



**NOTES:**

1. ELECTRIC PANELS NEAR SPRINKLER HEADS SHALL BE PROVIDED WITH 1/8 GAUGE GALVANIZED STEEL BAFFLES AS APPROVED BY LOCAL AGENCIES.
2. NOT USED.
3. DRY FIRE PROTECTION SYSTEM TO BE INSTALLED IN ACCORDANCE WITH NFPA 13 AND LATEST EDITION.
4. UNLESS OTHERWISE INDICATED, PROVIDE A COMPLETE AND ACCURATE LIST OF ALL MATERIALS, INCLUDING ALL NECESSARY MATERIAL, LABOR AND EQUIPMENT, INCLUDING ALL NECESSARY PERMITS AND ARRANGE FOR ALL REQUIRED INSPECTIONS IN ACCORDANCE WITH THE STATE AND LOCAL GOVERNING BODIES.
5. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND ARRANGE FOR ALL REQUIRED INSPECTIONS IN ACCORDANCE WITH THE STATE AND LOCAL GOVERNING BODIES.
6. CONTRACTOR SHALL MEAN TO FURNISH, INSTALL, AND MAINTAIN ALL REQUIRED ELECTRICAL EQUIPMENT AND MECHANICAL EQUIPMENT WITH DIVISION 16.
7. CONTRACTOR SHALL COMPANATE ELECTRICAL EQUIPMENT TO MECHANICAL EQUIPMENT WITH DIVISION 16.
8. BEFORE SELECTING MATERIAL AND EQUIPMENT AND PROCEEDING WITH INSTALLATION, CONTRACTOR SHALL VERIFY THAT ALL REQUIRED SPACE FOR PLACEMENT AND CLEARANCES.
9. BEFORE CUTTING OR DRILLING INTO BUILDING ELEMENTS, CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL BUILDING ELEMENTS AND BUILDING UTILITIES.
10. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) STATE OF MAINE BUILDING CODE - LATEST EDITION.
11. PROVIDE SENSITIVE BRACING OF ALL FIRE PROTECTION PIPING IN ACCORDANCE WITH NFPA 13 AND MAINE STATE BUILDING CODE.
12. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION OF PROVIDED EQUIPMENT.
13. ARRANGE PIPING TO FACILITATE FLSHBACK, PROVIDE RELIABLE SUPPORTS FOR ALL PIPING AND CONNECTIONS.
14. PENETRATIONS THROUGH CONCRETE SHALL BE DONE IN ACCORDANCE WITH NFPA 13 AND MAINE STATE BUILDING CODE.
15. ALL FIRE PROTECTION CONTROL VALVES ARE TO BE PROVIDED WITH TAPERS SWITCHES.
16. CONTRACTOR IS TO CORRECT SPRINKLER PIPE ROUTING AND SUPPORTS TO AVOID COLLISIONS WITH EXISTING STRUCTURAL ELEMENTS, CEILING GRIDS AND HEIGHTS, DOOR AND WINDOW HEADS, EXISTING PIPING AND OTHER EXISTING ITEMS IN THE BUILDING AND/OR VISIBLE TO OCCUPANTS. CORRECTIONS SHOWN ON DRAWINGS ARE TO BE MADE AT CONTRACTOR'S RISK AND AT CONTRACTOR'S COST.
17. INSTALL ALL PIPING WITH APPROVED SUPPORTS AND BE INSTALLED AT THE CORRECT HEIGHT AND NOT PITCHED.
18. RETAIN ALL PIPE CUTOUT DISKS, ATTACH DISKS TO EXISTING STRUCTURE AND LABEL DISKS WITH THE LOCATION, HEIGHT AND OPERATOR'S NAME.
19. IN ADDITION TO AREAS ON DRAWINGS NOTED TO BE CORRECTED, CONTRACTOR SHALL CORRECT ALL DISKS TO BE CORRECTED.
20. SPRINKLER PIPE SIZES ARE TO BE CALCULATED HYDRAULICALLY.
21. BEFORE THE START OF SPRINKLER PIPE INSTALLATION, CONTRACTOR SHALL OBTAIN THE SIGNATURE OF A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MAINE, WHO SHALL BE RESPONSIBLE FOR THE DESIGN OF THE FIRE PROTECTION SYSTEM.
22. FACTORY MUTUAL APPROVED.
23. SUBMIT WORKING DRAWINGS TO AUTHORITY HAVING JURISDICTION AND OBTAIN APPROVAL FROM AUTHORITY HAVING JURISDICTION AND OBTAIN APPROVAL FROM FACTORY MUTUAL APPROVED.
24. CONTRACTOR IS TO PROVIDE A COMPLETE AND ACCURATE LIST OF ALL MATERIALS, INCLUDING ALL NECESSARY MATERIAL, LABOR AND EQUIPMENT, INCLUDING ALL NECESSARY PERMITS AND ARRANGE FOR ALL REQUIRED INSPECTIONS IN ACCORDANCE WITH THE STATE AND LOCAL GOVERNING BODIES.
25. FIRE PROTECTION SYSTEM SHALL BE INSTALLED BY CONTRACTOR AND PERSONNEL APPROPRIATELY LICENSED IN THE COMMONWEALTH OF MASSACHUSETTS.
26. CONTRACTOR SHALL PROVIDE TESTING OF ALL PIPING SYSTEMS IN ACCORDANCE WITH 2002 NFPA 13, CHAPTER 8. THE FOLLOWING AS A MINIMUM SHALL BE PROVIDED:
  - \* HYDROSTATIC TESTS OF UNDERGROUND AND ABOVE-GROUND PIPING
  - \* LEAK TESTS
27. PROVIDE TO PROFESSIONAL ENGINEER OF RECORD.
28. PROVIDE ON REESE HYDRAULIC DESIGN INFORMATION SIGN AS DENIED IN 2002 NFPA 13.

PROVIDE HYDRAULICALLY CALCULATED PIPING THROUGHOUT THE BUILDING. PROVIDE LEADS BELOW CEILING, THROUGHOUT THE BUILDING, TO ALL SPRINKLER HEADS, PRETERS AND COOLERS, AND ALL OTHER EQUIPMENT. PROVIDE ALL HYDRAULIC DESIGN, ELECTRICAL, PLUMBING, INTERIOR DESIGN, AND ALL OTHER TRADES.

**HYDRANT FLOW TEST INFORMATION**

STATIC P.S.I.:	89
RESIDUAL P.S.I.:	NONE RECORDED
G.P.M. FLOWED:	1433 GPM
DATE:	JULY 1991
LOCATION:	SINGLE HYDRANT TEST ON FOX AND BOND
FLOW TESTED BY:	PORTLAND WATER DISTRICT

1) PER A & S8 FACTOR OF SAFETY TO HYDRANT FLOW TEST RESULTS FOR HYDRAULIC CALCULATIONS. THIS IS A REQUIREMENT OF OWNERS INSURANCE COMPANY (LIBERTY MUTUAL). ENGINEER WILL REJECT HYDRAULIC CALCULATIONS FOR OMITTING FACTOR OF SAFETY.

2) CONTRACTOR TO REFORM HYDRANT FLOW TEST AT SITE TO OBTAIN WATER PRESSURE AND FLOW TEST FOR HYDRAULIC CALCULATIONS. PERFORM HYDRANT TEST IN ACCORDANCE WITH NFPA 291.

**FIRE PROTECTION DESIGN CALCULATION DATA**

OCCUPANCY:	SALES AREA/STORAGE/MECHANICAL ROOMS
HAZARD:	ORDINARY GROUP 2
DENSITY:	0.20 GPM/50 SQ.FT.
AREA:	PER NFPA 13
AREA PER HEAD:	130 MAX. SPLIT
TYPE:	WET PIPE FIRE SPRINKLERS

**3) TYPICAL DRY SPRINKLER DETAIL-FREEZERS**

