

Ryan Morrison

From: Medash, Kyle <Kyle.Medash@vermont.gov>
Sent: Wednesday, September 30, 2020 3:22 PM
To: Ryan Morrison
Subject: King Street Ferry Dock Structure SFHA Review
Attachments: TB-2_2008.pdf; 1 king057193 (003).pdf

WARNING: External Message

Hi Ryan,

The proposed replacement structure and attached deck located at the King Street Ferry Dock is shown to be located in the FEMA Special Flood Hazard Area, Zone AE. There is no mapped floodway for Lake Champlain, as floodways are not mapped for lake floodplains. The Base Flood Elevation (BFE) for Lake Champlain is 101.6' (NAVD 1988 vertical datum).

As I am understanding the project and reviewing for flood hazard area development, this would be considered a new permanent non-residential structure located within the City's Special Flood Hazard Area Overlay District. Standards for development in this area are found in the City's Comprehensive Development Ordinance. The structure will need to meet the standards for a non-residential structure, as found in 4.5.4.f.8.E(i). A non-residential structure will either need to be dry-floodproofed to at least 1' above BFE, or elevated so that the floor is located at least 1' above BFE. As I am understanding the sketch plan included with the application, the proposed structure appears to be built on concrete piers with the first floor elevation at 104.0' which is upwards of 2.0' above BFE and therefore would meet the development standards. If the structure is to be dry-floodproofed or the proposed design is different than I am understanding it, please let me know and I can provide more details.

Additionally, the structure will need to meet the standards that apply to "all development", which is found in 4.5.4.f.8.C.i-iii & v. These standards would apply to the structure having to be adequately anchored, constructed of materials resistant to flooding, and protection of building utilities from flood damage. The current application is incomplete in regards to these details. The applicant should provide more detail on the following items in order to demonstrate that the project complies with the development standards.

- Per the development standards, the structure and other components such as the stairs used to access the building need to be anchored to resist flotation, collapse, or lateral movement. No details on anchoring are provided with the application. If any fuel storage tanks are proposed to service the structure, it must also be demonstrated that they are adequately anchored to prevent flotation during a flood.
- Per the development standards, new structures in the SFHA must be constructed of materials resistant to flood damage. For flood resistant materials, the applicant can refer to FEMA's Technical Bulletin #2 – *Flood Damage-Resistant Materials Requirements* which is attached. The Technical Bulletin provides details on which materials are considered to be "flood resistant" and acceptable for construction. No detail on building materials are provided with the application.
- Building utilities/mechanical equipment should be designed to be protected from floodwaters. This typically means that any heating/cooling systems and any electrical components are located at least 1.0' above BFE. In this instance, demonstrating that these items are all located at or above the floor elevation of 104.0' would be sufficient.

As always, other State, Federal or local permits may be required for this project. Jeff McMahon, the VT DEC Permit Specialist for your region should be able to help identify any other State Environmental Permits that may be necessary. These comments are offered in accordance with 24 VSA §4424.

Please let me know if you, the DRB, or the applicant has any additional questions or would like to further discuss the project.

Thanks,
Kyle Medash
Regional Floodplain Manager
Vermont Department of Environmental Conservation
802.490.6154



**WATERSHED
MANAGEMENT DIVISION**
RIVERS PROGRAM

450 Asa Bloomer State Office Building
88 Merchants Row
Rutland, VT 05701-5903

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https://anonline.vermont.gov/?formtag=WSMD_Intake.

Division staff contact information can be found online here: <https://dec.vermont.gov/watershed/contacts>.

Thank you for your patience during this challenging time. We wish you and your family the best.