



Legislation Details (With Text)

**File #:** Res. 2017-089      **Version:** 1      **Name:**

**Type:** Resolution      **Status:** Agenda Ready

**File created:** 10/2/2017      **In control:** City Council

**On agenda:** 10/17/2017      **Final action:**

**Title:** Consider Resolution Approving a Floodplain Conditional Use Permit to Allow a Building Design Where the Lowest Floor Elevation will be Lower than the Predicated Flood Elevation (BFE) for the Northfield Fire Station Expansion Project.

**Sponsors:**

**Indexes:**

**Code sections:**

**Attachments:** 1. 1 - Resolution, 2. 2 - Area Map, 3. 3 - Landscape Context Plan L-101, 4. 4 - Landscape Plan Overview L-102

Date	Ver.	Action By	Action	Result
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**City Council Meeting Date:** October 17, 2017

**To:** Mayor and City Council  
City Administrator

**From:** Scott Tempel, City Planner

Consider Resolution Approving a Floodplain Conditional Use Permit to Allow a Building Design Where the Lowest Floor Elevation will be Lower than the Predicated Flood Elevation (BFE) for the Northfield Fire Station Expansion Project.

**Action Requested:**

The Northfield City Council considers approving the attached Resolution Approving a Floodplain Conditional Use Permit to Allow a Building Design Where the Lowest Floor Elevation will be Lower than the Predicated Flood Elevation (BFE) for the Northfield Fire Station Expansion Project.

**Summary Report:**

Planning and design continues on the Northfield Area Fire and Rescue Services (NAFRS) expansion of the Northfield Fire Station. After multiple reviews, the path forward for the project is to dry flood-proof the basement of the Fire Station, which is allowed through the approval of a Conditional Use Permit (CUP). A CUP is required for building designs where the lowest floor elevation will be lower than the predicted base flood elevation (BFE). Staff is recommending approval of the Conditional Use Permit.

The Planning Commission held a public hearing on the CUP at its September 21, 2017 meeting. The Planning Commission voted 5-2 to recommend approval of the CUP by the City Council.

The base zoning for the property is Public and Institutional (PI). The Development Review Committee has

reviewed the site plan and encourages the approval of the CUP.

## Regulations:

### 8.5.4 Flood Plain Permit

(D)(5) In passing upon conditional use permit applications, the city council shall consider all relevant factors specified in other subsections of this section, the standards of Section 2.5.1, Floodplain Overlay District (FP-O), and:

- (a) The danger to life and property due to increased flood heights or velocities caused by encroachments.
- (b) The danger that materials may be swept onto other lands or downstream to the injury of others or they may block bridges, culverts or other hydraulic structures.
- (c) The proposed water supply and sanitation systems and the ability of these systems to prevent disease, contamination, and unsanitary conditions.
- (d) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner.
- (e) The importance of the services provided by the proposed facility to the city.
- (f) The requirements of the facility for a waterfront location.
- (g) The availability of alternative locations not subject to flooding for the proposed use.
- (h) The compatibility of the proposed use with existing development and development anticipated in the foreseeable future.
- (i) The relationship of the proposed use to the comprehensive plan and flood plain management program for the area.
- (j) The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters expected at the site.
- (k) Such other factors that are relevant to the purposes of this LDC.

(D)(6) Upon consideration of the factors listed above and the purpose of this section, the city council shall attach such conditions to the granting of conditional use permits as it deems necessary to fulfill the purposes of this section. Such conditions may include, but are not limited to, the following:

- (a) Modification of waste treatment and water supply facilities.
- (b) Limitations on period of use, occupancy, and operation.
- (c) Imposition of operational controls, sureties, and deed restrictions.
- (d) Requirements for construction of channel modifications, compensatory storage, dikes, levees, and other protective measures.
- (e) Flood proofing measures, in accordance with the state building code and this section. The applicant shall submit a plan or document certified by a registered professional engineer or architect that the flood proofing measures are consistent with the regulatory flood protection elevation and associated flood factors for the particular area.

## CUP Analysis:

### **1) Explain how the proposed use will minimize danger to life and property as a result of increased flood height or water velocity.**

The Wenck staff, in consulting with the DNR, has modeled a flood situation with a rise of less than ½". The detention pond planned will be flooded with a holding capability greater than what is displaced. No changes to the floodway are proposed that would create increased flood height or water velocity.

### **2) Explain what measures will be taken to prevent materials from being transferred to other lands, blocking downstream bridges, congesting culverts, or impacting other structures.**

The elevated areas will be paved for surface parking, and pervious areas will be grass or covered with water tolerant plantings. There are no improvements as a part of this development that are constructed of materials

that have the ability to be transferred to other lands.

**3) Explain how water supply systems and sanitary sewer systems serving the proposed use are designed to prevent disease, contamination, and other unsanitary conditions.**

The water supply and sanitary sewer systems are designed to tie into the City's infrastructure and to meet all applicable codes. No contaminants will be able to escape the property and pollute the river. The systems for sewer and water are existing and located below frost depth.

**4) Explain how susceptible the proposed use and its contents are to damage due to flooding; describe the potential impact of flood damage on the property owner.**

The basement to be flood proofed is part of the existing building. The building has experienced previous water damage. New building codes require structures with a Base Flood Elevation below the floodplain to be flood proofed to FP1-2 standards. Any of the lower level floors will be of masonry or concrete construction and all utilities mounted above flood level.

**5) Explain the importance of the proposed use to the City.**

The building and proposed addition house the fire and rescue facilities for the Northfield Area Fire and Rescue Services (NAFRS) in a central location. It provides critical emergency services to the community.

**6) The requirements of the facility for a waterfront location.**

The facility does not require a waterfront location, but is housed in a building that fronts the Cannon River. The central location is at the epicenter of most of the calls received by NAFRS and tracks the fastest response times. The existing 1972 facility has had a history of water issues in the basement, but has not been completely inundated by flooding.

**7) Explain why there are no alternative locations available that are not subject to flooding.**

The traffic studies done indicate this is the central prime location for fire services and has been the location of the existing facility since 1972. Only a portion of the building and the parking lot are located in the 100-year flood plain. The addition has been designed to utilize the existing expansion space while minimizing floodplain impacts.

**8) Explain how the proposed use is compatible with existing and anticipated development in the specified area.**

The Cannon River, 5th Street, and Highway 3 bound the property and limit further development on or near the site. The site is at a primary gateway to downtown and detailed landscaping improvements are proposed with the project.

**9) Explain the relationship of the proposed development to the Northfield Comprehensive Plan and floodplain management program.**

The Northfield Comprehensive Plan states 'the ability to influence the community identity with the redevelopment or expansion of a Public Safety Center is an opportunity that must be recognized by the City'. The project is consistent with Objective 2 of the Community Facilities chapter: For those community facilities considering expansion or relocation, ensure that new facilities have a positive impact on surrounding neighborhoods.

CF 2.1 Expansion of such facilities should be closely monitored so that facilities do not negatively impact (with excessive parking, traffic, and noise) the character of a neighborhood. New facilities should reflect, whenever possible, the character of the existing neighborhood.

CF 2.2 Locate and retain community facilities within the downtown area where appropriate and possible.

CF 2.3 Construction or renovation of publicly-owned buildings should be environmentally-responsible and energy efficient.

**10) Explain how safe access to and from the site during a flood event is provided for emergency vehicles.**

The site is currently utilized for emergency services during flood events. The drives and parking for the expansion will be one foot above flood level.

**11) Document expected water heights, water velocity, flood duration, rate of rise, and sedimentation.**

The site is located on the slow side of a curve in the river, which increases sedimentation.

- **Crest elevations in a 500-year flood event are expected to reach 909.25**
- **Crest elevations in a 100-0year flood event are expected to be around 908**
- **Water velocity = 4 feet per second**
- **Rate of Rise = 3 to 4 days**
- **Sedimentation rate = 10 inches per year**

**12) Such other factors that are relevant to the purposes of this LDC.**

The Public Institutional (PI-S) district is intended to establish and protect sites for city, state, federal, and school district uses and ensure compatibility with the surrounding neighborhoods. The PI-S zone is consistent with the land use designations of the comprehensive plan.

Upon consideration of the factors listed above, the City Council shall attach such conditions necessary to the granting of the CUP. In this case, the condition necessary for approval of the CUP is to dry flood-proof the basement. The following condition is included in the resolution:

The lowest floor of the Fire Station will be flood proofed according to the allowance in the Northfield Land Development Code Section 4.1.5 (3) Development Standards for the Flood Fringe Sub district. All areas of non-residential structures including basements to be placed below the regulatory flood protection elevation shall be flood proofed in accordance with the structurally dry flood proofing classifications in the state building code. Structurally dry flood proofing must meet the FP-1 or FP-2 flood proofing classification in the state building code and this shall require making the structure watertight with the walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads due to groundwater saturation at the 100-year flood level.

**Alternative Options:**

- a) Conditional Use are uses that are permitted if certain criteria are met. The CUP analysis shows that the criteria for a conditional flood plain permit are met. If the City Council believe there is some risk that is unaddressed, conditions addressing that risk should be put in place rather than denying the permit.
- b) Council could remove from the consent agenda for further discussion or clarification of the requested action.

**Financial Impacts:**

There are no direct financial impacts to the City resulting from this permit.

**Tentative Timelines:**

NAFRS would like to construct this project in 2018.