Welcome to the open house for the Sterling Safety Corridor Improvements Milepost 82.5 to 94 project.

PROJECT TEAM

Jake Gondek, P.E
Project Manager

Julia Hanson, P.E
Design Manager

Devki Rearden
Assistant Project Manager

A **COLAS** COMPANY

Jeff Schock, P.E
Construction Project Manager

Daron Underwood, PMP
Construction Manager

Spencer Newins, P.E
Pre-Construction Manager

Steve Noble, P.E
Design Project Manager

Erica Jensen, P.E
Assistant Project Manager

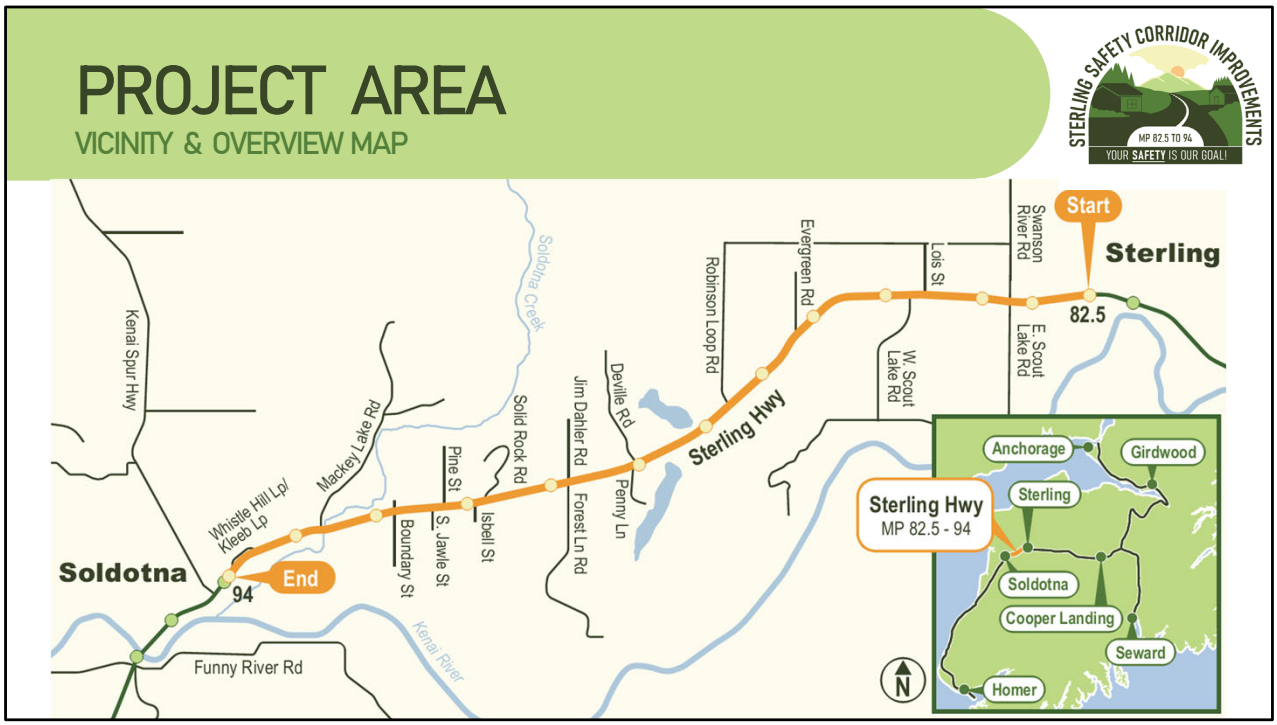
Richard Pribyl, P.E
Project Engineer

Stephanie Queen
Public Involvement Lead

The project is lead by the Alaska Department of Transportation and Public Facilities, or DOT&PF. The consultant team is lead by QAP, with design provided by DOWL and public involvement conducted by Stephanie Queen Consulting.

PROJECT AREA

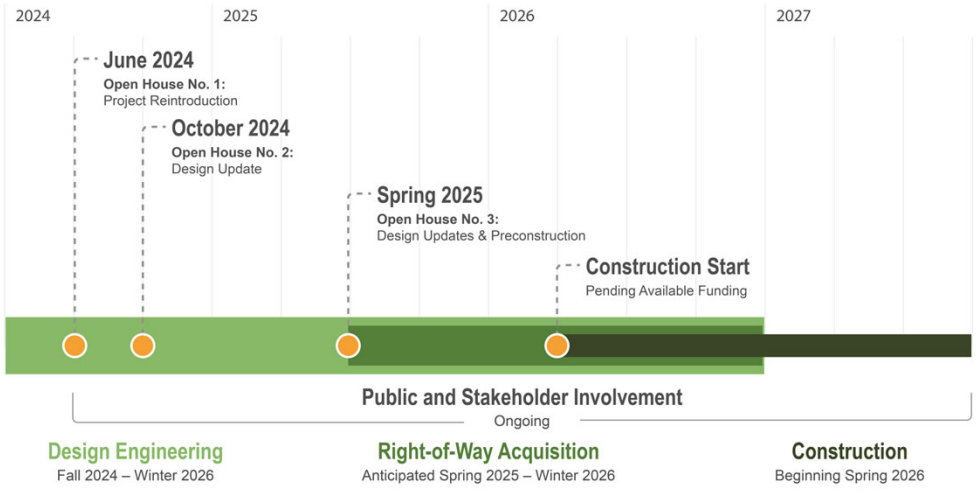
VICINITY & OVERVIEW MAP



This project proposes to reconstruct the Sterling Highway between Sterling at milepost 82.5 and Soldotna at milepost 94 to improve safety and reduce congestion.

PROJECT SCHEDULE

PROGRESSIVE DESIGN BUILD INITIATION



With recent changes in funding, construction has been pushed back. While some activities such as clearing and utility relocations may begin in late 2025, substantial construction activities will likely not begin until spring 2026.

PROJECT OVERVIEW

DESCRIPTION, PURPOSE, & GOALS

STERLING SAFETY CORRIDOR IMPROVEMENTS
MP 82.5 TO 94
YOUR SAFETY IS OUR GOAL!

- Purpose: Improve Safety and Reduce Congestion
- Goals:
  - Provide a safe and reliable roadway
    - Fatal and major crash rates remain above national averages
    - Most fatal and major injury crashes occur during winter months
    - Head-on collisions account for nearly half of fatal and major injuries
  - Allow for decommissioning of the Traffic Safety Corridor designation
  - Accommodate the seasonal traffic increases
  - Balance needs to maintain access to businesses and neighborhoods

This project is federally funded, and the goals include:

- Providing a safe and reliable roadway so the Traffic Safety Corridor can be decommissioned.
- Fatal and major crashes remain above national averages, with most crashes occurring in winter months.

Other goals include:

- Accommodating seasonal traffic increases and
- Balancing access needs

The project team heard from stakeholders and the public at and following the open houses in June 2024. Some aspects of the project included comments with multiple viewpoints.

- Many comments advocate for traffic lights at key intersections
- Residents are generally supportive of a separated bike and pedestrian path for the length of the project.
- Comments stress the need for better snow removal and road maintenance, particularly on a divided highway design, and
- Multiple residents express concerns about the right-of-way acquisition process, particularly how it will affect their property lines, buffer zones, and businesses.

REFINING A HIGHWAY DESIGN

DESIGN ALTERNATIVES A & B

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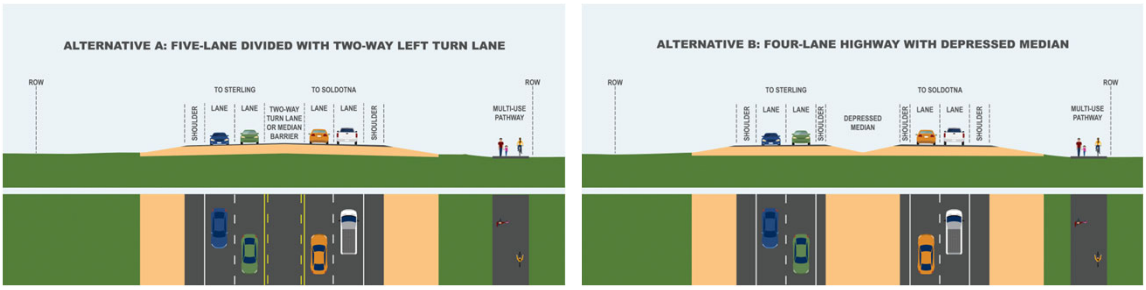
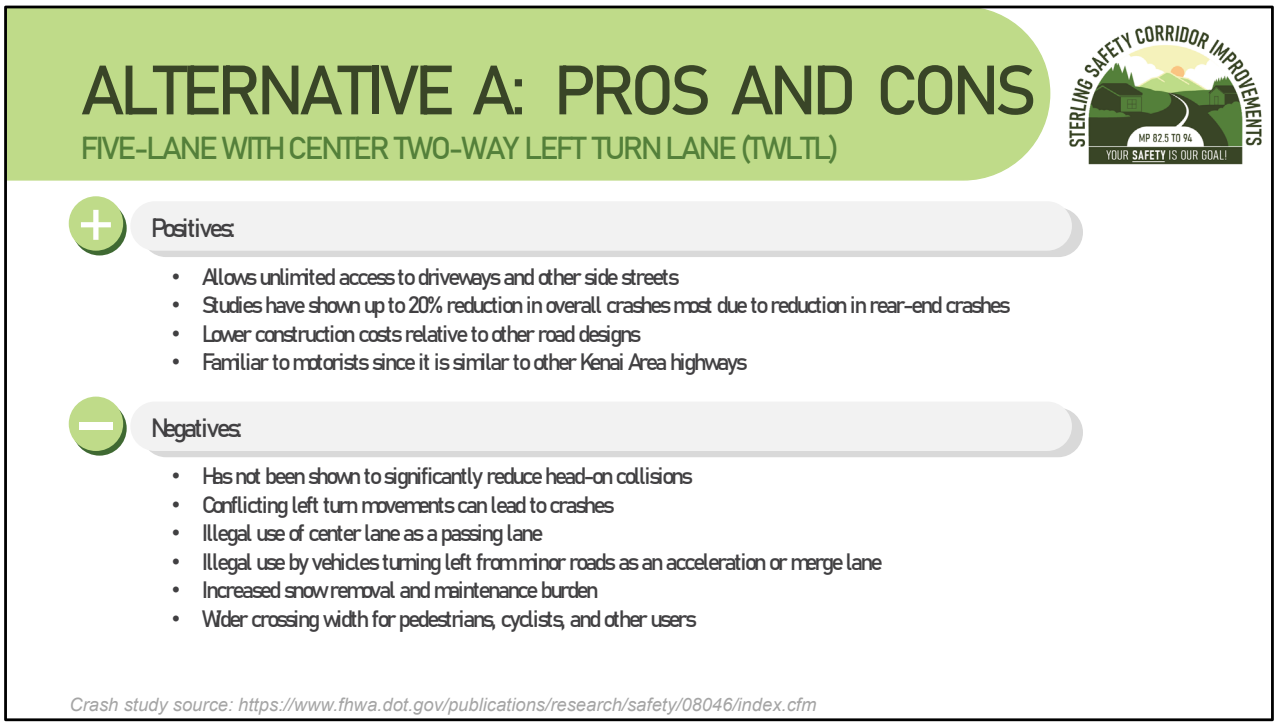
Two primary design alternatives, as shown at the summer public meetings:



The project team is investigating 2 cross-section alternatives, A five-lane highway with a center two way left turn lane and a divided four-lane highway with a depressed median. Variations of these two cross-sections will be implemented along the corridor to achieve the safety goals and to accommodate property access needs. Both alternatives will improve traffic flow and efficiency, particularly during the congested summer season. However, specific locations for each cross-section are still being evaluated based on a broad spectrum of traffic operations and engineering considerations.

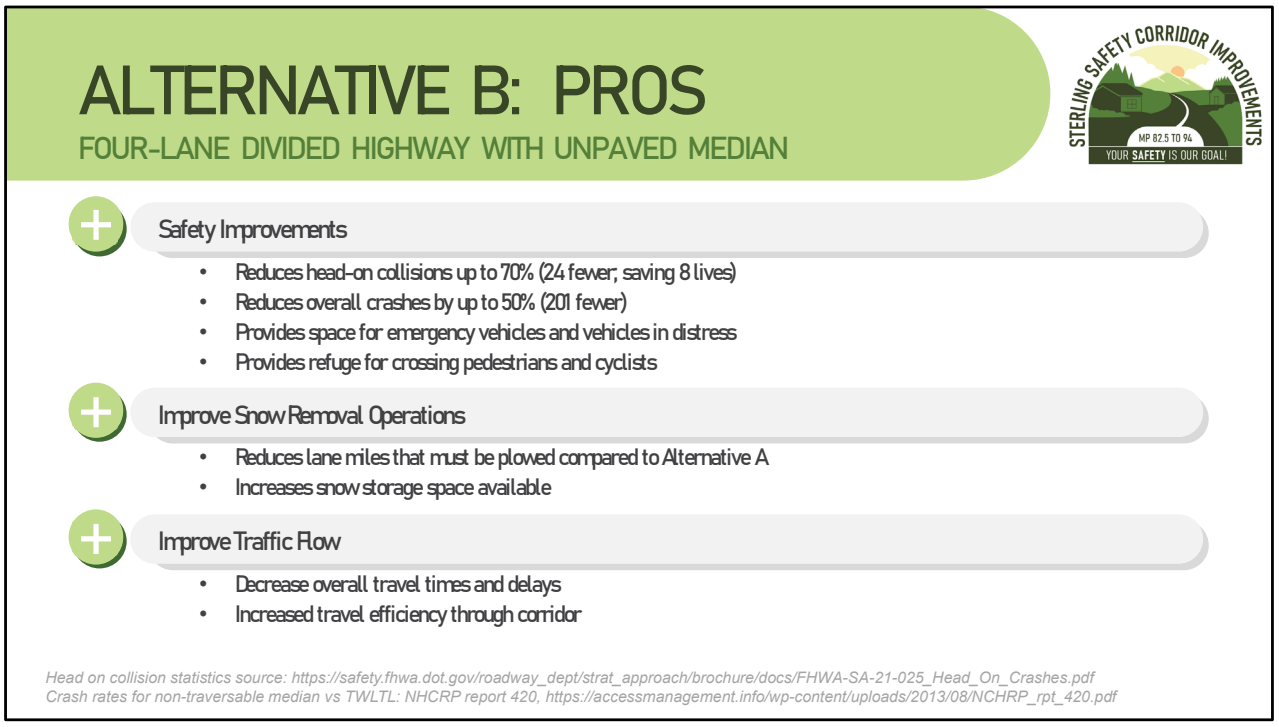


A five-lane alternative with a center two-way left turn lane has positive and negative features. Some of the key benefits include:

- It allows unlimited access to driveways and other side streets,
- Studies have shown that a five-lane section could have up to 20% reduction in overall crashes most of that being a reduction in rear-end crashes,
- A five-lane section would have lower construction costs relative to other road designs, and
- It is familiar for drivers since it would be similar to other Kenai Area highways

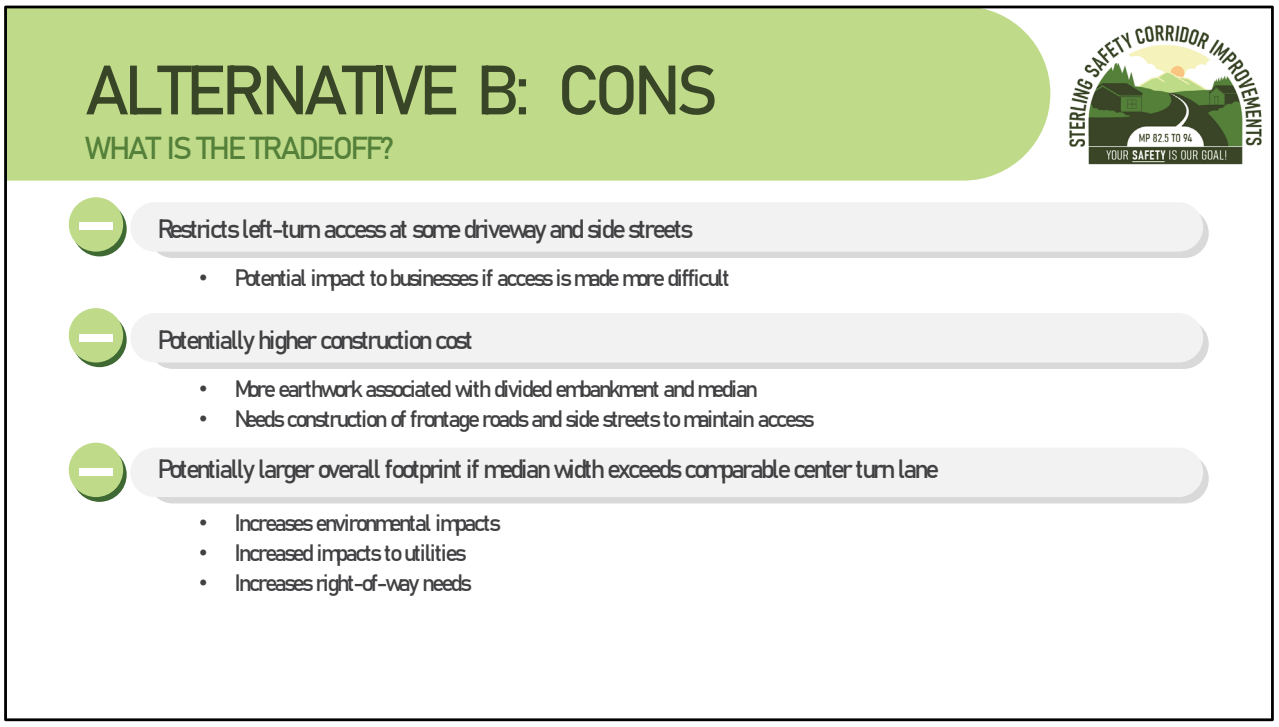
Negatives of this design include:

- It has not been shown to significantly reduce head-on collisions,
- Overlapping center left turn movements can lead to crashes,
- Illegal use of the center lane as a passing lane or as an acceleration or merge lane,
- Increased snow removal and maintenance burden, and
- Wider crossing width for pedestrians, cyclists, and other users



A four-lane divided highway with an unpaved median has several benefits, including:

- From a safety perspective, this design would:
    - Expect to reduce head-on collisions by about 70%
    - It would also provide space for emergency vehicles and vehicles in distress, and
    - Refuge for pedestrians and cyclists crossing the highway
- This design improves snow removal operations by:
    - Reducing lane miles that must be plowed compared to a five-lane design and
    - Increasing available snow storage space
- This design would improve traffic flow by:
    - Decreasing overall travel times and delays and
    - Increasing travel efficiency through the corridor



A four-lane divided highway with an unpaved median would not be without tradeoffs. This design may:

- Restrict left-turn access at some driveways and side streets, potentially impacting businesses if access is made more difficult
- Have higher construction cost resulting from:
    - More earthwork associated with a divided embankment and median and
    - If frontage roads and side streets are added to maintain access
- Have a larger overall footprint if the median width exceeds a comparable center turn lane. This could potentially increase:
    - Environmental impacts,
    - Impacts to utilities, and
    - Right-of-way needs

KENAI SPUR VS STERLING HIGHWAY

HOW IS THE STERLING HIGHWAY DIFFERENT?

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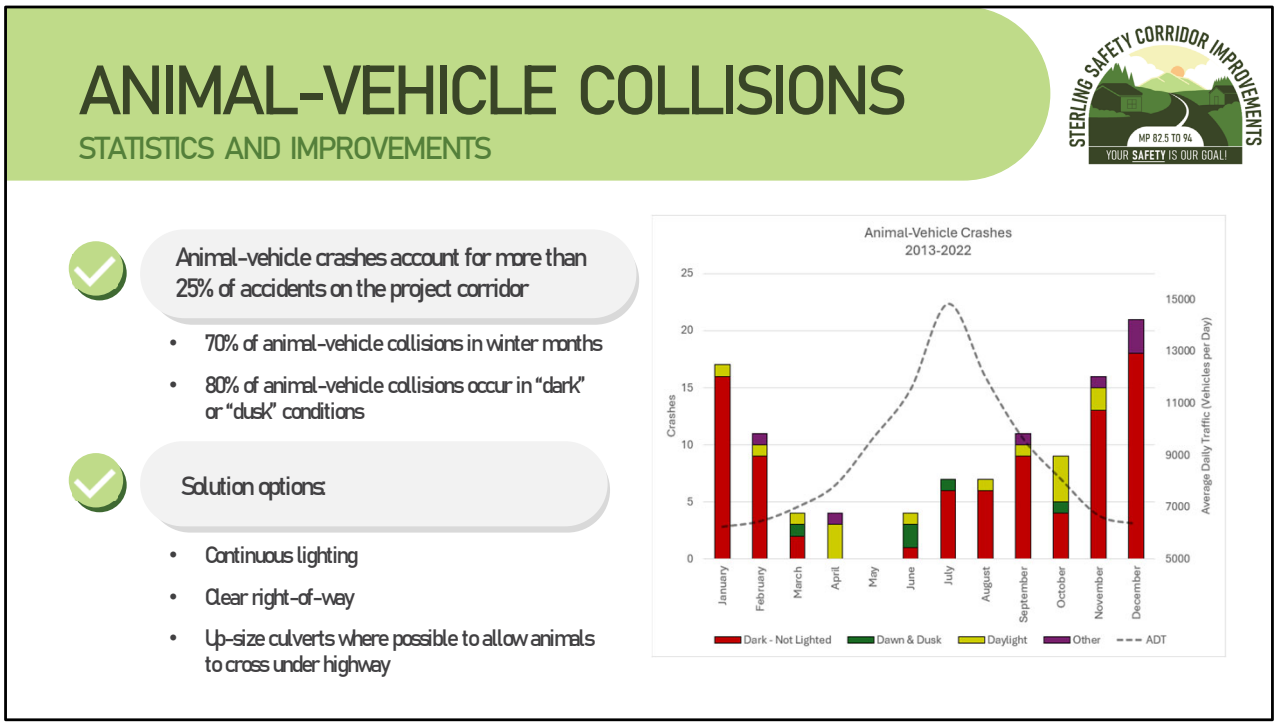
Why not just build the same center turn lane design like Kenai Spur Highway on the Sterling Highway?

	Sterling (MP 82.5 – 94) (data from 2013 – 2022)	Kenai Spur (MP 5 – 8) (data from 2000– 2009*)
Daily traffic volumes	6,000-15,000	9,000-11,000
Peak traffic volumes	13,000-19,000	11,000-13,000
Approach density	~16 per mile	~20 per mile
Fatalities in 10-year study period	9	1
Serious injuries in 10-year study period	24	21
Crash type with most fatalities	Head-on (8)	Animal-vehicle

* Data is from 10 year study period prior to construction of 5 lane section

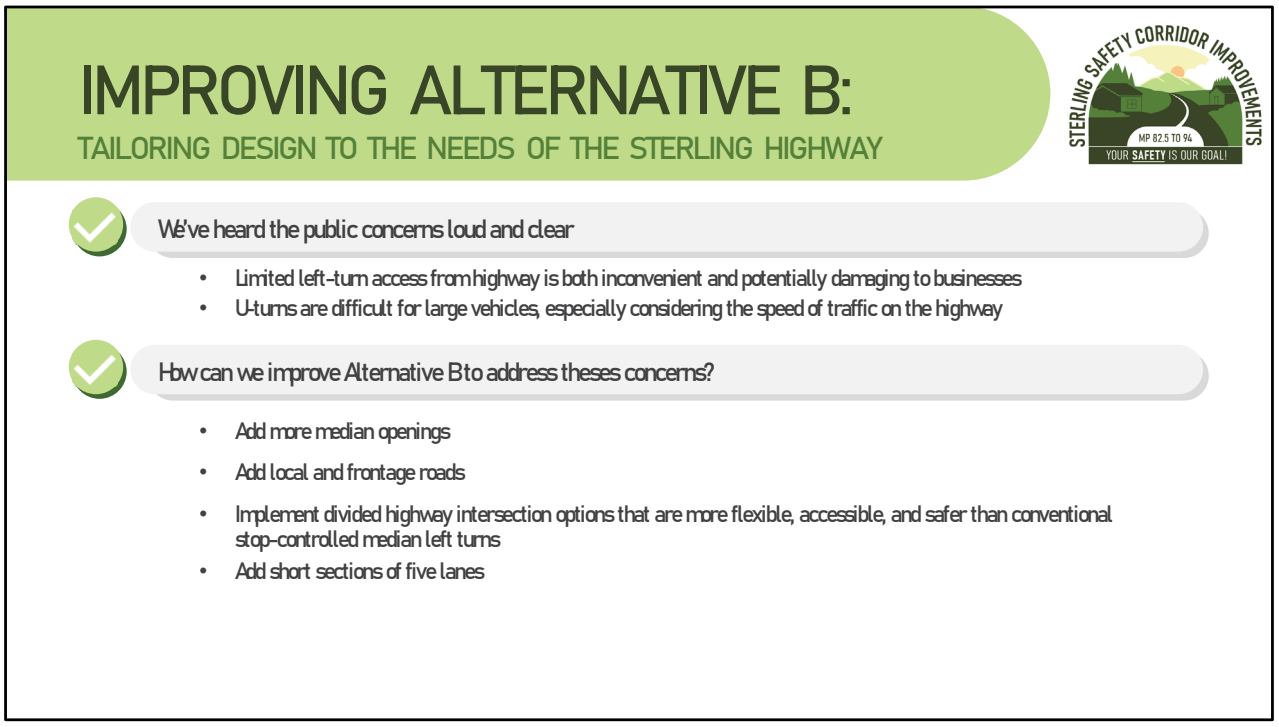
Many people at the first open houses asked why not use the same design for the Sterling Highway as the five-lane section on the Kenai Spur Highway. Though there are some similarities, as shown in the table, there are also noteworthy differences. The data shown is prior to construction, meaning the data for the Kenai Spur Highway is for BEFORE the five-lane section was constructed.

These highways have different characteristics that result in different driver behaviors, speeds, and risks. The most significant difference between the two highways is the number of crashes resulting in fatalities or serious injuries. During the 10-year study period which predated construction of the five-lane section on Kenai Spur Highway, there were nine fatalities and 24 serious injuries on the Sterling Highway Safety Corridor, compared to one fatality and 21 serious injuries on the Kenai Spur Highway. Eight of the fatalities on the Sterling Highway Safety Corridor were a result of head-on collisions. In comparison, there were no head-on collision fatalities on the Kenai Spur Highway. The project team will study the safety performance of the five-lane section on Kenai Spur Highway as we continue to evaluate the preferred solution on Sterling Highway.



Regardless of alternative, the overall width of the Sterling Highway will increase. Animal-vehicle crashes account for more than 25% of crashes in the project corridor.

- 70% of animal-vehicle collisions occur during winter months and
- 80% of animal-vehicle collisions occur in “dark” or “dusk” conditions
- Solutions to improve this risk include:
    - Continuous lighting,
    - Clearing the right-of-way, and
    - Up-sizing culverts where possible to allow animals to cross under the highway



Different segments of the project corridor have different safety concerns and access needs. The project team will evaluate various design tools, segment by segment, to maximize safety and minimize disruptions to property owners in the corridor. Next, we'll look at few examples of the intersection alternatives we're investigating that are compatible with a four-lane divided highway design.

DESIGN ALTERNATIVES LOOKING FORWARD

EXAMPLES OF POTENTIAL DESIGNS SOLUTIONS BEING CONSIDERED: LEFT & U-TURNS

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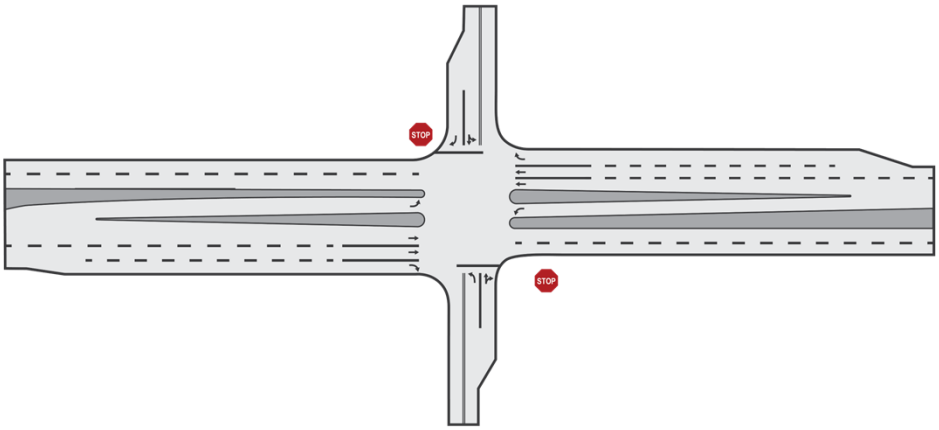
EXAMPLE OF AN UNSIGNALIZED MEDIAN LEFT-TURN



The first example is a median left-turn intersection with stop-controlled side street access. The benefits of this type of intersection include:

- It's a traditional design that is intuitive for motorists and
- Provides direct left turn opportunities

Some draw backs to this type of intersection are:

- U-turns may not be feasible for larger vehicles and would require additional frontage roads or other network improvements to access private property and
- It doesn't perform as well as other types of intersections from a safety and operations perspective

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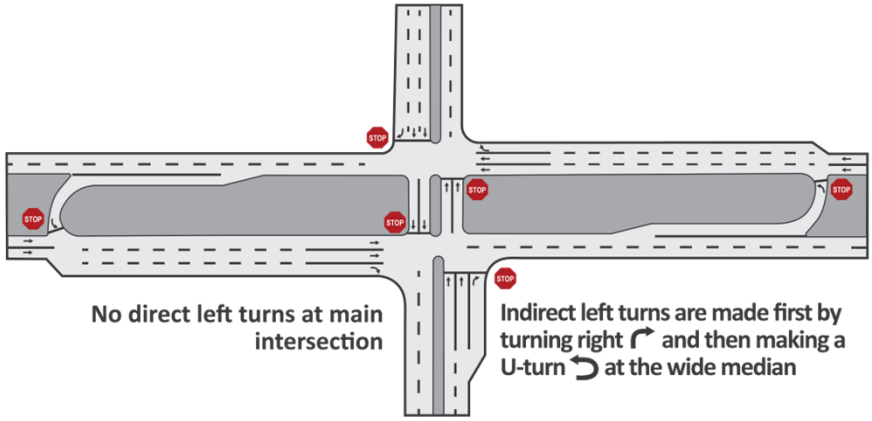
EXAMPLE OF A UNSIGNALIZED MUT INTERSECTION

SOURCE: FHWA



Another example to accommodate access is median U-turn intersections. Benefits of this type of intersection include:

- 30% fewer injury crashes than a stop-controlled intersection,
- Easier and safer access for cross-highway traffic movements
- Full U-turns are replaced with two left turns,
- Increased median width makes intersections navigable for large vehicles, and
- Motorists only have to worry about traffic from one direction at a time

Some of the negatives of this type of intersection are:

- No direct left turns, meaning that drivers must turn right to be able to turn left and
- It is less intuitive for motorists.

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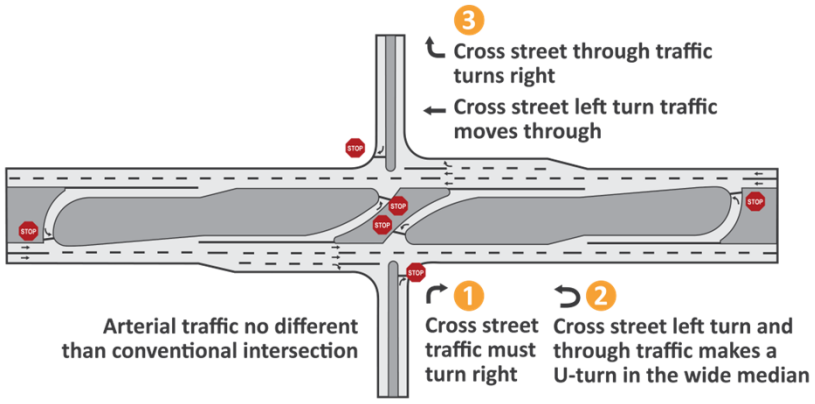
EXAMPLE OF A UNSIGNALIZED RCUT INTERSECTION

SOURCE: FHWA



A third example is a restricted crossing U-turn intersection. The positives associated with this design are:

- 54% fewer injury crashes compared to a conventional stop-controlled intersection,
- 30% capacity improvement compared to conventional stop-controlled intersections,
- Crossing vehicles only cross traffic from one direction at a time, and
- Full U-turns are replaced with two left turns

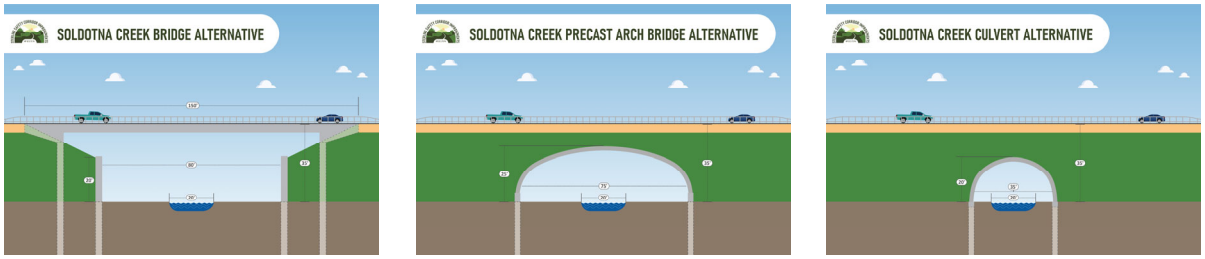
The negatives include:

- There are no direct left turns or through movements, meaning that drivers must turn right to be able to turn left or to cross the highway, and
- It's less intuitive for motorists

These intersection designs are being considered to increase safety and improve access to the four-lane divided highway cross-section. Different roadside conditions, driveway locations, and driver behaviors may require a solution that is a combination of the intersection types.

DESIGN ALTERNATIVES LOOKING FORWARD

EVALUATION OF SOLDOTNA CREEK CROSSING



New structures considered for the Soldotna Creek crossing range from a single-span bridge to a larger corrugated structure. Replacement of the existing culvert will be evaluated based on:

- Available funding,
- Fish passage requirements and habitat improvements, and
- The viability of a wildlife and pedestrian undercrossing

The creek crossing design is being completed in coordination with the US Fish and Wildlife Service and the Alaska Department of Fish and Game.

Your input is valuable. Tell us what you think about the potential design options presented to increase safety in the corridor.
What has the project team not yet thought about? Your feedback will be considered as the project team moves forward with design. Comments and questions will be accepted throughout the project.

This concludes the presentation. Please share your comments and questions with the project team through the website at www.SterlingSafetyImprovements.com, by email at SterlingSafetyImprovements@dowl.com, or by calling 907-562-2000. Thank you.