

# WELCOME



Please provide your views and ideas through discussions with study team members, and written comment sheets, and keep up to date with the project through: www.i90corridor61to67.com







## Schedule/Work Plan





# Study Area & Project Goals & Needs

#### **Study Goals:**

Complete a list of transportation issues and needs facing the I-90 corridor within the study area

Develop feasible solutions to address those issues and needs that meet current design standards and/or traffic level of service expectations under both the current and predicted future traffic conditions while promoting a livable community that will enhance the economic and social well-being of all users of the corridor.

Two primary areas of need will be investigated in this study.

#### 1. I-90 Corridor Capacity

The need for I-90 and the surrounding roadway network to provide acceptable traffic operations and safety now and into the long range future.

Traffic counts, forecasts and analyses may support:

- The need for an additional travel lane along I-90 for all or part of the study corridor
- The need for particular regional roadway network improvements to accommodate vehicle-trips and support I-90
- The need for other multimodal mobility enhancements

#### 2. Interchange Access

The current half movement interchange provides only for movements to and from the west, not in compliance with current Federal Highway Administration (FHWA) policy requiring that service interchanges provide for all movements. The study will investigate options to bring Exit 63 into compliance with FHWA policy.





I-90 Exit 61-67 Corridor Study 16-034 03/06/17

# Traffic Forecasts with I-90 Column Plot vs Capacity

90 Exit 61 to Exit 67 Corridor Study



I-90 Exit 61-67 Corridor Study 16-034 03/06/17





## **Solutions Process**







#### I-90 Exit 63 Alternative 1 - Interchange at West Gate





### I-90 Exit 63 Alternative 2 - Interchange at West Gate Rd. with Direct Access to Eastbound 1416





### I-90 Exit 63 Alternative 3 - Interchange at West Gate Rd. with Existing West Ramps and New East Ramps





### I-90 Exit 63 Alternative 4 - Diamond Interchange at Highway 1416



• Maintains N. Service Road Access



#### I-90 Exit 65 Alternative 5 -Interchange at Radar Hill Rd.





#### I-90 Exit 65 Alternative 6 - Interchange at Radar Hill Rd. with Braided Ramps to Commercial Gate Rd.





#### I-90 Exit 65 Alternative 7 - Split Tight Diamond with Radar Hill Rd. and Commercial Gate Dr.





## I-90 Exit 65

Alternative 8 - Split Diamond Interchange with Radar Hill Rd. and Commercial Gate Dr. with Exclusive Ellsworth AFB Ramp

REMOVAL OF RAILROAD ELLSWORTH AFB PROPERTY LINE ONE WAY COUNTRY RD RAMP TO ELLSWORTH AIR FORCE BASE 90 RAMP TO 9% GRADE US IIII IIII COUNTY HWY 1416 **CLEUMATING** RAIL ROAD COUNTY HWY 1416 FALLS WITHIN THE REQUIREMENTS OF THE CONTROL OF ACCESS COUNTY HWY 1416 FALLS WITHIN THE REQUIREMENTS OF THE REMOVAL OF RAILROAD -Carry Forward: NO CONTROL OF ACCESS Property Impacts • Environmental Impacts PARCEL IMPACT REMOVAL Access Impacts NOTE: PARCEL IMPACT DEFINED AS A LOSS OF EXISTING ACCESS OR LAND NEEDED PROPERTY LINE ACCESS TO BE CLOSED 🗙 FOR NEW INFRASTRUCTURE Does Not Meet Desired WALL Intersection Ramp Spacing

Interchange Complexity



#### I-90 Exit 62 Alternative 9 -Interchange at Bennett Rd.





### I-90 Exit 65 Alternative 10 - Split Diamond Interchange at Radar Hill Rd.





#### I-90 Exit 63 Alternative 11 - Exit 63 Removal at County Hwy 1416





### I-90 Exit 63 Interchange Alternatives Evaluation

			Best accom _ong-Rang										e most con Ind Plannin	
	Has the fewest impacts to property									[	Best utilizes existing infrastructure			
EXIST 63 INTERCHANGE RECONSTRUCTION ALTERNATIVES	ADDRESS THE NEED FOR THE PROJECT	APZ CONFLICTS	ENVIRONMENTAL IMPACTS	PRIVATE PROPERTY AND ROW	FACILITATES MOVEMENTS TO AND FROM EAFB	ACCOMODATES TRANSPORTATION APPROVED PLANS	CONSTRUCT-ABILITY	CONSTRUCTION COSTS	COMPATIBILITY WITH JLUS 9	CONNECTIVITY WITH EXISTING ROAD NETWORK 10	SIMPLICITY OF INTERCHANGE CONFIGURATION	DESIGN CRITERIA	CONTROL OF ACCESS	Carry Forward?
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Alternative 1 - Interchange at Westgate	1	1	⇒		8	⇒	R	R		R	Ŷ	⇒	⇒	•
Alternative 2 - Interchange at Westgate with Direct Access to EB 1416	1	Ŷ	⇒	⇒	X	⇒	R	R	1	R	R	⇒	⇒	•
Alternative 3 - Interchange at Westgate Rd. with Existing West Ramps and New East Ramps	1	Ŷ	¢	⇒	ſ		R	R	1		¢	K	Y	•
Alternative 4 - Interchange at Highway 1416	1	Ŷ	Y		₽	Z	₽	8		<b>⊼</b>	Ŷ	ſ	٦	
Alternative 5 - Interchange at Radar Hill Road	1	1	₽	₽	<u>S</u>	⇒	⇒	۲	R	⇒	Ŷ	1	2	•
Alternative 6 - Interchange at Radar Hill Rd. with Braided Ramps to Commercial Dr.	1	1	₽	₽	1	⇒	2	₽	R	⇒	R	ſ	₽	•
Alternative 7 - Split Interchange with Radar Hill Rd. and Commercial Dr.	1	₽	₽	8	1	⇒	2	₽	⇒	R	R	÷	2	•
Alternative 8 - Split Diamond with Radar Hill Rd. and Commercial Dr. with Exclusive EAFB Ramps	1	₽	₽	₽	1	⇒	2	<b>₽</b>	⇒	R	⇒	⇒	⇒	•
Alternative 9 - Interchange at Bennett Road	1	î	R	2	ł	₽	S	⇒	ſ	S	Ŷ	ſ	ſ	•
Alternative 10 - Split Diamond Interchange at Commercial Dr	1	₽	۲	۶	2	⇒	2	۶	⇒	⇒	۶	⇒	<b>↓</b>	•
Alternative 11 - Remove Exit 63 Interchange	┢	1	Î	ſ	÷	₽	1	1	î	₽	⇒	î	î	

Alternatives have most impacts on low income and minority populations

Alternatives at Radar Hill Road have highest construction costs

LEGEND ↓ Point Value = 0 Least meets criterion ◆ Point Value = 1 → Point Value = 2 ✓ Point Value = 3 ↑ Point Value = 4 Best meets criterion



## I-90 Widening





## Intelligent Transportation Systems (ITS)

#### **Current ITS Devices**



#### **Potential I-90 Corridor ITS Solutions and Benefits**

11	'S Solution	Description	Goal/Potential Benefits		
1	Roadway condition warning/anti-icing for existing WB Exit 63 on- ramp to I-90	Uses sensors and signs and/or sprayers to reduce crash risk	Improve safety		
2	Intersection conflict warning for County Highway 1416 intersections	Uses detection and flashers to alert drivers approaching conflicting traffic	Improve safety		
3	Remotely operated "intelligent" gates	Allows current manual closure gates to be operated remotely	Improve safety and staff efficiency		
4	Additional vehicle detection and surveillance on I-90	Allows data collection and monitoring of "trouble" spots, reducing response time and improving awareness	Improve mobility and efficiency		
5	Fiber optic "trunk" along I-90 to connect devices to unify communications	Enables reliable communications and full-motion video. Places all devices on one high performance network	Improve mobility and efficiency		
6	Control software to unify DMS, CCTV, detection and other operations	Enables monitoring, data collection and control from a single interface. Reduces training time and IT workload	Improve efficiency		
7	Variable speed limit signs (VSL)	Uses active signs to display speed limits that vary based on conditions	Improves safety		