

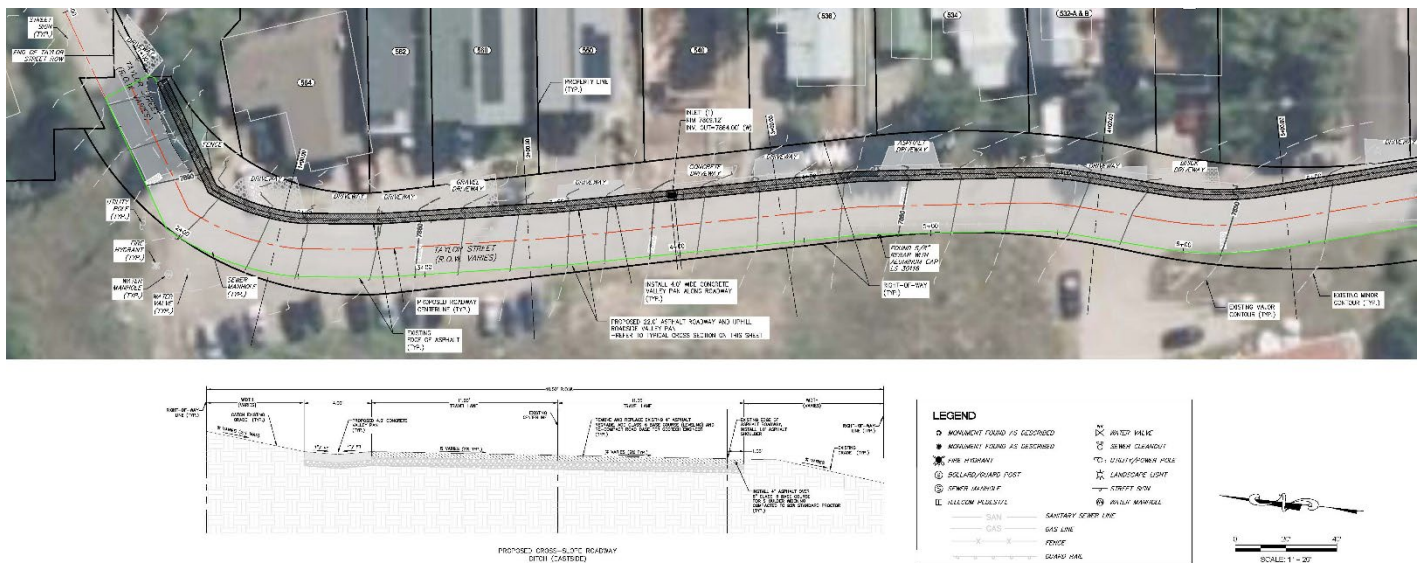
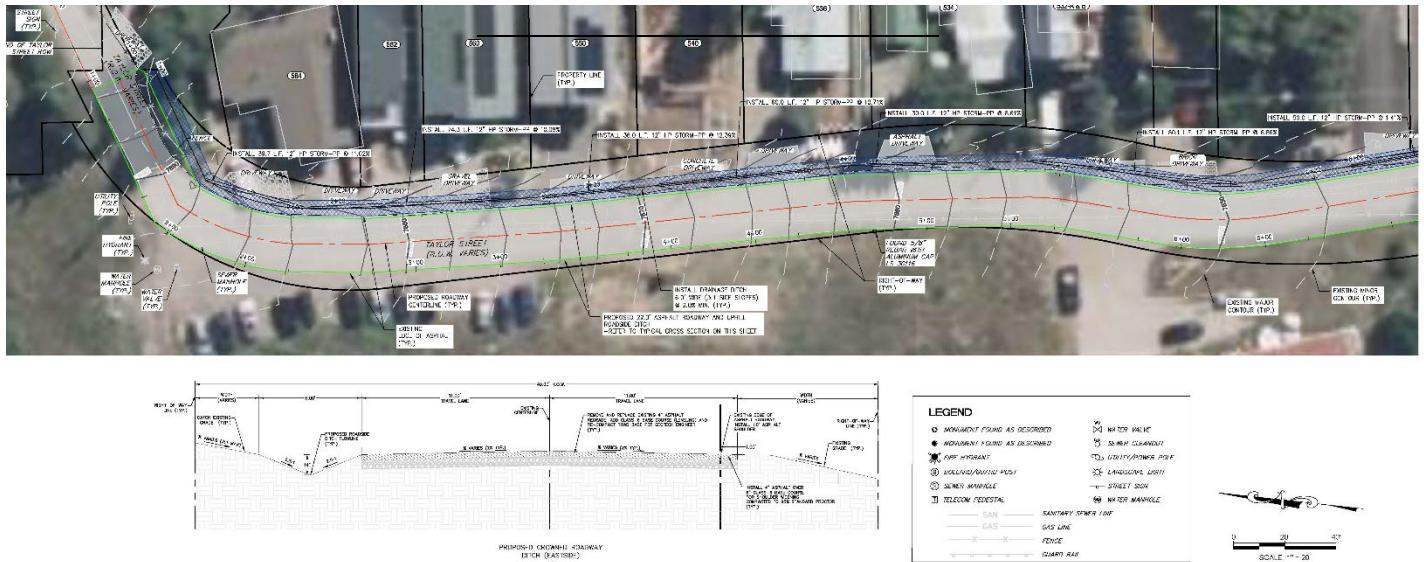


To: Mayor and Council
From: Katie Sickles
Date: April 16, 2025
Agenda Item: Taylor Street Reconstruction/Paving Drainage Alternative

Taylor Street Reconstruction/Paving Drainage Alternative Discussion and Direction

A drainage alternate has been proposed from swale/culverts on the east side to a 4' concrete pan. Inter-Mountain Engineering's letter provided an explanation. Inter-Mountain Engineering is seeking direction regarding the drainage alternative. Following the letter / report are resident emails / comments related to this discussion.

The plans for both alternatives are available. I thought I would extract an image from each for this memo.



April 10, 2025

Minturn Town Council
PO Box 309
Minturn, CO 81645

Re: Taylor Avenue Reconstruction -
Design Criteria Recommendations
Project No. 24-0060

This letter is an update to the Town Council for the Taylor Avenue capital improvement project. At the March 5 Council meeting, we presented neighborhood input, and the Council provided direction to advance the design. During conceptual design, we encountered drainage questions that merit further discussion.

Drainage Considerations:

The Town Council directed minimizing drainage flow across Taylor Avenue by the construction of a drainage ditch on the east side and the use of a crowned roadway section. The proposed roadway will be 22 feet of asphalt with 10 foot travel lanes and 2 foot asphalt shoulders similar to what is proposed for Minturn Road.

The existing Taylor Avenue roadway is in poor condition. The asphalt varies from about 22 to 25 feet in width and is located to the west side of a 40 foot right-of-way. The road slopes from east to west and the slope varies from less than 1 to over 4 percent. The ground surface on the east side of the roadway slopes to the street (some areas very steeply) and drainage flows over the street to the west. Existing culverts are located under the street at points of concentrated flow.

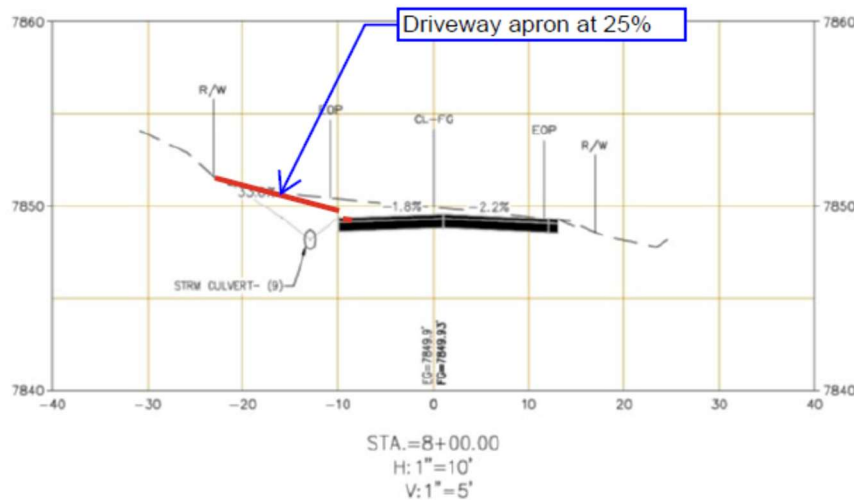
Chapter 7 – Storm Water Planning & Design Requirements of the Minturn Municipal Code (MMC) requires a residential development to study both the minor and major storm events. The minor storm drainage system is intended to prevent damage from regularly occurring storms and the major system to prevent damage or loss of life from infrequent large magnitude storms. Wright Water Engineers, Inc. prepared the Minturn North PUD Drainage Report, which includes a detailed study of drainage from the mountainside above Taylor Avenue. Minturn North is constructing a large ditch on the west side of Taylor to collect drainage and protect properties below Taylor Avenue from the major storm event. The Minturn North ditch is 24 inches deep, with a 5 foot wide bottom and a 2:1 side slope. The width at the top of the ditch would be at least 13' on level ground.

Ditch on East side of Taylor Avenue:

Controlling a major storm to address Council direction would require an identical ditch to that provided by Minturn North. A ditch that large will not fit within the Taylor Avenue right-of-way. The first set of drawings attached to this report is a conceptual design that includes a 6 foot wide, 14 inch deep ditch along the east side of Taylor. This ditch will contain the minor storm event,

Minturn Town Council
 Re: Taylor Avenue Reconstruction -
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allowing only a major storm event to flow across the roadway. Even with the roadway pushed to the west, this ditch will require steep driveway aprons, nearly 1,000 feet of driveway culverts and grading extending into private property. Existing natural gas, sanitary sewer, communication, and overhead electric distribution lines are located within the easterly side of the right-of-way and will require relocation. There are also private improvements including retaining walls and parking areas located within the right of way that will need to be removed or reconstructed.



Drainage ditch in Grant Avenue:

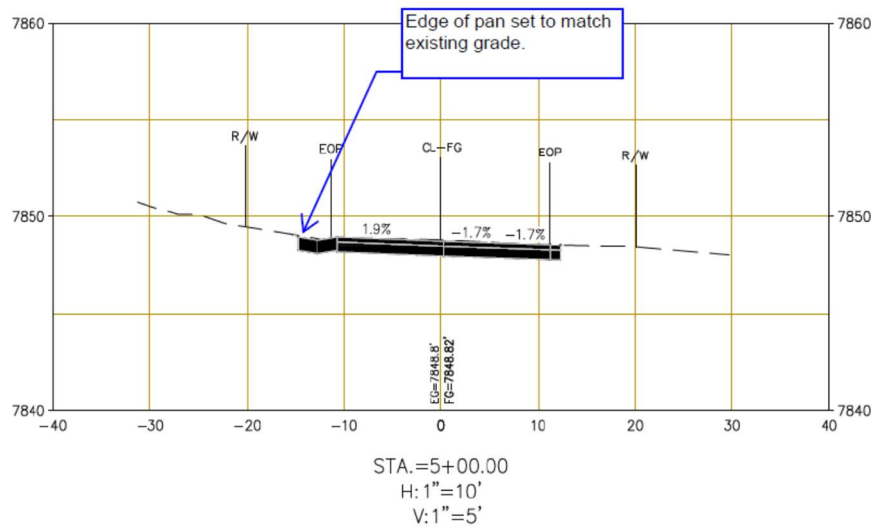
We were asked if it would be feasible to intercept drainage above the homes on Taylor Avenue by constructing a ditch within the Grant Avenue right-of-way. The following GIS photograph shows improvements that have been constructed within the Grant Avenue right-of-way. The Eagle County website identifies the photograph as approximately 20 years old, so it is likely additional obstructions exist. There is no direct access to Grant Avenue and physical access would be difficult. Access and drainage easements through the existing property between Taylor Avenue and Grant Avenue will need to be acquired. We could study further, but locating drainage facilities in Grant Avenue does not appear feasible.



Concrete pan on east side of the Taylor Avenue pavement:

Minturn Town Council
 Re: Taylor Avenue Reconstruction -
 Design Criteria Recommendations
 Project No. 24-0060

The least impactful alternative would be to replace Taylor Avenue with a properly constructed roadway. Sloping the road to the west provides the best way to match existing grades on the east side of the roadway. A 4 foot wide concrete pan on the east side of the roadway would capture nuisance flows from snowmelt and minor storm events. Catch basins located in the pan would intercept and direct drainage across the road to the Minturn North Drainage system. Speed dips can be incorporated to provide both traffic calming and additional drainage collection points. Large culverts would be installed at identified points of concentrated flow. A conceptual plan has been developed and attached for this alternative.



We recommend the Council consider the alternative including a 4 foot wide concrete pan with the roadway sloped to the west for the Taylor Avenue reconstruction.

Thank you,
 Inter-Mountain Engineering

Jeffery M. Spanel PE

CC: Katie Sickie, Cindy Krieg, Madison Harris, Brad Stempihar