINES AND CROSS MAINS AS REQUIRED.

INSTALL INSPECTOR'S TEST CONNECTION AS REQUIRED, OR AT MOST REMOTE POINT OF RISER. PIPE INSPECTOR TESTS TO OUTSIDE.

ADJUST AND CLEAN

SPRINKLER PIPING FLUSHING: PRIOR TO CONNECTING SPRINKLER RISERS FOR FLUSHING, FLUSH WATER FEED MAINS, LEAD-IN CONNECTIONS AND CONTROL PORTIONS OF SPRINKLER PIPING. AFTER FIRE SPRINKLER PIPING INSTALLATION HAS BEEN COMPLETED AND BEFORE PIPING IS PLACED IN SERVICE, FLUSH ENTIRE SPRINKLER SYSTEM, AS REQUIRED, TO REMOVE FOREIGN SUBSTANCES, UNDER PRESSURE AS SPECIFIED IN ANSI/NFPA 13. CONTINUE FLUSHING UNTIL WATER IS CLEAR, AND CHECK TO ENSURE THAT DEBRIS HAS NOT CLOGGED SPRINKLERS.

FIELD QUALITY CONTROL

HYDROSTATIC TESTING: AFTER FLUSHING SYSTEM, TEST FIRE SPRINKLER PIPING HYDROSTATICALLY, FOR PERIOD OF 2 HOURS, AT NOT LESS THAN 200 PSI OR AT 50 PSI IN EXCESS OF MAXIMUM STATIC PRESSURE WHEN MAXIMUM STATIC PRESSURE IS IN EXCESS OF 150 PSI. CHECK SYSTEM FOR LEAKAGE OF JOINTS. MEASURE HYDROSTATIC PRESSURE AT LOW POINT OF EACH SYSTEM OR ZONE BEING TESTED.

REPAIR OR REPLACE PIPING SYSTEM AS REQUIRED TO ELIMINATE LEAKAGE IN ACCORDANCE WITH ANSI/NFPA STANDARDS FOR "LITTLE OR NO LEAKAGE", AND RETEST AS SPECIFIED TO DEMONSTRATE COMPLIANCE.