

ERIC J. HOLCOMB, Governor
STATE OF INDIANA

INDIANA DEPARTMENT OF HOMELAND SECURITY
302 West Washington Street
Indianapolis, IN 46204



June 19, 2018
By Certified U.S. Mail

Mr. James F. Bohrer, Esq.
Mr. Cheyenne N. Riker, Esq.
Clendening Johnson & Bohrer, P.C.
409 W. Patterson Drive, Suite 205
Bloomington, IN 47493

Re: Petition for Review – Report of Inspection State Number BU29104: Indiana Center for Recovery

Dear Mr. Bohrer and Mr. Riker:

The Commission is in receipt of your petition for review of Inspection Report Order State Number BU29104: Indiana Center for Recovery, dated 6/6/2018. The petition for review is timely and has been granted by the Commission. The petition has been assigned to the Commission's administrative law judge.

The judge's office will contact you to make arrangements for further proceedings. Should you have any questions, you may contact our staff attorney assigned to the matter, Justin Guedel at JGuedel@dhs.in.gov or (317) 234-9515.

Sincerely,

Douglas J. Boyle, Director
Fire Prevention and Building Safety Commission
Indiana Department of Homeland Security
302 W. Washington Street, Room E-208
Indianapolis, IN 46204
doboyle@dhs.in.gov
(317) 650-7720

cc: Justin Guedel
ALJ
File



James F. Bohrer
Attorney at Law

jfbohrer@lawcjb.com

Cheyenne N. Riker
Attorney at Law

criker@lawcjb.com

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JUN 11 2018

LEGAL AND CODE
SERVICES

June 6, 2018

Fire Prevention and Building Safety Commission
302 West Washington St., Room W246
Indianapolis, Indiana 46204

Sent via UPS Overnight

RE: APPEAL - BU29104

TO WHOM IT MAY CONCERN:

This letter is submitted as an appeal of the Fire and Building Code Enforcement Inspection Report Order issued by the Division of Fire and Building Safety to ICFR Residence LLC on or about May 24, 2018 ("the Order"), a true and exact copy of which is attached hereto as "Exhibit A." The Order states that the property located at 909 W. First St., Bloomington, Indiana ("the Property") is "now being utilized as an I-1 occupancy." This is inaccurate because the Property currently operates under a valid Residential Rental Occupancy Permit issued by the City of Bloomington's department of Housing and Neighborhood Development. This Appeal should be granted, and the Fire Suppression System Application filed for the Property by Brown Sprinkler Corporation ("Brown") should be granted pursuant to the current R-2 use as an apartment house as defined in the Indiana Administrative Code with specific reference to the International Building Code section 310.3.

Background Facts

Indiana Center for Recovery ("ICFR") is an organization that operates an outpatient treatment clinic in Bloomington, Indiana whose primary goal is to ensure the health and safety of its patients while providing services that enable its patients to find gainful employment, strong support networks, and a bright path to healthy futures. ICFR does not own real estate, nor does it perform services other than outpatient treatment services.

409 W. PATTERSON DR., SUITE 205, BLOOMINGTON, IN 47403 • P.O. BOX 428, BLOOMINGTON, IN 47402-0428

201 NORTH ILLINOIS STREET, 16TH FLOOR, SOUTH TOWER, INDIANAPOLIS, IN 46204

T·812-332-1000 • F·812-332-7601

WWW.LAWCJB.COM

On the other hand, ICFR Residence LLC (“ICFR Residence”) is an Indiana limited liability company, which owns the Property. ICFR Residence is a real estate owner and landlord. ICFR Residence does not provide treatment services, but leases units at the Property to tenants on a weekly basis. The tenants are typically patients of ICFR, but ICFR does not render treatment services at the ICFR Residence. The ICFR Residence houses forty-four (44) residents in twelve (12) two-bed, one-bath apartment units, and ten (10) one-bed, one-bath apartment units, and there are two (2) offices located on the Property for use by ICFR Residence employees.

The ICFR Residence employees ensure tenants comply with the Bloomington noise ordinance. The noise ordinance prohibits “sound that is clearly audible to a person with normal hearing from any place other than the premises from which the source of the sound is located, when the sound occurs between the hours of nine p.m. and seven a.m.”

Each of the apartment units is leased to individual tenants, and each tenant who leases a unit at the Property is obligated to sign a lease prior to entry. A true and exact copy of the template lease utilized by ICFR Residence is attached hereto as “Exhibit B.” The lease terms are weekly, and payable weekly in the amount of sixty-five dollars (\$65.00) per week. Each unit has its own bathroom and kitchen facilities.

Procedural Status

On or around February 2018, Brown filed a Fire Suppression System Application (“the Application”) for ICFR Residence’s Property with the intention of installing an automatic sprinkler system at the Property. A true and exact copy of the Application is attached hereto as “Exhibit C.”

The Application was first signed by Kirill Veselov, in his role as a representative of ICFR Residence, but was subsequently modified by Brown. As shown on the Application, the black ink was that of Mr. Veselov, and the blue ink is that of Brown. A representative of Brown, Joshua Westerfield, confirmed that he completed the portions of the form not completed by Mr. Veselov. A true and exact copy of the email from Joshua Westerfield confirming that he completed the portions of the form not previously completed by Veselov is attached hereto as “Exhibit D.”

The use described in the Application was erroneously listed as “Halfway House” by Brown. However, the Property is currently not operating as a “halfway house.” The Property is operating under a valid Residential Rental Occupancy Permit (“the Permit”) issued by the City of Bloomington’s department of Housing and Neighborhood Development. A true and exact copy of the Permit is attached hereto as “Exhibit E.”

At this time, while the Application erroneously listed the properties as a “halfway house,” the *actual* use of the Property is an apartment house. The Property contains individual leases to individual tenants. No treatment is performed at the Property, and there is no basis to suggest that the Property is operating as anything other than an apartment house as described in Section 310.3 of the International Building Code.

In fact, the Application itself is evidence that a residential use was intended by Brown. The Application was filed on the basis that the Property was being used as a residential facility, which can be seen in the First Floor Piping Plan General Notes No. 3, the Second Floor Piping Plan General Notes No. 3, Third Floor Piping Plan, and General Notes No. 3 and hydraulic information matrix line 3. Further evidence that it was Brown's intention to apply for a residential permit is that the Hydraulic Calculations were based on an occupancy classification of "Residential."

Erica Cooley of the Division of Fire and Building Safety ("the Division") inspected the Property on or about May 24, 2018. She found that the Property "is classified and was previously used as apartments (R-2 occupancy); it is now being utilized as an I-1 occupancy." On this basis, Ms. Cooley issued the Order, and stated that the "building does not currently comply as an I-1 occupancy."

Analysis

Under 675 I.A.C. 13-2.6-1, the Fire Prevention and Building Safety Commission ("the Commission") adopts by reference the 2012 Edition of the International Building Code ("the Code"). The Code defines, by way of example, R-2 and I-1 uses. Section 310.1 of the Code states that "Residential Group R includes, among others, the use of a building or structure, or a portion thereof, for sleeping purposes when not classified as an Institutional Group I or when not regulated by the *International Residential Code*." Intern'l Bldg. Code §310.1 (emphasis in original). "Residential Group R-2" is defined as:

Residential occupancies containing *sleeping units* or more than two *dwelling units* where the occupants are primarily permanent in nature, including:

- Apartment houses
- Boarding houses* (nontransient) with more than 16 occupants
- Congregate living facilities* (nontransient) with more than 16 occupants
- Convents
- Dormitories
- Fraternities and sororities
- Hotels (nontransient)
- Live/work units
- Monasteries
- Motels (nontransient)
- Vacation timeshare properties

Intern'l. Bldg. Code §310.4 (2012 Ed.)(emphasis in original). On the other hand, an I-1 Occupancy Group includes:

buildings, structures or portions thereof for more than 16 persons who reside on a 24 hour basis in a supervised environment and receive *custodial care*. The persons receiving care are capable of self preservation. This group shall include, but not be limited to the following:

Alcohol and drug centers
Assisted living facilities
Congregate care facilities
Convalescent facilities
Group homes
Halfway houses
Residential and *custodial care* facilities
Social rehabilitation facilities

Intern'l Bldg. Code §308.3 (2012 Ed.)(emphasis in original).

In order to show that ICFR Residence is operating under the I-1 occupancy group, it must be shown that the residents of ICFR Residence receive "custodial care," which is defined in the Code as:

Assistance with day-to-day living tasks; such assistance with cooking, taking medication, bathing, using toilet facilities and other tasks of daily living. Custodial care includes persons receiving care who evacuate at a slower rate and/or who have mental and psychiatric complications.

Intern'l Bldg. Code §202. Accordingly, unless it can be shown that the residents of ICFR Residence receive assistance with day-to-day living tasks, there can be no finding that ICFR Residence operates within the I-1 occupancy group.

In fact, none of the residents of ICFR Residence receive assistance with day-to-day living tasks from anyone at ICFR Residence. The residents of ICFR Residence are free to come and go as they please, and they are fully capable of doing so. The definition of "custodial care" is clearly intended to include group homes for individuals who are incapable of completing day-to-day tasks on their own. Here, that is not the case. The residents of ICFR Residence care for themselves, cook for themselves (or find food or meals in places other than at ICFR Residence), bathe themselves, and are fully capable of using the toilet facilities on their own. Some of the residents are employed, which would normally not be the case for someone who must receive custodial care.

The ICFR Residence is not being operated as a halfway house and such a characterization does not accurately reflect its current use. The Property's current use is properly characterized as an R-2 use as an "apartment house" pursuant to International Building Code §310.4, as adopted by reference by the Commission under 675 I.A.C. 13-2.6-1. The use did not change by Brown's application to install sprinklers.

Even if ICFR Residence is not an "apartment house" as defined in the Code, its current use certainly qualifies it as a "congregate living facility" as "a *building* or part thereof that contains *sleeping units* where residents share bathroom and/or kitchen facilities." Intern'l Bldg. Code §202 (2012 Ed.)(emphasis added). The ICFR Residence is operating as an apartment house, but can also be categorized as a "congregate living facility." Some of the tenants of ICFR Residence live in the same apartment unit, in which they share bathroom and/or kitchen facilities as roommates; however, there is no common kitchen,

facility or bathroom facility shared among all the residents on the Property. As such, the tenants' use could also be consistent with the definition of congregate living facility as defined by the Code.

There is no use under the I-1 that is consistent with the use of ICFR Residence. ICFR Residence is not an alcohol and drug center (the Code does not define this term, but no treatment is rendered at ICFR Residence), it is not a halfway house, it is not a social rehabilitation facility – it is an apartment house. The use of the Property did not change by Brown's application to install sprinkler systems in the Property.

Conclusion

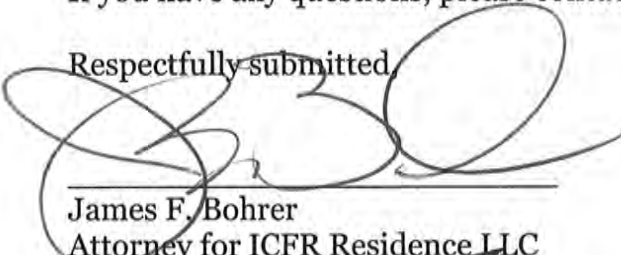
There is no factual basis for the conclusion that the Property is being used as anything other than as an apartment building. The Order does not state a factual basis for the finding that the Property is now operating under an I-1 occupancy, other than that Cooley inspected the Property in the presence of Bloomington Fire Inspector Tim Clapp, Bloomington Building Department Inspector Bobby Larue, and Matt Ryan of ICFR. The presence of other individuals is not sufficient to warrant a finding that the Property is operating under an I-1 occupancy. There has been no change in the character or use of the ICFR Residence, and, as such, there is no basis for denying the Application.

ICFR Residence has operated the Property as an apartment house since it was purchased on March 23, 2017. The character and use of the Property has remained the same – it has continued to be operated as an apartment house. The use as an apartment house is also consistent with the occupancy permit issued by the City of Bloomington department of Housing and Neighborhood Development. Its current use is consistent with use under the R-2 occupancy group, and it is not consistent with use under the I-1 occupancy group.


In light of the foregoing, the Application should be approved and the Order reversed.

If you have any questions, please contact the undersigned at your convenience.

Respectfully submitted,



James F. Bohrer
Attorney for ICFR Residence LLC



Cheyenne N. Riker
Attorney for ICFR Residence LLC

Cc: Andy Triggs, Kirill Veselov

EXHIBIT A



FIRE AND BUILDING CODE ENFORCEMENT INSPECTION REPORT ORDER

DIVISION OF FIRE AND BUILDING SAFETY
INDIANA DEPARTMENT OF HOMELAND SECURITY
302 WEST WASHINGTON STREET, RM E241
INDIANAPOLIS, IN 46204
TELEPHONE: 317-232-2222
WEB ADDRESS: WWW.IN.GOV/DHS

Identification Number BU29104	Name of the facility INDIANA CENTER FOR RECOVERY	County MONROE
Address of Property 909 W FIRST ST BLOOMINGTON 47403	Name of the Contact JACKIE DANIELS	Telephone Number (812) 287-7858
Email JACKIE@TREATMENTINDIANA.COM	Inspection Date 05/24/2018	
Inspection Category BUSINESS/MANUFACTURING	Inspection Type INITIAL	Inspection Status: VIOLATION
Name of the inspector ERICA COOLEY	Phone: 3175010472	
Email: ecooley@dhs.in.gov		

Violations

VIO-LATION NUMBER	RULE OR INDIANA CODE SECTION VIOLATED	DESCRIPTION OF VIOLATION	DATE BY WHICH VIOLATION MUST BE CORRECTED
1	675 IAC 12-4-11(b)	<p>No change in the character or use of any building or structure shall be permitted that shall cause the building or structure to be classified within a different occupancy group or within a different division of the same occupancy group, unless the building or structure complies with, or is made to comply with the:</p> <p>(1) current rules of the commission for new construction for the proposed revised use of the building; or</p> <p>(2) provisions of:</p> <p>(A) Chapter 34 of the Indiana Building Code (675 IAC 13-2.5-32); or</p> <p>(B) 675 IAC 12-13.</p> <p><u>This building is classified and was previously used as apartments (R-2 occupancy); it is now being utilized as an I-1 occupancy. The building does not currently comply as an I-1 occupancy. Building and fire code requirements for an I-1 occupancy such as, but not limited to, a compliant fire alarm and detection system, sprinkler suppression, exit lighting, accessibility, etc. are not present in this building.</u></p>	06/24/2018

Inspection Notes:

Our office was notified that this facility may have undergone a change of use without full compliance. Upon inspection today, accompanied by Bloomington Fire Inspector Tim Clapp, Bloomington Building Department Inspector Bobby Larue, as well as Safety Officer for Indiana Recovery Center Matt, it was determined that this former apartment building (R-2) is now clearly being utilized as an Institutional Group I-1. The building does not comply as an I-1. Owner has been provided with this report and advised of a 30 day timeframe to comply or vacate.

Facility Id BU29104	Received By Name	Signature and Date
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APPEAL RIGHTS

Please be advised that if you desire administrative review of this Order and **this Order was delivered by hand**, you must file a written petition for review with the Fire Prevention and Building Safety Commission at 302 West Washington Street, Rm. W246, Indianapolis, IN 46204, identifying the violations for which you seek review no later than 15 calendar days from the hand delivery date of this Order unless such date is a Saturday, Sunday, legal holiday under state statute, or day that the Department of Homeland Security's offices are closed during regular business hours, in which case the deadline would be the first calendar day thereafter that is not a Saturday, Sunday, legal holiday under state statute, or day that the Department of Homeland Security's offices are closed during regular business hours. If you do so, your petition for review will be granted and an administrative proceeding will be conducted by an administrative law judge appointed by the Fire Prevention and Building Safety Commission. If you do not file a petition for review, this Order will be **FINAL** and you **MUST** comply with its requirements.

Please be advised that if you desire administrative review of **this Order and this Order was delivered by first class U.S. mail**, you must file a written petition for review with the Fire Prevention and Building Safety Commission at 302 West Washington Street, Rm. W246, Indianapolis, IN 46204, identifying the violations for which you seek review no later than 18 calendar days from the mailing date of this Order unless such date is a Saturday, Sunday, legal holiday under state statute, or day that the Department of Homeland Security's offices are closed during regular business hours, in which case the deadline would be the first calendar day thereafter that is not a Saturday, Sunday, legal holiday under state statute, or day that the Department of Homeland Security's offices are closed during regular business hours. If you do so, your petition for review will be granted and an administrative proceeding will be conducted by an administrative law judge appointed by the Fire Prevention and Building Safety Commission. If you do not file a petition for review, this Order will be **FINAL** and you **MUST** comply with its requirements.

Please be further advised that you may request an opportunity to informally discuss this Order prior to filing a petition for review. Such informal discussion, or a request therefor, does not extend the deadline for filing a petition for review and, therefore, any request for an informal discussion should be made promptly, preferably by telephone, upon receipt of this Order.

EXHIBIT B

Lease Agreement

This agreement is entered into this ____ day of _____, 2018 by and between ICFR Residence, LLC., 909 West Street Bloomington, Indiana 47403, herein referred to as "ICFR Residence, LLC." and _____, herein referred to as "Lessee."

WITNESSETH:

WHEREAS, ICFR Residence, LLC. is in the business of providing residences for individuals;
and

WHEREAS, ICFR Residence, LLC. maintains apartment _____ at the 909 West Street Bloomington, Indiana 47403 for said purpose, and

WHEREAS, Lessee understands and acknowledges that he/she is not to be the sole resident of said apartment, but the ICFR Residence, LLC. has or will lease to other tenants who will resident therein during the term of this lease; and

WHEREAS, Lessee wishes to reside with others in said apartment, upon the terms and conditions set forth herein;

NOW THEREFORE, in consideration of the premises and the mutual covenants contained herein, it is agreed as follows:

1. RENT.

Lessee agrees to pay, without demand, to ICFR Residence, LLC., as the required portion of rent for the apartment, sixty five and no/100 dollars (\$65.00) per week in advance on the Sunday, the first day of the rental week. The rental week shall run from Sunday to Saturday, or any portion thereof. Said payments shall be made at ICFR Residence, LLC. at above address or at such other places ICFR Residence, LLC. may designate. ICFR Residence, LLC. hereby acknowledges receipt of the payment of one hundred sixty five dollars and no/100 (\$165.00) representing payment of the first week's rent paid in advance and a non-refundable administrative fee, unless other terms were agreed upon.

2. ADMINISTRATIVE FEE.

On execution of this Lease, Lessee shall make payment to ICFR Residence, LLC., one hundred dollars (\$100.00) as an administrative fee as mentioned for the timely performance by Lessee of the terms hereof unless other terms were agreed upon.

3. USE OF PREMISES.

The premises shall be used and occupied by Lessee exclusively as a Residence, and no part thereof shall be used at any time during the term of this Lease by Lessee for the purpose of carrying on any business, profession, or trade of any kind, or for the purpose other than that as a Residence. Lessee shall comply with all the sanitary laws, ordinance, rules, and orders of appropriate governmental authorities affecting the cleanliness, occupancy, and preservation of the premises, as well as all rules and regulations of the Apartment/Condominium Board and ICFR Residence, LLC. during the term of this lease.

4. NUMBER OF OCCUPANTS.

The leased premises shall be occupied by one or more adult persons (one of whom shall be the Lessee)(the number of occupants shall not exceed the number of occupants prescribed by law as from time to time may vary depending on the location of the Residence). No additional persons may occupy the premises, nor shall the Lessee allow any relative, friend or acquaintance occupy the same at any time. Occupancy is limited to the adult individuals who shall have secured a written lease therefore from ICFR Residence, LLC..

5. CONDITION OF PREMISES.

Lessee stipulates that he/she has examined the premises, and improvements, and they are at the time of this lease, in good order and repair and a safe, clean and tenantable condition.

6. ASSIGNMENT AND SUBLETTING.

Without the prior written consent of ICFR Residence, LLC., Lessee shall not assign this Lease, or sublet or grant any license to use the premises or any part thereof. An assignment, subletting, or license without the prior written consent of ICFR Residence, LLC. or an assignment of subletting by operation of law, shall be void and shall, at ICFR Residence, LLC. option, terminate this Lease and, upon written demand of ICFR Residence, LLC., Lessee shall immediately vacate the premise and forfeit any and all security deposits as a result.

7. DAMAGE TO PREMISES.

If the premises, or any part thereof, shall be partially damaged by fire or other faculty not due to Lessee's negligence or willful act or that of his/her employee, family, agent, or visitor, the premises shall be promptly repaired by Lesser and there shall be an abatement of rent corresponding with the time during which, and the extent to which, the premises are untenable. ICFR Residence, LLC. shall have the option of not rebuilding or repairing, in which event the term of this Lease shall end and the rent shall be prorated up to the time of the damage.

8. UTILITIES.

ICFR Residence, LLC. shall be responsible for arranging and paying for all utility services required on the premises such as water, cable television, electricity (limited to the first three hundred and no/100 dollars (\$300.00) per month – balance to be split by residents of apartment), local telephone and garbage service.

9. FURNISHINGS.

The apartment is leased as a furnished apartment containing the items of household furniture, beds, kitchen utensils, television, microwave, towels, linens and other household items and is expressly made a part of this Lease. Lessee agrees to return all items to ICFR Residence, LLC. at the end of the term of this Lease in as good condition as when received, reasonable wear and tear being only excepted. Lessee by the execution of this Lease accepts all items listed on the schedule as being in good and serviceable condition. Lessee further accepts any damage, misuse or loss of the items of furnishing shall constitute valid cause for the Leaser to retain the damage security deposit.

10. MAINTENANCE AND REPAIR.

Lessee shall promptly make any and all repairs to the premises, plumbing, fixtures, wiring, etc., when the damages were caused by the fault or negligence of the Lessee.

11. ANIMALS.

Lessee shall keep no domestic or other animals on or about the premises. Feeding of wild or stray animals on residence property is prohibited.

12. INSPECTION OF PREMISES.

ICFR Residence, LLC. and his agents shall have the right at all times during the term of this Lease and any renewal thereof to enter the premises for the purpose of inspecting the premises.

13. HOLDOVER BY LESSEE.

If Lessee remains in possession of the premises with the consent of ICFR Residence, LLC. after the natural expiration of this Lease, a new tenancy from week to week shall be created between ICFR Residence, LLC. and Lessee, which shall be subject to all the terms and conditions hereof but shall be terminable on one week written notice served by either party.

14. SURRENDER OF PREMISES.

At the expiration of the Lease term, Lessee shall surrender the premises in as good state and condition as it was at the commencement of this Lease, reasonable use and wear thereof and damages by the elements expected.

15. DEFAULT.

If Lessee fails to comply with any of the material provisions of this Lease, other than the covenant to pay rent, or of any present rules and regulations prescribed by Pathways to Peace, a copy of which is attached hereto, or materially fails to comply with any duties imposed on Lessee by statute, within seven (7) days after delivery of written notice by ICFR Residence, LLC. specifying the noncompliance and indicating the intention of ICFR Residence, LLC. to terminate the Lease by reason thereof, ICFR Residence, LLC. may terminate the Lease and Lessee shall immediately vacate the premises. If Lessee fails to pay rent when due and the default continues for three(3) days after the delivery of written demand by ICFR Residence, LLC. for payment of the rent or possession of the premises, ICFR Residence, LLC. may terminate the Lease and Lessee shall immediately vacate the premises.

IN ADDITION TO THE ABOVE, the Lessee acknowledges and agrees to maintain their individual sobriety and also agrees to vacate the premises immediately upon written notice of failure to comply with any of the following three terminable violations of the ICFR Residence, LLC. Rules.

The three terminable violations of the ICFR Residence, LLC. rules are:

A. Any use of Alcohol, Drugs or any mood altering substances. Use and/or possession thereof will result in immediate termination of this Lease. The only exceptions are medications taken under the care and direction of your physician. (Prior notification to staff is required.) (Notice of this violation shall also constitute retention of the security deposit described in the Lease at Paragraph 2 if the occurrence is within the first six months of the Lessees lease).

B. Physical Confrontation of Acting-Out/Yelling, Verbal or Physical Threats (Notice of this violation shall also constitute retention of the security deposit described in the Lease at Paragraph 2 if the occurrence is within the first six months of the Lessees lease).

C. Only the staff and residents are allowed on the premises. Any members of the opposite sex in your apartment for any reason, at any time, will result in the immediate termination of this Lease. (Notice of this violation shall also constitute retention of the security deposit described in the Lease at Paragraph 2 if the occurrence is within the first six months of the Lessees lease).

16. ABANDONMENT.

If at any time during the term of this Lease, Lessee abandons the premises or any part thereof, ICFR Residence, LLC. may, at its option, obtain possession of the premises in the manner provided by law, and without becoming liable to Lessee for damages or for any payment of any kind whatsoever. ICFR Residence, LLC. may, at its discretion, as agent for Lessee, re-let the premises, or any part thereof, for the whole or any part of the then unexpired term, and may receive and collect all rent payable by virtue of such re-letting, and at ICFR Residence, LLC. option, hold Lessee liable for any difference between the rent that would have been payable under this Lease during the balance of the unexpired term, if this Lease had continued in force, and the net rent for such period realized by ICFR Residence, LLC. by means of such re-letting. Any or all personal items left in the apartment after Lessee abandons the premises, will be held for 30 days by ICFR Residence, LLC., after which said items will be forwarded to the permanent address of the Lessee.

17. BINDING EFFECT.

The covenants and conditions herein contained shall apply to and bind the heirs, legal representatives and assigns of the parties hereto, and all covenants are to be construed as conditions of this Lease.

ICFR Residence, LLC.

Lessee by:

By:

Date

Date

EXHIBIT C



**FIRE SUPPRESSION
SYSTEM APPLICATION**
 STANDARD / **PARTIAL**
 State Form 28354 (R / 5-99)

Return to: INDIANA DEPARTMENT OF FIRE AND BUILDING SERVICES
 PLAN REVIEW DIVISION
 OFFICE OF THE STATE BUILDING COMMISSIONER
 INDIANA GOVERNMENT CENTER SOUTH
 402 W WASHINGTON ST RM E245
 INDIANAPOLIS IN 46204-2739
 www.state.in.us/sem

PLEASE PRINT CLEARLY

Name of Firm or Individual Brown Sprinkler Corp.				Contact Person <i>Josh Westerfield</i>	
Address (number and street) 5250 Commerce Circle				Telephone Number <i>(317) 889-4225</i>	
I hereby certify to the best of my knowledge, the fire suppression system design for the listed installation location conforms to the application rules of the Fire Prevention and Building Safety Commission. Also, the design criteria for the facility is correct.					
<input type="checkbox"/> Certified Fire Sprinkler Designer		Architect <input type="checkbox"/> Reg. Number _____		Engineer <input type="checkbox"/> Reg. Number <u>117925</u>	
Signature <i>[Signature]</i>		Name (type or printed) Ryan O'Hara			
City Indianapolis	State IN	Telephone Number (317) 889-4225	Fax Number (317) 889-9895	E-mail Address - <i>joshwesterfield@brownsprinkler.com</i>	Zip Code 46237

As owner of the project for which this application is being filed, I hereby certify:

- The description of facility use is correct;
- the installation will be constructed in accordance with the released plans, specifications and applicable rule of the Fire Prevention and Building Safety Commission;
- any changes to the release documents will be filed with the Office of the State Building Commissioner;

Signature of the Owner or Legal Designer <i>[Signature]</i>		Name (typed or printed) <i>Kirill Vesselov</i>		Address (number and street) <i>1004 W 1st St</i>	
City <i>Bloomington</i>	State <i>IN</i>	Telephone Number <i>(715) 740-3550</i>	Fax Number <i>(601) 1016-9087</i>	E-mail Address <i>andy@rxunited.com</i>	Zip Code <i>47403</i>

Name of Project Indiana Center for Recovery			Project Number		
Project Address (Number and Street) 909 W 1 st Street		Suite or Floor		Telephone Number ()	
City Bloomington	County Monroe	Facility Use <i>Handyman House</i>		Design Professional of Record	
Closest intersecting Street or Road <i>SOUTH EUCLID AVE.</i>		Is project within city limits? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no		Direction from location <input type="checkbox"/> North <input type="checkbox"/> East <input checked="" type="checkbox"/> West	

Name of Fire Department <i>Bloomington FD</i>	Fire Department Identification Number
Address of Department (number and street, city, township, Zip code)	

Code Review Official (Full Name)	Date Released
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Under the provisions of the General Administrative Rules (675 IAC 12-6-4) a design release is required for the installation or alteration of a fire suppression system, prior to start of work. Exception: Maintenance and/ or repair to existing fire suppression system need not be filed. Addition or alterations limited to those listed in GAR Section 12-6-4 need not be filed.

STANDARD FILING FEE	PROCESSING	PARTIAL	FOUNDATION	INSPECTION	LATE FILING	TOTAL

1. Completed Application for Fire Suppression System.
 2. Appropriate filing fees, see current fee schedule.
 3. One complete set of plans, specifications and hydraulic calculations containing the following:
 a. Ceiling construction type (noted on plans).
 b. Full height wall cross section.
 c. Location of area separation walls and fire rating in hours (note on plans).
 d. Location of partitions and fire rating if required (note on plans).
 e. Occupancy (usage) of the structure, each area or room.
 f. Size of city main in street, static and residual pressure, flow (GPM) and whether dead end or circulating.

k. Other sources of water supply, with pressure or elevation.
 l. Make, type and normal or nominal orifice size sprinkler heads.
 m. Total area protected by each system on each floor.
 n. Number of sprinklers on each riser per floor
 o. All control valves, check valves, drain pipes and test pipes.
 p. Total number of sprinklers on each dry pipe system, pre-action system, combined dry / pre-action, or deluge system.
 q. Type and location of hangers and sleeves.
 r. When an addition to an existing system, enough of the existing system shall be indicated to verify compliance.
 s. Hydraulic calculations which includes the water supply, sprinkler, hose stream, and in rack demands.

<input checked="" type="checkbox"/> Hydraulic Calculations	<input type="checkbox"/> Pipe Schedule	<input type="checkbox"/> Combination (Hydraulic and Pipe Schedule)
--	--	--

NFPA STANDARD 13R Other _____

Water Spray Dry Pre-Action Foam Deluge

Carbon Dioxide Wet Standpipe Dry Standpipe Dry Chemical Wet Chemical

RI Occupancy Backflow Preventers Fire Department Seismic Bracing Return Bends

Residential Yes No Listed Connection Yes No Yes No

Quick Response

Total Number of heads this Application 209 Sprinkler Data Sheets Provided Yes No

System Supervised Proposed Existing

Number of Stories <u>3</u>	Total Floor Area of Facility <u>18,000 sq. ft.</u>	Total Height of Building in Feet <u>35'</u>
<input type="checkbox"/> New Building	<input type="checkbox"/> Remodeling	<input type="checkbox"/> Building upgrade use of facility _____
<input type="checkbox"/> Addition	<input checked="" type="checkbox"/> Change of Occupancy	<input type="checkbox"/> Change of Use
Hazard Classification <u>Light/Residential</u> High Pile storage of racks and piles (maximum) <u>NIA</u>		
<input type="checkbox"/> Solid	<input type="checkbox"/> Racks	Commodity <input type="checkbox"/> I <input type="checkbox"/> II
<input type="checkbox"/> Palletized	<input type="checkbox"/> Others <u>NIA</u>	<input type="checkbox"/> I <input type="checkbox"/> V Other <u>NIA</u>
Plastics <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C		
Flammable / Combustible Liquids / Gases <u>NIA</u>	Aerosols Type <u>NIA</u>	Fireworks / Explosives <u>NIA</u>

Static Pressure <u>60</u> PSI	Residual Pressure <u>58</u> PSI	Gallons per Minute <u>699</u> GPM
Remote area used <u>600 sq. ft.</u>	Density use <u>.100</u>	Hose Stream Allowance <u>100</u>
Type of supply <input checked="" type="checkbox"/> City water main	<input type="checkbox"/> Reservoir	<input type="checkbox"/> Gravity Tank
<input type="checkbox"/> Private water main	<input type="checkbox"/> Private Well	<input type="checkbox"/> Other _____
System supply Exceeds demand <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Fire Pump Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Type: <input type="checkbox"/> Electric <input type="checkbox"/> Diesel	Other <u>NIA</u>
Rate: Flow <u>0</u> GPM	Pressure <u>0</u> PSI	



**NATIONAL INSTITUTE FOR CERTIFICATION
IN ENGINEERING TECHNOLOGIES®**

Ryan P. O'Hara

**WATER-BASED (FORMERLY AUTOMATIC SPRINKLER)
SYSTEMS LAYOUT/III**

CERT NO. 117925 VALID THRU 11/01/2018

NORTH ↑

PROJECT NO: 87222-2024
 CONTRACT NO: 2400-0000-0000-0000
 DRAWING NO: 2400-0000-0000-0000
 SCALE: 1/8" = 1'-0"
 DATE: 07/22/2024

FP SITE PLAN

FP SITE PLAN

Indiana Center for Recovery
 909 W 1st St., Bloomington, IN 47403

BROWN SPRINKLER CORPORATION
 2000 W. 10th Street
 Columbus, IN 47321
 (317) 281-8888 FAX (317) 281-8779 FAX

SPRINKLER SCHEDULE 1 LEGEND

SYMBOL	DESCRIPTION	CONTRACT RESPONSIBILITY
1	EXISTING CAST UNDERGROUND	OWNER
2	C900 UNDERGROUND PIPE	OWNER
3	EXISTING WASTE WATER	OWNER
4	EXISTING ELECTRICAL UG	OWNER
5	EXISTING FIBEROPTICS	OWNER

NOTES

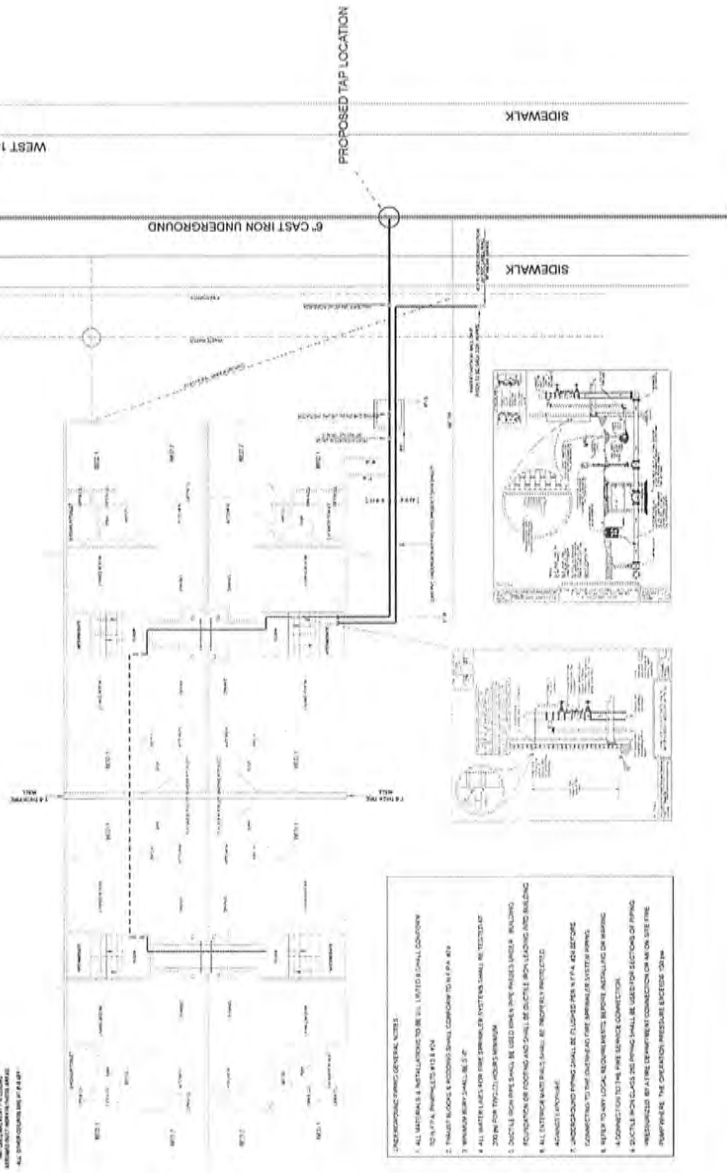
- ALL EXISTING UNDERGROUND UTILITIES SHALL BE MAINTAINED AND PROTECTED AT ALL TIMES.
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LEGEND

- EXISTING CAST UNDERGROUND
- C900 UNDERGROUND PIPE
- EXISTING WASTE WATER
- EXISTING ELECTRICAL UG
- EXISTING FIBEROPTICS

UNDERGROUND PIPING GENERAL NOTES

- ALL MATERIALS AND METHODS TO BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NFPA 2000, NFPA 13, NFPA 13A, NFPA 13R, NFPA 13D, NFPA 13E, NFPA 13F, NFPA 13G, NFPA 13H, NFPA 13J, NFPA 13K, NFPA 13L, NFPA 13M, NFPA 13N, NFPA 13O, NFPA 13P, NFPA 13Q, NFPA 13R, NFPA 13S, NFPA 13T, NFPA 13U, NFPA 13V, NFPA 13W, NFPA 13X, NFPA 13Y, NFPA 13Z, NFPA 13AA, NFPA 13AB, NFPA 13AC, NFPA 13AD, NFPA 13AE, NFPA 13AF, NFPA 13AG, NFPA 13AH, NFPA 13AI, NFPA 13AJ, NFPA 13AK, NFPA 13AL, NFPA 13AM, NFPA 13AN, NFPA 13AO, NFPA 13AP, NFPA 13AQ, NFPA 13AR, NFPA 13AS, NFPA 13AT, NFPA 13AU, NFPA 13AV, NFPA 13AW, NFPA 13AX, NFPA 13AY, NFPA 13AZ, NFPA 13BA, NFPA 13BB, NFPA 13BC, NFPA 13BD, NFPA 13BE, NFPA 13BF, NFPA 13BG, NFPA 13BH, NFPA 13BI, NFPA 13BJ, NFPA 13BK, NFPA 13BL, NFPA 13BM, NFPA 13BN, NFPA 13BO, NFPA 13BP, NFPA 13BQ, NFPA 13BR, NFPA 13BS, NFPA 13BT, NFPA 13BU, NFPA 13BV, NFPA 13BW, NFPA 13BX, NFPA 13BY, NFPA 13BZ, NFPA 13CA, NFPA 13CB, NFPA 13CC, NFPA 13CD, NFPA 13CE, NFPA 13CF, NFPA 13CG, NFPA 13CH, NFPA 13CI, NFPA 13CJ, NFPA 13CK, NFPA 13CL, NFPA 13CM, NFPA 13CN, NFPA 13CO, NFPA 13CP, NFPA 13CQ, NFPA 13CR, NFPA 13CS, NFPA 13CT, NFPA 13CU, NFPA 13CV, NFPA 13CW, NFPA 13CX, NFPA 13CY, NFPA 13CZ, NFPA 13DA, NFPA 13DB, NFPA 13DC, NFPA 13DD, NFPA 13DE, NFPA 13DF, NFPA 13DG, NFPA 13DH, NFPA 13DI, NFPA 13DJ, NFPA 13DK, NFPA 13DL, NFPA 13DM, NFPA 13DN, NFPA 13DO, NFPA 13DP, NFPA 13DQ, NFPA 13DR, NFPA 13DS, NFPA 13DT, NFPA 13DU, NFPA 13DV, NFPA 13DW, NFPA 13DX, NFPA 13DY, NFPA 13DZ, NFPA 13EA, NFPA 13EB, NFPA 13EC, NFPA 13ED, NFPA 13EE, NFPA 13EF, NFPA 13EG, NFPA 13EH, NFPA 13EI, NFPA 13EJ, NFPA 13EK, NFPA 13EL, NFPA 13EM, NFPA 13EN, NFPA 13EO, NFPA 13EP, NFPA 13EQ, NFPA 13ER, NFPA 13ES, NFPA 13ET, NFPA 13EU, NFPA 13EV, NFPA 13EW, NFPA 13EX, NFPA 13EY, NFPA 13EZ, NFPA 13FA, NFPA 13FB, NFPA 13FC, NFPA 13FD, NFPA 13FE, NFPA 13FF, NFPA 13FG, NFPA 13FH, NFPA 13FI, NFPA 13FJ, NFPA 13FK, NFPA 13FL, NFPA 13FM, NFPA 13FN, NFPA 13FO, NFPA 13FP, NFPA 13FQ, NFPA 13FR, NFPA 13FS, NFPA 13FT, NFPA 13FU, 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NFPA 13JI, NFPA 13JJ, NFPA 13JK, NFPA 13JL, NFPA 13JM, NFPA 13JN, NFPA 13JO, NFPA 13JP, NFPA 13JQ, NFPA 13JR, NFPA 13JS, NFPA 13JT, NFPA 13JU, NFPA 13JV, NFPA 13JW, NFPA 13JX, NFPA 13JY, NFPA 13JZ, NFPA 13KA, NFPA 13KB, NFPA 13KC, NFPA 13KD, NFPA 13KE, NFPA 13KF, NFPA 13KG, NFPA 13KH, NFPA 13KI, NFPA 13KJ, NFPA 13KL, NFPA 13KM, NFPA 13KN, NFPA 13KO, NFPA 13KP, NFPA 13KQ, NFPA 13KR, NFPA 13KS, NFPA 13KT, NFPA 13KU, NFPA 13KV, NFPA 13KW, NFPA 13KX, NFPA 13KY, NFPA 13KZ, NFPA 13LA, NFPA 13LB, NFPA 13LC, NFPA 13LD, NFPA 13LE, NFPA 13LF, NFPA 13LG, NFPA 13LH, NFPA 13LI, NFPA 13LJ, NFPA 13LK, NFPA 13LL, NFPA 13LM, NFPA 13LN, NFPA 13LO, NFPA 13LP, NFPA 13LQ, NFPA 13LR, NFPA 13LS, NFPA 13LT, NFPA 13LU, NFPA 13LV, NFPA 13LW, NFPA 13LX, NFPA 13LY, NFPA 13LZ, NFPA 13MA, NFPA 13MB, NFPA 13MC, NFPA 13MD, NFPA 13ME, NFPA 13MF, NFPA 13MG, NFPA 13MH, NFPA 13MI, NFPA 13MJ, NFPA 13MK, NFPA 13ML, NFPA 13MN, NFPA 13MO, NFPA 13MP, NFPA 13MQ, NFPA 13MR, NFPA 13MS, NFPA 13MT, NFPA 13MU, NFPA 13MV, NFPA 13MW, 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NFPA 13QK, NFPA 13QL, NFPA 13QM, NFPA 13QN, NFPA 13QO, NFPA 13QP, NFPA 13QQ, NFPA 13QR, NFPA 13QS, NFPA 13QT, NFPA 13QU, NFPA 13QV, NFPA 13QW, NFPA 13QX, NFPA 13QY, NFPA 13QZ, NFPA 13RA, NFPA 13RB, NFPA 13RC, NFPA 13RD, NFPA 13RE, NFPA 13RF, NFPA 13RG, NFPA 13RH, NFPA 13RI, NFPA 13RJ, NFPA 13RK, NFPA 13RL, NFPA 13RM, NFPA 13RN, NFPA 13RO, NFPA 13RP, NFPA 13RQ, NFPA 13RR, NFPA 13RS, NFPA 13RT, NFPA 13RU, NFPA 13RV, NFPA 13RW, NFPA 13RX, NFPA 13RY, NFPA 13RZ, NFPA 13SA, NFPA 13SB, NFPA 13SC, NFPA 13SD, NFPA 13SE, NFPA 13SF, NFPA 13SG, NFPA 13SH, NFPA 13SI, NFPA 13SJ, NFPA 13SK, NFPA 13SL, NFPA 13SM, NFPA 13SN, NFPA 13SO, NFPA 13SP, NFPA 13SQ, NFPA 13SR, NFPA 13SS, NFPA 13ST, NFPA 13SU, NFPA 13SV, NFPA 13SW, NFPA 13SX, NFPA 13SY, NFPA 13SZ, NFPA 13TA, NFPA 13TB, NFPA 13TC, NFPA 13TD, NFPA 13TE, NFPA 13TF, NFPA 13TG, NFPA 13TH, NFPA 13TI, NFPA 13TJ, NFPA 13TK, NFPA 13TL, NFPA 13TM, NFPA 13TN, NFPA 13TO, NFPA 13TP, NFPA 13TQ, NFPA 13TR, NFPA 13TS, NFPA 13TT, NFPA 13TU, NFPA 13TV, NFPA 13TW, 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NFPA 13XK, NFPA 13XL, NFPA 13XM, NFPA 13XN, NFPA 13XO, NFPA 13XP, NFPA 13XQ, NFPA 13XR, NFPA 13XS, NFPA 13XT, NFPA 13XU, NFPA 13XV, NFPA 13XW, NFPA 13XX, NFPA 13XY, NFPA 13XZ, NFPA 13YA, NFPA 13YB, NFPA 13YC, NFPA 13YD, NFPA 13YE, NFPA 13YF, NFPA 13YG, NFPA 13YH, NFPA 13YI, NFPA 13YJ, NFPA 13YK, NFPA 13YL, NFPA 13YM, NFPA 13YN, NFPA 13YO, NFPA 13YP, NFPA 13YQ, NFPA 13YR, NFPA 13YS, NFPA 13YT, NFPA 13YU, NFPA 13YV, NFPA 13YW, NFPA 13YX, NFPA 13YY, NFPA 13YZ, NFPA 13ZA, NFPA 13ZB, NFPA 13ZC, NFPA 13ZD, NFPA 13ZE, NFPA 13ZF, NFPA 13ZG, NFPA 13ZH, NFPA 13ZI, NFPA 13ZJ, NFPA 13ZK, NFPA 13ZL, NFPA 13ZM, NFPA 13ZN, NFPA 13ZO, NFPA 13ZP, NFPA 13ZQ, NFPA 13ZR, NFPA 13ZS, NFPA 13ZT, NFPA 13ZU, NFPA 13ZV, NFPA 13ZW, NFPA 13ZX, NFPA 13ZY, NFPA 13ZZ



WEST 1ST STREET

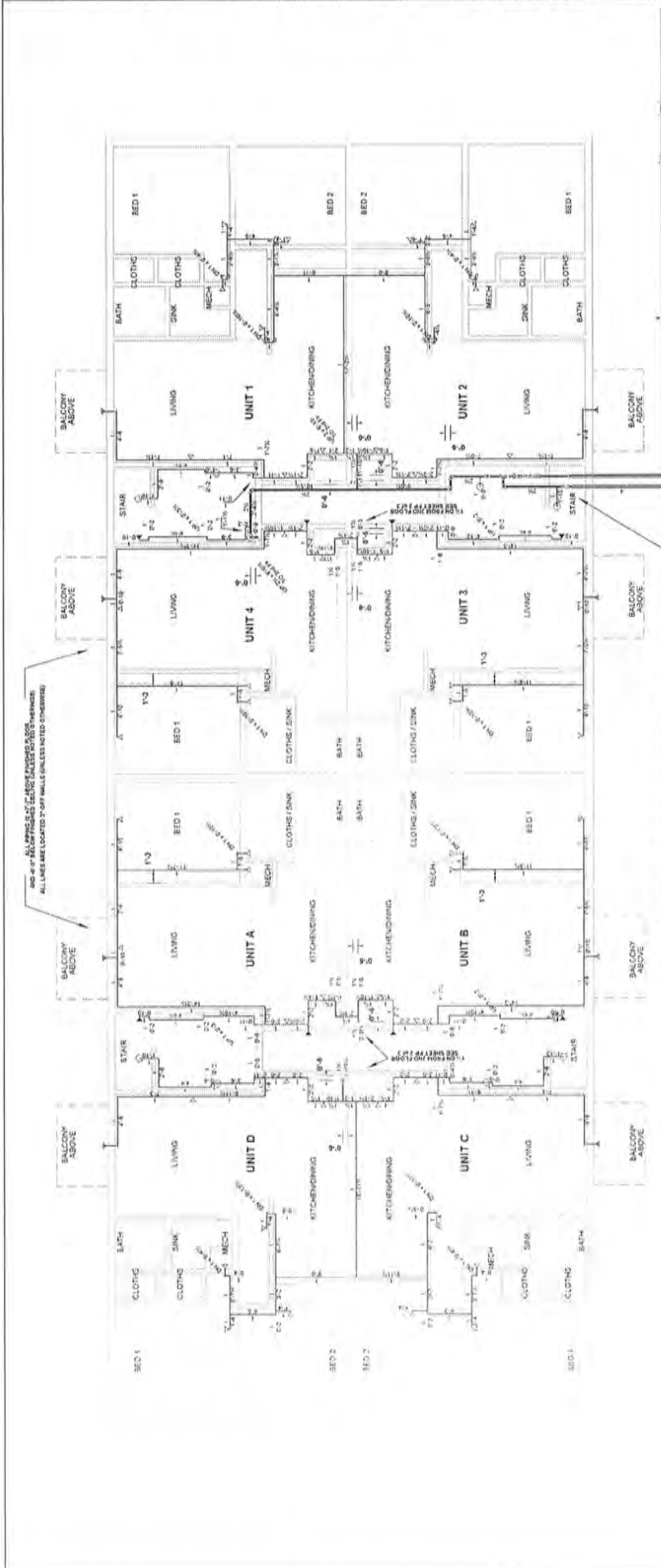
PROPOSED TAP LOCATION

SIDEWALK

EXISTING UNDERGROUND

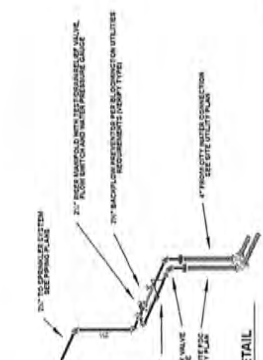
SIDEWALK

NO.	DATE	BY	DESCRIPTION
1			
2			
3			
4			
5			
6			
7			
8			
9			
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11			
12			
13			
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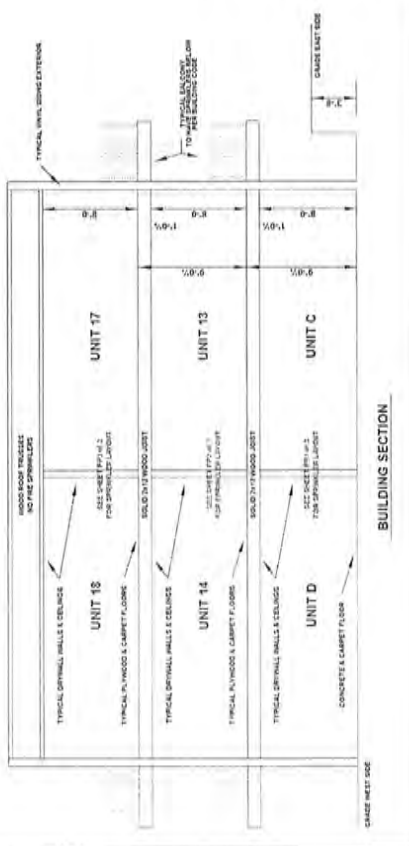


FIRST FLOOR PIPING PLAN
 SCALE: 1/4" = 1'-0" (30"x42" Sheet Size)
 FF 40'-0"

SEE RISER DETAIL THIS SHEET



GENERAL NOTES:
 1. THE PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE IBC AND NFPA 13. THE RISER SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13. THE RISER SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13.
 2. THE RISER SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13. THE RISER SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13.
 3. THE RISER SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13. THE RISER SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13.
 4. THE RISER SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13. THE RISER SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13.
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 8. THE RISER SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13. THE RISER SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13.
 9. THE RISER SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13. THE RISER SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13.
 10. THE RISER SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13. THE RISER SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13.

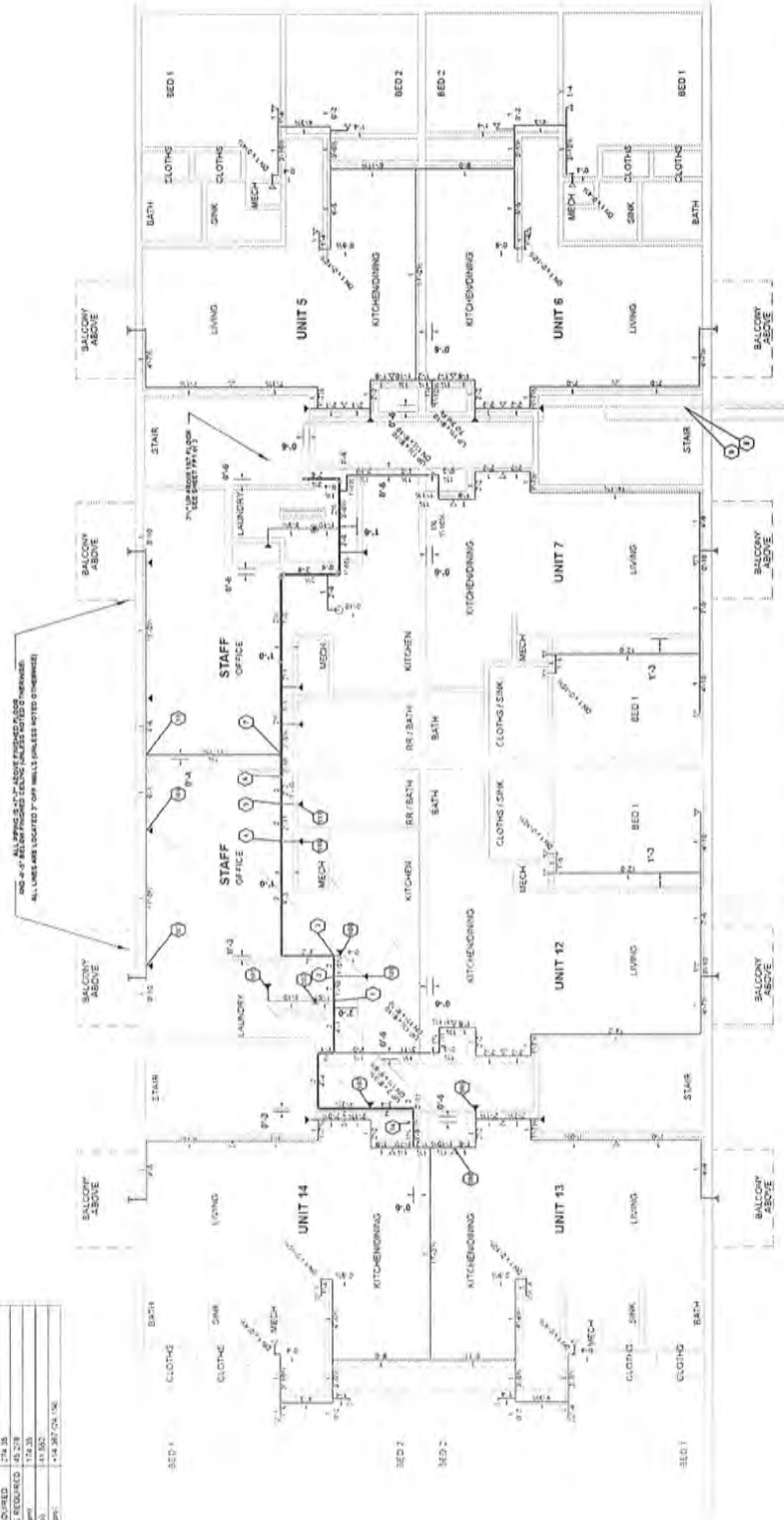


BUILDING SECTION

NO.	DATE	DESCRIPTION
1	02/15/18	ISSUED FOR PERMIT
2	02/22/18	REVISIONS
3	03/01/18	REVISIONS
4	03/08/18	REVISIONS
5	03/15/18	REVISIONS
6	03/22/18	REVISIONS
7	03/29/18	REVISIONS
8	04/05/18	REVISIONS
9	04/12/18	REVISIONS
10	04/19/18	REVISIONS
11	04/26/18	REVISIONS
12	05/03/18	REVISIONS
13	05/10/18	REVISIONS
14	05/17/18	REVISIONS
15	05/24/18	REVISIONS
16	06/01/18	REVISIONS
17	06/08/18	REVISIONS
18	06/15/18	REVISIONS
19	06/22/18	REVISIONS
20	06/29/18	REVISIONS
21	07/06/18	REVISIONS
22	07/13/18	REVISIONS
23	07/20/18	REVISIONS
24	07/27/18	REVISIONS
25	08/03/18	REVISIONS
26	08/10/18	REVISIONS
27	08/17/18	REVISIONS
28	08/24/18	REVISIONS
29	08/31/18	REVISIONS
30	09/07/18	REVISIONS
31	09/14/18	REVISIONS
32	09/21/18	REVISIONS
33	09/28/18	REVISIONS
34	10/05/18	REVISIONS
35	10/12/18	REVISIONS
36	10/19/18	REVISIONS
37	10/26/18	REVISIONS
38	11/02/18	REVISIONS
39	11/09/18	REVISIONS
40	11/16/18	REVISIONS
41	11/23/18	REVISIONS
42	11/30/18	REVISIONS
43	12/07/18	REVISIONS
44	12/14/18	REVISIONS
45	12/21/18	REVISIONS
46	12/28/18	REVISIONS
47	01/04/19	REVISIONS
48	01/11/19	REVISIONS
49	01/18/19	REVISIONS
50	01/25/19	REVISIONS
51	02/01/19	REVISIONS
52	02/08/19	REVISIONS
53	02/15/19	REVISIONS
54	02/22/19	REVISIONS
55	02/29/19	REVISIONS
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59	03/27/19	REVISIONS
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69	06/05/19	REVISIONS
70	06/12/19	REVISIONS
71	06/19/19	REVISIONS
72	06/26/19	REVISIONS
73	07/03/19	REVISIONS
74	07/10/19	REVISIONS
75	07/17/19	REVISIONS
76	07/24/19	REVISIONS
77	07/31/19	REVISIONS
78	08/07/19	REVISIONS
79	08/14/19	REVISIONS
80	08/21/19	REVISIONS
81	08/28/19	REVISIONS
82	09/04/19	REVISIONS
83	09/11/19	REVISIONS
84	09/18/19	REVISIONS
85	09/25/19	REVISIONS
86	10/02/19	REVISIONS
87	10/09/19	REVISIONS
88	10/16/19	REVISIONS
89	10/23/19	REVISIONS
90	10/30/19	REVISIONS
91	11/06/19	REVISIONS
92	11/13/19	REVISIONS
93	11/20/19	REVISIONS
94	11/27/19	REVISIONS
95	12/04/19	REVISIONS
96	12/11/19	REVISIONS
97	12/18/19	REVISIONS
98	12/25/19	REVISIONS
99	01/01/20	REVISIONS
100	01/08/20	REVISIONS

Light Hazard-0.105gpm/ft for 600-300FC

Hydraulic Information	
Sprinkler Area Three	
CLASSIFICATION	Light Hazard
TOTAL HEAD	102.00
TOTAL HEAD FLOWING	102.00
K-FACTOR	15.8
TOTAL KW/LSQARE ESTIMATED	42.278
BASE # OF HEADS PER LSQARE	174.35
SAFETY MARGIN (SP)	+14.36% ON USE



SECOND FLOOR PIPING PLAN

SCALE: 1/4" = 1'-0" (30"x42" Sheet Size)
 FINISHED FLOOR + 9'-0 1/2" ABOVE 1ST

Supply Flow Test Data

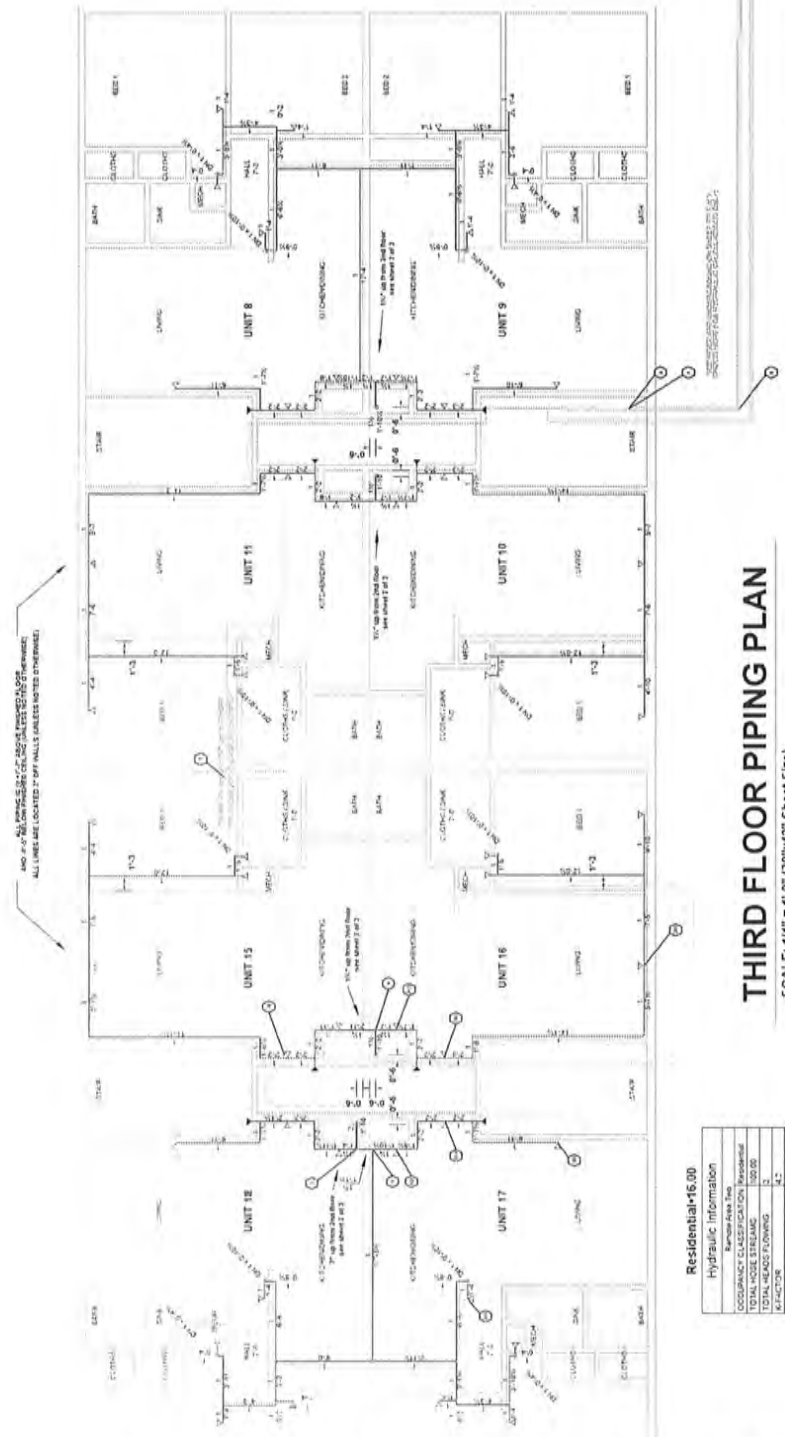
Test No.	Flow (GPM)	Pressure (PSI)
1	150	100
2	150	100
3	150	100
4	150	100
5	150	100
6	150	100
7	150	100
8	150	100
9	150	100
10	150	100
11	150	100
12	150	100
13	150	100
14	150	100
15	150	100
16	150	100
17	150	100
18	150	100
19	150	100
20	150	100
21	150	100
22	150	100
23	150	100
24	150	100
25	150	100
26	150	100
27	150	100
28	150	100
29	150	100
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36	150	100
37	150	100
38	150	100
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41	150	100
42	150	100
43	150	100
44	150	100
45	150	100
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47	150	100
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49	150	100
50	150	100
51	150	100
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54	150	100
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69	150	100
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73	150	100
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77	150	100
78	150	100
79	150	100
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81	150	100
82	150	100
83	150	100
84	150	100
85	150	100
86	150	100
87	150	100
88	150	100
89	150	100
90	150	100
91	150	100
92	150	100
93	150	100
94	150	100
95	150	100
96	150	100
97	150	100
98	150	100
99	150	100
100	150	100

- GENERAL NOTES:**
1. THE PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE SUPPLIER'S INSTALLATION INSTRUCTIONS AND THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 13, 13.1, AND 13.2. THE PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE SUPPLIER'S INSTALLATION INSTRUCTIONS AND THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 13, 13.1, AND 13.2.
 2. ALL PIPING SHALL BE BLACK STEEL, 1/2" UNLESS OTHERWISE NOTED. PIPING SHALL BE SUPPORTED AT 6' ONCE WALLS AND 8' TO 12' ON JAMBS.
 3. ALL PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE SUPPLIER'S INSTALLATION INSTRUCTIONS AND THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 13, 13.1, AND 13.2.
 4. THE PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE SUPPLIER'S INSTALLATION INSTRUCTIONS AND THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 13, 13.1, AND 13.2.
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 7. THE PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE SUPPLIER'S INSTALLATION INSTRUCTIONS AND THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 13, 13.1, AND 13.2.
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 10. THE PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE SUPPLIER'S INSTALLATION INSTRUCTIONS AND THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 13, 13.1, AND 13.2.

NO.	REVISIONS	DATE	BY	CHKD.
1	ISSUED FOR PERMIT	02/15/2018	JLW	ML
2	REVISED PER COMMENTS	02/15/2018	JLW	ML
3	REVISED PER COMMENTS	02/15/2018	JLW	ML
4	REVISED PER COMMENTS	02/15/2018	JLW	ML
5	REVISED PER COMMENTS	02/15/2018	JLW	ML
6	REVISED PER COMMENTS	02/15/2018	JLW	ML
7	REVISED PER COMMENTS	02/15/2018	JLW	ML
8	REVISED PER COMMENTS	02/15/2018	JLW	ML
9	REVISED PER COMMENTS	02/15/2018	JLW	ML
10	REVISED PER COMMENTS	02/15/2018	JLW	ML
11	REVISED PER COMMENTS	02/15/2018	JLW	ML
12	REVISED PER COMMENTS	02/15/2018	JLW	ML
13	REVISED PER COMMENTS	02/15/2018	JLW	ML
14	REVISED PER COMMENTS	02/15/2018	JLW	ML
15	REVISED PER COMMENTS	02/15/2018	JLW	ML
16	REVISED PER COMMENTS	02/15/2018	JLW	ML
17	REVISED PER COMMENTS	02/15/2018	JLW	ML
18	REVISED PER COMMENTS	02/15/2018	JLW	ML
19	REVISED PER COMMENTS	02/15/2018	JLW	ML
20	REVISED PER COMMENTS	02/15/2018	JLW	ML

Supply Flow Test Data

Test Completed By	City of Bloomington, Illinois
Date of Test	2-15-2018
Location	Indiana Center for Recovery
Address	509 W 1st Street
Subject Elevator	3rd
Other Elevators	500, 501
Personnel Present	500, 501
Flow	500, 501
Other Notes	100 PSI



THIRD FLOOR PIPING PLAN

SCALE: 1/4" = 1'-0" (30"x42" Sheet Size)
 FINISHED FLOOR + 18'-1" ABOVE 1ST

Residential-16.00

Hydraulic Information	
Residential Area, Type	
OCCUPANCY CLASSIFICATION	Residential
TOTAL HOSE STREAMS	160.00
TOTAL HOSE FLOWING	2.00
TOTAL WATER REQUIRED	160.00
TOTAL PRESSURE REQUIRED	160.00
BASE OF RIFTER HEIGHT	160.00
BASE OF RIFTER TYPE	160.00
SMALL TRANSDUCER	160.00

Residential-19.00

Hydraulic Information	
Residential Area, Type	
OCCUPANCY CLASSIFICATION	Residential
TOTAL HOSE STREAMS	190.00
TOTAL HOSE FLOWING	2.00
TOTAL WATER REQUIRED	190.00
TOTAL PRESSURE REQUIRED	190.00
BASE OF RIFTER HEIGHT	190.00
BASE OF RIFTER TYPE	190.00
SMALL TRANSDUCER	190.00

- GENERAL NOTES:**
1. THE PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF BLOOMINGTON, ILLINOIS CODES AND ORDINANCES, WITH THE EXCEPTION OF THE NOTES HEREON.
 2. THE PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF BLOOMINGTON, ILLINOIS CODES AND ORDINANCES, WITH THE EXCEPTION OF THE NOTES HEREON.
 3. THE PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF BLOOMINGTON, ILLINOIS CODES AND ORDINANCES, WITH THE EXCEPTION OF THE NOTES HEREON.
 4. THE PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF BLOOMINGTON, ILLINOIS CODES AND ORDINANCES, WITH THE EXCEPTION OF THE NOTES HEREON.
 5. THE PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF BLOOMINGTON, ILLINOIS CODES AND ORDINANCES, WITH THE EXCEPTION OF THE NOTES HEREON.
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 9. THE PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF BLOOMINGTON, ILLINOIS CODES AND ORDINANCES, WITH THE EXCEPTION OF THE NOTES HEREON.
 10. THE PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF BLOOMINGTON, ILLINOIS CODES AND ORDINANCES, WITH THE EXCEPTION OF THE NOTES HEREON.



Hydraulic Calculations

for

Project Name: Indiana Center for Recovery
Location: 909 W. 1st Street, Bloomington IN.,
Drawing Name: IRC 3rd floor FP 3 of 3

Calculation Date: 2/28/2018

Design

Remote Area Number: One
Remote Area Location: 3rd floor Unit 17
Occupancy Classification: Residential

Density: 19.00
Area of Application: NA
Coverage per Sprinkler: NA
Type of sprinklers calculated: Sidewall
No. of sprinklers calculated: 4

Type of System:	Wet	Volume of Dry or PreAction System:	N/A
In-rack Demand:	N/A gpm	at Node:	N/A
Hose Streams:	100.00	at Node:	8 Type: Allowance at Source

Total Water Required (including Hose Streams where applicable):
From Water Supply at Node 8: 169.52 @ 53.024

Water Supply Information:

for Node: 8 Date: 2-16-2018
Location: Hydrant ± 200' East of building on 1st Street
Source: City of Bloomington Utilities

Name of Contractor: Brown Sprinkler Corporation
Address: 5250 Commerce Circle, Indianapolis, Indiana. 46237
Phone Number: 317-889-4225 Name of designer: Darin Hartley

Authority Having Jurisdiction: Dept. of Homeland Security

Notes:

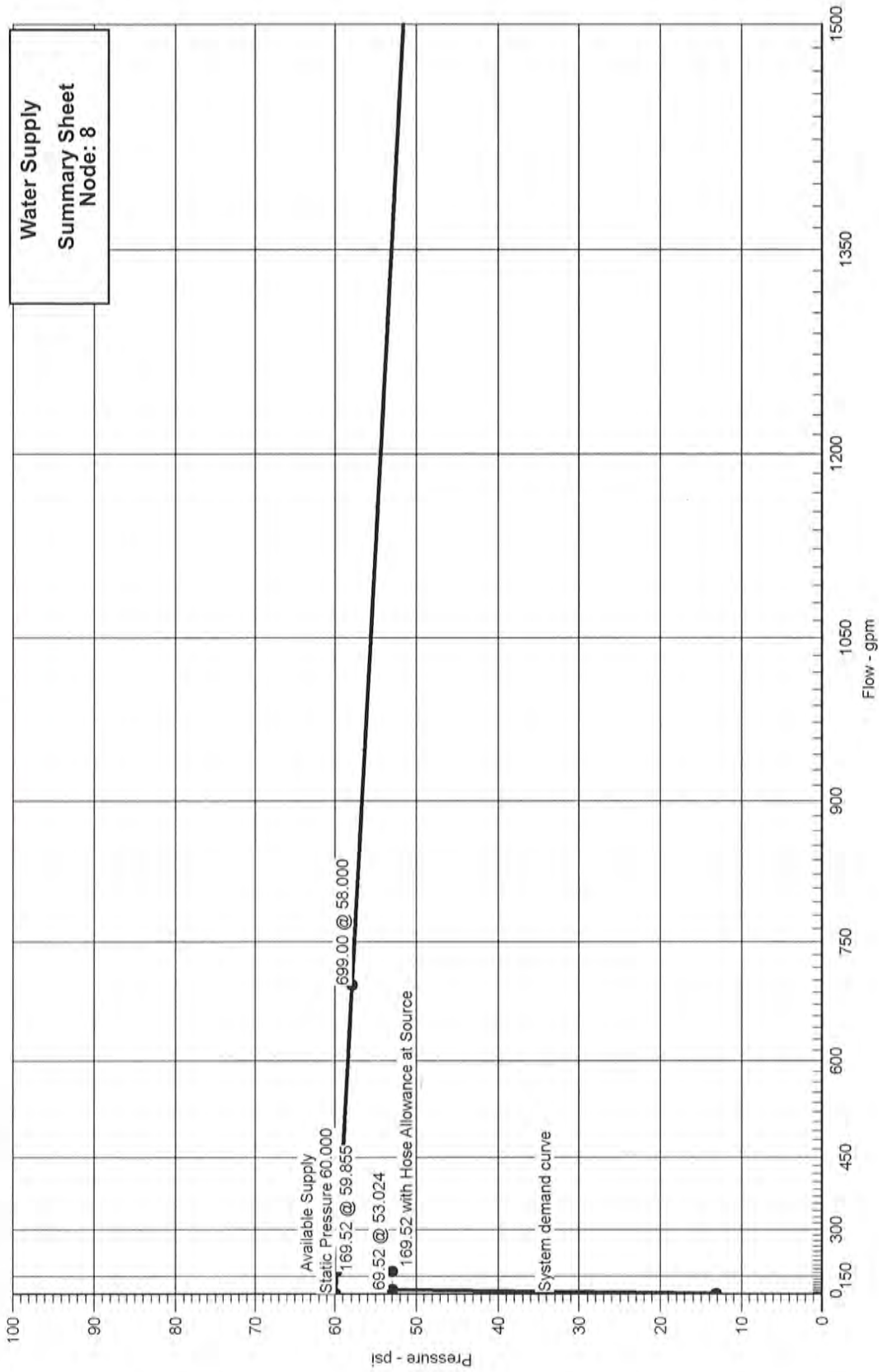
Automatic peaking results Left: 53.024 Right: 53.024

Hydraulic Graph

Job Name: Indiana Center for Recovery
Remote Area Number: One

N 1.85

Date: 2/28/2018

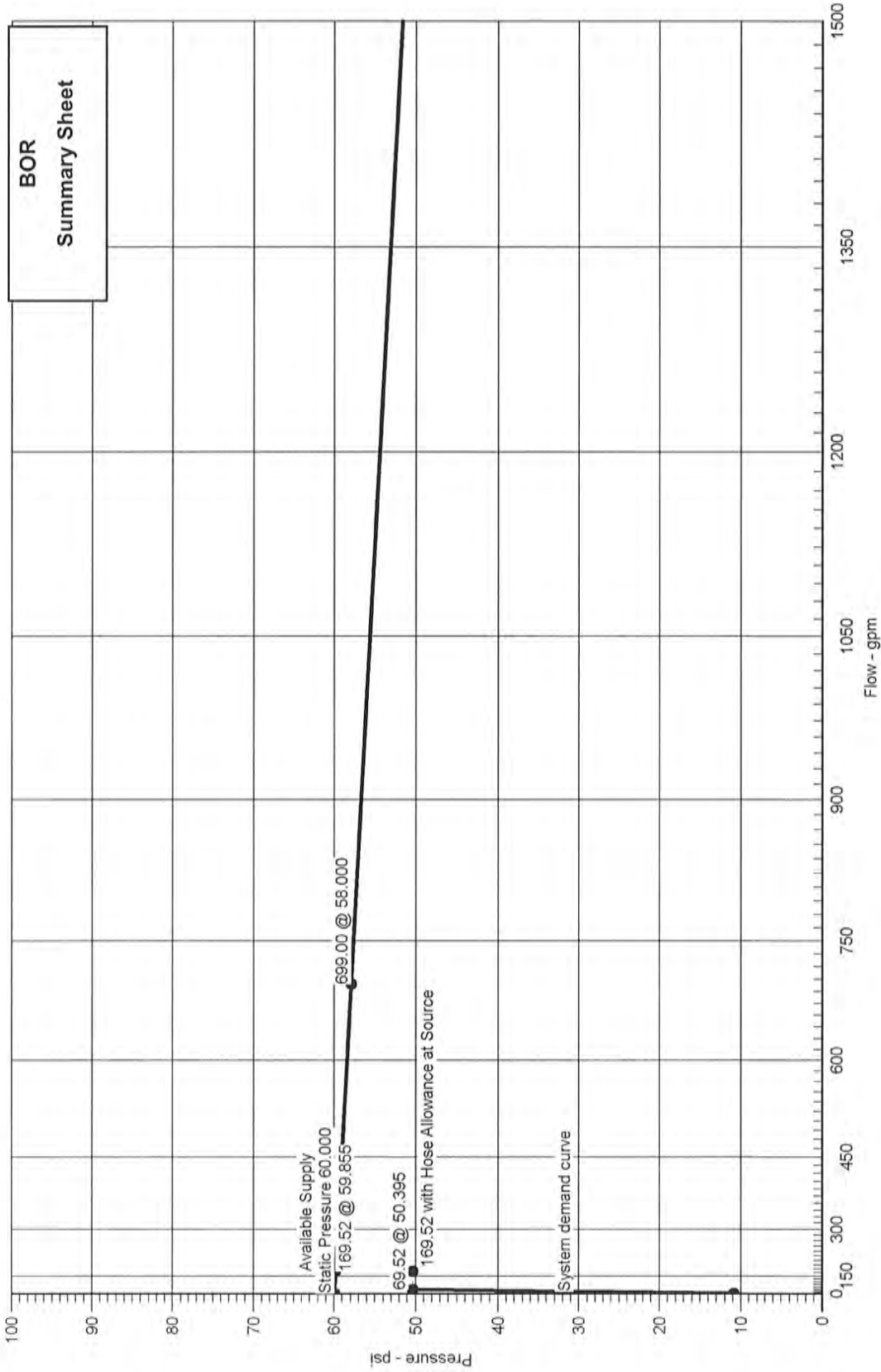


Hydraulic Graph

Job Name: Indiana Center for Recovery
Remote Area Number: One

N 1.85

Date: 2/28/2018



BOR
Summary Sheet



Summary Of Outflowing Devices

Job Number: 18IN11626 - Area #1 3rd Flr
Report Description: Residential (One)

Device		Actual Flow (gpm)	Minimum Flow (gpm)	K-Factor (K)	Pressure (psi)		
⇒ Sprinkler	101	19.00	19.00	4.2	20.465		
Sprinkler	102	16.42	16.00	4.2	15.276		
Sprinkler	103	17.27	16.00	4.2	16.909		

⇒ Most Demanding Sprinkler Data

Supply Analysis

Node	Name	Static (psi)	Residual (psi) @	Flow (gpm)	Available (psi) @	Total Demand (gpm)	Required Pressure (psi)
8	Water Supply	60.000	58.000	699.00	59.855	169.52	53.024

Node Analysis

Node Number	Elevation (Foot)	Node Type	Pressure at Node (psi)	Discharge at Node (gpm)	Notes
8	-5'-0	Supply	53.024	69.52	
101	25'-8	Sprinkler	20.465	19.00	
102	25'-8	Sprinkler	15.276	16.42	
103	25'-8	Sprinkler	16.909	17.27	
104	24'-8	Sprinkler	16.057	16.83	
1	25'-8		20.876		
2	25'-8		23.391		
3	16'-7½		32.289		
4	2'-0		49.723		
5	0'-6		50.395		
6	-5'-0		52.833		
7	-5'-0		52.984		

Pipe Information

Node 1	Elev 1 (Foot)	K-Factor	Flow added this step (q)	Nominal ID	Fittings & Devices	Length (Foot)	C Factor	Total(Pt)	Notes Fitting/Device (Equivalent Length) Fixed Pressure Losses, when applicable, are added directly to (Pf) and shown as a negative value.
Node 2	Elev 2 (Foot)		Total Flow (Q)	Actual ID	Equiv. Length (Foot)	Pf Friction Loss Per Unit (psi)	Elev(Pe)		
					Total (Foot)		Friction(Pf)		
101	25'-8	4.2	33.69	1¼		2'-0	120	20.465	***** Route 1 ***** Sprinkler, Flow (q) from Route 2
1	25'-8		52.69	1.3800		2'-0	0.205388	0.411	
1	25'-8		16.83	1¼	(See Notes)	1'-4	120	20.876	Flow (q) from Route 3 T(6'-0)
2	25'-8		69.52	1.3800		6'-0	0.343001		
						7'-4		2.515	
2	25'-8			2	(See Notes)	53'-10	120	23.391	6E(5'-0), C(10'-0), T(10'-0)
3	16'-7½		69.52	2.0670		50'-0	0.047951	3.920	
						103'-10		4.979	
3	16'-7½			2½	(See Notes)	82'-5½	120	32.289	11E(8'-3), BFP(-8.549)
4	2'-0		69.52	2.6350		90'-7½	0.014700	6.340	
						173'-1		11.093	
4	2'-0			2½	(See Notes)	1'-6	120	49.723	BOR
5	0'-6		69.52	2.6350			0.014700	0.650	
						1'-6		0.022	
5	0'-6			4	(See Notes)	14'-9	140	50.395	2E(16'-8½)
6	-5'-0		69.52	4.2200		33'-5½	0.001115	2.384	
						48'-2½		0.054	
6	-5'-0			4	(See Notes)	67'-0	150	52.833	PIV(3'-10), CV(42'-3), GV(3'-10), T(38'-5)
7	-5'-0		69.52	4.2300		88'-4½	0.000970		
						155'-4½		0.151	
7	-5'-0			6	(See Notes)	200'-0	120	52.984	Water Supply
8	-5'-0		69.52	6.3570			0.000202		
						200'-0		0.040	
			100.00					53.024	Hose Allowance At Source
8			169.52						Total(Pt) Route 1
102	25'-8	4.2	16.42	1	(See Notes)	11'-1	120	15.276	***** Route 2 ***** Sprinkler, E(2'-0), T(5'-0)
103	25'-8		16.42	1.0490		7'-0	0.090300		
						18'-1		1.633	
103	25'-8	4.2	17.27	1	(See Notes)	6'-5	120	16.909	Sprinkler, 2E(2'-0)
101	25'-8		33.69	1.0490		4'-0	0.341391		
						10'-5		3.556	
								20.465	Total(Pt) Route 2

Pipe Information

Node 1	Elev 1 (Foot)	K-Factor	Flow added this step (q)	Nominal ID	Fittings & Devices	Length (Foot)	C Factor	Total(Pt)	Notes
104	24'-8	4.2	16.83	1	(See Notes)	34'-6½	120	16.057	***** Route 3 ***** Sprinkler, 3E(2'-0), 3T(5'-0)
1	25'-8		16.83	1.0490		21'-0	0.094565	-0.434	
						55'-6½		5.252	
								20.876	Total(Pt) Route 3

Equivalent Pipe Lengths of Valves and Fittings (C=120 only)		C Value Multiplier				
$\left(\frac{\text{Actual Inside Diameter}}{\text{Schedule 40 Steel Pipe Inside Diameter}} \right)^{4.87} = \text{Factor}$		Value Of C	100	130	140	150
		Multiplying Factor	0.713	1.16	1.33	1.51

Fittings Legend		
ALV Alarm Valve	AngV Angle Valve	b Bushing
BalV Ball Valve	BFP Backflow Preventer	BV Butterfly Valve
C Cross Flow Turn 90°	cplg Coupling	Cr Cross Run
CV Check Valve	DelV Deluge Valve	DPV Dry Pipe Valve
E 90° Elbow	EE 45° Elbow	Ee1 11¼° Elbow
Ee2 22½° Elbow	f Flow Device	fd Flex Drop
FDC Fire Department Connection	fE 90° FireLock(TM) Elbow	fEE 45° FireLock(TM) Elbow
flg Flange	FN Floating Node	fT FireLock(TM) Tee
g Gauge	GloV Globe Valve	GV Gate Valve
Ho Hose	Hose Hose	HV Hose Valve
Hyd Hydrant	LtE Long Turn Elbow	mecT Mechanical Tee
Noz Nozzle	P1 Pump In	P2 Pump Out
PIV Post Indicating Valve	PO Pipe Outlet	PRV Pressure Reducing Valve
PrV Pressure Relief Valve	red Reducer/Adapter	S Supply
sCV Swing Check Valve	Spr Sprinkler	St Strainer
T Tee Flow Turn 90°	Tr Tee Run	U Union
WirF Wirsbo	WMV Water Meter Valve	Z Cap

Hydraulic Calculations

for

Project Name: Indiana Center for Recovery
Location: 909 W. 1st Street, Bloomington IN.,
Drawing Name: IRC 3rd floor FP 3 of 3

Calculation Date: 2/28/2018

Design

Remote Area Number: Two
Remote Area Location: 3rd floor Unit 16
Occupancy Classification: Residential

Density: 16.00
Area of Application: NA
Coverage per Sprinkler: NA
Type of sprinklers calculated: Sidewall
No. of sprinklers calculated: 3

Type of System:	Wet	Volume of Dry or PreAction System:	N/A
In-rack Demand:	N/A gpm	at Node:	N/A
Hose Streams:	100.00	at Node:	8 Type: Allowance at Source

Total Water Required (including Hose Streams where applicable):
From Water Supply at Node 8: 152.89 @ 51.831

Water Supply Information:

for Node: 8 Date: 2-16-2018
Location: Hydrant ± 200' East of building on 1st Street
Source: City of Bloomington Utilities

Name of Contractor: Brown Sprinkler Corporation
Address: 5250 Commerce Circle, Indianapolis, Indiana. 46237
Phone Number: 317-889-4225 Name of designer: Darin Hartley

Authority Having Jurisdiction: Dept. of Homeland Security

Notes:

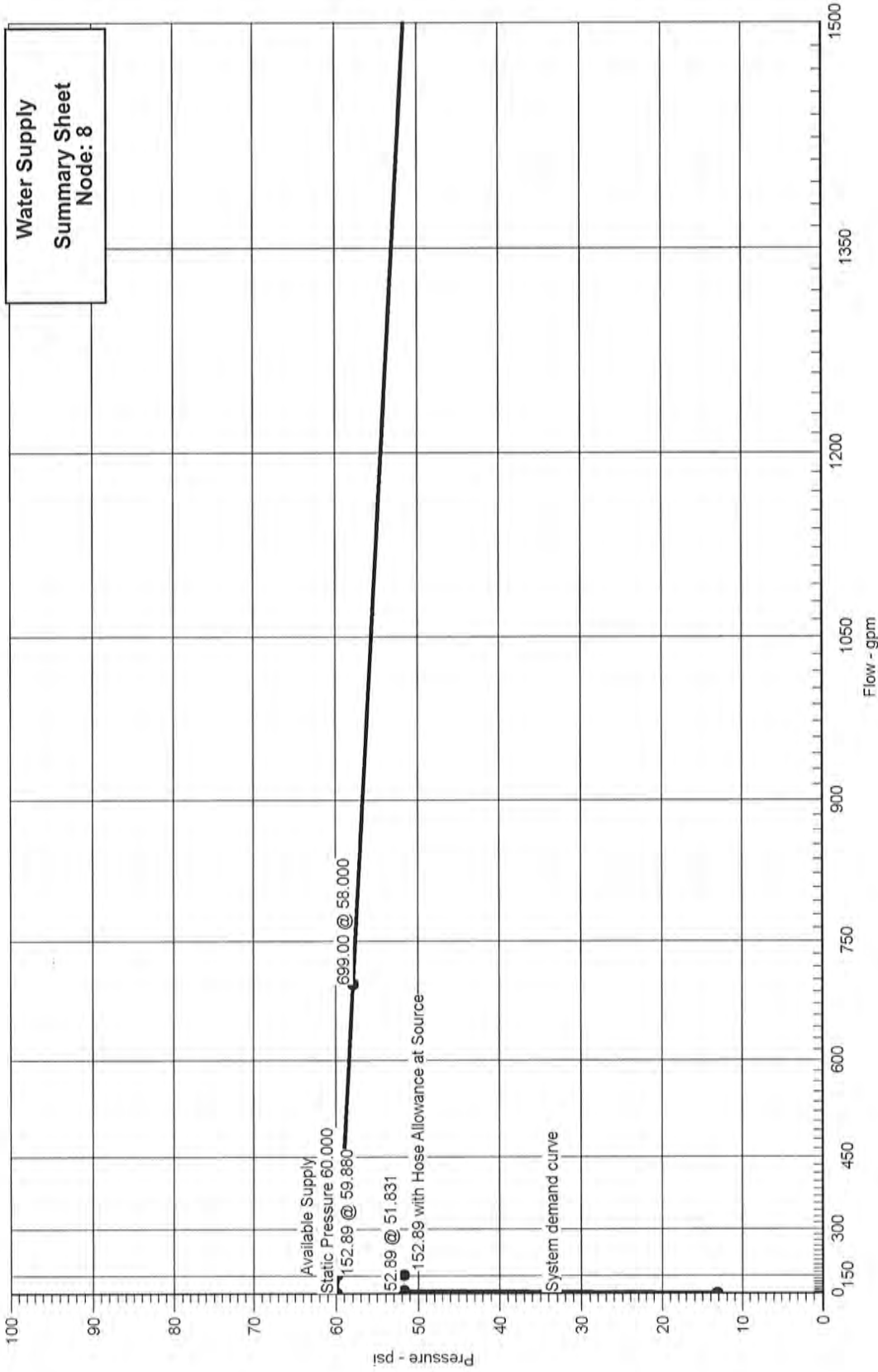
Automatic peaking results Left: N/A Right: N/A

Hydraulic Graph

Job Name: Indiana Center for Recovery
Remote Area Number: Two

N 1.85

Date: 2/28/2018

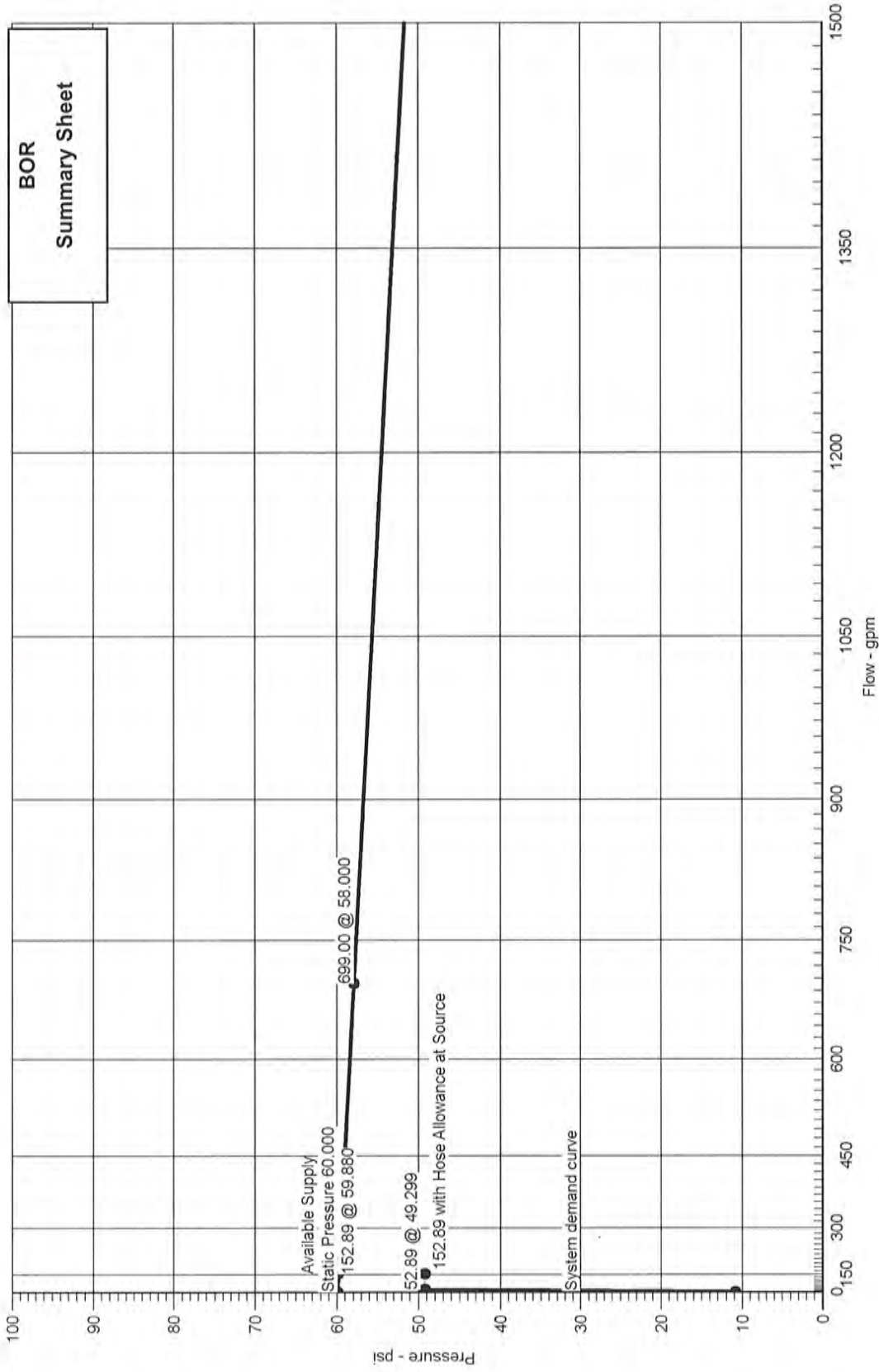


Hydraulic Graph

Job Name: Indiana Center for Recovery
Remote Area Number: Two

N 1.85

Date: 2/28/2018





Summary Of Outflowing Devices

Job Number: 18IN11626 - Area #2 3rd floor
Report Description: Residential (Two)

Device		Actual Flow (gpm)	Minimum Flow (gpm)	K-Factor (K)	Pressure (psi)		
⇒ Sprinkler	201	16.00	16.00	4.2	14.512		
Sprinkler	202	17.37	16.00	4.2	17.110		

⇒ Most Demanding Sprinkler Data

Supply Analysis

Node	Name	Static (psi)	Residual (psi) @	Flow (gpm)	Available (psi) @	Total Demand (gpm)	Required Pressure (psi)
8	Water Supply	60.000	58.000	699.00	59.880	152.89	51.831

Node Analysis

Node Number	Elevation (Foot)	Node Type	Pressure at Node (psi)	Discharge at Node (gpm)	Notes
8	-5'-0	Supply	51.831	52.89	
201	25'-8	Sprinkler	14.512	16.00	
202	25'-8	Sprinkler	17.110	17.37	
203	25'-8	Sprinkler	21.585	19.51	
3	16'-7½		31.985		
4	2'-0		48.635		
5	0'-6		49.299		
6	-5'-0		51.716		
7	-5'-0		51.807		
9	25'-8		23.188		
10	16'-7½		30.895		

Pipe Information

Node 1	Elev 1 (Foot)	K-Factor	Flow added this step (q)	Nominal ID	Fittings & Devices	Length (Foot)	C Factor	Total(Pt)	Notes
Node 2	Elev 2 (Foot)		Total Flow (Q)	Actual ID	Equiv. Length (Foot)	Total (Foot)		Friction(Pf)	
201	25'-8	4.2	16.00	1	(See Notes)	24'-2	120	14.512	***** Route 1 ***** Sprinkler, 3E(2'-0)
202	25'-8		16.00	1.0490		6'-0	0.086119		
						30'-2		2.598	
202	25'-8	4.2	17.37	1	(See Notes)	6'-4	120	17.110	Sprinkler, T(5'-0), E(2'-0)
203	25'-8		33.37	1.0490		7'-0	0.335553		
						13'-4		4.474	
203	25'-8	4.2	19.51	1½	(See Notes)	1'-9	120	21.585	Sprinkler, T(6'-0)
9	25'-8		52.89	1.3800		6'-0	0.206834		
						7'-9		1.603	
9	25'-8			1½	(See Notes)	18'-9½	120	23.188	E(4'-0), C(8'-0), T(8'-0)
10	16'-7½		52.89	1.6100		20'-0	0.097632		
						38'-9½		3.787	
10	16'-7½			2	(See Notes)	27'-8½	120	30.895	2E(5'-0)
3	16'-7½		52.89	2.0670		10'-0	0.028915		
						37'-8½		1.090	
3	16'-7½			2½	(See Notes)	82'-5½	120	31.985	11E(8'-3), BFP(-8.776)
4	2'-0		52.89	2.6350		90'-7½	0.008864		
						173'-1		10.310	
4	2'-0			2½	(See Notes)	1'-6	120	48.635	BOR
5	0'-6		52.89	2.6350			0.008864	0.650	
						1'-6		0.013	
5	0'-6			4	(See Notes)	14'-9	140	49.299	2E(16'-8½)
6	-5'-0		52.89	4.2200		33'-5½	0.000673	2.384	
						48'-2½		0.032	
6	-5'-0			4	(See Notes)	67'-0	150	51.716	PIV(3'-10), CV(42'-3), GV(3'-10), T(38'-5)
7	-5'-0		52.89	4.2300		88'-4½	0.000585		
						155'-4½		0.091	
7	-5'-0			6	(See Notes)	200'-0	120	51.807	Water Supply
8	-5'-0		52.89	6.3570			0.000122		
					200'-0			0.024	
								51.831	Total(Pt) Route 1

Equivalent Pipe Lengths of Valves and Fittings (C=120 only)		C Value Multiplier			
$\left(\frac{\text{Actual Inside Diameter}}{\text{Schedule 40 Steel Pipe Inside Diameter}} \right)^{4.87} = \text{Factor}$					
	Value Of C	100	130	140	150
	Multiplying Factor	0.713	1.16	1.33	1.51

Fittings Legend		
ALV Alarm Valve	AngV Angle Valve	b Bushing
BalV Ball Valve	BFP Backflow Preventer	BV Butterfly Valve
C Cross Flow Turn 90°	cplg Coupling	Cr Cross Run
CV Check Valve	DelV Deluge Valve	DPV Dry Pipe Valve
E 90° Elbow	EE 45° Elbow	Ee1 11¼° Elbow
Ee2 22½° Elbow	f Flow Device	fd Flex Drop
FDC Fire Department Connection	fE 90° FireLock(TM) Elbow	fEE 45° FireLock(TM) Elbow
flg Flange	FN Floating Node	fT FireLock(TM) Tee
g Gauge	GloV Globe Valve	GV Gate Valve
Ho Hose	Hose Hose	HV Hose Valve
Hyd Hydrant	LIE Long Turn Elbow	mecT Mechanical Tee
Noz Nozzle	P1 Pump In	P2 Pump Out
PIV Post Indicating Valve	PO Pipe Outlet	PRV Pressure Reducing Valve
PrV Pressure Relief Valve	red Reducer/Adapter	S Supply
sCV Swing Check Valve	Spr Sprinkler	St Strainer
T Tee Flow Turn 90°	Tr Tee Run	U Union
WirF Wirsbo	WMV Water Meter Valve	Z Cap

Hydraulic Calculations

for

Project Name: Indiana Center for Recovery
Location: 909 W. 1st Street, Bloomington IN.,
Drawing Name: IRC 2nd floor FP 2 of 3

Calculation Date: 2/28/2018

Design

Remote Area Number: Three
Remote Area Location: 2nd Floor Staff Office
Occupancy Classification: Light Hazard

Density: 0.100gpm/ft²
Area of Application: 600.00ft² (Actual 603.35ft²)
Coverage per Sprinkler: 156.00ft²
Type of sprinklers calculated: Sidewall
No. of sprinklers calculated: 10

Type of System:	Wet	Volume of Dry or PreAction System:	N/A
In-rack Demand:	N/A gpm	at Node:	N/A
Hose Streams:	100.00	at Node:	12
		Type:	Allowance at Source

Total Water Required (including Hose Streams where applicable):
From Water Supply at Node 12: 274.35 @ 45.278

Water Supply Information:

for Node: 12 Date: 2-16-2018
Location: Hydrant ± 200' East of building on 1st Street
Source: City of Bloomington Utilities

Name of Contractor: Brown Sprinkler Corporation
Address: 5250 Commerce Circle, Indianapolis, Indiana. 46237
Phone Number: 317-889-4225 Name of designer: Darin Hartley

Authority Having Jurisdiction: Dept. of Homeland Security

Notes:

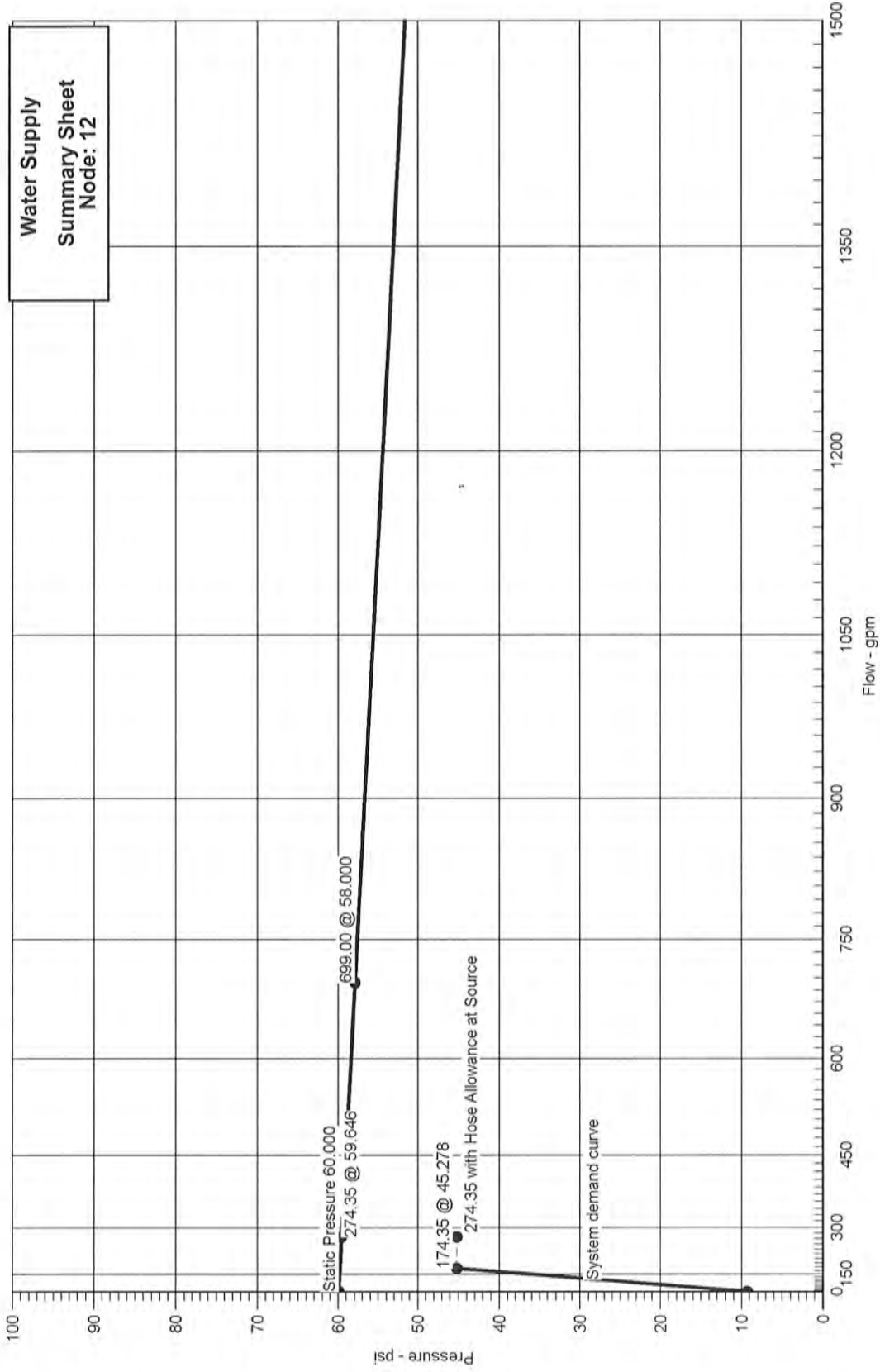
Automatic peaking results Left: N/A Right: N/A

Hydraulic Graph

Job Name: Indiana Center for Recovery
Remote Area Number: Three

N^{1.85}

Date: 2/28/2018



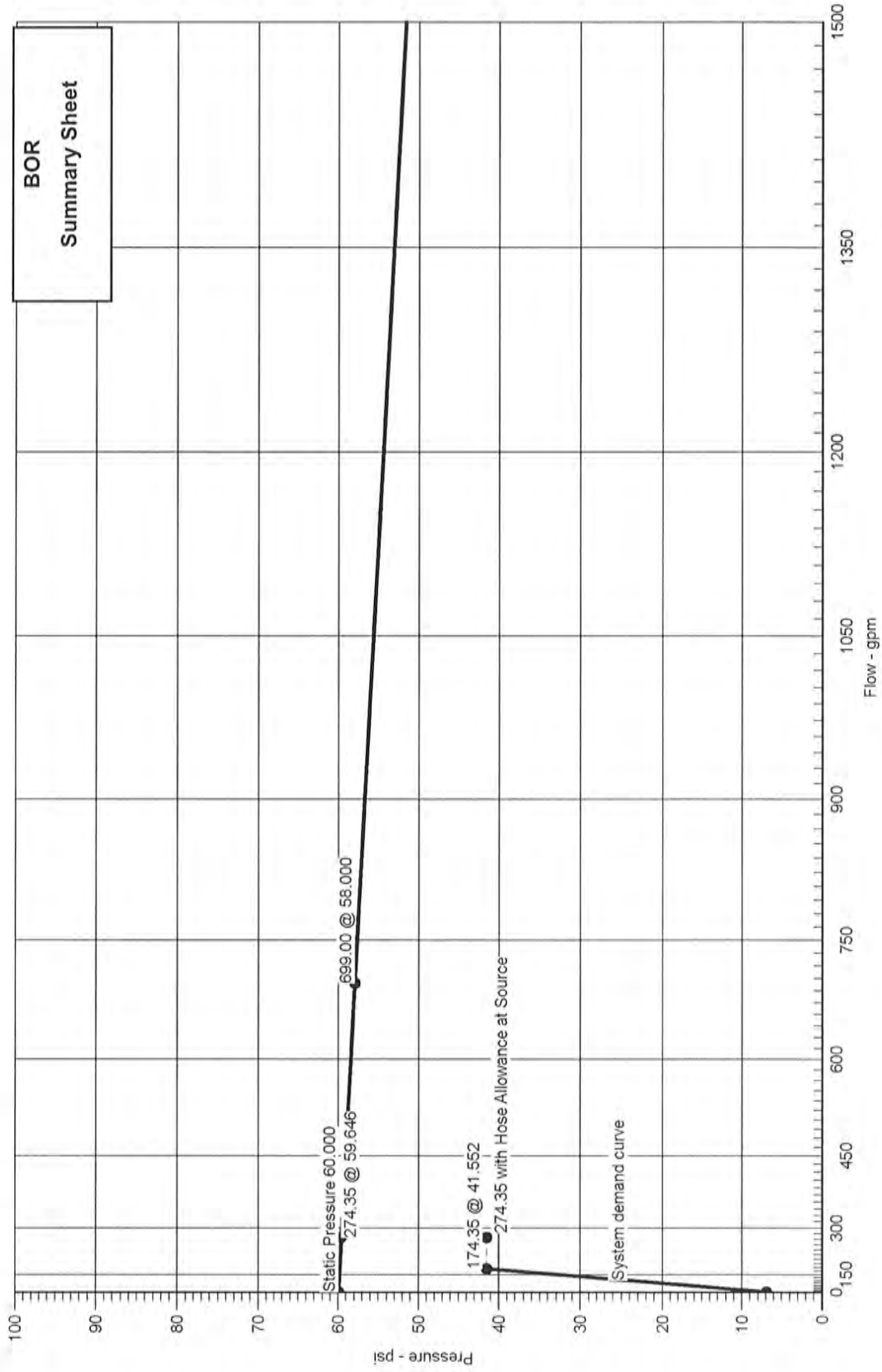
Water Supply
Summary Sheet
Node: 12

Hydraulic Graph

Job Name: Indiana Center for Recovery
Remote Area Number: Three

N 1.85

Date: 2/28/2018





Summary Of Outflowing Devices

Job Number: 18IN11626 - Area #3 2nd Floor
Report Description: Light Hazard (Three)

Device		Actual Flow (gpm)	Minimum Flow (gpm)	K-Factor (K)	Pressure (psi)		
⇒ Sprinkler	101	15.60	15.60	5.6	7.760		
Sprinkler	102	16.16	15.60	5.6	8.330		
Sprinkler	103	15.82	15.60	5.6	7.982		
Sprinkler	104	16.73	15.60	5.6	8.923		
Sprinkler	105	16.74	15.60	5.6	8.939		
Sprinkler	107	17.62	15.60	5.6	9.895		
Sprinkler	108	17.43	15.60	5.6	9.687		
Sprinkler	109	18.71	15.60	5.6	11.164		
Sprinkler	110	19.61	15.60	5.6	12.267		

⇒ Most Demanding Sprinkler Data

Supply Analysis							
Node	Name	Static (psi)	Residual (psi) @	Flow (gpm)	Available (psi) @	Total Demand (gpm)	Required Pressure (psi)
12	Water Supply	60.000	58.000	699.00	59.646	274.35	45.278

Node Analysis					
Node Number	Elevation (Foot)	Node Type	Pressure at Node (psi)	Discharge at Node (gpm)	Notes
12	-5'-0	Supply	45.278	174.35	
101	16'-7½	Sprinkler	7.760	15.60	
102	16'-7½	Sprinkler	8.330	16.16	
103	16'-7½	Sprinkler	7.982	15.82	
104	16'-7½	Sprinkler	8.923	16.73	
105	16'-7½	Sprinkler	8.939	16.74	
107	16'-7½	Sprinkler	9.895	17.62	
108	16'-7½	Sprinkler	9.687	17.43	
109	16'-7½	Sprinkler	11.164	18.71	
110	16'-7½	Sprinkler	12.267	19.61	
111	16'-7½	Sprinkler	12.661	19.93	
1	16'-7½		10.346		
2	16'-7½		10.434		
3	16'-7½		11.221		
4	16'-7½		13.070		
5	16'-7½		13.487		
6	16'-7½		13.891		
7	16'-7½		13.991		
8	2'-0		40.781		

Node Number	Elevation (Foot)	Node Type	Pressure at Node (psi)	Discharge at Node (gpm)	Notes
9	0'-6		41.552		
10	-5'-0		44.231		
11	-5'-0		45.057		
13	16'-7½		12.527		
14	16'-7½		9.862		
106	16'-7½	Sprinkler	9.580	Sprinkler	

Pipe Information

Node 1	Elev 1 (Foot)	K-Factor	Flow added this step (q)	Nominal ID	Fittings & Devices	Length (Foot)	C Factor	Total(Pt)	Notes
Node 2	Elev 2 (Foot)		Total Flow (Q)	Actual ID	Equiv. Length (Foot)	Total (Foot)		Friction(Pf)	Fixed Pressure Losses, when applicable, are added directly to (Pf) and shown as a negative value.
101	16'-7½	5.6	15.60	1	(See Notes)	4'-11½	120	7.760	***** Route 1 ***** Sprinkler, E(2'-0)
102	16'-7½		15.60	1.0490		2'-0	0.082178	0.000	
						6'-11½		0.570	
102	16'-7½	5.6	16.16	1	(See Notes)	1'-7	120	8.330	Sprinkler, T(5'-0)
1	16'-7½		31.76	1.0490		5'-0	0.306217		
						6'-7		2.016	
1	16'-7½		34.36	2		2'-0	120	10.346	Flow (q) from Route 3
2	16'-7½		66.12	2.0670		2'-0	0.043709	0.087	
2	16'-7½		17.43	2	(See Notes)	1'-8	120	10.434	Flow (q) from Route 4 T(10'-0)
3	16'-7½		83.55	2.0670		10'-0	0.067384		
						11'-8		0.788	
3	16'-7½		18.71	2	(See Notes)	13'-10½	120	11.221	Flow (q) from Route 5 E(5'-0)
4	16'-7½		102.26	2.0670		5'-0	0.097929		
						18'-10½		1.848	
4	16'-7½		19.61	2		3'-1	120	13.070	Flow (q) from Route 6
5	16'-7½		121.87	2.0670		3'-1	0.135484	0.418	
5	16'-7½		19.93	2		2'-3	120	13.487	Flow (q) from Route 7
6	16'-7½		141.80	2.0670		2'-3	0.179288	0.403	
6	16'-7½			2½		1'-10	120	13.891	
7	16'-7½		141.80	2.6350		1'-10	0.054961	0.101	
7	16'-7½		32.55	2½	(See Notes)	80'-7½	120	13.991	Flow (q) from Route 2 5fE(5'-11), 6E(8'-3), BFP(-7.596)
8	2'-0		174.35	2.6350		78'-11½	0.080553	6.340	
						159'-7		20.449	
8	2'-0			2½	(See Notes)	1'-6	120	40.781	BOR
9	0'-6		174.35	2.6350		1'-6	0.080553	0.650	
9	0'-6			4	(See Notes)	14'-9	140	41.552	2E(16'-8½)
10	-5'-0		174.35	4.2200		33'-5½	0.006112	2.384	
						48'-2½		0.295	

Pipe Information

Node 1	Elev 1 (Foot)	K-Factor	Flow added this step (q)	Nominal ID	Fittings & Devices	Length (Foot)	C Factor	Total(Pt)	Notes Fitting/Device (Equivalent Length) Fixed Pressure Losses, when applicable, are added directly to (Pf) and shown as a negative value.
Node 2	Elev 2 (Foot)		Total Flow (Q)	Actual ID	Equiv. Length (Foot)	Pf Friction Loss Per Unit (psi)	Elev(Pe)		
							Friction(Pf)		
10	-5'-0			4	(See Notes)	67'-0	150	44.231	PIV(3'-10), CV(42'-3), GV(3'-10), T(38'-5)
11	-5'-0		174.35	4.2300		88'-4½	0.005318		
						155'-4½		0.826	
11	-5'-0			6	(See Notes)	200'-0	120	45.057	Water Supply
12	-5'-0		174.35	6.3570		200'-0	0.001105		
								0.221	
			100.00					45.278	Hose Allowance At Source
12			274.35						Total(Pt) Route 1
103	16'-7½	5.6	15.82	1	(See Notes)	11'-2	120	7.982	***** Route 2 ***** Sprinkler
104	16'-7½		15.82	1.0490		11'-2	0.084344	0.942	
104	16'-7½	5.6	16.73	1	(See Notes)	6'-3	120	8.923	Sprinkler, T(5'-0)
13	16'-7½		32.55	1.0490		5'-0	0.320387		
						11'-3		3.604	
13	16'-7½			1¼	(See Notes)	11'-4½	120	12.527	PO(6'-0)
7	16'-7½		32.55	1.3800		6'-0	0.084264		
						17'-4½		1.464	
								13.991	Total(Pt) Route 2
105	16'-7½	5.6	16.74	1	(See Notes)	4'-10	120	8.939	***** Route 3 ***** Sprinkler, E(2'-0)
106	16'-7½		16.74	1.0490		2'-0	0.093658		
						6'-10		0.642	
106	16'-7½	4.2		1¼	(See Notes)	5'-5	120	9.580	T(6'-0)
14	16'-7½		16.74	1.3800		6'-0	0.024633		
						11'-5		0.281	
14	16'-7½			2	(See Notes)	4'-8½	120	9.862	E(5'-0)
107	16'-7½		16.74	2.0670		5'-0	0.003444		
						9'-8½		0.033	
107	16'-7½	5.6	17.62	2	(See Notes)	14'-8	120	9.895	Sprinkler, 2E(5'-0), T(10'-0)
1	16'-7½		34.36	2.0670		20'-0	0.013020		
						34'-8		0.451	
								10.346	Total(Pt) Route 3

Pipe Information

Node 1	Elev 1 (Foot)	K-Factor	Flow added this step (q)	Nominal ID	Fittings & Devices	Length (Foot)	C Factor	Total(Pt)	Notes
108	16'-7½"	5.6	17.43	1	(See Notes)	2'-5"	120	9.687	***** Route 4 ***** Sprinkler, T(5'-0)
2	16'-7½"		17.43	1.0490		5'-0"	0.100894	0.746	
						7'-5"			
109	16'-7½"	5.6	18.71	1	(See Notes)	0'-6"	120	11.164	***** Route 5 ***** Sprinkler
3	16'-7½"		18.71	1.0490		0'-6"	0.115039	0.058	
									11.221
110	16'-7½"	5.6	19.61	1	(See Notes)	1'-5"	120	12.267	***** Route 6 ***** Sprinkler, T(5'-0)
4	16'-7½"		19.61	1.0490		5'-0"	0.125516	0.803	
						6'-5"			
111	16'-7½"	5.6	19.93	1	(See Notes)	1'-5"	120	12.661	***** Route 7 ***** Sprinkler, T(5'-0)
5	16'-7½"		19.93	1.0490		5'-0"	0.129241	0.827	
						6'-5"			

Equivalent Pipe Lengths of Valves and Fittings (C=120 only)		C Value Multiplier				
$\left(\frac{\text{Actual Inside Diameter}}{\text{Schedule 40 Steel Pipe Inside Diameter}} \right)^{4.87} = \text{Factor}$		Value Of C	100	130	140	150
		Multiplying Factor	0.713	1.16	1.33	1.51

Fittings Legend		
ALV Alarm Valve	AngV Angle Valve	b Bushing
BalV Ball Valve	BFP Backflow Preventer	BV Butterfly Valve
C Cross Flow Turn 90°	cplg Coupling	Cr Cross Run
CV Check Valve	DelV Deluge Valve	DPV Dry Pipe Valve
E 90° Elbow	EE 45° Elbow	Ee1 11¼° Elbow
Ee2 22½° Elbow	f Flow Device	fd Flex Drop
FDC Fire Department Connection	fE 90° FireLock(TM) Elbow	fEE 45° FireLock(TM) Elbow
flg Flange	FN Floating Node	fT FireLock(TM) Tee
g Gauge	GloV Globe Valve	GV Gate Valve
Ho Hose	Hose Hose	HV Hose Valve
Hyd Hydrant	LtE Long Turn Elbow	mecT Mechanical Tee
Noz Nozzle	P1 Pump In	P2 Pump Out
PIV Post Indicating Valve	PO Pipe Outlet	PRV Pressure Reducing Valve
PrV Pressure Relief Valve	red Reducer/Adapter	S Supply
sCV Swing Check Valve	Spr Sprinkler	St Strainer
T Tee Flow Turn 90°	Tr Tee Run	U Union
WirF Wirsbo	WMV Water Meter Valve	Z Cap



TECHNICAL DATA

QUICK RESPONSE DRY HORIZONTAL SIDEWALL SPRINKLERS

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 Quick Response Dry Horizontal Sidewall Sprinklers are thermosensitive spray sprinklers suitable for use in areas subject to freezing. The sprinklers are designed for dry systems and preaction systems where it is necessary to prevent water or condensation from entering the drop nipple before sprinkler operation. They may also be installed in spaces subject to freezing and supplied from a wet system in an adjacent heated area.


Viking Quick Response Dry HSW Sprinklers are available in various finishes and temperature ratings to meet design requirements. The special Polyester and Electroless Nickel PTFE (ENT) coatings have been investigated for installation in corrosive atmospheres and are listed/approved as corrosion resistant as indicated in the Approval Charts. (Note: FM Global has no approval classification for Polyester coatings as corrosion resistant.)

NOTE: When installed in some corrosive environments, the Polyester finish may change color. This natural discoloration over time is not in itself an indication of corrosion and should not be treated as such. All sprinklers installed in corrosive environments should be replaced or tested as described in NFPA 25 on a more frequent basis.

2. LISTINGS AND APPROVALS

 cULus Listed: Category VNIV

 FM Approved: Classes 2013 and 2015

 NYC Approved: MEA 89-92-E, Volume 15

Refer to Approval Chart 1 and Design Criteria on page 106c for cULus Listing requirements, and refer to Approval Chart 2 and Design Criteria on page 106d for FM Approval requirements that must be followed.

3. TECHNICAL DATA

Specifications:

Available since 1993.

Minimum Operating Pressure: 7 psi (0.5 bar)

Maximum Working Pressure: 175 psi (12 bar).

Factory tested pneumatically to 100 psi (6.89 bar)

Thread size: 1" NPT or 25 mm BSP

Nominal K-Factor: 5.6 U.S. (80.6 metric*) for all listed and approved lengths.

* 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.

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

Covered by the following U.S. Patent numbers: 8,636,075 and 8,376,060

Material Standards:

Frame Casting: Brass UNS-C84400

Deflector: Phosphor Bronze UNS-C51000

Bulb: Glass, nominal 3 mm diameter

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

Compression Screw: Brass UNS-C36000

Pip Cap: Brass UNS-C31400 or UNS-C31600

Pip Cap Adapter: Brass UNS-C36000

Orifice: Copper UNS-C22000 or UNS-C11000

Tube: ERW Hydraulic Steel Tube

Support (Internal): Stainless Steel UNS-S30400

Barrel: Steel Pipe UNS-G10260, Electrodeposited Epoxy Base finish

Barrel End and Threads: QM Brass

Sleeve (for Adjustable Standard style only): Brass UNS-C26000 or UNS-C26800

Escutcheon Materials:

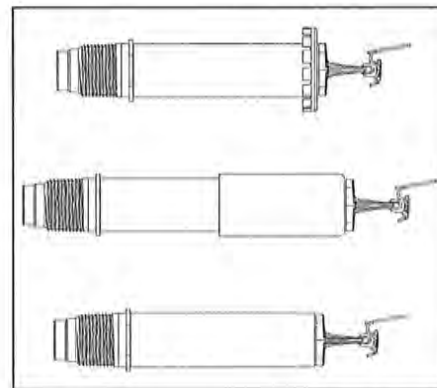
Adjustable Standard Dry Escutcheons: Brass UNS-C26000 or UNS-C26800

Recessed Dry Escutcheons: Cold Rolled Steel UNS-G10080

ENT Coated Adjustable and Recessed Escutcheons: Stainless Steel UNS-S30400

Ordering Information: (Also refer to the current Viking price list.)

Order QR Dry HSW Sprinklers by first adding the appropriate suffix for the sprinkler finish, the appropriate suffix for the temperature rating, and then the suffix for the length ("A" dimension) to sprinkler base part number. Order in a specific length noted as the "A" dimension. The "A" dimension is the distance from the face of the fitting (tee) to the desired finished surface of the wall in which it is to be installed.



For Light Hazard Occupancies Only

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.



TECHNICAL DATA

QUICK RESPONSE DRY HORIZONTAL SIDEWALL SPRINKLERS

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

These sprinklers are listed and approved in lengths from 1-1/2" to 45-1/2" (38.1 mm to 1,156 mm) for the adjustable standard style, 3" to 47" (76.2 mm to 1,194 mm) for the plain barrel style, and 3-1/4" to 47-1/2" (82.5 mm to 1,207 mm) for the adjustable recessed style. Lengths exceeding the standard lengths are available, with no approvals, on a "made-to-order" basis: Recessed Dry HSW up to 65-1/2" (1,664 mm). Adjustable Standard Dry HSW up to 63-1/2" (1,613 mm). Plain Barrel Dry HSW up to 65" (1,651 mm). Contact the manufacturer for more information.

Finish Suffix: Brass = A, Chrome = F, White Polyester = M-W, and ENT = JN

Temperature Suffix: 155 °F (68 °C) = B, 175 °F (79 °C) = D, 200 °F (93 °C) = E, 286 °F (141 °C) = G

Escutcheon Suffix = Y for the adj. recessed sprinkler with the Model G-1 Escutcheon (no suffix needed for the Model E-1 Escutcheon).

For example, sprinkler VK182 with 1" NPT Threads, a Chrome finish, a 155 °F (68 °C) temperature rating, the Model G-1 Escutcheon, and "A" length of 10" = Part No. 08386UFBY10.

Available Finishes And Temperature Ratings: Refer to Table 1.

Accessories: (Also refer to the "Sprinkler Accessories" section.)

Sprinkler Wrenches:

A. Standard Wrench: Part No. 07297W/B (available since 1991)

B. Wrench for recessed sprinklers: Part No. 07565W/B** (available since 1991)

**A 1/2" ratchet is required (not available from Viking).

Dry Sprinkler Protective Cover: Part No. 15610

Replacement Escutcheons:

A. Adjustable Standard Dry Escutcheon: Base Part No. 08086F

B. Model E-1 Recessed Dry Escutcheon Cup: Base Part No. 05459A

4. INSTALLATION

Refer to appropriate NFPA Installation Standards.

5. OPERATION

During fire conditions, the heat-sensitive liquid in the glass bulb expands, causing the glass to shatter, releasing the internal parts to open the water-way. 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

The Viking Quick Response Dry Horizontal Sidewall Sprinkler is 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.

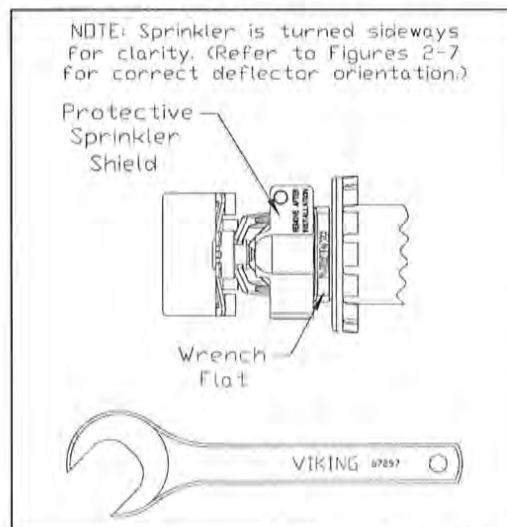


Figure 1:
Standard Sprinkler Wrench 07297W/B

TABLE 1: AVAILABLE SPRINKLER TEMPERATURE RATINGS AND FINISHES

Sprinkler Temperature Classification	Sprinkler Nominal Temperature Rating ¹	Maximum Ambient Ceiling Temperature ²	Bulb Color
Ordinary	155 °F (68 °C)	100 °F (38 °C)	Red
Intermediate	175 °F (79 °C)	150 °F (65 °C)	Yellow
Intermediate	200 °F (93 °C)	150 °F (65 °C)	Green
High	286 °F (141 °C)	225 °F (107 °C)	Blue

Sprinkler Finishes: Brass, Chrome, White Polyester, and ENT

Corrosion-Resistant Coating^{3,4}: White Polyester and ENT in all temperature ratings

Footnotes

¹ The sprinkler temperature rating is stamped on the 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 Polyester and ENT 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. Note: These coatings are NOT corrosion proof. Prior to installation, verify through the end-user that the coatings are compatible with or suitable for the proposed environment. Polyester and ENT coatings are applied to the exposed exterior surfaces only. Note that the spring is exposed on sprinklers with Polyester and ENT coatings.

⁴ When installed in some corrosive environments, the Polyester finish may change color. This natural discoloration over time is not in itself an indication of corrosion and should not be treated as such. All sprinklers installed in corrosive environments should be replaced or tested as described in NFPA 25 on a more frequent basis.

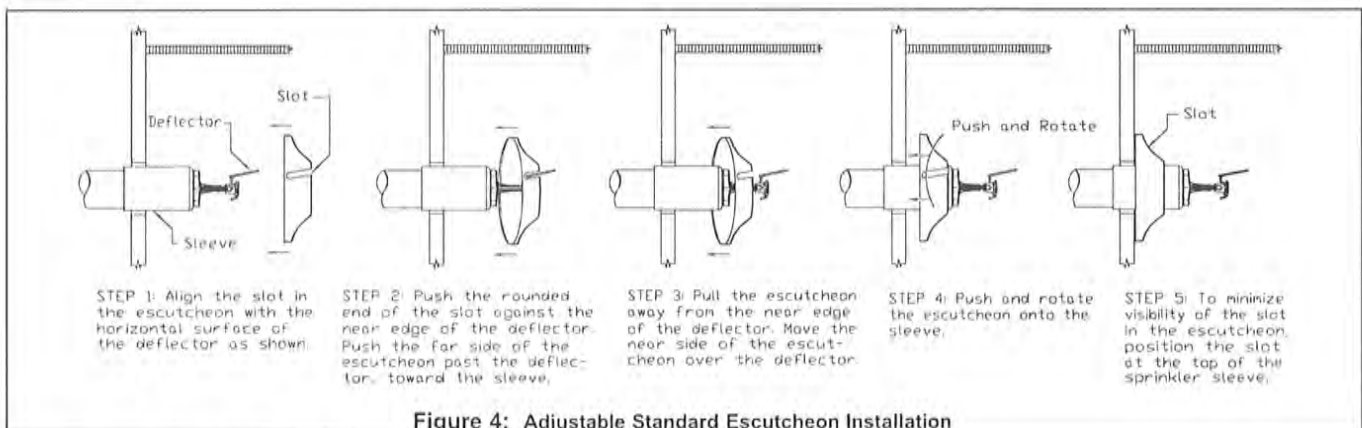
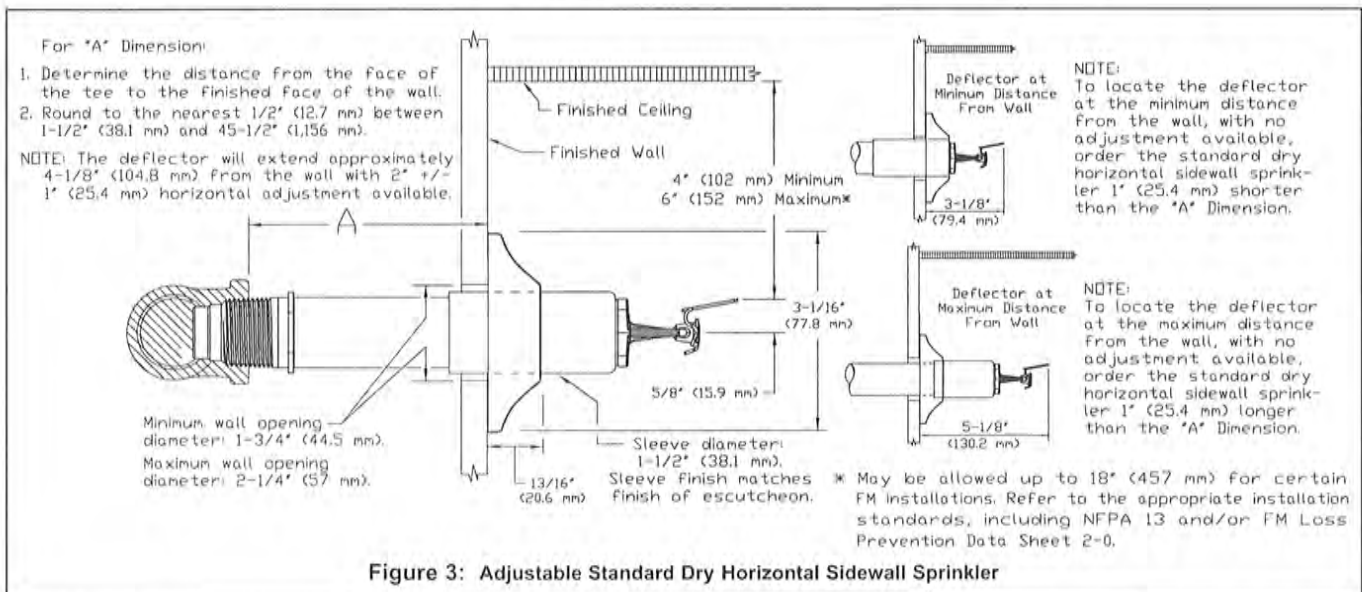
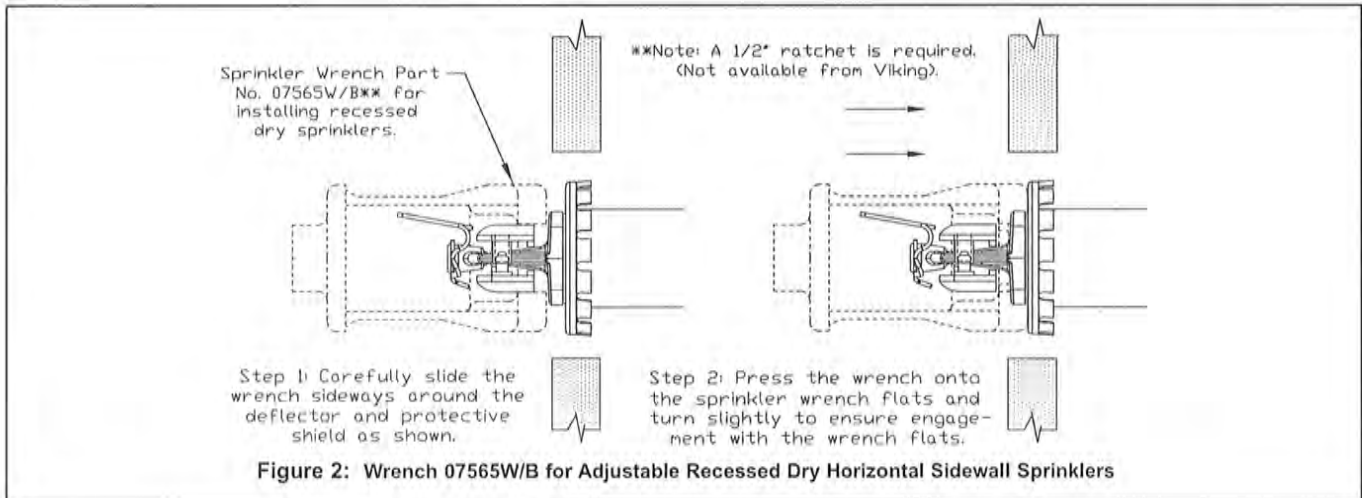


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Approval Chart 1 (UL)

Quick Response Dry Horizontal Sidewall Sprinklers
For Light Hazard Occupancies Only
Maximum 175 PSI (12 bar) WWP

Temperature		KEY
↓	Finish	
A1X ←	Escutcheon (if applicable)	

Sprinkler Base Part No. ¹	SIN	Style	Thread Size		Nominal K-Factor ²		Order Length Increment		Listings and Approvals ⁴ (Refer also to Design Criteria on page 106e.)					
			NPT	BSP	U.S.	metric ³	Inches	mm	cULus ⁵	NYC ⁶	VdS	LPCB	CE	Ⓢ
08384U	VK178	Adjustable Standard	1"	--	5.6	80.6	1/2"	12.7	A1, A5	A1	--	--	--	--
16458U			--	25 mm	--	80.6	1/2"	12.7	A1, A5	--	--	--	--	--
08386U	VK182	Adjustable Recessed	1"	--	5.6	80.6	1/4"	6.35	B2, B6	B2	--	--	--	--
16454U			--	25 mm	--	80.6	1/4"	6.35	B2, B6	--	--	--	--	--
08388U	VK174	Plain Barrel	1"	--	5.6	80.6	1/2"	12.7	A3	A4	--	--	--	--
16456U			--	25 mm	--	80.6	1/2"	12.7	A3	--	--	--	--	--

Approved Finishes and "A" Dimensions

Approved Temperature Ratings

A - 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), and 286 °F (141 °C)
B - 155 °F (68 °C), 175 °F (79 °C), and 200 °F (93 °C)

1* - Chrome, or White Polyester⁷ sprinkler with a Chrome, Brass, or White Polyester Sleeve and Escutcheon with "A" dimensions 1-1/2" to 45-1/2" (38.1 mm to 1,156 mm)
2* - Chrome, or White Polyester⁷ with "A" dimensions 3-1/4" to 47-1/2" (82.5 mm to 1,207 mm)
3 - Chrome, Brass, White Polyester⁷, or ENT⁷ with "A" dimensions 3" to 47" (76.2 mm to 1,194 mm)
4 - Chrome or Brass with "A" dimensions 3" to 47" (76.2 mm to 1,194 mm)
5 - ENT⁷ sprinkler with an ENT⁷ Sleeve and Escutcheon with "A" dimensions 1-1/2" to 45-1/2" (38.1 mm to 1,156 mm)
6 - ENT⁷ with "A" dimensions 3-1/4" to 47-1/2" (82.5 mm to 1,207 mm)
*Brass Finish is listed and approved but not standard offering, lead times of 6-8 weeks required.
(Matching Brass escutcheons are not available.)

Footnotes

- ¹ Part number shown is the base part number. For complete part number, refer to current Viking price list schedule.
² K-Factor applies for standard lengths ("A" Dimensions indicated above).
³ Metric K-factor shown is for use when pressure is measured in bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.
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 for Light Hazard occupancies only.
⁶ Accepted for use, City of New York Department of Buildings, MEA Number 89-92-E, Vol. 15.
⁷ cULus Listed as corrosion resistant.

DESIGN CRITERIA - UL

(Also refer to Approval Chart 1 above.)

NOTE: When using CPVC fittings with Viking dry sprinklers, use only new Nibco Model 5012-S-BI tees. When selecting other CPVC fittings, contact Viking Technical Services.

cULus Listing Requirements:

Quick Response Dry Horizontal Sidewall Sprinklers are cULus Listed as indicated in Approval Chart 1 for installation in accordance with the latest edition of NFPA 13 for standard spray sprinklers.

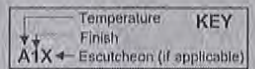
- Limited to Light Hazard occupancies only.
- Protection areas and maximum spacing shall be in accordance with the tables provided in NFPA 13.
- Minimum spacing allowed is 6 ft. (1.8 m).
- Deflector must be positioned between 4" and 6" (102 mm and 152 mm) below the ceiling. Keep the top of the deflector oriented parallel with the ceiling.
- Locate no less than 4" (102 mm) from end walls.
- Maximum distance from end 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 installation and obstruction rules contained in NFPA 13 for sidewall standard spray sprinklers must be followed.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to page DRY1-3 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.

	TECHNICAL DATA	QUICK RESPONSE DRY HORIZONTAL SIDEWALL SPRINKLERS
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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

Approval Chart 2 (FM)
 Quick Response Dry Horizontal Sidewall Sprinklers
 For Light Hazard Occupancies Only
 Maximum 175 PSI (12 bar) WWP



Sprinkler Base Part No. ¹	SIN	Style	Thread Size		Nominal K-Factor ²		Order Length Increment		FM Approvals ⁴ <small>(Refer also to Design Criteria below.)</small>
			NPT	BSP	U.S.	metric ³	Inches	mm	
08384U	VK178	Adjustable Standard	1"	--	5.6	80.6	1/2"	12.7	A1
16458U			--	25 mm	--	80.6	1/2"	12.7	A1
08386U	VK182	Adjustable Recessed	1"	--	5.6	80.6	1/4"	6.35	B2
16454U			--	25 mm	--	80.6	1/4"	6.35	B2
08388U	VK174	Plain Barrel	1"	--	5.6	80.6	1/2"	12.7	A3
16456U			--	25 mm	--	80.6	1/2"	12.7	A3

<p style="text-align: center;">Approved Temperature Ratings</p> <p>A - 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), and 286 °F (141 °C) B - 155 °F (68 °C), 175 °F (79 °C), and 200 °F (93 °C)</p>	<p style="text-align: center;">Approved Finishes and "A" Dimensions</p> <p>1* - Bright Brass, Chrome, White Polyester, or ENT⁵ with "A" dimensions 1-1/2" to 45-1/2" (38.1 mm to 1,156 mm) 2* - Bright Brass, Chrome, White Polyester, or ENT⁵ with "A" dimensions 3-1/4" to 47-1/2" (82.5 mm to 1,207 mm) 3 - Brass, Bright Brass, Chrome, White Polyester, or ENT⁵ "A" dimensions 3" to 47" (76.2 mm to 1,194 mm)</p> <p style="font-size: x-small;">*Brass Finish is listed and approved but not standard offering, lead times of 6-8 weeks required. (Matching Brass escutcheons are not available.)</p>
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Footnotes

¹ Part number shown is the base part number. For complete part number, refer to current Viking price list schedule.
² K-Factor applies for standard lengths ("A" Dimensions indicated above).
³ Metric K-factor shown is for use when pressure is measured in bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.
⁴ 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.
⁵ FM approved as corrosion resistant.

DESIGN CRITERIA - FM
 (Also refer to Approval Chart 2 above.)

NOTE: When using CPVC fittings with Viking dry sprinklers, use only new Nibco Model 5012-S-BI tees. When selecting other CPVC fittings, contact Viking Technical Services.

FM Approval Requirements:
 The Dry HSW Sprinklers in the Approval Chart above are FM Approved as quick response **Non-storage** standard spray sprinklers as indicated in the FM Approval Guide. For specific application and installation requirements, reference the latest applicable FM Loss Prevention Data Sheets (including 2-0) and Technical Advisory Bulletins. FM Global Loss Prevention Data Sheets and Technical Advisory Bulletins 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 DRY1-3 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.



TECHNICAL DATA

QUICK RESPONSE
DRY HORIZONTAL
SIDEWALL SPRINKLERS

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

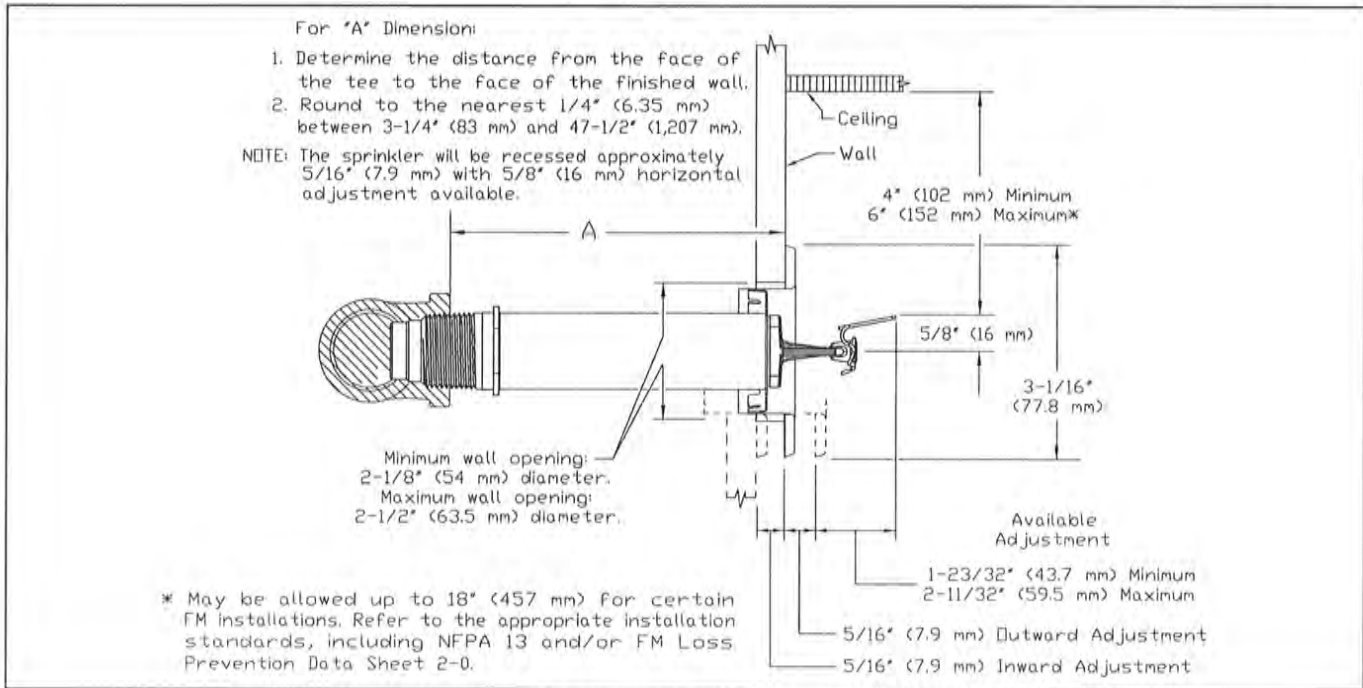


Figure 5: Adjustable Recessed Dry Horizontal Sidewall Sprinkler with the Model E-1 Escutcheon

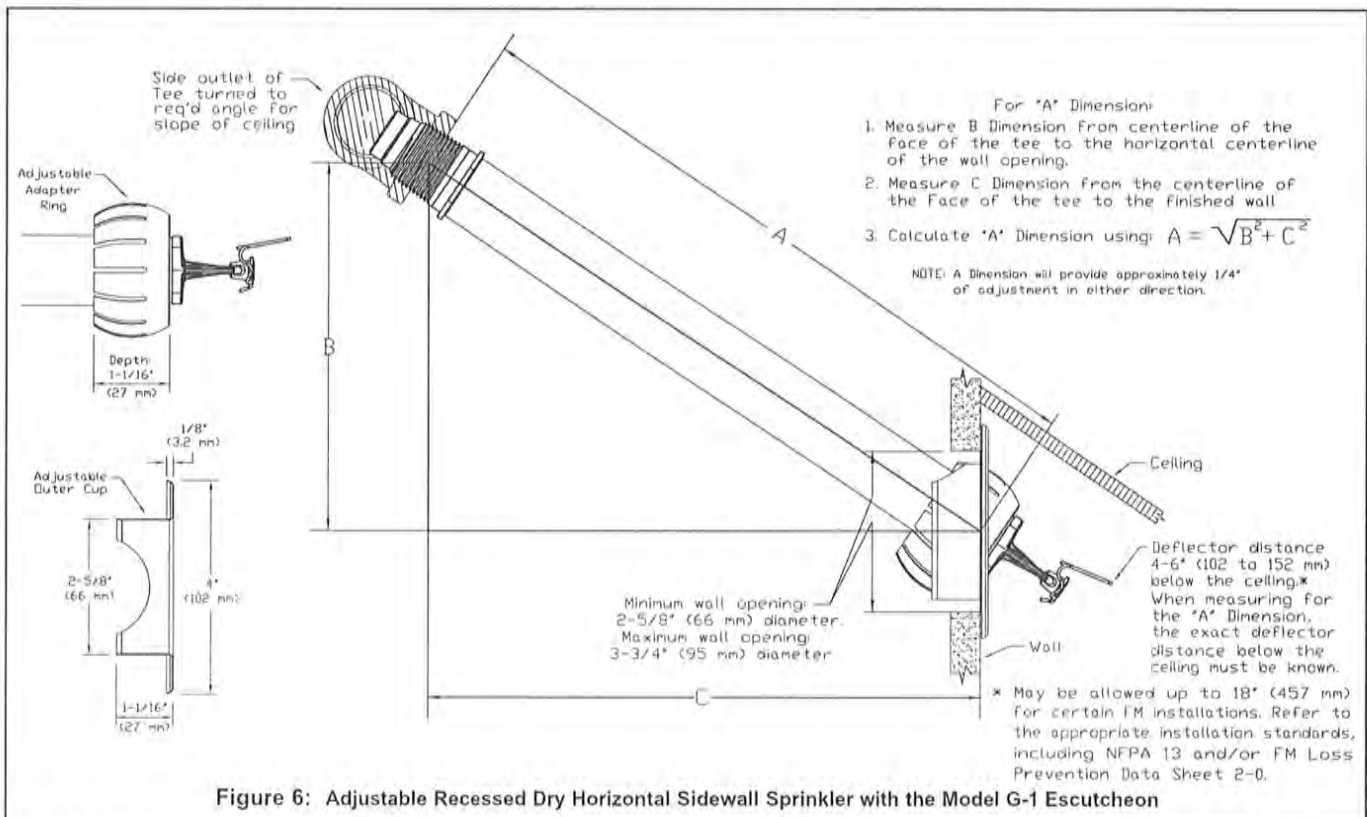


Figure 6: Adjustable Recessed Dry Horizontal Sidewall Sprinkler with the Model G-1 Escutcheon

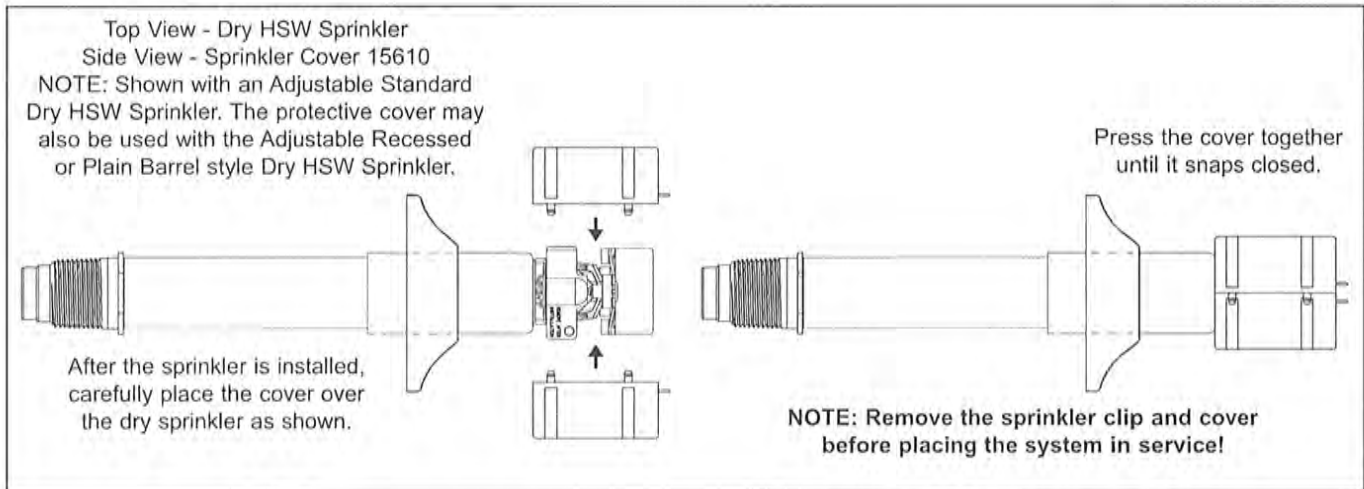
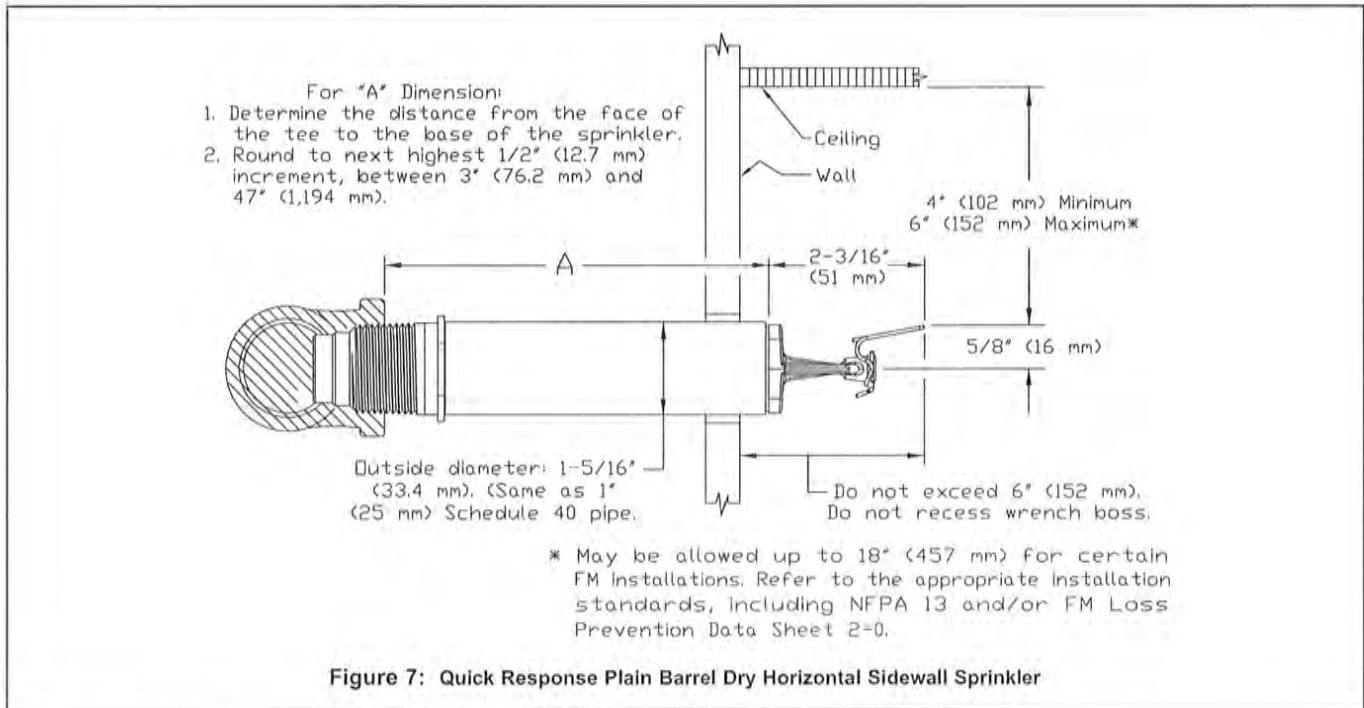


TECHNICAL DATA

QUICK RESPONSE
DRY HORIZONTAL
SIDEWALL SPRINKLERS

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TECHNICAL DATA

**QUICK RESPONSE
DRY HORIZONTAL
SIDEWALL SPRINKLERS**

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

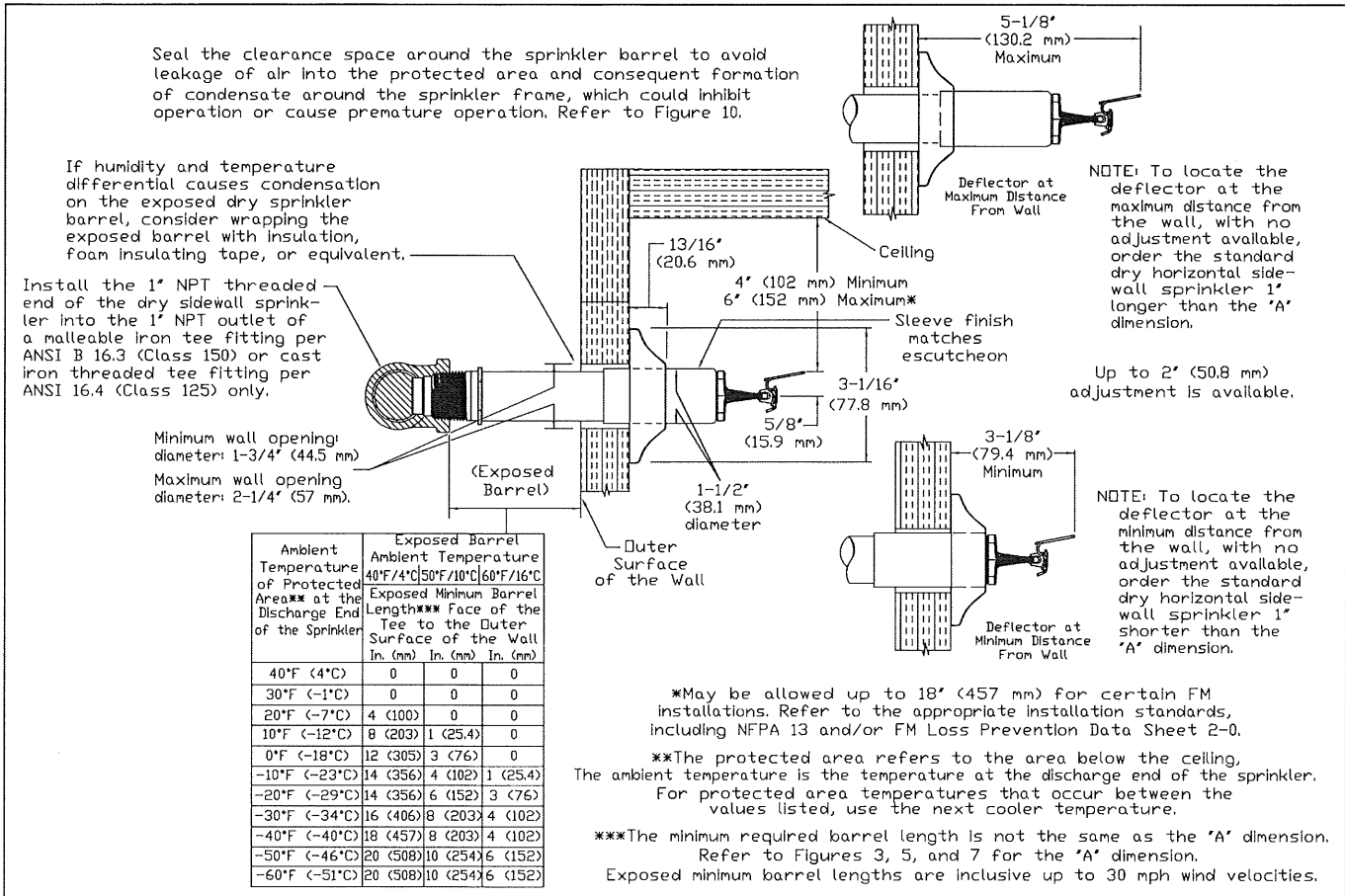


Figure 9: Dry Horizontal Sidwall Sprinkler Required Minimum Barrel Length Based on Ambient Temperature in the Protected Area (Adjustable Standard Dry HSW Sprinkler is Shown)

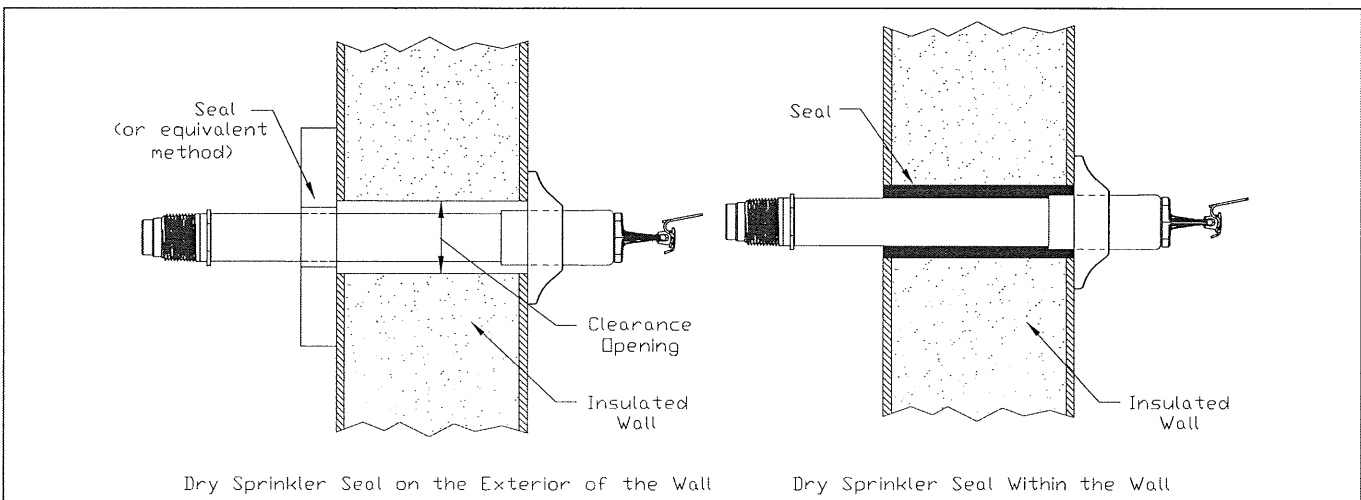


Figure 10: Dry Sprinkler Seal (Adjustable Standard Dry HSW Sprinkler is Shown)



TECHNICAL DATA

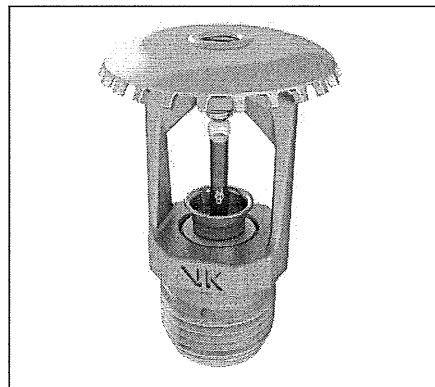
MICROFAST® QUICK RESPONSE UPRIGHT SPRINKLER VK300 (K5.6)

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

The Viking Microfast® Quick Response Upright Sprinkler VK300 is a small, thermosensitive, glass-bulb spray sprinkler available in several different finishes and temperature ratings to meet design requirements. The special Polyester and Electroless Nickel PTFE (ENT) coatings can be used in decorative applications where colors are desired. In addition, these coatings have been investigated for installation in corrosive atmospheres and are listed/approved as corrosion resistant as indicated in the Approval Charts. (Note: **FM global approves the ENT coating as corrosion resistant.** FM Global has no approval classification Polyester coatings as corrosion resistant.)



2. LISTINGS AND APPROVALS



cULus Listed: Category VNIV

FM Approved: Classes 2002 and 2020

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

3. TECHNICAL DATA

Specifications:

Minimum Operating Pressure: 7 psi (0.5 bar)*
 Maximum Working Pressure: 175 psi (12 bar) wwp.
 Factory tested hydrostatically to 500 psi (34.5 bar)
 Testing: U.S.A. Patent No. 4,831,870
 Thread size: 1/2" NPT, 15 mm BSP
 Nominal K-Factor: 5.6 U.S. (80.6 metric**)
 Glass-bulb fluid temperature rated to -65 °F (-55 °C)
 Overall Length: 2-3/16" (56 mm)

*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).

Material Standards:

Frame Casting: Brass UNS-C84400 or QM Brass
 Deflector: Brass UNS-C23000 or Copper UNS-C19500
 Bulb: Glass, nominal 3 mm diameter
 Belleville Spring Sealing Assembly: Nickel Alloy, coated on both sides with PTFE Tape
 Screw: Brass UNS-C36000
 Pip Cap and Insert Assembly: Copper UNS-C11000 and Stainless Steel UNS-S30400

For Polyester Coated Sprinklers: Belleville Spring-Exposed

For ENT Coated Sprinklers: Belleville Spring-Exposed, Screw and Pipcap - ENT plated

Ordering Information: (Also refer to the current Viking price list.)

Order Viking Microfast® Quick Response Upright Sprinkler VK300 by first adding the appropriate suffix for the sprinkler finish and then the appropriate suffix for the temperature rating to the sprinkler base part number.

Finish Suffix: Brass = A, Chrome = F, White Polyester = M-W, Black Polyester = M-B, and ENT = JN
 Temperature Suffix (°F/°C): 135°/57° = A, 155°/68° = B, 175°/79° = D, 200°/93° = E, and 286°/141° = G

For example, sprinkler VK300 with a 1/2" NPT thread, Brass finish and a 155 °F/68 °C temperature rating = Part No. 12978AB

Available Finishes And Temperature Ratings: Refer to Table 1.

Accessories: (Also refer to the "Sprinkler Accessories" section of the Viking data book.)

Sprinkler Wrench: Standard Wrench: Part No. 10896W/B (available since 2000)

Sprinkler Cabinets:

A. Six-head capacity: Part No. 01724A (available since 1971)
 B. Twelve-head capacity: Part No. 01725A (available since 1971)

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.

4. INSTALLATION

Refer to appropriate NFPA Installation Standards.



TECHNICAL DATA

MICROFAST® QUICK RESPONSE UPRIGHT SPRINKLER VK300 (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

5. OPERATION

During fire conditions, the heat-sensitive liquid in the glass bulb expands, causing the glass to shatter, releasing the 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

The Viking Microfast® Quick Response Upright Sprinkler VK300 is 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.

TABLE 1: AVAILABLE SPRINKLER TEMPERATURE RATINGS AND FINISHES

Sprinkler Temperature Classification	Sprinkler Nominal Temperature Rating ¹	Maximum Ambient Ceiling Temperature ²	Bulb Color
Ordinary	135 °F (57 °C)	100 °F (38 °C)	Orange
Ordinary	155 °F (68 °C)	100 °F (38 °C)	Red
Intermediate	175 °F (79 °C)	150 °F (65 °C)	Yellow
Intermediate	200 °F (93 °C)	150 °F (65 °C)	Green
High	286 °F (141 °C)	225 °F (107 °C)	Blue

Sprinkler Finishes: Brass, Chrome, White Polyester, Black Polyester, and ENT

Corrosion-Resistant Coatings³: White Polyester, Black Polyester, and Black PTFE. ENT in all temperature ratings except 135 °F (57 °C)

Footnotes

¹ The sprinkler temperature rating is stamped on the 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 coatings indicated are applied to the exposed exterior surfaces only. Note that the spring is exposed on sprinklers with Polyester, ENT, and PTFE coatings. For ENT coated automatic sprinklers, the waterway is coated.

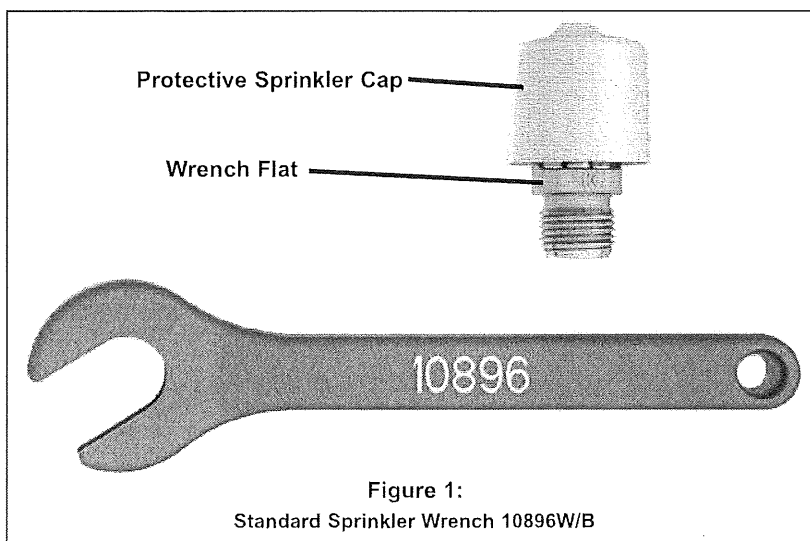


Figure 1:

Standard Sprinkler Wrench 10896W/B

	TECHNICAL DATA	MICROFAST® QUICK RESPONSE UPRIGHT SPRINKLER VK300 (K5.6)
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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

Approval Chart 1 (UL) Microfast® Quick Response Upright Sprinkler VK300 Maximum 175 PSI (12 bar) WWP												
Base Part Number ¹	SIN	Thread Size		Nominal K-Factor		Overall Length		Listings and Approvals ³				
		NPT	BSP	U.S.	metric ²	Inches	mm	cULus	VdS	LPCB	NYC ⁶	CE
12978	VK300	1/2"	15 mm	5.6	80.6	2-3/16	56	A1, B2	--	--	See footnote 7.	--
NOTICE - Product Below - Limited Availability (Contact Local Viking Office)												
06661B	VK300	1/2"	15 mm	5.6	80.6	2-3/16	56	A1, B2	--	--	See footnote 7.	--
Approved Temperature Ratings A - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), and 286 °F (141°C) B - 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), and 286 °F (141°C)							Approved Finishes 1 - Brass, Chrome, White Polyester ^{5,6} , and Black Polyester ^{5,6} 2 - ENT ⁶					
Footnotes												
¹ Base part number is shown. For complete part number, refer to Viking's current price 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 table shows the listings and approvals available at the time of printing. Check with the manufacturer for any additional approvals. ⁴ Listed by Underwriters Laboratories Inc. for us in the U.S. and Canada ⁵ Other colors are available on request with the same Listings and Approvals as the standard colors. ⁶ cULus Listed as corrosion resistant. ⁷ Meets New York City requirements, effective July 1, 2008 ⁸ Accepted for use, City of New York Board of Standards and Appeals, Calendar Number 219-76-SA and City of New York Department of Buildings, MEA 89-92-E, Vol. 16.												

DESIGN CRITERIA - UL (Also refer to Approval Chart 1 above.)
cULus Listing Requirements: The Viking Microfast® Quick Response Upright Sprinkler VK300 is cULus Listed as indicated in Approval Chart 1 for installation in accordance with the latest edition of NFPA 13 for standard spray sprinklers. <ul style="list-style-type: none"> • Designed for use in Light and Ordinary Hazard occupancies. • The sprinkler installation rules contained in NFPA 13 for standard spray upright sprinklers must be followed.
IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to page 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, FM Global, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.



TECHNICAL DATA

MICROFAST® QUICK RESPONSE UPRIGHT SPRINKLER VK300 (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

Approval Chart 2 (FM)

Microfast® Quick Response
Upright Sprinkler VK300
Maximum 175 PSI (12 bar) WWP

Temperature	KEY
Finish	
Escutcheon (if applicable)	
A1X	

Base Part Number ¹	SIN	Thread Size		Nominal K-Factor		Overall Length		FM Approvals ³ (Refer also to Design Criteria below.)
		NPT	BSP	U.S.	metric ²	Inches	mm	
12978	VK300	1/2"	15 mm	5.6	80.6	2-3/16	56	A1, B2
NOTICE - Product Below - Limited Availability (Contact Local Viking Office)								
06661B	VK300	1/2"	15 mm	5.6	80.6	2-3/16	56	A1, B2
Approved Temperature Ratings							Approved Finishes	
A - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), and 286 °F (141 °C)							1 - Brass, Chrome, White Polyester ⁵ , and Black Polyester ⁵	
B - 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), and 286 °F (141 °C)							2 - ENT ⁶	
Footnotes								
¹ Base part number is shown. For complete part number, refer to Viking's current price 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 table shows the FM Approvals available at the time of printing. Check with the manufacturer for any additional approvals. ⁵ Other colors are available on request with the same Approvals as the standard colors. ⁶ FM approved as corrosion resistant.								

DESIGN CRITERIA - FM

(Also refer to Approval Chart 2 above.)

FM Approval Requirements:

The Microfast® Quick Response Upright Sprinkler VK300 is FM Approved as a quick response **Non-Storage** upright 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 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, FM Global, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.



TECHNICAL DATA

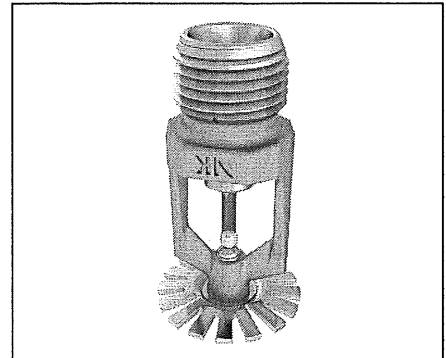
MICROFAST® QUICK RESPONSE PENDENT SPRINKLER VK302 (K5.6)

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
Visit the Viking website for the latest edition of this technical data page: www.vikinggroupinc.com

1. DESCRIPTION

The Viking Microfast® Quick Response Pendent Sprinkler VK302 is a small thermo-sensitive glass bulb spray sprinkler available with various finishes and temperature ratings to meet design requirements. The special Polyester and Electroless Nickel PTFE (ENT) coatings can be used in decorative applications where colors are desired. In addition, these coatings have been investigated for installation in corrosive atmospheres and are listed/approved as corrosion resistant as indicated in the Approval Charts. (Note: **FM Global approves ENT finish as corrosion resistant.** FM Global has no approval classification for Polyester coatings as corrosion resistant.)



2. LISTINGS AND APPROVALS



cULus Listed: Category VNIIV



FM Approved: Class Series 2000



VdS Approved: Certificates G414009 and G414010



LPCB Approved



CE Certified: Standard EN 12259-1:1999, A3:2006 Certificate of Constancy of Performance 0832-CPR-S0021



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

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

3. TECHNICAL DATA

Specifications:

Minimum Operating Pressure: 7 psi (0.5 bar)
Rated to 175 psi (12 bar) water working pressure
Factory tested hydrostatically to 500 psi (34.5 bar)
Thread size: 1/2" NPT, 15 mm BSP
Nominal K-Factor: 5.6 U.S. (80.6 metric**)
Glass-bulb fluid temperature rated to -65 °F (-55 °C)
Overall Length: 2-1/4" (58 mm)

*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).

Material Standards:

Frame Casting: Brass UNS-C84400 or QM Brass
Deflector: Phosphor Bronze UNS-C51000 or Copper UNS-C19500
Bulb: Glass, nominal 3 mm diameter
Belleville Spring Sealing Assembly: Nickel Alloy, coated on both sides with PTFE Tape
Screw: Brass UNS-C36000
Pip Cap and Insert Assembly: Copper UNS-C11000 and Stainless Steel UNS-S30400
For Polyester Coated Sprinklers: Belleville Spring-Exposed
For ENT Coated Sprinklers: Belleville Spring-Exposed, Screw and Pipcap - ENT plated.

Ordering Information: (Also refer to the current Viking price list.)

Order Quick Response Pendent Sprinklers by first adding the appropriate suffix for the sprinkler finish and then the appropriate suffix for the temperature rating to the sprinkler base part number.

Finish Suffix: Brass = A, Chrome = F, White Polyester = M-/W, Black Polyester = M-/B, and ENT = JN

Temperature Suffix: 135 °F (57 °C) = A, 155 °F (68 °C) = B, 175 °F (79 °C) = D, 200 °F (93 °C) = E, 286 °F (141 °C) = G

For example, sprinkler VK302 with a Brass finish and a 155 °F (68 °C) temperature rating = Part No. 12979AB

Available Finishes And Temperature Ratings: Refer to Table 1.

Accessories: (Also refer to the current Viking price list.)



TECHNICAL DATA

MICROFAST® QUICK RESPONSE PENDENT SPRINKLER VK302 (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
Visit the Viking website for the latest edition of this technical data page: www.vikinggroupinc.com

Sprinkler Wrenches:

- A. Standard Wrench: Part No. 10896W/B (available since 2000).
- B. Wrench for Recessed Pendent Sprinklers: Part No. 13655W/B** (available since 2006)
- C. Optional Protective Sprinkler Cap Remover/Escutcheon Installer Tool*** Part No. 15915 (available since 2010)

**A ½" ratchet is required (not available from Viking).

***Allows use from the floor by attaching a length of 1" diameter CPVC tubing to the tool. Ideal for sprinkler cabinets. Refer to Bulletin F_051808.

Sprinkler Cabinets:

- A. Six-head capacity: Part No. 01724A (available since 1971)
- B. Twelve-head capacity: Part No. 01725A (available since 1971)

4. INSTALLATION

Refer to appropriate NFPA Installation Standards.

5. OPERATION

During fire conditions, the heat-sensitive liquid in the glass bulb expands, causing the glass to shatter, releasing the 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

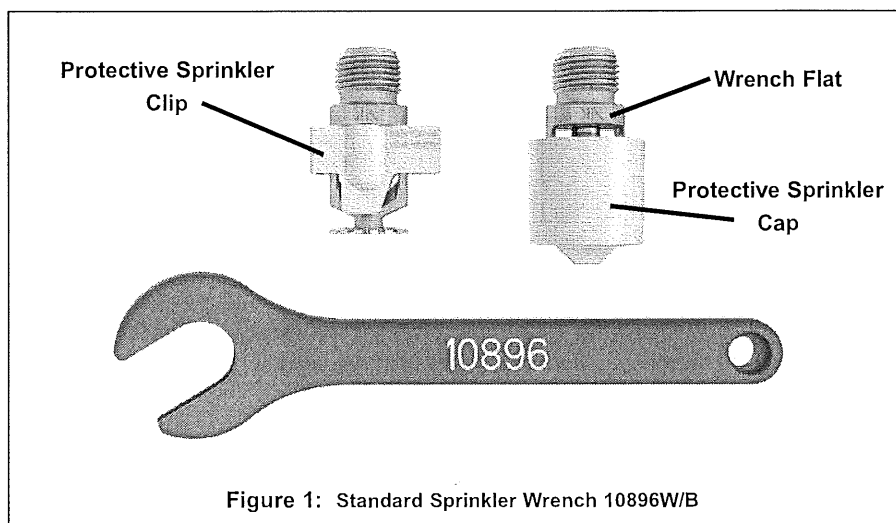
Refer to NFPA 25 for Inspection, Testing and Maintenance requirements.

7. AVAILABILITY

The Viking Microfast® Quick Response Pendent Sprinkler VK302 is 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.



	TECHNICAL DATA	MICROFAST® QUICK RESPONSE PENDENT SPRINKLER VK302 (K5.6)
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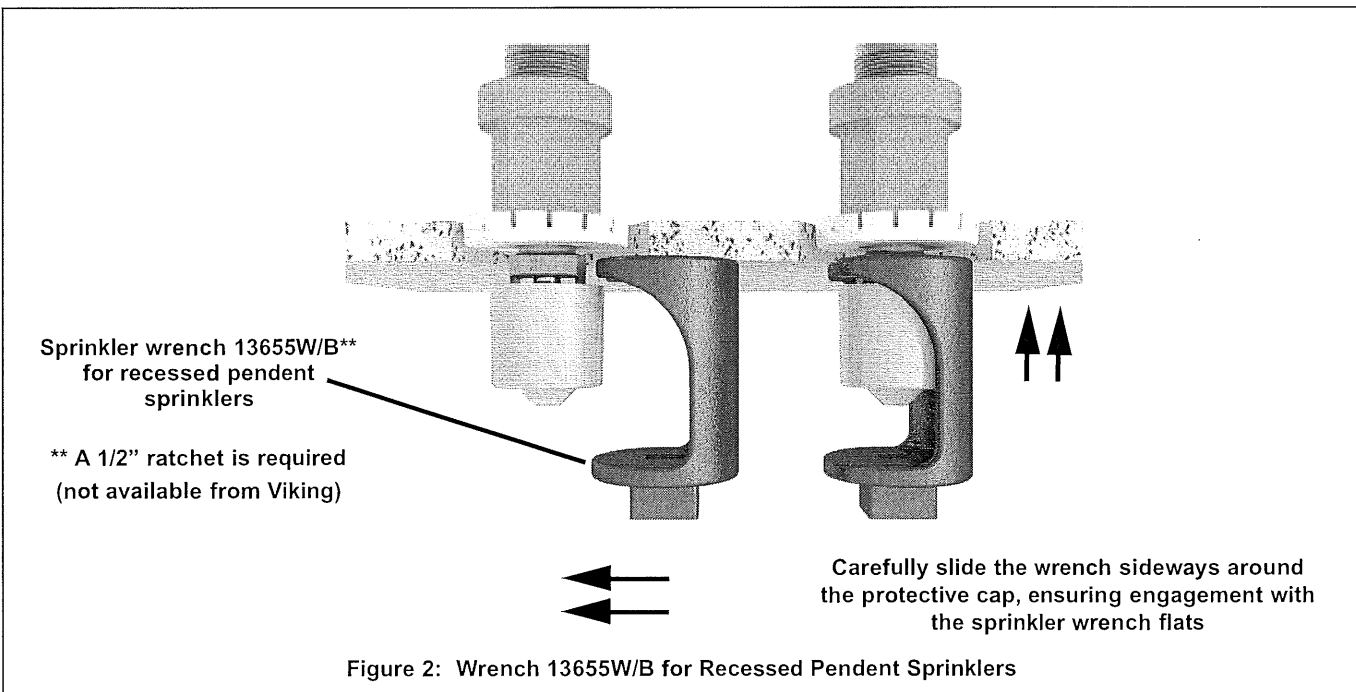
TABLE 1: AVAILABLE SPRINKLER TEMPERATURE RATINGS AND FINISHES

Sprinkler Temperature Classification	Sprinkler Nominal Temperature Rating ¹	Maximum Ambient Ceiling Temperature ²	Bulb Color
Ordinary	135 °F (57 °C)	100 °F (38 °C)	Orange
Ordinary	155 °F (68 °C)	100 °F (38 °C)	Red
Intermediate	175 °F (79 °C)	150 °F (65 °C)	Yellow
Intermediate	200 °F (93 °C)	150 °F (65 °C)	Green
High	286 °F (141 °C)	225 °F (107 °C)	Blue

Sprinkler Finishes: Brass, Chrome, White Polyester, Black Polyester, and ENT
Corrosion-Resistant Coatings³: White Polyester, and Black Polyester. ENT in all temperature ratings except 135 °F (57 °C)

Footnotes

- ¹ The sprinkler temperature rating is stamped on the 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 coatings indicated are applied to the exposed exterior surfaces only. Note that the spring is exposed on sprinklers with Polyester and ENT coatings. For ENT coated automatic sprinklers, the waterway is coated.





TECHNICAL DATA

MICROFAST® QUICK RESPONSE PENDENT SPRINKLER VK302 (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
Visit the Viking website for the latest edition of this technical data page: www.vikinggroupinc.com

Approval Chart 1 (UL)

The Viking Microfast® Quick Response Pendent Sprinkler VK302
Maximum 175 PSI (12 Bar) WWP

KEY	
Temperature	→
Finish	↓
A1X ← Escutcheon (if applicable)	

Base Part Number ¹	SIN	Sprinkler Style	Thread Size		Nominal K-Factor		Overall Length		Listings and Approvals ³ (Refer also to Design Criteria.)					
			NPT	BSP	U.S.	metric ²	Inches	mm	cULus ⁴	VdS	LPCB	CE ⁷	⊙	Ⓢ
12979	VK302	Pendent	1/2"	15 mm	5.6	80.6	2-1/4	58	A1Z, B1Y, D2, C2X	A1	A1Z, B1Y	D1Z, C1Y	--	--
19780	VK302	Pendent	1/2"	--	5.6	80.6	2-1/4	58	--	--	--	--	--	D3
21354	VK302	Pendent	--	15 mm	5.6	80.6	2-1/4	58	--	--	--	--	--	D3

NOTICE - Product Below - Limited Availability (Contact Local Viking Office)

06662B	VK302	Pendent	1/2"	15 mm	5.6	80.6	2-1/4	58	A1Z, B1Y, D2, C2X	--	--	--	--	--
18021	VK302	Pendent	1/2"	15 mm	5.6	80.6	2-1/4	58	A1X, B1Y	A1	A1X, B1Y	D1X, C1Y ⁸	D1X, C1Y ⁹	--

Approved Temperature Ratings				Approved Finishes			Approved Escutcheons			
A - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), 286 °F (141 °C)				1 - Brass, Chrome, White Polyester ^{5,6} , Black Polyester ^{5,6}			X - Standard surface-mounted escutcheon or the Viking Micromatic® Model E-1 Recessed Escutcheon			
B - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), and 200 °F (93 °C)				2 - ENT ⁵			Y - Standard surface-mounted escutcheon or the Viking Microfast® Model F-1 Adjustable Escutcheon, or recessed with the Viking Micromatic® Model E-1, E-2, or E-3 Recessed Escutcheon			
C - 155 °F (68 °C), 175 °F (79 °C), and 200 °F (93 °C)				3 - Chrome			Z - Standard surface-mounted escutcheon or the Viking Microfast® Model F-1 Adjustable Escutcheon			
D - 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), 286 °F (141 °C)										

Footnotes

- ¹ Base part number shown. For complete part number, refer to Viking's current price 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 table shows the listings and approvals available at the time of printing. Other approvals may be in process.
- ⁴ Listed by Underwriters Laboratories Inc. for use in the U.S. and Canada.
- ⁵ cULus Listed as corrosion-resistant.
- ⁶ Other colors are available on request with the same Listings and Approvals as the standard colors.
- ⁷ CE Certified, Standard EN 12259-1, EC-certificate of conformity 0832-CPD-2001.
- ⁸ CE Certified, Standard EN 12259-1, EC-certificates of conformity 0832-CPD-2001 and 0832-CPD-2003.
- ⁹ MED Certified, Standard EN 12259-1, EC-certificates of conformity 0832-MED-1003 and 0832-MED-1008.

DESIGN CRITERIA - UL

(Also refer to Approval Chart 1 above.)

cULus Listing Requirements:

The Viking Microfast® Quick Response Pendent Sprinkler VK302 is cULus Listed as indicated in the Approval Chart for installation in accordance with the latest edition of NFPA 13 for standard spray sprinklers.

- Designed for use in Light and Ordinary occupancies.
- The sprinkler installation rules contained in NFPA 13 for standard spray pendent sprinklers must be followed.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to Form No. F_080614 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.

	<h2 style="margin: 0;">TECHNICAL DATA</h2>	<h3 style="margin: 0;">MICROFAST® QUICK RESPONSE PENDENT SPRINKLER VK302 (K5.6)</h3>
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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
 Visit the Viking website for the latest edition of this technical data page: www.vikinggroupinc.com

Approval Chart 2 (FM) The Viking Microfast® Quick Response Pendent Sprinkler VK302 Maximum 175 PSI (12 Bar) WWP									
Base Part Number ¹	SIN	Sprinkler Style	Thread Size		Nominal K-Factor		Overall Length		FM Approvals ³ (Refer also to Design Criteria.)
			NPT	BSP	U.S.	metric ²	Inches	mm	
12979	VK302	Pendent	1/2"	15 mm	5.6	80.6	2-1/4	58	A1Z, B1Y, D2X, C2
NOTICE - Product Below - Limited Availability (Contact Local Viking Office)									
06662B	VK302	Pendent	1/2"	15 mm	5.6	80.6	2-1/4	58	A1Z, B1Y, D2X, C2
18021	VK302	Pendent	1/2"	15 mm	5.6	80.6	2-1/4	58	A1Z, B1Y
Approved Temperature Ratings A - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), 286 °F (141 °C) B - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), and 200 °F (93 °C) C - 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), 286 °F (141 °C) D - 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C)			Approved Finishes 1 - Brass, Chrome, White Polyester ⁴ , and Black Polyester ⁴ 2 - ENT ⁵			Approved Escutcheons X - Standard surface-mounted escutcheon or the Viking Micromatic® Model E-1 Recessed Escutcheon Y - Standard surface-mounted escutcheon or the Viking Microfast® Model F-1 Adjustable Escutcheon, or recessed with the Viking Micromatic® Model E-1 or E-2 Recessed Escutcheon Z - Standard surface-mounted escutcheon or the Viking Microfast® Model F-1 Adjustable Escutcheon			
Footnotes									
¹ Base part number shown. For complete part number, refer to Viking's current price 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 table shows the FM Approvals available at the time of printing. Other approvals may be in process. ⁴ Other colors are available on request with the same Approvals as the standard colors. ⁵ FM approved as corrosion resistant.									

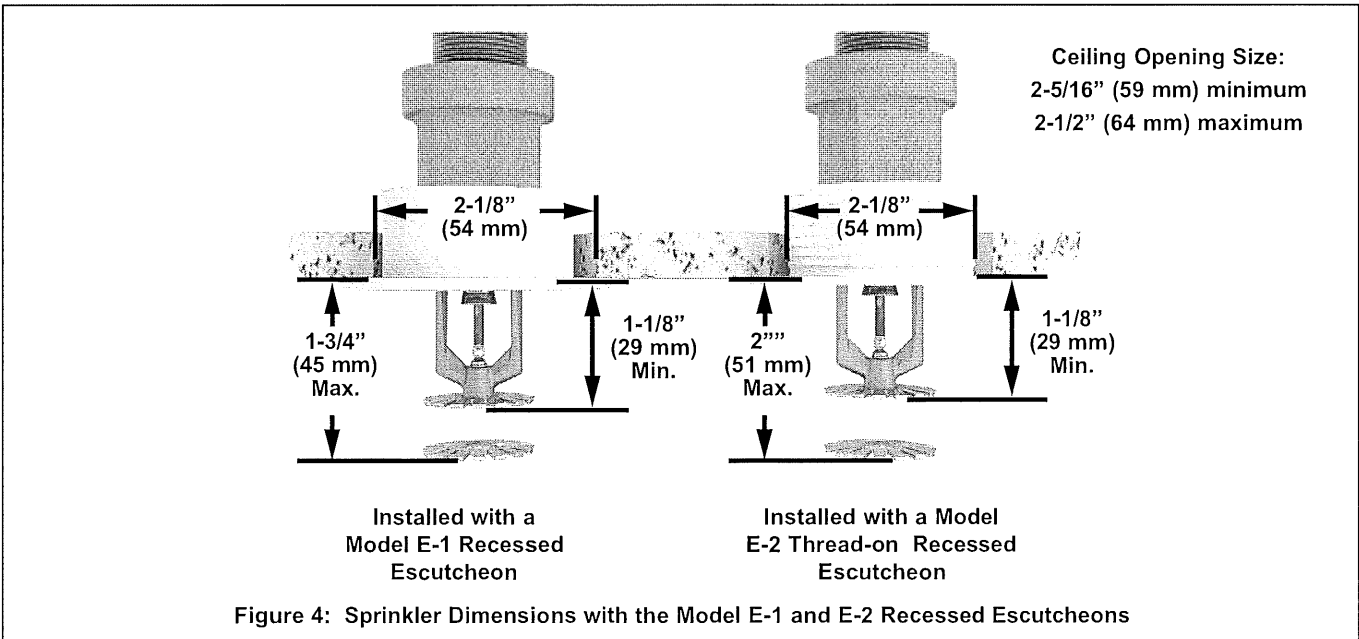
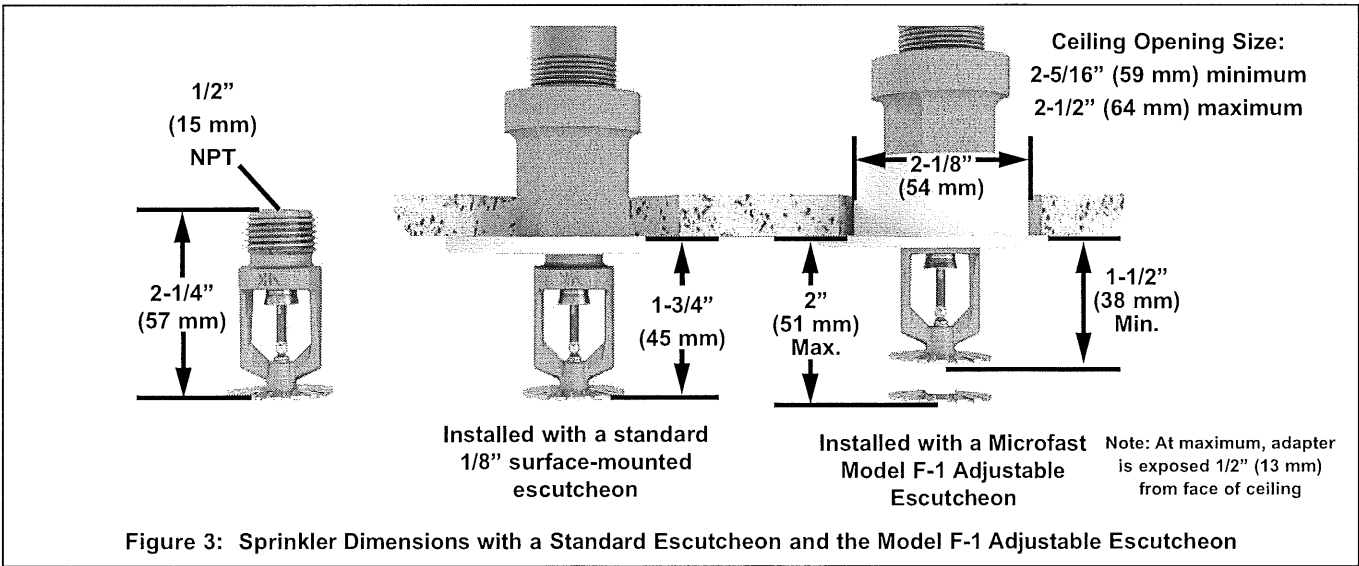
DESIGN CRITERIA - FM (Also refer to Approval Chart 2 above.)
FM Approval Requirements: The Viking Microfast® Quick Response Pendent Sprinkler VK302 is FM Approved as quick response Non-storage pendent sprinklers as indicated in the FM Approval Guide. For specific application and installation requirements, 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 F_080614 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.



TECHNICAL DATA

MICROFAST® QUICK RESPONSE PENDENT SPRINKLER VK302 (K5.6)

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
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TECHNICAL DATA

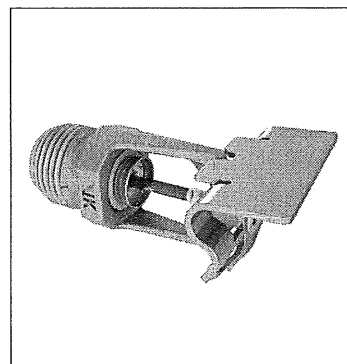
MICROFAST® QUICK RESPONSE HORIZONTAL SIDEWALL SPRINKLER VK305 (K5.6)

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
Visit the Viking website for the latest edition of this technical data page: www.vikinggroupinc.com

1. DESCRIPTION

The Viking Microfast® Quick Response Horizontal Sidewall Sprinkler VK305 is a small thermostative glass bulb spray sprinkler available with various finishes and temperature ratings to meet design requirements. The special Polyester and Electroless Nickel PTFE (ENT) coatings can be used in decorative applications where colors are desired. In addition, these coatings have been investigated for installation in corrosive atmospheres and are listed/approved as corrosion resistant as indicated in Approval Charts.



2. LISTINGS AND APPROVALS



cULus Listed: Category VNIV



FM Approved: Class 2020



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

Refer to Approval Charts and Design Criteria for listing and approval requirements that must be followed.

3. TECHNICAL DATA

Specifications:

Minimum Operating Pressure: 7 psi (0.5 bar)
Rated to 175 psi (12 bar) water working pressure
Factory tested hydrostatically to 500 psi (34.5 bar)
Nominal K-Factor: 5.6 U.S. (80.6 metric*)

* 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.

Overall Length: 2-3/4" (68 mm)

Material Standards:

Frame Casting: Brass UNS-C84400 or QM Brass
Deflector: Copper UNS-C19500
Bulb: Glass, nominal 3 mm diameter
Belleville Spring Sealing Assembly: Nickel Alloy, coated on both sides with PTFE Tape
Screw: Brass UNS-C36000
Pip Cap and Insert Assembly: Copper UNS-C11000 and Stainless Steel UNS-S30400
For Polyester Coated Sprinklers: Belleville Spring-Exposed
For ENT Coated Sprinklers: Belleville Spring - Exposed, Screw and Pip cap - ENT plated.

Ordering Information: (Also refer to the current Viking price list.)

Order Viking Microfast® Quick Response Horizontal Sidewall Sprinkler VK305 by first adding the appropriate suffix for the sprinkler finish and then the appropriate suffix for the temperature rating to the sprinkler base part number.

Finish Suffix: Brass = A, Chrome = F, White Polyester = M-W, Black Polyester = M-B, and ENT = JN

Temperature Suffix: 135 °F / 57 °C = A, 155 °F / 68 °C = B, 175 °F / 79 °C = D, 200 °F / 93 °C = E, and 286 °F / 141 °C = G

For example, sprinkler 12997 with a Brass finish and a 155 °F / 68 °C temperature rating = Part No. 12997AB

Available Finishes And Temperature Ratings: Refer to Table 1.

Accessories: (Also refer to the Viking website.)

Sprinkler Wrenches:

A. Standard Wrench: Part No. 21475M/B (available since 2017).

B. Wrench for recessed and/or wax coated sprinklers: Part No. 13655W/B** (available since 2006)

**A 1/2" ratchet is required (not available from Viking).



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Sprinkler Cabinets:

- A. Six-head capacity: Part No. 01724A (available since 1971)
- B. Twelve-head capacity: Part No. 01725A (available since 1971)

4. INSTALLATION

Refer to appropriate NFPA Installation Standards.

5. OPERATION

During fire conditions, the heat-sensitive fusible link disengages, the pip cap and spring are released, and the waterway is opened. 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

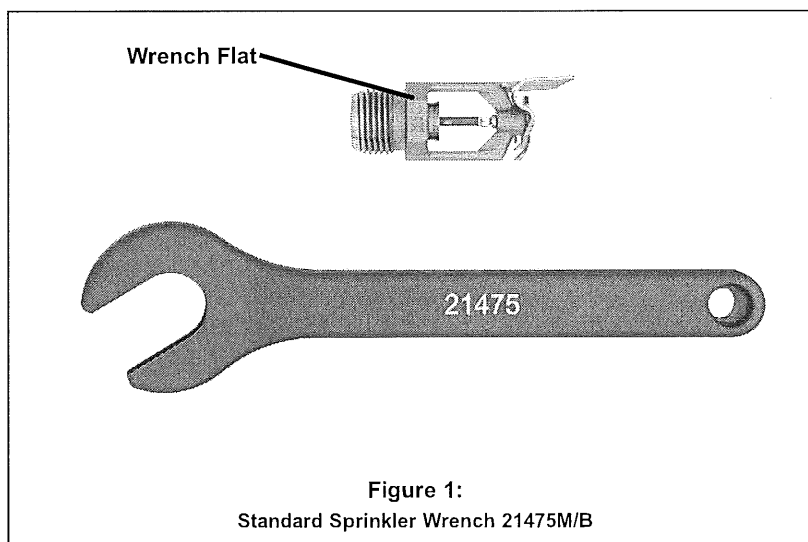
Refer to NFPA 25 for Inspection, Testing and Maintenance requirements.

7. AVAILABILITY

Viking Microfast® Quick Response Horizontal Sidewall Sprinkler VK305 is 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.





TECHNICAL DATA

**MICROFAST® QUICK
RESPONSE HORIZONTAL
SIDEWALL SPRINKLER
VK305 (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
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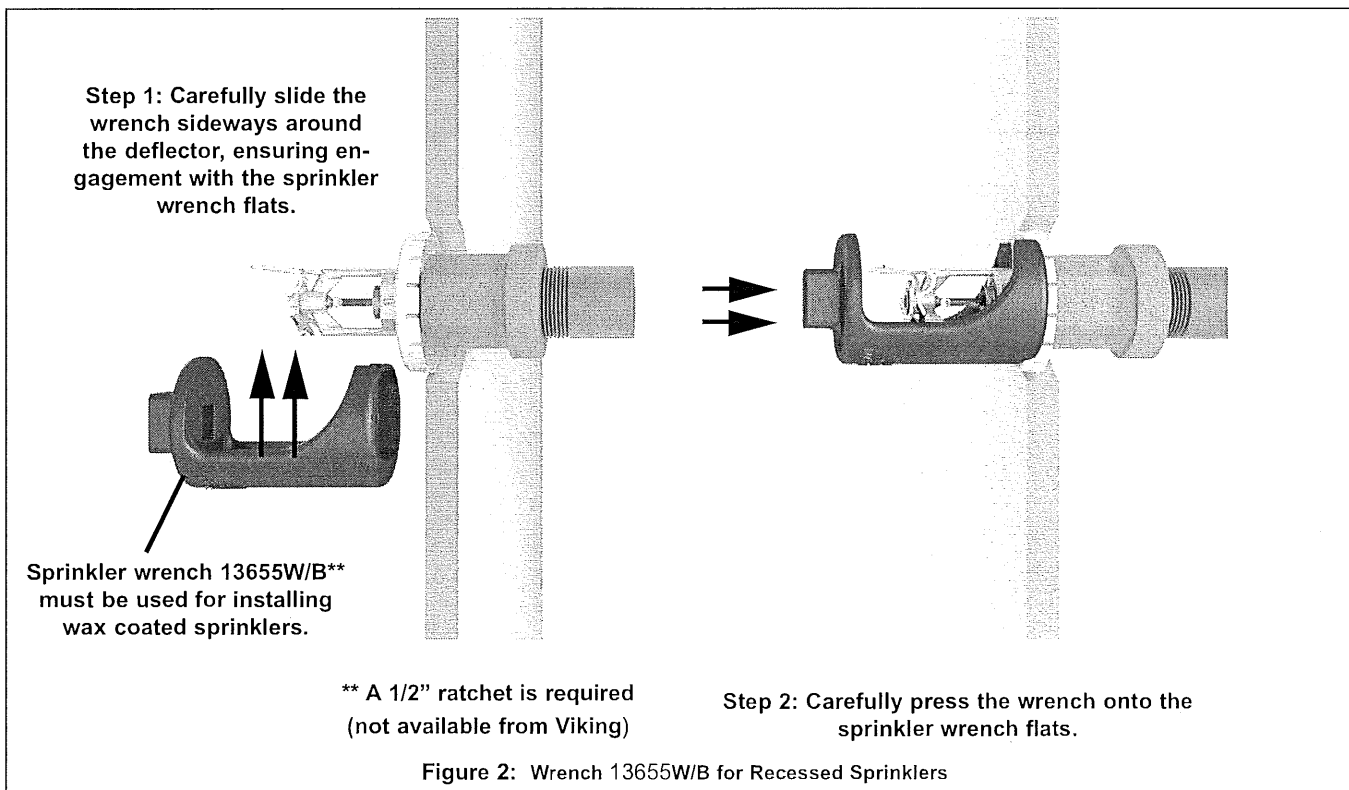
TABLE 1: AVAILABLE SPRINKLER TEMPERATURE RATINGS AND FINISHES

Sprinkler Temperature Classification	Sprinkler Nominal Temperature Rating ¹	Maximum Ambient Ceiling Temperature ²	Bulb Color
Ordinary	135 °F (57 °C)	100 °F (38 °C)	Orange
Ordinary	155 °F (68 °C)	100 °F (38 °C)	Red
Intermediate	175 °F (79 °C)	150 °F (65 °C)	Yellow
Intermediate	200 °F (93 °C)	150 °F (65 °C)	Green
High	286 °F (141 °C)	225 °F (107 °C)	Blue

Sprinkler Finishes: Brass, Chrome, White Polyester, Black Polyester, and ENT
Corrosion-Resistant Coatings³: White Polyester, Black Polyester, and ENT

Footnotes

- ¹ The sprinkler temperature rating is stamped on the 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 coatings indicated are applied to the exposed exterior surfaces only. For ENT coated sprinklers, the waterway is coated. Note that the spring is exposed on sprinklers with Polyester, and ENT coatings.



	<h2 style="margin: 0;">TECHNICAL DATA</h2>	<h3 style="margin: 0;">MICROFAST® QUICK RESPONSE HORIZONTAL SIDEWALL SPRINKLER VK305 (K5.6)</h3>
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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
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Approval Chart 1 (UL) Microfast® Quick Response Horizontal Sidewall Sprinkler VK305 For Light or Ordinary Hazard Occupancies Maximum 175 PSI (12 Bar) WWP Deflector must be located 4" to 12" (102 mm to 305 mm) below the ceiling.												
Base Part Number ¹	SIN	Sprinkler Style	Thread Size		Nominal K-Factor		Overall Length		Listings and Approvals ³ (Refer also to Design Criteria on page 43x.)			
			NPT	BSP	U.S.	metric ²	Inches	mm	cULus ⁴	LPCB	CE	CCC
12997	VK305	HSW	1/2"	15 mm	5.6	80.6	2-11/16	68	A1Y, B1X, C2W, D2Z	--	--	--
19782	VK305	HSW	1/2"	--	5.6	80.6	2-11/16	68	--	--	--	E3
NOTICE - Product Below - Limited Availability (Contact Local Viking Office)												
12121	VK305	HSW	1/2"	15 mm	5.6	80.6	1-11/16	68	A1Y, B1X, C2W, D2Z	--	--	--
Approved Temperature Ratings			Approved Finishes				Approved Escutcheons					
A - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), and 286 °F (141 °C) B - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), and 200 °F (93 °C) C - 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), and 286 °F (141 °C) D - 155 °F (68 °C), 175 °F (79 °C), and 200 °F (93 °C) E - 155 °F (68 °C)			1 - Brass, Chrome, White Poly-ester ^{5,6} , and Black Polyester ^{5,6} 2 - ENT ⁵ 3 - Chrome				W - Installed with standard surface-mounted escutcheons X - Installed with standard surface-mounted escutcheons or the Viking Microfast® Model F-1 Adjustable Escutcheon, or recessed with the Viking Micromatic® Model E-1, E-2, or G-1 Recessed Escutcheon Y - Installed with standard surface-mounted escutcheons or the Viking Microfast® Model F-1 Adjustable Escutcheon Z - Installed with standard surface-mounted escutcheons or recessed with the Viking Micromatic Model E-1					
Footnotes												
¹ Base part number shown. For complete part number, refer to Viking's current price 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 table shows the listings and approvals available at the time of printing. Other approvals may be in process. ⁴ Listed by Underwriters Laboratories Inc. for use in the U.S. and Canada. ⁵ cULus Listed as corrosion-resistant. ⁶ Other colors are available on request with the same Listings and Approvals as the standard colors.												

DESIGN CRITERIA - UL (Also refer to Approval Chart 1.)
cULus Listing Requirements: Quick Response Horizontal Sprinkler VK305 is cULus Listed as indicated in Approval Chart 1 for installation in accordance with the latest edition of NFPA 13 for sidewall standard spray sprinklers. <ul style="list-style-type: none"> • Designed for use in Light and Ordinary Hazard occupancies. • Locate with the deflector 4" to 12" (102 mm to 305 mm) below the ceiling. • Protection areas and maximum spacing shall be in accordance with the tables provided in NFPA 13. • Minimum spacing allowed is 6 ft. (1.8 m). • Align the top of the deflector parallel with the ceiling. • Locate no less than 4" (102 mm) from end walls. • Maximum distance from end 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 installation and obstruction rules contained in NFPA 13 for sidewall standard spray sprinklers must be followed.
IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to Bulletin Form No. F_080614 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.



TECHNICAL DATA

**MICROFAST® QUICK
RESPONSE HORIZONTAL
SIDEWALL SPRINKLER
VK305 (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
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Approval Chart 2 (FM) Quick Response Sidewall Sprinklers Maximum 175 PSI WWP								
Base Part Number ¹	SIN	Thread Size		Nominal K-Factor		Overall Length		FM Approvals ^{3,4} (Refer also to Design Criteria below.)
		NPT	BSP	U.S.	metric ²	Inches	mm	
12997	VK305	1/2"	15 mm	5.6	80.6	2-11/16	68	A1Y, B1X
NOTICE - Product Below - Limited Availability (Contact Local Viking Office)								
12121	VK305	1/2"	15 mm	5.6	80.6	2-11/16	68	A1Y, B1X
Approved Temperature Ratings A - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), and 286 °F (141 °C) B - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), and 200 °F (93 °C)		Approved Finishes 1 - Brass			Approved Escutcheons X - Installed with standard surface-mounted escutcheons or the Viking Microfast® Model F-1 Adjustable Escutcheon, or recessed with the Viking Micromatic® Model E-1, E-2, E-3, or G-1 Recessed Escutcheon Y - Installed with standard surface-mounted escutcheons or the Viking Microfast® Model F-1 Adjustable Escutcheon			
Footnotes								
¹ Base part number shown. For complete part number, refer to Viking's current price 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 table shows the FM Approvals available at the time of printing. Other approvals may be in process. ⁴ Viking vertical sidewall sprinklers may be installed pendent or upright.								

DESIGN CRITERIA - FM (Also refer to Approval Chart 2 above.)
FM Approval Requirements: Horizontal Sidewall Sprinkler VK305 is FM Approved as a quick response Non-Storage sidewall 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 Bulletin Form No. F_080614 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.

EXHIBIT D



Cheyenne N. Riker <criker@lawcjb.com>

RE: Indiana Recovery Center

Joshua Westerfield <joshwesterfield@brownsprinkler.com>

Wed, Jun 6, 2018 at 7:14 AM

To: "Cheyenne N. Riker" <criker@lawcjb.com>, Carlin Darnell <carlindarnell@brownsprinkler.com>, "James F. Bohrer" <jfbohrer@lawcjb.com>

Cheyenne,

Yes I filled the rest of the form out that the owner did not finish.

Thanks,

Josh Westerfield- Project Manager



5250 Commerce Circle

Indianapolis, IN 46237

(P)317-889-4225

(F)317-889-9895

From: Cheyenne N. Riker <criker@lawcjb.com>

Sent: Tuesday, June 5, 2018 9:57 PM

To: Carlin Darnell <carlindarnell@brownsprinkler.com>; James F. Bohrer <jfbohrer@lawcjb.com>

Cc: Joshua Westerfield <joshwesterfield@brownsprinkler.com>

Subject: Re: Indiana Recovery Center

Dear Carlin,

First, thank you for the documents. And thanks for taking my call this afternoon.

I have reviewed the attached documentation, and it appears someone other than ICFR placed the label "Halfway House" on the first page of the Application. It is in blue ink, and appears to be written after the signature of Mr. Veselov was placed on the document. Can you confirm that was Mr. Westerfield? As I mentioned over the phone, I want to be sure the State Fire Marshall understands that this property (909 W 1st St) is currently being utilized as a residence under the authority of Bloomington's Housing and Neighborhood Development occupancy permit. A listing as a "halfway house" is not consistent with its actual use.

Also, can you confirm that it was Mr. Westerfield who placed the designation "Residential/Treatment Center" on the "Use group" line of the application to the City of Bloomington?

Please contact me at your earliest convenience to confirm.

I look forward to your response.

Best,

Cheyenne N. Riker



***Clendening Johnson & Bohrer,
P.C.***

409 W. Patterson Drive,
Suite 205

Bloomington, IN 47403

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F: (812) 332-7601

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On Tue, Jun 5, 2018 at 11:56 AM, Carlin Darnell <carlindarnell@brownsprinkler.com> wrote:

Attached is the FULL State Submittal that we sent and you will see on the second page that we submitted the plans under a 13R System. Also, attached is the Bloomington Permit Application. Also, attached is the State Design Release that we received back on 3/20 were they were allowing an R-2 Occupancy which would allow for the 13R Sprinkler System. Then on 5/23 we received another State Design Release that changes the occupancy to I-1 which would require our system to be change/upgraded to a NFPA 13 system. Now, I am unclear as to what correspondence took place between 3/20 and 5/23 so you would need to get with Josh if you need any of the information. Hope you guys get this all worked out, it's a very unfortunate situation.

Thank you,

Carlin Darnell || **Project Manager** || **Estimator**



5250 Commerce Circle

Indianapolis, IN 46237

(P) 317-889-4225

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<http://brownsprinkler.com/>

EXHIBIT E



**City of Bloomington
Housing and Neighborhood Development**

A COPY OF THIS PERMIT AND THE RENTAL FILE ARE AVAILABLE FOR THE PUBLIC TO VIEW DURING REGULAR BUSINESS HOURS AT THE HOUSING AND NEIGHBORHOOD DEVELOPMENT OFFICE

RESIDENTIAL RENTAL OCCUPANCY PERMIT
HOUSING AND NEIGHBORHOOD DEVELOPMENT DEPARTMENT
City of Bloomington, Indiana

08/18/2015

Location: 909 W 1st ST

Zone: MD

Owner: Facilitech 738 S Morton Street Bloomington, IN 47403

Structures/Units: 1/24

Inspector: Matt Swinney

Structure	Units	Bedrooms per Unit	Max Occupant Load per Unit
1	12	2	5
1	10	1	5
1	2	Eff	5

The permit certifies compliance with the provision of Title 16 of the Bloomington Municipal Code, "Property Maintenance Code," and does not represent compliance with any other Title of the Bloomington Municipal Code or other relevant statutes or ordinances, particularly in regards to laws which regulate the zoning of this property. No change of use shall be made in this location without the prior approval of the applicable departments.

Date Inspected: 05/18/2015

Date Complied: 08/06/2015

PERMIT EXPIRES: 08/06/2020

Housing Official

A copy of the permit must be displayed on the inside of the main entrance of the rental units



FIRE PREVENTION & SAFETY COMMISS
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INDIANAPOLIS IN 46204-2707
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