



February 24, 2023

City of Steamboat Springs Planning  
137 10th St  
Steamboat Springs, CO 80487

RE: Hydrologic and Hydraulic Summary  
Lot 1 Indian Meadows Hotels Development Plan

Dear Planning Department,

Zenobia Consultants provides this brief summary as part of a development package proposing two hotels located within a vacant property known as LOT 1 INDIAN MEADOWS F3. The package includes a concurrent application for a preliminary plat to split the parcel in an east-west direction.

An analysis of the 100-year peak discharge conditions is provided by Wohnrade Civil Engineers as part of the development package. In recent years, observed flows of Walton Creek have shown that flow dynamics of Walton Creek immediately upstream of the Homewood Suites are not accurately modeled by the existing FEMA regulatory floodplain. A split flow dynamic has been observed in a number of years when runoff volumes have reached a level to demonstrate this condition. The study provided by Wohnrade, supported by survey of the area to the south of this area, provides the best available information related to modeling of Walton Creek.

The key information contained in the Wohnrade analysis shows that the existing FEMA regulatory floodplain overestimates the volume of flow that stays in the main channel of Walton Creek and fails to accurately model the flow that reaches the ditch running alongside the Eastside of US40. The cause of this discrepancy is unknown but could be due to changes in channel geometry since the time the Walton Creek floodplain was last modeled or could be an indication of deficiencies in the modeling parameters included in the development of the Flood Insurance Study, last revision performed in 2005. As the information contained in the FEMA insurance rate study is used to regulate activity within the floodplain, having accurate modeling information is of critical importance. As a result of the split flow, the regulatory base flood elevations within the main channel of Walton Creek adjacent to and downstream of the future Stone Lane crossing are overestimated. Whereas, at the southwest corner of the Homewood Suites parcel the base flood elevation is underestimated.

The Wohnrade evaluation shows that the proposed development of Lot 1 Indian Meadows Filing 3 will have a negligible impact on the 100 year peak flood discharge flow elevation as they relate to properties in the vicinity of the proposed project. This is true for both the existing base flood elevations as shown in the FEMA Flood

Insurance Study and for the revised effective duplicative model. As such, fill and development of Lot 1 as proposed in the development package can meet the city's criteria for development within the floodplain without offsite improvements. A floodplain development permit will be necessary and the design team proposes that required process be included as a condition for resolution prior to building permit approval for Lot 1 development.

The larger challenge related to protection of existing infrastructure and structures within the floodplain of Walton Creek revealed by the revised modeling included in this study will be presented to the city as part of a separate floodplain development permit associated with an addendum to the civil construction plans previously approved by the city included updated modeling. The design team would also like to meet with city staff to discuss the challenges revealed by the updated modeling of Walton Creek and how protection of the built environment and proposed infrastructure can be coordinated.

Sincerely,

Ben Beall, PE  
Zenobia Consultants LLC