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THE EISENHOWER LEGACY TRANSPORTATION PROGRAM

U.S. 56/U.S. 283/U.S. 400/2nd Avenue Intersection Improvements in Dodge City

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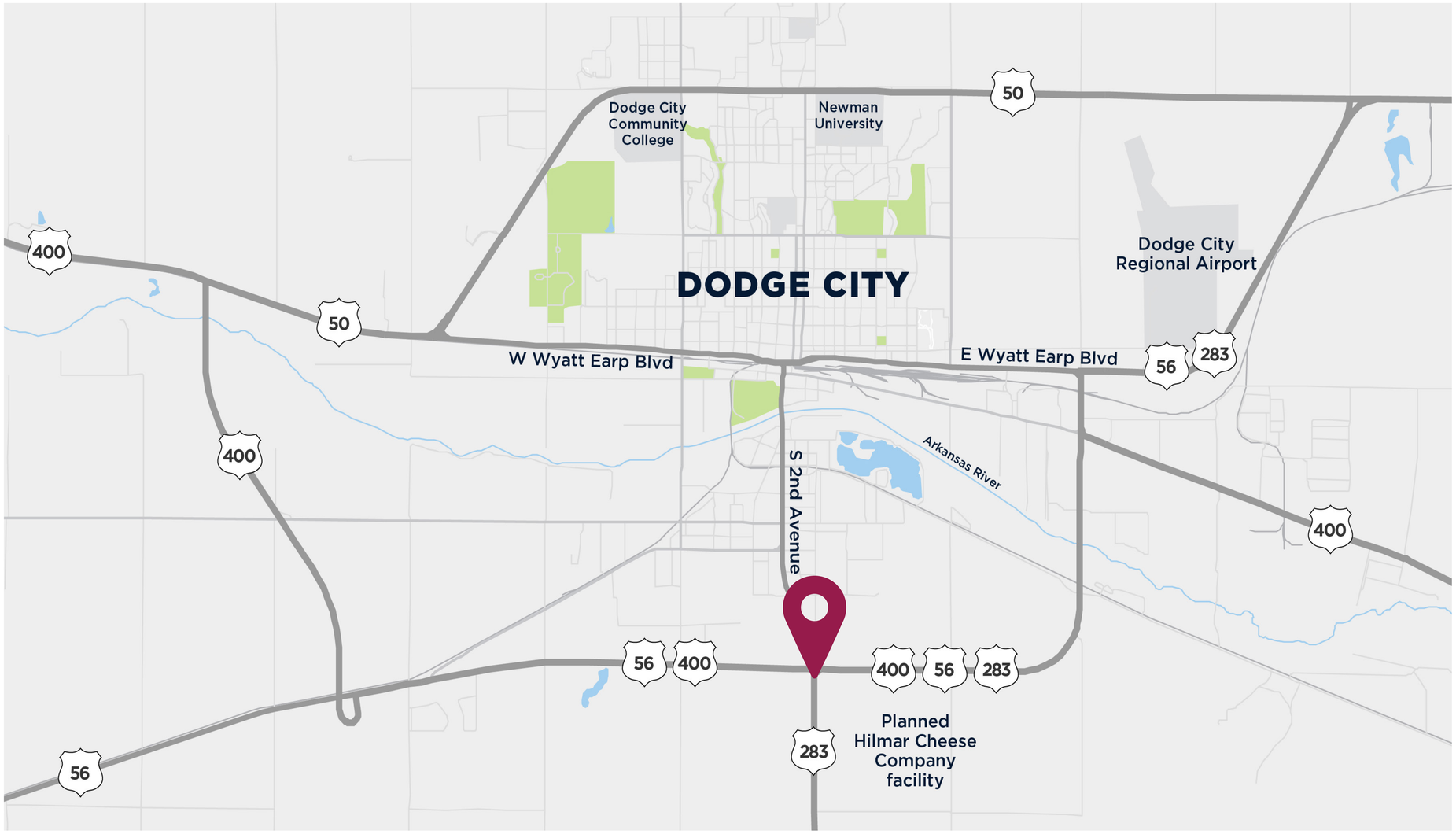

Proposed Project Location

PROPOSED INTERSECTION IMPROVEMENTS: The U.S. 56 /U.S. 283 /U.S. 400 /2nd Avenue intersection project is located in Ford County, just south of Dodge City. The proposed improvements are being designed to accommodate increased future traffic projections due to the planned Hilmar Cheese Company facility southeast of the intersection.

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Planning for the Proposed Hilmar Cheese Facility

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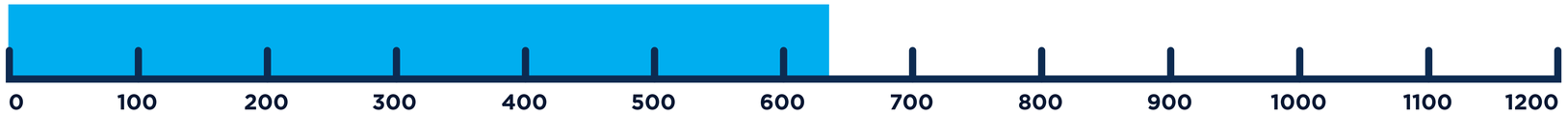
State-of-the-art cheese and whey protein processing facility is anticipated to add nearly **250 new jobs**.

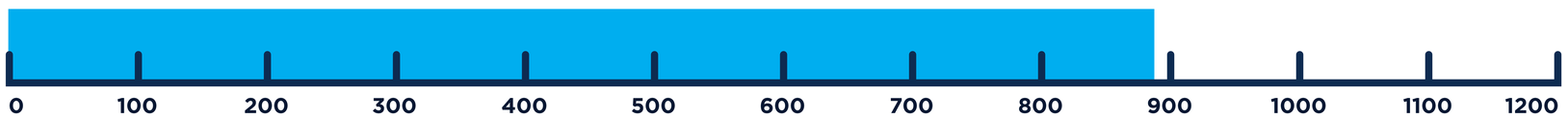
Traffic Comparisons

Numbers below reflect vehicles entering the intersection at peak hour.

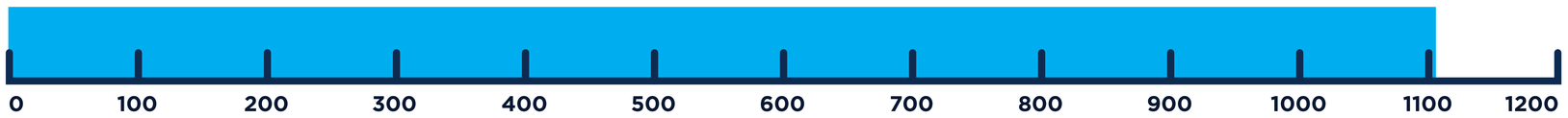
Existing Traffic - 630 Vehicles



Projected Traffic at Plant Opening - 880 Vehicles



Projected Traffic in 2042 - 1,100 Vehicles



Anticipated Daily Traffic at Plant Opening

employees accessing the facility

milk truck deliveries

shipping/ delivery trucks

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Intersection Options Considered

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		PROS	CONS
1	**Existing 4-Way Stop**	• No cost	• Long delays due to increased traffic projections • It takes large trucks time to get back up to speed after a complete stop
2	**Signalized Intersection** 1. With through and left turn lanes only 2. With the addition of a westbound right turn lane	• Familiar to drivers • Addition of the right turn lane would improve traffic flow, but would still not provide a high level of service with the anticipated westbound traffic	• KDOT data shows a history of severe injury and fatal crashes at signals on high-speed highways • High construction costs due to severe grade changes at the east and west edges of the intersection • Signals require continued maintenance costs • Traveler delays and long lines would still occur due to the projected increase in traffic
3	**Single-Lane Roundabout**	• Provides the best level of service and operations • Proposed design will handle anticipated long and heavy milk supertankers • Proven record of reduced crashes and crash severity • Maintenance costs are lower than with a signalized intersection	• Navigating through a roundabout is not familiar to some drivers • Initial cost to construct

Roundabout Benefits at a Glance

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Improves Safety

- Promotes lower speeds and fewer conflict points
- Eliminates left-hand turns

Improves Capacity

- Ability to handle heavy truck traffic
- Includes a ‘truck apron’ for oversized vehicles

Reduces Delays

- Eliminates stops when not required

Lowers Maintenance Costs & Reduces Pollution

- Saves $3,500 a year vs. a signalized intersection
- Reduces delays, saves gas and lowers emissions

7 Existing Roundabouts in Kansas

Reducing Crashes

The findings below reflect the average annual number of crashes for all seven studied roundabouts combined.

Fatal **Injury** **Property Damage Only**

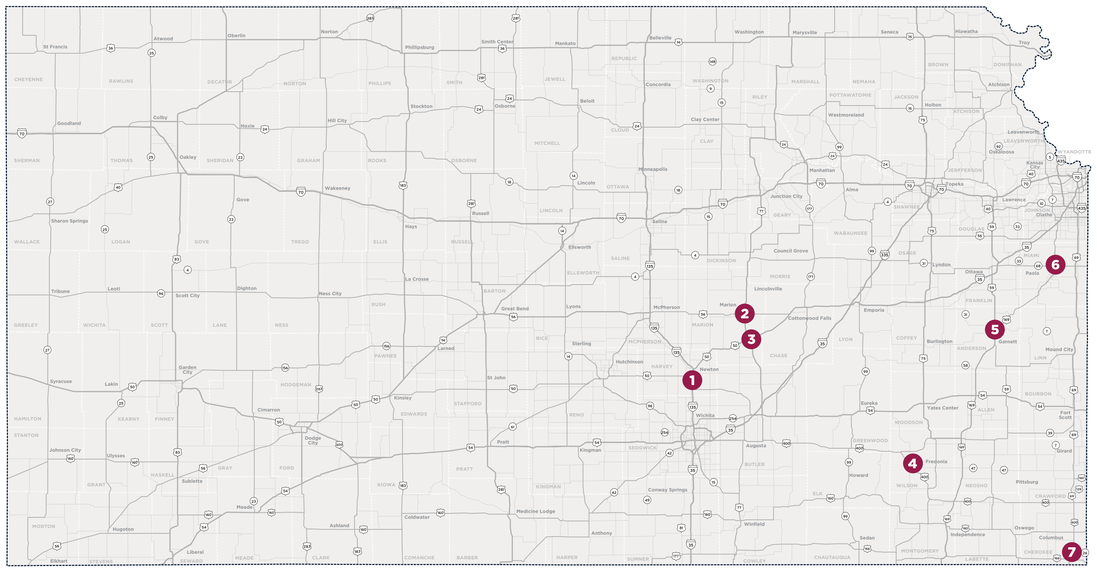
Before Roundabout Installation

After Roundabout Installation

- Total crashes at all sites combined fell from about 35 per year to 11 per year—this is a **68% reduction in total crashes**

- The findings also showed a **reduction in fatal and injury crashes of over 85%**

Roundabout Locations Studied



1. U.S. 50 and S. Anderson Rd. (Newton)
2. U.S. 56 and U.S. 77 (Marion)
3. U.S. 50 and U.S. 77 (Florence)
4. K-47 and U.S. 400 (Fredonia)
5. U.S. 169 and U.S. 59 (Garnett)
6. K-68 and Old KC Rd. (Paola)
7. K-66 and U.S. 400 (Riverton)

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Roundabout Real World Results

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Common Problems/Concerns	Why Consider a Roundabout	Real World Results*
Crashes at rural intersections often involve high speeds, which tend to result in severe injuries or fatalities. Roughly 1/3 of annual intersection fatalities in the U.S. occur along rural, two-lane highways.	Roundabouts are geometrically designed for drivers to navigate the intersection at speeds in the range of 15-25 mph, regardless of the posted speed limits on approaches.	Roundabouts constructed at intersections along high-speed, two-lane rural highways reduced overall crashes by up to 68% and reduced injury crashes by up to 88%.
In many rural environments, drivers can miss a stop sign or traffic signal, leading to running through a stop sign or red light and resulting in an angle crash.	Because roundabouts require vehicles to yield and then navigate around a raised, circular island, the possibility of an angle crash is significantly reduced.	Roundabouts constructed at intersections along high-speed, two-lane rural highways eliminated 83% of angle-type crashes.
It doesn't seem like people would slow down for a roundabout along rural highways. Motorists will just drive right into or over the roundabout because they won't be able to slow down in time.	High-speed approaches to roundabouts include advance signing, pavement markings and raised channelization. With proper design, drivers adjust their speeds, slow on approach, and navigate the roundabout safely.	Researchers compared traffic speeds of approaches to roundabouts and stop-controlled intersections. At 100 feet before the yield or stop lines, the speed of traffic at the roundabouts was 2.5 mph lower than at the stop-controlled locations.
Why build something "different", when all that is needed is either stop signs or a traffic signal?	Improvements like stop signs and signals, while very familiar, aren't always the safest choice. With intersections representing about one-quarter of annual U.S. traffic fatalities and roughly half of all injury crashes, safer designs are needed that improve mobility while saving lives.	Since the late 1990s, an ever growing number of State DOTs and local road agencies are finding that roundabouts work in their jurisdictions. Their potential for saving lives is too significant to ignore.

*Source: Roundabouts & Rural Highways FHWA-SA-14-097 / July 2020

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Proposed Project Timeline and Funding

DRAFT SCHEDULE – SUBJECT TO CHANGE

Summer 2022

Right of Way Coordination

Winter 2022-2023

Let for Construction

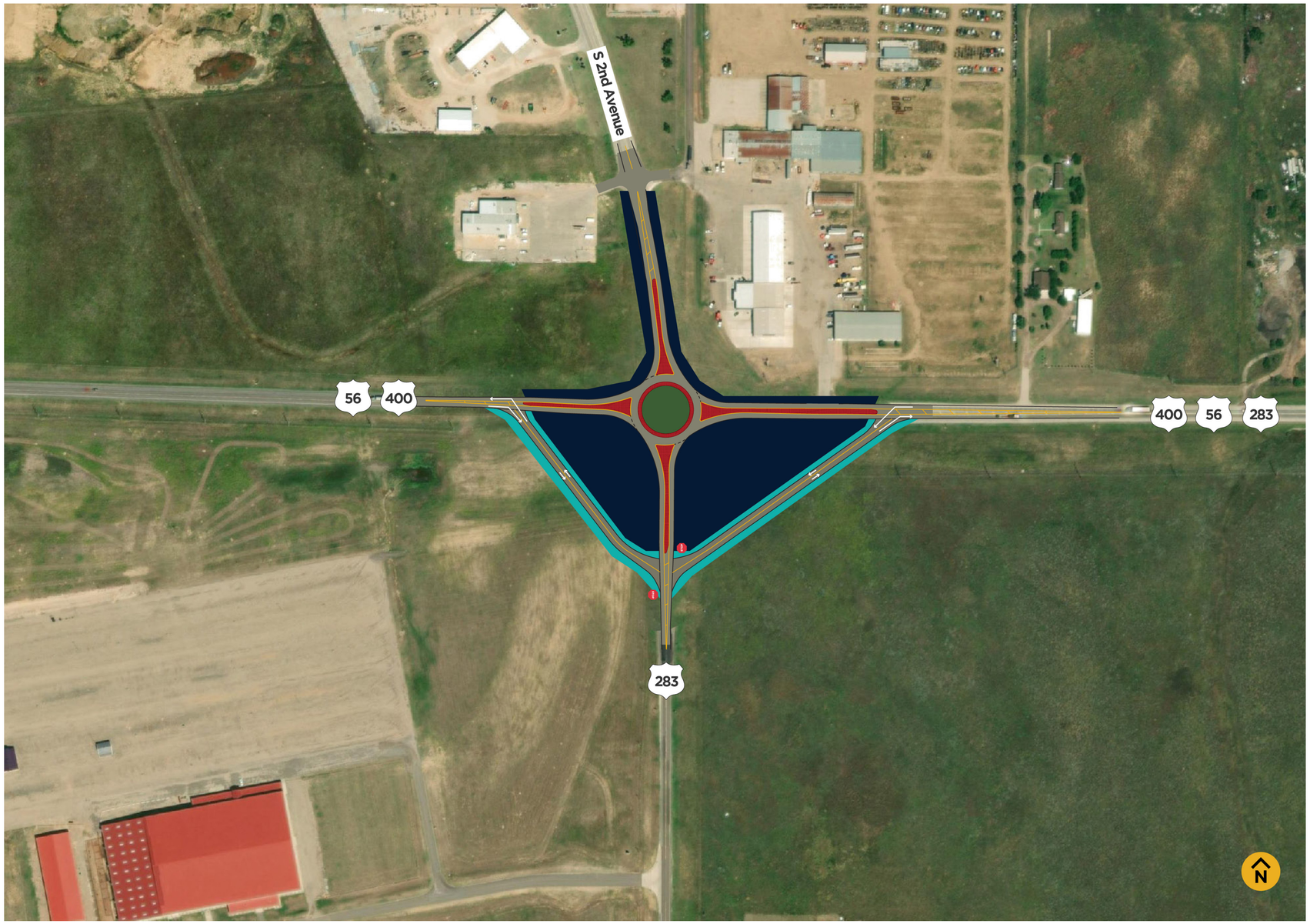
Fall/Winter 2023

Construction Complete

Total Project Estimate = $7.6M

This project is being 100% funded with state dollars through KDOT's Safety/Intersection Improvement Program

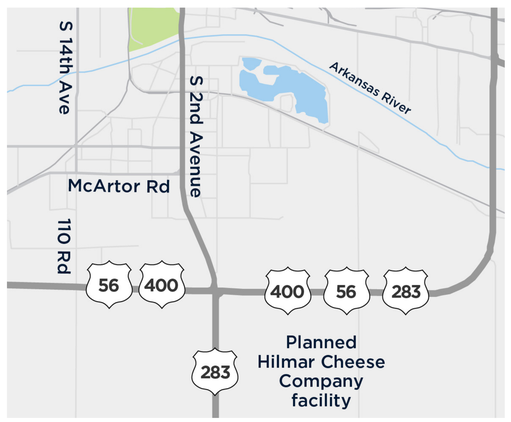
Construction Phasing



Construction is anticipated to last a full construction season and would be completed in time for Hilmar facility operations.

Phase 1

Phase 2



KDOT wants to Hear from You!

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Submit your comment today or online through May 27, 2022

For more information visit:
www.ksdotike.org/Dodge-City-intersection-improvement

Use your phone camera to hover over the QR code then click to view the project website.

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