

District 2 2021 Project Scores – Expansion

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
216	I-70 Geary County: I-70/Taylor Rd. Interchange, West of Junction City	New Interchange	NA	\$12	Safety: 6/21; Operations: 9/29				15	●	●	22				Deteriorating condition – bridge needs to be replaced.
212	I-135 McPherson County: I-135/Wells Fargo Rd. interchange, East of Lindsborg	New Interchange	NA	\$10	Safety: 1/21; Operations: 9/29				10	◐	◐	14				
241	US-56 McPherson County: East of McPherson east to Marion†	Passing Lanes	35	\$26	○	○	◐	○	18	○	○	7				

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

2019 Projects Selected for the Development or Construction Pipeline

US-50 Marion County: Harvey/Marion County Line to Peabody	Passing Lanes Extension
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Projects presented in 2019; not scored this year

US-50 Chase County: K-150 to Strong City – There are passing lanes sections on either side of this segment and this had a low engineering need	4-lane expressway
US-50 Chase County: Strong City to Lyon/Chase County Line – KDOT re-studied this segment and there are already three passing lane sections on the corridor and more are not feasible.	Passing Lanes

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 score because there are other passing lanes on the corridor and these segments either had a low engineering score or weren't feasible.

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.

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

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%

District 2 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
257	<i>I-135/I-70 Saline County: I-135/I-70 Interchange†</i>	Interchange reconstruction	NA	\$58	Safety: 19/34; Operations: 31/46				50				
265	<i>K-4 Dickinson County: Hope to Herington†</i>	Shoulder Widening	10	\$11	●	○	●	●	47				
232	<i>K-4 McPherson County: K-4 & Bethany Drive at Lindsborg†</i>	Reconstruct on new alignment	1	\$4	○	●	●	●	39				
256c	<i>K-4 Saline County: I-135 East to the Smoky Hill River Bridge†</i>	Reconstruct on new alignment	3	\$5	○	●	●	●	41		✓		
256i	<i>K-4 Saline County: K-4/I-135 Interchange†</i>	Interchange reconstruction	NA	\$15	Safety: 10/34; Operations: 17/46				27				
267	<i>K-4 Saline/Dickinson County: Gypsum to Hope†</i>	Shoulder Widening	22	\$22	●	○	●	●	59		✓		
266	<i>K-9 Washington/Cloud/Clay County: Clyde to K-15†</i>	Shoulder Widening	16	\$16	●	○	○	○	35				
258	<i>K-14 Ellsworth County: K-140 North to I-70 West Interchange†</i>	Construct Shoulders	8	\$8	●	●	●	●	56				
259	<i>K-14 Ellsworth County: I-70 North to Lincoln County Line†</i>	Construct Shoulders	1	\$1	●	○	●	○	41				
260	<i>K-14 Lincoln County: Ellsworth County Line North to Mitchell County Line†</i>	Construct Shoulders	25	\$25	●	○	●	○	43				
261	<i>K-15 Clay County: Clay Center North to Washington County Line†</i>	Shoulder Widening	13	\$13	●	●	●	●	59				
262	<i>K-15/K-18 Dickinson County: West Jct. (Zion) to East Jct. (Quality Oil) †</i>	Shoulder Widening	4	\$4	●	●	●	●	74				
264	<i>K-18 Ottawa/Dickinson/Geary County: Bennington to US-77 (Junction City) †</i>	Shoulder Widening	46	\$47	●	●	●	●	48				
263	<i>K-148 Republic/Washington County: US-81 to K-15†</i>	Shoulder Widening	34	\$35	●	○	○	●	33				

†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	
I-70 Geary County: I-70; K-18 Interchange at I-70	Interchange Improvements
K-4 Saline County: 2 mi E of K-104, E to Niles Rd	Reconstruct
K-177 Morris County: Approx. 500' N of S 850 Rd North to Velie St in Council Grove	Rehab and add shoulders as part of bridge replacement work

Projects presented in 2019; not scored this year	
US-77 Morris-Dickinson County: South US-56/77 junction N to K-209 - low local consult score in 2019	Reconstruct
K-4 Saline County: Old US-81 to Gypsum - Addressing K-4 to the west with IKE pipeline projects.	Reconstruct
US-77 Morris-Geary County: K-209 north to I-70 – low local consult score in 2019	Reconstruct
K-148 Washington County: K-234 at Hanover, N to Nebraska state line - Low engineering need	Reconstruct
K-148 Washington County: 1 mi N of E Jct K-9, N 3.5 miles - Low engineering need	Reconstruct
US-36 Republic County: US-36 & US-81 Interchange - Low engineering need	Interchange Improvement

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 this year because of a previous low local consult score, low engineering need, or it is being addressed with another project.

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.