# US-20/SH-75 (Timmerman Jct.) Intersection Study

Community Advisory Committee (CAC) Meeting #3 October 5<sup>th</sup>, 2016

**Blaine County Courthouse** 

Commissioners Large Conference Room

US 20 \$\square\$ SH 75
TIMMERMAN JUNCTION
Intersection Study





#### **Study Website:**

http://itd.idaho.gov/projects/D4/US20\_ID75\_IntersectionStudy

#### Welcome

## Thank you for your commitment to participating with the Idaho Transportation Department (ITD) in this important study!

#### Who is involved?

- Idaho Transportation Department
- Blaine County & Local City Representatives
- Local Community Representatives:
  - Legislative Representatives
  - Emergency Responders
  - Agriculture & Trucking Services
  - Commerce & Tourism
  - Transportation Providers
  - Major Employers
  - Residents/Citizens







## Community Advisory Committee (CAC) Roles & Responsibilities

- Roles: Provide a wide range of perspectives and bring valuable information to the Study Management Team (SMT) through the alternatives development, evaluation, and selection process.
- > Responsibilities:
  - <u>Understand</u> the intersection, the study context, the range of alternatives, and the implications of decisions
  - Share facts and decisions on the study with your organization and the community
  - Maintain a <u>commitment to the study process</u>. Provide open, honest, and continuous communication during the study









## Recap

### **Study Purpose & Goals**

- > **Study Purpose:** ITD is continuing its commitment to improve safety at the US-20/SH-75 intersection (Timmerman Junction), while providing reliable and efficient mobility.
  - Collaborate with local community leaders and representatives
  - Evaluate a <u>wide range</u> of intersection alternatives
  - Identify proposed mid-term and long-term improvements
  - Provide direction to pursue funding for future implementation
- Goal #1: Improve safety performance
- Goal #2: Maintain acceptable mobility
- Goal #3: Collaborate with community representatives
- Goal #4: Establish a prioritized implementation plan

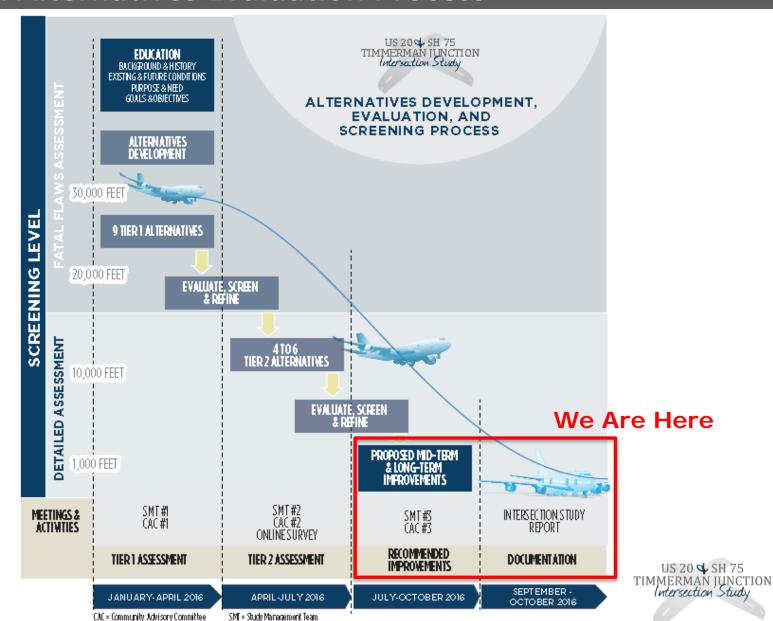






## Recap

### **Tiered Alternatives Evaluation Process**







## Recap Study Schedule



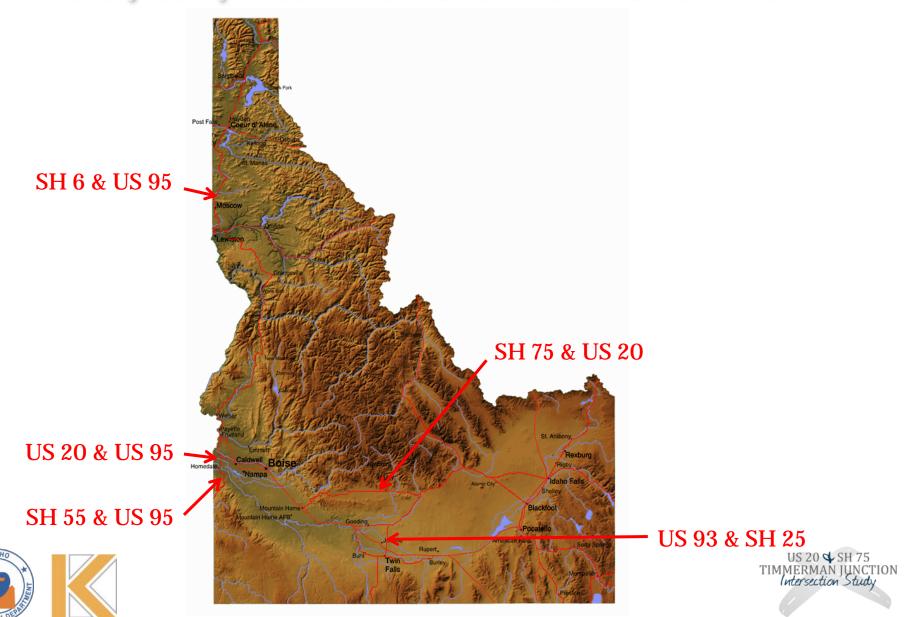






## SMT & CAC Meeting #2 Follow-Up Items

**Safety Comparison to Other Similar Intersections** 



## SMT & CAC Meeting #2 Follow-Up Items Safety Comparison to Other Similar Intersections

#### **Comparison by High Accident Location (HAL) Ranking**

6					I.T.D.	Crash Rate	Statewide	Statewide	Statewide
Statewide HAL Ranking	Intersection	County	City	Signalized?	ITD District	(Per Million Vehicles)	Frequency Ranking	Severity Ranking	Rate Ranking
HAL Natiking	intersection	County	City	Signalizeu:	District	verificies	Natikitig	Natikitig	Natikitig
145	US 20 & US 95	Canyon	-	No	3	2.04	442	119	128
238	SH 6 & US 95	Latah	-	No	2	1.49	663	170	283
358	SH 75 & US 20	Blaine	-	No	4	1.4	935	185	487
365	SH 55 & US 95	Owyhee	-	No	3	1.63	935	257	384
468	US 93 & SH 25	Jerome	-	No	4	1.66	935	494	375

#### **Comparison by Crash Rate**

Statewide					ITD	Crash Rate (Per Million	Statewide Frequency	Statewide Severity	Statewide Rate
HAL Ranking	Intersection	County	City	Signalized?	District	Vehicles)	Ranking	Ranking	Ranking
145	US 20 & US 95	Canyon	-	No	3	2.04	442	119	128
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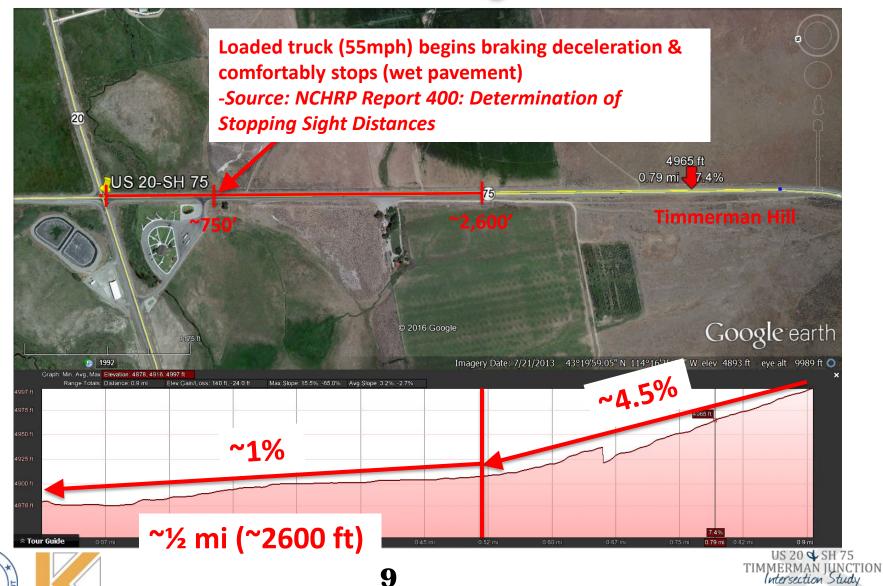






## **SMT & CAC Meeting #2 Follow-Up Items**

**Deceleration of Trucks Traveling Down Timmerman Hill** 



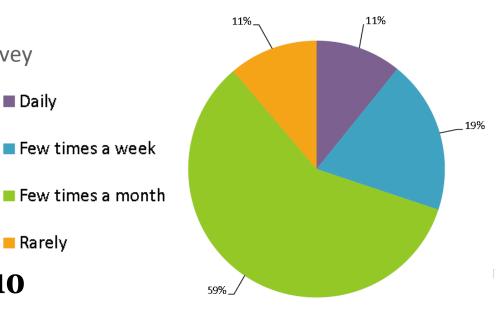
#### **Advertisement & Participation**

- Survey Open from August 8<sup>th</sup> 21<sup>st</sup>, 2016
  - http://www.surveygizmo.com/s3/2953321/US-20-and-Idaho-75-SH-75-Intersection-Timmerman-Junction-Study (link no longer active)
- Notification via email, study website, two newspaper articles & two TV news stories and the local public advisory group

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- Response Total: 762 people
  - 551 people completed survey
  - 211 people partially completed survey
  - #1: 83333 (Hailey)
  - #2: 83313 (Bellevue)
  - #3: 83340 (Ketchum)

#### How often do you use the intersection?







## **Evaluation Criteria Ranking**

	Overall Rank	Item	Rank Distribution		
Γ	1	Safety Performance: Effect on frequency and severity of crashes			
	2	<b>Mobility:</b> Effect on the movement of all users through the intersection			
Ī	3	Implementation & Maintenance: Amount of effort needed to construct and maintain the intersection			
	4	Cost: Estimated construction and maintenance costs			
	5	Physical and Environmental Impacts: Impact on the environment and properties near the intersection			
			Lowest Highest Rank Rank		







### **Intersection Alternatives Ranking**

Overall Rank	Item	Rank Distribution
1	Traffic Signal with Addition of Turn Lanes	
2	Adding Northbound and Southbound Right- and Left-Turn Lanes on SH-75	
3	Grade-Separated Diamond Interchange	
4	Single-Lane Roundabout with Approach Curvature	
5	Remove the Intersection Skew	
6	No-Build	
		Lowest Highest Rank Rank

- Traffic Signal Most combined #1, #2, #3 rankings
- Grade-Separated Interchange Most #1 rankings
- > Grade-Separated Interchange & Roundabout had high numbers of #1 & #6 rankings
- Addition of Turn Lanes & Remove Intersection Skew had most "mid-range" rankings (#2 through #5)







#### **Key Takeaways**

- Traffic Signal slightly more favored, but Grade-Separated Interchange, Roundabout, and Addition of Turn Lanes on SH-75 received relatively comparable levels of favor
- No-Build & Remove Intersection Skew less favored, but still received some support
- Other Key Comments
  - Safety needs to be the biggest concern
  - The perception of a problem is greater than the reality of one
  - Many of the problems at the intersection are related to drivers not paying attention
  - Existing signage needs to be improved with more warnings leading up to the intersection
  - Intersection would benefit from clearing weeds and debris





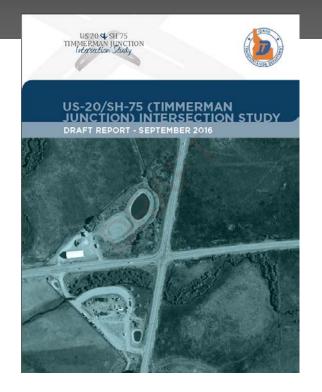


### **Report Overview**

- Section 1: Introduction
  - Background & History
  - Study Purpose & Need
  - Study Goals & Objectives
- Section 2: Existing Conditions
- Section 3: Future No-Build Conditions
  - Expected Safety Performance
  - Future Traffic Conditions (Operational Performance)
- Section 4: Alternatives Development & Evaluation
  - Tiered Alternatives Evaluation Process Including Community Involvement
  - Key Conclusions & Outcomes
- Section 5: Implementation Plan
  - Summary of Recommendations along with Considerations in Moving Forward
- Technical Appendix Separate Document available from ITD

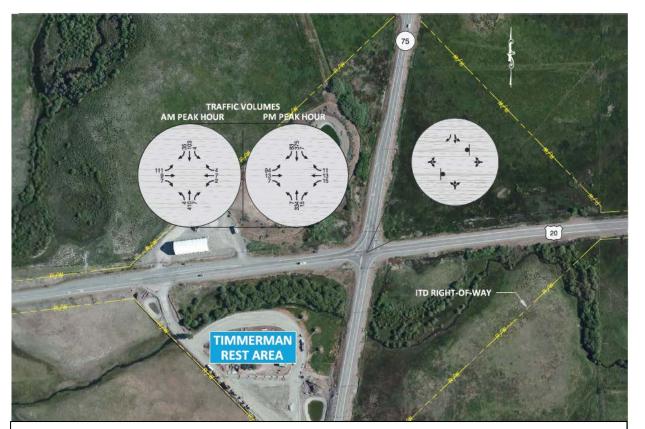






**Implementation Plan Summary** 

#### No Build



- Lack of crash history; Recent improvements may be enough.
- A build alternative should be planned for the long-term

#### Average Rankings

SMT: 1.2 / 7 (#1)

CAC: 3.2 / 7 (#3)

Public: 3.9 / 6 (#6)

Construction Cost: N/A

B/C Ratio: N/A

Time Frame: Short- To Mid-Term (~0-15 years)

Reasonable option, particularly if intersection does not rise high in ITD's ITIP prioritization







**Implementation Plan Summary** 

#### **Remove Intersection Skew**



• Cost-effective option that <u>may</u> benefit safety

#### Average Rankings

SMT: 3.3 / 7 (#3)

CAC: 2.7 / 7 (#1)

Public: 3.9 / 6 (#5)

Construction Cost: \$1.6M

B/C Ratio: 0.13

Time Frame: Short- To Mid-Term (~0-15 years)

Implementation option if roundabout is not programmed for short- to midterm time frame







**Implementation Plan Summary** 

## **Single-Lane Roundabout**



#### Average Rankings

SMT: 2.3 / 7 (#2)

CAC: 2.7 / 7 (#1)

Public: 3.5 / 6 (#4)

Construction Cost: \$2.8M

B/C Ratio: 0.34

Time Frame: Short- To

Long-Term (~0-25 years)

Improvement option best satisfying study goals

- Significant support from SMT & CAC; general public support mixed
- Most anticipated safety benefit with lesser impacts on mobility







**Implementation Plan Summary** 

## **Grade-Separated Interchange**



#### **Average Rankings**

SMT: 7.0 / 7 (#7)

CAC: 5.2 / 7 (#6)

Public: 3.3 / 6 (#3)

Construction Cost: \$10.3M

B/C Ratio: 0.20

Time Frame: Very Long-Term

(25+ years)

Right-of-way preservation only



- Limited support from SMT & CAC; some support from general public
- Good safety & mobility benefits, but at a high cost given current traffic volumes

#### **Alternatives Not Included in Implementation Plan**

- Add Turn Lanes on SH-75 Alternative
  - Not enough safety & mobility benefit anticipated & not warranted
  - Not recommended for implementation
- Traffic Signal Alternative
  - Support from general public, but not much support from SMT & CAC
  - Lowest benefit/cost ratio and anticipated increase in rear-end crashes
  - Not recommended for implementation







## **Implementation Plan Considerations**

- Roundabout Contextual Considerations
  - Rural Setting
    - Successive approach curvature progressively slows speeds
  - A "New" Intersection Form
    - Well over 3,000 roundabouts throughout the U.S.
    - FHWA Roundabout is one of nine proven safety countermeasures:
       <a href="http://safety.fhwa.dot.gov/provencountermeasures/">http://safety.fhwa.dot.gov/provencountermeasures/</a>
    - "Roundabout Rodeo"
  - Accommodation of Large Trucks & OSOW Loads
    - Truck apron meant for off-tracking of trucks!
    - Several proven strategies available to accommodate OSOW loads
  - Maintenance Considerations
    - Many winter weather states have numerous roundabouts
    - Develop a maintenance plan and execute it
    - https://www.youtube.com/watch?v=OGxbI7fe8Yg







#### **Implementation Plan Considerations**

- Perception of Safety Issues Versus Reality
  - Average crash rate just slightly more than typical
  - Typically ~2 reported crashes/year
  - No reported fatalities in past 15 years
- Video Monitoring of Intersection
  - Obtain extensive data on key items (i.e., drivers running the stop signs, erratic manuevers, etc.)
- Encourage Continued Collaboration within the Wood River Valley Community!







## **Closeout & Next Steps**

- We will take what we heard here today and from other meetings this week and revise the Intersection Study Report as appropriate.
- No future meetings planned as a part of this study. ITD will keep public informed of next steps for the intersection.
- Final Intersection Study Report expected to be available on the study website by November 2016:

http://itd.idaho.gov/projects/D4/US20\_ID75\_IntersectionStudy

- KAI Extends a Special Thanks To:
  - Jenny Lovell
  - Rosemary Curtin & Kate Reed
  - Bruce Christensen







