PERMIT SONOMA FIRE PREVENTION DIVISION

FIRE SERVICES * HAZARDOUS MATERIALS

Address	**Sea Ranch Lodge** **60 Sea Walk Drive, The Sea Ranch** **2016 NFPA 13 Automatic Sprinkler System**				
02/11/2020	**SRA** YES	**USE**	Commercial	**Occupancy Class**	A
SQFT Existing	~8,000	**SQFT NEW**	-0-	**Total Fire Area**	~8,000
Stories	2	**Height**	25 ft	**Over an Acre**	YES
Construction Type	V-B	**Permit#**	BLD	18-3421	
Fire Sprinklers	Req. NFPA 13	**Fire Alarm**	Sprinkler Monitoring	**CUPA**	UNK
Deferred Submittals	Fire Line Underground	Fire Sprinklers	Fire Alarm	Fire Extinguishers	Choose an item.
APN# 122-200-009		**Fire Agency**	**North Sonoma Coast FPD**		
Robert O'Dell 707-565-1279		***Robert.Odell@sonoma-county.org***			

Conditions of Approval

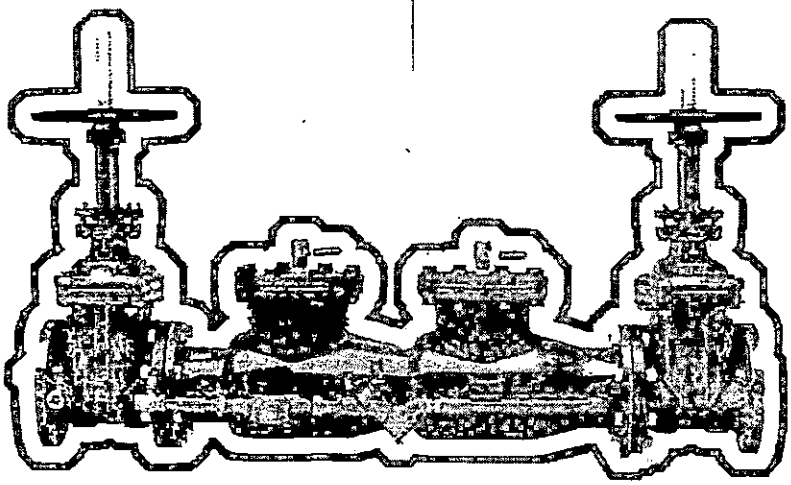
1. Provide fire inspector copy of current water supply test within the past 12 months indicating static, residual and flow. CFC Sec. 507.4, NFPA 13 Sec. 23.2.1.1.
2. Provide completed Contractor's Material and Test Certificate to fire inspector. NFPA 13 Sec. 25.1.
3. Provisions shall be made to properly drain all parts of the system. NFPA 13 Sec. 8.16.2.4.1.
4. NFPA 13 Sec. 11.2.3.3 Room Design Method is utilized for this project. Per NFPA Sec. 11.2.3.3.3 rooms shall be enclosed with walls having a fire-resistance rating equal to the water supply per Table 11.2.3.1.2. Light hazard requires 30 minute supply, thus walls shall have 30 minute fire protection rating. For example, per CBC Table 722.6.2(1) provide 5/8 inch regular or Type X gypsum board at interior walls.
5. Provide 40°F minimum temperature for freeze protection. NFPA 13 Sec. 8.16.4.1.1.
6. Provide relief valve. NFPA 13 Sec. 7.1.2.
7. Commercial kitchen area shall comply with Ordinary Hazard Group 1 requirements.
8. Sprinkler contractor shall provide owner a current copy of NFPA 25. NFPA 13 Sec. 25.6.1.
9. Drawing FP2.2. Flexible couplings shall be located within 24" of bottom of riser. NFPA 13 Sec. 9.3.2.3.1.
10. Drawing FP2.2. Note walk in freezer and refrigerator use dry pendant sprinklers. NFPA 13 Sec. 8.4.9.

Inspections:

Prior to final approval, all State and Local Codes shall be verified by field inspection by a member of the **Permit Sonoma Fire Prevention Division.** The following Inspections are required:

Schedule of Inspections: 707-565-3551 using the automated system of the Building Department.

- Sprinkler Final (770)
- Aboveground Hydrostatic (771)
- Pipe Weld (775)



AMES
FIRE & WATERWORKS™

Model 3000 DCDA Double Check Detector Assembly 4" to 10"

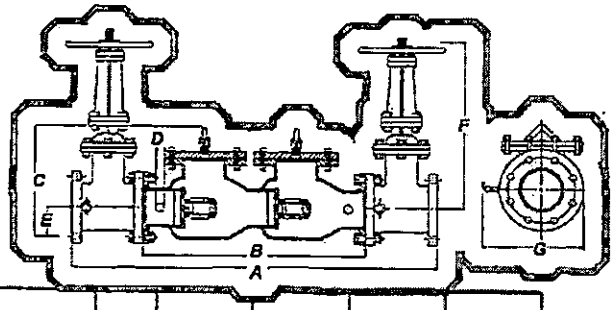
DESCRIPTION

The Ames 3000 DCDA protects the potable water system by preventing backflow from fire protection systems. The device also detects leaks or unauthorized use of water from fire protection lines.

In the incidence of minimal water flow, the valve clapper remains closed so that the water flows through the bypass loop. When a major water flow is required, the water pressure will open the main valves to allow full water flow.

SPECIFICATIONS

- *Unit comes assembled with bypass which includes water meter and backflow prevention assembly. Testcocks included.*
- *Rated working pressure 4", 6" 8", 10" (175 PSI)*
- *Flange dimensions in accordance with AWWA Class D.*
- *All internal metal parts are 300 series stainless steel with exception of removable bronze seal ring ASTMB62-82.*
- *Body nameplate provides nominal size, direction of flow, PSI rating and year of manufacture.*
- *Body material ASTM A36.*



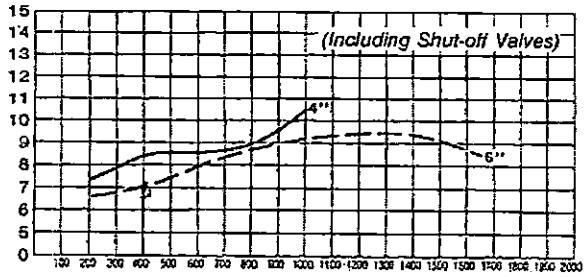
Model	Size	A	B	C	D
3000 DCDA	4"	45 ½	27 ½	17 5/8	¾ NPT
3000 DCDA	6"	58 7/8	37 7/8	20 1/8	¾ NPT
3000 DCDA	8"	68¾	45¾	23 1/8	¾ NPT
3000 DCDC*	10"	83¾	57¼	23 7/8	¾ NPT

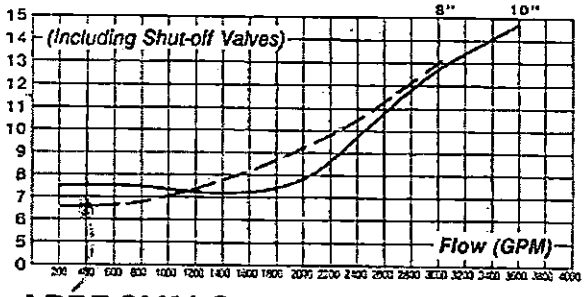
Model	Size	E	F Open	G	NET WT with gates	NET WT w/o
3000 DCDA	4"	5	23⅜	15	320 lbs.	120 lbs.
3000 DCDA	6"	6	29 3/16	17	480 lbs.	180 lbs.
3000 DCDA	8"	7½	37¾	19½	780 lbs.	275 lbs.
3000 DCDC*	10"	9¾	48	22	1120 lbs.	345 lbs.

FEATURES

- *Fabricated steel body provides a substantial lighter weight unit than cast or ductile iron.*
- *Functional in horizontal or vertical positions.*
- *Available with hot dip zinc galvanized coating or fusion-bonded Ames Guard epoxy coating.*
- *Prevents backflow from fire prevention systems.*
- *OS&Y RW Gate valves are approved by UL & FM for fire protection systems.*
- *300 Series stainless steel interior working parts reduce corrosion and provides longer valve life.*
- *Shortest end to end dimensions available in the industry.*
- *Low head loss.*
- *Fully servicable inline.*
- *Factory assembled and tested.*

FLOW CURVES





APPROVALS

- *UL, USCFCCCHR, ASSE, FM, AWWA*

American Backflow Specialties
www.americanbackflow.com

(800) 66-BKFLO
(619) 527-2525
Fax: (619) 527-2527

ISO

International Organization for Standardization (ISO)
ISO Central Secretariat
1 ch, de la Voie-Creuse, Case postale 56
CH-1211 Geneva 20, Switzerland

ISO 8115—86: Cotton Bales—Dimensions and Density
Table 2704.2.2.1, Table 5003.1.1(1)

NEMA

National Electrical Manufacturer's Association
1300 North 17th Street
Suite 900
Rosslyn, VA 22209

250—2014: Enclosures for Electrical Equipment (1,000 Volt Maximum)
6005.2

NFPA

National Fire Protection Association
1 Batterymarch Park
Quincy, MA 02169-7471

02—16: Hydrogen Technologies Code
1205.3, 1205.4, 2309.3.1.1, 2309.3.1.2, 2309.6, 2311.8, 2311.8.2, 2311.8.10, 2311.8.11, 5301.1, 5801.1

04—15: Standard for Integrated Fire Protection and Life Safety System Testing
901.6.2.1, 901.6.2.2

10—18: Standard for Portable Fire Extinguishers
Table 901.6.1, 906.2, Table 906.3(1), Table 906.3(2), 906.3.2, 906.3.4, 3006.3

11—16: Standard for Low-, Medium-, and High-expansion Foam
904.7, 5704.2.9.2.2

12—15: Standard on Carbon Dioxide Extinguishing Systems
Table 901.6.1, 904.8, 904.12

12A—15: Standard on Halon 1301 Fire Extinguishing Systems
Table 901.6.1, 904.9

13—16: Standard for the Installation of Sprinkler Systems as amended*
903.3.1.1, 903.3.2, 903.3.8.2, 903.3.8.5, 904.12, 905.3.4, 907.6.4, 914.3.2, 1019.3, 1103.4.8, 1206.2.11.1, 1206.3.5.1, 3201.1, 3204.2, Table 3206.2, 3206.4.1, 3206.10, 3207.2, 3207.2.1, 3208.2.2, 3208.2.2.1, 3208.4, 3210.1, 3401.1, 5104.1, 5104.1.1, 5106.5.7, 5704.3.3.9, Table 5704.3.6.3(7), 5704.3.7.5.1, 5704.3.8.4

NFPA 13, Amended Sections as follows:

Revise Section 2.2 and add publications as follows:
2.2 NFPA Publications.

NFPA 25, *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems, 2013 California edition.*

Revise Section 8.15.1.2.15 as follows:

8.15.1.2.15 Exterior columns under 10 ft^2 (0.93m^2) in total area, formed by studs or wood joist, *with no sources of ignition within the column,* supporting exterior canopies that are fully protected with a sprinkler system, shall not require sprinkler protection.

Revise Section 8.15.5.3 as follows:

8.15.5.3 Automatic sprinkler system. *Automatic sprinklers shall not be required to be installed in the elevator hoistway, elevator machine room, elevator machinery space, elevator control space, or elevator control room where all the following are met:*

1. Approved smoke detectors shall be installed and connected to the building fire alarm system in accordance with Section 907 in the area where the fire sprinkler was removed per this section.

2. Activation of any smoke detector located in the elevator hoistway, elevator machine room, elevator machinery space, elevator control space, or elevator control room shall cause the actuation of the building fire alarm notification appliances in accordance with Section 907.

NFPA—continued

3. Activation of any smoke detector located in the elevator hoistway, elevator machine room, elevator machinery space, elevator control space, or elevator control room shall cause all elevators having any equipment located in that elevator hoistway, elevator machine room, elevator machinery space, elevator control space, or elevator control room to recall nonstop to the appropriate designated floor in accordance with CCR Title 8, Division 1, Chapter 4, Subchapter 6, Elevator Safety Orders.

4. The elevator machine room, elevator machinery space, elevator control space, or elevator control room shall be enclosed with fire barriers constructed in accordance with CBC Section 707 or horizontal assemblies constructed in accordance with CBC Section 712, or both. The fire-resistance rating shall not be less than the required rating of the hoistway enclosure served by the machinery. Openings in the fire barriers shall be protected with assemblies having a fire protection rating not less than that required for the hoistway enclosure doors. The exceptions to CBC Section 3005.4 shall not apply.

5. The building fire alarm system shall be monitored by an approved supervising station in accordance with Section 907.

6. An approved sign shall be permanently displayed in the room where the fire sprinkler was removed per this section in a conspicuous location with a minimum of $1^1/_2$-inch letters on a contrasting background, stating:

NO COMBUSTIBLE STORAGE
PERMITTED IN THIS ROOM
By Order of the Fire Marshal [or name of fire authority]

Add new Sections 8.15.5.6.1 as follows:

8.15.5.6.1 The sprinkler required at the top and bottom of the elevator hoistway by 8.15.5.6 shall not be required where permitted by Chapter 30 of the California Building Code.

Revise Section 8.15.7.1* as follows:

8.15.7.1* Unless the requirements of 8.15.7.2 or 8.15.7.3 are met, sprinklers shall be installed under exterior roofs, canopies, portecochere, balconies, decks, or similar projections exceeding 4 ft (1.2 m) in width.

Revise Section 8.15.7.2* as follows:

8.15.7.2* Sprinklers shall be permitted to be omitted where the exterior canopies, roofs, portecocheres, balconies, decks, or similar projections are constructed with materials that are noncombustible, limited-combustible, or fire retardant treated wood as defined in NFPA 703, *Standard for Fire Retardant–Treated Wood and Fire-Retardant Coatings for Building Materials.*

Delete Section A.8.15.7.2 of Annex

Revise Section 8.15.7.3

8.15.7.3 Sprinklers shall be permitted to be omitted from below the canopies, roofs, balconies, decks, or similar projections are combustible construction, provided the exposed finish material on the roof, *or* canopy is noncombustible, limited-combustible, or fire retardant treated wood as defined in NFPA 703, *Standard for Fire Retardant–Treated Wood and Fire-Retardant Coatings for Building Materials,* and the roofs, *or* canopies contains only sprinklered concealed spaces or any of the following unsprinklered combustible concealed spaces:

(1) Combustible concealed spaces filled entirely with noncombustible insulation.

(2) Light or ordinary hazard occupancies where noncombustible or limited-combustible ceilings are directly attached to the bottom of solid wood joists so as to create enclosed joist spaces 160 ft^3 (4.5 m^3) or less in volume, including space below insulation that is laid directly on top or within the ceiling joists in an otherwise sprinklered attic [See *11.2.3.1.5.2(9)*].

(3) Concealed spaces over isolated small roofs, or canopies not exceeding 55 ft^2 (5.1 m^2).

Delete language to section 8.15.7.4 and reserve section number.
8.15.7.4 Reserved.

Revise Annex Section A.8.15.7.5 as follows:

A.8.15.7.5 The presence of planters, newspaper machines and *similar items,* should not be considered storage.

Add Section 8.15.7.6 as follows:

8.15.7.6 Sprinklers may be omitted for following structures:

(1) Solar photovoltaic panel structures with no use underneath. Signs may be provided, as determined by the enforcing agency prohibiting any use underneath including storage.

(2) Solar photovoltaic (PV) panels supported by framing that have sufficient uniformly distributed and unobstructed openings throughout the top of the array (horizontal plane) to allow heat and gases to escape, as determined by the enforcing agency.

Add new Sections 8.16.1.1.1.4 and 8.16.1.1.1.5 as follows:

8.16.1.1.1.4 Where a system includes floor control valves, a hydraulic design information sign containing information for the floor shall be provided at each floor control valve. A hydraulic design information sign shall be provided for each area calculated. The installing contractor shall identify a hydraulically designed sprinkler system with a permanently marked weatherproof metal or rigid plastic sign secured with corrosion resistant wire, chain, or other approved means. Such signs shall be placed at the alarm valve, dry pipe valve, preaction valve, or deluge valve supplying the corresponding hydraulically designed area.

NFPA—continued

8.16.1.1.1.5 Control valves, check valves, drain valves, antifreeze valves shall be readily accessible for inspection, testing, and maintenance. Valves located more than 7 feet above the finished floor shall be provided with a means of opening and closing the valve from the floor level.

Add new Sections 8.16.1.6, 8.16.1.6.1, 8.16.1.6.1.1, 8.16.1.6.1.2, 8.16.1.6.1.3, 8.16.1.6.2, as follows:

8.16.1.6 Sectional Valves.

8.16.1.6.1 Private fire service main systems shall have sectional control valves at appropriate points in order to permit sectionalizing the system in the event of a break or for the making of repairs or extensions.

8.16.1.6.1.1 Sectional control valves are not required when the fire service main system serves less than six fire appurtenances.

8.16.1.6.1.2 Sectional control valves shall be indicating valves in accordance with Section 6.6.1.3.

8.16.1.6.1.3 Sectional control valves shall be located so that no more than five fire appurtenances are affected by shut-down of any single portion of the fire service main. Each fire hydrant, fire sprinkler system riser, and standpipe riser shall be considered a separate fire appurtenance. In-rack sprinkler systems shall not be considered as a separate appurtenance.

8.16.1.6.1.4 The number of fire appurtenances between sectional control valves is allowed to be modified by the authority having jurisdiction.

8.16.1.6.2 A valve shall be provided on each bank where a main crosses a *body of* water or outside the building foundation(s) where the main or section of main runs under a building.

Add new Section 9.1.3.9.1.1 as follows:

9.1.3.9.1.1 Powder-driven studs used for attaching hangers to the building structure are prohibited in Seismic design Categories C, D, E and F.

Revise Section 9.3.5.11.4 as follows:

9.3.5.11.4 Where threaded pipe is used for sway bracing, it shall have a wall thickness of not less than Schedule 40.

Replace Section 9.3.5.12.5 as follows:

9.3.5.12.5 Lag screws or power-driven fasteners shall not be used to attach braces to the building structure.

Replace Section 9.3.5.12.6 as follows:

9.3.5.12.6 Fastening methods other than those identified in 9.3.5.12 shall not apply to other fastening methods, which shall be acceptable for use if certified by a registered professional engineer to support the loads determined in accordance with the criteria in 9.3.5.9. Calculations shall be submitted to the authority having jurisdiction.

Revise Section 9.3.5.12.8.4 as follows:

9.3.5.12.8.4 Concrete anchors other than those shown in *Table 9.3.5.12.2(a) through Table 9.3.5.12.2(f) and identified in 9.3.5.11.11* shall be acceptable for use where designed in accordance with the requirements of the building code and certified by a registered professional engineer.

Revise Section 9.3.6.1(3) as follows:

9.3.6.1(3) No. 12, 440 lb (200 Kg) wire installed at least 45 degrees from the vertical plane and anchored on both sides of the pipe. Powder-driven fasteners for attaching restraint is allowed to be used provided that the restraint component does not support the dead load.*

Revise Section 10.4.3.1.1 as follows:

10.4.3.1.1 Pipe joints shall not be located under foundation footings. *The pipe under the building or building foundation shall not contain mechanical joints.*

Exceptions:

1. Where allowed in accordance with Section 10.4.3.2.

2. Alternate designs may be utilized where designed by a registered professional engineer and approved by the enforcing agency.

Revise Section 11.2.3.1.5.2(9) as follows:

11.2.3.1.5.2(9) Exterior columns under 10 ft^2 (0.93m^2) in total area, formed by studs or wood joist, *with no sources of ignition within the column,* supporting exterior canopies that are fully protected with a sprinkler system.

Revise Section 11.2.3.2.3.1 as follows:

11.2.3.2.3.1 Where listed quick-response sprinklers, excluding extended coverage quick-response sprinklers, are used throughout a system or portion of a system having the same hydraulic design basis, the system area of operation shall be permitted to be reduced without revising the density as indicated in Figure 11.2.3.2.3.1 when all of the following conditions are satisfied:

(1) Wet pipe system
(2) Light hazard occupancy
(3) 20 ft (6.1 m) maximum ceiling height
(4) There are no unprotected ceiling pockets as allowed by 8.6.7 and 8.8.7 exceeding 32 ft^2 (3 m^2)

NFPA—continued

Revise Section 11.2.3.2.3.2 as follows:

11.2.3.2.3.2 The number of sprinklers in the design area shall never be less than *seven.*

Revise Section 12.1.1.2 as follows:

12.1.1.2 Early suppression fast-response (ESFR) sprinklers shall not be used in buildings with automatic heat or smoke vents unless the vents use a standard-response operating mechanism *with a minimum temperature rating of 360°F (182°C) or 100°F (56°C) above the operating temperature of the sprinklers, whichever is higher.*

23.2.1.1* Where a waterflow test is used for the purposes of system design, the test shall be conducted no more than 6 months prior to working plan submittal unless otherwise approved by the authority having jurisdiction.

Revise Section 25.1 as follows:

25.1 Approval of Sprinkler Systems and Private Fire Service Mains. The installing contractor shall do the following:

(1) Notify the authority having jurisdiction and the property owner or property owner's authorized representative of the time and date testing will be performed.

(2) Perform all required testing (*see Section 25.2*).

(3) Complete and sign the appropriate contractor's material and test certificate(s) (*see Figure 25.1*).

(4) Remove all caps and straps prior to placing the sprinkler system in service.

(5) Upon system acceptance by the authority having jurisdiction a label prescribed by Title 19 California Code of Regulations, Chapter 5 shall be affixed to each system riser.

Revise Section 25.4 as follows:

25.4 Instructions. The installing contractor shall provide the property owner or the property owner's authorized representative with the following:

(1) All literature and instructions provided by the manufacturer describing proper operation and maintenance of any equipment and devices installed.

(2) NFPA 25, *Standard for the Inspection, testing, and maintenance of Water-Based Fire Protection Systems, 2013 California Edition.*

(3) Title 19, California Code of Regulations, Chapter 5, "Fire Extinguishing Systems."

Revise Section 25.5.1 as follows:

25.5.1 The installing contractor shall identify a hydraulically designed sprinkler system with a permanently marked weatherproof metal or rigid plastic sign secured with corrosion resistant wire, chain, or other approved means. Such signs shall be placed at the alarm valve, dry pipe valve, preaction valve, or deluge valve supplying the corresponding hydraulically designed area. *Pipe schedule systems shall be provided with a sign indicating that the system was designed and installed as a pipe schedule system and the hazard classification(s) included in the design.*

Revise Section 25.5.2 as follows:

25.5.2 The sign shall include the following information:

(1) Location of the design area or areas

(2) Discharge densities over the design area or areas

(3) *Required flow and pressure of the system at the base of the riser.*

(4) Occupancy classification or commodity classification and maximum permitted storage height and configuration

(5) Hose stream allowance included in addition to the sprinkler demand

(6) The name of the installing contractor

(7) Required flow and pressure of the system at the water supply source.

(8) Required flow and pressure of the system at the discharge side of the fire pump where a fire pump is installed.

(9) Type or types and number of sprinklers or nozzles installed including the orifice size, temperature rating, orientation, K-Factor, sprinkler identification number (SIN) for sprinkler heads when applicable, and response type.

(10) The minimum discharge flow rate and pressure required from the hydraulically most demanding sprinkler.

(11) The required pressure settings for pressure reducing valves.

(12) For deluge sprinkler systems, the required flow and pressure at the hydraulically most demanding sprinkler or nozzle.

(13) The protection area per sprinkler based on the hydraulic calculations.

(14) The edition of NFPA 13 to which the system was designed and installed.

Revise Section 25.6.1 as follows:

25.6.1 The installing contractor shall provide a general information sign used to determine system design basis and information relevant to the inspection, testing, and maintenance requirements required by NFPA 25, *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems, 2013 California Edition.*