

## **The Simba Run Underpass Summary of Benefits – White Paper**

September 26, 2008

The Simba Run Underpass is a critical component to serve Vail's traffic needs in that it provides some relief to the Main Vail Interchange and a fair amount of relief to the West Vail interchange. Additional benefits realized from this improvement include the provision for an additional pedestrian crossing of I-70 and a dramatic increase in bus routing flexibility within Town.

This underpass of I-70 will greatly improve mobility within Vail and it benefits all modes of travel. Traffic-wise, this improvement will provide moderate relief to the Main Vail interchange approximately improving operations by one-half a LOS (some approaches more than others). It's most significant traffic operations benefit is realized at the West Vail Interchange in which peak hour operations have the potential of improving by up to two Levels of Service. During peak season peak hour, there are approximately 600 vehicles per hour (both directions combined) simply "u-turning" to cross I-70 via the West Vail interchange. The Simba Run grade-separation of I-70 will serve this demand, thus relieving the interchange where traffic concentrations tend to occur due to I-70 access. This underpass is anticipated to reduce traffic by approximately five percent and 12 percent, respectively, at the Main Vail and West Vail interchanges. Further, the increased ease of crossing I-70 would reduce total travel along the Frontage Road system and reduce travel through the existing interchanges, thus extending their functional life and reducing the level of needed interchange improvements (or reducing pressure for additional I-70 access). The benefit of this crossing is realized through the direct connectivity it would provide linking the ski area villages, employment housing, and commercial areas.

Transit-wise, the Simba Run underpass would provide an excellent opportunity to enhance service and increase efficiency. The areas served by the West Vail routes are awkward given major origins and destinations along both sides of I-70. Buses, like all traffic, are forced to cross I-70 at the Main Vail and the West Vail interchanges, and the circular routing through town is cumbersome. The underpass would allow for a host of route revisions resulting in far fewer vehicle-miles of bus travel required for service. With major activity centers possible along the North Frontage Road west of the new underpass as well as along the South Frontage Road east of the new underpass, the potential exists to establish a "spine" or line-haul" service connecting all of these centers. Other routes within town would then "feed" into the line-haul service. The improved transit mobility will have a positive impact on the frontage roads and interchange system by increasing transit ridership thereby decreasing vehicular traffic demand on the system.

Pedestrian-wise, the Simba Run underpass would provide a crucial link between the north and south sides of I-70. Pedestrian activity has been known to take place across I-70 at-grade near the Simba Run location. It is an extremely unsafe situation when pedestrians are crossing the high-speed freeway. Fencing barrier exists along both sides of I-70, but openings in the fences are often created (illegally) allowing pedestrian activity to cross the interstate. The addition of an underpass pedestrian connection will minimize exposure to fatal pedestrian/vehicular incidents that have occurred along I-70. Further, the Simba Run underpass would provide an excellent means for bicyclists to

cross I-70, allowing riders an alternative to pedaling through the roundabout interchanges. The crossing could reduce bicycle/pedestrian travel by as much as four miles (depending on the specific origin/destination along either side of I-70).

The one drawback of the Simba Run underpass is its expense. This is the most costly element in the Transportation Plan. However, it is also an improvement that provides a significant level of benefit to the Town's mobility for all modes of travel. As a next step, the Town should undertake a more detailed feasibility study to fully appreciate the impacts, costs, benefits, and potentially identify a means of funding.