



Staff Report

Meeting Date: January 14, 2019

Presented by: Carolyn Roan, Water Resource Manager

APPLICATION SUMMARY:

Project Name: Floodplain Use by Special Exception for Modification of the Slaughterhouse Gulch floodplain at the northeast corner of S. Delaware Street and W. Powers Avenue

Case Number: ENG18-0002

Application type: Floodplain Use by Special Exception

Location: Approx. 251 West Powers Avenue
(northeast corner of S. Delaware and W. Powers Avenue)

Size of Property: 8.8 acres

Applicant: Redland (engineer for owner)

**Applicant's
Representative:** Mark Cevaal

Owner: Theodore Fitzgerald Richardson 2015 Trust, David Richardson

Applicant Request: The applicant is requesting a Floodplain Use by Special Exception to modify the delineation of the Slaughterhouse Gulch Floodplain

PROCESS:

Plat of Subdivision(s)
(to be processed in accordance with Title 11 of the Littleton Municipal Code)

➤ Floodplain Use by Special Exception
(decision by Planning Commission)

Future applications anticipated:

Conditional Letter of Map Revision
Grading Permit Application

A Use by Special Exception calls for a Regulatory decision. Regulatory decisions require that the planning commission must base its decision on its compliance with the Use by Special Exception regulations, specified in Littleton Municipal Code Section 10-6 for development in a floodplain.

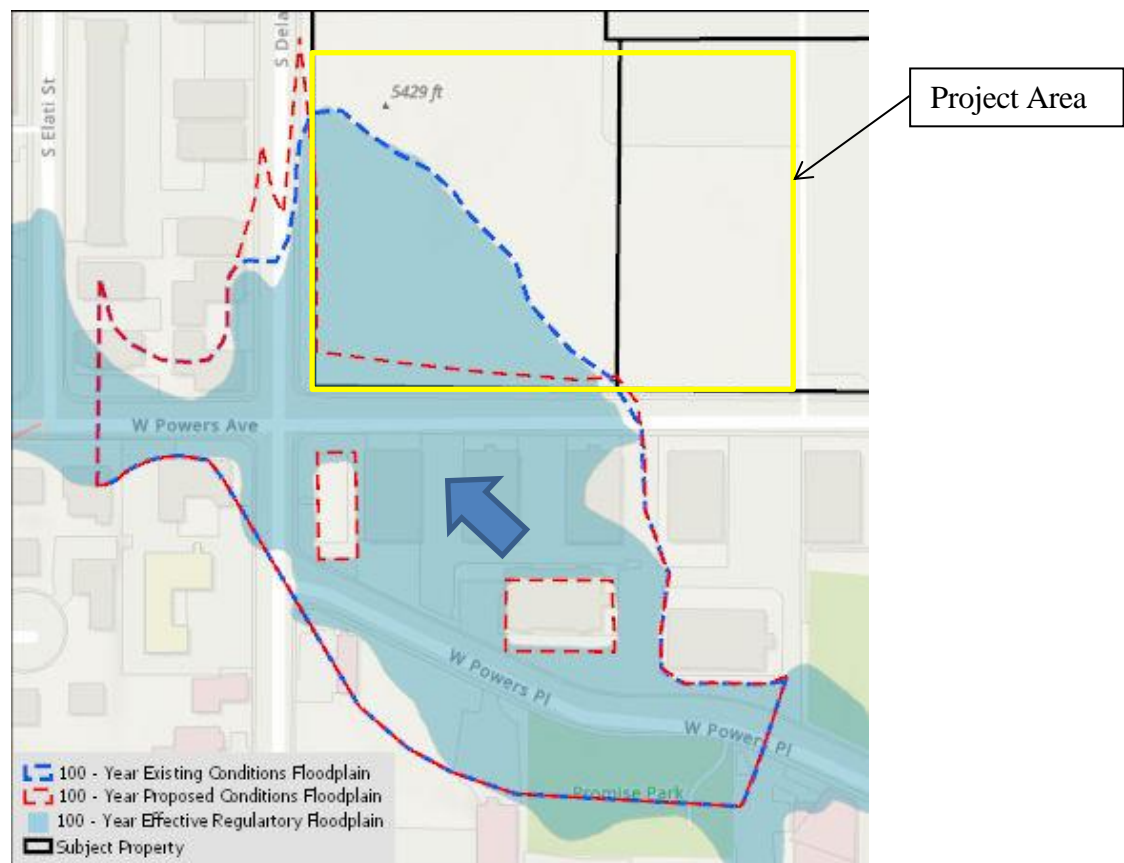
Approval of the Use by Special Exception will allow for modification of the floodplain. It does not grant zoning approval for construction of any specific development. Preliminary and final plat(s) have been submitted and processed in accordance with Title 11 of the Littleton Municipal Code. All other site improvements will be reviewed and approved through the Site Development Plan process.

LOCATION:

The site is located at the northeast corner of S. Delaware Street and W. Powers Avenue (251 W Powers Avenue), which is depicted below.

**BACKGROUND:**

The subject property is vacant and is immediately adjacent to residential development on all sides except the north, which is an industrial use, currently occupied by IMI Norgren. Slaughterhouse Gulch drains from the east through a 60-inch diameter storm sewer and on the surface within the streets and properties. This drainageway has a floodplain regulated by the Federal Emergency Management Agency (FEMA). The gulch ultimately drains to the South Platte River. The surface flow is wide and without a defined drainage channel in the subject area. The existing surface floodplain is shown below. Powers Park is located downstream of the subject property.

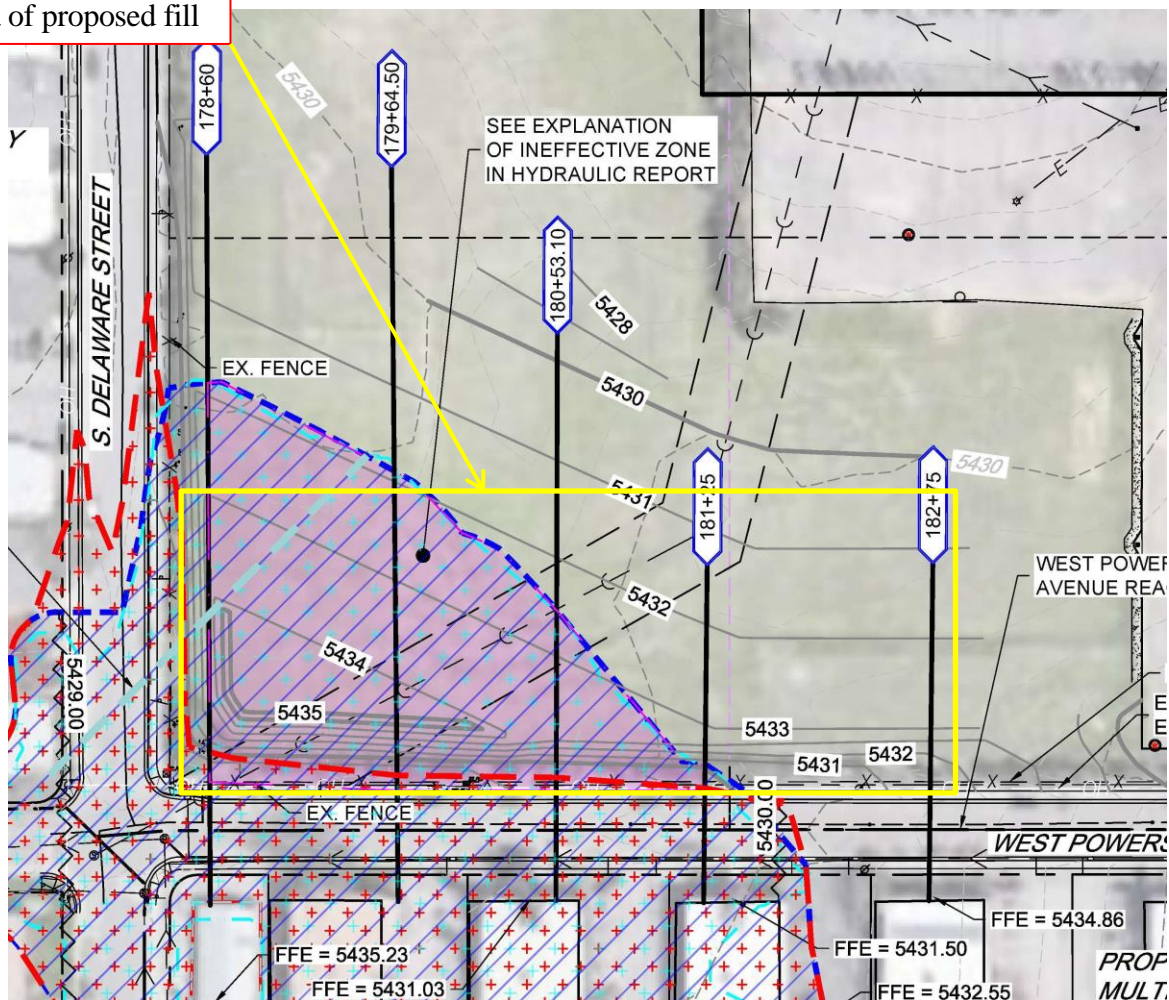


PROPOSED PROJECT DETAILS:

The request is to modify the site by placing fill material in the north portion of the floodplain, located on the north side of Powers Avenue. This fill will elevate this portion of the property above the floodplain elevation. Figure 3 shows the site plan with the proposed fill. The Floodplain Use by Special Exception requires detailed hydraulic analysis to determine the feasibility of modifying the existing floodplain, and any impacts of such modification. If approved, the applicant will then submit an application to the Federal Emergency Management Agency (FEMA) for a Conditional Letter of Map Revision (CLOMR). After that approval, the applicant will continue with final civil engineering construction drawings to be reviewed by staff before a Grading Permit and Floodplain Development Permit are issued for the proposed fill. Additional details and analysis of these conditions are addressed further below. Upon completion of the fill, the final floodplain delineation will be modified by FEMA with a Letter of Map Revision (LOMR), and this LOMR must be effective before any buildings may commence within the zone of the existing floodplain (to be removed from the floodplain with the LOMR).

The map below depicts the area of the fill and the proposed contours associated with the fill:

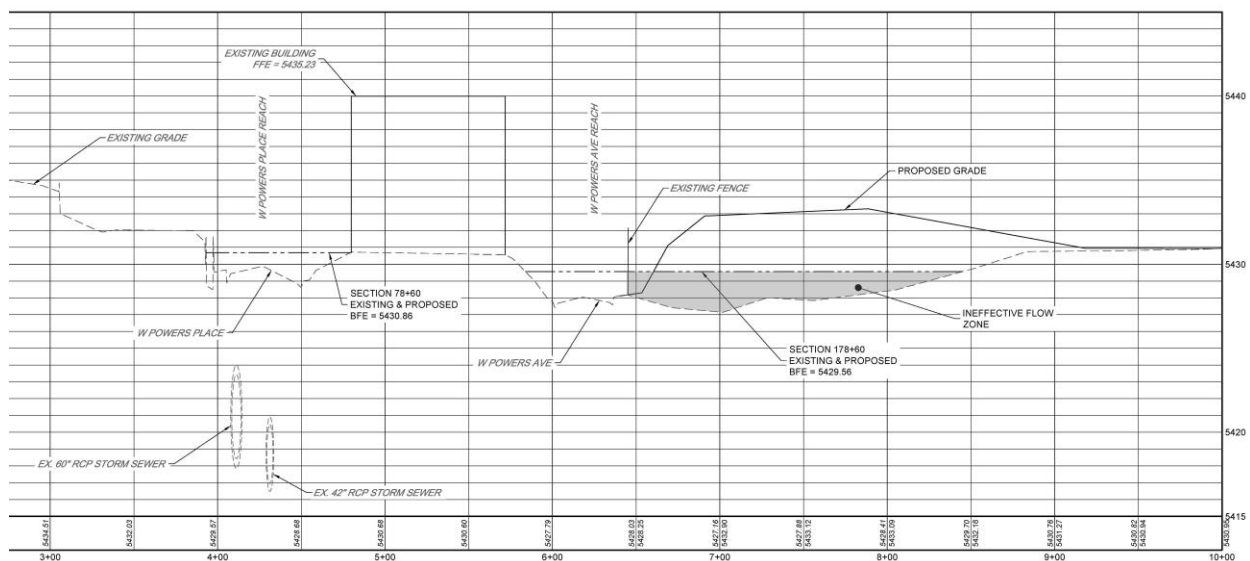
Area of proposed fill



The following diagram shows the progression from the FEMA delineated floodplain, to the newly analyzed existing conditions floodplain, to the proposed floodplain delineation:



This is the cross section view of the proposed work:



CRITERIA & STAFF ANALYSIS:

Following is a staff analysis of the proposed application. Criteria for a Floodplain Use by Special Exception is contained within Municipal Code Title 10, Chapter 6. Section 10-6-1 (A) describes the need for floodplain regulations. Section 10-6-1 (B) states the purpose, being to promote public health, safety and general welfare and minimize public and private losses due to flooding. The application as presented has no increase to risk in any of these categories.

Section 10-6-2 contains pertinent definitions of terms.

Section 10-6-3(A-F) describes applicability and basis. The proposal is located within the 100-year floodplain of Slaughterhouse Gulch. This is a FEMA floodplain, as delineated on the Flood Insurance Rate Map for Arapahoe County, Colorado, Panel 451.

Section 10-6-4 describes the duties of the Floodplain Administrator in review of all floodplain development applications. With this application, the watercourse is to be altered. For this particular application, no Federal State or local permits are required at this time. The CLOMR application will require review and compliance with the Endangered Species Act, which typically involves US Fish and Wildlife Service. Future Grading Permit applications will require a review by U.S. Army Corps of Engineers for any potential impact to wetlands.

Section 10-6-5 describes the process for appeals to decisions by the floodplain administrator.

Slaughterhouse Gulch does not have a delineated Floodway within the subject property (it is not uncommon to have a floodplain but not a studied and delineated Floodway). The Floodway delineation terminates downstream of this location. As a result, only subsection (D)(4) of Section 10-6-6 applies. This provision limits the encroachment that can occur in the floodplain, similar to

that with a designated Floodway. The maximum increase in 100-year water surface elevation is restricted to +0.5'. This application has no (zero) changes in water surface elevation. There is no increase in water surface elevation because the applicant has demonstrated that in the existing condition, the portion of the floodplain located north of Powers Avenue is not effective for conveying floodwater downstream (termed "ineffective flow"). The applicant has demonstrated this is ineffective flow due to a number of factors including:

- There is a constriction of flows between the existing homes to the west of Delaware Street. Standard engineering practice is to assume a 1:1 contraction zone upstream of that location, outside of which the flow is turning into the contraction and not flowing in a downstream direction. This zone is shown on the Site Plan.
- The portion of flow that spills out of Powers Avenue to is quite shallow (approximately 6 inches depth) and as a result would be slowed by existing features such as fences, trees, and vegetation
- The portion of flow that spills out of Powers Avenue does not consistently flow in the downstream direction due to existing topography and slopes ,
- The area immediately east of Delaware Street is located at an elevation below that of Delaware Street, which creates a ponding effect and only the uppermost shallow portion of the flow spilling over Delaware Street is effectively flowing downstream.

With this portion of the floodplain being an "ineffective flow area", it is equivalent to having zero flow velocity, and therefore not important in conveying floodwaters in the downstream direction. As a result, the proposed fill and elimination of this area from the floodplain does not result in a change in water surface elevation or overall flow velocity of the resulting portion of the floodplain.

Section 10-6-7 describes the development allowable uses and restrictions within a floodplain. Subsection (A) references to the detailed development requirements of 10-6-8(B). Limiting uses within the floodplain are listed in Subsection (B), which do not apply to this application. Subsection C describes requirements for critical facilities. However, no critical facilities are proposed by this application.

Section 10-6-8 outlines the procedure and application contents for a Use by Special Exception. Since the eventual use of the subject property is for development requiring building permits, the development within the floodplain must be approved by the Planning Commission. The site plan requirements outlined in Subsection (A), generally consist of a plan view drawing, profile of the proposed fill, and section view of the proposed fill (there is no proposed channel with this application). The application has included these elements.

Subsection(A)(1)(e) requires review by affected agencies. The application has been sent to multiple jurisdictions (see attached Referral matrix), but no comments from these agencies impacted the current application.

Section 10-6-8(B) outlines specific requirements for development within floodplains. No buildings are proposed with the current application, but the applicant has committed to complete a CLOMR and LOMR to remove the property from the floodplain. The proposed grading plan does demonstrate compliance with subsection (B)(2)(a) by indicating proposed ground elevations to be

above the proposed adjacent 100-year water surface elevations. Building layout is not yet known, but future applications will address the elevations of the lowest floors of those buildings relative to the elevations of the adjacent proposed floodplain. Floodplain elevations will be verified with future updates to design and analysis, and as-built survey. Subsection B(2)(d) also applies to this application, because fill material is being placed within the existing floodplain to elevate the ground. The fill placement does not adversely affect efficiency of the watercourse (1), and the placement is the minimum required to flood-proof future structures adjacent to the floodplain (2), and because there is no floodway, item (3) does not apply. The fill materials will be adequately protected from erosion by grass cover or riprap, or an equivalent as determined by engineering analysis in final design (4), and the Use by Special Exception will not result in increased flood heights or threats to public safety, public expense, create nuisances, nor conflict with other law or ordinance (5). There are no increased flood heights or flow velocities.

Section 10-6-9 describes the procedures for variances from the floodplain regulations. No variances are proposed.

Section 10-6-10 addresses non-conforming existing buildings. This is not applicable to this project because the fill is not in an area where there are existing buildings. There are adjacent buildings but they are not subject to the project.

Section 10-6-11 describes requirement for the Certificate of Compliance (CoC) to be obtained after construction, to verify that the grading has been constructed in compliance with the floodplain regulations. This application will require a CoC after final grading is complete.

PUBLIC NOTICE:

Public notice of the Use by Special Exception has been mailed to all property owners within 700 feet of the site and signs were also posted on the site.

OUTSIDE REFERRAL AGENCIES:

Comment was received from various agencies including utility providers and Urban Drainage and Flood Control District. All comments have been adequately addressed with the application. See attached outside referral agency matrix.

STAFF RECOMMENDATION:

Staff finds that in compliance with Section 10-6 of the City Code, the proposed Floodplain Use by Special Exception for Modification of the Slaughterhouse Gulch Floodplain at the northeast corner of S. Delaware Street and W. Powers Avenue meets the criteria for approval, with the stated conditions.