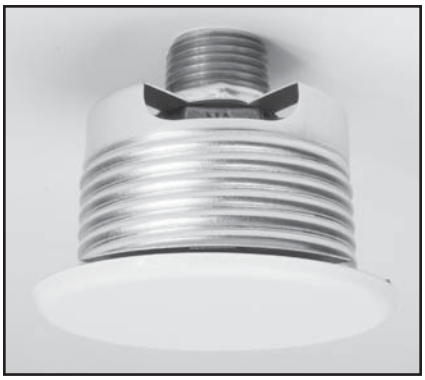
TECHNICAL DATA

MIRAGE® STANDARD AND QR CONCEALED PENDENT SPRINKLER VK462 AND HP SPRINKLER VK463 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

1. DESCRIPTION



Viking Mirage® Standard and Quick Response Concealed Pendent Sprinkler VK462 and HP Sprinkler VK463 are thermosensitive glass-bulb spray sprinklers designed for installation on concealed pipe systems where the appearance of a smooth ceiling is desired.

The sprinkler is pre-assembled with a threaded adapter for installation with a low-profile cover assembly that provides up to ½" (12.7 mm) of vertical adjustment. The two-piece design allows installation and testing of the sprinkler prior to installation of the cover plate. The "push-on", "thread-off" design of the concealed cover plate assembly allows easy installation of the cover plate after the system has been tested and the ceiling finish has been applied. The cover assembly can be removed and reinstalled, allowing temporary removal of ceiling panels without taking the sprinkler system out of service or removing the sprinkler. The Electroless Nickel PTFE (ENT) coating has been investigated for installation in corrosive atmospheres and is cULus Listed as corrosion resistant as indicated in the Approval Charts. The ENT finish is only available for the sprinkler assembly, the cover plate is not plated.

Viking Technical Data may be found on The Viking Corporation's Web site at http://www.vikinggroupinc.com. The Web site may include a more recent edition of this Technical Data Page.

2. LISTINGS AND APPROVALS

cULus Listed: Category VNIV

FM Approval: Class 2015

NYC Approved: MEA 89-92-E, Volume 32

VdS Approved: Certificate G4080021

LPCB Approved: Ref. No. 096e/12

CE Certified: Standard EN 12259-1, EC-certificate of conformity 0832-CPD-2032

CCCF Approved: Approved by the China Certification Center for Fire Products (CCCF)

Refer to Approval Chart 1 Design Criteria for cULus Listing requirements, and refer to Approval Chart 2 and Design Criteria on page for FM Approval requirements that must be followed.

3. TECHNICAL DATA

Specifications:

Available since 2006.

Minimum Operating Pressure: 7 psi (0.5 bar)*

Maximum Working Pressure: Sprinkler VK463 is rated for use with water working pressures ranging from the minimum 7 psi (0.5 bar) up to 250 psi (17.2 bar) for high-pressure systems. High-pressure (HP) sprinklers can be identified by locating "250" stamped on the deflector. Sprinkler VK462 is rated to a maximum 175 psi (12 bar) wwp.

Factory tested hydrostatically to 500 psi (34.5 bar)

Thread size: 1/2" (15 mm) NPT

Nominal K-Factor: 5.6 U.S. (80.6 metric†)

Glass-bulb fluid temperature rated to -65°F (-55°C)

Patents Pending

*cULus Listing, FM Approval, and NFPA 13 installs require a minimum of 7 psi (0.5 bar). The minimum operating pressure for LPCB and CE Approvals ONLY is 5 psi (0.35 bar).

†Metric K-factor measurement shown is when pressure is measured in Bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.

Material Standards:

Sprinkler Body: Brass UNS-C84400

Deflector: Copper UNS-C19500 for Sprinkler VK462
Phosphor Bronze UNS-C51000 for Sprinkler VK463

Deflector Pins: Stainless Steel Alloy

Bulb: Glass, nominal 3 mm diameter

Pip Cap and Insert Assembly: Copper UNS-C11000 and Stainless Steel UNS-S30400

Button: Brass UNS-C36000

Screws: 18-8 Stainless Steel

Belleville Spring Sealing Assembly: Nickel Alloy, coated on both sides with Teflon Tape

Yoke: Phosphor Bronze UNS-C51000

Cover Adapter: Cold Rolled Steel UNS-G10080, Finish: Clear Chromate over Zinc Plating

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Cover Assembly Materials:
Cover: Copper UNS-C11000
Base: Brass UNS-C26000 or UNS-C26800
Springs: Nickel Alloy
Solder: Eutectic

Ordering Information: (Also refer to the current Viking price list.)
Viking Mirage® Standard and Quick Response Concealed Pendent Sprinklers and Cover Plate Assemblies must be ordered separately:
Sprinkler: Base Part No. VK462 - 13503A for Brass finish and 13503JN for ENT finish. VK463 - HP Base Part No. 13667A
Specify sprinkler temperature rating by adding the appropriate suffix for the temperature rating to the base part number:
Temperature Suffix: 155 °F (68 °C) = B, 175 °F (79 °C) = D, 200 °F (93 °C) = E
For example, sprinkler VK463 with a 155 °F (68 °C) temperature rating = 13667AB.
Cover Plate Assembly: Base Part No. 13504 (2-3/4" diameter), Base Part No. 13642 (3-5/16" diameter), or Base Part No. 15394 (square cover plate, 3-5/16" diameter)
Specify finish and temperature rating of the cover plate assembly by adding the appropriate suffixes for the finish and the cover temperature rating to the base part number:
Finish Suffix: Polished Chrome = F, Brushed Chrome = F-/B, Bright Brass = B, Antique Brass = B-/A, Brushed Brass = B-/B, Brushed Copper = E-/B, Painted White = M-/W, Painted Ivory = M-/I, Painted Black = M-/B
Temperature Suffix: 135 °F (57 °C) UL (139 °F (59 °C) FM and LPCB) = A, 165 °F (74 °C) = C
For example, cover 13504 with a Polished Chrome finish and a 165 °F (74 °C) temperature rating = 13504FC.

Note: Square cover plate 15394 cULus Listing is for the 135 °F (57 °C) temperature rated cover plate only. Refer to the Approval Chart.

Available Finishes And Temperature Ratings: Refer to Table 1.

Accessories: (Also refer to the "Sprinkler Accessories" section of the Viking data book.)
Sprinkler Wrenches:**
A. Heavy Duty Wrench Part No. 14047W/B (available since 2006), or
B. Head Cabinet Wrench Part No. 14031*** (available since 2006)
C. Optional Concealed Cover Plate Installer Tool Part No. 14412 for cover 13504, or Part No. 14867 for the large diameter cover (available since 2007)

**Requires a ½" ratchet (not available from Viking). ***Optional for removal of the protective cap. Ideal for sprinkler cabinets.

Sprinkler Cabinet: Part No. 01731A (available since 1971)

4. INSTALLATION
Refer to appropriate NFPA Installation Standards.

5. OPERATION
During fire conditions, when the temperature around the sprinkler approaches its operating temperature, the cover plate detaches. Continued heating of the exposed sprinkler causes the heat-sensitive liquid in the glass bulb to expand and the bulb to shatter, releasing the yoke, pip-cap and sealing spring assembly. Water flowing through the sprinkler orifice strikes the sprinkler deflector, forming a uniform spray pattern to extinguish or control the fire.

6. INSPECTIONS, TESTS AND MAINTENANCE
Refer to NFPA 25 for Inspection, Testing and Maintenance requirements.

7. AVAILABILITY
Viking Sprinklers VK462 and VK463 are available through a network of domestic and international distributors. See The Viking Corporation web site for the closest distributor or contact The Viking Corporation.

8. GUARANTEE
For details of warranty, refer to Viking's current list price schedule or contact Viking directly.

VIKING®

TECHNICAL DATA

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TABLE 1: AVAILABLE SPRINKLER TEMPERATURE RATINGS AND FINISHES

Sprinkler Temperature Classification	Sprinkler Nominal Temperature Rating[1]	Maximum Ambient Ceiling Temperature[2]	Temperature Rating of Cover Assembly (Required)	Bulb Color
Ordinary	155 °F (68° C)	100 °F (38 °C)	135 °F (57 °C) cULus 139 °F (59 °C) FM and LPCB	Red
Intermediate	175 °F (79 °C)	150 °F (65 °C)	165 °F (74 °C)	Yellow
Intermediate	200 °F (93 °C)	150 °F (65 °C)	165 °F (74 °C)	Green

Cover Plate Finishes: Polished Chrome, Brushed Chrome, Bright Brass, Antique Brass, Brushed Brass, Brushed Copper, Painted White, Painted Ivory, or Painted Black

Sprinkler Finishes: Brass and ENT

Corrosion Resistant Coatings[3]: ENT

Footnotes

[1] The sprinkler temperature rating is stamped on the sprinkler deflector.

[2] Based on NFPA-13. Other limits may apply, depending on fire loading, sprinkler location, and other requirements of the Authority Having Jurisdiction. Refer to specific installation standards.

[3] The corrosion resistant coatings have passed the standard corrosion test required by the approving agencies indicated in the Approval Charts. These tests cannot and do not represent all possible corrosive environments. Prior to installation, verify through the end-user that the coatings are compatible with or suitable for the proposed environment. For automatic sprinklers, the ENT coating is applied to all exposed exterior surfaces, including the waterway, but the Belleville spring is exposed.

Approval Chart 1 (UL)

Mirage® Concealed Pendent Sprinklers VK462 and VK463

Sprinkler Temperature Rating
Cover Plate Temperature Rating
AW1 Cover Plate Finish **KEY**

Sprinkler Base Part No.[1]	SIN	NPT Thread Size		Nominal K-Factor		Maximum Water Working Pressure	Listings and Approvals[4] (Refer also to Design Criteria)					
		Inch	mm	U.S.	metric[2]		cULus[5]	NYC	VdS[7]	LPCB	CE	
Standard Response Applications												
13503A	VK462	1/2"	15	5.6	80.6	175 psi (12 bar)	--	--	AY1, CZ1	AY1, BZ1	AY1, CZ1[8]	AV1, CW1
Quick Response Applications												
13503A	VK462	1/2"	15	5.6	80.6	175 psi (12 bar)	AV1, BX1	AV1, BW1[6]	–	–	--	--
13503JN[11]	VK462	1/2"	15	5.6	80.6	175 psi (12 bar)	AV1, BX1	AV1, BW1[6]	–	–	--	--
13667A	VK463	1/2"	15	5.6	80.6	250 psi (17.2 bar)[3]	AV1, BX1	AV1, BW1[6]	--	--	--	--

Sprinkler Temperature Ratings

A - 155 °F (68 °C)
B - 175 °F (79 °C) and 200 °F (93 °C)
C - 200 °F (93 °C)

Cover Plate Assembly Temperature Ratings[9]

V - 135 °F (57 °C) cULus Listed cover 13504[1], 13642[1] (large diameter), or 15394[1] (square cover plate)
W - 165 °F (74 °C) cover 13504[1] or 13642[1] (large diameter)
X - 165 °F (74 °C) cover 13504[1], or 13642[1] (large diameter)
Y - 135 °F (57 °C) cover 13504[1] *LPCB Approved as 139 °F (59 °C)*
Z - 165 °F (74 °C) cover 13504[1]

Cover Plate Assembly Finishes[10]

1 - Polished Chrome, Brushed Chrome, Bright Brass, Antique Brass, Brushed Brass, Brushed Copper, Painted White, Painted Ivory, or Painted Black

Footnotes

[1] Part number shown is the base part number. For complete part number, refer to current Viking price list schedule.

[2] Metric K-factor measurement shown is when pressure is measured in Bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.

[3] The Water Working Pressure rating is stamped on the deflector.

[4] This chart shows the listings and approvals available at the time of printing. Other approvals may be in process. Check with the manufacturer for any additional approvals.

[5] Listed by Underwriter's Laboratories for use in the U.S. and Canada.

[6] Accepted for use, City of New York Department of Buildings, MEA Number 89-92-E, Vol. 32.

[7] VdS Approved, standards VdS 2344:2005-12, VdS 2100-25:2008-01, and EN 12259-1:1999 + A1:2001 + A2:2004 + A3:2006, Certificate G4080021.

[8] CE Certified, Standard EN 12259-1, EC-certificate of conformity 0832-CPD-2032.

[9] The 135/139 °F cover has an orange label. The 165 °F (74 °C) cover has a white label.

[10] Painted finish consists of Polyester Baked Enamel. Other paint colors are available on request with the same listings as the standard paint colors. Listings and approvals apply for any paint manufacturer. Contact Viking for additional information.

[11] cULus Listed as corrosion resistant.

NOTE: Custom colors are indicated on a label inside the cover assembly. Refer to Figure 1.

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TECHNICAL DATA

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
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DESIGN CRITERIA - UL

(Also refer to Approval Chart 1)

cULus Listing Requirements:

Mirage® Concealed Pendent Sprinklers VK462 and VK463 are cULus Listed as quick response for installation in accordance with the latest edition of NFPA 13 for standard coverage pendent spray sprinklers as indicated below.

- For hazard occupancies up to and including Ordinary Hazard, Group II.
- Protection areas and maximum spacing shall be in accordance with the tables provided in NFPA 13. Maximum spacing allowed is 15 ft. (4.6 m).
- Minimum spacing allowed is 6 ft. (1.8 m) unless baffles are installed in accordance with NFPA 13.
- Minimum distance from walls is 4 in. (102 mm).
- Maximum distance from walls shall be no more than one-half of the allowable distance between sprinklers. The distance shall be measured perpendicular to the wall.
- The sprinkler obstruction rules contained in NFPA 13 for standard coverage pendent spray sprinklers must be followed.

NOTE: Concealed sprinklers must be installed in neutral or negative pressure plenums only.

VdS Approval Requirements:

a) The sprinkler can be installed in a concrete ceiling (massive ceiling) or in a false ceiling made of light materials.

b) This sprinkler is deflector fixed type and can be only activated by heat. The housing is not tight.

c) Follow installation guidelines of current standards, CEA4001VdS and EN12845. These sprinklers can only be installed in LH and OH occupancies, except in OH4.

NOTES: Due to the design the sprinkler type 'Domed-CCP' shall not be installed in false ceilings in which the false ceiling space is protected by a water extinguishing system.

Due to the design the sprinkler type 'Domed-CCP' shall not be installed in false ceilings in which during a fire the pressure above the false ceiling may be assumed to be higher than the pressure below the false ceiling.

The criterion for the dropping of the cover relevant for this approval is heat.

Steps of installation:

1. Prepare the sprinkler key.
2. Remove the plastic cover.
3. Hold the sprinkler with the wrench and fasten it.
4. Replace the plastic cover and do not remove until the cover is installed.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to page SR1-3 or QR1-3 for general care, installation, and maintenance information. Viking sprinklers are to be installed in accordance with the latest edition of Viking technical data, the appropriate standards of NFPA, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.

Identification of Custom Paint Color:
All custom color painted cover plates will have an identifying label affixed to the inside of the cover that indicates custom color and will have a representative sample (a paint dot) of the paint on the label.

Figure 1: Identification of Custom Paint Color for Concealed Covers

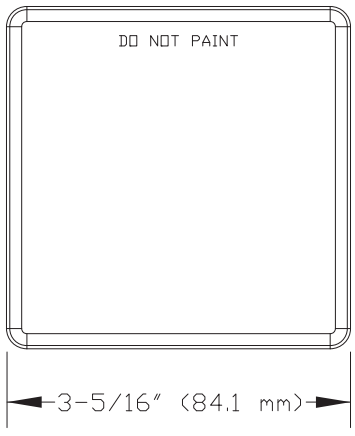

Figure 2: Square Cover Assembly 15394

VIKING®	TECHNICAL DATA	MIRAGE® STANDARD AND QR CONCEALED PENDENT SPRINKLER VK462 AND HP SPRINKLER VK463 (K5.6)

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Approval Chart 2 (FM)

Mirage® Standard Response Concealed Pendent Sprinkler VK462

Sprinkler Base Part No.[1]	SIN	NPT Thread Size		Nominal K-Factor		Maximum Water Working Pressure	FM Approvals[3] (Refer also to Design Criteria below.)
		Inch	mm	U.S.	metric[2]		
13503A	VK462	1/2”	15	5.6	80.6	175 psi (12 bar)	AW1, BX1

Sprinkler Temperature Ratings	Cover Plate Assembly Temperature Ratings[4]	Cover Plate Assembly Finishes[5]
A - 155 °F (68 °C) B - 175 °F (79 °C) and 200 °F (93 °C)	W - 139 °F (59 °C) cover 13504[1], 13642[1] (large diameter), or 15394[1] (square cover plate) X - 165 °F (74 °C) cover 13504[1], 13642[1] (large diameter), or 15394[1] (square cover plate)	1 - Polished Chrome, Brushed Chrome, Bright Brass, Antique Brass, Brushed Brass, Brushed Copper, Painted White, Painted Ivory, or Painted Black

Footnotes

[1] Part number shown is the base part number. For complete part number, refer to current Viking price list schedule.

[2] Metric K-factor measurement shown is when pressure is measured in Bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.

[3] This chart shows the FM Approvals available at the time of printing. Other approvals may be in process. Check with the manufacturer for any additional approvals.

[4] The 139 °F (59 °C) cover has an orange label. The 165 °F (74 °C) cover has a white label.

[5] Painted finish consists of Polyester Baked Enamel. Other paint colors are available on request with the same listings as the standard paint colors. Listings and approvals apply for any paint manufacturer. Contact Viking for additional information.

NOTE: Custom colors are indicated on a label inside the cover assembly. Refer to Figure 1.

DESIGN CRITERIA - FM

(Also refer to Approval Chart 2 above.)

FM Approval Requirements:

Viking Concealed Pendent Sprinkler VK462 is FM Approved as a standard response **Non-Storage** concealed pendent sprinkler as indicated in the FM Approval Guide. For specific application and installation requirements, reference the latest applicable FM Loss Prevention Data Sheets (including Data Sheet 2-0). FM Global Loss Prevention Data Sheets contain guidelines relating to, but not limited to: minimum water supply requirements, hydraulic design, ceiling slope and obstructions, minimum and maximum allowable spacing, and deflector distance below the ceiling.

NOTE: The FM installation guidelines may differ from cULus and/or NFPA criteria.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to page SR1-3 for general care, installation, and maintenance information. Viking sprinklers are to be installed in accordance with the latest edition of Viking technical data, the appropriate standards of NFPA, FM Global, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.

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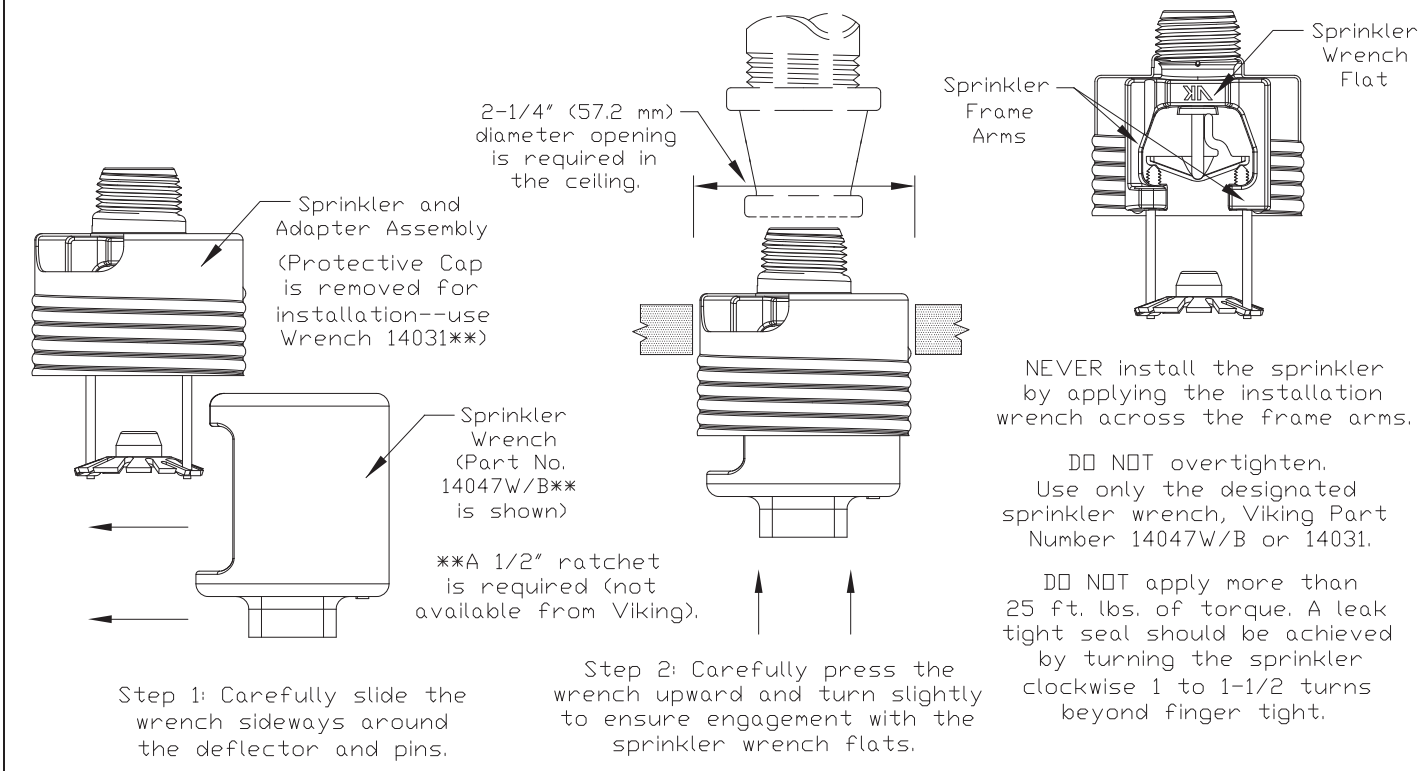

Figure 3: **Sprinkler Installation and Correct Use of Wrenches**

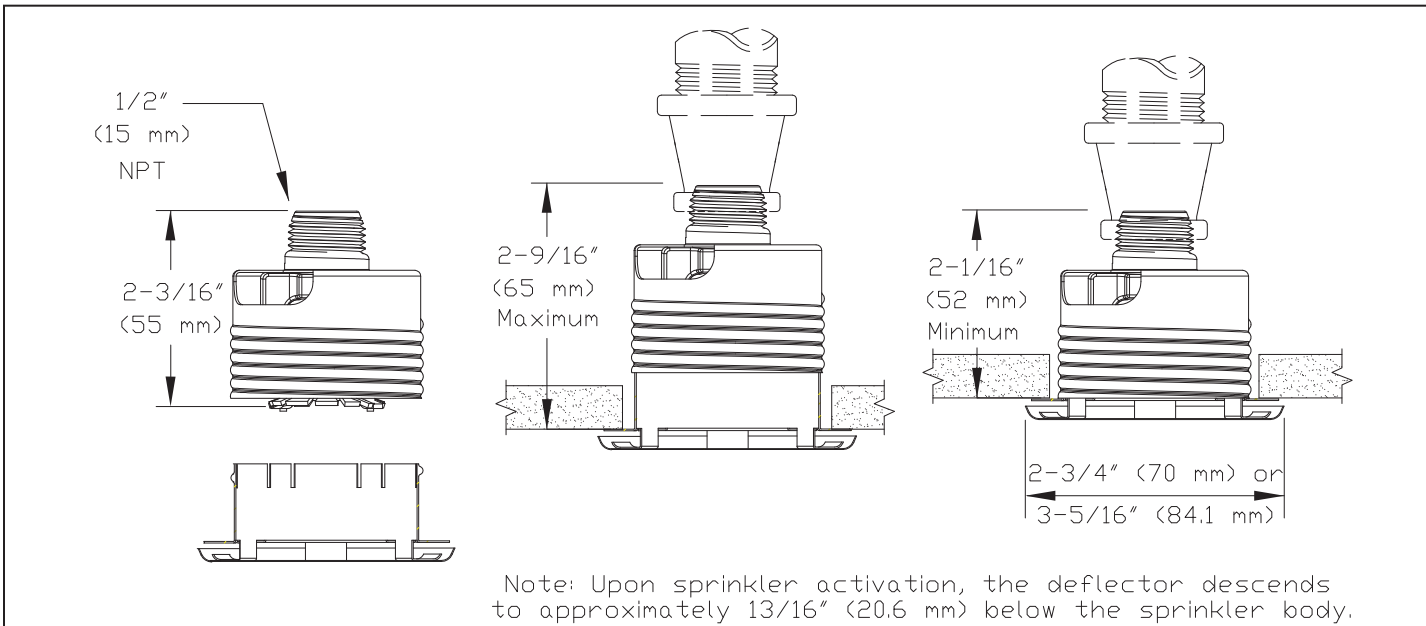

Figure 4: **Sprinkler Dimensions and Cover Installation**

WM TAO & ASSOCIATES
CONSULTING ENGINEERS

Shop Drawing Submittal Review

Transmitted To: Cannon Design

Date: December 20, 2016

Attention: **stl-cac@cannondesign.com**

Contact Person / WTA Field Inspector: Patrick Garner

Project Name: Webster University-**ISB**

Reviewed by: Mike Whitworth (WES)

Project No. WT 14127.01
WES 607

[ ] UPS [ ] Courier [X] **Email**

Copies	No.	Description
1 PDF	211313F02	(Submittal No.'s:)
		(Cannon #211313-015) - (Paric #15051-0349) – (WES #607)
		➢ **Wet Pipe Sprinkler System Product Data**

*Remarks: See Submittal Review from Webb Enginnering.

c: **Kelvin Patel**
Kpatel@cannondesign.com

[X] ***Reviewed**

[X] ***No Exceptions Taken -**

[X] ***Amend and Resubmit**

[X] ***Make Corrections As Noted, No Resubmittal Required**

Corrections or comments made on shop drawings during this review do not relieve contractor from compliance with requirements of drawings and specifications. This check is only for review of general conformance with the design concept of project and general compliance with information given in contract documents. Contractor is responsible for: confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordinating his work with that of all other trades; and performing his work in a safe and satisfactory manner.

WEBB
ENGINEERING
SERVICES INC.

1400 S. 3rd Street, Suite 201
St. Louis, Missouri 63104
Phone: (314) 588-0600
Fax: (314) 588-0604

Letter of Transmittal

To: wtashop@wmtao.com

From: Mike Whitworth

Date: December 20, 2016

Re: Webster University ISB

WES No: 607

☐ For your Files ☐ For Review ☐ Please Comment ☐ Please Reply

Item No.	Description	No. of Copies	Date
1	Shop Drawing Review – (213113-015) 211313 Wet Pipe Sprinkler System	1	12/20/16

•Signature: Mike Whitworth

WEBB ENGINEERING SERVICES INC.
www.webb-engineering.com

1400 S. 3rd Street, Suite 201 • St. Louis, Missouri 63104 • 314.588.0600 • *fax* 314.588.0604

The review of this submittal is limited to the general conformance with the designated design concept and intent of this project and with the general compliance of the information provided in the contract documents. All comments, remarks and notations made on the submittal(s) as a result of this review do not relieve the contractor from full compliance with requirements of the contract documents. Approval for a specific item shall not include approval of an assembly of which the item is not a component. The contractor is solely responsible for rough-in and installation confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordination of this work with that of other trades on this project; and in a safe and satisfactory manner. All work shall be installed in full compliance with the manufacturer's recommendation, Federal, State and Local rules and regulation and the Authority Having Jurisdiction (AHJ) and applicable adopted codes and standards.

PROJECT NAME: Webster University I
LOCATION: St. Louis Missouri
CLIENT PROJ. NO.: N/A
WES PROJ. NO.: 607
SPECIFICATION SECTION: 211313 Wet Pipe Sprinkler System
SUBMITTAL ITEM: See Below -

CONTRACTOR: J.F. Ahern Co.
CTR. SUBMITTAL #: 21 1313-015
SUBMITTAL DATE: November 29, 2016
DATE RECEIVED: December 07, 2016
RECEIVED VIA: E-Mail
RECEIVED FROM: WTA
DATE RETURNED: DECEMBER 20, 2016
RETURNED VIA: E-MAIL
RETRURNED TO: WTASHOP@WMTAO.COM

STATUS KEY:

NO EXCEPTION TAKEN
MAKE CORRECTIONS NOTED, NO RESUBMITTAL:
AMEND AND RESUBMIT
REJECTED, SEE REMARKS:
REVIEWED ONLY

NEC	MCN	AAR	REJ	REV	ITEM	REMARKS
Pages numbers have been added to cut sheets for referencing						
X					Page 001 Schedule 10 Pipe Various Manufacturers	
X					Page 002 Schedule 40 Pipe Various Manufacturers	
X					Pages 003 – 004 Test and Drain Valve AGF Manufacture ring Model – 1011A	
X					Pages 005 – 006 Backflow Preventer Zurn Industries Model – 350A	
X					Pages 007 – 008 Standard Duty Loop Hanger Caddy Model – 115 Series	

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X					Pages 009 – 010 Universal Beam Clamp Caddy Model – 300 Series	
X					Pages 011 – 016 Carbon Steel Anchor Screw Hilti Model – 3.3.5 KWIK HUS-EZ (KH-EZ1)	
X					Page 017 Riser Clamp PHD Manufacturing Model – Fig. 550-551-553	
X					Page 018 Universal Restraining Strap Afcon Model - 162	
X					Pages 019 – 027 Sleeve Expansion Anchors Powers Fasteners Model – Lok-Bolt Hex Head and Rod Hanger	
X					Pages 028 – 031 Strut Channel Gregory Strut Products Model – G712OS, G712A, G5820S, G582A and G1320OS	
X					Page 032 Surge Restraint 115 Caddy Model – SR6	
X					Page 033 Screw Anchor/Hanger ITW Model – Sammy X-Press	
		X			Pages 034 – 039 Quick Response Dry Pendent Sprinkler Viking Model - SIN Not Specified	1. SIN numbers listed in submittal (VK172, VK176, VK180 on pages 037/038) is not listed on the FP drawings in the Sprinkler schedule.
X					Pages 040 -043 Microfast Quick Response Upright Sprinkler Viking Model – SIN VK300	
		X			Pages 044 -049 Microfast Quick Response Pendent Sprinkler Viking Model – SIN VK302	1. SIN number listed in submittal (VK302 on pages 047/048) is not listed on the FP drawings in the Sprinkler schedule.

X					Pages 050 – 055 Microfast Quick Response Horizontal Sidewall Sprinkler Viking Model – SIN VK305	
X					Pages 056 – 059 Microfast Quick Response Upright Sprinkler Viking Model – SIN VK350	
		X			Pages 060 – 065 Microfast Quick Response Pendent Sprinkler Viking Model – SIN VK352 (K8.0)	1. SIN number listed in submittal (VK352 on pages 063/064) is not listed on the FP drawings in the Sprinkler schedule.
		X			Pages 066 – 071 Microfast Quick Response Pendent Sprinkler Viknig Model – SIN VK352 (K8.0)	1. SIN number listed in submittal (VK352 on pages 069/070) is not listed on the FP drawings in the Sprinkler schedule.
X					Pages 072 – 077 Mirage Standard and QR Concealed Pendent Sprinkler Viking Model – SIN VK462	
X					Page 078 Spare Sprinkler Head Cabinet FPPI Model – Not indicated	
X					Page 079 – 089-091 Spare Sprinkler Head Cabinet TYCO Model – Not Indicated	
X					Pages 080 – 088 Sprinkler Escutcheons Viking Model -	
X					Pages 092 – 094 Sprinkler Guards Viking Model – D-1	
X					Pages 095 – 100 Standard / QR Extended Coverage Upright Sprinkler Viking Model – SIN VK532	
X					Pages 101 – 106 Standard / QR Extended Coverage Pendent Sprinkler Viking Model – SIN VK534	

X					Pages 107 – 112 Mirage QR Extended Coverage Concealed Pendent Sprinkler Viking Model – SIN VK634	
		X			Pages 113 – 120 Concealed Dry Pendant Sprinkler Reliable Model – G5-56 Dry (SIN RA5114)	1. Manufacturer and model/SIN number listed in submittal is not listed on the FP drawings in the Sprinkler schedule. 2. Color/finish of cover plate to be submitted to the Architect for review and approval.
X					Pages 121 - 124 Flexible Coupling Victaulic Model – Style 75	
X					Pages 125 - 128 Reducing Coupling Victaulic Model – Style 750	
X					Pages 129 – 131 FireLock Fittings Victaulic Model – Fire lock	
X					Pages 132 – 134 FireLock Rigid Coupling Victaulic Model – Style 005H	
X					Pages 135 – 136 Fire lock Flange Adapter Victaulic Model – Style 744	
X					Pages 137 – 144 Mechanical T Bolted Branch Outlets Victaulic Model – Styles 920 and 920N	
X					Pages 145 – 149 Firelock Rigid Coupling Victaulic Model – Style 009N	
X					Pages 150 – 151 Threaded Mechanical Branch Tee Anvil Model – Fig. MT-30	
X					Pages 152 – 153 Grooved Welded Steel Pipe Outlets Vandewater International Inc. Model - Various	
X					Pages 154 – 155 Welded Steel Pipe Outlets Vandewater International Inc. Model - Various	

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www.webb-engineering.com

X					Page 156 DI Threaded Fitting – 90 Elbow Anvil Model – Fig 3201	
X					Page 157 DI Threaded Fitting – 45 Elbow Anvil Model – Fig 3202	
X					Page 158 DI Threaded Fitting – Reducing 90 Elbow Anvil Model – Fig 3201R	
X					Page 159 DI Threaded Fitting – Straight T Anvil Model – Fig 3205	
X					Pages 160 - 161 DI Threaded Fitting – Reducing T Anvil Model – Fig 3205R	
X					Page 162 DI Threaded Fitting Anvil Model – Bull Head T	
X					Page 163 DI Threaded Fitting Cross Anvil Model - 3207	
X					Page 164 DI Threaded Fitting Anvil Model – 3221R	
X					Page 165 DI Threaded Fitting Anvil Anvil Model - 3121	
X					Page 166 DI Threaded Fitting Cap Anvil Model - 3224	
X					Page 167-168 DI Threaded Fitting Bushing Anvil Model - 3283	

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				X	Pages 169 – 183 Flexible Sprinkler Hose Victaulic Model – Series AH2 Bracket AB1, AB7 and AB7 Adjustable	1. This product is not listed in the construction documents for use on this project. Contractor has elected to incorporate into the delegated design.
X					Pages 184 – 185 Water Flow Detector System Sensor Model – WFD Series	
X					Pages 186 – 192 Supervisory Switch Potter Electrical Model – PCVS Series	
	X				Pages 193 – 194 Electric Bell Potter Electric Model – Not Indicated	1. Specified to be 10 inch diameter. Refer to specification section 211313, part 2.6, B4 and B-7.
X					Page 195 Service Gauge Ashcroft Model – 35W1005PH02LXUL300	
X					Pages 196 – 199 Intumescent Sealent STI Model - Series LCI	
X					Page 200 Fire Pump Suction and Discharge Gauges Alenco Series AG-1000L	
X					Page 201 Suction and Discharge Gauge Assembly A-C Fire Pump systems Model – Not Indicated	
	X				Pages 202 – 203 Fire Pump Test Header Potter Roemer Model – 5864-x-x-6-D-NST	1. Assembly to be mounted vertically, in space available.
Note: Fire protection drawings list sprinkler Viking model Mirage, SIN VK464 (31 total) and Viking model Dry, Sin VK194, (24 total) in the Sprinkler Schedule. These two sprinkler heads are not included in this submittal.						

REVIEWED BY: Michael R. Whitworth DATE: December 20, 2016

THESE COMMENTS ARE TO BE ATTACHED TO ALL COPIES OF THE SHOP DRAWING REFERENCED ABOVE.

CANNONDESIGN

SUBMITTAL IDENTIFICATION SHEET

To be completed by Contractor/CM

WEBSTER UNIVERSITY ISB
PROJECT NAME

8274 BIG BEND BLVD
ADDRESS

NUMBER

WEBSTER UNIVERSITY
OWNER

CANNON DESIGN
ARCHITECT / ENGINEER

Joe Voypick
SUBMITTED BY

211313-015
CONTRACTOR / CM SUBMITTAL NO.

CANNON DESIGN SUBMITTAL NO.

DRAWING / DETAIL REFERENCE

211313
SPECIFICATION SECTION / PARAGRAPH

Ahern Fire Protection
MANUFACTURER / SUPPLIER

ITEM / PRODUCT ID

REQUIRED DATE

PRIORITY

◯ CRITICAL

ITEM BEING SUBMITTED (check only one)

- ◯ Shop Drawings
- ◯ Samples (_____ copies)
- ◯ LEED Submittal
- ◯ Certification / Qualifications
- ◯ Record Documents
- ◉ Product Data
- ◯ Coordination Drawing
- ◯ Calculations
- ◯ Schedules
- ◯ O&M Manuals
- ◯ Other _____

ITEM BEING SUBMITTED FOR (check only one)

◉ Action ◯ Information Only ◯ Record

REMARKS OR DEVIATIONS

CONTRACTOR / CM CERTIFICATION
(SUBMITTALS NOT CERTIFIED WILL BE RETURNED WITHOUT REVIEW)

PARIC

PARIC CORPORATION
SUBMITTAL STAMP

THIS SHOP DRAWING HAS BEEN REVIEWED BY PARIC CORPORATION

Subcontractor remains responsible for dimensions, quantities, coordination with other trades and compliance with contract documents.

By:
Devin D. Gates

Joe Voypick
REVIEWED BY

11/30/16
DATE

To be completed by Reviewer

21 1313-015
CANNON DESIGN SUBMITTAL NUMBER

11/30/16
RECEIVED DATE

- ◯ **A. No Exceptions Taken**
  No further review of submittal is required.
- ◯ **B. Make Corrections Noted**
  Incorporate corrections in work; resubmission is not required.
- ◯ **C. Revise and Resubmit**
  Revise as noted, and resubmit for review.
- ◯ **D. Rejected**
  Submittal is not in compliance with Contract Documents; provide new submittal.
- ◯ **E. For Record / Information Only**
  Submittal was reviewed for Record / Information purposes only.
- ◯ **F. Not Required for Review**
  Submittal is not required by Contract Documents and has not been reviewed.

Review is for conformance with the design concept of this project and for general compliance with contract documents. Contractor is responsible for quantities, dimensions and compliance with contract documents and for information that pertains to fabrication processes, construction techniques and coordination of this work with all trades which will be affected thereby. This review is null and void if submittal deviates from contract documents and does not indicate or note deviations.

A/E COMMENTS ◯ See attached sheet(s) for additional comments

REVIEWED BY

DATE

77 Westport Plaza
Suite 250
St. Louis, MO 63146

TRANSMITTAL

No. 15051-0349

Paric Corporation

PROJECT: 15051-Webster University Interdisciplinary Science Building

DATE: 11/29/2016

TO: Cannon Design
1100 Clark Ave
St Louis MO 63102

Fax;
314-241-2203

RE: Wet Pipe Sprinkler System Product Data

ATTN: Kelvin Patel

JOB: 15051

WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
☐ Shop Drawings	☑ Approval	☐ Approved as Submitted
☐ Letter	☐ Your Use	☐ Approved as Noted
☐ Prints	☐ As Requested	☐ Returned After Loan
☐ Change Order	☐ Review and Comment	☐ Resubmit
☐ Plans		☐ Submit
☐ Samples	**SENT VIA:**	☐ Returned
☐ Specifications	☐ Attached	☐ Returned for Corrections
☑ Other: Product Data	☐ Separate Cover Via:	☐ Due Date:

Item	*Package*	*Code*	*Rev.*	*Copies*	*Date*	*Description*	*Status*
Submittal		211313-015	1		11/29/2016	Wet Pipe Sprinkler System Product Data	Submitted

NOTES:

CC:

Signed: _____

Devin Gates