



KANSAS & OKLAHOMA

HEARTLAND FLYER EXTENSION

Existing Southwest Chief
TO LA & CHICAGO

NEWTON

WICHITA

KS
OK

Arkansas City

Ponca City

Perry

Guthrie

Edmond

OKLAHOMA CITY

Existing Heartland Flyer
TO DALLAS/FORT WORTH



COVER PAGE

Title: Heartland Flyer Extension

Applicant: Kansas Department of Transportation

Was a Federal Grant Application Previously Submitted for this Corridor? **No**

Other sources of funding for the Corridor: **No**

Cities, States Where the Corridor is Located: **Newton, KS; Wichita, KS; Arkansas City, KS; Ponca City, OK; Perry, OK; Guthrie, OK; Edmond, OK; Oklahoma City, OK**

Congressional Districts Where the Corridor is Located: **KS-04; OK-03; OK-05**

Is the Corridor currently programmed or identified in: State rail plan, or regional or interregional intercity passenger rail systems planning study? **Yes. The 2021-2022 Kansas State Rail Plan and the 2021 Oklahoma State Rail Plan.**

Is the applicant working with other entities in support of the Corridor? **Yes. The Kansas Department of Transportation is working with the Oklahoma Department of Transportation and the Texas Department of Transportation in support of the Corridor.**



TABLE OF CONTENTS:

COVERi

TABLE OF CONTENTSii

I. CORRIDOR SUMMARY1

II. PROJECT FUNDING2

III. APPLICANT ELIGIBILITY2

IV. DETAILED PROJECT DESCRIPTION3

V. PROJECT LOCATION13

VI. EVALUATION AND SELECTION CRITERIA13

VII. DOT STRATEGIC GOALS15

APPENDIX A: ENDNOTE REFERENCES available at www.ksdotike.org/grants

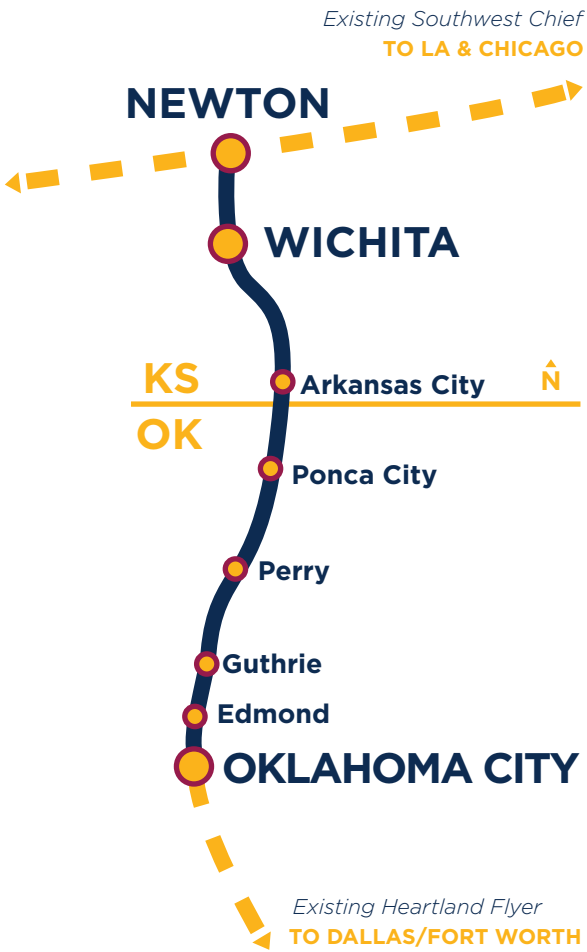
APPENDIX B: LETTERS OF SUPPORT available at www.ksdotike.org/grants



I. CORRIDOR SUMMARY

The proposed Corridor is an extension of the Heartland Flyer from its current end point at Oklahoma City, OK on to Newton, KS with stops at new stations in Edmond, OK, Guthrie, OK, Perry, OK, Ponca City, OK, Arkansas City, KS and Wichita, KS. The Heartland Flyer Extension would re-connect Oklahoma and Kansas communities north to the national Amtrak network via the Southwest Chief, allowing residents and travelers to access tremendous mobility available through the major east-west route.

The long-awaited, full re-connection of this Corridor, which was discontinued in 1979, would provide increased transportation choices and economic opportunity for rural and urban residents and businesses along the fast-growing Interstate 35 megaregion, providing safety benefits to travelers, reducing Interstate traffic along a stressed I-35, lowering transportation emissions and leveraging significant existing rail infrastructure and recent station upgrades. The extension would positively impact ridership throughout the Midwest and beyond by connecting six of the fifty most populated cities in the U.S. and improve transportation equity by providing passenger rail service to historically disadvantaged communities and areas of persistent poverty along the extension.





II. PROJECT FUNDING

Table 1: Project Funding

State	Source of Funding	Amount
Kansas	Kansas State Highway Fund	\$25,000
Oklahoma	211R - Passenger Rail	\$25,000
TOTAL:		\$50,000

III. APPLICANT ELIGIBILITY

The applicant for this Corridor ID program application is the State of Kansas, specifically the Kansas Department of Transportation (KDOT). As defined in section C of the notice of solicitation, States are an eligible entity to submit applications and participate in the Corridor ID program. KDOT is working with the Oklahoma Department of Transportation (ODOT) and the Texas Department of Transportation (TxDOT) as a Corridor partners on the application.

Because KDOT has completed a scope, schedule and cost estimate for the SDP, issued an RFP, and selected a team to develop the SDP, KDOT expects to enter the Corridor ID program

in Step 2. KDOT and ODOT are fully committed to using public, state funds to comply with the cost share requirements stipulating the Federal share of total costs for a Corridor in Step 2 activities will not exceed 90 percent. KDOT and ODOT are also committed to the requisite Step 3 match. The awarded funding would support the development of an SDP consistent with 49 U.S.C. 25101(d) and the Notice of Solicitation to complete Project Planning work consistent with FRA’s Guidance on Development and implementation of Railroad Capital Projects.

The Heartland Flyer Extension is an eligible Corridor according to the Corridor ID’s Notice



of Solicitation section A.2. The extension meets the definition of an intercity passenger rail corridor as it is a restoration of service of an intercity passenger rail route formerly operated by Amtrak. The previously existing passenger rail Amtrak service from Newton, KS to Oklahoma City, OK was ended in 1979 when the Chicago-Dallas/Houston Lone Star service was discontinued. The existing Heartland Flyer from Oklahoma City to Fort Worth, TX was revived on June 14, 1999.¹ The Heartland Flyer Extension from Newton, KS to Oklahoma City, OK is approximately 206 miles, including the 160-mile

segment from Oklahoma City to Wichita, KS.² The Corridor directly connects two of the top 85 most populated urbanized areas according to the U.S. Department of Transportation, with Oklahoma City at #51 with 861,505 residents and Wichita at #83 with 472,870.³ Additionally, the Corridor connects five of the top 85 urbanized areas, including: Dallas/Fort Worth (#6 with 5,121,892 residents), San Antonio (#26 with 1,758,210 residents), and Kansas City (#31 with 1,519,417 residents).⁴

IV. DETAILED CORRIDOR DESCRIPTION

Where we want to go and why.

Running parallel to Interstate 35, the Heartland Flyer Extension promises to serve communities along the Corridor with unique and diverse characteristics. The markets served along the proposed Corridor range from rural communities of less than 5,000 residents to two of the largest cities in the Midwest; from college towns with tremendous access to educational institutions to communities

with lower percentages of high school graduates than the national average; and from agricultural-based local economies to two of the leading aerospace industry markets in the world. The exchange of people, skills, ideas and opportunity along this Corridor promises to enhance and optimize the strengths of the communities and bring discovery and empowerment where the communities have opportunities to grow.

Table 2: Markets Served and Populations

State	City / Proposed Station	City Population (2020 Census)
Kansas	Newton*	18,602
	Wichita	397,532
	Arkansas City	11,974
Oklahoma	Ponca City	27,798
	Perry	4,484
	Guthrie	10,749
	Edmond	94,428
	Oklahoma City*	681,054

**existing Amtrak station*



Oklahoma City and Wichita stand out as the major population centers along the Corridor. The two cities share the distinction of being the largest cities in their respective states. The cities also share similar key industries, with both communities serving as leading markets for the aerospace, energy, bioscience and advanced manufacturing sectors.

Between Oklahoma City and Wichita are rural communities that have unique needs for passenger rail service. For instance, Northern Oklahoma, which includes Ponca City and Perry, is a 7-county region that has median wages historically 4% below the state average.⁵

In terms of industries, though, Northern Oklahoma shares similarities to other Corridor communities with major employers in the oil and natural gas extraction industry and advanced manufacturing industry.

In addition to economic opportunities, the Corridor poses significant opportunity to address historically disadvantaged communities. A quick summary of key demographic indicators demonstrates the persistent challenges faced by residents of the region.

Table 3: Socioeconomic Data for Cities with Proposed Stations

State	City / Proposed Station	Median Household Income	Persons in poverty, percent	Bachelor's degree or higher, percent	Persons with a disability, under age 65 years, percent
Kansas	Newton	\$59,586	10.7%	29.8%	9.0%
	Wichita	\$56,374	15.2%	30.5%	11.4%
	Arkansas City	\$46,358	13.7%	21.4%	15.5%
Oklahoma	Ponca City	\$47,236	17.5%	18.3%	15.6%
	Perry	\$54,705	12.6%	18.8%	15.0%
	Guthrie	\$44,760	20.7%	19.6%	11.1%
	Edmond	\$87,591	10.5%	54.7%	7.1%
	Oklahoma City	\$59,679	14.9%	32.3%	9.6%
National Average		\$69,021	11.6%	33.7%	8.7%

Census.gov July 1, 2022 estimates



As indicated in Table 3 above, the cities proposed to host Corridor stations, excluding Edmond, are all performing worse than national averages on key socioeconomic indicators for household income, poverty, health and education.

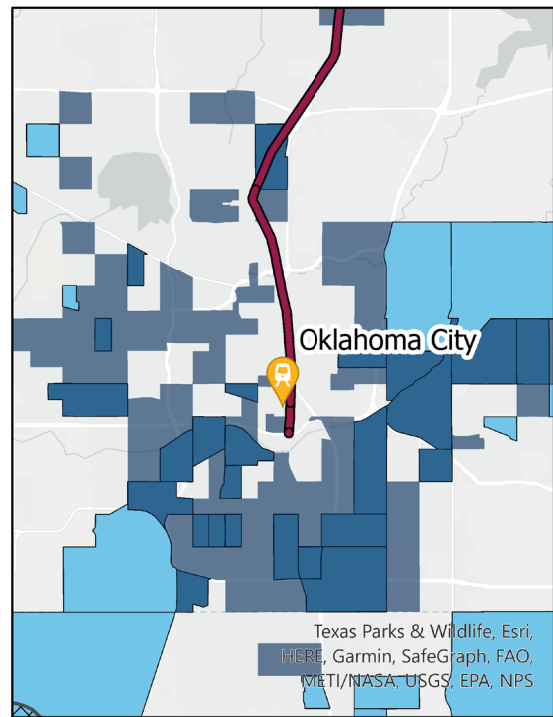
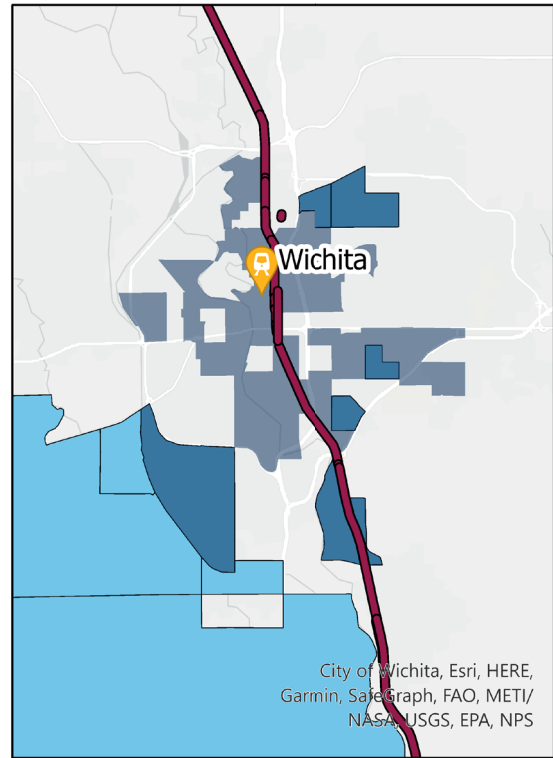
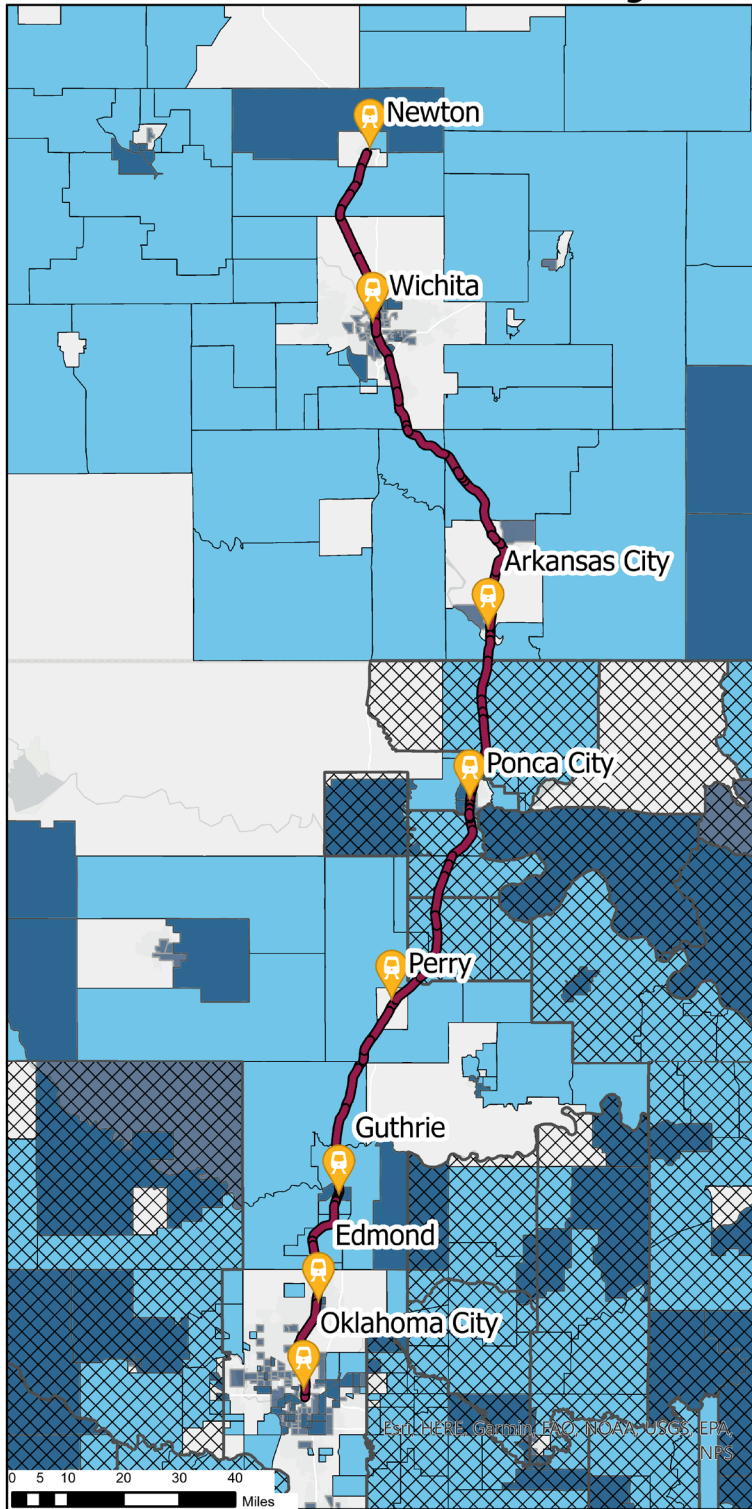
The U.S. DOT's vision, which will be discussed in further detail in section VII, indicates a strong desire to support communities with lagging economic indicators, enhance mobility for persons with disabilities and low-income households, and improve access to educational opportunities. The communities and persons living along the proposed Corridor clearly meet the criteria for U.S. DOT's vision.

Diving further into the U.S. DOT's Transportation Disadvantaged Census Tracts (Historically Disadvantaged Communities) dashboard⁶, the data shows the extent to which communities in the Corridor are underserved by transportation and health services and exposed to environmental hazards, thus contributing to inequitable outcomes for income, educational attainment, health and mobility. The maps below provide an overview of indices indicating forms of disadvantage for residents along the Corridor.

Figure 1, on the next page, uses the U.S. DOT's tool to display census tracts that exceed the 50th percentile (75th for resilience) across at least four of the following six transportation disadvantaged indicators: transportation access, health disadvantage, environmental disadvantage, economic disadvantage, resilience disadvantage, and equity disadvantage. Figure 1 also shows, in light blue, census tracts in which the transportation access indicator exceeds the 50th percentile. Lastly, Figure 1 overlays one of the most unique opportunities to connect a historically disadvantaged population to the larger national passenger rail network by showing Tribal census tracts.



Figure 1: Disadvantaged Communities



- Proposed Stop
- Northern Flyer Route
- Tribal Areas
- Oklahoma Tribal Statistical Areas
- Tribal Census Tracts
- 4+ Disadvantages
- Transportation Disadvantaged





With Amtrak’s expressed vision and astute recognition that millennials and Gen Z are providing strong current and future demand for passenger rail service, it is also important to highlight the many colleges and universities that would be served by the Heartland Flyer Extension, including the southern segment to Fort Worth.

Figure 2, right, provides a visual of how college and university students are populated along the Corridor and within close proximity to the Corridor. With fluctuating fuel prices, the rising total cost of ownership of personal vehicles, the walkability of college campuses, insufficient parking on college campuses and the drastic increase in rideshare options, strong passenger rail service is of interest to Midwestern college students.⁷ A Midwest Interstate Passenger Rail Commission study published in 2016 found that more than half of the 19,200 respondents across 30 Midwestern schools would be willing to take Amtrak to and from college if more frequent service were available. Additionally, for respondents who indicated they have ridden a train to or from campus, 65 percent indicated that Amtrak service is an important resource for them to be able to attend school, further illustrating the point that passenger rail service along this Corridor with many educational institutions can be expected to increase educational access for Corridor residents.

Relatedly, large regional universities including the University of Kansas in Lawrence, Oklahoma State University in Stillwater, and Texas Christian University in Fort Worth are members of the Big 12 athletics conference, so traffic for sports games and recreational travel along the I-35 corridor will foster tourism and increase commerce for depot towns along the extension. Wichita State University opened up in-state tuition for Oklahoma residents along the I-35 corridor to draw young people to the region, improve the competitiveness of the university, and support local goals of population growth.

Figure 2: College Student Heatmap

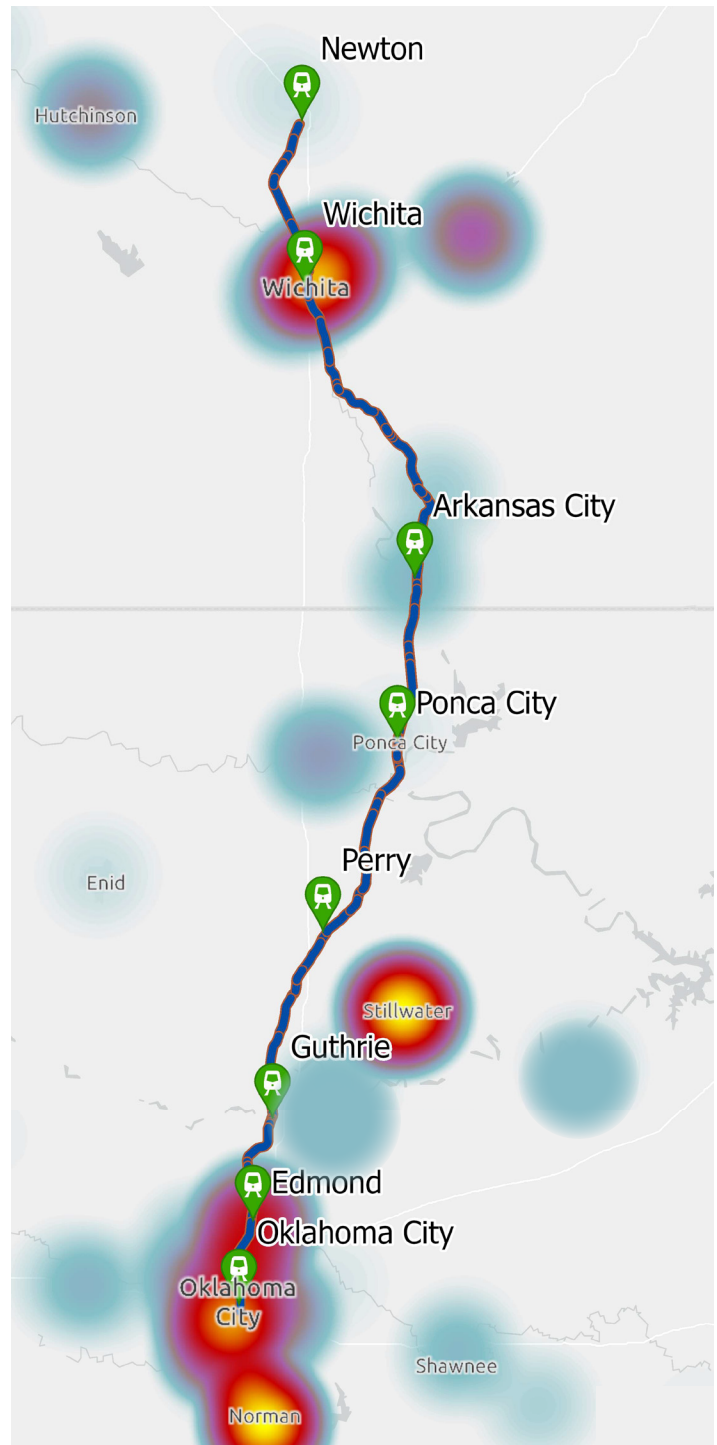




Table 4: Colleges and Universities along Corridor

State	City	College/University	Student Population
Kansas	Newton	Bethel College	600
	Hutchinson	Hutchinson Community College	5,500
	Wichita	Wichita State University	16,000
	Wichita	Newman University	2,700
	Wichita	Friends University	2,800
	Arkansas City	Cowley University	3,800
Oklahoma	Tonkawa	Northern Oklahoma College	1,381 ¹
	Stillwater	Oklahoma State University	23,500 ²
	Langston	Langston University (HBCU)	1,750 ³
	Edmond	Oklahoma Christian University	2,200
	Edmond	University of Central Oklahoma	11,000
	Bethany	Southern Nazarene University	2,239 ⁴
	Oklahoma City	Oklahoma City University	2,550 ⁵
	Norman	The University of Oklahoma	26,000
Texas	Fort Worth	Texas Christian University	9,700
	Fort Worth	Texas Wesleyan University	2,600
Total			114,320

Source: AmtrakConnectsUs.com Heartland Flyer Extension [Fact Sheet](#)⁶

1 "Northern Oklahoma College." Niche.com. <https://www.niche.com/colleges/northern-oklahoma-college/>
 2 "Spring Student Profile - Updated for Spring 2023." Oklahoma State University. https://pubviva.okstate.edu/SASReportViewer/?reportUri=%2Freports%2Freports%2F30948a7c-c475-4f81-84e1-9e659467d229&page=vi2573&sso_quest=true&informationEnabled=false&commentsEnabled=false&alertsEnabled=false&reportViewOnly=true&reportContextBar=false
 3 "Langston University." Niche.com. <https://www.niche.com/colleges/langston-university/>
 4 "Southern Nazarene University (SNU) 2023-2024 Admissions." Colledunia. <https://collegedunia.com/usa/college/989-southern-nazarene-university-bethany/admission>
 5 "Oklahoma City University." U.S. News and World Report. <https://www.usnews.com/best-colleges/oklahoma-city-university-3166>
 6 "Heartland Flyer Extension." Amtrak. June 2021. <http://media.amtrak.com/wp-content/uploads/2021/06/Heartland-Flyer-Extension-Fact-Sheet-FINAL.pdf>

In Amtrak’s Vision for Improving Transportation Across America published in June of 2021, Amtrak also describes the significant need to provide passenger rail service for an aging population. Passengers over the age of 65 make up 24 percent of all Amtrak riders, according to the document, which postulates that this target demographic opts for passenger rail due to the difficulty of driving a vehicle for aging travelers. The Heartland Flyer Extension would be well-suited to support mobility for an aging population as several communities along the Corridor are disproportionately older than the national average, particularly in the less populated cities.

Table 5: Persons 65 years and over

State	City / Proposed Station	Persons 65 years and over, percent
Kansas	Newton	17.4%
	Wichita	14.6%
	Arkansas City	16.5%
Oklahoma	Ponca City	17.7%
	Perry	14.4%
	Guthrie	21.9%
	Edmond	14.6%
	Oklahoma City	12.7%
National Average		16.8%



Other expected users and beneficiaries include residents along the Corridor who are emissions conscious and potentially own - or want to own - an electric vehicle. According to the U.S. Department of Energy, for model year 2021, the median driving range of all-electric vehicles was 234 miles⁸, which is comparable to the total distance between Oklahoma City and Newton. For EV owners with vehicles offering shorter ranges, a passenger rail trip between the two major Corridor markets is an attractive and potentially more reliable alternative, especially when considering the range variations introduced from extreme cold or hot weather, which is common along the Corridor.

Communities with depots along the extension, including Newton and Wichita, will directly benefit through newfound tourism opportunities resulting from increased foot traffic. Newton's cultural value as a historic rail town on the national historic register will add additional tourism draw. Wichita's recently redeveloped downtown area will create a draw for concerts, legislative conferences, the annual river festival, and family activities such as the local zoo, botanical gardens, and museums, all accessible by rail. Local economic development opportunities in Wichita include a recently developed youth soccer complex, tennis and pickleball center, and softball/baseball complex, creating a regional draw for potential riders.

The increase in rail traffic from the Heartland Flyer Extension will promote local commerce along the rail and connect major population centers along the rail corridor. Communities in western Kansas have expressed interest in using the extension to travel recreationally or for business to Oklahoma City and Fort Worth, and Wichita's burgeoning healthcare hub could more easily serve people from western

and northwest Kansas. Relatedly, cities within the region could more easily collaborate on projects to strengthen regional economic integration. For example, economic developers in Kansas City have expressed interest in spending development money in Wichita, and vice versa, to create satellite locations for local businesses.

On Thursday, February 2, 2023, Kansas Governor Laura Kelly announced a deal with Integra Technologies to build a semiconductor plant in the Wichita area, investing more than \$1.8 billion in the project and adding 2,000 new jobs to the area.⁹ In addition to stimulating the local and state economies, the investment will on-shore manufacturing of critical form of technology, improving resiliency for the chip supply chain. This large investment demonstrates the Corridor's ability to be competitive for national manufacturing investments and the need for further transportation investment in the area.

The U.S. DOT's vision, which will be discussed in further detail in Section VII: DOT Strategic Goals, indicates a strong desire to support communities with lagging economic indicators, enhance mobility for persons with disabilities and low-income households, and improve access to educational opportunities. The communities and persons living along the proposed Corridor clearly meet the criteria for U.S. DOT's vision.

Who we're working with and how.

Amtrak is a strong and important advocate for the Heartland Flyer Extension. In Amtrak's Vision for Improving Transportation Across America, published in 2021, Amtrak describes the Heartland Flyer Extension as a new Central



Corridor connecting Dallas/Fort Worth to Oklahoma City to Newton and envisions one daily round trip from Oklahoma City to Newton, connecting to Amtrak’s Southwest Chief.¹⁰ As the future operator of the Corridor, Amtrak is a key partner to KDOT and ODOT in the development of the project and all entities are aligned in an effort to develop the Corridor.

Amtrak estimates that the 404-mile route from Fort Worth to Newton would take 9 hours and 4 minutes to complete endpoint to endpoint, which would include 5 hours and 2 minutes for riders to travel from Oklahoma City to Newton.¹¹

Table 6: Proposed Schedule

Read Down	Mile		Station		Read Down
4:20 AM	0	Dp	Newton, KS	Ar	1:46 AM
4:29 AM	24	↓	Wichita	↑	1:01 AM
5:54 AM	78		Arkansas City, KS		11:56 PM
6:17 AM	104		Ponca City, OK		11:30 PM
6:51 AM	137		Perry		10:57 PM
7:19 AM	168		Guthrie		10:29 PM
7:36 AM	185	↓	Edmond	↑	10:12 PM
8:15 AM		Ar		Dp	9:49 PM
8:25 AM	199	Dp	Oklahoma City	Ar	9:39 PM

The Kansas City-Wichita-Oklahoma City-Fort Worth Corridor Passenger Rail Service Development Plan published by KDOT in 2011 proposed the above service frequencies and travel times between markets.

The proposed extension would use existing BNSF-owned track, which is further detailed in Section V: Corridor Location and in cost estimated described in Section VI: Evaluation and Selection Criteria.

KDOT, ODOT and Amtrak are extremely interested in prioritizing the Heartland Flyer Extension from Oklahoma City to Newton due to the strong regional demand for this Corridor. The partners are open to scaling the Corridor beyond the proposed, prioritized extension, including an enhanced connection to Kansas City, Missouri.

Because of the information provided above, KDOT and ODOT believe this extension is a unique opportunity to enhance the regional equity and geographic diversity of intercity passenger rail service by providing an important north-south connection in the largest cities in Oklahoma and Kansas and adding underserved and transportation disadvantaged communities to the national passenger rail network. This extension is also an opportunity to integrate a cross-connection between the Southwest Chief and Texas Eagle, both of which provide service between Los Angeles and Chicago with dozens of intermediate stops, creating tremendous benefits for other passenger rail routes and riders traversing across the country or around the Midwest.

Additionally, the Corridor benefits and improves connectivity with other existing modes of transportation. The extension allows enhanced connection for the communities along the Corridor to the major airports in Oklahoma City (Will Rogers World Airport) and Wichita (Wichita Dwight D. Eisenhower National Airport). The extension also adds an exciting connection to the Oklahoma City Streetcar, allowing Corridor users improved access to the many attractions along the Oklahoma City Streetcar line, including Bricktown, Paycom Arena, Myriad Botanical Gardens and other major attractions.



We can make this happen. We've already started.

KDOT has initiated several Step 1 activities that are eligible for Corridor ID funding, including the completion of developing a scope, schedule and cost estimate for preparing an SDP for the Corridor and entering into a contract with a project team to develop the SDP.

In April, 2022, KDOT issued a Request for Proposals seeking a consulting team to support development of the Service Development Plan for the Heartland Flyer Extension. KDOT received 3 strong proposals in response to the RFP. KDOT selected and finalized an agreement with DB Engineering & Consulting USA Inc. (DB E&C), which is part of Deutsche Bahn (DB), one of the world's leading passenger transportation and logistics companies, operating in 140 countries. The DB E&C team consists of leading experts with extensive national and global experience in service and operational planning and analysis, capital investment needs assessment, financial analysis, and implementation planning, leveraging the firm's global expertise through their local US presence. The team has extensive experience working with BNSF Railway and Amtrak and a deep knowledge of how freight and passenger rail networks operate and interact in the U.S., which will allow DB to develop a stakeholder-supported SDP.

The SDP team also includes Kimley-Horn and Steer. Kimley-Horn is a national planning, engineering, and environmental consulting firm that specializes in transportation projects. Founded in 1967, Kimley-Horn now has a staff of more than 4,500 and serves a wide range of public- and private-sector clients at more than 95 offices nationwide. Kimley-Horn's

relevant service offerings include rail planning, development and design for all modes including intercity passenger rail; alternatives analysis/major investment studies; route planning and station development; strategic planning; program management; asset management; facilities and operations planning; and travel demand estimation. Steer is a specialist transportation consultancy with a long record of successful projects in developing and applying ridership and ticket revenue forecasting and analytics techniques for clients. Steer has served as Amtrak's ridership and revenue forecasting and market research consultants since 2013 and has an extensive knowledge of Amtrak's service network, including the Heartland Flyer and Southwest Chief. Steer also has knowledge of Amtrak's data and modeling tools and will require minimal onboarding to understand the service context of the Heartland Flyer and Southwest Chief. Steer has supported funding and risk assessments for numerous proposed rail services across the country and are highly-experienced in the development and application of benefit-cost analysis methods adapted to passenger rail. As such, Steer developed best practice guidelines on public benefits assessment for high-speed and intercity passenger rail projects on behalf of USDOT. KDOT firmly believes this impressive consulting team can successfully develop a SDP that exceeds the expectations of the Federal Railroad Administration and Amtrak.

In addition to the strong SDP team, KDOT currently supports operations of the Southwest Chief through Kansas. In Kansas, Amtrak's Southwest Chief operates on 473 miles of track exclusively owned by BNSF and serves six stations. The six stations are: Garden City, Dodge City, Hutchinson, Newton, Topeka and Lawrence. The six Amtrak stations in Kansas serve a high volume of riders.¹² In 2019, even



with the impacts of COVID-19, more than 46 thousand boardings and alightings occurred in Kansas, with an additional 91 thousand riders passing through the state. Newton continues to be the most popular boarding and alighting point for passengers, with annual volumes around 14,000.¹³ Revenues in Kansas from the Southwest Chief based on average fares by ticket class in 2019 was \$4,512,450.¹⁴

Oklahoma brings valuable experience to the proposed extension as the state currently supports operations of the existing Heartland Flyer. During Amtrak's 2019 fiscal year, a total of 69,189 passengers boarded or alighted at the five Amtrak stations in Oklahoma, with boardings and alightings at individual stations ranging from 1,893 to 45,133. Oklahoma City, which would serve as the southern terminus of the proposed extension, was the busiest station.

Because Oklahoma¹⁵ has existing state-supported Amtrak service, the state has an operating agreement in place with Amtrak to outline the responsibilities for the provision of passenger rail service, facilities, and equipment and the payments to be made by the parties. The operating agreement specifies the frequency of service to be provided, the stations stops to be made, the schedule of trips, and the type of equipment to be provided. The State of Oklahoma pays Amtrak a fixed amount for the service plus the actual cost of the fuel used and BNSF track fees.

KDOT and Kansas municipalities also have extensive experience working with federal government agency partners on grant-supported investments, specifically for upgrades to the Southwest Chief. This includes helping municipalities and counties support and coordinate TIGER grants in 2014, 2015 and 2017 for track rehabilitation, turnouts, and

crossings on the BNSF La Junta Subdivision in Kansas, Colorado and New Mexico.¹⁶ KDOT also coordinated with CRISI (2018) and RAISE (2021) grant recipients for passenger rail improvements performed in Kansas.¹⁷

In 2022, KDOT awarded \$11.5 million in grant dollars for rail projects, which, with nearly \$8 million contributed from the private sector, funded 17 railroad improvement projects.¹⁸ Because the Extension project is expected to require bridge upgrades, it is also important to note that KDOT awarded \$45.5 million to fund 62 locally-owned bridge rehabilitation and replacement projects throughout the state.¹⁹



V. CORRIDOR LOCATION



Station Location	Lat/Long
Newton, KS	38.04668, -97.345032
Wichita, KS	37.68522, -97.329517
Arkansas City, KS	37.061376, -97.033115
Ponca City, OK	36.701552, -97.085127
Perry, OK	36.28713, -97.282932
Guthrie, OK	35.877046, -97.42966
Edmond, OK	35.653551, -97.483419
Oklahoma City, OK	35.465173, -97.512763

VI. EVALUATION AND SELECTION CRITERIA

Due to extremely high levels of interest in the Heartland Flyer Extension, KDOT and partners have been able to generate significant information about the benefits of the route and believes the extension meets the evaluation criteria for the Corridor ID program.

To prepare for KDOT’s 2021 Local Consult process, a process by which projects of all modes are presented to stakeholders throughout the state for discussion and the public’s feedback is incorporated into KDOT capital planning, KDOT enlisted EBP to assess the Heartland Flyer Extension’s expected benefits and impacts.²⁰ EBP is a Boston-based company that provides state-of-the-art economic analysis and research to support planning and policy in multimodal transportation, regional development and infrastructure. EBP’s analysis leveraged the findings from three prior studies of the proposed Heartland Flyer Extension: Impacts of Amtrak Service Expansion in Kansas (2010), KDOT/ODOT Passenger Rail Service Development Plan (2011), and the Northern Flyer Project TIGER V Grant Application (2013). The analysis provided important data about the proposed extension, including a projected ridership of approximately 118,000 annual riders.²¹ The table below presents the incremental ridership estimates for the Extension, which have increased over time.



Table 7: Summary of Ridership Estimates by Study

Source	Incremental HFE Ridership
Impacts of Amtrak Service Expansion in Kansas (2010)	92,500
KDOT/ODOT Passenger Rail Service Development Plan (2011)	111,300
Northern Flyer Project TIGER V Grant Application (2013)	111,300
KDOT Heartland Flyer Extension Update (2020)	118,000*

**Reported 323 riders per day, annualized by 365 days, and rounded to the nearest thousands.*

At \$57 per fare and with a projected 118,000 annual riders, the Corridor would result in \$6,726,000 in annual revenue.

In 2020, the host railroad, BNSF, provided a cost estimate for capital expenditures for the extension. BNSF estimated the total cost at \$124.4 million in 2020 dollars, which includes \$15.8 million in capital expenditures in Kansas, \$79.8 million in capital expenditures in Oklahoma, \$28.8 million cost for positive train control (PTC) and signal upgrades in both states divided equally between the states, and a 25% contingency. The costs included in the BNSF estimate include upgrades to the track to allow for 79 mph passenger train speeds, converting Arkansas City Siding to Main and Extend, connect Main 2 at Nowers to Britton Siding. The estimates are based on a \$5 million per track-mile average and additional \$30,000 per track-foot for steel bridges. Track-mile assumed costs include design, permitting, flagging, CM, civil, track and signal costs. This estimate is far less than the \$400 million BNSF calculated and submitted to KDOT previously, which is an acknowledgement that some of the improvements identified in the earlier study would be paid for by BNSF and completed by 2023.

The costs provided by BNSF do not include rolling stock costs, station upgrade costs or operating costs. The 2011 KDOT/ODOT Passenger Rail Service Development Plan

estimated the rolling stock costs at \$3.4 million. The 2010 Impacts of Amtrak Service Expansion in Kansas study estimated station upgrade costs at \$67.7 million.

For operating costs, the 2010 Impacts of Amtrak Service Expansion in Kansas study estimated \$5.9 million and the 2011 KDOT/ODOT Passenger Rail Service Development Plan estimated \$7.4 million.

The Corridor will require station upgrades or establishment at route stops. Newton and Oklahoma City have existing, active Amtrak stations. Wichita has an existing Union Station that served riders from 1914 to 1979 and recently underwent \$54 million in redevelopment investments.²² The station accommodated an Amtrak Inspection Train arrival on June 9, 2017.²³

The City of Ponca City, OK was awarded \$2 million of Congressionally Directed funding towards a renovation of the passenger rail depot in an attempt to bring it to be a multi-modal facility.

Guthrie, OK has a platform that will require upgrades to accommodate passenger rail service. Edmond and Perry, Oklahoma do not have existing stations or platforms and will require investment to establish service. There is an existing BNSF depot in Arkansas City, KS that would require evaluation for suitability of passenger service.



Per the information provided in Section IV: Detailed Corridor Description, the Corridor serves historically unserved, underserved and low-income communities and areas of persistent poverty.

VII. DOT STRATEGIC GOALS

A significant impetus for applying to develop the Heartland Flyer Extension through the Corridor ID program is because the benefits of the Corridor are closely aligned with the U.S. DOT's strategic goals. In addition to the economic development, employment, educational and mobility benefits described previously, the Corridor also advances sustainability, equity and reducing barriers to opportunity, and safety benefits for users and communities throughout Kansas and Oklahoma.

Sustainability and resiliency: Providing an option for travelers to use a travel mode that results in lower emissions is a major benefit of the Heartland Flyer Extension, especially due to its proximity to the heavily-traveled I-35 corridor. Emissions reduction benefits come in the form of travelers who switch from car, bus or air travel to use rail service as well as travelers who continue to use car, bus or air but benefit from less congested roads or airports. These greenhouse gas and pollution emissions reductions will also be seen in the freight industry, which will benefit from both improved freight rail service due to track enhancements as well as more efficient freight transport on roadways due to reduced congestion. Passenger rail service in this Corridor also provides a resiliency solution if highway travel is impacted by a natural disaster or human-caused factor, or if air travel is negatively impacted by factors such as natural disasters, terrorism, cyber attacks, air traffic control disruptions or pandemics.

Equity and reducing barriers to opportunity: KDOT²⁴ and ODOT²⁵ have robust Disadvantaged Business Enterprise (DBE) programs that will be applied to Heartland Flyer Extension activities. Additionally, both departments have Small Business Enterprise programs to support capacity growth of smaller vendors. In terms of community engagement, KDOT and ODOT have accomplished significant stakeholder and public engagement over the past decade, as evidenced by the impressive list of letters of stakeholder support from municipalities, advocacy groups, elected officials, planning organizations and other stakeholders. The project will advance good-paying construction and manufacturing jobs throughout the region.

Safety: I-35 has state, national and international significance as a key transportation corridor for the movement of people and goods. Unfortunately, a study by The Zebra published in 2021 found that I-35 was the 5th most dangerous road in the country with 12.56 fatalities per 100 miles and 197 fatalities in 2019.²⁶ This would be equivalent to 25 fatalities for a 200-mile stretch, or the approximate distance of the proposed Heartland Flyer Extension. Fatality rates on I-35 are significantly higher than national averages and significantly higher than the fatality data for passenger rail, which Amtrak lists as 0.43 fatalities per billion passenger miles.²⁷