

## **District 5: 2023 Project Scores**

Legend

Medium Need/Score High Need/Score

○ Low Need/Score

Map ID		Engineering Factors				Economic Factors					her Factors				
	Project Description	Scope	Miles	FY-27 Const. Cost \$M	Congestion (35 pts)	Value of Freight (7.5 pts)	Safety (7.5 pts)	Engineering Score (50 pts)	GRP* / Cost	Traveler Benefit** / Cost	Economic Score (25 pts)	Local Input (25 pts)	Route Continuity	Previous Investment	Notes
731 I-:	-135 Sedgwick County: I-135/US-54 Interchange	Interchange Improvements	NA	\$250	Safety: 14	/20; Operatio	ons: 20/30	34	$\bigcirc$	$\bigcirc$	7				
	-235 Sedgwick County: I-235/Kellogg Ave (US-54) nterchange	Interchange Improvements	NA	\$206	Safety: 10/20; Operations: 28/30		38			15			$\checkmark$		
728 of	<b>JS-54 Butler County:</b> Kellogg Ave: 0.5 miles East of 159th St East to Prairie Creek Rd (East Kellogg project Phase 2)	6-Lane Freeway	2	\$200				18			23		$\checkmark$	$\checkmark$	
713 ne	<b>JS-54 Sedgwick County</b> : US-54/US-400 expansion hear Goddard (Portion of Northwest Wichita Bypass)	4-Lane Freeway and Interchange	7	\$255	0	$\bigcirc$	0	9	•		20			$\checkmark$	
723 U	JS-54 Sedgwick County: Kellogg Ave from 111th it W to 151st St W	6-Lane Freeway	3	\$120			$\bigcirc$	24			16		$\checkmark$		
719 <b>K</b> -	<b>C-254 Sedgwick County:</b> Webb and Rock Rd	New Interchange, Overpass and Connector Road	NA	\$50	Safety: 20	/20; Operatio	ons: 23/30	43	0	0	10				Scope updated since 2021 to include overpass and connector road
	<b>C-254 Sedgwick County:</b> Northwest Wichita Bypass: US-54/174th St. W to K-96 near 45th St	Bypass: 4-Lane Freeway	11	\$557				32			14			$\checkmark$	

2021 Projects Selected	for the Developme	ent or Construction Pipeline	

US-54 Sedgwick County: Kellogg Avenue: K-96 interchange east to .5 mile Reconstruct to 6-lane east of 159th Street (East Kellogg project Phase 1) freeway

#### **Engineering Factors**

**Congestion** – Measure of the amount of traffic relative to the number of lanes for current and projected future traffic as well as consideration of the percent of heavy truck traffic.

Value of Freight – Taken from measures collected in the development of KDOT's freight plan. Considers the proximity of freight-generating businesses, the amount of freight coming and going from those locations, and the priority of the corridor on the state's freight network,

**Safety** - Considers total number of crashes and crash rate (relative to the number of vehicles using the highway). These measures are weighted by crash severity, giving higher scores to locations with more severe crashes.

#### **Economic Factors**

Gross Regional Product (GRP)\* - The value of goods and services produced minus the cost of inputs. GRP impact is calculated based on travel time and reliability savings for business-related and freight travel as well as vehicle operations and maintenance cost changes from a project divided by cost.

Traveler Benefit \*\* - The value of nonbusiness benefits, including personal travel time and reliability benefits (e.g., for shopping, visiting family, doctor visits, etc.) and emissions reductions benefits divided by cost.

\*GRP impacts are calculated using county level economic data. \*\*All travelers' time is valued equally regardless of where they live.

# **URBAN EXPANSION**



#### **Other Factors**

Route Continuity – Complete or continue a corridor.

Previous Investment – Preliminary engineering work already underway or another phase of the project constructed.

### **District 5: 2023 Project Scores**

Legend

High Need/Score

Medium Need/Score

○ Low Need/Score

	Project Informatio		Engineeri	ng Factors		Ec	conomic Facto	ors	Local Input	Other Factors					
Map ID	Project Description	Scope	Miles	FY-27 Const. Cost \$M	Congestion (25 pts)	Value of Freight (12.5 pts)	Safety (12.5 pts)	Engineering Score (50 pts)	GRP* / Cost	Traveler Benefit** / Cost	Economic Score (25 pts)	Local Input (25 pts)	Route Continuity	Previous Investment	Notes
524	US-50 Harvey County: Halstead East to Newton	4-Lane Expressway	7	\$56	$\bullet$	ightarrow		45			16				
517	<b>US-50 Reno/Harvey Counties:</b> Yoder/Airport Road (Hutchinson) East to 1 mile West of Burrton	4-Lane Expressway	12	\$92	0			36	$\bigcirc$		10		$\checkmark$		The length of this project was extended from 9 miles in 2021.
533	<b>US-54 Kingman County:</b> 1 mile West of K-11/US-54, East to the existing 4-lane section East of Kingman	Bypass: 4-Lane Freeway	10	\$173				34			25		$\checkmark$	$\checkmark$	
534	<b>US-54 Pratt County:</b> 4 miles West of Pratt, North and East to the existing 4-lane	Bypass: 4-Lane Freeway	12	\$246		•		47			24		$\checkmark$	$\checkmark$	
594p	US-56 Pawnee/Barton Counties: Larned Northeast to Great Bend	Passing Lanes	20	\$20	0	•		30			21				
528p	US-77 Cowley County: Winfield North to K-15	Passing Lanes and Pave Shoulders	10	\$18	$\bigcirc$	$\bigcirc$		22	0		12				
530	US-77 Cowley County: Winfield Bypass (West) Phase 1 Northwest to US-160	Bypass: 4-Lane Freeway	4	\$63	0	•		36		0	18				
529	US-166 Cowley County: Southwest Bypass at Arkansas City	Bypass: 2-Lane Freeway	3	\$42	$\bigcirc$			21	$\bigcirc$	$\bigcirc$	5				
518	US-400 Butler County: Junction US-77 East to Leon	4-Lane Expressway	3	\$30		$\bigcirc$		40			15		$\checkmark$		
512p	K-15 Cowley/Sumner Counties: Udall Northwest to Mulvane	Passing Lanes	8	\$10	$\bigcirc$	$\bigcirc$	0	16			19				
556	K-254 Butler County: K-254/Ohio St Interchange	New Interchange	NA	\$22	Safety: 18/20; Operations: 6/30			24	$\bigcirc$	$\bigcirc$	8				

#### **Engineering Factors**

**Congestion** – Measure of the amount of traffic relative to the number of lanes for current and projected future traffic as well as consideration of the percent of heavy truck traffic.

Value of Freight – Taken from measures collected in the development of KDOT's freight plan. Considers the proximity of freight-generating businesses, the amount of freight coming and going from those locations, and the priority of the corridor on the state's freight network,

Safety - Considers total number of crashes and crash rate (relative to the number of vehicles using the highway). These measures are weighted by crash severity, giving higher scores to locations with more severe crashes.

#### **Economic Factors**

**Gross Regional Product (GRP)\*** - The value of goods and services produced minus the cost of inputs. GRP impact is calculated based on travel time and reliability savings for business-related and freight travel as well as vehicle operations and maintenance cost changes from a project divided by cost.

**Traveler Benefit** \*\* - The value of non-business benefits, including personal travel time and reliability benefits (e.g., for shopping, visiting family, doctor visits, etc.) and emissions reductions benefits divided by cost.

\*GRP impacts are calculated using county level economic data.

\*\*All travelers' time is valued equally regardless of where they live.

# **RURAL EXPANSION**



### **Other Factors**

Route Continuity – Complete or continue a corridor.

Previous Investment –

Preliminary engineering work already underway or another phase of the project constructed.

## **District 5: 2023 Project Scores**

Legend

High Need/Score Medium Need/Score

○ Low Need/Score

	Project Informati	Engineering Factors					Local Input		Other Factors					
Vap ID	Project Description	Scope	Miles	FY-27 Const. Cost \$M	Geometrics/ Safety	Capacity	Pavement Structure	Pavement Surface	Engineer Score (80 pts)	Local Input (20 pts)	Route Continuity	Previous Investment	Elevated Crash History	Notes
722	I-235 Sedgwick County: I-235/Zoo Blvd Interchange	Interchange Improvements	NA	\$22	Saf	ety: 16/32; C	perations: 22	2/48	38				•	Bridge replacement under design. Should project be expanded to include interchange improvements
554	<b>US-50 Harvey County:</b> US-50/Meridian St. Interchange in Newton	Interchange Improvements and Bridge Replacement	NA	\$30 Safety: 12/32; Operations: 20/48				32		$\checkmark$	$\checkmark$			
564†	<b>US-54 Kiowa County:</b> US-54/US-400 Mullinville Split Interchange	Interchange Improvements	NA	\$40	Saf	ety: 16/32; C	perations: 16	5/48	32					Bridge replacement under design. Should project be expanded to include interchange improvements
596	US-56 Edwards/Pawnee Counties: Kinsley Northeast to Larned	Pave Shoulders	23	\$24	$\bigcirc$				62		$\checkmark$			
558	<b>US-56/K-96 Barton County:</b> Great Bend East to Ellinwood (Northwest Passage)	Reconstruct and Add Shoulders	10	\$56	$\bigcirc$				74					
549	US-81 Sumner County: US-177 North to Wellington	Add Shoulders	14	\$24					43					
557	US-160 Cowley County: Sumner/Cowley County Line East to Winfield	Reconstruct and Add Shoulders	8	\$29		•			58					
548	<b>US-177 Sumner County:</b> Oklahoma State Line North to US- 81	Add Shoulders	4	\$7			$\bigcirc$		49					
546	K-49 Sumner County: US-160 North to Conway Springs	Reconstruct and Add Shoulders	8	\$29	$\bigcirc$	$\bigcirc$	$\bigcirc$		27					
597	K-61 Pratt County: Pratt Northeast to Langdon	Pave Shoulders	27	\$26	$\bigcirc$				51		$\checkmark$			
551	<b>K-96 Rice County:</b> Ellinwood East, through Lyons, and South to Sterling (Northwest Passage)	Reconstruct and Add Shoulders	30	\$168	•				62					
559	K-156 Pawnee County: US-183 East to Larned	Add Shoulders	11	\$22					56					
562	<b>K-156 Pawnee County:</b> Hodgeman County Line East to US- 183	Reconstruct and Add Shoulders	14	\$50					49				•	

2021 Projects Selected for the Development or Construction Pipeline								
I-135 Harvey County: I-135/US-50 (north interchange) in Newton	Interchange Capacity Improvements							
US-56 Rice County: Lyons to McPherson county line	Add Shoulders							

#### **Engineering Factors**

High scoring projects in these engineering categories are likely to have:

- Geometrics/Safety Narrow shoulders, an intersection that needs improved or a curve that needs straightened.
- **Capacity** Traffic congestion.
- **Pavement Structure** subsurface pavement issue. •
- **Pavement Surface** Rough pavement surfaces.

# MODERNIZATION



### **Other Factors**

**Route Continuity** – Complete or continue a corridor.

**Previous Investment** – Preliminary engineering work already underway or another phase of the project constructed.

**Elevated Crash History** – Project location has had a higher number of crashes over five years than would be expected for a roadway of its type.