

STATE OF LOUISIANA
Department of Public Safety and Corrections
Office of State Fire Marshal Code Enforcement and Building Safety
8181 Independence Boulevard
Baton Rouge, Louisiana 70806
225-925-4920

H "BUTCH" BROWNING
FIRE MARSHAL

FIRE SUPPRESSION SYSTEM

ROBERT WILTSE
DAMMON ENGINEERING INC
554 OLD SPANISH TRAIL
SLIDELL, LA 70458-0000

RE: P0401891
STARC WEST
1705 VIOLA STREET
MANDEVILLE, LA 70448-0000

NFPA 101, 2009
IBC, 2009 (CHAPTERS 9 & 10)

RESIDENTIAL BRD/CARE - SMALL

Dear Applicant:

Please be advised that we have made a general review of the drawings, calculations, and equipment data for the proposed Fire Suppression System, based on the submittal package received for the above referenced project. This review is governed by the Official Manual of the Office of State Fire Marshal, which contains the adopted laws, codes, rules, and regulations of this office. This review, in no way, shall permit and/or authorize any omissions or deviations from the specific requirements of the Official Manual. Requirements cited in this review do not relieve the licensed fire suppression system designer and the Professional Of Record, when required by LA RS 37, from complying with all the requirements contained in the Official Manual. Subsequent to our general review of the submittal package, we have determined that the drawings, calculations, and equipment data appear to satisfactorily comply with the adopted laws, codes, rules and regulations of the State Fire Marshal, subject to the following requirements and review qualifications:

- 1. The proposed fire protection system will provide protection for a single story 5,101 s.f. facility classified as a Residential Board and Care with a total of 6 bedrooms.**

The proposed system has a total of 40 sprinklers.

NOTE: THE FOLLOWING COMMENTS IDENTIFY ISSUES FOR INFORMATIONAL AND CAUTIONARY PURPOSES OR ISSUES THAT COULD NOT BE VERIFIED IN THE SUBMITTED DOCUMENTS.

- 2. This fire protection system review is limited to the original plan review scope as per State Fire Marshal letter P0401891/397898.**
- 3. This review applies to the supply line, riser, piping lay-out and sprinkler head locations, for compliance with NFPA 13R, as shown on the drawings for the above referenced project. NFPA 25,**

Standard for the Inspection, Testing and Maintenance of Water-Based Fire Protection Systems is a requirement of this office and shall be adhered to.

4. **The system modifications for design area 1 on sheet 1 of 1 were designed as light hazard. The calculations indicate the following system demand is based on providing a minimum discharge density of 0.1 gpm/sqft over a 476 sqft area with a buffer of 17.4 psi.**
5. **This review is based on a project indicated as supplied by a city water supply of 62 psi static and 42 psi residual pressures, flowing 1030 gpm through a 8 inch circulating city main. The flow test was taken on 5/6/11 at 11:50 am by Jefferson Sprinkler, Inc.**
6. **Be advised that if any item in this review letter initiates a change(es) to the sprinkler system, which affect the hydraulic design as submitted, the Professional of Record (when required by LA R.S. 37:155) otherwise the Owner, shall revise the fire suppression system drawings and hydraulic calculations. The revisions, including revised sprinkler plans, calculations, and/or cut sheets shall be submitted to this office, along with the original stamped State Fire Marshal fire suppression system plans, complete with the original submittal calculations and cut sheets. All revisions shall be accompanied by the appropriate fee, as described in the applicable system review checklist and fee schedule, available from our website <www.dps.state.la.us/sfm>. Do not provide a new application - re-review of submitted changes will be facilitated by an Amended Letter to the existing project number (401891) appearing in the heading of this letter, above.**
7. **Although resolution to the comments in this review letter which do not require modification of the system scope or layout as indicated on the plans, is not required to be re-submitted back to this office unless specifically indicated, the Professional of Record, (when required by LA R.S. 37:155) otherwise the Owner, shall not be relieved of the requirement to comply with all citations indicated in this letter, as well as all requirements of the Official Manual of the Office of State Fire Marshal, Code Enforcement and Building Safety.**
8. **13R 6.2.7(24) The installing contractor shall identify a hydraulically designed sprinkler system with a permanently marked weatherproof metal or rigid plastic sign secured with corrosion-resistant wire, chain or approved means. Such signs shall be placed at the alarm valve, dry pipe valve, preaction valve or deluge valve supplying the corresponding hydraulically designed area.**

The sign shall include the following information:

- (1) **Location of the design area or areas**
 - (2) **Discharge densities over the design area or areas**
 - (3) **Required flow and residual pressure demand at the base of the riser**
 - (4) **Occupancy classification or commodity classification and maximum permitted storage height and configuration**
 - (5) **Hose stream allowance included in addition to the sprinkler demand**
 - (6) **The name of the installing contractor.**
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9. **13R:6.6.3 Review is based on the following backflow preventer: Manufacturer Ames, Model 400, Size 4 inch. At 81 gpm the BFP has a pressure differential of 7 psi. If any other manufacturer, model number, or size of backflow preventer is contemplated for substitution, provide applicable documentation to this office for review, complete with supporting hydraulic calculations, prior to installation. INSPECTOR TO VERIFY INSTALLATION OF THE ABOVE REFERENCED BACKFLOW PREVENTER.**

10. **13R.6.7.4 Locations for proposed fire department connection(s) - FDC within this scope of work, shall be acceptable to the local fire department. Submit to the SFM Inspector, a statement from the local fire department, that the FDC as proposed, are acceptable. Statement to acknowledge proposed outlet diameters, fitting type and thread type, indicating compatibility with local fire department equipment. In lieu of a signed statement, the local fire department may indicate review of the FDC by stating such on the shop drawings bearing the State Fire Marshal review stamp.**
11. **13R:6.7.6 Piping hanging and bracing methods shall comply with NFPA 13, Standard for the Installation of Sprinkler Systems.**
12. **13R:6.8 Sprinklers shall be located, spaced, and positioned in accordance with the requirements of Section 6.8.**
13. **13R 6.1.4.1.2 Where aboveground water-filled supply pipes, risers, systems risers or feed mains pass through open areas, cold rooms, passageways or other areas exposed to freezing temperatures, the pipe shall be protected against freezing by insulating coverings, frostproof casings or other reliable means capable of maintaining a minimum temperature between 40 deg F (4 deg C) and 120 deg F (48.9 deg C).**
14. **13R 5.3.3 Where antifreeze systems, dry pipe systems and preaction systems are installed, they shall be installed in accordance with NFPA 13, "Standard for the Installation of Sprinkler Systems".**
15. **13:7.6.1.1 The use of antifreeze solutions shall be in conformity with state and local health regulations**

(Many local regulations require antifreeze systems to be equipped with a reduced-pressure zone backflow prevention device to guard against potential contamination of the public water supply.)
16. **13:7.6.1.5 A placard shall be placed on the antifreeze system main valve that indicates the manufacture type and brand of the antifreeze solution, the concentration of the antifreeze solution used, and the volume of the antifreeze solution used in the system.**
17. **Per the Tentative Interim Amendments (TIAs) published by NFPA all antifreeze solutions are to be premixed with a concentration of glycerin at a maximum of 48% by volume or of propylene glycol at a maximum of 38% by volume for new systems.**

The total mixture is 8 gals. of 38% propylene glycol.
18. **NOTE: Please ENCLOSE A COPY OF THIS LETTER WITH FUTURE SUBMITTALS OR OTHER CORRESPONDENCE pertaining to this project.**

Changes to construction in the field which are not consistent with the reviewed documents are not authorized unless reviewed by this office for compliance with Code. Modifications to reviewed plans must be submitted to this office by the Architect/Civil Engineer for review prior to final inspection. If an Architect or Civil Engineer is not required by RS 37:155, revisions shall be submitted by the Owner. Submittals shall include plans, completed application, a minimum \$55.00 review fee, and a copy of the most current plan review letter.

Occupancy of the project is permitted only upon the receipt of the applicable Contractor's Material & Test Certificate as per NFPA 13, Fire Alarm System Certificate and Description as per NFPA 72, or other

certification as required by the applicable codes and a satisfactory inspection of the completed construction had been made by this office.

To arrange for inspection of the project, please contact the District Office at the phone number below two (2) to three (3) weeks in advance. The plans stamped reviewed by this office must be available on job site at time of inspection. Certificate of completion must be provided to the inspecting Deputy for final inspection.

This review is valid for 180 days from the date of this letter. Construction permits must be issued and/or construction must commence within this time period.

REVIEWED BY:
MICHAEL VESELY
ENGINEER

CC:
K.b. Kaufmann & Co.
Jefferson Sprinkler , Inc
Property Insurance Association*
Christopher Brown*
New Orleans District* 5045688506