

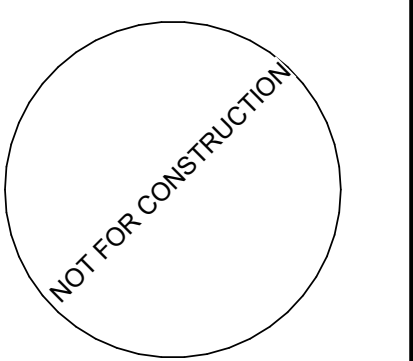
REVISIONS

NO.	DESCRIPTION	DATE
1	FIRE MARSHAL COMMENTS	04/02/2021

DATE ISSUED: 03/10/2021
REVIEWED BY: JEB
DRAWN BY: SWD
DESIGNED BY: SWD

PROJECT NUMBER:
1248120007
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SEAL:



SHEET TITLE:
FIRE PROTECTION PLAN

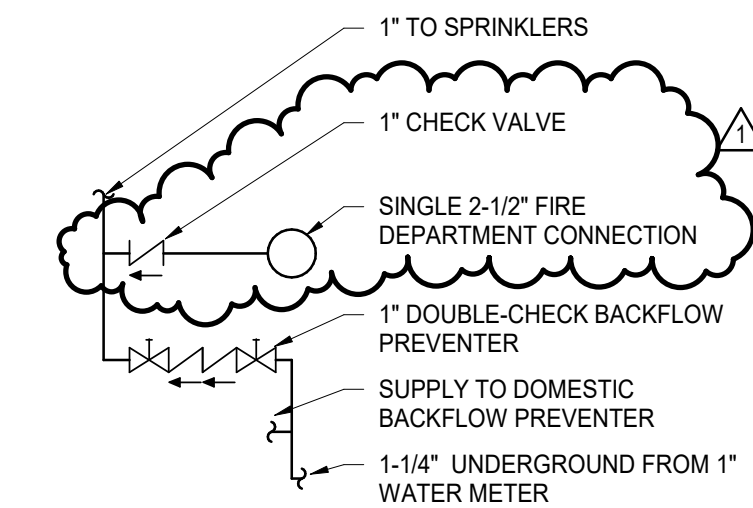
SHEET ID:

F101

PROJECT STATUS:
100% CONSTRUCTION DOCUMENTS

FIRE PROTECTION NOTES

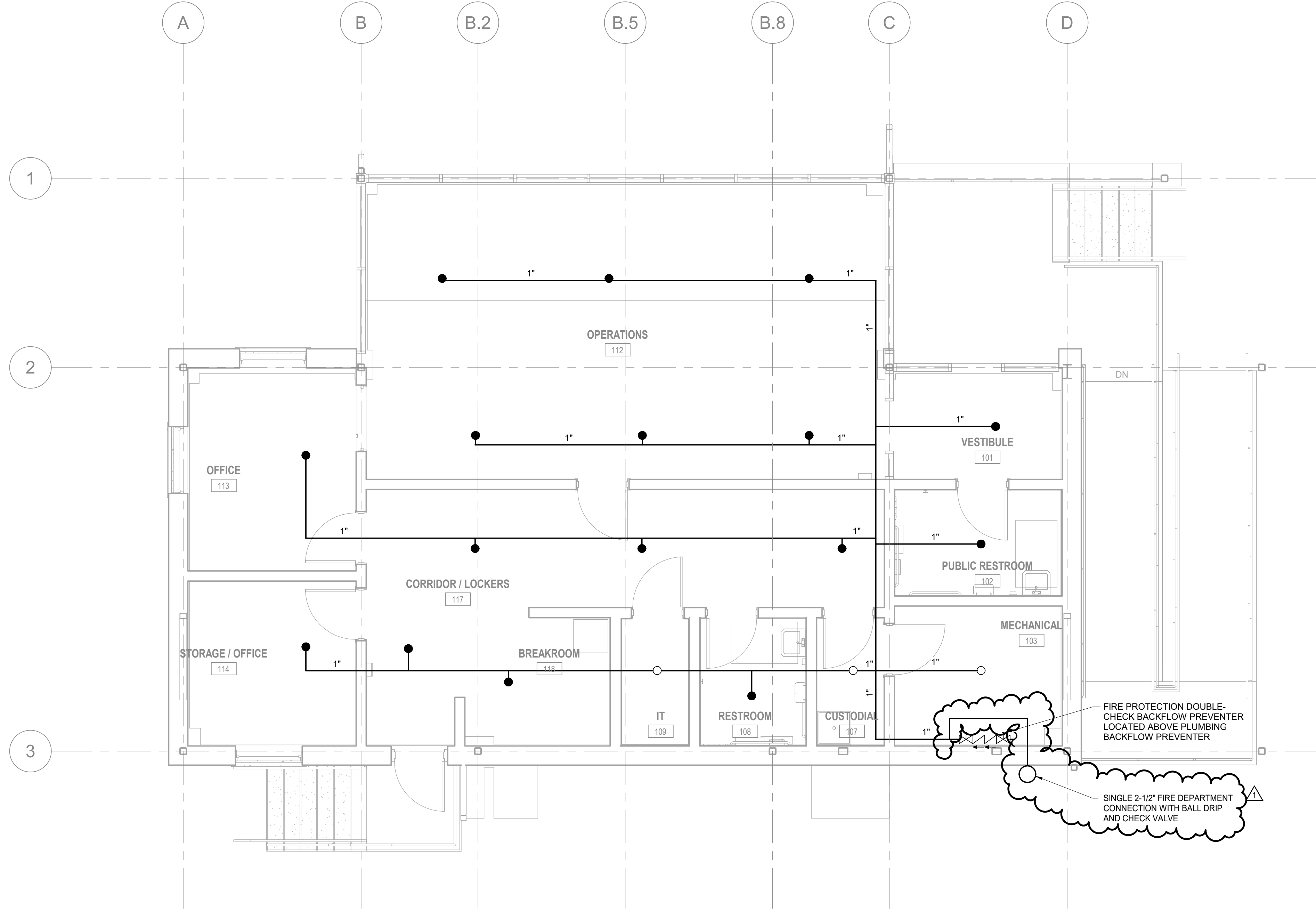
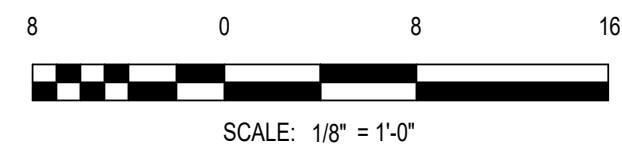
- THE AUTOMATIC SPRINKLER SYSTEM IS BEING PROVIDED AS AN ALTERNATIVE TO FIRE HYDRANTS AND WATER SUPPLY AS REQUIRED BY THE FIRE CODE. THIS SYSTEM IS A LIMITED AREA SYSTEM IN ACCORDANCE WITH NFPA 13, SECTION 4.2, AS APPROVED BY THE POUDDRE FIRE AUTHORITY'S FIRE MARSHAL'S OFFICE AS AN EQUIVALENCY.
- SUBMIT WORKING DRAWINGS TO THE FIRE MARSHAL FOR APPROVAL FOR THE AUTOMATIC SPRINKLER SYSTEM. THE SYSTEM SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH 2018 INTERNATIONAL FIRE CODE (AS ADOPTED LOCALLY), 2016 NFPA 13, AND STATE AND LOCAL REQUIREMENTS, EXCEPT AS INDICATED.
- PROVIDE DESIGN AND ALL NECESSARY COMPONENTS TO PROVIDE COMPLETE SYSTEMS IN ACCORDANCE WITH ALL APPLICABLE CODES/CONTRACT DOCUMENT REQUIREMENTS WITH THE FOLLOWING SUMMARY OF WORK:
 - THE SPRINKLER LAYOUT, CONFIGURATION, COVERAGE, PIPE SUPPORTS, BASIC COMPONENTS AND DISCHARGE DENSITIES SHALL BE PROVIDED IN ACCORDANCE WITH NFPA 13.
 - HYDRAULIC CALCULATIONS ARE BASED ON A 2-SPRINKLER DESIGN AS APPROVED BY THE POUDDRE FIRE AUTHORITY.
 - PROVIDE A MINIMUM OF 2 PSI FOR AN SPRINKLER.
 - FLOW ALARMS WILL NOT BE PROVIDED.
 - PROVIDE A 2-1/2" SINGLE FIRE DEPARTMENT CONNECTION. THE STRUCTURE IS NON-COMBUSTIBLE. NO SPRINKLERS REQUIRED ABOVE THE CEILING OR BELOW EXTERIOR ROOF AREAS (NO COMBUSTIBLE STORAGE).
- DESIGN PROVIDES 0.1 GPM/SQ. FT. AND 0.15 GPM/SQ. FT. FOR LIGHT AND ORDINARY HAZARD AREAS, RESPECTIVELY. ORDINARY HAZARD AREAS INCLUDE THE EQUIPMENT ROOMS AND STORAGE ROOMS.
- ALL PIPING TO BE ASTM A53, A135, OR A795 BLACK STEEL PIPE. PROVIDE SCHEDULE 40 PIPE FOR THREADED, WELDED, AND GROOVED FITTINGS. THE MINIMUM PIPE SIZE SHALL BE 1".
- PROVIDE 1/2-INCH ORIFICE, QUICK RESPONSE RECESSED PENDENT SPRINKLERS CENTERED IN CEILING TILES IN BOTH DIRECTIONS.
- CHAIN AND LOCK BACKFLOW PREVENTER CONTROL VALVES IN THE OPEN POSITION AS APPROVED BY THE POUDDRE FIRE AUTHORITY.
- PROVIDE A SYSTEM DRAIN LINE THAT DISCHARGES DIRECTLY TO THE EXTERIOR AT THE BASE OF THE RISER.
- PROVIDE HANGERS IN ACCORDANCE WITH NFPA 13. HANGERS SHALL BE ATTACHED TO TOP FLANGE OF JOISTS AND BEAMS.
- COORDINATE LOCATION OF ALL EQUIPMENT WITH OTHER TRADES. PIPING SHALL NOT RUN ABOVE ELECTRICAL PANELS.
- PROVIDE AN AUTOMATIC AIR RELEASE VALVE AND PRESSURE RELIEF VALVE ON THE SYSTEM IN ACCORDANCE WITH NFPA 13 AND THE MANUFACTURER'S RECOMMENDATIONS. THE DISCHARGE OF BOTH VALVES SHALL BE PIPED TO THE SYSTEM DRAIN.
- CALCULATIONS BASED ON A 120 PSI WATER SUPPLY WITH UNDERGROUND PIPING CONSISTING OF APPROXIMATELY 125' OF 1-1/4", 1000' OF 2", 6,500' OF 2-1/2", AND 1000' OF 8" MAINS. 7 PSI FRICTION LOSS IS INCLUDED EACH FOR THE BACKFLOW PREVENTER AND WATER METER. THE CALCULATED FLOW IS 31 GPM.



FIRE PROTECTION SCHEMATIC

FIRE PROTECTION LEGEND

- FIRE PROTECTION PIPING
- RECESSED PENDENT SPRINKLER
- UPRIGHT SPRINKLER
- ⌵ BACKFLOW PREVENTER
- ⌵ CHECK VALVE
- SINGLE FIRE DEPARTMENT CONNECTION



1 FIRST FLOOR FIRE PROTECTION PLAN
1/4" = 1'-0"
0 1' 2' 4'