

APPENDIX 7

Phase 1 Screening Analysis



Phase 1: Initial Concept Evaluation Summary (Consistency with Vision and Goals)

Please refer to commentary for details of evaluation

Criteria	Concepts							
	A	B	C1	C2	E	F	G	H
Mobility: Does the concept reasonably resolve congested areas or bottlenecks?								
Safety: Will the concept reduce existing and future year crash rates?								
Access: Does the concept maintain or improve access to adjacent businesses, employment centers, and neighborhoods?								
Nonmotorized Connections: Will the concept improve connections and provide facilities for non-motorized users?								
Land Use: Does the concept reasonably resolve significant obvious impacts to adjacent land uses and environmental resources?								
Implementation: Can the concept be constructed and funded as a series of projects rather than one large project?								
PROGRESS CONCEPT TO PHASE 2?	N	Y	Y	Y	N	N	N	Y

Evaluation Summary Key

- Performs Strongly
- Performs Moderately
- Neutral
- Performs Weakly
- Performs Poorly

Evaluation Criteria Commentary:

Criteria	Concept	Concept Evaluation Commentary	Evaluation
Mobility: Does the concept reasonably resolve congested areas or bottlenecks?	A	Future traffic volumes can be accommodated, but significant traffic volumes will occur on the frontage roads because of relocated traffic from 36th Avenue. Additionally, the two-way section of Benson and Northern Lights Boulevards will significantly increase traffic on Fireweed Lane and Tudor Road.	
	B	Future traffic volumes can be accommodated, but difficult weave maneuvers are created in specific locations.	
	C1	Future traffic volumes can be accommodated. There are challenges with queuing on the braided section near Benson Boulevard and associated congestion. The concept also generates queuing pressure at 36th Avenue.	
	C2	Future traffic volumes can be accommodated. There are challenges with queuing on the braided section near Benson Boulevard and associated congestion. This concept provides improved access to the mainline at 36th Avenue when compared to other concepts.	
	E	The concept duplicates significant traffic volumes currently experienced on the Seward Highway onto the Old Seward Highway corridor. Volumes are particularly high between Benson Boulevard and 36th Avenue and will be difficult to resolve.	
	F	This concept creates an unimpeded mainline for through traffic, and a large arterial facility parallel to the Seward Highway for local access on a two-way frontage road. The two-way frontage road will experience similar volumes to the existing Seward Highway, and bottlenecks are likely at the 36th Avenue intersection.	
	G	This concept creates an unimpeded mainline for through traffic, and a large arterial facility parallel to the Seward Highway for local access on a two-way frontage road. The two-way frontage road will experience similar volumes to the existing Seward Highway, and bottlenecks are likely at the 36th Avenue intersection.	
	H	The concept will create a less congested transportation corridor with fewer/better controlled conflict points. This will enable traffic to flow more smoothly through the study area and with less delay.	



Criteria	Concept	Concept Evaluation Commentary	Evaluation
Safety: Will the concept reduce existing and future year crash rates?	A	A significant amount of traffic will be pushed from the mainline to the frontage road and primary street network, increasing volumes and safety risks along Fireweed Lane, Tudor Road, Benson and Northern Lights Boulevards, and the frontage road network.	↔
	B	Because of difficult weave maneuvers created near Fireweed Lane associated with entry/exit between the frontage road and mainline, there is an elevated potential for crashes that will duplicate the current situation.	↔
	C1	The concept provides sufficient capacity to improve safety through the study area. The queuing along the braided section near Benson Boulevard still generates a safety risk but there are potential solutions to this challenge. Increased traffic at the 36th Avenue intersection generates safety challenges that require further investigation.	↑
	C2	The concept provides sufficient capacity to improve safety through the study area. The queuing along the braided section near Benson Boulevard still generates a safety risk but there are potential solutions to this challenge. The full access provided at 36th Avenue alleviates queuing in this location.	↑↑
	E	The concept increases pressure on the frontage road network along Old Seward Highway, with particularly high volumes experienced between Benson Boulevard and 36th Avenue. This is contrary to best practices for safety, which would prefer higher traffic volumes on the mainline.	↓↓
	F	The concept recreates the existing congestion experienced along Seward Highway on the frontage road network, with an unimpeded freeway separate. This is contrary to best practices for safety, which would prefer higher traffic volumes on the mainline.	↓↓
	G	The concept recreates the existing congestion experienced along Seward Highway on the frontage road network, with an unimpeded freeway separate. This is contrary to best practices for safety, which would prefer higher traffic volumes on the mainline.	↓↓
	H	The concept will create a less congested transportation corridor with fewer/better controlled conflict points.	↑



Criteria	Concept	Concept Evaluation Commentary	Evaluation
<p>Access: Does the concept maintain or improve access to adjacent businesses, employment centers, and neighborhoods?</p>	A	Significantly increased traffic on the primary road and frontage road network will likely reduce efficient access to properties, particularly along Northern Lights Boulevard.	
	B	Access to businesses, employment centers and neighborhoods will be improved using frontage roads.	
	C1	Access to businesses, employment centers and neighborhoods will be improved using frontage roads.	
	C2	Access to businesses, employment centers and neighborhoods will be improved using frontage roads.	
	E	The concept will create access issues along Old Seward Highway without necessarily resolving existing access issues adjacent to the Seward Highway.	
	F	The concept will recreate the existing access situation experienced along Seward Highway.	
	G	The concept will recreate the existing access situation experienced along Seward Highway.	
	H	Access to businesses, employment centers and neighborhoods will be improved through the creation of a less congested transportation corridor with fewer/better controlled conflict points.	



Criteria	Concept	Concept Evaluation Commentary	Evaluation
Nonmotorized Connections: Will the concept improve connections and provide facilities for non-motorized users?	A	Significantly increased traffic on the primary road and frontage road network will likely create an environment that is less comfortable for nonmotorized users. There are engineering solutions that may be employed (i.e., separated paths, dedicated bicycle lanes, physical barriers), which could be used to overcome the feeling of a less safe environment created by higher traffic volumes.	
	B	Multimodal mobility will be improved through shorter crossing sections (i.e. non-motorized traffic will only need to cross one direction of traffic per phase), more direct crossings and improved nonmotorized facilities.	
	C1	Multimodal mobility will be improved through shorter crossing sections (i.e. non-motorized traffic will only need to cross one direction of traffic per phase), more direct crossings and improved nonmotorized facilities.	
	C2	Multimodal mobility will be improved through shorter crossing sections (i.e. non-motorized traffic will only need to cross one direction of traffic per phase), more direct crossings and improved nonmotorized facilities.	
	E	The concept will create challenges for non-motorized traffic along and across Old Seward Highway without necessarily resolving existing non-motorized connection challenges adjacent to the Seward Highway, particularly between Benson Boulevard and 36th Avenue.	
	F	The concept will recreate the existing challenges for nonmotorized traffic connection through Midtown by creating wide crossing sections along the two-way frontage road network. Engineering solutions may be able to be employed to create crossing refuges, but the environment will be less comfortable than what is expected for one-way frontage road concepts.	
	G	The concept will recreate the existing challenges for nonmotorized traffic connection through Midtown by creating wide crossing sections along the two-way frontage road network. Engineering solutions may be able to be employed to create crossing refuges, but the environment will be less comfortable than what is expected for one-way frontage road concepts.	
	H	Multimodal mobility will be improved through shorter crossing sections (i.e. non-motorized traffic will only need to cross one direction of traffic per phase), more direct crossings and improved nonmotorized facilities.	



Criteria	Concept	Concept Evaluation Commentary	Evaluation
<p>Land Use: Does the concept reasonably resolve significant obvious impacts to adjacent land uses and environmental resources?</p>	<p>A</p>	<p>Significantly increased traffic on the primary road and frontage road network will likely create an environment that is less comfortable and easy to access businesses and commercial uses in the Midtown City Center and will create challenges with implementing the commercial corridor and transportation-related development corridor designations in the Land Use Plan 2040.</p>	<p>↓↓</p>
	<p>B</p>	<p>Impacts to residential properties and businesses from the braided ramp section are being evaluated to minimize impact on Helen Louise McDowell Sanctuary. The Citizen's Advisory Group requested further evaluation of this concept as it is consistent with a depressed freeway through Midtown.</p>	<p>↔</p>
	<p>C1</p>	<p>The concept improves access to residential and commercial properties and will be able to incorporate design features that are supportive of the Land Use Plan 2040. There will be right-of-way impacts associated with the widened land area required to implement the concept, but these should be able to be minimized.</p>	<p>↑</p>
	<p>C2</p>	<p>The concept improves access to residential and commercial properties and will be able to incorporate design features that are supportive of the Land Use Plan 2040. There will be right-of-way impacts associated with the widened land area required to implement the concept, but these should be able to be minimized.</p>	<p>↑</p>
	<p>E</p>	<p>This concept will generate significant right-of-way impacts along Old Seward Highway and between Benson Boulevard and 36th Avenue. This has the potential to impact on land uses zoned Commercial and Light Industrial/ Commercial in the Land Use Plan 2040, which has the potential to generate negative impacts on access to and the operation of these land uses.</p>	<p>↓↓</p>
	<p>F</p>	<p>This concept has the potential to recreate existing access along the Seward Highway, except in a frontage road format. This will support the city center designation but will eliminate some existing land uses through right-of-way acquisition. It may also generate access challenges to businesses fronting the Seward Highway corridor, necessitating secondary or rear access to these land uses.</p>	<p>↓</p>



Criteria	Concept	Concept Evaluation Commentary	Evaluation
	G	This concept has the potential to recreate existing access along the Seward Highway, except in a frontage road format. This will support the city center designation but will eliminate some existing land uses through right-of-way acquisition. It may also generate access challenges to businesses fronting the Seward Highway corridor, necessitating secondary or rear access to these land uses.	
	H	The concept recreates existing access along the Seward Highway, which will support the city center designation but will eliminate some existing land uses through right-of-way acquisition. Because the concept is an “intermediate” concept to create capacity, it will be at-grade, which will continue to support access directly from the Seward Highway.	
Implementation: Can the concept be constructed and funded as a series of projects rather than one large project?	A	The concept can be divided into independent projects.	
	B	The concept can be divided into independent projects.	
	C1	The concept can be divided into independent projects.	
	C2	The concept can be divided into independent projects.	
	E	The concept may require a single build owing to the frontage road network being created along Old Seward Highway.	
	F	The concept may require a single build owing to the need to create a depressed or elevated freeway.	
	G	The frontage road can be constructed and function using median U-turns or other staging mechanisms that will allow for the highway to be constructed adjacent to the frontage road network.	
	H	The concept facilitates a staged approach to concept implementation, creating flexibility to construct a series of projects rather than one large project.	

Evaluation Summary Key



Performs Strongly



Performs Moderately



Neutral



Performs Weakly



Performs Poorly

