BUS 83 & Pine Street Intersection Improvement Public Meeting

Texas Department of Transportation

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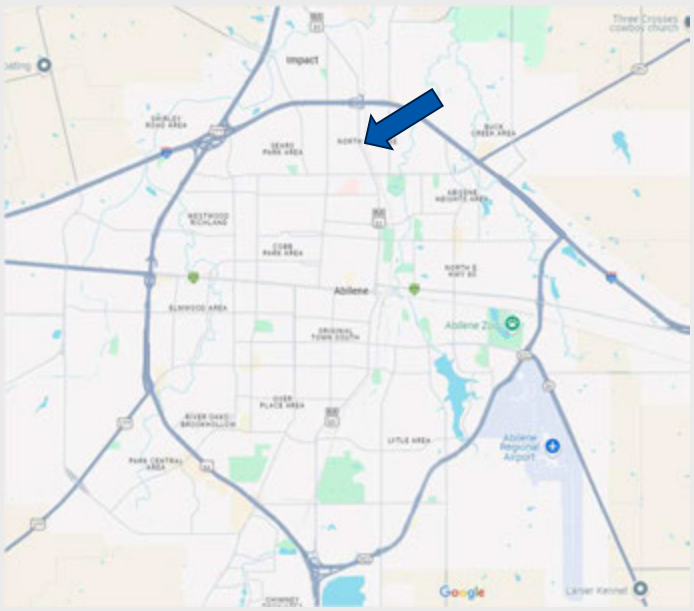
Project Location



2

The intersection is located in Abilene, Texas, Taylor County where BUS 83 intersects with Pine Street

BUS 83 is classified as a Principal Arterial and Pine Street is classified as a Minor Arterial. (Principal Arterial are Corridors of regional importance connecting large activity centers) (Minor Arterial Corridors of local importance connecting activity centers)

BUS 83 has a four-lane cross section and provides access to Pine street, and Lowden Street

Pine Street has a four-lane cross section and tapers down to 1 lane at the intersection with BUS 83. Pine street provides access to both NB and SB BUS 83.

The existing intersection is minor street stop & yield controlled

Speed on BUS 83 40 mph (google maps)
Speed on Pine Street 35 mph (google maps)

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Site Overview

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Existing intersection concerns:

1. Confusing configuration
2. Short weaving distances
3. Poor visibility angles
4. Lots of potential conflict points
5. 18 recorded accidents in the last 3 years 2022-2025

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Crash Data Locations

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These are the crash locations and the corresponding severity over the last 3 years (July 2022- July 2025)

K - Killed K Killed: Died due to injuries sustained from the crash, within 30 days of the crash.

A - Incapacitating Injury A Incapacitating Injury: Severe injury which prevents continuation of normal activities; includes broken or distorted limbs, internal injuries, crushed chest, etc.

B - Non-Incapacitating Injury B Non-Incapacitating Injury: Evident injury such as bruises, abrasions, or minor lacerations which do not incapacitate.

C - Possible Injury C Possible Injury: Injury which is claimed, reported, or indicated by behavior, but without visible wounds; includes limping or complaint of pain. 14. Crash Severity N - Not Injured

O Not Injured: The person involved in crash did not sustain an A, B, or C injury.

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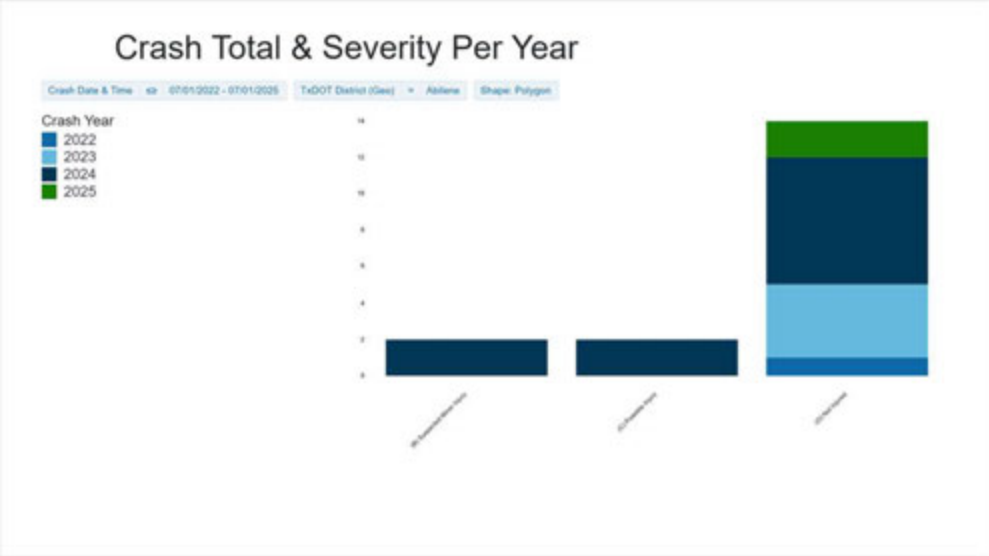
Crash Data Table



5

These are the crash numbers and the corresponding severity over the last 3 years (July 2022- July 2025)

B – 2 (2024)

C – 2 (2024)

O – 14 (2022-2025)

C - Possible Injury C Possible Injury: Injury which is claimed, reported, or indicated by behavior, but without visible wounds; includes limping or complaint of pain. 14. Crash Severity N - Not Injured

O Not Injured: The person involved in crash did not sustain an A, B, or C injury.

Project Overview

- Purpose of the Project
  - Improve Safety for both Vehicles and Pedestrians
  - Maintain or improve traffic flow
  - Improve accessibility for pedestrians

Alternative 1: T-Intersection

The T-Intersection attempts to preserve as much of the existing pavement section as possible. Note the concept preserves the 2 existing NB main lanes. The design as shown maintains the existing lane continuity and accommodates commercial truck traffic (WB-67s).

Pros

Familiar Design: Most drivers are accustomed to T-intersections, reducing confusion.
Lower Initial Cost: Typically, less expensive to construct and maintain. (Using more of the existing pavement)
Simpler for Large Vehicles: Easier turning radius for trucks and buses.

Cons

Higher Crash Risk: More conflict points, especially for left turns and crossing traffic. (More sever crashes like T bone crashes)

Traffic Delays: May require signalization, leading to stop-and-go traffic.
Limited Pedestrian Safety: Crosswalks may be less visible or protected.

Alternative 2: Roundabout

Above is our proposed roundabout concept. The orange symbolizes raised median, red mountable truck apron, green, proposed landscaping, and cross hatch is proposed roadway removal. This concept maintains the existing lane continuity and even accommodates U-turn access to vehicles moving NB and SB on BUS 83. Again, we did not include pedestrian crossings, but we can add them if the district would prefer it.

This concept accommodates commercial truck traffic (WB-67's) and assumes they will straddle lanes within the circulatory lane.

Although speeds leaving a roundabout are expected to be at 30 mph or slower, so this is a safer condition than a T-Intersection

Pros

Improved Safety: Reduces severe crashes by up to 75% compared to signalized intersections.

Continuous Flow: Keeps traffic moving, reducing delays and fuel consumption.
Pedestrian-Friendly: Slower vehicle speeds improve pedestrian and cyclist safety.
Aesthetic Opportunity: Central island can be landscaped or used for community branding.

Cons

Higher Upfront Cost: More expensive to build due to grading and design complexity.
Learning Curve: May confuse drivers unfamiliar with roundabouts.
Space Requirements: Needs more land, which means a reduction in the use of existing pavement.
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Questions?