



Kayla Vaccaro <kvaccaro@richmondvt.gov>

March 9 DRB meeting

Medash, Kyle <Kyle.Medash@vermont.gov>
To: Kayla Vaccaro <kvaccaro@richmondvt.gov>

Tue, Mar 8, 2022 at 12:12 PM

Hi Kayla,

Thank you for sending this along, I've provided a review/comment below based on reviewing the updated site plan dated 2/24/2022 through the lens of Section 6.8 of the Richmond Zoning Regulations.

Section 6.8.5 Lands to Which These Regulations Apply – SFHA/BFE should be shown and cited by using FEMA NFIP data from the Flood Insurance Study (FIS) since the project is located in a FEMA ZONE AE with published floodway and BFE data.

Section 6.8.7 Substantial Improvement Determinations – This section is important and may further drive what's required for the project to be compliant with Richmond's FHA regulations. While the language in this section is geared toward an existing structure – I think we should look at this facility as a whole in terms of a substantial improvement. We would be looking at the value of all the existing infrastructure (not the land) but the value of the existing improvements vs. a cost estimate for all the new upgrades. If the cost estimate for the project is greater than 50% of the existing value then it would be considered a substantial improvement.

Section 6.8.9 Required Permits in Flood Hazard Overlay District – New Accessory Structures, substantial improvements, grading, new fill as needed to elevate an existing principal structure, etc. would all be considered as a conditional use. If it isn't determined a substantial improvement some of the project activities may be a permitted use depending on those details. Note New Junk Yards, New Storage of Hazardous Materials, and New Critical Facilities are prohibited in the SFHA (Figure 6.8-1 or Section 6.8.13). This is an existing facility; however, something to consider with new expansion could come handling of new materials that would be less risky stored in a flood protected area or outside the floodplain.

Section 6.8.16 Development Standards - All the components of the project should meet the standards for all development (6.8.16 a) which read:

- a) All Development shall be reasonably safe from Flooding;
1. Designed, operated, maintained, modified, and adequately anchored to prevent flotation, collapse, release, or lateral movement of the Structure during the occurrence of the Base Flood;
 2. Constructed with materials resistant to Flood damage;
 3. Constructed by methods and practices that minimizes Flood damage;
 4. Constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of Flooding;
 5. Adequately drained to reduce exposure to Flood hazards;

6. Located so as to minimize conflict with changes in Channel location over time and the need to intervene with such changes;

Additionally, The project should be meeting all the other applicable development standards in 6.8.16 b) through v). The lack of detail in the site plan makes it difficult to tell which are applicable but the few below come to mind.

b) All fuel storage tanks are required to be securely anchored to prevent flotation or lateral movement (as needed to serve an existing building in the Special Flood Hazard Zone). Fill and vent pipes shall be elevated at least one foot above the base flood elevation; or storage tanks may be buried underground, if securely anchored as certified by a qualified professional.

c) New Fully enclosed areas below grade on all sides (including below grade crawlspaces and basements) are prohibited.

f) All existing non-residential Structures to be substantially improved or replaced, and all additions to nonresidential structures shall:

1. Be reasonably safe from flooding;

2. Have either:

- i. The Lowest Floor elevated to a minimum of one foot above the Base Flood Elevation; or
- ii. Be dry flood proofed at least two feet above the Base Flood Elevation; or
- iii. If solely used for parking of vehicles, storage, be wet flood proofed as per 6.8.16 d) 2.

3. Have structural designs, specifications, and plans prepared and certified by a registered professional engineer or architect. Designs and proposed methods of construction shall be in accordance with accepted standards of practice for meeting all FEMA Flood proofing and elevation provisions.

g) All new Accessory Structures shall:

1. Be reasonably safe from flooding;

2. Have either:

- i. The Lowest Floor elevated to a minimum of one foot above the Base Flood Elevation; or
- ii. Be dry flood proofed at least two feet above the Base Flood Elevation; or
- iii. If solely used for parking of vehicles, storage, be wet flood proofed as per 6.8.16 d) 2.

3. Have structural designs, specifications, and plans prepared and certified by a registered professional engineer or architect. Designs and proposed methods of construction shall be in accordance with accepted standards of practice for meeting all FEMA Flood proofing and elevation provisions.

h) All new Minor Accessory Structure smaller than 500 square feet as measured by the Gross Floor Area that represents a minimal investment need not be elevated to the Base Flood Elevation provided the Structure shall:

1. Be reasonably safe from flooding;

2. Be used only for parking or storage;

3. Be constructed and placed on the site so as to offer the minimum resistance to the flow of Floodwaters;

4. Be wet flood proofed as per 6.8.16 d) 2.

Section 6.8.17 Administration – The application package should be following the submission process outlined in 6.8.17 a) and include all the applicable information outlined in 6.8.17 b) to be considered a complete application.

The site plan dated 2/24/2022 is the most current plan I have reviewed and I don't believe it demonstrates compliance with the Richmond Zoning Regulations - Section 6.8 Flood Hazard Overlay District. The plan should include FEMA published information from the Flood Insurance Study and engineering evaluation, anchoring details and analysis, if some items (connex boxes, attendant shed are being elevated (how?), can the containers on site be floated if empty? – needs to be demonstrated by engineering calculations (weight of container vs. base flood depths), proposed sq. footage footprints to determine if they need wet/dry floodproofing or elevation, any loose totes should have secondary containment or be anchored. This site could be subject to approximately 6' of inundation flooding during the base flood so these are all important items to consider, among others depending on further detail. I find it helpful to review the application and work through the regulations line by line to see what's applicable and if it's been addressed in the application. Please let me know if you have any questions, happy to discuss further or attend the DRB meeting if needed. These comments are offered in accordance with 24 VSA §4424.

Respectfully,



Kyle Medash | Western Floodplain Manager

Vermont Agency of Natural Resources | Department of Environmental Conservation

Watershed Management Division, Rivers Program

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

802-490-6154 cell

kyle.medash@vermont.gov

From: Kayla Vaccaro <kvaccaro@richmondvt.gov>

Sent: Monday, March 7, 2022 9:46 AM

To: Medash, Kyle <Kyle.Medash@vermont.gov>

Subject: Re: [External] March 9 DRB meeting

EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

Hi Kyle,

[Quoted text hidden]

[Quoted text hidden]