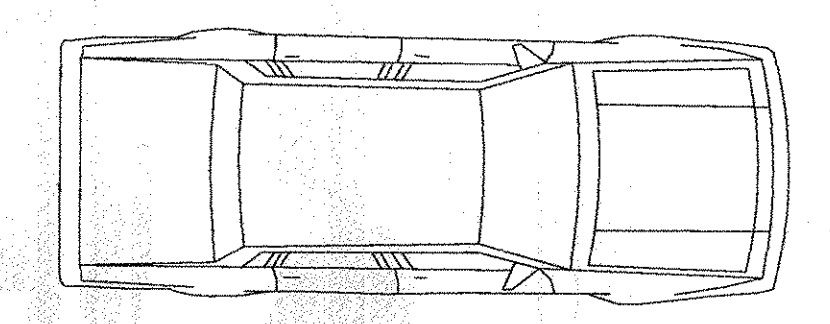


SPRINKLER HEADS USED ON THIS PLAN									
Symbol	SIN/Model	Quantity	K-Factor	Type	Orifice Size	Finish	Temperature	Note	
⊗	VK OPEN	27	8.0	Upright	17/32"	Brass	N/A	SSU	
		Total = 27							

SPRINKLER HEADS AS MANUFACTURED BY VIKING SPRINKLER CORP. OR EQUAL HEADS TO BE OPEN WITH NO FUSIBLE LINK INSTALLED



TO VT ROUTE 9

PROTECTOR WIRE CONNECTION TO APPROVED ALARM AND SIGNAL DEVICE MAX. LISTING SPACING UL 257 TYP EPR INTERMEDIATE 190 deg F HUNG FROM STRUCTURAL AS PER SPEC. INSTALLED BY ELECTRICAL CONTRACTOR

GUARD RAIL

FIRE DEPT. PUMP OR HYDRANT CONNECTION 4" STORZ ANGLE CONNECTION W/ CAP & CHAIN

DOUBLE 90 deg. GRV. ELBOW

CONCRETE BUNKER AT EXIT FROM BANK RODDING FROM FLOD ELBOW TO BUNKER SEE DETAIL FP1

4 X 1" SADDLE ON D.I. BOTTOM W/ 1 X 1/2 GALV. ELBOW

1/2" AUTOMATIC BALL DRIP - HORIZ. POSITION

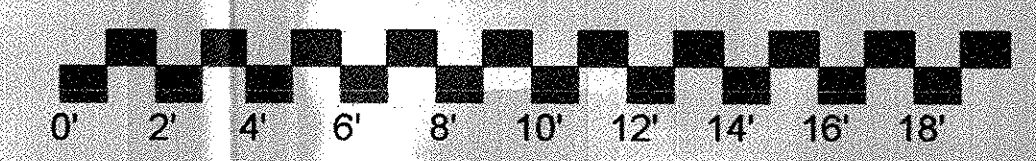
DUCTILE IRON CEMENT LINES UNDERGROUND MAIN 2' BURY +/- - F.O. LOW SLOPE

EXISTING SHRUBS

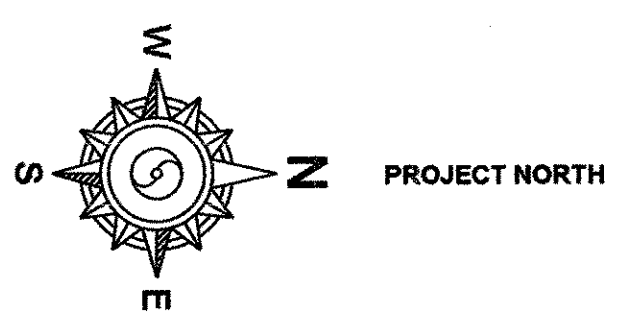
CONCRETE THRUST BLOCK AT BASE SEE DETAIL FP1

Open Sprinkler Coverage

SCALE: 1/4" = 1'-0"

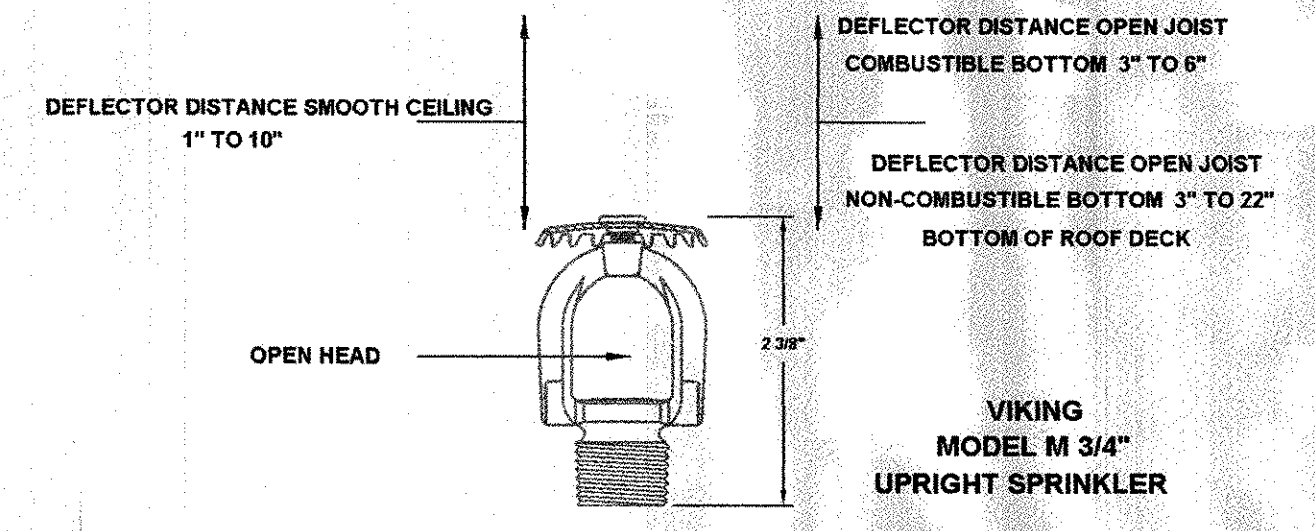


THIS SYSTEM IS A NON AUTOMATIC SPRINKLER SYSTEM AND SUPPLY IS PROVIDED BY LOCAL FIRE DEPARTMENT.



CALCULATIONS BASED ON FULL OPERATION AT TIME OF FIRE DEPT. ARRIVAL & CONNECTION

Riser Tag	
Design Basis	Manually Calculated
Total Sprinklers:	27
Number Of Sprinklers Calculated:	27
K-Factor:	8K
Orifice Size:	0.531"
Design Density:	NA
Average Density	
Area of Application:	NA
Demand at Base Point Of Connection	
Total Demand Flow(gpm):	997.16gpm
Pressure(psi):	95.736psi
Water Supply Information From Fire Truck	
Static Pressure(psi):	125.000psi
Residual Pressure(psi):	100.000psi
Supply Flow(gpm):	1000.00gpm
Total Demand Flow(gpm):	997.16gpm
Total Demand Pressure(psi):	95.736psi



UNDERGROUND PIPING GENERAL NOTES:

- ALL MATERIALS & INSTALLATIONS TO BE U.L. LISTED & SHALL CONFORM TO N.F.P.A. PAMPHLETS #13 & #24.
- THRUST BLOCKS & RODDING SHALL CONFORM TO N.F.P.A. #24.
- MINIMUM BURY SHALL BE 2' +/-
- ALL WATER LINES FOR FIRE SPRINKLER SYSTEMS SHALL BE TESTED AT 200 psi FOR TWO (2) HOURS MINIMUM.
- DUCTILE IRON PIPE SHALL BE USED WHEN PIPE PASSES UNDER BUILDING FOUNDATION OR FOOTING.
- ALL EXTERIOR MATERIALS SHALL BE PROPERLY PROTECTED AGAINST EXPOSURE.
- UNDERGROUND PIPING SHALL BE FLUSHED PER N.F.P.A. #24 BEFORE CONNECTING TO THE OVERHEAD FIRE SPRINKLER SYSTEM PIPING.
- REFER TO ANY LOCAL REQUIREMENTS BEFORE INSTALLING OR MAKING A CONNECTION TO THE FIRE SERVICE CONNECTION.
- CLASS 200 PIPING SHALL BE USED FOR SECTIONS OF PIPING PRESSURIZED BY A FIRE DEPARTMENT CONNECTION OR AN ON SITE FIRE PUMP WHERE THE OPERATION PRESSURE EXCEEDS 150 psi.

Specifications:

- Scope of work - Sprinkler Contractor is to install in accordance with all applicable Codes, Standards, and Specifications.
- Work is to be performed in a workmanship like manner by persons trained in similar type installations and licensed, where required by the AHJ.
- Hydraulic Information to be provided on the Sprinkler Riser.
- Earthquake bracing to be provided per code and/or AHJ.
- All Inspector's Test Connections and Low Point Drains to be installed per Codes and Standards.
- All Hangers to be installed per NFPA and other applicable Codes, refer to details for additional information.
- Piping to be pitched:
Wet Pipe Systems - Level or slight pitch to drain.
Dry Pipe Systems - Mains & x-mains: 1/4" in 10'
- Branchlines: 1/2" in 10'.
- Main and X-main piping to be Sch. 10 Galv. Steel Pipe - Cut, Grooved, Reamed, and De-burred.
- Branchline piping to be Sch. 40 Galv. Steel Pipe - Cut, Reamed and Threaded.
- Pipe Joint Compound Applied to Male Threads only.
- Others to Provide: Painting, Electric Wiring, Control Wiring, Fire Extinguishers and any other work not shown or specified.
- All System Components and Materials to be installed per NFPA 13 and Manufacturer's Listing.
- All grooved couplings on low pressure piping to be "Victaulic" #005 Zero-Flex couplings, except where required by NFPA # 13 and F.M. - "Victaulic" #75 couplings to be used as flexible. Earthquake bracing to be installed within 24" of all flexible couplings.
- All grooved couplings on high pressure piping to be "Victaulic" #75 couplings. Earthquake bracing to be installed within 24" of all flexible couplings.

Sprinkler system symbols:

- Pipe drop
- Pipe rise
- Cap
- > Sloped pipe
- +10'-15' FFE Pipe elevation center line of pipe
- ⊗ System Riser
- Common connection point
- ⊗ Hydraulic calculation node point
- AA Welded pipe fabrication tag
- BL Branch line fabrication tag
- Main & Cross Main fabrication tag
- CM or A

Sprinkler system symbols:

- FEMULTI Room Name
- 181 Room Number
- 8-0' Ceiling Elevation
- 1" New Piping w/ Dia. & Length
- 0-0" Existing w/ Dia. only
- Hanger Location - Approx.
- ⊗ All Sprinkler - Existing
- 8-0' Fabrication Measure w/ Take-outs
- gg Center to Center Measure

Special Notes:

All information and design is based on plans and information provided by Owner, SVSSI and information gathered during site visit. Purpose of design is for placement and hydraulic calculations of the sprinkler system. This drawing has not been field verified should be checked for accuracy and routing of the sprinkler system prior to fabrication and installation. Refer to Manufacturer's specifications and listing for all installation of sprinkler heads. All sprinklers to be installed with the Manufacturer's approved head wrench. Care is to be given to the handling and storage of all sprinkler heads. Pipe Joint Compound and teflon tape to be applied to male threads only. Refer to specifications and details for the installation of the Automatic Sprinkler System and all components. All equipment to be U.L. & FM Listed and installed per Manufacturer's Listing and Specifications. System installation to conform to NFPA 13 for placement and installation of sprinkler system, but is a non automatic system and will meet no other requirements.

BUILDING DESIGN BY:
State of Vermont Agency of Transportation
IMPROVEMENT BRIDGE PROJECT
TOWN OF BRATTLEBORO - WINDHAM COUNTY
ROUTE NO: TH 374, CL 111 BRIDGE NO: 30
PROJECT MANAGER: J. WEAVER

SPRINKLER DESIGN BY:
Chapin Consulting & Design
Terrence E. Chapin, SET
Fire Protection Design
Fire Protection & Training
CONSULTING ENGINEER
233 WESTLYNCH ROAD, BRATTLEBORO, VT 05301
802-257-2242 Fax: 802-257-2242
www.chapin-engineering.com

SPRINKLER CONTRACTOR:
Southern Vermont Sprinkler Services Inc.
Design Installation Service
118 Birge Street
Brattleboro, VT 05301
802-254-2242 Fax: 802-257-0670

PROJECT NAME:
CREAMERY COVERED BRIDGE
Bridge # 30 - Western Ave.
Brattleboro, Vermont 05301
Owner: Town of Brattleboro

SPRINKLER PIPING
Non Automatic Layout
PERMIT NO.
CONTRACT NO. ToB-CB-11-48
APPROVAL: VT Dept. of Trans & FD
DESIGNER: T.E. Chapin, SET
SCALE: 1/4" = 1'-0"
DATE: 11/17/2006
ToB-CB-FP1
PLOT: FP1 of 2