

District 5 2021 Project Scores – Urban Expansion

URBAN EXPANSION



Legend ● High Need/Score ◐ Medium Need/Score ○ Low Need/Score

Project Information					Engineering Factors					Economic Factors			Local Input	Other Factors			
Map ID	Project Description	Scope	Miles	FY-25 Cost \$M	Current Congestion (20 pts)	Future Congestion (15 pts)	Truck Traffic (7.5 pts)	Safety (7.5 pts)	Engineer 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	NA	\$14	Safety: 16/21; Operations: 14/29				30	○	○	9					
732	K-254 Sedgwick County: Northwest Wichita Bypass: US-54/174th St. W to K-96 near 45th St	4-Lane Freeway, bypass	11	\$791 [∨]	◐	◐	◐	●	30	◐	◐	11			✓	Scopes of two projects from 2019 were combined with the US-54 interchange to create this project	
713	US-54 Sedgwick County: Northwest Wichita Bypass: US-54/268th St. W. (West of Goddard), East to near US-54/174th St. W.	4-Lane Freeway, bypass	7	\$220 [∨]	○	○	○	●	7	●	●	21			✓		
719	K-254 Sedgwick County: K-254/Webb Interchange	Interchange	NA	\$30 [∨]	Safety: 18/21; Operations: 11/29				29	○	○	7					
723	US-54 Sedgwick County: Kellogg Ave: 111th St W to 151st St W†	6-lane freeway	3	\$120	○	○	◐	●	14	●	●	23		✓			
727	US-54 Sedgwick County: Kellogg Ave: K-96 interchange East to ½ mile East of 159th St (Phase 1)	6-lane freeway	2	\$166 [∨]	◐	○	●	◐	21	◐	◐	15		✓		The scope from one project from 2019 was split to create these projects.	
728	US-54 Sedgwick County: Kellogg Ave: ½ mile East of 159th St East to Prairie Creek Rd (Phase 2)	6-lane freeway	3	\$122 [∨]	◐	○	●	○	20	●	●	24		✓			
	Heartland Flyer Extension: Extension to Amtrak's Heartland Flyer route that would connect Newton and Oklahoma City. †	Passenger Rail Service		\$31	To be scored following the Service Development Plan update												Currently updating the Service Development Plan. Cost estimate does not include improvements needed in Oklahoma or ongoing operating costs.

†New project not presented in 2019. New projects came from statewide passing lane review or from KDOT District staff.

∨Updated cost estimate

2019 Projects Selected for the Development or Construction Pipeline

K-96 Sedgwick County: Hillside Rd. to Greenwich Rd.	6-lane freeway
I-235 Sedgwick County: I-235/I-135/K-254 Interchange (North Junction)	Reconstruct interchange

Projects presented in 2019; not scored this year

I-235 Sedgwick County: I-235 & Kellogg (US-54) - Work completed under T-WORKS mitigated much of these issues for now. Scored West Kellogg project since it was not scored in 2019.	Reconstruct interchange
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Because of the time and cost required, KDOT doesn't score every project from every year, but that doesn't mean it's fallen off our radar. This project wasn't scored because work completed under T-WORKS mitigated much of the issues for now.

Selection Process by Highway Program			
	Preservation+	Modernization	Expansion
Engineering Data	100%	80%	50%
Local Input		20%	25%
Economic Analysis*			25%

*Urban and Rural Projects evaluated separately

Engineering Factor Weights		
	Urban	Rural
Current Congestion	20	15
Future Congestion	15	10
Safety	7.5	12.5
Total Points Possible	50	50

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

District 5 2021 Project Scores – Rural Expansion

RURAL EXPANSION



Legend ● High Need/Score ◐ Medium Need/Score ○ Low Need/Score

Project Information					Engineering Factors					Economic Factors			Local Input	Other Factors		
Map ID	Project Description	Scope	Miles	FY-25 Cost \$M	Current Congestion (20 pts)	Future Congestion (15 pts)	Truck Traffic (7.5 pts)	Safety (7.5 pts)	Engineer Score (50 pts)	GRP* / Cost	Traveler Benefit** / Cost	Economic Score (25 pts)	Local Input (25 pts)	Route Continuity	Previous Investment	Notes
512	K-15 Cowley/Sumner: Udall to Mulvane	Passing Lanes	8	\$7	●	◐	○	●	40	●	●	25				Rescoped from 4-lane expressway to passing lanes
556	K-254 Butler County: K-254/Ohio St. Interchange†	Interchange	NA	\$20	Safety: 18/21; Operations: 12/29				30	○	◐	10				
517	US-50 Reno County: Yoder/Airport Road (Hutchinson) to the Harvey/Reno County Line†	4-lane expressway	9	\$45	○	○	○	◐	12	○	○	9		✓		
533	US-54 Kingman County: 1 mile West of the West K-11/US-54 Jct, East to the existing 4-lane East of Kingman	4-lane Freeway, Bypass	10	\$159	◐	◐	●	◐	41	◐	○	11		✓	✓	
534	US-54 Pratt County: 4 miles West of Pratt, North and East, to the 4-lane section	4-lane Freeway, Bypass	12	\$225 ^v	●	●	●	◐	50	○	○	8		✓	✓	
594	US-56 Pawnee/Butler County: Larned to Great Bend†	Passing Lanes	20	\$13	◐	○	◐	●	34	●	●	23				
528	US-77 Cowley County: Winfield to K-15	Passing Lanes	10	\$20	◐	◐	○	◐	26	◐	◐	18				Rescoped from 4-lane expressway to passing lanes
529	US-77 Cowley County: Southwest Bypass at Arkansas City	2-lane Freeway, Bypass	3	\$30 ^v	○	○	○	◐	12	◐	◐	14				
530	US-77 Cowley County: Winfield Bypass (West) Phase 1 to US-160	4-lane Freeway, Bypass	8	\$93 ^v	●	●	○	◐	40	●	●	24				Stakeholders expressed interest in down-scoping. It could be a candidate for a 2-lane on 4-lane ROW.
518	US-400 Butler County: East junction US-77 to Leon	4-lane expressway	3	\$30	●	●	●	●	50	○	○	8		✓		Rescoped to most impactful section

†New project not presented in 2019. New projects came from statewide passing lane review or from KDOT District staff.
^vUpdated cost estimate

2019 Projects Selected for the Development or Construction Pipeline	
US-50 Edwards County: Between Offerle and Kinsley	Extend existing passing lanes
US-50 Harvey County: 5 Miles East of Burrton	Extend existing passing lanes
US-50 Harvey County: Northeast of Walton	Extend existing passing lanes
US-54 Kiowa County: Between Ford-Kiowa county line and Mullinville	Passing lanes
US-54 Kiowa County: Between Greensburg and Haviland	Extend existing passing lanes
US-54 Pratt: Between Wellsford and Cullison	Extend existing passing lanes
US-56/K-96 Barton County: Great Bend to K-156	4-lane expressway

Projects presented in 2019; not scored this year	
K-15 Cowley County: US-77/K-15 to Udall – low engineering need	4-lane expressway
US-50 Harvey County: Halstead to Newton - selected passing lanes to improve corridor, re-evaluate once complete	4-lane expressway
US-50 Harvey County: Newton to the Harvey-Marion County Line - selected passing lanes to improve corridor, re-evaluate once complete	4-lane expressway
US-50 Harvey County: Reno-Harvey County Line to Halstead – addressed with another project selected passing lanes to improve corridor, re-evaluate once complete	4-lane expressway
US-50 Harvey County: Just east of Burrton – specific location not feasible	Extend existing passing lanes east
US-77 Cowley County: US-77 & 222nd Rd, north of Arkansas City – low engineering need	New interchange
K-254 Butler County: River Valley Road – scored Ohio St. interchange based on local input	New interchange

Because of the time and cost required, KDOT doesn't score every project from every year, but that doesn't mean it's fallen off our radar. These projects weren't scored because of low engineering need, the location wasn't feasible, or was addressed with a passing lane project and will be re-evaluated once complete.

District 5 2021 Project Scores – Modernization

MODERNIZATION



Legend ● High Need/Score ○ Medium Need/Score ○ Low Need/Score

Project Information					Engineering Factors					Local Input	Other Factors		
Map ID	Project Description	Scope	Miles	FY-25 Cost \$M	Geometrics/ Safety	Capacity	Pavement Structure	Pavement Surface	Engineer Score (80 pts)	Local Input (20 pts)	Route Continuity	Previous Investment	Notes
555	I-135 Harvey County: I-135/US-50 (North interchange) in Newton	Interchange Reconstruction	NA	\$41	Safety: 4/34; Operations: 21/46				25				
722	I-235 Sedgwick County: I-235/Zoo Boulevard Interchange†	Interchange Improvements	NA	\$16	Safety: 17/34; Operations: 17/46				34				
546	K-49 Sumner County: US-160 to Conway Springs†	Reconstruct; add shoulders	8	\$32	○	○	○	○	19				
597	K-61 Pratt/Reno County: Pratt to Langdon†	Construct Shoulders	26	\$26	○	●	●	○	33		✓		
559	K-156 Pawnee County: US-183 to Larned	Construct Shoulders	11	\$27	◐	◐	●	○	49				
562	K-156 Pawnee County: Hodgeman County Line to US-183	Reconstruct; add shoulders	14	\$35	○	◐	●	◐	41				
554	US-50 Harvey County: US-50/Meridian St. Interchange in Newton	Interchange Improvements	NA	\$27	Safety: 15/34; Operations: 15/46				30				
596	US-56 Edwards/Pawnee County: Kinsley to Larned†	Construct Shoulders	24	\$24	○	●	●	○	46		✓		
547	US-56 Rice County: Lyons to McPherson County Line†	Construct Shoulders	15	\$14	◐	●	●	●	76		✓		
549	US-81 Sumner County: US-177 North to Wellington†	Construct Shoulders	14	\$14	◐	◐	●	●	57				
548	US-177 Sumner County: Oklahoma State Line to US-81†	Construct Shoulders	4	\$4	●	●	◐	●	57				
545	US-183 Comanche County: Coldwater North to Kiowa County Line†	Construct Shoulders	7	\$7	◐	◐	◐	◐	50				

†New project not presented in 2019. New projects came from KDOT's priority formula or from KDOT District staff.

2019 Projects Selected for the Development or Construction Pipeline	
US-160 Sumner County: I-35 to Sumner/Cowley County Line	Rehabilitate and add shoulders
K-42 Sumner/Sedgwick County: K-2 to Clonmel	Rehabilitate and add shoulders

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.

Other factors in selection:

- **Route Continuity** – Complete or continue a corridor.
- **Previous Investment** – Preliminary engineering work already underway or another phase of the project constructed.

Projects presented in 2019; not scored this year	
US-160 Cowley County: Sumner/Cowley County Line to Winfield – Need to evaluate impact of completed work.	Reconstruct
K-96 Rice County: Sterling, through Lyons, to Ellinwood (NW Passage) – Need to evaluate impact of completed work.	Reconstruct
US-56/K-96 Barton County: Ellinwood to Great Bend (NW Passage) – Need to evaluate impact of completed work.	Reconstruct

Because of the time and cost required, KDOT doesn't score every project from every year, but that doesn't mean it's fallen off our radar. These projects weren't scored because we need to need to evaluate the impact of completed work.

System Compositions & Usage by Region						
	Northeast	North Central	Northwest	Southeast	South Central	Southwest
Current Population (2018)	48%	7%	3%	9%	28%	5%
Population Projection (2044)	55%	6%	2%	7%	26%	4%
State Highway Miles	19%	16%	16%	16%	19%	15%
Total Roadway Miles	16%	16%	17%	15%	23%	14%
Daily Vehicle Miles Traveled SHS	39%	11%	8%	12%	23%	6%
Daily Truck Miles Traveled on SHS	26%	15%	14%	13%	21%	11%
Daily Vehicle Miles Traveled All Roads	42%	10%	6%	10%	26%	6%