

Conceptual Alternative 1 - No Bridge

Advantages	Disadvantages
Extends the acceleration length for US-40 on-ramp to I-70 EB with no merging conflict from Blue Ridge Blvd.	Removes access from Blue Ridge to I-70
No ROW involved	Removes access across I-70 on Blue Ridge
Could lead to improvement of local roads due to more traffic being diverted	NB Blue Ridge traffic will have to direct to US-40 and reconnect via Sterling Ave.
	Possible lack of public support

Conceptual Alternative 2A - Consecutive Diamond Ramps

Advantages	Disadvantages
Extends the acceleration length for US-40 on-ramp past Chrysler Ave	Blue Ridge Blvd. on-ramp to I-70 will have to merge two lanes
Ability to extend deceleration lane for I-70 WB	Blue Ridge to I-70 EB has a max. slope of 6%
Improves current traffic conditions	ROW may be affected on the north side of Blue Ridge, or a retaining wall implemented.
Lower cost when compared to Conceptual Alternative 2B	May need design exception for shoulder under Chrysler Ave for future I-70

Conceptual Alternative 2B – Blue Ridge Loop Ramp

Advantages	Disadvantages
Extends the acceleration length for US-40 on-ramp I-70 EB	Blue Ridge Blvd on-ramp to I-70 EB will have to merge two lanes
Extends acceleration length for Blue Ridge Blvd on-ramp to I-70 EB	Will need a retaining wall along the loop ramp
Blue Ridge to I-70 EB on-ramp has less steep grade than other options	ROW will be affected on the north side of the project if no retaining wall is built
Improves current traffic conditions	Slightly higher cost compared to other options
No ROW involved if retaining wall is built	

Conceptual Alternative 3 - Split Diamond

Advantages	Disadvantages
Removes merging conflicts for I-70 EB on ramps	Will impact more ROW on the north side of the project than other options
Creates access to Blue Ridge Blvd from I-70 WB	May need to build a retaining wall on the WB off-ramp to Blue Ridge to reduce ROW impacts
Improves current traffic conditions	Will need to build multiple retaining walls along ramps in order to accommodate future I-70
	Unsure if trucks will be able to make the tight right turn from US-40 NB to Blue Ridge Blvd.

Conceptual Alternative 4 US-40 Connection

Advantages	Disadvantages
Extends the acceleration length for US-40 on-ramp to I-70 EB with no merging conflicts from Blue Ridge Blvd.	Over 12% of vertical grade
No ROW involved	Can only get <10% vertical grade when the bridge is shifted 180' to the east
	Removes access from Blue Ridge to I-70 EB
	Possible lack of public support