

SECTION 21 00 00 – FIRE PROTECTION

The following is the Fire Protection outline specifications, which defines the scope of work of the Fire Protection system.

PART 1 - GENERAL

1.1 SCOPE

- A. General Provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specifications Sections, apply to work of this Section.

1.2 CODES

- A. All work installed under this Section shall comply with NFPA 13, NFPA 14, NFPA 25 and all local, state, county, and federal codes, laws, statutes, and authorities having jurisdiction. Include any and all permits, connection, and/or inspection fees in the bid.

1.3 SCOPE OF WORK

- A. The work covered by this Section includes all Labor, Materials, and Operations in connection with the provision of a complete and operable Fire Protection System. Without limiting the generality thereof, the work includes, but is not necessarily limited to, the following:
 - 1. New Fire Service to the building.
 - 2. A hydraulically designed combination automatic sprinkler system to provide 100% protection for the building. Prepare Working Drawings for approval of the Architect, the local authority having jurisdiction, and the owner's insurance company under stamp of an independent Registered Professional Engineer.
 - 3. New double check valve assembly.
 - 4. Fire department connections, pipe and fittings, valves, hangers, sprinkler heads, and system identification.
 - 5. Flushing and testing of the entire system.

1.4 RELATED WORK

- A. The following related work is to be performed under other Sections of the Specifications:
 - 1. Excavation and backfill – DIVISION 31.

1.5 RECORD DRAWINGS

- A. Maintain on the site at all times one (1) set of black or blue line on white drawings which shall at all times be accurate, clear, and complete, showing the actual location of all piping and equipment as installed in colored pencil.

1.6 OPERATING INSTRUCTIONS AND MAINTENANCE MANUAL:

- A. Provide operating instructions to the Owner's designated representative. At the completion of the project, turn over to the Architect two (2) complete manuals.

1.7 SHOP DRAWINGS AND MATERIAL SCHEDULES

- A. Submit as outlined in Division 1 including working drawings and hydraulic calculations.

1.8 GUARANTEE

- B. Guarantee all work free from defects in workmanship or materials for a period of one (1) year from the date of final acceptance of the building.

PART 2 - PRODUCTS

2.1 GENERAL

- A. All materials and equipment furnished under this Subcontract shall be new, unused, first quality of a manufacturer of established reputation. Each valve, fitting, section of pipe, piece of equipment, etc., shall have cast or indelibly stamped thereon the manufacturer's name, pressure rating where applicable, type, etc.

1. Drains and test connections shall be provided in the systems.

2.2 SPRINKLER PIPING

- A. Schedule 40 black steel pipe for 1-1/2" and smaller and Schedule 10 for 2" and larger.

2.3 SPRINKLERS

- A. Upright sprinkler heads in areas with no ceilings shall be Reliable Model "F1FR" Quick Response, upright natural bronze finish heads.
- B. Sidewall heads shall be Reliable Model "F1FR" Quick Response with chrome plated head and escutcheon.
- C. Pendent wet sprinkler heads shall be Reliable Model "F1FR" Quick Response recessed adjustable escutcheon, bright chrome plated.
- D. Concealed heads shall be Reliable Model "G4A" Quick Response concealed type, 1-1/2" adjustment white cover plate. In special areas, as may be noted on the Drawings, provide alternate cover plate finishes.
- E. Pendent dry sprinkler heads shall be Reliable Model "G3FR" Quick Response dry type, chrome plated adjustable escutcheon.
- F. Dry sidewall heads shall be Reliable Model "G3FR" dry horizontal sidewall heads, bright chrome plated.

2.4 ALARM FACILITIES

- A. The wet system alarm device shall be Reliable or equal Model 'E' alarm valve with "E1" trimmings package to include electric bell.

PART 3 - EXECUTION

3.1 WORKMANSHIP AND INSTALLATION METHODS

- A. All work shall be installed in a first-class manner consistent with the best current practices.
 - 1. All piping shall be installed true to line and grade, shall be grouped together, be parallel to each other. Utilize gang hangers wherever feasible. Group all valves together where feasible.

3.2 CLEANING AND PROTECTION

- A. Protect all materials and equipment during shipment and installation, and properly handle and store at the job site so as to prevent damage, and upon completion of this work, clean all fixtures and equipment and replace damaged parts.

END OF SECTION