FFY 2021-2024

Transportation Improvement Program

LAWRENCE - DOUGLAS COUNTY

MPO

METROPOLITAN PLANNING ORGANIZATION

MPO Policy Board Approval
October 15, 2020

Amendment 1: February 18, 2021
Administrative Revision 1: February 19, 2021
Amendment 2: April 15, 2021
Amendment 3: August 19, 2021
Amendment 4: October 21, 2021
Administrative Revision 2: November 9, 2021

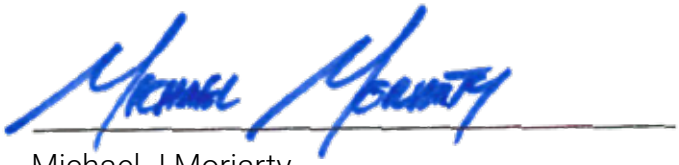
MPO SELF-CERTIFICATION

The Kansas Department of Transportation (KDOT) and the Lawrence - Douglas County Metropolitan Planning Organization (MPO) certify that the metropolitan transportation planning process is being carried out in accordance with all applicable requirements including the following:

1. 23 U.S.C. 134, 49 U.S.C. 5303, and this subpart; All core documents are current:
2. In nonattainment and maintenance areas, Sections 174 and 176 (c) and (d) of the Clean Air Act, as amended (42 USC 7504, 7506 (c) and (d)) and 40 CFR Part 93;
3. Title VI of the Civil Rights Act of 1964, as amended (42 USC 2000d-1) and 49 CFR Part 21;
4. 49 USC 5332, prohibiting discrimination on the basis of race, color, religion, national origin, sex, disability, or age in employment or business opportunity;
5. Section 1101(b) of the SAFETEA-LU (Pub. L. 109-59) and 49 CFR Part 26 regarding the involvement of disadvantaged business enterprises in USDOT funded projects;
6. 23 CFR Part 230, regarding the implementation of an equal employment opportunity program on Federal and Federal-aid highway construction contracts,
7. The provisions of the Americans with Disabilities Act of 1990 (42 USC 12101 et seq.) and 49 CFR Parts 27, 37, and 38;
8. The Older Americans Act, as amended (42 USC 6101), prohibiting discrimination on the basis of age in programs or activities receiving Federal financial assistance;
9. Section 324 of Title 23 USC regarding the prohibition of discrimination based on gender; and
10. Section 504 of the Rehabilitation Act of 1973 (29 USC 794) and 49 CFR Part 27 regarding discrimination against individuals with disabilities.

Michelle Derusseau, Chair

Lawrence-Douglas County MPO



Michael J Moriarty

Bureau Chief of Transportation Planning

Kansas Department of Transportation

DEFINITIONS

ADA	ADA- Americans with Disabilities Act of 1990 (P.L. 101-336) and ADA Amendment Act of 2008 (P.L. 110-325)
CAPITAL	Purchase of equipment
CDBG	Community Development Block Grant
CFR	Code of Federal Regulations
CIP	Capital Improvement Plan
CONST	Construction
EJ	Environmental Justice
FAST Act	Fixing America's Surface Transportation Act (P.L. 114-94) (Signed by President Obama on December 4, 2015)
FFY	Federal Fiscal Year
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
ITS	Intelligent Transportation Systems
KDOT	Kansas Department of Transportation
KTA	Kansas Turnpike Authority
KU	University of Kansas, Lawrence
KUOW	KU on Wheels Transit Service
MPO	Metropolitan Planning Organization, such as the Lawrence-Douglas County Metropolitan Planning Organization
MTP	Metropolitan Transportation Plan
NHS	National Highway System
O&M	Operation and Maintenance
OPERATING	Operation of transit
PE	Preliminary Engineering
PPP	Public Participation Plan
ROW	Right-of-Way
RTAC	Regional Transit Advisory Committee
STBG	Surface Transportation Block Grant Program
STIP	Statewide Transportation Improvement Program
STP	Surface Transportation Program
T2040	Transportation 2040 - the Long Range Transportation Plan for the Lawrence-Douglas County region
TAC	Technical Advisory Committee
TA	Transportation Alternatives (federal grant administered by KDOT)
TIP	Transportation Improvement Program
UPWP	Unified Planning Work Program
USC	United States Code
UTIL	Utilities

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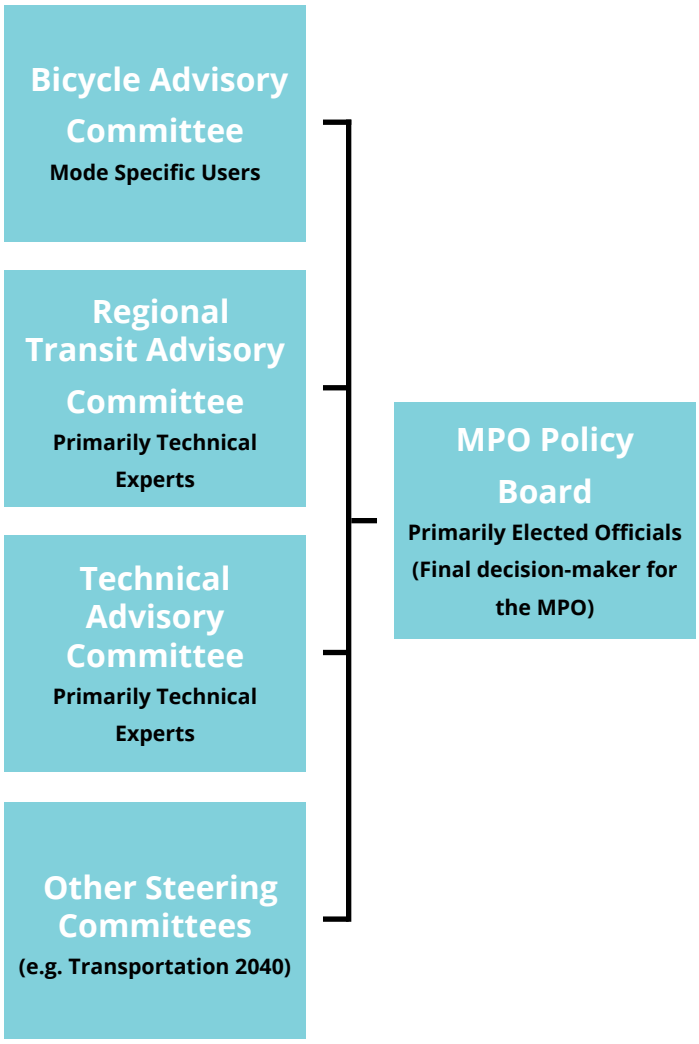
Title VI Note: The L-DC MPO hereby gives public notice that it is the policy of the agency to assure full compliance with Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987, Executive Order 12898 on Environmental Justice, and related statutes and regulations in all programs and activities. Title VI requires that no person in the United States of America shall, on the grounds of race, color, or national origin, be excluded from the participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the L-DC MPO receives federal financial assistance. Any person who believes they have been aggrieved by an unlawful discriminatory practice under Title VI has a right to file a formal complaint with the L-DC MPO. Any such complaint must be in writing and filed with the L-DC MPO's Title VI Coordinator within one hundred and eighty (180) days following the date of the alleged discriminatory occurrence. For more information, or to obtain a Title VI Discriminatory Complaint Form, please see our website at https://lawrenceks.org/mpo/title6.

1 INTRODUCTION ...WHAT IS AN MPO?

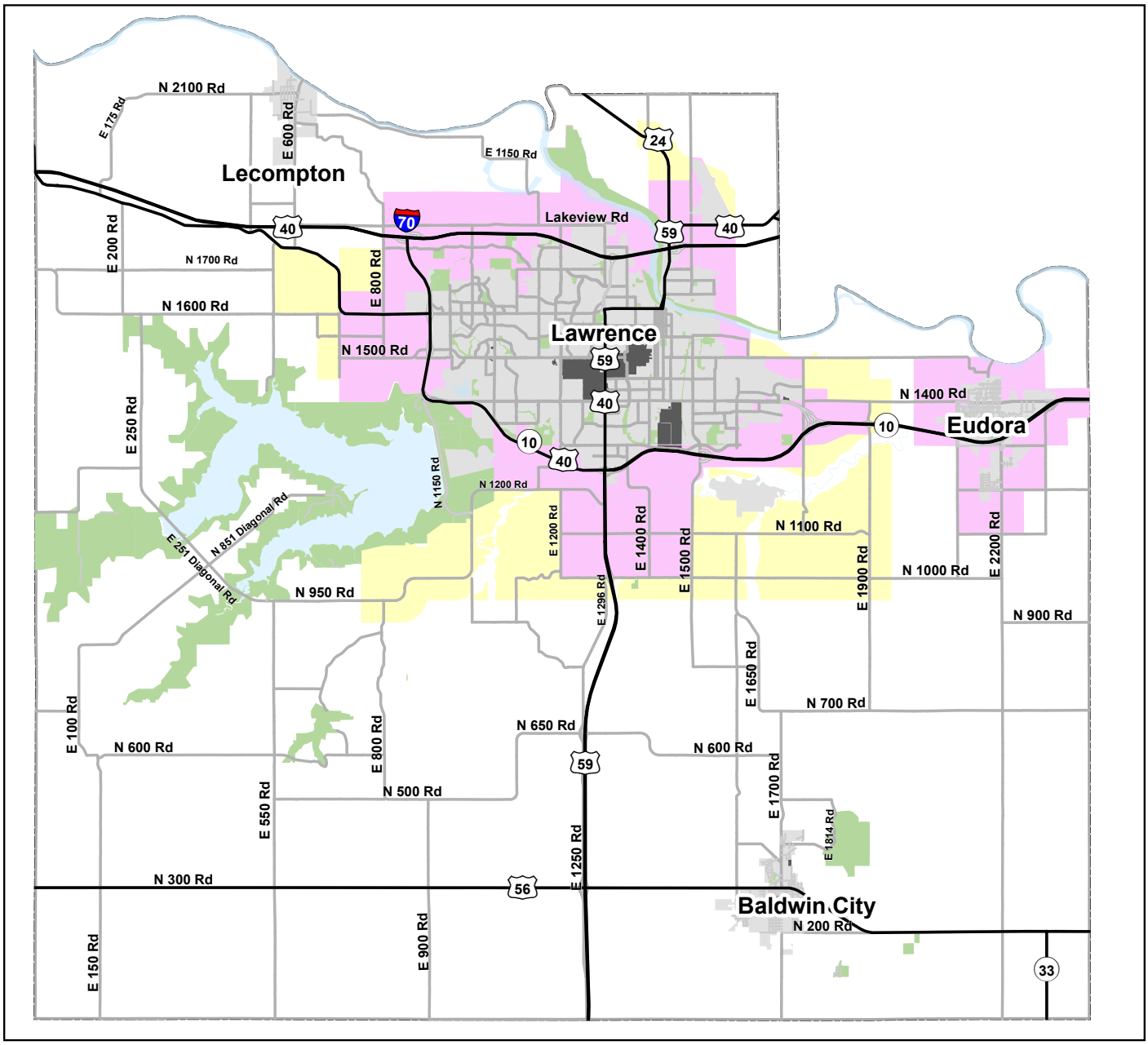
A Metropolitan Planning Organization (MPO) is a regional decision making body charged with developing a transportation plan and related policy and programming documents. The MPO is a group that is composed of representatives from many local governments that collectively discusses the transportation issues facing the metropolitan area and then makes decisions about how to address those issues. The Lawrence-Douglas County MPO is comprised of a Policy Board composed of mostly elected officials, a Technical Advisory Committee (TAC) made up of transportation and engineering professionals, the MPO Staff, and various other advisory groups that the MPO forms. Figure 1 displays the MPO structure. The MPO develops four core documents that create a regional vision for how the multimodal transportation system will function and grow – now and into the future. The MPO's core documents are the Metropolitan Transportation Plan (MTP), Transportation Improvement Program (TIP), the Unified Planning Work Program (UPWP), and the Public Participation Plan (PPP).

Figure 1: MPO Structure



The Lawrence-Douglas County Metropolitan Planning Organization (MPO) serves all of Douglas County, Kansas including Baldwin City, Eudora, Lawrence, and Lecompton (see Figure 2).

Figure 2: Lawrence-Douglas County Metropolitan Planning Area (MPA)



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Source: Lawrence-Douglas County MPO
Produced: Lawrence-Douglas County MPO

What is the TIP?

The Transportation Improvement Program (TIP) documents how the region prioritizes the limited transportation resources available among the various needs of the region.

The TIP is a short-range, multi-year listing of federally funded and/or regionally significant improvements to the region's multimodal transportation system. Projects in the TIP are designed to implement the Metropolitan Transportation Plan (MTP). The TIP must be fiscally constrained and include only projects for which funding has been identified using existing or reasonably available revenue sources. The TIP must be updated at least once every four years. The Lawrence-Douglas County TIP is updated every two years.

The TIP and Transportation 2040

The TIP and Transportation 2040 (the region's Metropolitan Transportation Plan (MTP)) are linked.[1] Transportation 2040 (T2040) is the long range transportation vision; while the TIP is the short range implementation list. For projects to be included in the TIP, they must be consistent with T2040. This ensures projects are implementing the MPO's vision for a healthy, safe, and efficient transportation system, which adequately serves Lawrence, Eudora, Baldwin City, Lecompton, and unincorporated areas of Douglas County. Community input led to the development of the T2040 vision, goals, priorities, and objectives (Table 1). These goals are implemented by the TIP. The Tracking Performance Measures section provides further details on how the two documents are linked.

Table 1: Transportation 2040 Goals and Objectives

Goals	Objectives
 Access & Choices: Enhance Transportation options and choices for improved system performance	Improve regional connectivity (urban/rural) of all modes of the transportation networks including access to desired destinations.
	Enhance transit service, amenities and facilities.
 Mobility & Prosperity: Efficient movement of people, goods, and freight	Implement strategies that address system performance & improve reliability, capacity and competitiveness for regional freight.
 Preservation, Safety, & Security: Prioritize preservation, safety, and security of the transportation network	Support projects and policies that improve safety and security.
	Preserve and enhance transportation infrastructure and assets.
 Sustain & Enhance: Minimize adverse social, economic, and environmental impacts created by transportation	Promote density to reduce transportation costs & reduce environmental impacts of transportation.
	Reduce single occupancy vehicle trips.

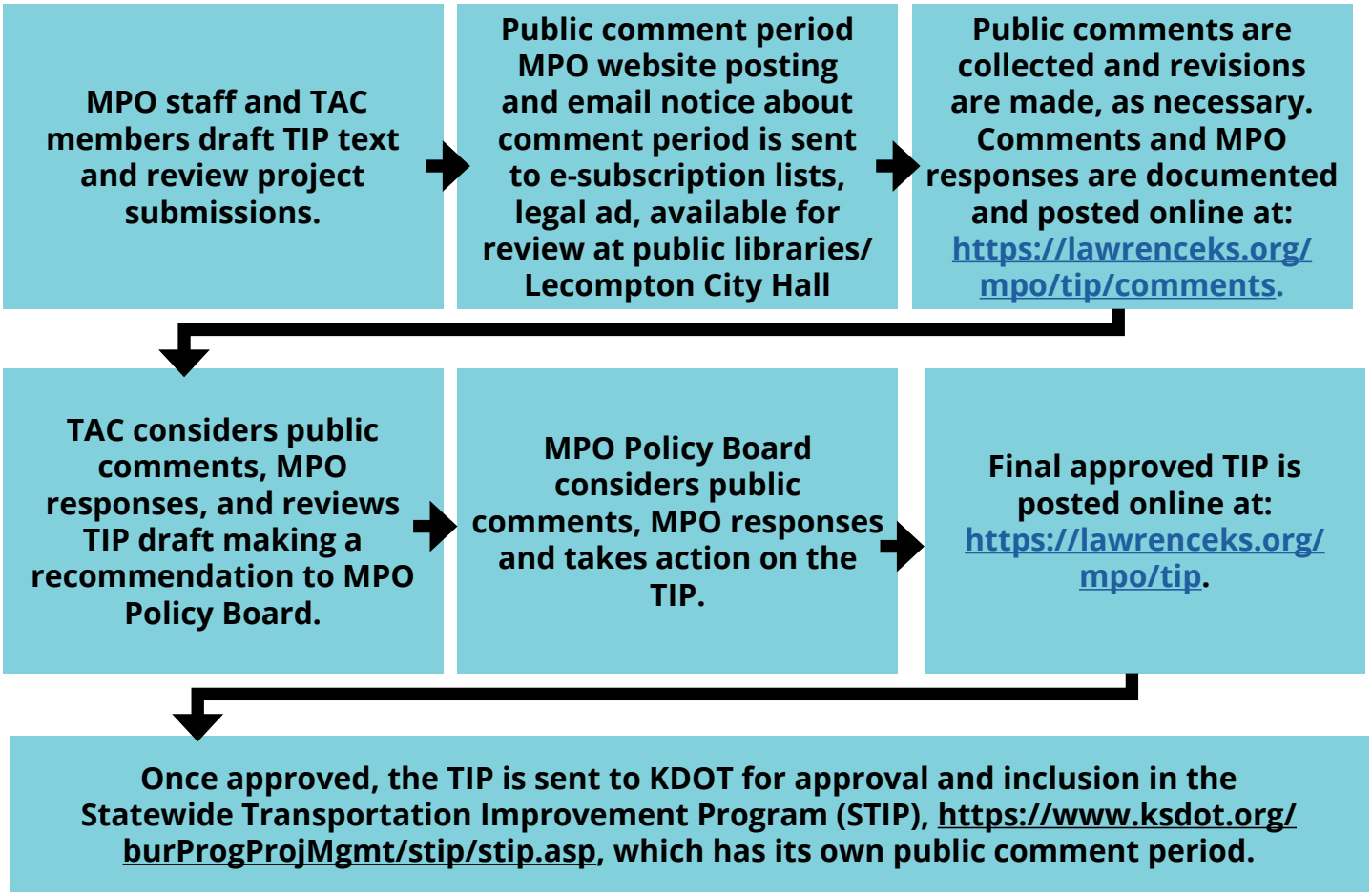
1 https://lawrenceks.org/mpo/t2040

TIP Public Involvement Process

The MPO's Public Participation Plan (PPP) requires a new TIP to undergo a 30-day comment period and amendments require a 15-day public comment period.[1] The full draft TIP is available on the MPO website (www.lawrenceks.org/mpo/tip) and a printed copy is available at Lawrence City Hall, Lawrence Public Library, Eudora Public Library, Baldwin City Public Library, and Lecompton City Hall. The public is notified of the opportunities to review the draft TIP through a local newspaper advertisement, notification by email, and by staff announcements that the draft TIP is available for comment at MPO meetings. These strategies are consistent with the PPP, which addresses how everyone will be engaged in the planning process.

Public comments are posted online at www.lawrenceks.org/mpo/tip/comments and are shared with TAC and the MPO Policy Board. MPO staff reviews the comments and responds to the comment submitter and posts the MPO response in conjunction with the comment online. If comments have direct, applicable action these changes are discussed with the project sponsor (if relevant) and are incorporated into the final draft document sent to the MPO Policy Board for approval. Appendix E contains the public involvement process utilized to develop this TIP. Figure 3 displays the process.

Figure 3: TIP Public Involvement Process



1 Details about the public participation process for the approval and amendment of the TIP can be found at www.lawrenceks.org/mpo/public_participation.

2 PROGRAMMING PROCESS ...HOW DO PROJECTS GET IN THE TIP?

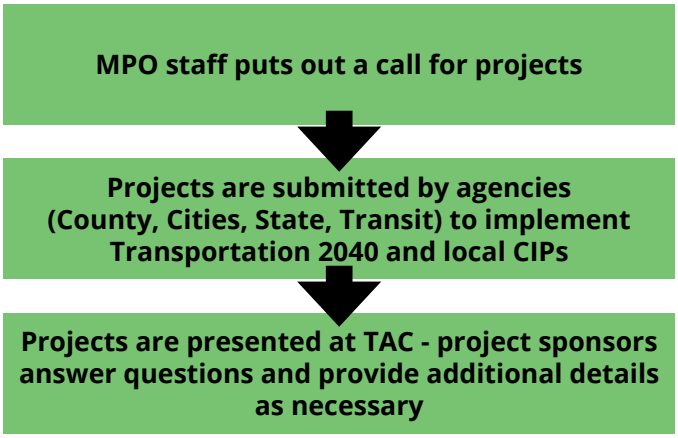
Legislative Requirement

The current federal surface transportation legislation is called the Fixing America's Surface Transportation (FAST) Act.[1] It is a five year (FFY 2016-2020) transportation program signed into law by President Obama on December 4, 2015. MPOs are required to develop a TIP that is fiscally constrained and contain all capital and non-capital surface transportation projects within the MPO area that will receive federal funding, as well as other regionally significant transportation projects.[2]

Process for Including Projects in the TIP

The projects included in the TIP are drawn from the area's Metropolitan Transportation Plan (MTP), County and City governments' Capital Improvement Plans (CIP), as well as the State's Transportation Program known as IKE (formally called the Eisenhower Legacy Transportation Program). The MPO encourages Project Sponsors to use the factors in Appendix A to determine which projects should be prioritized for funding and inclusion in the TIP. Project Sponsors submit projects to the MPO staff for inclusion in the TIP and MPO staff work with TAC members to ensure that the projects are regionally significant and are consistent with the MTP. Figure 4 displays the process for including projects in the TIP.

Figure 4: TIP Project Listing Submission Process



The transit and paratransit projects programmed in the TIP also go through a project selection process. Lawrence Transit staff works with the MPO, FTA, KDOT, and University of Kansas - KU On Wheels (KUOW) staffs to plan and program projects in the TIP that address transit needs and issues identified in the MTP. The KDOT- Office of Public Transportation in consultation with the Urban Corridor Coordinated Transit Council makes the selection of paratransit projects to include in the TIP.

This TIP document contains projects for Lawrence Transit that collectively constitutes the Program of Projects (POP) for Lawrence Transit. This list of transit items is a prioritized list of projects used by the Lawrence Transit staff and reviewed by FTA officials. Approval of the TIP includes the approval of the POP for Lawrence Transit. The public involvement procedures used for TIP development and amendments are used to satisfy the POP requirements for FTA Section 5307 funding.

1 The FAST Act was created as Public Law 114-96. The official legislation can be accessed at https://www.congress.gov/116/plaws/publ9/PLAW-116publ9.pdf

2 In accordance with United States Code Titles 23 and 49, the TIP document must outline at least a four-year program of: 1) All federally funded priority transportation projects, and 2) All regionally significant priority projects, regardless of funding source.

Revisions to the TIP

There are times when information about projects needs to be adjusted. Minor changes to project information are called revisions and are administrative actions with no public involvement required. Major changes are called amendments and require public involvement. Figure 5 displays the TIP amendment process.

Formal Amendments

Amendments to the TIP often consist of major changes to total project cost. Those types of fiscal changes may have impacts on the ability of the TIP and/or the MTP to remain fiscally constrained. The following types of project changes are always handled as TIP amendments:

- Addition or deletion of a project within the first four (4) years of the TIP (federal regulations require this part of the TIP to show fiscal constraint)
- Total costs of a project and/or funding amounts for a project listed in the TIP increase by more than 20% of the total project cost (in the existing TIP);
- Change to a funding source (such as changing from state funding to federal)
- Change to a project scope and/or location (project limits)

Administrative Revisions

Administrative revisions include all revisions that are not formal amendments. These revisions usually involve, but are not limited to:

- Obvious minor data entry errors or editing corrections to text, map, and/or other graphics
- Splitting or combining projects (project scopes and costs cannot change)
- Changes or clarifying elements of a project description (with no major changes in scope)
- Change in funding program or category (such as changing from STP to HSIP funding)
- Change of program year of project within the four-year fiscally constrained TIP
- Minor change of less than 20% of total project cost

In processing administrative revisions MPO staff will:

- Enter the requested revision into the project database.
- Prepare and publish an updated TIP and post it online.
- Notify the Kansas Department of Transportation of the modifications revisions.
- Prepare a summary of the revision to be presented at the next scheduled MPO Technical Advisory Committee and Policy Board meetings (no formal action required).

Administrative Revisions require no public comment.

Figure 5: Amendment Process

Amendment Public Process

TIP amendments must be posted for public review and comment, the MPO staff must collect and review any public comments and share those comments with the TAC and MPO Policy Board to address and/or incorporate them, as necessary, before TIP approval.[1]

A minimum 15-day public comment period is required for the proposed amendments are which is posted on the MPO web page. The MPO staff also places a paper copy of all TIP amendments in a binder kept at the front counter of the MPO Office for public review and comments. In addition, all TIP amendment announcements, including the printed advertisement in the newspaper, have the phone number, mailing address, and email address of the MPO staff listed on them so that anyone with questions or comments about the amendment can contact the staff to discuss it. Following the required 15-day public comment period, all comments will receive a response, either individually or in a summary form. The comments and responses will be posted at www.lawrenceks.org/mpo/tip/ comments prior to distributing the TAC agenda packet (one week before the TAC meeting). The MPO staff presents these public comments and the staff response to the TAC and the MPO Policy Board before they discuss approving the amendment. There is no requirement for a public hearing.

Amendment Schedule

In order to facilitate the process of making TIP amendments, the MPO has a TIP amendment item on the TAC and Policy Board meeting agenda once each quarter (Table 2). These dates to consider TIP amendments will be coordinated with the KDOT calendar for making changes to the Statewide Transportation Improvement Program (STIP). A similar schedule will be followed for the other years covered by this TIP.

Table 2: Quarterly Schedule for TIP Amendments

FFY 2021 Quarterly Schedule for TIP Amendments

TIP Amendment Request Made to MPO Staff	Public Review Period	TAC Approval	MPO Approval	STIP Approval
September 4, 2020	9/10/2020 to 9/25/2020	October 6, 2020	October 15, 2020	November 2020
December 31, 2020	1/7/2021 to 1/22/2021	February 2, 2021	February 18, 2021	March 2021
March 5, 2021	3/11/2021 to 3/26/2021	April 6, 2021	April 15, 2021	May 2021
July 2, 2021	7/8/2021 to 7/23/2021	August 3, 2021	August 19, 2021	August 2021

These dates are approximate and subject to change following discussions between MPO and KDOT staffs and/or discussions at the Technical Advisory Committee (TAC) meetings.

TIP Amendment Request Made to MPO Staff	Public Review Period	TAC Approval	MPO Approval	STIP Approval
September 5, 2021	9/10/2021 to 9/25/2021	October 4, 2021	October 21, 2021	November 2021
March 4, 2022	3/10/2022 to 3/25/2022	April 5, 2022	April 21, 2022	May 2022
May 6, 2022	5/12/2022 to 5/27/2022	June 7, 2022	June 16, 2022	July 2022
July 1, 2022	7/7/2022 to 7/22/2022	August 2, 2022	August 18, 2022	August 2022

These dates are approximate and subject to change following discussions between MPO and KDOT staffs and/or discussions at the Technical Advisory Committee (TAC) meetings.

1 An appropriate level of public involvement activities are outlined in the latest MPO approved Public Participation Plan found online at www.lawrenceks.org/mpo/public_participation.

3 FISCAL CONSTRAINT ...HOW ARE THE PROJECTS PAID FOR?

Project Funding

Projects are funded from several sources. Street and highway projects can be financed entirely by State and/or local funds or by any combination of federal, state, and local funds. The Fixing America's Surface Transportation (FAST) Act provides federal-aid to state and local units of government for surface transportation projects.

The use of Federal Transit Administration (FTA) funds are allocated to transit operators by formulas through the FTA Region 7 Office in Kansas City and through the KDOT Public Transportation Programs Office of Public Transit in Topeka. State transit funds from the Eisenhower Legacy Transportation (IKE) Program flows through KDOT. These funds are utilized for the operations of Lawrence Transit and various paratransit operations in the region.

KDOT administers Federal Highway Administration (FHWA) funding to local governments. The Surface Transportation Block Grant (STBG) Program and Highway Safety Improvement Program (HSIP) categories are the main federal categories or programs that cities receive through KDOT. The STBG Program combines the long-standing Surface Transportation Program and the Transportation Alternatives Program, now known as TA Set-Aside. Some of these funds provide annual allocations to cities while others require local governments to apply for project specific funding. The TA Set-Aside funds have helped build pathways, do historic preservation projects, and other projects outside the scope of traditional road and bridge improvements. They provide funding for former Transportation Alternatives (TA) program and the Safe Routes to Schools (SRTS) programs.

All of the estimated amounts of transportation project funds are included in Table 10: Estimated Revenues and Expenditures (located in the Demonstration of Fiscal Constraint section of this chapter). The estimates of reasonably expected funding levels based on Transportation 2040 historic averages are compared to the levels of federal, state, and local funding for transportation facilities and services that are requested by KDOT and local governments for inclusion in the TIP. Comparing these expected funding levels and funding request levels allows the MPO to determine if the TIP is fiscally constrained.

Federal Funds

The federal funding for road and bridge projects in the region is generally limited to formula funding levels set by the USDOT and KDOT. Those levels have been relatively steady over the last few years with Douglas County receiving about $200,000 and the City of Lawrence receiving about $1.1 million annually in federal aid for roads and bridges. The three smaller cities in Douglas County (Lecompton, Eudora, and Baldwin City) have small public works departments, thus large road or bridge projects are often managed by Douglas County or KDOT.

Discretionary funding for TA Set-Aside program projects is also available on a more sporadic competitive basis. This funding is not guaranteed in any given year, but our region has received some funding and expects to receive more in the foreseeable future. These funding levels have more uncertainty and therefore, projects must have awarded funding to be included in the TIP. If and when local governments in Douglas County are awarded funding from these discretionary programs the MPO will amend the TIP to add that funding and those projects in a timely manner.

Competitive federal transit funds are available. In 2020, Lawrence Transit was awarded $3.76 million in Low or No-Emission (Low-No) Bus funding to purchase five electric buses. Furthermore, Lawrence Transit was awarded funding to assist in the COVID-19 pandemic recovery in the form of Coronavirus Aid, Relief, and Economic Security (CARES) Act funding.

State Funds

State funds used in Douglas County for road and bridge projects are mostly limited to KDOT facilities and projects. The level of KDOT funding expended in the region varies greatly by year due largely to how much work KDOT does on the area's major highways. Recently KDOT spent large amounts of funding to build the South Lawrence Trafficway (new K-10 alignment), and to build a new interchange along K-10 at Bob Billings Parkway/N 1500 Road. All of those projects are KDOT administered projects on KDOT routes, which typically do not significantly impact the local governments' budgets for transportation improvements (although the City of Lawrence/Douglas County contributed $1,000,000 for pedestrian and bicycle facility improvements to the K-10/Bob Billings Parkway interchange). Some other smaller amounts of State funding are used for local projects, such as the occasional purchase of a paratransit van with state money or a state contribution to a local bridge project.

For most local governments in the region the main KDOT funding role has been to provide federal aid to local projects, not to provide large amounts of state aid to local transportation improvements. However, the one example in the region where the state funding of a local project does make a routine and significant difference in the local budget process is state transit operating assistance. Lawrence Transit receives about $1.3 million in state operating and capital assistance annually which is an important part of their budget.

KDOT does not program projects in their budget documents or ask for projects to be added to the TIP unless a specific identified and reasonable funding source is identified. Therefore, KDOT requests for TIP actions represent a fiscally constrained condition for state funded and/or managed projects.

Local Funds

City of Lawrence

Local funds has are comprised of the general fund, gas tax, and the ten year sales tax to improve roads/infrastructure and transit service which was approved in November 2008 was reapproved by Lawrence voters in November 2017. This continuation of sale taxes included 0.3% dedicated to roads/ infrastructure and fire equipment and 0.2% dedicated to funding transit service. The fire equipment portion of the 0.3% tax can not be separated for our analysis (Table 3).

Table 3: Lawrence Sales Tax for Improvement of Roads and Transit Service Projections (Shown in $1,000s)

Source	Tax Percentage	Actual Collection	Projected Collection				
		2019	2020	2021	2022	2023	2024
Roads/Infrastructure & Fire Equipment	0.30%	$5,124	$4,830	$5,347	$5,400	$5,400	$5,481
Transit	0.20%	$4,132	$3,349	$4,258	$4,301	$4,301	$4,365
	Total	**$9,256**	**$8,179**	**$9,605**	**$9,701**	**$9,701**	**$9,847**

2019 information is from https://assets.lawrenceks.org/finance/sales-tax/2019/December.pdf. 2020 & 2021 revised projected collections presented to the City Commission on 7.14.20 during the COVID-19 pandemic. 2022-2024 are projected. The fire equipment portion of the .30% sales tax can't be removed from the roads/infrastructure.

These sales taxes will expire in April of 2029; new referendums will need to be approved to ensure this funding is available in the future. With the addition of those taxes the City has a local dedicated funding source for road and transit improvements that has made funding more predictable. The City is utilizing the sales tax revenue to design and program some large road projects that were not financially feasible prior to the tax. Some projects are now funded with this sales tax revenue and some are still funded with a combination of federal aid and local matching funds.

City of Eudora, Baldwin City, and City of Lecompton

The City of Eudora became a second class city under Kansas statutes in 2010. With the designation, Eudora now receives an annual distribution of STP funding through KDOT. This amount of federal funding is typically small (less than $60,000 on average).

Baldwin City, Eudora and Lecompton have used federal funding sporadically and worked with Douglas County staff to administer major road and bridge projects using federal aid. This cooperation between the small cities and the County for the use of federal aid is expected to continue through the life of this TIP.

Douglas County

Douglas County receives obligation authority for STP funds from KDOT. Douglas County has elected to exchange their available obligation authority of federal funds for state funds at an exchange rate of $0.90 in state funds for every $1.00 in federal obligation authority, per KDOT policy.

On average over the last four years, the County received $454,000 in KDOT's federal funds exchange program, and $75,500 in federal sources such as Federal Lands Access Program and U.S. Fish and Wildlife Service funding.

The County can also apply for TA Set-Aside funds if it chooses to do so. The County does not operate transit service and does not receive federal or state transit funding.

Douglas County has a CIP that is updated on a regular basis and other sources of local funds. Over the last five years, local funding averages $9.3 million a year. However, due to planned mental health initiatives and expansion of the jail, the Board of County Commissioners has reduced the annual CIP allocations for roads and bridges by $1 million for 2019. This annual reduction is anticipated to continue through 2023. The County programs its projects in their CIP and as needed the County staff coordinates its capital planning with the MPO staff for TIP development and changes.

Transit and Paratransit Funds

The public transit operations in Lawrence are composed of a mix of services operated by the Lawrence Transit and the University of Kansas service called KU on Wheels (KUOW). KUOW transit operations are primarily supported by student fees. The City transit service uses state operating assistance, state capital assistance, federal capital assistance, and federal operating assistance to keep buses running. Lawrence also uses local sales taxes to pay for transit. In recent years, Lawrence has used about $2.5 million annually in flexible federal formula Section 5307 subsidies to provide transit services. This annually allocated funding can be used for capital projects (e.g., buying new buses), but most of it has been used for operations. Due to the COVID-19 pandemic the U.S. Congress authorized the Coronavirus Aid, Relief, and Economic Security (CARES) Act, which is providing $3.9 million in operating funds over four years and $3 million in capital funds currently programmed in 2025. Furthermore, Lawrence Transit was awarded $3.76 million in Low or No-Emission (Low-No) Bus funding to purchase five electric buses to replace five diesel powered buses.

Capital assistance levels are typically much more unpredictable than operating assistance, but when the transit capital funding will be needed is fairly predictable because it is based on the life span of buses. That creates a dilemma for transit operators who in the past relied heavily on large discretionary grants from the FTA for bus fleet replacements. Now those large grants are gone and our transit operators are adjusting to buying only a few new buses at a time when funding is available instead of buying many buses on one large grant funded order.

Lawrence Transit uses a relatively constant mix of federal and local funds for operations. Under the State Eisenhower Legacy Transportation (IKE) Program some state operating assistance is received each year.

The paratransit providers in the region provide all or most of their own funds to operate their services, and in some cases they use FTA grants for vehicle purchases. KDOT also funds paratransit vehicles in the region. As part of these vehicle purchases the agency requesting the federal funds is required to provide a local match, and those vehicles are programmed in the TIP.

Operation and Maintenance (O&M) Funding

The fiscal constraint analysis looks primarily at capital projects (e.g., building roads and bridges, buying buses, etc.); however, that is not a complete picture of funding for the region's multimodal transportation system. The funds needed for operating and maintaining transport facilities and services also has to be reviewed. An adequate level of Operations & Maintenance (O&M) funding needs to be budgeted to maintain the federal-aid highways and local roads in the region. Short-changing the O&M budgets to make the road improvement projects fiscally feasible is not appropriate. This funding is divided into Roads/Bridges and Transit.

Road and Bridge Operations and Maintenance Funding Estimates

The expenses for O&M work items are usually paid for by the local government that owns and operates the road and the utility providers that use the road rights-of-ways.

In the case of major highways, KDOT is the owner of the road and maintains those facilities. The major exception to this is the Kansas Turnpike/I-70 which is owned and operated by the Kansas Turnpike Authority. Some of the state highway mileage in Lawrence is provided on City streets through a city connecting link agreement between KDOT and the City. That agreement includes quarterly payments from KDOT to the City to pay a share of the maintenance costs for those route segments carrying a state highway. KDOT plays a role in the maintenance of some major roads in the region (approximately $0.556 million per year), but major highway mileage comprises a small percentage of total roadway mileage. Most of the road mileage in Douglas County is owned by the County, City or Township Governments that levy local property taxes and sometimes other taxes to pay for road maintenance and operations.

O&M consists of routine things such as pothole patching, minor repairs to pavements and curbs, snow removal, striping and marking, utility work and patching, electrical repairs, tree trimming, mowing, signal repairs, sign replacement, bridge maintenance, and other minor work tasks.

The cities and county also receive a portion of the state gas tax collected in Douglas County. This amount of funding is anticipated to continue during the years covered by this TIP. The state supplied pass through gas tax funding is supplemented by local government funds to make up the bulk of Lawrence and Douglas County roadway O&M budgets.

The City of Lawrence has a 2021 O&M budget for its road system of $11.1 million paid with by state gas tax funds, local infrastructure sales tax, general fund, and federal sources. Douglas County has a 2021 O&M budget of $18.5 million paid with a mixture of state gas tax, Capital Improvement Program allocation, Federal Funds Exchange with the State, and local and federal sources. The City of Eudora has a 2021 O&M budget of $722,000 which is funded by Federal Funds Exchange with the State, motor fuel Tax, general fund, and other fees and funds. The City of Baldwin City has a 2021 O&M budget of $460,000 which is made up from motor fuel tax and general funds. The City of Lecompton has a 2021 O&M budget of $7,000 comprised of local funding. It is expected that the local governments in the region will continue to fund their O&M budgets in order to adequately maintain their transportation infrastructure during this TIP period. Table 4 shows the KDOT, Douglas County, the City of Lawrence, Eudora, Baldwin City, and Lecompton O&M expected cost per lane mile.

Table 4: Road and Bridge O&M (Shown in $1,000s)

	KDOT	County*	Lawrence	Eudora	Baldwin City	Lecompton	Total
Base Cost Per Lane Mile	$ 2.7	$ 11.8	$ 12.8	$ 11.3	$ 8.6	$ 0.6	
Lane Miles	204	464	871	73	61	13	**1,687**
2021	$ 556	$ 5,496	$ 11,161	$ 828	$ 527	$ 9	**$ 18,578**
2022	$ 576	$ 5,689	$ 11,513	$ 857	$ 546	$ 9	**$ 19,189**
2023	$ 596	$ 5,888	$ 11,853	$ 887	$ 565	$ 9	**$ 19,798**
2024	$ 617	$ 6,094	$ 12,202	$ 919	$ 585	$ 9	**$ 20,425**
Total	**$ 2,344**	**$ 23,167**	**$ 46,728**	**$ 3,492**	**$ 2,222**	**$ 36**	**$ 77,989**

*Does not include Township roads or road maintenance funds, but County maintenance costs does include bridges and large culverts on township roads that are maintained by the County.

Transit Operations and Maintenance Funding Estimates

Transit operations are funded with a mix of local, state, and federal funds. The transit system in Douglas County is a coordination of services owned and operated by the City of Lawrence, the University of Kansas, social service agencies that run paratransit vehicles, and Johnson County Transit that operates a commuter bus service called the K-10 Connector, which traverses between Lawrence and locations in Johnson County. K-10 Connector funding is programmed in the TIP produced by the Mid-America Regional Council (MARC), which is the MPO for the Kansas City area.

Transit O&M is the cost of operating transit service and maintaining the transit fleet. For example, this includes fuel, driver salaries, and purchasing transit vehicles.

Lawrence Transit

Lawrence Transit service uses federal, state, and local funds for operating and routine maintenance expenses for their fixed-route and complementary paratransit services. Lawrence Transit needs to pay for its services when they are rendered (i.e., when the buses are rolling, burning fuel and labor costs are incurred) by maintaining a cash flow to pay for its vendors and staff as they work. Unlike a road or a bridge that can be bonded for twenty years and paid for over time, transit operations are typically not paid for with debt service. For 2021, Lawrence Transit has an O&M budget of approximately $18.9 million which is funded with a mixture of federal aid, state aid, and local funds. Due to the COVID-19 pandemic the U.S. Congress authorized the Coronavirus Aid, Relief, and Economic Security (CARES) Act, which is providing $3.9 million in operating funds over four years and $3 million in capital funds currently programmed in 2025. Furthermore, Lawrence Transit was awarded $3.76 million in Low or No-Emission (Low-No) Bus funding to purchase five electric buses to replace five diesel powered buses in FFY2021. Lastly a portion of local funding is designated for the multimodal transfer facility. Table 5 displays the Lawrence Transit O&M. The large drop in O&M between 2021 and 2022 is due to the $5.7 million of reserve funding, which a portion will be used for the multimodal transfer facility and the Low-No Bus funding. The levels of O&M expenses and revenues shown in Table 5 (without the $3.5 million multimodal transfer facility and Low-No Bus funding) are anticipated to continue through the four-year fiscally constrained period (2020-2022) since the CARES act funding is being spread out over 2020-2025).

Table 5: Lawrence Transit O&M (Shown in $1,000s)

FFY	2021	2022	2023	2024	Total
Total O&M	$ 18,952	$ 9,595	$ 9,731	$ 9,870	$ 48,148

*Based on information provided by Lawrence Transit

Operations and maintenance funding for Lawrence Transit is shown in Table 9: Estimated Revenues and Expenditures (located in the Demonstration of Fiscal Constraint section of this chapter).

The O&M costs are deducted from the estimated revenues; therefore, funding for O&M projects are not available other projects and the TIP is fiscally constrained.

University of Kansas (KU on Wheels) Transit Funding

The University of Kansas also provides transit services that are available to the general population as well as KU students and staff. Funding for the KU on Wheels system includes a considerable amount of funding that supports fixed route transit in Lawrence. The KU transit funding information listed in Table 6 gives a more complete and realistic account of the size and costs of the transit system in Lawrence.

The KU on Wheels (KUOW) and the Lawrence Transit services are integrated into one route and schedule system and both of these operations accept each other's bus passes. Even though these two services are coordinated into one route map and schedule book, only Lawrence Transit receives FTA funding. The KUOW operations are expected to have reduction for 2021 based on required funding cuts due to the COVID-19 pandemic. The KUOW part of the public transit system in Lawrence is fiscally constrained by the revenues provided by fees that support it.

Table 6: KU on Wheels (KUOW) O&M (Shown in $1,000s)

FFY	2021	2022	2023	2024	Total
Total O&M	$ 4,107	$ 4,184	$ 5,261	$ 5,340	$ 18,892

*Based on financial information from Transportation 2040 and COVID-19 reductions from KU on Wheels

Paratransit

The paratransit providers in the region mostly provide their own funds to operate their services, but in some cases receive a small amount of state operating subsidy from KDOT. Typically, this state operating assistance is only a few thousand dollars per year for each operator. Most of the federal and state aid to paratransit is for vehicle purchases. However, in response to conversations KDOT had with several (FTA-5310) transit providers regarding their needs during the ongoing pandemic, additional funds were provided to agencies based on their fleet size. A total of $5,000 was provided to agencies with a fleet size of less than 10 and $10,000 to those with 10 or more in support of their personal protective equipment (PPE) needs. The additional assistance makes for a total state subsidy of $365,000. In addition to the added funds, KDOT has delivered approximately 25,000 federally purchased face coverings to providers statewide in support of their PPE needs. KDOT currently has 77 active transit agencies utilizing the general public transit program (FTA-5311). Since March 2020 and through SFY2021, the CARES Act has allowed KDOT to reimburse these agencies at 100%, eliminating the local match requirement. Given the large sum of federal funds allocated to Kansas, KDOT will also be able to provide 100% reimbursement for all capital, operating, and administrative expenses. It is expected the apportionment will fund a portion of 2022 as well. Independence, Inc. is the only provider in Douglas County receiving 5311 funds at this time.

The MPO staff works closely with the KDOT transit staff, the Regional Transit Advisory Committee (RTAC), and the Urban Corridor Coordinated Transit Council members to keep informed about the status of paratransit operations and funding issues. Those paratransit issues are discussed in more detail in the Coordinated Public Transit-Human Services Transportation Plan (CPT-HSTP).[1]

Taking into account all transit expenses in the region including Lawrence Transit, KU on Wheels, and the various paratransit providers the regional transit O&M is close to $24.6 million in 2021 (Table 7).

Table 7: Regional Transit O&M (Shown in $1,000s)

FFY	2021	2022	2023	2024	Total
Total O&M	$ 23,562	$ 14,289	$ 15,511	$ 15,736	$ 69,098

*Based on financial information from Lawrence Transit, KU on Wheels, and Transportation 2040

Year of Expenditure (YOE) Inflation Factor

In addition to having a clearly identified source of funding for each roadway, bridge, transit, and enhancement project listed in the TIP, the project sponsor must also present their project costs in year of expenditure (YOE) dollars. This allows the project estimates to take into account inflation and should make them more realistic than using constant dollars. This fiscal analysis uses an annual inflation factor of 1.5% (which matches the T2040 Inflation Factor) for all TIP projects to determine the estimated costs in the year of expenditure. This inflation factor was developed by KDOT in 2012 for use with federal aid projects. TAC and MPO Policy Board members agreed to the YOE inflation rate.

Demonstration of Fiscal Constraint

TIPs are required to have a four year fiscally constrained program of projects. Fiscally constrained means enough financial resources are available to fund projects listed in the TIP. Fiscal constraint also makes good sense.

The MPO accounts for O&M expenditures "Off the Top" from available funding before projects are programmed (Table 8). This ensures there is enough funding to operate, maintain, and preserve the existing transportation system (including roads, bridges, and transit services), which is a high priority of T2040.

1 Access this plan at https://www.lawrenceks.org/mpo/transit.

Table 8: Funding Available for Projects after Accounting for all O&M Expenditures (in $1,000s)

Subtracting O&M "Off the Top" (in thousands)					
	FFY 2021	FFY 2022	FFY 2023	FFY 2024	Total
Anticipated Funding	$ 115,360	$ 92,778	$ 114,811	$ 92,952	**$ 415,902**
Anticipated O&M Expenditures	$ 42,971	$ 34,343	$ 36,208	$ 37,097	**$ 150,619**
Funding Available for Projects	**$ 72,389**	**$ 58,434**	**$ 78,603**	**$ 55,856**	**$ 265,283**

This TIP document provides realistic cost and funding estimates for improvement projects in the first two years of the fiscal constraint period (2021 and 2022). Predicting the revenues which will be available and costs for projects in the second half of that period (2023 and 2024) are a more speculative exercise.

As Transportation 2040 was completed in 2018. The financial data was reviewed to determine if it was still accurate for each jurisdiction. In many cases jurisdictions provided updated data. However, this TIP was developed during the middle of the COVID-19 pandemic, so jurisdictions acknowledged the financial information provided is contingent on recovery efforts. For jurisdictions that did not provide updated financial information, the Transportation 2040 projects which utilized 2012-2016 average funding levels were utilized with a 1.5% inflation factor applied to the average to determine future funding amounts. The MPO has assumed these funding levels for federal funding will remain in place through 2024. The Funding Summary in Table 9 shows the level of projected funding from reasonable sources and the total level of project funding programmed in this TIP are balanced and this TIP is fiscally constrained. The fiscal breakdown by funding source for all roadway and transit projects listed in the 2021-2024 TIP are shown in the table. The projects are shown by year and funding source.

Table 9: Funding Summary (in $1,000s)

Anticipated Funding (in thousands)						
Funding Source		**FFY 2021**	**FFY 2022**	**FFY 2023**	**FFY 2024**	**Total**
Transit	**Federal**	$ 10,705	$ 5,144	$ 8,081	$ 2,993	**$ 26,923**
	State	$ 869	$ 889	$ 910	$ 931	**$ 3,599**
	Local	$ 15,878	$ 10,564	$ 10,632	$ 11,392	**$ 48,466**
Non-Transit	**Federal**	$ 2,247	$ 2,250	$ 2,254	$ 2,257	**$ 9,009**
	State	$ 9,608	$ 5,577	$ 22,248	$ 3,297	**$ 40,729**
	Local	$ 33,083	$ 34,009	$ 34,479	$ 34,985	**$ 136,556**
Transit Total		**$ 27,451**	**$ 16,598**	**$ 19,623**	**$ 15,316**	**$ 78,988**
Non-Transit Total		**$ 44,938**	**$ 41,836**	**$ 58,981**	**$ 40,539**	**$ 186,294**
Grand Total		**$ 72,389**	**$ 58,434**	**$ 78,603**	**$ 55,856**	**$ 265,283**

Anticipated funding is based on the revenue assumptions in Transportation 2040 and information provided by jurisdictions. Local transit funds include KU on Wheels funding. 1.5% growth is applied to the funding and the 2017 Lawrence sales tax referendum (funds roads/infrastructure and transit service) passed, which provides local funding until 2028.

Estimated Expenditures by Year and Funding Source (in thousands)							
Funding Source			**FFY 2021**	**FFY 2022**	**FFY 2023**	**FFY 2024**	**Total**
Transit	**Federal Funds**	**FTA 5307**	$ 4,570	$ 7,876	$ 3,225	$ -	**$ 15,671**
		FTA 5310	$ -	$ -	$ -	$ -	**$ -**
		FTA 5311	$ 116	$ -	$ -	$ -	**$ 116**
		FTA 5339	$ 3,756	$ 192	$ 1,624	$ -	**$ 5,572**
	State-PT		$ 1,321	$ 1,321	$ 1,321	$ 1,321	**$ 5,284**
	Local		$ 12,540	$ 7,084	$ 5,880	$ 5,340	**$ 30,844**
Non-Transit	**Federal Funds**	**CDBG**	$ 300	$ 300	$ 300	$ 300	**$ 1,200**
		HRRR	$ -	$ -	$ -	$ -	**$ -**
		HSIP	$ 500	$ 1,511	$ 500	$ 500	**$ 3,011**
		NHPP	$ 4,002	$ 1,546	$ -	$ -	**$ 5,548**
		STP	$ 2,923	$ -	$ -	$ -	**$ 2,923**
		TA	$ 1,993	$ 3,814	$ 1,291	$ -	**$ 7,098**
	State		$ 6,433	$ 2,055	$ 2,700	$ (100)	**$ 11,088**
	State AC Conversion*			$ (2,046)	$ (500)	$ (500)	**$ (3,046)**
	Local		$ 8,468	$ 25,221	$ 7,631	$ 16,750	**$ 58,070**
Transit Total			**$ 22,303**	**$ 16,473**	**$ 12,050**	**$ 6,661**	**$ 57,487**
Non-Transit Total			**$ 24,619**	**$ 32,401**	**$ 11,922**	**$ 16,950**	**$ 85,892**
Grand Total			**$ 46,922**	**$ 48,874**	**$ 23,972**	**$ 23,611**	**$ 143,379**

*State AC Conversions are negative because the State is receiving federal reimbursement for funds spent in previous years (as noted in the project listing).

** While CDBG funding is not required to be in this TIP, it is part of #507 which includes various bike/sidewalk/ADA ramps projects in Lawrence.

4 PERFORMANCE MEASURES ...HOW ARE WE DOING?

The Moving Ahead for Progress in the 21st Century Act (MAP-21) and Fixing America's Surface Transportation (FAST) Act requires Performance-Based Planning and Programming (PBPP) in the development of the MTP and TIP. Transportation 2040 (T2040) is the region's MTP. The TIP acts as the implementation arm of T2040. T2040 has 26 performance measures: 12 federally mandated and 14 community established. The T2040 performance measures promote the overarching goals shown below. Table 10 illustrates which T2040 goals the TIP's projects are implementing.

Table 10: Projects addressing Transportation 2040 Goals

#	Project	Enhance transportation options & choices for improved system performance	Efficient movement of people, goods, & freight	Prioritize preservation, safety, & security of the transportation network	Minimize adverse social, economic, & environmental impacts created by transportation
106	Wakarusa Drive Extension	X	X	X	
117	Naismith Drive Reconstruction: 19th St. to 23rd St.	X	X	X	
135	K-10: West of E1900 East to DG/JO County Line Surfacing			X	
136	K-10: West Leg Surfacing			X	
137	US-40 in Douglas County (1R Project)			X	
138	US-56 in Douglas County (1R Project)			X	
141	Church Street Improvements: 15th St. to 14th St.	X	X	X	X
214	Wakarusa Drive Reconstruction, Research Pkwy. to 23rd St.	X	X	X	
219	Rte 458 Improv., E1500 to E1600, & Rte 1055, N940 to N1000			X	
229	19th Street Reconstruction, O'Connell Rd. to Harper St.	X	X	X	X
230	Queens Road: 6th St. to North City Limits	X	X	X	X
234	23rd Street Reconstruction, Haskell to East City Limits	X	X	X	X
248	Bridge 0964-1000 replacement			X	
249	Repair bridge #071 on K-10 in Douglas County			X	
401	Independence Inc., FTA 5311 Operating & Capital	X		X	X
403	Lawrence Transit Capital Assistance	X	X	X	X
410	Lawrence Multi-Modal Center	X	X	X	X
412	Lawrence Transit Operating Funds	X	X	X	X
416	Lawrence Transit Electric Buses	X			X
417	CARES Act Operating Funds	X	X	X	X
507	Various Lawrence Sidewalk/Bike/Ped/ADA Ramps Projects	X	X	X	X
508	Lawrence Loop Shared-Use Paths - 8th St. to 11th St. & 29th St.	X		X	X
509	West Baldwin Pedestrian/Bike Connectivity Project	X	X		X
511	West Baldwin Pedestrian/Bike Connectivity Project Phase 2 & 3	X	X		X
512	Lawrence Loop Shared Use Path - Peterson Rd. to Michigan St.	X	X		X
513	Lawrence Safe Routes to School Phase 2 (2021)	X	X	X	X
514	Naismith Drive Mobility Enhancement	X	X		X
600	Various Railroad Safety Projects in the Region		X	X	
605	DGCO: High Friction Surface Treatment			X	

Green shading indicates project sponsors selected the project improving the goal, gray indicates the goal is not being furthered by the project

PBPP is accomplished by tracking performance measures, setting data-driven targets for each measure, and selecting projects to help meet the targets. The federal performance measures include:

- Safety
- Pavement & Bridge
- System Performance
- Transit

Each federal measure has target setting requirements, which provides the MPO guidance for how our region is doing to achieve the measures. The MPO developed a rolling schedule to update performance measure data based on data availability and when targets are to be reported to KDOT. The most up-to-date data and targets can be found at https://lawrenceks.org/mpo/t2040/pm. Through the TIP development process, project sponsors were asked a series of questions to determine if the project would assist the MPO in reaching the region's desired targets. For this discussion it is important to note, there are thirty (30) projects included in the fiscally constrained TIP.

Safety Targets

Safety targets are based on a five-year rolling average and annual targets are set. Table 11 displays the current safety targets for 2020. Safety data is obtained from KDOT each August and targets are determined for the next target year in October. Safety performance measures reflect data for all public roads including the number of fatalities, rate of fatalities per 100 million Vehicle Miles Traveled (VMT), number of serious injuries, rate of serious injuries per 100 million VMT, and number of non-motorized fatalities and serious injuries.

Table 11: L-DC MPO T2040 Safety Targets - 2020

Safety	2020
9) Number of fatalities	7.1
10) Rate of fatalities per 100 million VMT	0.8
11) Number of serious injuries	15.0
12) Rate of serious injuries per 100 million VMT	1.1
13) Number of non-motorized fatalities & serious injuries	4.2

TIP Projects Working Towards Safety Goals

All but one of the non-transit projects have some component to address safety concerns. They are categorized as intersection projects, railroad projects, standalone bicycle/pedestrian projects, roadway projects including bicycle and pedestrian elements, and roadway projects. Table 12 displays the projects per category and describes the safety impact of the improvement. Further, common improvements which improve safety and corresponding projects are listed below.

Common Improvements That Impact Safety

Separated or dedicated facilities for pedestrians and bicyclists

According to a report from the Office of the New York City Mayor, when protected bike lanes are installed, injury crashes for all road users (motorists, pedestrians, and bicyclists) typically drop by 40% and by more than 50% in some locations.[1] (Example: Project #508: Lawrence Loop Shared Use Paths - 8th St to 11th St & 29th St)

Dedicated vehicle turning movements lanes

By creating two way left turn lanes, vehicles are separated from through traffic improving traffic flow and reduce the potential risk of rear end crashes. (Example: Project #214: Wakarusa Dr. Reconstruction, Research Pkway to 23rd St)

1 Howard Wolfson Memo on March 21, 2011 regarding Bike Lanes - http://www.nyc.gov/html/om/pdf/bike_lanes_memo.pdf

Access management
Access management improves safety by separating access points so turning and cross movements occur at fewer locations. (Example: Project #234: 23rd Street Reconstruction: Haskell Ave to East City Limits)

Roundabouts
According to AASHTO Highway Safety Manual, installing roundabouts reduce the types of crashes where people are seriously hurt or killed by 78-82% when compared to conventional stop-controlled and signalized intersections.[1] (Example: Project #230: Queens Road: 6th St to North City Limits)

Meeting design standards
The safety of the roadway can be improved by flattening roadside slopes and making geometric improvements to bring roadways up to design standards. (Example: Project #219: Route 458 Improvements, E 1500 to E 1600 & Route 1055, N940 to N1000)

Table 12: Projects addressing L-DC MPO Safety Targets

Roadway - Resurfacing		
#	**Project Name**	**Improvement with Safety Impact**
135	K-10: West of E1900 East to DG/JO County Line Surfacing	Resurfacing providing smoother pavement
136	K-10: West Leg Surfacing	Resurfacing providing smoother pavement
137	US-40 in Douglas County (1R Project)	Resurfacing providing smoother pavement
138	US-56 in Douglas County (1R Project)	Resurfacing providing smoother pavement
605	DGCO: High Friction Surface Treatment	Applying high-friction road surface treatment helps maintain pavement friction reducing crashes

Roadway - Geometric Improvements		
#	**Project Name**	**Improvement with Safety Impact**
106	Wakarusa Drive Extension	Potentially remove two at-grade intersections on K-10 in conjunction with KDOT's construction of interchange
139	Wakarusa Dr. Reconstruction: 6th St. to Harvard Rd.	Intersection improvements
219	Rte 458 Improv., E1500 to E1600, & Rte 1055, N940 to N1000	Provide paved shoulders and flatten roadside slopes

1 FHWA's Office of Safety - https://safety.fhwa.dot.gov/intersection/innovative/roundabouts

Table 12: Projects addressing L-DC MPO Safety Targets (Continued)

Roadway - Pedestrian and Bicycle Facilities		
#	**Project Name**	**Improvement with Safety Impact**
117	Naismith Drive Reconstruction: 19th St. to 23rd St.	Roadway work will include bicycle facilities
214	Wakarusa Drive Reconstruction, Research Pkwy to 23rd St.	Roadway work will include pedestrian and bicycle facilities and two way left turn lanes
229	19th Street Reconstruction, O'Connell Rd to Harper St.	Roadway work will include pedestrian and bicycle facilities,and access management
230	Queens Road: 6th to North City Limits	Roadway work will include bicycle/pedestrian elements and geometric improvements
234	23rd Street Reconstruction, Haskell to East City Limits	Roadway work will include pedestrian and bicycle facilities, access management, and turn lanes
141	Church Street Improvements: 15th St. to 14th St.	Multimodal facilities and traffic light

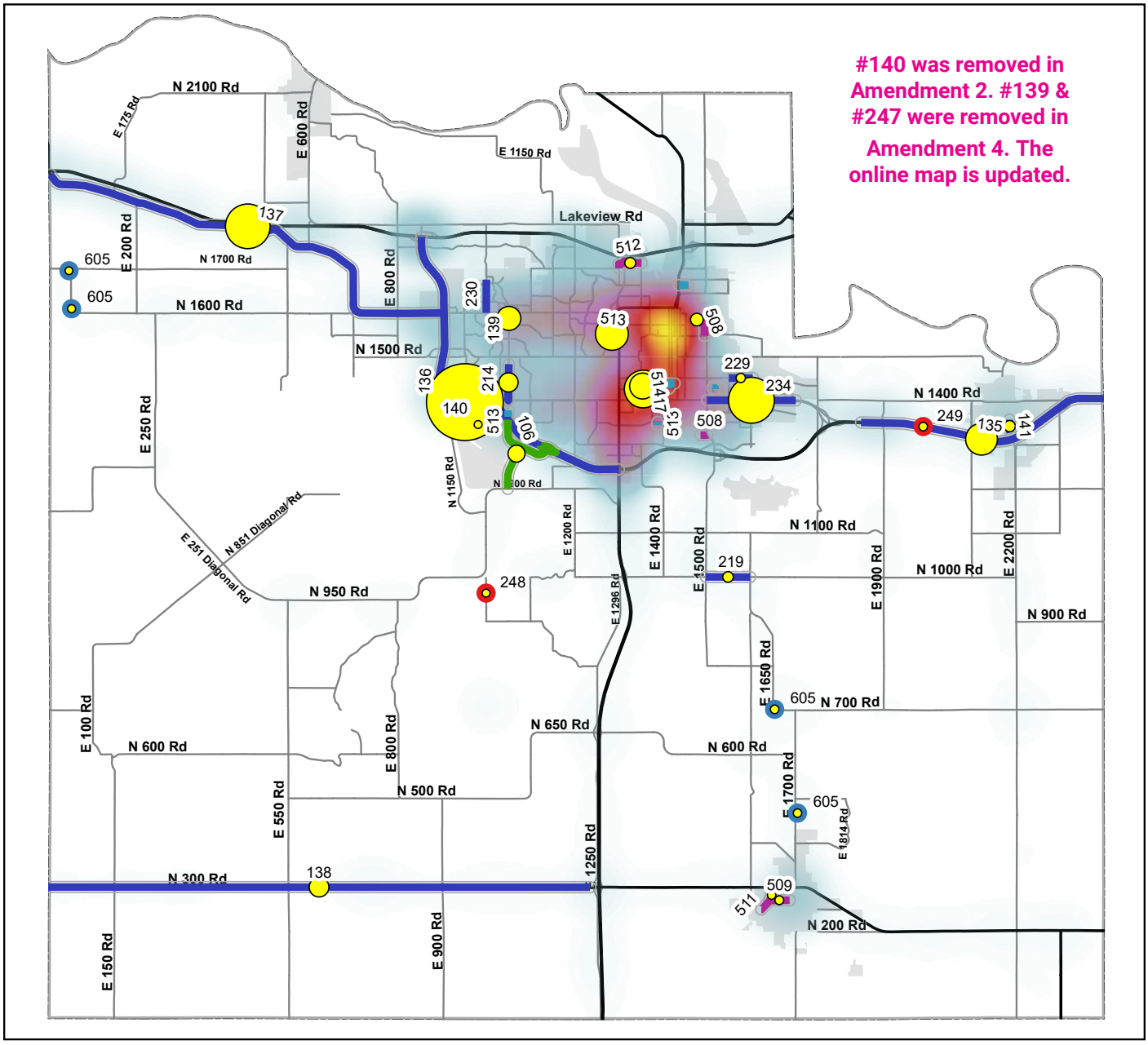
Bicycle and Pedestrian Projects		
#	**Project Name**	**Improvement with Safety Impact**
507	Various Lawrence Sidewalk/Bike/Ped/ADA Ramps Projects	Install pedestrian and bicycle projects and ADA ramps
508	Lawrence Loop Shared Use Paths - 8th St. - 11th St & 29th St.	Install Shared Use Paths
509	West Baldwin Pedestrian/Bike Connectivity Project	Install sidewalk
511	West Baldwin Pedestrian/Bike Connectivity Project Phase 2 & 3	Install a Shared Use Path
512	Lawrence Loop Shared Use Path - Peterson Rd. to Michigan St.	Install Shared Use Paths and a grade separated crossing
513	Lawrence Safe Routes to School Phase 2 (2021)	Install sidewalk
514	Naismith Drive Mobility Enhancement	Install pedestrian and bicycle facilities

Bridge		
#	**Project Name**	**Improvement with Safety Impact**
248	Bridge 0964-1000 replacement	Replace with a wider bridge
249	Repair bridge #071 on K-10 in Douglas County	Bridge repair

Railroad		
#	**Project Name**	**Improvement with Safety Impact**
600	Various Railroad Safety Projects in the Region	This grouped project is for railroad safety projects that improve safety hazards at public railroad crossings. It targets known railroad safety issues throughout the region.

The MPO examined 2017-2019 crash data provided by KDOT to determine high crash locations. As shown in Figure 6, there were twenty-five (25) crashes between 2017-2019 near the TIP project locations. Twenty-one (21) of the non-transit projects are improving safety.

Figure 6: TIP Projects at Crash Locations



Overall Crash Heat Map

Least Dense

Most Dense

*The overall crash heat map includes pedestrian and bicycle crashes as well.

Vehicle Crashes within 1/8 Mile of TIP Project

1

5

10

50

100

Bridge

Surfacing

Pedestrian/Bicycle

Road

Road/Bridge

Safe Routes to School

City Limits

County Limits

N

0 3.5 7 Miles

Date Exported: 8/20/2020
Source: KDOT 2017-2019
Produced: Lawrence-Douglas County MPO

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Pavement & Bridge Targets

Pavement data categorizes pavement as Good and Poor. Good condition suggests no major investment is needed, while poor condition suggests major reconstruction investment is needed. Pavement condition is evaluated by measuring International Roughness Index (IRI), Present Serviceability Index (PSR), Cracking Percent, Rutting, and Faulting (uneven slabs of concrete). Bridge data is based on deck area. Condition is determined by the lowest rating of deck, superstructure, substructure, or culvert. National Highway System (NHS) bridge condition and Interstate and Non-Interstate NHS pavement condition data is provided by KDOT. The bridge targets are shown in Table 13, while the pavement targets are in Table 14.

Table 13: L-DC MPO T2040 NHS Bridges by Deck Area Targets - 2022

Bridge	2022
14) Percentage of NHS bridges by deck area classified as in GOOD condition	95.8%
14) Percentage of NHS bridges by deck area classified as in POOR condition	0.0%

Table 14: L-DC MPO T2040 Interstate and Non-Interstate NHS Pavement Condition Targets - 2022

Pavement	2022
18) Percentage of pavements of the Interstate System in GOOD condition	96%
18) Percentage of pavements of the Interstate System in POOR condition	0%
19) Percentage of pavements of the Non-Interstate NHS in GOOD condition	58%
19) Percentage of pavements of the Non-Interstate NHS in POOR condition	3%

TIP Projects Working Towards Pavement & Bridge Goals

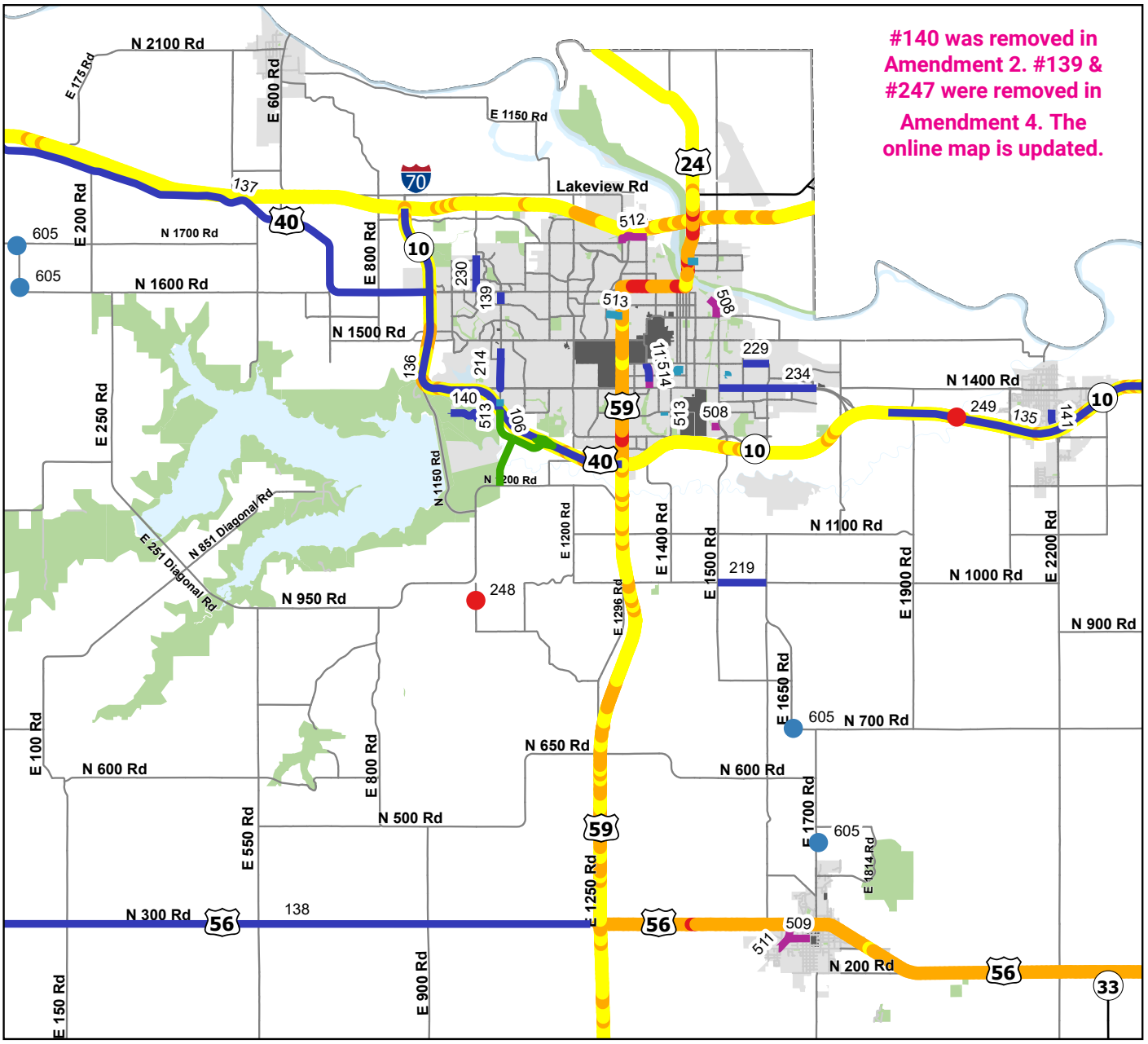
There are 3 bridge projects in the TIP. One is a NHS bridge - #249 the K-10 bridge over the Wakarusa River. Improving the overall quality of bridges in Douglas County will assist in achieving the local performance measures of improving non-NHS bridges. Table 15 displays the projects which improve pavement conditions.

Table 15: Projects Improving Pavement Conditions on the Non-Interstate NHS

#	Project Name	Years	Length	Total Cost
135	K-10: West of E1900 East to DG/JO County Line Surfacing	2019-2021	5.8	$ 1,241
136	K-10: West Leg Surfacing	2020-2021	8.4	$ 3,766
138	US-56 in Douglas County (1R Project)	2020-2021	12.3	$ 1,782
139	Wakarusa Dr. Reconstruction: 6th St. to Harvard Rd.	2023-2024	0.25	$ 3,300

Figure 7 displays TIP projects and NHS pavement condition. It assists in determining if projects will assist in improving “poor” pavement and achieving our pavement condition targets. The other projects which are not on the NHS will help achieve the local performance measures of improving non-NHS major roads (collector and above) pavement condition.

Figure 7: Fiscally Constrained TIP Projects and 2017 Pavement Data



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N

0 3.25 6.5 Miles

Date Exported: 8/20/2020
Source: KDOT 2017
Produced: Lawrence-Douglas County MPO

System Performance Targets

Reliability performance measures relate to person-miles traveled on the Interstate and Non-Interstate NHS, as well as truck travel time reliability on the Interstate. This equates to consistency or dependability of travel times. This data all comes from National Performance Management Research Data Set (NPMRDS) RITIS. The Interstate (I70) is maintained by the Kansas Turnpike Authority (KTA). Table 16 displays the system performance reliability targets.

Table 16: L-DC MPO T2040 Reliability Targets - 2022

System Peformance	2022
6) Percent of the Person-Miles Traveled on the Interstate That Are Reliable (LOTTR)	99%
6) Percent of the Person-Miles Traveled on the Non-Interstate NHS That Are Reliable (LOTTR)	99%
8) Truck Travel Time Reliability (TTTR) Index on the Interstate system	1.07

TIP Projects Working Towards System Performance Goals

There are no TIP projects that are part of the interstate system. Thus there are no specific projects working to achieve the person-miles traveled and truck travel time reliability targets pertaining to the interstate (T2040 PM 6 and 8). Furthermore, the data is provided as a set number by from NPMRDS RITIS and there is no way to determine which portion of the roadway is assigned a specific score. There are five (5) projects on the Non-Interstate NHS, but none of them improve the person-miles traveled reliability (LOTTR) as none of the projects are adding auto capacity.

Transit Targets

Transit State of Good Repair measures include the Useful Life Benchmark (ULB) for revenue and non-revenue vehicles by auto type including full-sized buses, cutaway buses, vans, minivans, SUVs, and automobile. The percentage of assets with a condition rating below 3 on the FTA Transit Economic Requirements Model (TERM) scale is another federal performance measure, but there are no federally funded transit facilities in the MPO area. The MPO supports the State's target, but collected transit state of good repair information for local planning purposes only (Table 17).

Table 17: L-DC MPO T2040 Transit State of Good Repair Targets (Useful Life Benchmark – ULB)

Transit State of Good Repair		Vehicle Type	Target
16)	Revenue Vehicles	Full-sized bus	25%
		Cutaway bus	25%
		Van	25%
		Minivan	25%
16)	Non-Revenue Vehicles (Equipment)	Minivan	75%
		SUV	75%
		Automobile	75%
17)	Percentage of assets with a condition rating below 3 on the FTA Transit Economic Requirements Model (TERM) scale	There are no federally funded facilities	

The Useful Life Benchmark (ULB) is the expected service years for a vehicle class. For example, a minivan is expected to last for at least 8 years. The MPO supports the State's targets. Targets set in the State TAM Plan are used for federal reporting. The L-DC MPO Target are for local planning purposes only.

Table 18 displays the Lawrence Transit 2020 Safety Targets. Lawrence Transit accepted the State's targets for all of the measures except system reliability. Safety events are comprised of collisions, fires, hazardous material spills, act of nature (Act of God), evacuation, or [other safety occurrence not otherwise classified] occurring on transit right-of-way, in a transit revenue facility, in a transit revenue facility, or in a transit revenue vehicle and meeting established NTD thresholds. These measures will be updated yearly.

Table 18: Lawrence Transit Safety Targets - 2020

Mode of Transit Service	Fatalities (Total)	Fatalities (per 100 Thousand Vehicle Revenue Miles)	Injuries (Total)	Injuries (per 100 Thousand Vehicle Revenue Miles)	Safety Events (Total)	Safety Events (per 100 Thousand Vehicle Revenue Miles)	System Reliability (Vehicle Revenue Miles/Failures)
Fixed Route Bus Service	0	0	2	0.2	2	0.2	40,000
Demand Response Bus Service	0	0	2	0.2	2	0.2	40,000

Source: 2020-State Sponsored Agency Safety Plan Lawrence Transit and Kansas Department of Transportation. Lawrence City Commission 8/18/2020.

TIP Projects Working Towards Transit Goals

According to information provided by project sponsors, four (4) out of six (6) transit projects will help address the transit useful life benchmark (shown in Table 19). The projects include purchasing new transit vehicles and preventative maintenance on vehicles. By purchasing these new vehicles the overall percentage of vehicles at or exceeding the Useful Life Benchmark (ULB) will be reduced (Table 19), Further, the Lawrence Transit Capital, Operating, and Electric Buses projects will work towards meeting the Lawrence Transit specific System Reliability Transit Safety target shown in Table 18 These projects are shown in Table 20.

Table 19: Projects addressing L-DC MPO Transit Useful Life Benchmark Targets

#	Project Name	How the Project Improves Transit ULB
401	Independence Inc., FTA 5311 Operating & Capital	Vehicle preventative maintenance/Purchase new vehicle
403	Lawrence Transit Capital Assistance	Purchase paratransit vehicles
412	Lawrence Transit Operating Funds	Vehicle preventantive maintenance
416	Lawrence Transit Electric Buses	Replaces five diesel powered buses with electric buses

Table 20: Projects addressing Lawrence Transit Safety Targets

#	Project Name	How the Project Improves Transit ULB
403	Lawrence Transit Capital Assistance	Purchase paratransit vehicles
412	Lawrence Transit Operating Funds	Vehicle preventantive maintenance
416	Lawrence Transit Electric Buses	Replaces five diesel powered buses with electric buses

Progress towards Targets

In summary, based on information available, the MPO believes we are on track to meet the goals set in Transportation 2040.

Evaluating Performance over Time

Federal performance measures will be tracked annually in the performance measure report – T2040 Appendix F: System Performance Report, which will be updated on a rolling basis based on when data is available. View the most current data at the performance measure website: https://lawrenceks.org/mpo/t2040/pm. Performance measures will be evaluated as part of the annual report process and may be altered as the MPO Policy Board deems necessary (based on the Public Participation Plan (PPP)). Evaluating performance measures will be updated when a full TIP update is completed or if regulations have changed requiring an update.

5

ENVIRONMENTAL JUSTICE REVIEW & EQUITY ...HOW ARE WE ELEVATING EQUITY?

The Environmental Protection Agency (EPA) defines Environmental Justice as the "fair treatment for people of all races, cultures, and incomes, regarding the development of environmental laws, regulations, and policies." Environmental Justice (EJ) is a federal requirement that projects using federal funds be selected and distributed fairly to all people regardless of income or race and that all people have equal access to the benefits afforded by federally funded projects as well as equal access to the decision-making process for the selection of those federal projects.[1] This concept is conveyed in the three Environmental Justice Principles shown in Figure 8.

Figure 8: U.S. DOT Environmental Justice Principles

To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.	**To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.**	**To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.**

Read about how the MPO is providing access to the transportation planning process at www.lawrenceks.org/mpo/public_participation.[2]

Methodology for Identifying EJ Populations

The MPO identifies minority and low income populations and evaluates their proximity to TIP projects at a regional scale. The MPO then examines the distribution of funds. However, ultimately project selection and scope are the responsibility of the project sponsor. Thus the MPO recommends project sponsors consider equity when selecting projects.

Define Target Populations and Thresholds

Low-income and minority populations were identified in the MPO area. This is done by utilizing Census block groups and 2014-2018 American Community Survey (ACS) 5-year estimate data. Block groups are determined to meet the EJ threshold if they meet either of the criteria listed below.

Low/Moderate Household Income Population, by 2010 Census Block Groups (vintage 2018 TIGER/ Line Shapefiles and April 2019 income data)

The threshold for low/moderate household income was 51 percent or more of the population residing in households earning less than 80 percent of the area's median income. The City of Lawrence Neighborhood Resources Division of the Planning and Development Services Department currently

1 This policy is defined in Executive Order 12898 that was signed by President Clinton on February 11, 1994.

2 Title VI Civil Rights and Environmental Justice Non-Discrimination issues can be found in the MPO's Title VI Program Manual and the Public Participation Plan. More Environmental Justice information related to programs, including MPO operations which are funded by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA), can be found at the following website: https://www.fhwa.dot.gov/environment/environmental_justice/

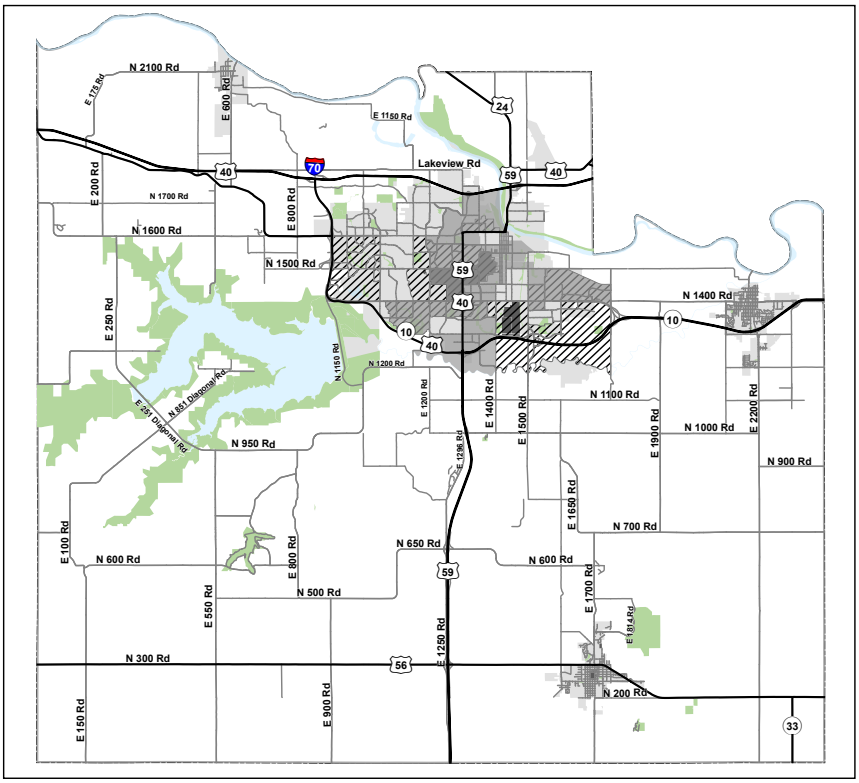
uses this information to identify areas within the community that have higher concentrations of low and moderate income residents. This data is updated every five years unless there is a change to the census tracks and block group boundaries. Various housing rehabilitation program funds and Community Development Block Grant (CDBG) funds are targeted toward these areas.

99% Confidence Interval for the Mean Minority Population, by 2010 Census Block Groups (vintage 2019 TIGER/Line Shapefiles)

The US Census Bureau collects demographic data for one race and a combination of races. For this review, only one race data attribute was used to depict areas within Douglas County that have a minority population within the 99% Confidence Interval average population residing in Lawrence and Douglas County. Essentially, a confidence interval indicates a range of values that's likely to encompass the true value in our community. With a 99% mean confidence interval we are 99% sure that the interval contains all of the values. The mean minority population is 12.87%. The 99% confidence interval is ± 3.46%. Therefore, 12.86% + 3.46% equals 16.3%. So we are 99% sure that the minority population is over 16.3%.

The majority race in this region is White/Caucasian and the other races collectively are considered as the minority group population for this EJ analysis. The 2014-2018 American Community Survey 5-Year Estimates indicates the minority population within Douglas County represents 13.7% of the total population. In Lawrence, the minority population is slightly higher representing 15.9% percent of the total population. The EJ zone is shown in Figure 9 and Figure 10.

Figure 9: EJ Zone (Douglas County)



Environmental Justice (EJ) zones are comprised of low to moderate income households (shown in gray) and/or minority households (indicated with diagonal lines) populations. These zones are updated utilizing income information from the US Housing & Urban Development (HUD) Department and race data from the US Census Bureau American Community Survey.

Low-Moderate Income Block Groups | Parks | Water | County Limits

99% Confidence Interval Minority Block Groups | University | City Limits

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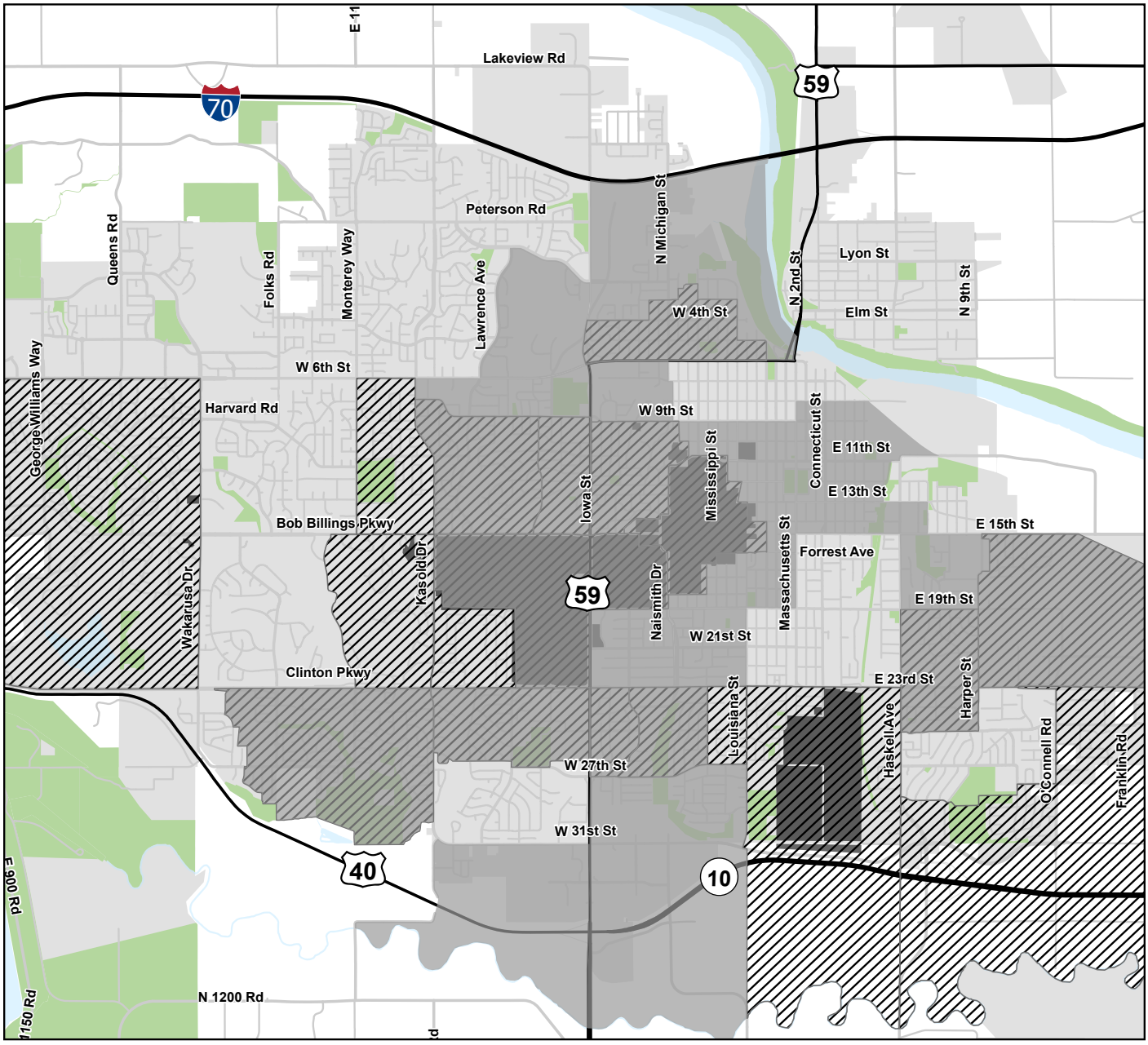
Date Exported: 8/24/2020
Source: 2018 ACS 5-yr Est. & CDBG Income
Produced: Lawrence-Douglas County MPO

Figure 10: EJ Zone (Lawrence)



Environmental Justice (EJ) zones are comprised of low to moderate income households (shown in gray) and/or minority households (indicated with diagonal lines) populations. These zones are updated utilizing income information from the US Housing & Urban Development (HUD) Department and race data from the US Census Bureau American Community Survey.

- Low-Moderate Income Block Groups
- 99% Confidence Interval Minority Block Groups
- Parks
- University
- Water
- City Limits

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Date Exported: 8/21/2020
Source: 2018 ACS 5-yr Est. & CDBG Income
Produced: Lawrence-Douglas County MPO

Elevating Equity

The MPO desires to elevate equity analysis as a tool to encourage conversation about project selection and impacts of projects to local project sponsors. This is done by providing data driven information to project sponsors and discussing the need to create real choices in where people live and how people travel for all of our residents, across age, race and ethnicity, economic means, and ability.

Transportation Disadvantaged Populations

An additional analysis was conducted for other transportation disadvantages populations which may not be included in the traditional EJ analysis. Several population characteristics were analysed to elevate equity. These characteristics include: households with a person who has a disability, people who have less than a high school education, minorities, single parent households, zero vehicle households, population under 18 and over 65, and low-moderate income households. The regional average was found for each topic except for income. Then one point was assigned if the block group was equal to or 20 percent higher than the regional average. Two points were attributed if the block group was 20 percent to 40 percent of the regional average. And three points were assigned if the block group was greater than 40 percent higher than the regional average. Low-moderate income data is the Community Development Block Grant (CDBG) identified low-moderate income areas. A block group is low-moderate income if the low-moderate income percentage for the block group is 51.0%. The 27 block groups that are considered low-moderate income were split into 3 groups of 9 and the highest percentage of low-moderate income were assigned three points, then two points, and lastly one point. Table 21 displays the regional average and the point range for each topic. Figure 11 displays the Douglas County map. Figure 12 shows the Lawrence specific Transportation Disadvantaged Population analysis. To view information about the Lawrence specific analysis visit https://lawrenceks.org/mpo/transportation-disadvantaged. Transportation Disadvantaged Population Scores which are higher correlates to additional scrutiny necessary to ensure these populations are not disproportionately affected.

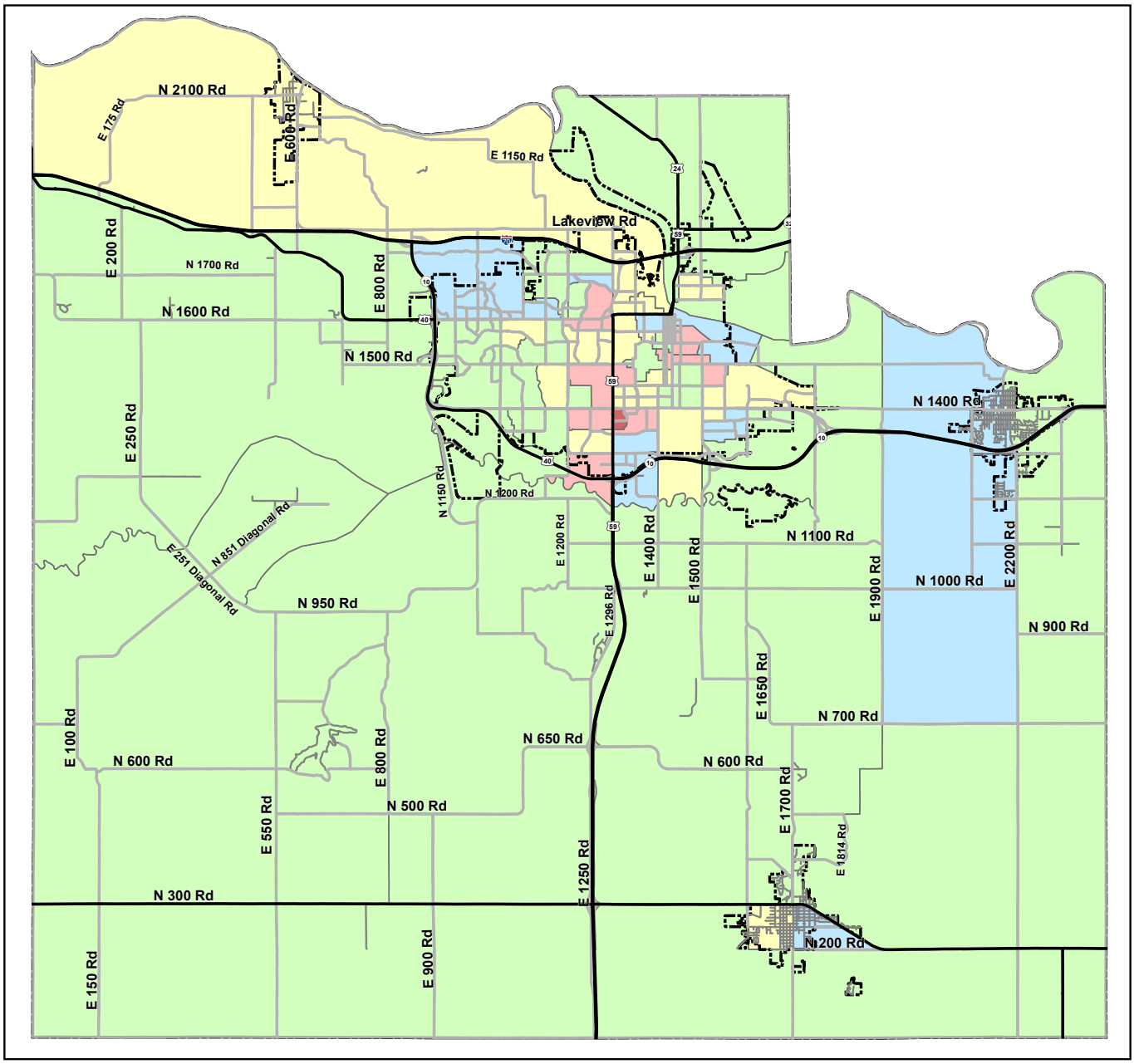
Table 21: Transportation Disadvantaged Populations Scoring

Topic	Regional Average	1 Point	2 Points	3 Points
Person who has a disability	20.2%	20.2% to 40.1%	40.2% to 60.1%	Greater than or equal to 60.2%
Less than high school diploma	4.5%	4.5% to 24.4%	24.5% to 44.4%	Greater than or equal to 44.5%
Minority	12.9%	12.9% to 32.8%	32.9% to 52.8%	Greater than or equal to 52.9%
Single parent household	24.3%	24.3% to 44.2%	44.3% to 64.2%	Greater than or equal to 64.3%
Households without vehicles	5.8%	5.8% to 25.7%	25.8% to 45.7%	Greater than or equal to 45.8%
Youth (under 18)	18.6%	18.6% to 38.5%	38.6% to 58.5%	Greater than or equal to 58.6%
Senior citizens (65+)	11.3%	11.3% to 31.2%	31.3% to 51.2%	Greater than or equal to 51.3%
Low-moderate CDBG income		51.0% to 62.4%	62.5% to 78.9%	Greater than or equal to 79.0%

Source: 2018 American Community Survey 5-year Estimates and CDBG Income. Points were assigned based on the percentage of each measure per block group. Then one point was assigned if the block group was equal to or 20 percent higher than the regional average. Two points were attributed if the block group was 20 percent to 40 percent of the regional average. And three points were assigned if the block group was greater than 40 percent higher than the regional average. Low-moderate income data is the Community Development Block Grant (CDBG) identified low-moderate income areas. A block group is low-moderate income if the low-moderate income percentage for the block group is 51.0%. The 27 block groups that are considered low-moderate income were split into 3 groups of 9 and the highest percentage of low-moderate income were assigned three points, then two points, and lastly one point.

Appendix F contains the sources and definitions for each of the measures.

Figure 11: Transportation Disadvantaged Population (Douglas County)



Transportation Disadvantaged Population scoring is comprised of US Census Bureau American Community Survey (ACS) data and Community Development Block Group (CDBG) income data. 2018 ACS data includes: people who have a disability, people who have less than a high school education, minorities, single parent households, zero vehicle households, and population under 18 and over 65. Higher points indicate a greater deviation from the regional average.

Transportation Disadvantaged Population Score

≤2 ≤4 ≤6 ≤9 ≤12 City Limits County Limits

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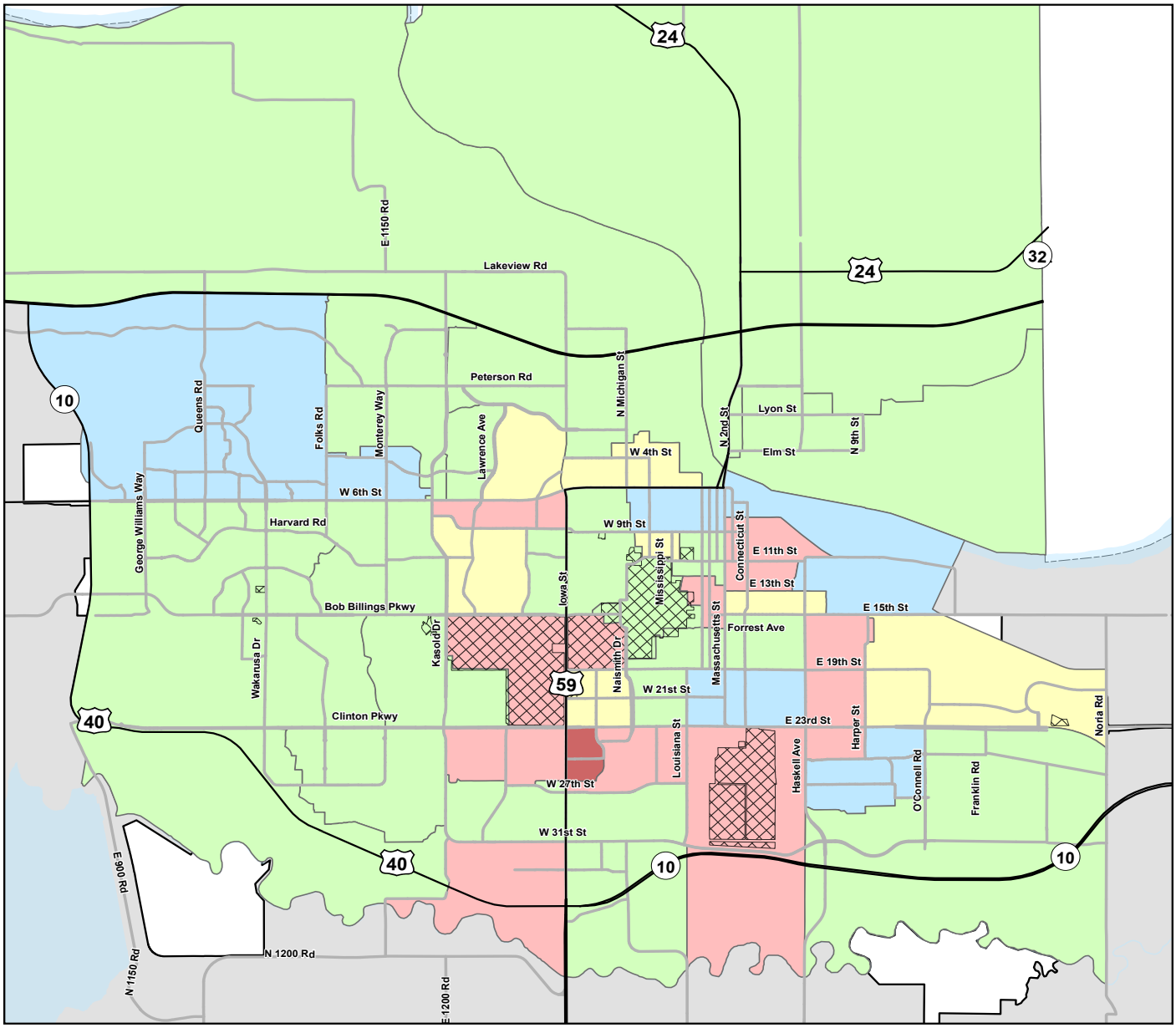
Date Exported: 8/24/2020
Source: 2018 ACS 5-yr Est. & CDBG Income
Produced: Lawrence-Douglas County MPO

Figure 12: Transportation Disadvantaged Population Calculated for the City of Lawrence



Transportation Disadvantaged Population scoring is comprised of US Census Bureau American Community Survey (ACS) data and Community Development Block Group (CDBG) income data. 2018 ACS data includes: people who have a disability, people who have less than a high school education, minorities, single parent households, zero vehicle households, and population under 18 and over 65. Higher points indicate a greater deviation from the regional average.

Transportation Disadvantaged Population Score

≤2 ≤4 ≤6 ≤9 ≤12

Highways
Major Roads
University
Water
City Limits
County Limits

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Date Exported: 9/10/2021
Source: 2018 ACS 5-yr Est. for all except for income & 2015 ACS 5-yr Est. for HUD provided CDBG Income
Produced: Lawrence-Douglas County MPO

Assess and Analyze Investments in the TIP

When assessing and analysing investments in the TIP and their effect on EJ populations and Transportation Disadvantaged Populations it is more than only the location of projects and how many are (or aren't) in EJ areas. Further, considerations for long and short term effects of projects must be considered. The term "Disproportionately High and Adverse Effects" is utilized in this analysis, which refers to interrelated social and economic effects which may include:

- Bodily impairment, infirmity, illness or death.
- Air, noise, water pollution and soil contamination.
- Destruction or disruption of man-made or natural resources.
- Destruction or diminution of aesthetic values.
- Destruction or disruption of community cohesion or a community's economic vitality.
- Destruction or disruption of the availability of public and private facilities and services.
- Vibration.
- Adverse employment effects.
- Displacement of persons, businesses, farms or nonprofit organizations.
- Increased traffic congestion, isolation, exclusion or separation of minority or low-income individuals within a given community or from the broader community.
- The denial of, reduction in or significant delay in the receipt of benefits of Federal Highway Administration (FHWA)/Department of Transportation (DOT) programs, policies or activities.

Disproportionately high and adverse effects refer to effects that:

1. Are predominately borne by a minority population and/or low-income population.
2. Will be suffered by the minority population and/or low-income population and are appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non- minority population and/or non-low-income population.

Analysis of Road/Bridge & Bicycle/Pedestrian TIP Projects

The following pages present information about the TIP projects and their impact on EJ zones and Transportation Disadvantaged Populations. Although the MPO does not select projects, it is the MPO's duty to present data and information related to equity to assist project sponsors in selecting projects which will not disproportionally have high and adverse effects on low income, minority, or other transportation disadvantaged populations.

The fiscally constrained TIP projects were mapped to see where the projects intersect with EJ zones. Not all TIP projects could be mapped for the EJ analysis. This analysis does not include transit allocations, planning studies, and projects that are not limited to a specific point on a map. Table 22 shows the total 2021-2024 TIP projects, the TIP projects that were able to be mapped, and the mapped TIP projects that are within the EJ zones.

Table 22: Fiscally Constrained TIP Projects (shown in $1,000s)

	Number of Projects		Total Project Cost
TIP Projects (2021-2024)	31	$	114,804
TIP Projects Mapped (2021-2024)	23	$	61,730
TIP Projects Mapped in EJ Zones (2021-2024)	10	$	34,668

*Total project costs includes project phases outside of the TIP years (2021-2024)

**Various Lawrence Sidewalk/Bike/Ped/ADA Ramps Projects are not mapped, but EJ proritization is included in the selection of locations process, thus this project was included in the projects mapped in EJ Zones

Twenty-three (23) projects were mapped in this 2021-2024 TIP, for a combined total of $61.7 million. Of the 23 mapped projects in the TIP, 10 are considered EJ projects for the purpose of this analysis for a total improvement cost of $34.6 million (as shown in Table 23). Approximately 56% of the total funding for the 23 mapped projects will be invested in EJ zones. These projects are within or intersect a road that is in an EJ zone or along an EJ zone border.

Table 23: EJ Zone Projects (shown in $1,000s)

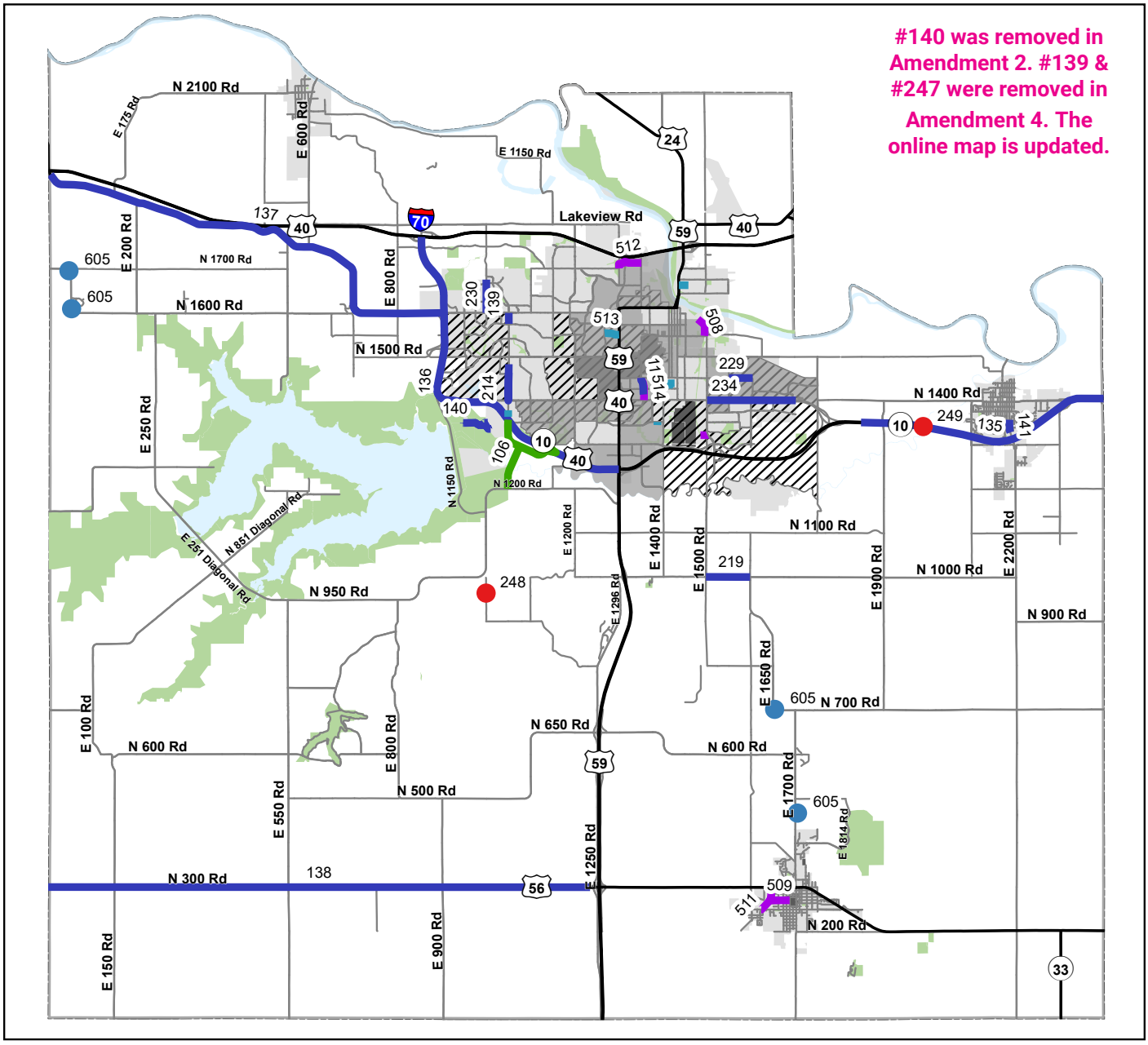
#	Project Name	Project Type	Total Project Cost	Miles of New Bikeway	Miles of New Sidewalk
117	Naismith Drive Reconstruction: 19th St. to 23rd St.	Road	$ 4,300	0.5	0
136	K-10: West Leg Surfacing	Road	$ 3,766	0	0
214	Wakarusa Drive Reconstruction - Research Pkwy to Clinton Pkwy	Road	$ 6,400	0.19	0
229	19th Street Reconstruction, O'Connell Rd to Harper St	Road	$ 3,625	0.5	0.5
234	23rd Street Reconstruction, Haskell Ave to East City Limits	Road	$ 9,750	TBD	TBD
508	Lawrence Loop Shared-Use Paths - 8th St to 11th St & 29th St	Transportation Alternatives	$ 880	0.6	0
512	Lawrence Loop Shared Use Path - Peterson Rd to Michigan St	Transportation Alternatives	$ 1,675	0.61	0
513	Lawrence Safe Routes to School TA Phase 2 (2021)	Safe Routes to School	$ 560	0	0.9
514	Naismith Drive Mobility Enhancement	Bicyle and Pedestrian	$ 412	0.25	0.25
		Totals	**$ 31,368**	**2.65**	**1.65**

*Total project cost includes project phases outside of the TIP years (2021-24)

**Project 513 has multiple locations throughout Lawrence

These projects are shown in Figure 13 and Figure 14 in relation to the EJ zones and in Figure 15 and Figure 16 overlaid with the Transportation Disadvantaged Populations.

Figure 13: MPO Fiscally Constrained Programmed Projects in Relation to EJ Zones (Douglas County)



Environmental Justice (EJ) zones are comprised of low to moderate income households (shown in gray) and/or minority households (indicated with diagonal lines) populations. These zones are updated utilizing income information from the US Housing & Urban Development (HUD) Department and race data from the US Census Bureau American Community Survey.

- Low-Moderate Income Block Groups
- 99% Confidence Interval Minority Block Groups
- Pedestrian/Bicycle
- Road
- Road, Bridge
- Safe Routes to School
- Parks
- University
- Water
- City Limits
- County Limits

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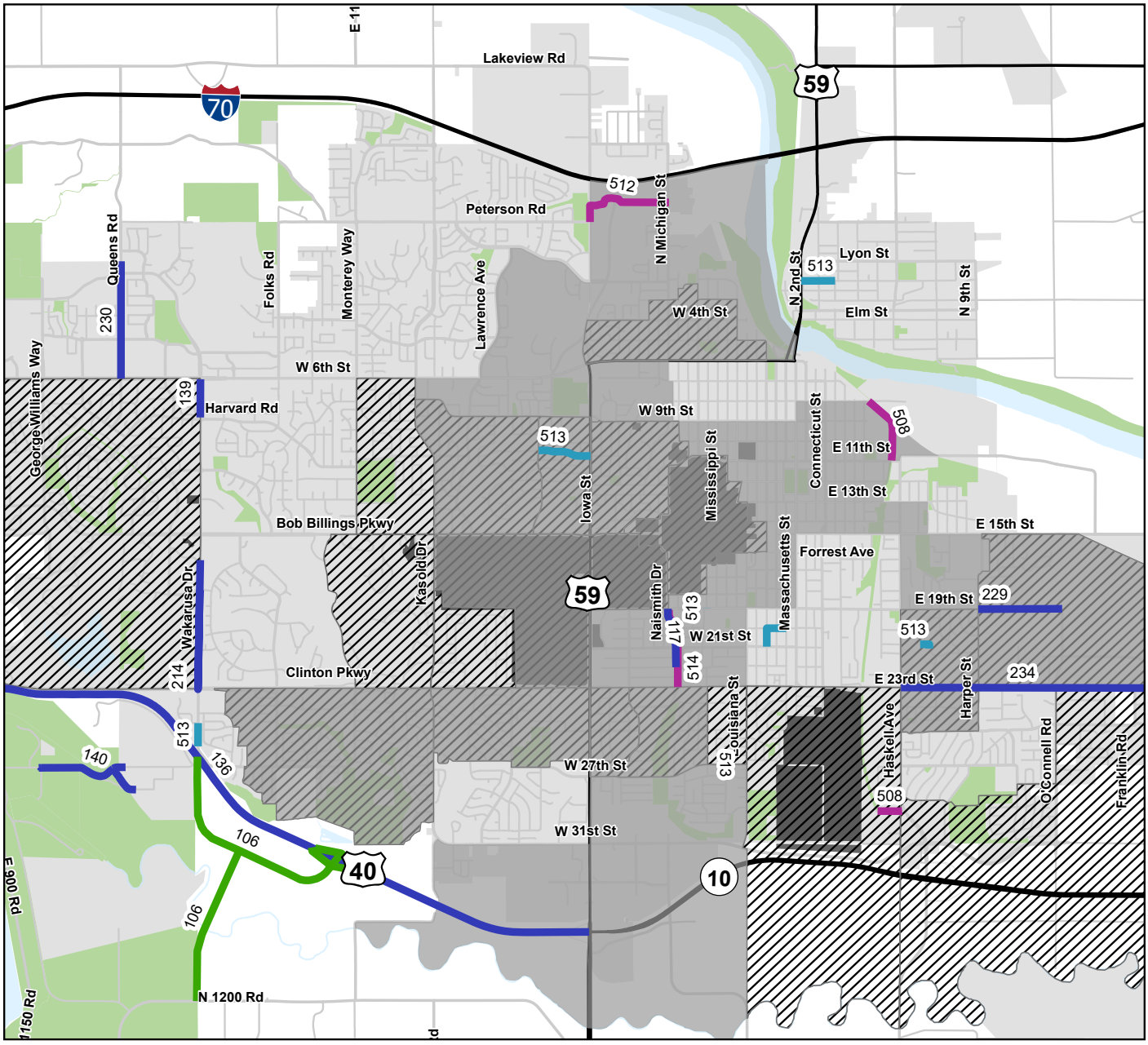
Date Exported: 8/24/2020
Source: 2018 ACS 5-yr Est. & CDBG Income
Produced: Lawrence-Douglas County MPO

Figure 14: MPO Fiscally Constrained Programmed Projects in Relation to EJ Zones (Lawrence)



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- Low-Moderate Income Block Groups
- 99% Confidence Interval Minority Block Groups
- Bridge
- Surfacing
- Pedestrian/Bicycle
- Road
- Road/Bridge
- Safe Routes to School
- Parks
- University
- Water
- City Limits

#140 was removed in Amendment 2. #139 & #247 were removed in Amendment 4. The online map is updated.

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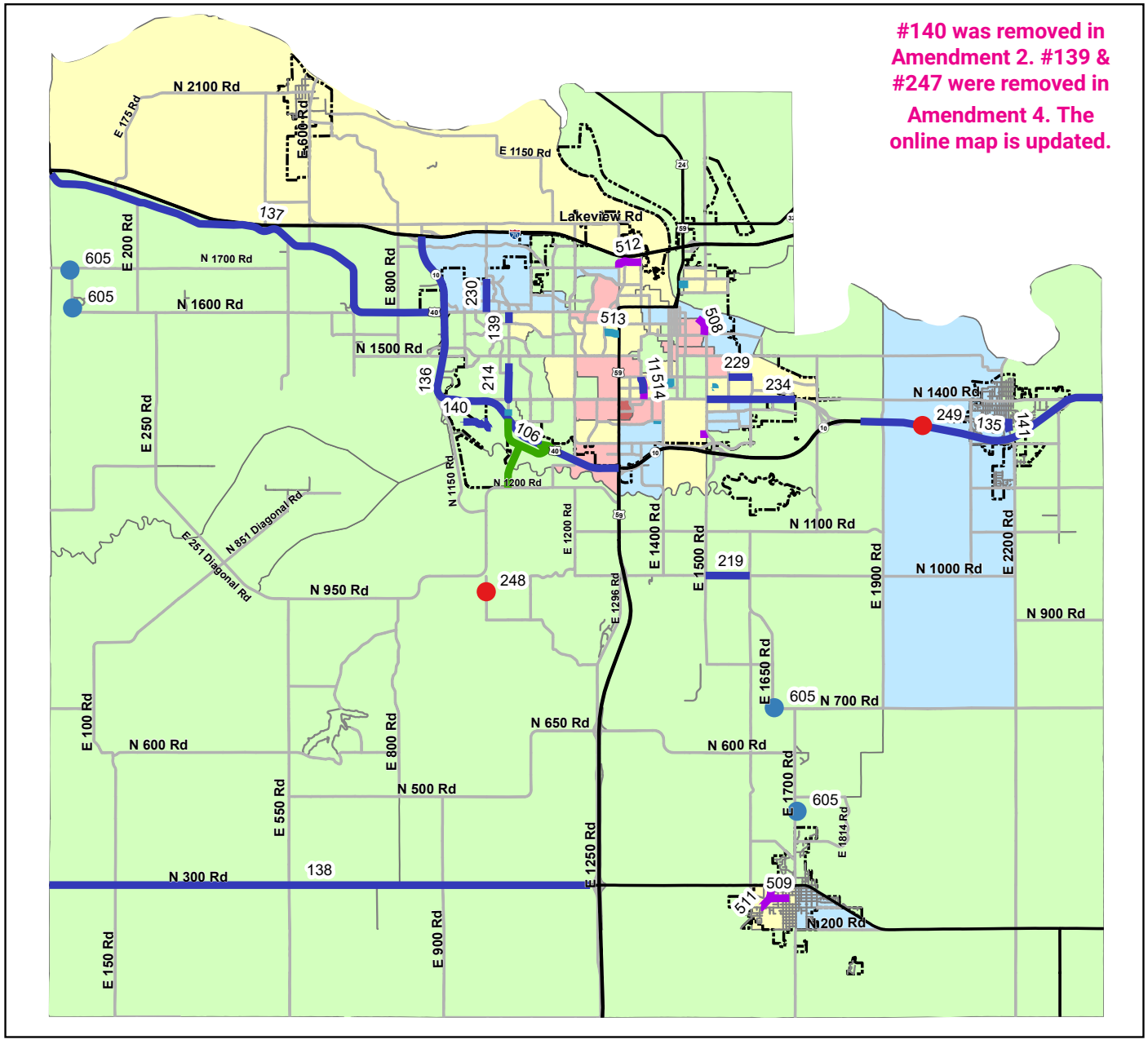
0 1 2 Miles

Date Exported: 8/24/2020
Source: 2018 ACS 5-yr Est. & CDBG Income
Produced: Lawrence-Douglas County MPO

Figure 15: Transportation Disadvantaged Populations and Projects (County)



Transportation Disadvantaged Population scoring is comprised of US Census Bureau American Community Survey (ACS) data and Community Development Block Group (CDBG) income data. 2018 ACS data includes: people who have a disability, people who have less than a high school education, minorities, single parent households, zero vehicle households, and population under 18 and over 65. Higher points indicate a greater deviation from the regional average.

Transportation Disadvantaged Population Score

- ≤2
- ≤4
- ≤6
- ≤9
- ≤12

TIP Projects

- Bridge
- Surfacing
- Pedestrian/Bicycle
- Road
- Road, Bridge
- Safe Routes to School
- City Limits

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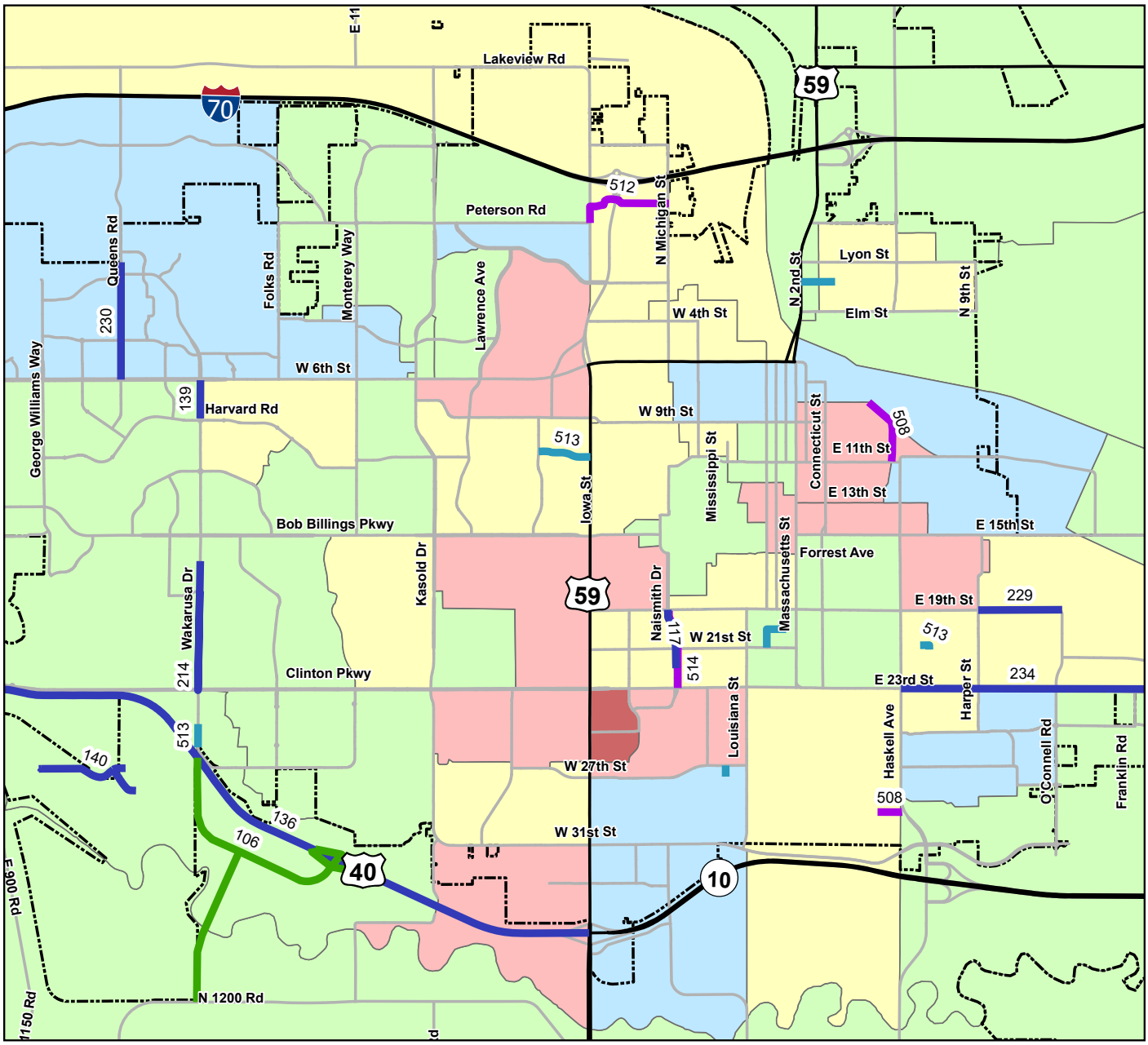
0 3 6 Miles

N

Date Exported: 8/24/2020
Source: 2018 ACS 5-yr Est. & CDBG Income
Produced: Lawrence-Douglas County MPO

Figure 16: Transportation Disadvantaged Populations and Projects (Lawrence)



Transportation Disadvantaged Population scoring is comprised of US Census Bureau American Community Survey (ACS) data and Community Development Block Group (CDBG) income data. 2018 ACS data includes: people who have a disability, people who have less than a high school education, minorities, single parent households, zero vehicle households, and population under 18 and over 65. Higher points indicate a greater deviation from the regional average.

Transportation Disadvantaged Population Score

- ≤2
- ≤4
- ≤6
- ≤9
- ≤12

TIP Projects

- Bridge
- Surfacing
- Pedestrian/Bicycle
- Road
- Road, Bridge
- Safe Routes to School
- City Limits

0 0.75 1.5 Miles

N

Date Exported: 8/24/2020
Source: 2018 ACS 5-yr Est. & CDBG Income
Produced: Lawrence-Douglas County MPO

#140 was removed in Amendment 2. #139 & #247 were removed in Amendment 4. The online map is updated.

Figure 15 and Figure 16 display the Transportation Disadvantaged Populations and TIP projects, which are shown in Table 24. The block groups in dark red have the highest transportation disadvantage score. The table also lists if the project is a MPO identified EJ zone, if there are bicycle and pedestrian elements, and the total score.

Table 24: TIP Projects and Transportation Disadvantaged Populations Scoring

#	Name	Project Type	In EJ Zone	Bike/Ped. Element in Project	Total Score	Disability	Education	Minority	Single Parent	Zero Vehicle	< 18	65+	Low-Mod. Income
106	Wakarusa Drive Extension*	Road, Bridge	No	No	3	0	1	1	0	0	1	0	0
117	Naismith Drive Reconstruction: 19th St. to 23rd St.*	Road	Yes	Yes	6	0	1	1	1	1	0	0	2
135	K-10: West of E1900 East to DG/JO County Line Surfacing*	Road	No	No	2	0	0	1	0	0	1	0	0
136	K-10: West Leg Surfacing*	Road	Yes	No	3	1	1	0	0	0	0	1	0
137	US-40 in Douglas County (1R Project)	Road	No	No	3	1	1	0	0	0	0	1	0
138	US-56 in Douglas County (1R Project)*	Road	No	No	4	1	1	0	0	0	1	1	0
141	Church Street Improvements: 15th St. to 14th St.*	Road	No	Yes	4	1	1	0	1	0	1	0	0
214	Wakarusa Drive Reconstruction - Research Pkwy. to Clinton Pkwy.*	Road	Yes	Yes	4	0	1	1	0	0	1	1	0
219	Route 458 Improvements, E 1500 Rd. to E 1600 Rd.	Road	No	Yes	4	1	1	0	0	0	1	1	0
229	19th Street Reconstruction, O'Connell Rd. to Harper St.	Road	Yes	Yes	6	1	0	1	1	1	1	0	1
230	Queens Road: 6th St. to North City Limits	Road	No	Yes	2	0	0	0	0	0	1	1	0
234	23rd Street Reconstruction, Haskell Ave. to East City Limits*	Road	Yes	Yes	6	1	0	1	1	1	1	0	1
248	Bridge 0964-1000 Replacement	Bridge	No	No	3	1	0	0	0	0	1	1	0
249	Repair Bridge #071 on K-10 in Douglas County	Bridge	No	No	2	0	0	1	0	0	1	0	0
508	Lawrence Loop Shared-Use Paths - 8th St. to 11th St. & 29th St.*	Pedestrian/Bicycle	Yes	Yes	9	1	1	1	3	1	0	0	2
509	West Baldwin Pedestrian/Bike Connectivity Project	Pedestrian/Bicycle	No	Yes	5	1	0	0	1	1	1	1	0
511	West Baldwin Pedestrian/Bike Connectivity Project Phase 2 & 3	Pedestrian/Bicycle	No	Yes	5	1	0	0	1	1	1	1	0
512	Lawrence Loop Shared Use Path - Peterson Rd. to Michigan St.	Pedestrian/Bicycle	Yes	Yes	5	0	0	0	2	0	1	0	2
513	Lawrence Safe Routes to School TA Phase 2 (2021)*	Safe Routes to School	Yes	Yes	6	0	0	1	2	0	1	0	2
514	Naismith Drive Mobility Enhancement*	Pedestrian/Bicycle	Yes	Yes	5	0	1	0	1	1	0	0	2
605	DGCO: High Friction Surface Treatment*	Safety	No	No	3	1	1	0	0	0	0	1	0

Source: 2018 American Community Survey 5-year Estimates and CDBG income. Points were assigned based on the regional average or 20% higher than the regional average for 1 point (shown in green). If the block group was more than 20% of the regional average it received 2 points (shown in orange) and if it was more than 40% of the regional average 3 points were assigned (shown in yellow). If the block group was not higher than the average than zero points were assigned and it is shown in gray.

However, EJ analysis is more than just the location of the projects and how many are (or aren't) in EJ areas. Therefore additional data was gathered on the projects and the EJ zones. Projects were evaluated to determine their contribution to meeting the region's performance measure goals.

Information was gathered about the EJ zone versus the rest of the County. As shown in Table 25, 18% of the miles of road centerline are located in the EJ zone, while the EJ comprises 6% of the total square miles for the County. Further, the EJ zone has a higher per capita spending on TIP projects compared to the total county and the non EJ zone. The geographic distribution of projects in relation to defined EJ zones indicated EJ areas are not being denied the benefit of federal transportation spending.

Table 25: EJ Zone Statistics v. Douglas County

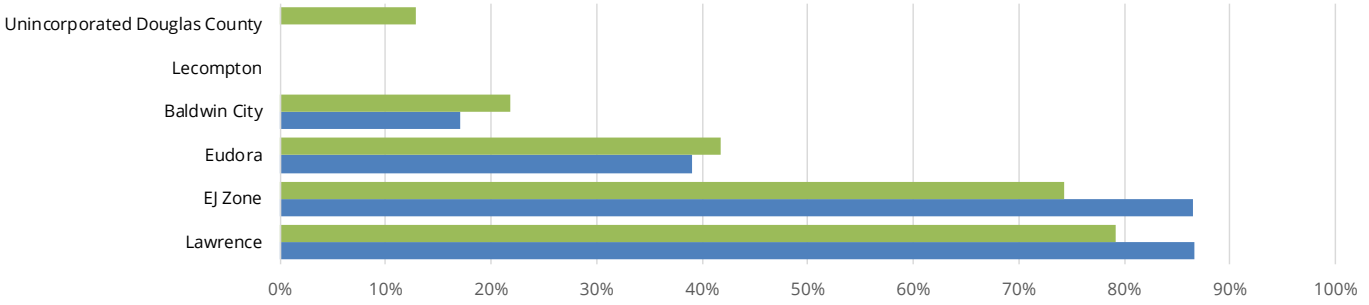
	Total Douglas County	Non EJ Zone	EJ Zone	EJ Zone %
# of Road Centerline Miles	1,448	1,189	259	18%
Square Miles	475	444	31	6%
Per Capita Spending	$1.46	$0.93	$2.09	37%
Population	134,917	62,571	72,346	54%

Source: City of Lawrence GIS, Plan 2040 Population Model, FFY21 TIP Projects.

Transportation 2040 has twenty-six (26) performance measures, a mixture of federally required and locally developed measures. Several of them address access and transportation barriers.[1] The analysis below delves into the measures and the anticipated impacts of the projects programmed in this TIP.

Access to the bicycle and pedestrian networks is also important when considering equity. Access is directly tied to health equity. Health inequities can refer to people having difficulties obtaining medical services, high transportation costs, and long commute times. Transportation 2040 Performance Measure #1 is the percentage of people who have access within a ¼ mile to the bikeway network (bicycle boulevard, bike lane, protected bike lanes, shared use path). The original data was gathered in 2017, which is before the FFY2019 TIP was developed. The 2019 data was collected in the summer of 2019. Therefore, projects included in the FFY2019 TIP contributed to increasing access in Unincorporated Douglas County, Baldwin City, and Eudora (shown in Figure 17). The EJ zone was updated with newer data between 2017 and 2019 and the methodology for collecting the data was slightly different, which is why the Lawrence numbers decreased. Overall access to the bicycle network is lower in EJ areas than non EJ areas. This speaks to the need to prioritize areas where transportation choices and access are critical links to opportunity and quality of life. There are nine (9) projects in the FFY2021 TIP which will add to the bicycle and pedestrian networks thereby increasing access. At least 2.9 miles of new bikeway will be constructed in the EJ zone.

Figure 17: Percentage of People who have Access within 1/4 mile to the Bikeway Network (T2040 PM1)



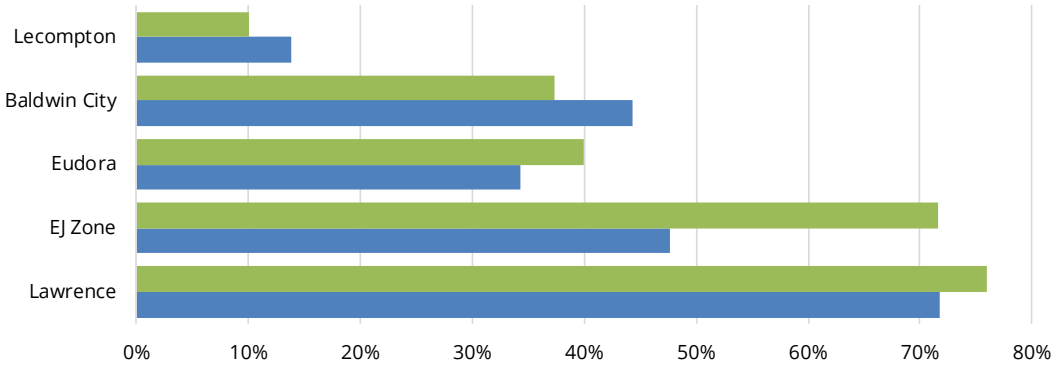
	Lawrence	EJ Zone	Eudora	Baldwin City	Lecompton	Unincorporated Douglas County
2019 Total Bikeway Network Access	79%	74%	42%	22%	0%	13%
2017 Total Bikeway Network Access	87%	87%	39%	17%	0%	0%

Note: The EJ Zone changes as newer socio-economic data is available; therefore, the EJ Zone changed between 2017 and 2019.

1 Access the National Academy of Sciences - Transportation Communities in Action Pathways to Health Equity brief at: https://www.nap.edu/resource/24624/11062017_transportation_sector_brief.pdf

Another measure to assess access to bicycle and pedestrian facilities is Transportation 2040 Performance Measure #2 (Percentage of public streets with sidewalks on at least one side). Again the original data was collected in 2017 (as shown in Figure 18). Thus projects in the FFY2019 TIP contributed to the increase in the number of streets with sidewalk on at least one side of the street in Lawrence, the EJ zone, and Eudora. Overall access to the pedestrian network is lower in EJ areas than non EJ areas. Access provides mobility and opportunities to improve quality of life, thus projects should be prioritized in the EJ areas which provide transportation choices. There are nine (9) projects in the FFY2021 TIP which will add to the bicycle and pedestrian networks thereby increasing access. At least 1.65 miles of new sidewalks will be constructed in the EJ zone. These numbers do not take into account facilities on 23rd St. Reconstruction: Haskell Ave. to East City Limits (234) or the Various Lawrence Sidewalk/Bike/Ped/ADA Ramps (507) projects as the miles have not been determined. Project 514 – Naismith Mobility Enhancement – is installing sidewalk and transit connections and improvements in an EJ area. This project will pave the existing "goat path" where people have historically walked. Project 507 – Various Lawrence Sidewalk/Bike/Ped/ADA Ramps – is a grouped project for the dedicated funding for non-motorized projects and ADA Ramps in Lawrence. Approximately $675,000 of local funding is available every year for dedicated bicycle and pedestrian projects and $325,000 of local funding is programmed every year for improving ADA ramps. The dedicated bike/ped funding utilizes the Non-Motorized Projects Prioritization Policy to select projects. Consideration of equity in distribution of projects in EJ zones is part of the selection process. Also $300,000 of Community Development Block Grant (CDBG) is budgeted to the City of Lawrence to address sidewalk and ADA ramp issues in the low/moderate income areas (a portion of the EJ zones). The City is allocated a percentage of CDBG funding each year so the $300,000 is a place holder. All of the local and federal funding used to build new miles of bikeway and sidewalk will improve connectivity and mobility for all populations.

Figure 18: Percentage of Public Streets with at Least Sidewalk on One Side of Streets (T2040 PM2)



	Lawrence	EJ Zone	Eudora	Baldwin City	Lecompton
2019 % of Sidewalk on at least one Side of Streets	76%	72%	40%	37%	10%
2017 % of Sidewalk on at least one Side of Streets	72%	48%	34%	44%	14%

Note: The EJ Zone changes as newer socio-economic data is available; therefore, the EJ Zone changed between 2017 and 2019.

The Center for Neighborhood Technology's Total Driving Costs tool measures the costs of car ownership and use for jurisdictions.[1] It utilizes a variety of data points to determine if transportation costs are unaffordable, which are any costs that are higher than 15% of an average household's income. Table 26 displays the 2017 update. (The Center for Neighborhood Technology plans to update their tool with newer data, but they are dependant on grant funding to do so.) As shown, all MPO jurisdictions have annual transportation costs over the 15% income threshold. This is a barrier to mobility and access. While the projects in the TIP do not impact fuel prices, the access to multi-modal transportation networks are fundamental to transportation access and choices, which can lessen the burden on transportation costs.

1 Access the Center for Neighborhood Technology's Total Driving Costs tool at: https://htaindex.cnt.org/total-driving-costs/

Table 26: Average Cost of Transportation per Household (T2040 PM22)

		Total Annual Transportation Costs	Annual Transportation Costs % Over Affordable
Lawrence	$	11,728	153%
Eudora	$	13,649	179%
Baldwin City	$	13,806	181%
Lecompton	$	15,344	201%
Douglas County	$	12,475	163%

Note: Annual Household Income: $50,939

15% of Income for Transportation = Affordable: $7,641

Transportation costs are considered affordable if they are 15% or less of household income; This calculation used gas priced at $2.50 and Regional Typical Household Characteristics. Data was gathered in 2017, an update will be completed when the CNT has grant funding potentially in 2021.

Source: Center for Neighborhood Technology's Total Driving Costs Tool

https://htaindex.cnt.org/total-driving-costs

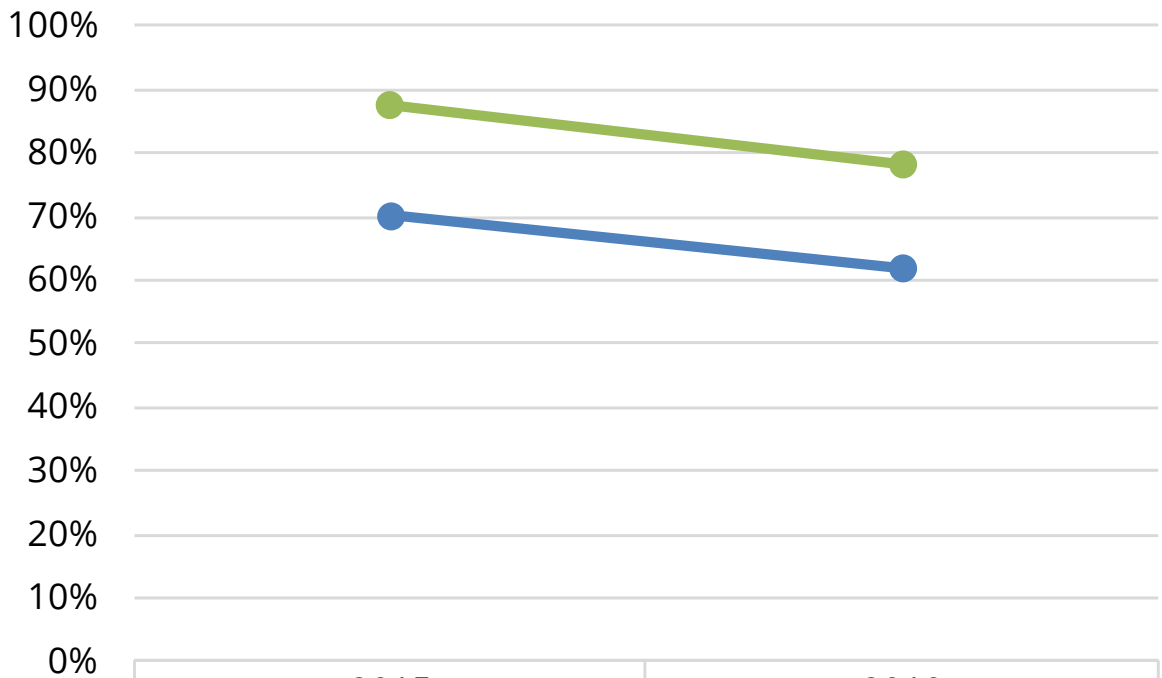
Another consideration is safety. Both vehicle and non-motorized (bicycle riders and pedestrian) crashes between 2017 and 2019 were mapped. A heat map showing the crashes and the number of crashes near TIP projects is found in Figure 7 (in the Performance Measure Chapter). There were twenty-five (25) crashes between 2017-2019 near the TIP project locations.

Analysis of Fixed Route Transit TIP Projects

Lawrence Transit & KU on Wheels 2020-2021 fixed routes are shown on Figure 21. Seventeen (17) or 81% of the current routes have 30 minute or less service during peak times. As resources become available, Lawrence Transit & KU on Wheels are transitioning routes which warrant increased service to 30 minute or less service during peak times. However, there is uncertainly surrounding the KU on Wheels service due to required funding cuts from the COVID-19 pandemic and the reduction of in-person classes. $ 1 million of operation funding was cut per year from the 2021 and 2022 budget; therefore, KU on Wheels service maybe be reduced. Route information can be accessed at www.lawrencetransit.org/routes. None of the Lawrence Transit projects were mapped because transit service occurs throughout the community and is not located on one fixed point. Lawrence Transit projects include operating costs for fixed route and paratransit services, as well as the capital costs associated with vehicle acquisition.

Transportation 2040 Performance Measure #5 is the percentage of people with access within a 1/4 mile to a bus stop (Figure 19). The original data was gathered in 2017, which is before the FFY2019 TIP was developed. The 2019 data was collected in the summer of 2019. The EJ zone was updated with newer data between 2017 and 2019 and the methodology for collecting the data was slightly different, which is why the Lawrence numbers decreased. Overall access to bus stops in EJ areas in comparison to Lawrence as a whole stayed fairly consistent between 2017 and 2019. Although the overall access declined. This indicates priority needs to be placed on providing access opportunities to bus stops. The Naismith Drive Mobility Enhancement (# 415) project will increase access by installing sidewalk leading to a bus stop. There are other unmapped bicycle and pedestrian projects (CDBG and Lawrence dedicated bicycle and pedestrian projects) which will likely improve access. Future analyses will evaluate the access added by these projects.

Figure 19: Percentage of People with Access within a ¼ Mile to a Bus Stop (T2040 PM5)



	2015	2019
Lawrence	70%	62%
EJ Zone	88%	78%

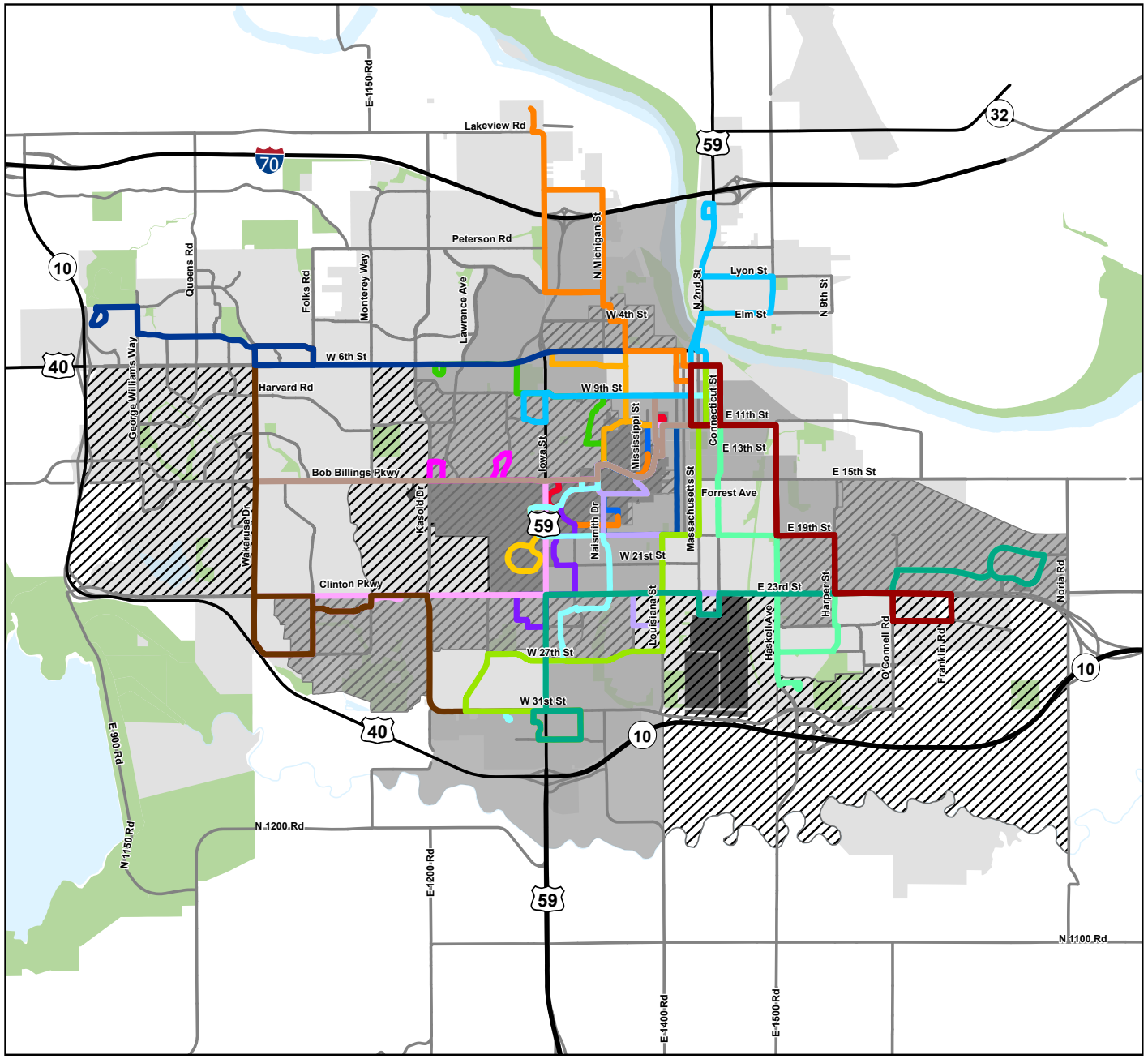
Note: The EJ Zone changes as newer socio-economic data is available; therefore, the EJ Zone changed between 2015 and 2019.

For the case of federally supported transit services, both the fixed route system and paratransit service areas, cover parts of Douglas County with low-income and/or minority populations (Figure 20). Therefore, the TIP projects associated with these transit and paratransit services are all considered to serve EJ populations and to be located in EJ zones for the purpose of this analysis. If there is any difference with EJ zones it seems to be that some EJ zones receive greater choice and frequency of transit services because those areas coincide with the parts of the region with population densities high enough to support frequent fixed route transit (see the transit routes overlaid on the 2020 population estimates in Figure 21).

Further, maps were created to determine the percentage of people who live within the EJ zones that are within a ¼ mile buffer of transit routes and the Transportation Disadvantaged Population overlaid with the fixed route transit routes. As shown in Figure 22, approximately 56,834 people or 79% of people who live within the EJ zones are within ¼ mile of a transit route. A ¼ mile is generally the distance people are comfortable walking. Thus, 79% of people who live within EJ zones have easy to access transit service, thereby expanding their mobility.

The red color within the Transportation Disadvantaged Population map (Figure 23) indicates the population with the highest Transportation Disadvantaged Population meaning these areas should be prioritized for improvements to expand the population's mobility and access to transportation choices. Transit service is offered in many of the higher concentrated zero vehicle households and EJ zones. This provides more mobility and promotes movement of residents throughout Lawrence.

Figure 20: Fixed Route Transit Routes 2020-2021 in Relation to EJ Zones



Environmental Justice (EJ) zones are comprised of low to moderate income households (shown in gray) and/or minority households (indicated with diagonal lines) populations. These zones are updated utilizing income information from the US Housing & Urban Development (HUD) Department and race data from the US Census Bureau American Community Survey.

99% Confidence Interval Minority Block Groups

2020-2021 Transit Route

Water

Low-Moderate Income Block Groups

Parks

City Limits

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N

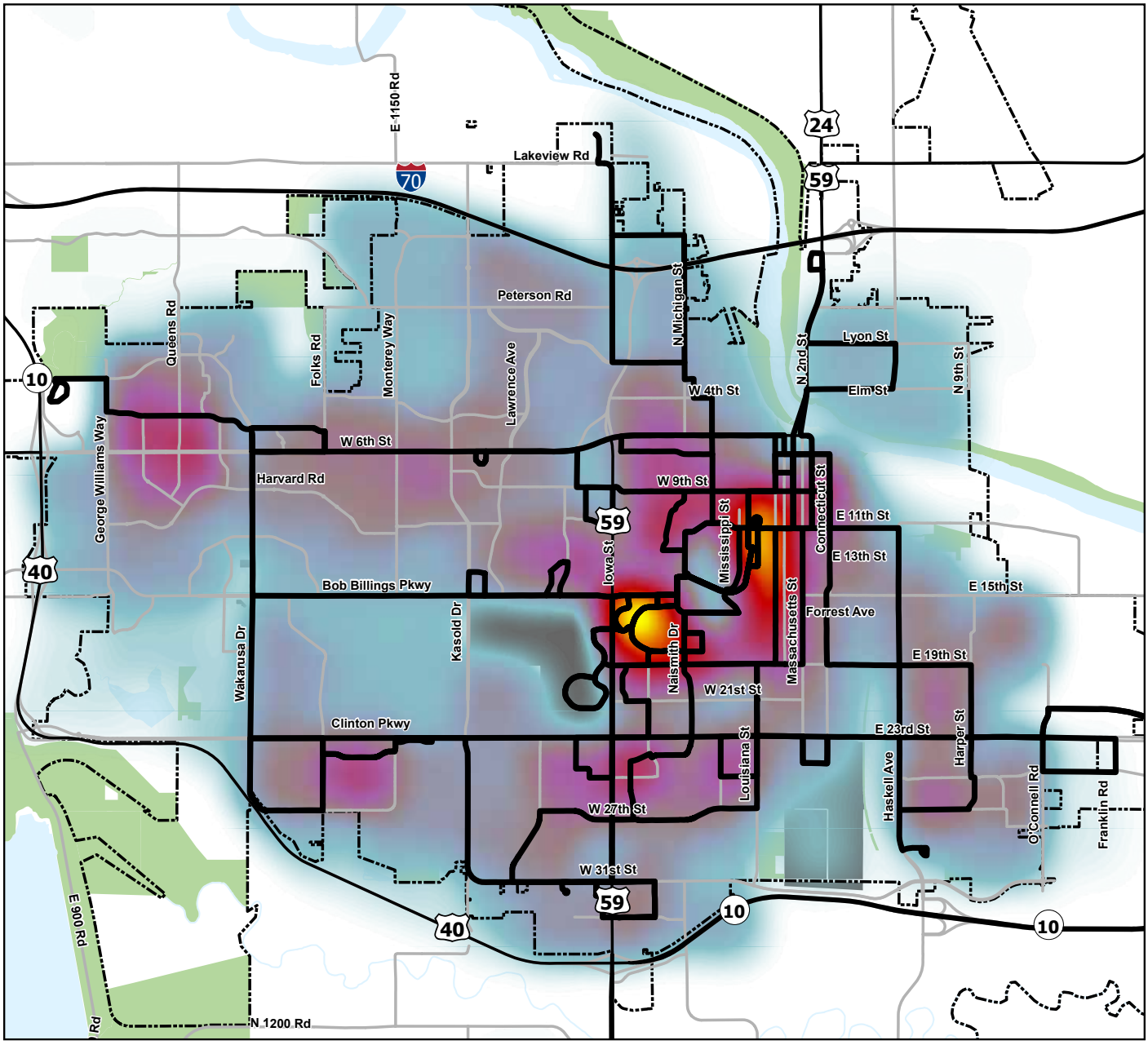
0 1.25 2.5 Miles

Date Exported: 8/24/2020

Source: Lawrence Transit, 2018 ACS 5-yr Est. & CDBG Income

Produced: Lawrence-Douglas County MPO

Figure 21: Lawrence Transit 2020-2021 Routes and 2020 Population Estimate Densities



2020 Population Estimates
Least Dense
Most Dense

Transit Routes 2020-2021
Parks

University
Water

City Limits

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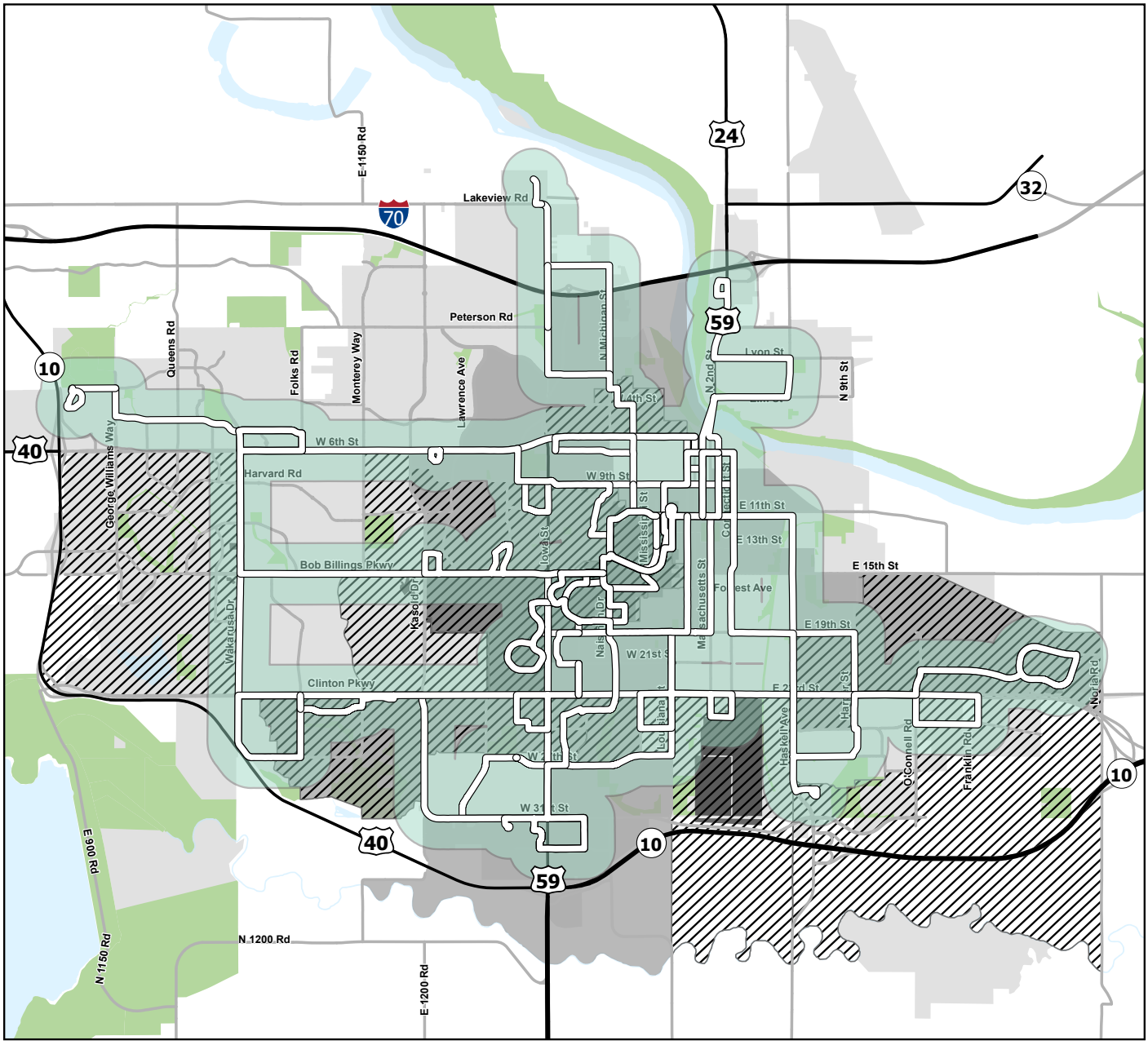
N

0 1 2 Miles

Date Exported: 8/6/2020
Source: Lawrence Transit & Plan 2040 Population Est.
Produced: Lawrence-Douglas County MPO

Figure 22: Fixed Route Transit Route Buffers 2020-2021 in Relation to EJ Zones



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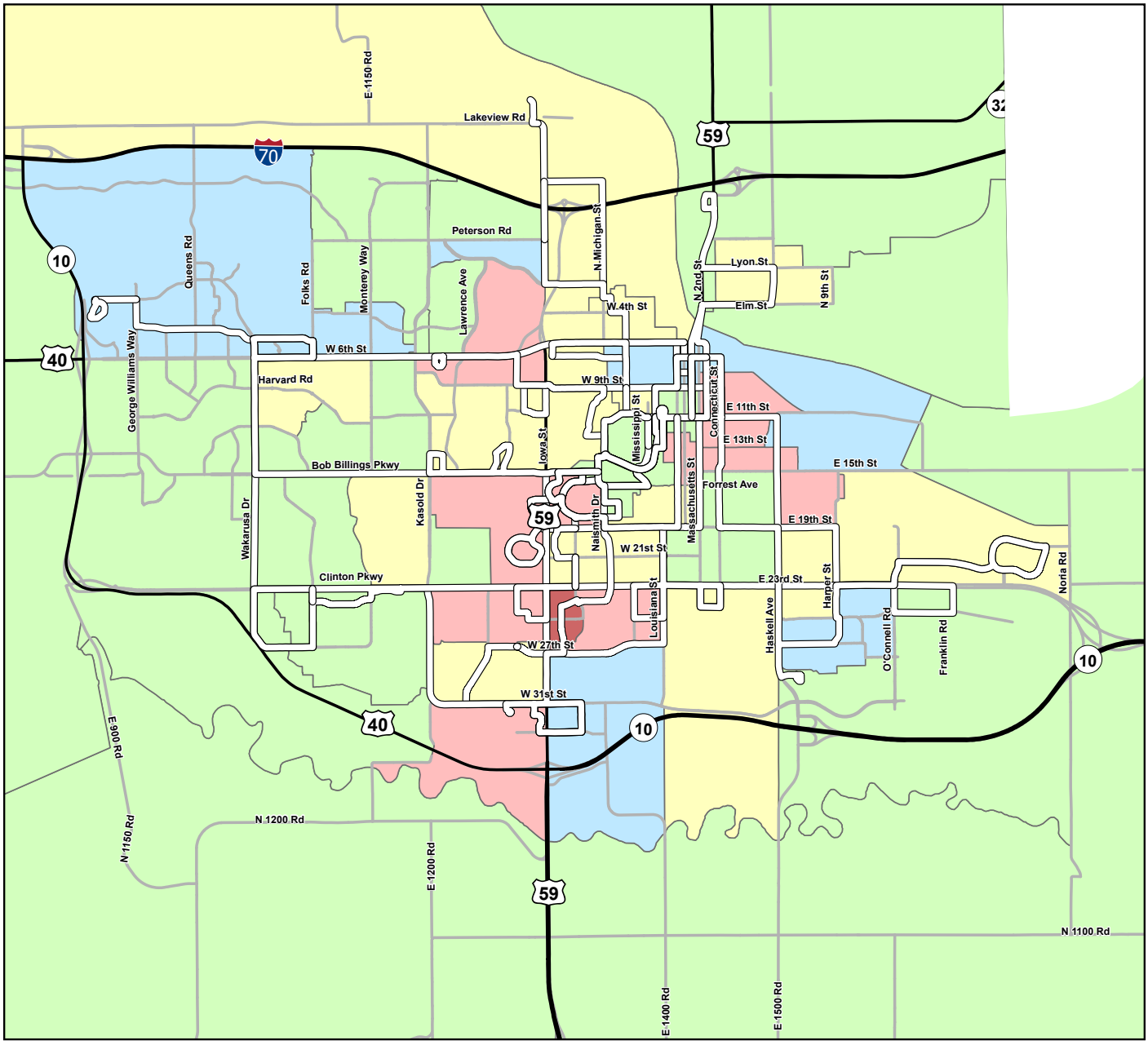
- Low-Moderate Income Block Groups
- 99% Confidence Interval Minority Block Groups
- Transit Routes 2020-2021
- 1/4 Mile Bus Route Buffer 2020-2021
- Water
- City Limits

N

0 1.25 2.5 Miles

Date Exported: 8/21/2020
Source: Lawrence Transit, 2018 ACS 5-yr Est. & CDBG Income
Produced: Lawrence-Douglas County MPO

Figure 23: Fixed Route Transit Routes (2020-2021) in Relation to Transportation Disadvantaged Population



Transportation Disadvantaged Population scoring is comprised of US Census Bureau American Community Survey (ACS) data and Community Development Block Group (CDBG) income data. 2018 ACS data includes: people who have a disability, people who have less than a high school education, minorities, single parent households, zero vehicle households, and population under 18 and over 65. Higher points indicate a greater deviation from the regional average.

Transportation Disadvantaged Population Score

≤2 ≤4 ≤6 ≤9 ≤12 Transit Routes 2020-2021 City Limits

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N

0 1.25 2.5 Miles

Date Exported: 10/8/2020
Source: Lawrence Transit, 2018 ACS 5-yr Est., CDBG Income
Produced: Lawrence-Douglas County MPO

Conclusion

Reviewing the assessment and analysis in this chapter the MPO believes there are no significant EJ issues with the selection of roadway, bridge, pedestrian/bicycle, or transit projects in Douglas County. This TIP includes projects inside and outside of EJ zones. Although not covered under Executive Order 12898, populations that may be transportation disadvantaged — people who have a disability, people who have less than a high school education, single parent households, zero vehicle households, and population under 18 and over 65 — were spatially analysed and appear to be served by federal transportation investments.

The region's transportation projects are selected based on the merit of the project and the need for improvements to the transport system without any intended bias towards impacting EJ areas any more than any other area in the region. However, paying particular attention to EJ and Transportation Disadvantaged Areas when project selection occurs by the local entities will ensure equitable outcomes can be achieved. The MPO should continue to encourage best practices by project sponsors through project prioritization measures, such as scoring for EJ considerations and quality public participation.

Furthermore, future performance measure reports will include an analysis about the Transportation Disadvantaged Population access to the bikeways (PM1), sidewalk (PM2), and transit stops (PM5).

A | PLANNING & ENGINEERING FACTORS FOR LOCAL PROJECT CONSIDERATION
APPENDIX A

Planning Factors

- Is the project consistent with the goals and objectives found in the Metropolitan Transportation Plan (MTP)?
- Is the project listed as a recommended transportation system improvement in the MTP?
- Is the project regionally significant as defined by federal regulations and the latest Regionally Significant Policy approved by the MPO?
- Is the project consistent with the latest MPO/FHWA approved Functional Classification Map?
- Is the project consistent with the latest locally approved comprehensive plan (including the land use plan, area plans, Safe Routes to School, and other comprehensive plan elements/chapters) covering the project location?
- Does the project include provisions for transit, bicycle, and pedestrian movements (including students and ADA accessibility) as needed to provide a regional multimodal transportation system?
- Has the project sponsor considered Title VI, Environmental Justice (EJ), and Transportation Disadvantage Populations impacts in the planning for this project, and if the project is in a minority and/or low-income area has the project sponsor considered and addressed the Title VI and EJ issues related to the project?
    - Federally required EJ characteristics include: minority and low-income populations
    - Transportation disadvantages populations include: households with a person who has a disability, people who have less than a high school education, minorities, single parent households, zero vehicle households, population under 18 and over 65, and low income households.
- Has the project sponsor received public comments about this project and if received considered those public comments in the planning and design of the project?
- Is the project eligible for the type of federal and/or state funding being proposed for it, and is there adequate funding available for the project in the year it is proposed?

Engineering Factors

- Does the Project address a facility that has (existing or projected) a high volume to capacity ratio indicating it or will experience significant congestion and lower levels of service?
- Does the project location have a traffic accident history marked by a higher than expected accident rate which, along with other accident attributes, indicates that an engineering change could reduce the number and/or severity of crashes?
- Does the project location have pavement conditions noting a deteriorated state showing that the facility is in need of improvements to maintain its function and/or that those improvements can be made economically now before more costly reconstruction is needed?
- Does the project site include geometric design that is inadequate by current standards and does the project sponsor have documentation that this design is hampering the facility's ability to handle the traffic loads and/or vehicle sizes using the facility in a safe and efficient manner, and does the project sponsor plan to address those geometric deficiencies as part of this project?
- Does the project site or facility have structural deficiencies indicating that the facility is near the end of its projected lifespan and that it will need frequent maintenance to function adequately, and does the project sponsor plan to address these structural deficiencies as part of this project?
- Have safety concerns involving motorists, bicyclists, pedestrians and/or transit users and transit operations been identified at the project location and does the project sponsor plan to address those concerns as part of this project?
- Has the project location met minimum engineering standards set by the project sponsor that indicate the facility is in need of improvement, rehabilitation or replacement?

*This list is not exhaustive. It is used at the discretion of local governments and project sponsors and may be changed in the future.

B | DEFINITIONS OF MAJOR PROJECTS & SIGNIFICANT DELAY

APPENDIX B

Roadways (including intersections and bridges)

The major roadway projects include projects located on a roadway classified by the MPO as a Major Collector or higher, with construction costs of at least $2.0 million and that have at least one of the following attributes:

- Designed to increase roadway capacity and/or decrease traffic congestion
- Designed to improve safety
- Designed to replace aging infrastructure and bring it up to current standards
- Results in significant delay and/or detours during construction

Major projects do not include the following types of projects that are considered to be routine maintenance projects: mill & overlay, micro-abrasion, micro-surfacing, crack sealing, concrete rehabilitation, curb repairs, sweeping, mowing, spot repairs, and interim measures on detour routes.

Transit Facilities and Services

The major transit projects include projects that need to be listed in the TIP because they use federal funding and/or are regionally significant, have a total cost of at least $1.0 million, and meet at least one of the following criteria:

- Acquisition of three or more new transit vehicles
- Addition or expansion operations and/or maintenance buildings
- Initiation of new transit service or expansion of transit services into territory not previously served

Major transit projects do not include the following types of projects that are considered to be routine: preventive maintenance on transit vehicles; purchase of spare parts, shop supplies and fuel; annually received formula based operating assistance; purchase of bus stop signs, shelters and related items; scheduled purchases of one or two transit vehicles; staff training and recruitment; and other routine operational activities.

Bikeway and Pedestrian Facilities

The major bikeway and pedestrian projects includes projects that need to be listed in the TIP because of federal funding and/or regional significance, and meet at least one of the following criteria:

- Total project cost of at least $ 500,000
- Construction of bikeway or pedestrian facility (or extension of existing facility) into a location where a bicycle/pedestrian facility did not exist before

Major bikeway/pedestrian projects do not include the following types of projects that are considered to be routine maintenance projects: patching, crack sealing, curb repairs, sweeping, mowing, spot repairs, landscaping maintenance, sign replacements, and other routine operational activities.

Significant Delay

The term significant delay will be defined as two years or more from the year first listed for the project in the previous TIP.

C

PROGRESS ON PREVIOUS TIP PROJECTS
APPENDIX C

Major Projects from the Previous 2019-2022 TIP

Using the definitions listed in Appendix B the following major projects from the previous 2019-2022 TIP were implemented between the start of 2019 and the approval date for this new 2021-2024 TIP. This current TIP covers 2021 to 2024 so some 2021 projects could be listed in both the previous and current TIP documents.

Table C-1: Completed Projects

TIP #	Project Type	Project Name	Project Sponsor	Location	Description	Year	Cost (in 1,000s)
110	Road	23rd St 2 way left turn lane	KDOT	23rd St: Louisiana St to Massachusetts St	Construction of a 2 way left turn lane on 23rd St from Louisiana St to Massachusetts St	2019	$ 1,800
111	Road	23rd St Resurfacing: Iowa St to Ousdahl Rd	KDOT	23rd St Resurfacing: Iowa St to Ousdahl Rd	Resurfacing 23rd St from Iowa St to Ousdahl St.	2019	$ 300
113	Road	Lawrence CCLIP, US-40/Tennessee St Intersection	KDOT	US-40/Tennesse St. Intersection	Construct new right turn lane eastbound to southbound	2019	$ 492
134	Road	US-40 Mill/Overlay, SN/DG CO to 0.15 miles W of E 50th Rd	KDOT	Shawnee/Douglas County Line to 0.15 Miles west of County Road E50th Road	0.5 Inch Cold Mill, 1.5 Inch Overlay and Edge Wedge Rock on Shoulders	2019	$ 148
200	Road	South Lawrence Trafficway	KDOT	SO Junct US 59/K10 E to K10	Linked to Project K-8392-01.	2016	$ 186,100
203	Road	19th St, Naismth to Iowa Reconstruction	Lawrence	19th St from Iowa St to Naismith Dr	Reconstruction of street will include subgrade treatment, surfacing, storm sewer, geometric improvements and multimodal facilities.	2017-2019	$ 3,775
302	Intersection	Intersection of US-40/K019 at Wakarusa/27th St Signal	KDOT	4 Dynamic Message Boards along US40/K-10 near the US-40/K-10 & Wakarusa/27th St Signal	Upgrade signal with interconnectedflashing beacons for US-40/K-10. Determine que locations for 4 DMS boards. 1) btwn Kasold & US-59 WB, 2) btwn Bob Billings & Clinton Pkwy, 3) east of US-59 for WB traffic, and 4) btwn Clinton Pkwy & Wakarusa/27th EB	2019-2020	$ 527
401	Transit/ Paratransit	Independence, Inc 5311, local, state operating and capital for 2019 and 2020	Independence Inc.	Lawrence	Operating and Capital	2019-2021	$ 476
415	Transit/ Paratransit	Bert Nash, FTA 5310 Capital Funds	Bert Nash Community Mental Health Center	Lawrence	Purchase a Ramp Mini-Van ($40) and a Full Size Van ($57).	2019	$ 97

Table C-1: Completed Projects (Continued)

TIP #	Project Type	Project Name	Project Sponsor	Location	Description	Year	Cost (in 1,000s)
505	Transportation Alternatives	19th & Iowa St Ped/Bike Underpass	Lawrence	19th St & Iowa St (US-59) Intersection	Pedestrian/bicycle underpass	2018	$ 3,169
601	Safety	Route 458 HRRR	Douglas County	Rte 458 E 1800 Rd. to E 2000 Rd	Replace nine narrow culverts and remove roadside trees to improve roadside safety.	2016-2018	$ 1,293
602	Safety	Local Road Safety Plan	Douglas County	County road network	Safety study of county road network (major collectors) to identify needed safety improvements.	2019	$ 40
604	Safety	Massachusetts St, 11th to 14th St Reconfigure Lanes	Lawrence	Massachusetts St: 11th St to 14th St	Reconfigure lanes for center turn lane and bike amenities.	2018	$ 164
704	Road	Traffic Study of KTEN Crossing Entrance and US-59	KDOT	Study the proposed KTEN Crossing Entrance and US-59 Intersection	Study the proposed KTEN Crossing Entrance and US-59 Intersection.	2019	$ 25
705	Other	K-10 (US-40) & 27th St/Wakarusa Dr Intersection Improvements	KDOT	K-10 and 27th St/Wakarusa	Intersection improvement: add EB right turn lane on K-10, extend WB turn lane on K-10, add a NB right turn lane, revise pavement markings, mill & overlay north and south intersection legs & reconstruct sidewalk crossing. Permanent seeding & signage.	2019-2020	$ 576
705	Other	K-10 (US-40) & 27th St/Waka. Intersection Improvements	KDOT	K-10 and 27th St/Wakarusa	Intersection improvement: add EB right turn lane on K-10, extend WB turn lane on K-10, add a NB right turn lane, revise pavement markings, mill & overlay north and south intersection legs & reconstruct sidewalk crossing. Permanent seeding & signage.	2019-2020	$ 1,210

Major Projects from the 2019-2022 TIP That Were Significantly Delayed

Table C-2: Significantly Delayed Projects

TIP #	Project Type	Project Name	Project Sponsor	Location	Description	Original Year	Currently Programmed Year in the TIP	Cost (in 1,000s)
106	Road/ Bridge	Wakarusa Drive Extension	Douglas County	Rte 458 to planned K-10 interchange at Wakarusa Dr	New road construction to extend Wakarusa Drive from planned K-10 interchange to Route 458. Includes new bridge over Wakarusa River. *Alignment not finalized	2018-2021	2021-2023	$ 6,300
107	Road	Kasold Reconstruction, Clinton Pkwy to HyVee	Lawrence	Kasold from 22nd St to Clinton Pkwy	Reconstruction of street including pavement, storm sewer, sidewalks, bicycle facilities, and median	2017-2018	2019-2020	$ 2,600
236	Road/ Interchange	SLT/K-10 West Leg in Douglas County	KDOT	I-70/K10 Junction South to 3500 ft N of K-10/US-40 Junction	Add 2 lanes to existing 2 lanes for a 4 lane freeway section. This will include reconstruction of existing interchange @ KTA (I-70). A mainline ORT (open road tolling) toll plaza on K-10 is included in reconstruction of interchange @ I-70.	2016	2019	$ 4,200
243	Road	US-56 Improvements: Eisenhower St to 1st St	KDOT	Eisenhower St to 1st St	Improvements to US-56 - Realign Eisenhower and construct 3 lane US-56 in Baldwin City.	2017	2020	$ 1,675

D

LATEST FEDERAL FISCAL YEAR - LIST OF OBLIGATED PROJECTS

APPENDIX D

The purpose of this listing is to illustrate the progress of federal aid transportation projects in the region as they move through the years in the TIP projects table and onto the recently obligated projects list. Projects are listed based on the year the federal funds were obligated, not necessarily the year the construction of the project began. The federal amount represents the federal funds spent on the project.

The table below describes projects listed in the TIP that were obligated in the previous Federal Fiscal Year (FFY). A listing of projects with federal aid obligated in the previous FFY are presented to the MPO each year for review either as part of a TIP approval or amendment or as a separate memo.

The listing will be is available on the MPO website and is sent to the Kansas Department of Transportation who will then distribute the listing to the FHWA and the FTA for informational purposes.

Table D-1: Obligated Projects From FFY2020

Transit Projects

MPO #	KDOT #	Project Name/Location	Project Description	Federal Funding Source	Cost in $1,000's Federal Funds Requested in TIP	Federal Funds Spent FFY 2020	Federal Funds Obligated To Date (cumulative)	Federal Funds Remaining/ Unliquidated Obligation	Unobligated Funds Remaining	Bike &/or Ped Elements	Project Status
412	FFY 2020 5307 FTA	Lawrence Transit - Operating Funds	Operating and Preventative Maintenance activities	5307	$2,523	$850	$2,523	$1,673	$0	No	Active
412	FFY2019 5307 FTA	Lawrence Transit - Operating Funds	Operating and Preventative Maintenance activities	5307	$2,447	$1,056	$2,397	$12	$50	No	Active
402	FFY 2016 5307 FTA	Lawrence Transit - Operating Funds	Operating and Preventative Maintenance activities	5307	$2,135	$200	$2,135	$0	$0	No	Inactive
402	FFY 2015 5307 FTA	Lawrence Transit - Operating Funds	Operating and Preventative Maintenance activities	5307	$101	$200	$2,107	$0	$0	No	Inactive
402	FFY 2014 5307 FTA	Lawrence Transit - Operating Funds	Operating and Preventative Maintenance activities	5307	$100	$100	$2,122	$0	$0	No	Inactive
417	FFY2020 CARES Act	Lawrence Transit - Operating Funds	Operating and Preventative Maintenance activities	5307 CARES Act	$7,126	$6	$7,126	$7,120	$0	No	Active
401	-	Independence, Inc	Purchase a ramp accessible minivan	5311	$31	$39	$39	($8)	($8)	No	Closed
514	-	Naismith Moblity Project	Construct sidewalk on east side of Naismith Dr. with focus on transit connection and improvements.	5310/State	$326	$326	$326	($0)	($0)	Yes	Active

Non-Transit Projects

MPO #	KDOT #	Project Name/Location	Project Description	Federal Funding Source	Cost in $1,000's Federal Funds Requested in TIP	Federal Funds Obligated in FFY 2020	Federal Funds Obligated To Date	Federal Funds Remaining	Bike &/or Ped Elements	Project Status
601	C-4857-01	Route 458 HRRR, from E1800 Rd to E 2000 Rd	Replace nine narrow culverts and remove roadside trees to improve roadside safety	HSIP	$753	$753	$0	$753	No	Active
200	K-8392-04	South Lawrence Trafficway, from South Junction US-59/K-10 East to K-10	Linked to Project L-8392-01.	STP/NHPP	$148,977	$172,182	($862)	$149,839	No	Closed
705	KA-3634-08	K-10 (US-40) & 27th St/Waka. Intersection Improvements, at K-10 and 27th St/Wakarusa Dr.	Intersection improvement: add EB right turn lane on K-10, extend WB turn lane on K-10, add a NB right turn lane, revise pavement markings, mill & overlay north and south intersection legs & reconstruct sidewalk crossing. Permanent seeding & signage.	HSIP	$748	$748	$748	$0	Yes	Active
509	TE-0472-01	West Baldwin Ped-Bike Connectivity Project Phase 1, Elm St from Midland RR Xing to 8th Street	The Elm Street pedestrian sidewalk is to run along the south side of Elm St from Baker University (8th St) across existing Midland Railway Crossing and connecting to existing sidewalk on USD 348 property. A bulb out will be included at 8th St.	TA	$580	$436	$436	$144	Yes	Active
510	TE-0480-01	Eudora: Bluejacket Trail Phase 2, Winchester Rd from W 12th St to Hawthorne St; W 12th St from Winchester Rd east to Bluejacket Park	Design, engineer, and construct an ADAcompliant, approximately 7,050' long, 8' wide shared-use path.	TA	$284	$284	$284	$0	Yes	Active
226	U-0561-01	Lawrence: Harvard and Wakarusa roundabout	Convert All Way Stop controlled intersection to two lane roundabout --> Project was cancelled	HSIP	$600	$600	$0	$600	Yes	Closed
504	U-2305-01	Lawrence: Safe Routes to School (Phase 2)	The project will add sidewalks along designated safe routes for 2 schools (LMCMS/WES) on arterial roadways w/sidewalk on 1 side &residential roadways w/no sidewalk on either side. It will also add RRFBs at existing school crossings w/o a crossing guard	TA	$189	$189	$0	$189	Yes	Closed
506	U-2334-01	Lawrence: Safe Routes to School Phase 2, muliple locations in Lawrence near public schools	New sidewalk construction along designated Safe Routes to School. Driveway and sidewalk ramp construction will be included for ADA compliance.	TA	$394	$394	$41	$353	Yes	Active

Legend

5307 - FTA Section 5307 - Operating Assistance, Preventive Maintenance, Program Administration, & Security and Capital
5309 - FTA Section 5309 - Capital Bus and Bus Facilities
5310 - FTA Section 5310 - Elderly and Disabled
5317 - FTA Section 5317 - New Freedom
5339 - FTA Section 5339 - Bus and Bus Facilities
BR - Bridge Replacement Funds
HSIP - Highway Safety Improvement Program
NHPP - National Highway Performance Program
STP - Surface Transportation Program
SRTS - Safe Routes to School
TE/TA - Transportation Enhancement/Transportation Alternative

E

TIP PUBLIC PARTICIPATION
APPENDIX E

Figure E-1: TIP Development Timeline

Task	Date	May	June	July	August	September	October	November
Discuss TIP development with KDOT, FHWA, & FTA	Mid-May							
Implement updates (TIP form and database)	Prior to 6/2/20							
Discuss at TAC	6/2/20							
TIP project submission deadline to MPO staff	6/12/20							
Develop new TIP	6/12/20 - 8/7/20							
Send draft to KDOT, FHWA, and FTA for review	8/7/20 - 8/21/20							
30 day public comment period*	8/26/20 - 9/25/20							
Incorporate public comments	9/28/20							
TAC/MPO Policy Board consideration of incorporating public comments into final TIP	TAC - 10/6/20 MPO - 10/15/20							
Pending Policy Board approval post online and send to KDOT, FHWA, and FTA	10/15/20							
Inclusion in Kansas STIP	November							

* Public participation process includes: Newspaper advertisement, email to subscription list, place document online and at public locations - Baldwin City Public Library, Eudora City Hall, Lawrence Public Library, Lecompton City Hall, and MPO Office, send to TAC and Policy Board for review

Figure E-2: Public Comment and Approval Summary

	Public Comment Period	# of Public Comments	TAC Action	Policy Board Action
Original Approval	8/26/20 to 9/25/20	0	October 16, 2020	October 15, 2020
Amendment 1	1/7/21 to 1/22/21	0	February 2, 2021	February 18, 2021
Amendment 2	3/16/21 to 3/31/21	0	April 6, 2021	April 15, 2021
Amendment 3	7/16/21 to 7/31/21	0	August 3, 2021	August 19, 2021
Amendment 4	9/10/21 to 9/25/21	0	October 5, 2021	October 21, 2021

TIP public comments and MPO staff responses can be viewed at www.lawrenceks.org/mpo/tip/comments.

F

TRANSPORTATION DISADVANTAGED POPULATION METHODOLOGY

APPENDIX F

The Environmental Justice section of this TIP included additional analysis of the transportation disadvantaged populations on page 35. The table below details the source of the data and the point thresholds.

Table F-1: American Community Survey Data Sources for Transportation Disadvantaged Population

Category	Table ID	Measure	Table Name	Universe	Source
Disability	B22010	Households with a person who has a disability (Food stamp or not)	Receipt of food stamps/snap in the past 12 months by disability status for households	Households	5-yr ACS 2014 - 2018
Education	B15003	Less than high school diploma	Educational attainment for the population 25 years and over	25 Yrs and Over	
Minority	B02001	Non-white, excluding 2 or more races	Race	Total Population	
Single Parent	B09002	Male householder without wife present, female householder without husband present	Own children under 18 years by family type and age	Own Children under 18 Yrs	
Zero Vehicles	B25044	Households without vehicles	Tenure by vehicles available	Occupied Housing Units	
Youth & Seniors	B01001	65+ and <18	Sex by age	Total Population	
Low & Moderate Income	Community Development Block Group (CDBG) income https://www.hudexchange.info/programs/acs-low-mod-summary-data				5-yr ACS 2011 - 2015 & Income Limits

Source: US Census, 2018-2014 5-Year American Community Survey (ACS) & CDBG Income

Table F-2: Point Thresholds

Topic	Regional Average	1 Point	2 Points	3 Points
Person who has a disability	20.2%	20.2% to 40.1%	40.2% to 60.1%	Greater than or equal to 60.2%
Less than high school diploma	4.5%	4.5% to 24.4%	24.5% to 44.4%	Greater than or equal to 44.5%
Minority	12.9%	12.9% to 32.8%	32.9% to 52.8%	Greater than or equal to 52.9%
Single parent household	24.3%	24.3% to 44.2%	44.3% to 64.2%	Greater than or equal to 64.3%
Households without vehicles	5.8%	5.8% to 25.7%	25.8% to 45.7%	Greater than or equal to 45.8%
Youth (under 18)	18.6%	18.6% to 38.5%	38.6% to 58.5%	Greater than or equal to 58.6%
Senior citizens (65+)	11.3%	11.3% to 31.2%	31.3% to 51.2%	Greater than or equal to 51.3%
Low-moderate CDBG income		51.0% to 62.4%	62.5% to 78.9%	Greater than or equal to 79.0%

Source: 2018 American Community Survey 5-year Estimates and CDBG Income. Points were assigned based on the percentage of each measure per block group. Then one point was assigned if the block group was equal to or 20 percent higher than the regional average. Two points were attributed if the block group was 20 percent to 40 percent of the regional average. And three points were assigned if the block group was greater than 40 percent higher than the regional average. Low-moderate income data is the Community Development Block Grant (CDBG) identified low-moderate income areas. A block group is low-moderate income if the low-moderate income percentage for the block group is 51.0%. The 27 block groups that are considered low-moderate income were split into 3 groups of 9 and the highest percentage of low-moderate income were assigned three points, then two points, and lastly one point.

To view information about the Lawrence specific analysis visit https://lawrenceks.org/mpo/transportation-disadvantaged.

G Summary of TIP Changes

APPENDIX G

FFY 2021 - 2024 L-DC MPO Transportation Improvement Program (TIP)

Revision Summary: Administrative Revision 2

Costs in 1,000s

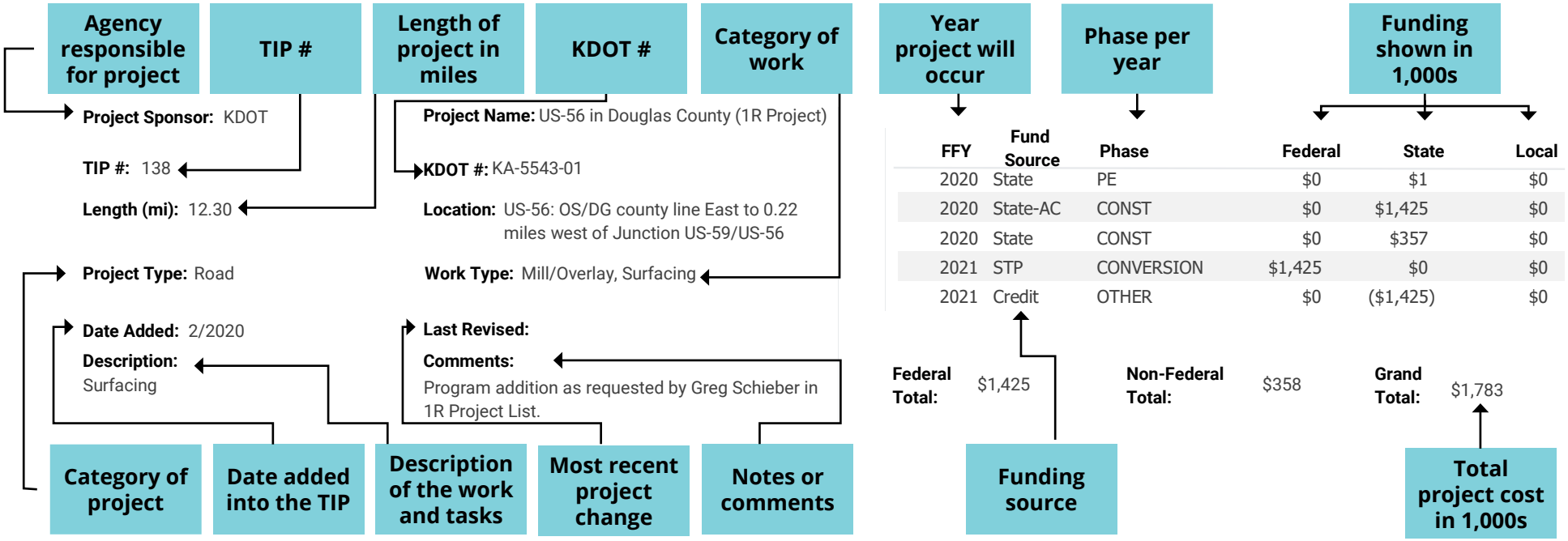
TIP #:	KDOT #:	Project Name:	Project Sponsor:	Action:	Transportation 2040 Inclusion:	Revision Description:	Total Project Cost:
513	U-2372-01	Lawrence Safe Routes to School Phase 2 (2021)	Lawrence	Revision	Strategy - Implement the Regional Pedestrian Plan; Maintain & Implement a SRTS Program; page 156	Revise 2021 Local CONST from $110 to $125 and 2021 TA CONST from $400 to $500.	$675

Public Comment Period: **NA**

MPO Policy Board Approval: **NA - Posted 11/9/2021**

TIP PROJECT LISTINGS
APPENDIX H

Example Listing



Decoding the TIP

TIP #: Assigned based on project type by MPO:
100 – Roadway/Intersection
200 – Bridges
300 – ITS
400 – Transit/Paratransit
500 – Enhancement (Bike/Ped)
600 – Safety
700 – Other – studies

Phase:
CAPITAL – Transit Capital
CONST – Construction - (includes Construction Engineering)
OPERATING – Transit Operating
PE – Preliminary Engineering
ROW – Right of Way
UTIL - Utilities

Project Type: Classified into categories:
- Bridge
- Enhancement
- Interchange
- Intersection
- ITS
- Road
- Safe Routes To Schools (SRTS)
- Safety
- Traffic Signal
- Transit/Paratransit

Federal Fiscal Year (FFY): October 1 - September 30

Work Type: Classified into categories:
- Access Management
- Bridge Rehabilitation
- Bridge Replacement
- Capital
- Geometric Improvement
- Grading
- Mill/Overlay
- Operating
- Other
- Pedestrian & Bicycle
- Planning
- Reconstruction
- Redeck Bridge
- Safety
- Seeding
- Signage
- Signal
- Special Work
- Surfacing
- Vehicle Replacement

Fund Source:
- Community Development Block Grant (CDBG)
- National Highway Performance Program (NHPP)
- Surface Transportation Program (STP)
- Highway Safety Improvement Program (HSIP)
- Railway-Highway Crossings (set-aside from HSIP)
- Transportation Alternatives (TA) – includes Safe Routes To School funding
- Urban Area Formula Grants (5307)
- Rural Area Formula Grants (5311)
- Enhanced Mobility of Seniors and Individuals with Disabilities (5310)
- Bus and Bus Facilities (5339) Program
- State of Kansas Funding (State)
- Local Government Funding (Local) - County and City funds from local property and sales taxes

FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)

Project Sponsor: Douglas County/Lawre
Project Name: Wakarusa Drive Extension
TIP #: 106 **KDOT #:**
Length (mi): 2.00
Location: Clinton Parkway to N 1200 Rd
Project Type: Road, Bridge
Work Type: Grading, Bridge, Surfacing
Date Added: 10/2016 **Last Revised:** 10/2021
Revison History: FFY19 A5, FFY21 A3, FFY21 A4

Description:
New road construction to extend Wakarusa Drive from planned K-10 interchange to Route 458. Includes new bridge over Wakarusa River. *Alignment not finalized

Comments:
Construction contingent on KDOT construction of K-10 interchange at Wakarusa Drive. Changed TIP # from 100 to 106 in 2/2017.

Douglas County & Lawrence will partner on project sharing design and construction costs 50/50.

FFY	Fund Source	Phase	Federal	State	Local
2022	Local	PE	$0	$0	$500
2022	Local - LAW	PE	$0	$0	$166
2022	Local - LAW	ROW	$0	$0	$167
2022	Local - LAW	UTIL	$0	$0	$167
2023	Local	PE	$0	$0	$250
2023	Local	ROW	$0	$0	$150
2023	Local	UTIL	$0	$0	$100
2024	Local	CONST	$0	$0	$750
2024	Local - LAW	CONST	$0	$0	$6,500
2025	Local	CONST	$0	$0	$4,000

Federal Total: $0 **Non-Federal Total:** $12,750 **Grand Total:** $12,750

Project Sponsor: Lawrence
Project Name: Kasold Drive Reconstruction: Clinton Pkwy to HyVee
TIP #: 107 **KDOT #:**
Length (mi): 0.16
Location: Kasold from 22nd St to Clinton Pkwy
Project Type: Road
Work Type: Reconstruction
Date Added: 10/2016 **Last Revised:** 8/2019
Revison History:

Description:
Reconstruction of street including pavement, storm sewer, sidewalks, bicycle facilities, and median.

Comments:
Included in 2018 CIP. Changed TIP # from 101 to 107 in 2/2017 - this amendment makes no changes to scope or funding.

FFY	Fund Source	Phase	Federal	State	Local
2019	Local	PE	$0	$0	$170
2020	Local	CONST	$0	$0	$2,430

Federal Total: $0 **Non-Federal Total:** $2,600 **Grand Total:** $2,600

FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)

Project Sponsor: Lawrence
TIP #: 117 **KDOT #:**
Length (mi): 0.50

Project Name: Naismith Drive Reconstruction: 19th St. to 23rd St.
Location: 19th & Naismith to 23rd & Naismith

Project Type: Road
Work Type: Reconstruction, Pedestrian/Bicycle

Date Added: **Last Revised:** **Revison History:**

Description:
Reconstruction of Naismith from 19th to 23rd st including new pavement, curb and gutter, storm sewer, sidewalks and bike facilities.

Comments:
The street is in failing condition and needs to be reconstruction (PCI <50). Naismith is on the bike plan for future improvements.

FFY	Fund Source	Phase	Federal	State	Local
2023	Local	PE	$0	$0	$300
2024	Local	CONST	$0	$0	$4,000

Federal Total: $0 **Non-Federal Total:** $4,300 **Grand Total:** $4,300

Project Sponsor: KDOT
TIP #: 135 **KDOT #:** KA-5484-01
Length (mi): 5.80

Project Name: K-10: West of E1900 East to DG/JO County Line Surfacing
Location: Beginning 0.48 miles West of E1900 thence east to the Douglas/Johnson County line

Project Type: Road
Work Type: Surfacing

Date Added: 10/2019 **Last Revised:** 8/2020 **Revison History:**

Description:
Surfacing

Comments:
The CONST Phase will utilize AC in the amount of $992 K with conversion to NHPP in 2021.

FFY	Fund Source	Phase	Federal	State	Local
2019	State	PE	$0	$1	$0
2020	State-AC	CONST	$0	$992	$0
2020	State	CONST	$0	$248	$0
2021	NHPP	CONVERSION	$992	$0	$0
2021	Credit	OTHER	$0	($992)	$0

Federal Total: $992 **Non-Federal Total:** $249 **Grand Total:** $1,241

FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)

Project Sponsor: KDOT
TIP #: 136 **KDOT #:** KA-5485-01
Length (mi): 8.40
Project Type: Road
Date Added: 10/2019 **Last Revised:** 8/2020
Description: Surfacing

Project Name: K-10: West Leg Surfacing
Location: Beginning at Junction I-70/KTA/K-10 thence east to Junction K-10/US-40/US-59
Work Type: Surfacing
Revison History:
Comments: The CONST Phase will utilize AC in the amount of $3,010 K with conversion to NHPP in 2021.

This project is tied to project 705 (KA-3634-08) for letting purposes.

FFY	Fund Source	Phase	Federal	State	Local
2020	State	PE	$0	$1	$0
2020	State-AC	CONST	$0	$3,010	$0
2020	State	CONST	$0	$755	$0
2021	NHPP	CONVERSION	$3,010	$0	$0
2021	Credit	OTHER	$0	($3,010)	$0

Federal Total: $3,010 **Non-Federal Total:** $756 **Grand Total:** $3,766

Project Sponsor: KDOT
TIP #: 137 **KDOT #:** KA-5542-01
Length (mi): 10.91
Project Type: Road
Date Added: 2/2020 **Last Revised:** 10/2020
Description: Surfacing

Project Name: US-40 in Douglas County (1R Project)
Location: US-40: 0.15 miles East of the DG/SH county line east to Junction US-40/K-10
Work Type: Mill/Overlay, Surfacing
Revison History:
Comments: Program addition as requested by Greg Schieber in 1R Project List.

Conversion to STP in 2021.

FFY	Fund Source	Phase	Federal	State	Local
2020	State	PE	$0	$1	$0
2020	State-AC	CONST	$0	$1,498	$0
2020	State	CONST	$0	$375	$0
2021	STP	CONVERSION	$1,498	$0	$0
2021	Credit	OTHER	$0	($1,498)	$0

Federal Total: $1,498 **Non-Federal Total:** $376 **Grand Total:** $1,874

FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)

Project Sponsor: KDOT

TIP #: 138 **KDOT #:** KA-5543-01

Length (mi): 12.30

Project Name: US-56 in Douglas County (1R Project)

Location: US-56: OS/DG county line East to 0.22 miles west of Junction US-59/US-56

Project Type: Road

Work Type: Mill/Overlay, Surfacing

Date Added: 2/2020

Last Revised:

Revison History:

Description:
Surfacing

Comments:
Program addition as requested by Greg Schieber in 1R Project List.

Conversion to STP in 2021.

FFY	Fund Source	Phase	Federal	State	Local
2020	State	PE	$0	$1	$0
2020	State-AC	CONST	$0	$1,425	$0
2020	State	CONST	$0	$357	$0
2021	STP	CONVERSION	$1,425	$0	$0
2021	Credit	OTHER	$0	($1,425)	$0

Federal Total: $1,425 **Non-Federal Total:** $358 **Grand Total:** $1,783

Project Sponsor: Eudora

TIP #: 141 **KDOT #:** KA-5897-01

Length (mi): 0.30

Project Name: Church Street Improvements: 15th St. to 14th St.

Location: Approximately 1,550 feet of improvements to Church St. beginning 600' south of the 15th St. intersection,

Project Type: Road

Work Type: Access Management, Reconstruction, Safety

Date Added: 10/2020

Last Revised:

Revison History:

Description:
Expand & add drive/turn lanes, traffic signal at 15th St, curb & gutter, improved stormwater facilities & drainage, pedestrian infrastructure (crosswalks, ADA ramps, sidewalks, multi-modal transportation stops).

Comments:
Future construction phases will include additional improvements to 14th St., Elm St. and the remaining Church St. from K-10 to the start of Phase One (Church Street improvements at 15th St.).

FFY	Fund Source	Phase	Federal	State	Local
2021	State	CONST	$0	$1,249	$0
2021	Local	CONST	$0	$0	$673

Federal Total: $0 **Non-Federal Total:** $1,922 **Grand Total:** $1,922

FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)

Project Sponsor: KDOT

TIP #: 142 **KDOT #:** KA-2841-02

Length (mi): 0.00

Project Type: Interchange

Date Added: 2/2021 **Last Revised:** 8/2021

Description:
Construct a Diverging Diamond Interchange (DDI)

Project Name: US-40/K-10 Interchange Improvement (Diverging Diamond Interchange)

Location: US-40/K-10 Interchange Improvement (DDI) in Lawrence

Work Type: Reconstruction

Revison History: FFY21 A3

Comments:
Project is authorized for PE, ROW, UTIL ONLY. The estimated total project cost is $14,215 K for planning purposes only. The PE Phase will use $921 K of AC converting to NHPP in 2025. The UTIL Phase will use $276 K of AC converting to NHPP in 2025.

FFY	Fund Source	Phase	Federal	State	Local
2021	State	PE	$0	$230	$0
2021	State-AC	PE	$0	$921	$0
2021	State	ROW	$0	$345	$0
2022	State	UTIL	$0	$69	$0
2022	State-AC	UTIL	$0	$276	$0
2025	Credit	OTHER	$0	($1,197)	$0
2025	NHPP	CONVERSION	$1,197	$0	$0

Federal Total: $1,197 **Non-Federal Total:** $644 **Grand Total:** $1,841

Project Sponsor: KDOT

TIP #: 143 **KDOT #:** KA-6015-01

Length (mi): 3.75

Project Type: Road

Date Added: 2/2021 **Last Revised:**

Description:
Roadway reconstruction based on 44 ft. roadway with 10 ft. shoulders. Add acceleration/deceleration lanes as warranted.

Project Name: US-56 Reconstruction: US-56/US-59 Junction east to 1600 Rd.

Location: US-56 in Douglas County: Beginning at East Junction US-56/US-59 Ramps thence East to 1600 Road

Work Type: Reconstruction

Revison History:

Comments:
Project is authorized for PE ONLY. The estimated total project cost is $14,820 K which shall be used for planning purposes only. The PE Phase will utilize AC in the amount of $960 K with conversion to NHPP in 2026.

FFY	Fund Source	Phase	Federal	State	Local
2021	State	PE	$0	$240	$0
2021	State-AC	PE	$0	$960	$0

Federal Total: $0 **Non-Federal Total:** $1,200 **Grand Total:** $1,200

FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)

Project Sponsor: Lawrence
TIP #: 144 **KDOT #:**
Length (mi): 3.60
Project Type: ITS
Date Added: 4/2021 **Last Revised:** 8/2021
Description: Fiber extension from 31st & Louisiana St. and 23rd & Iowa St. to existing traffic signals in the South Iowa Area. Will include a variety of traffic signals improvements for as many as 11 signals (ex. New CCTV cameras, signal heads, detection, & cabinets).

Project Name: South Iowa St. Traffic Signal Improvement Project
Location: 31st St. (Louisiana St. to Neider Road) and Iowa St./US59 (23rd St. to County Route 458)
Work Type: Signal
Revison History: FFY21 A2, FFY21 A3
Comments:

FFY	Fund Source	Phase	Federal	State	Local
2021	Local	CONST	$0	$0	$443
2021	State	CONST	$0	$420	$0

Federal Total: $0 **Non-Federal Total:** $863 **Grand Total:** $863

Project Sponsor: KDOT
TIP #: 145 **KDOT #:** KA-6239-01
Length (mi): 0.22
Project Type: Road
Date Added: 8/2021 **Last Revised:**
Description: Ultrathin Bonded Asphalt Surfacing (UBAS) and Rumble Strips on Centerline

Project Name: US-24 Surfacing: Junction US-24/K-32 to the Douglas/Leavenworth County Line
Location: Junction of US-24/K-32 to the DG/LV County Line
Work Type: Surfacing
Revison History:
Comments:

FFY	Fund Source	Phase	Federal	State	Local
2022	State	CONST	$0	$32	$0

Federal Total: $0 **Non-Federal Total:** $32 **Grand Total:** $32

FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)

Project Sponsor: Lawrence
TIP #: 146 **KDOT #:**
Length (mi): 0.25

Project Name: 11th St. - Indiana to Ohio; Louisiana - 11th to 12th Reconstruction

Location: 11th St. - Indiana St. to Ohio St. & Louisiana St. - 11th St. to 12th St.

Project Type: Road

Work Type: Reconstruction

Date Added: 10/2021
Last Revised:
Revison History:

Description:
11th St (Indiana to Ohio) including concrete pavement, storm sewer, bike/ped improvements & sanitary sewer improvements at 11th/Ohio.

Louisiana St (11th to 12th St) including concrete pavement, storm sewer, bike/ped improvements.

Comments:
Street is in failing condition (PCI = 27) and poor subgrade conditions require complete reconstruction. 11th Street is a collector street and on transit route.

FFY	Fund Source	Phase	Federal	State	Local
2022	Local	PE	$0	$0	$150
2023	Local	CONST	$0	$0	$1,600

Federal Total: $0 **Non-Federal Total:** $1,750 **Grand Total:** $1,750

Project Sponsor: Douglas County
TIP #: 208 **KDOT #:**
Length (mi): 0.75

Project Name: Route 1055 at North 700 Curve

Location: Route 1055 from 725 North to 1670 East

Project Type: Road

Work Type: Rehabilitation, Bridge Replacement

Date Added: 10/2014
Last Revised: 6/2020
Revison History:

Description:
Roadside safety improvements, replace two bridges and one culvert.

Comments:

FFY	Fund Source	Phase	Federal	State	Local
2020	Local	ROW	$0	$0	$50
2020	Local	UTIL	$0	$0	$200
2020	Local	CONST	$0	$0	$1,800

Federal Total: $0 **Non-Federal Total:** $2,050 **Grand Total:** $2,050

FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)

Project Sponsor: Lawrence
TIP #: 214 **KDOT #:**
Length (mi): 1.47

Project Name: Wakarusa Dr. Reconstruction: Research Pkwy to 23rd St
Location: Wakarusa: Research Pkwy to 23rd St

Project Type: Road
Work Type: Reconstruction

Date Added: 10/2016
Last Revised: 10/2021
Revison History: FFY2021 A4

Description:
Reconstruction of street will include subgrade treatment, surfacing, storm sewer, geometric improvements, and multimodal facilities.

Comments:
Extend project limits from 18th St to 23rd St.

FFY	Fund Source	Phase	Federal	State	Local
2021	Local	PE	$0	$0	$400
2022	Local	CONST	$0	$0	$6,000
2023	Local	CONST	$0	$0	$900

Federal Total: $0 **Non-Federal Total:** $7,300 **Grand Total:** $7,300

Project Sponsor: Douglas County
TIP #: 219 **KDOT #:**
Length (mi): 1.60

Project Name: Rte 458/1055 Improvements: E 1500 thru E 1600
Location: E1500 to E1600 & N940 to N1000

Project Type: Road
Work Type: Grading, Surfacing

Date Added: 8/2015
Last Revised: 8/2021
Revison History: FFY19 A3, FFY21 A3

Description:
Construct paved shoulders; replace narrow bridges and culvert; flatten roadside slope; and improve intersections.

Comments:

FFY	Fund Source	Phase	Federal	State	Local
2020	Local	PE	$0	$0	$2
2021	Local	PE	$0	$0	$32
2021	Local	ROW	$0	$0	$125
2021	Local	UTIL	$0	$0	$250
2022	Local	CONST	$0	$0	$3,200

Federal Total: $0 **Non-Federal Total:** $3,609 **Grand Total:** $3,609

FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)

Project Sponsor: Douglas County
TIP #: 220 **KDOT #:**
Length (mi): 1.80

Project Name: Route 1055 Improvements: N1000 to N1180
Location: N1000 to N1180

Project Type: Road
Work Type: Grading, Surfacing

Date Added: 8/2015
Last Revised: 6/2020
Revison History:

Description:
Construct paved shoulders; replace narrow culvert; flatten roadside slope.

Comments:

FFY	Fund Source	Phase	Federal	State	Local
2019	Local	ROW	$0	$0	$66
2020	Local	UTIL	$0	$0	$150
2020	Local	CONST	$0	$0	$2,316

Federal Total: $0 **Non-Federal Total:** $2,532 **Grand Total:** $2,532

Project Sponsor: Lawrence
TIP #: 229 **KDOT #:**
Length (mi): 0.54

Project Name: 19th Street Reconstruction: O'Connell Rd to Harper St
Location: O'Connell Rd to Harper St

Project Type: Road
Work Type: Reconstruction

Date Added: 8/2015
Last Revised: 10/2021
Revison History: FFY21 A4

Description:
Reconstruct & tie into venture park and construct sidewalk & shared use path.

Comments:
PE/ROW are each estimated at 10% of Construction Costs.

FFY	Fund Source	Phase	Federal	State	Local
2019	Local	PE	$0	$0	$275
2019	Local	ROW	$0	$0	$50
2020	Local	CONST	$0	$0	$1,100
2021	Local	CONST	$0	$0	$2,600

Federal Total: $0 **Non-Federal Total:** $4,025 **Grand Total:** $4,025

FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)

Project Sponsor: Lawrence
TIP #: 230 **KDOT #:**
Length (mi): 0.75

Project Name: Queens Road: 6th to North City Limits

Location: 6th St to North City Limits

Project Type: Road

Work Type: Reconstruction

Date Added: 8/2015
Last Revised: 10/2021

Revison History: FFY21 A4

Description:
Construct Queens Road, roundabout at Overland Dr & Queens Rd, construct sidewalk & bike lanes.

Comments:
PE/ROW are each estimated at 10% of Construction Costs.

Updated project description to include roundabout at Overland/Queens.

FFY	Fund Source	Phase	Federal	State	Local
2015	Local	ROW	$0	$0	$600
2016	Local	PE	$0	$0	$200
2022	Local	CONST	$0	$0	$3,000

Federal Total: $0 **Non-Federal Total:** $3,800 **Grand Total:** $3,800

Project Sponsor: Lawrence
TIP #: 234 **KDOT #:** KA-4473-01
Length (mi): 2.01

Project Name: 23rd Street Reconstruction: Haskell to East City Limits

Location: Haskell Ave to East City Limits

Project Type: Road

Work Type: Reconstruction

Date Added: 8/2015
Last Revised: 10/2021

Revison History: FFY21 A4

Description:
Reconstruction of street including pavement, storm sewer, geometric improvements and multimodal facilities.

Comments:
PE/ROW are each estimated at 10% of Construction Costs. Project is part of the 23rd St KDOT/City turn back agreement. This agreement, including final project(s) cost share, has not been finalized to date.

FFY	Fund Source	Phase	Federal	State	Local
2020	Local	PE	$0	$0	$500
2021	State	CONST	$0	$2,000	$0
2021	Local	CONST	$0	$0	$2,250
2022	State	CONST	$0	$2,000	$0
2022	Local	CONST	$0	$0	$4,100

Federal Total: $0 **Non-Federal Total:** $10,850 **Grand Total:** $10,850

FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)

Project Sponsor: KDOT
TIP #: 236 **KDOT #:** KA-3634-02
Length (mi): 1.20

Project Name: SLT/K-10 West Leg in Douglas County

Location: I-70/K10 Junction South to 3500 ft N of K-10/US-40 Junction

Project Type: Road/Interchange

Work Type: Interchange/Reconstruction

Date Added: 1/2016 **Last Revised:** 8/2021

Revison History: FFY21 A1, FFY21A3

Description:
Add 2 lanes to existing 2 lanes for a 4 lane freeway section. This will include reconstruction of existing interchange @ KTA (I-70). A mainline ORT (open road tolling) toll plaza on K-10 is included in reconstruction of interchange @ I-70.

Comments:
PE uses $3,360K of AC & UTIL uses $1,600K of AC with conversion to NHPP in 2025. The total project cost, including all work phases, is estimated at $89,918K. This estimate should be used for planning purposes only. Authorized for PE, ROW, UTIL only.

FFY	Fund Source	Phase	Federal	State	Local
2021	State	PE	$0	$840	$0
2021	State-AC	PE	$0	$3,360	$0
2022	State	ROW	$0	$2,000	$0
2024	State	UTIL	$0	$400	$0
2024	State-AC	UTIL	$0	$1,600	$0
2025	NHPP	CONVERSION	$4,960	$0	$0
2025	Credit	OTHER	$0	($4,960)	$0

Federal Total: $4,960 **Non-Federal Total:** $3,240 **Grand Total:** $8,200

Project Sponsor: KDOT
TIP #: 237 **KDOT #:** KA-3634-03
Length (mi): 7.00

Project Name: SLT/K-10 West Leg in Douglas County

Location: 3500 ft N of K-10/US-40 Junction,to K-10 US-59/Iowa St Junction

Project Type: Road/Interchange

Work Type: Interchange/Reconstruction

Date Added: 1/2016 **Last Revised:** 2/2021

Revison History: FFY21 A1

Description:
Add 2-lanes to existing 2-lanes for a 4-Lane Freeway section. Existing interchanges at US-40 (6th St.), Bob Billings Pkwy, Clinton Pkwy, US-59 (Iowa St.) A new interchange approx 0.8 miles east of Wakarusa/27th int. Kasold Dr/E1200 Rd will be closed.

Comments:
Project is authorized for PE, ROW, and UTIL ONLY. The PE Phase will utilize AC in the amount of $ 8,640 K with conversion to NHPP in 2025. The UTIL Phase will utilize AC in the amount of $12,800 K with conversion to NHPP in 2025.

FFY	Fund Source	Phase	Federal	State	Local
2021	State	PE	$0	$2,160	$0
2021	State-AC	PE	$0	$8,640	$0
2021	State	ROW	$0	$4,000	$0
2023	State	UTIL	$0	$3,200	$0
2023	State-AC	UTIL	$0	$12,800	$0
2025	NHPP	CONVERSION	$21,440	$0	$0
2025	Credit	OTHER	$0	($21,440)	$0

Federal Total: $21,440 **Non-Federal Total:** $9,360 **Grand Total:** $30,800

FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)

Project Sponsor: KDOT
TIP #: 243 **KDOT #:** KA-4365-01
Length (mi): 0.30

Project Name: US-56 Improvements: Eisenhower St to 1st St

Location: Eisenhower St to 1st St

Project Type: Road

Work Type: Other/Reconstruction

Date Added: 7/2016
Last Revised: 4/2021

Revison History: FFY21 A2

Description:
Improvements to US-56 - Realign Eisenhower and construct 3 lane US-56 in Baldwin City.

Comments:

FFY	Fund Source	Phase	Federal	State	Local
2021	Local	CONST	$0	$0	$89
2021	State	CONST	$0	$1,675	$0

Federal Total: $0 **Non-Federal Total:** $1,764 **Grand Total:** $1,764

Project Sponsor: Douglas County
TIP #: 248 **KDOT #:**
Length (mi): 0.15

Project Name: Bridge 0964-1000 replacement

Location: E 1000 Road 0.4 mi. South of Route 458

Project Type: Bridge

Work Type: Bridge Replacement, Grading

Date Added: 10/2018
Last Revised: 8/2021

Revison History: FFY19, FFY21 A3

Description:
Replace load posted, fracture critical bridge

Comments:
Funding amounts assume all Local funding.

FFY	Fund Source	Phase	Federal	State	Local
2021	Local	PE	$0	$0	$110
2021	Local	ROW	$0	$0	$15
2022	Local	UTIL	$0	$0	$75
2022	Local	CONST	$0	$0	$1,600

Federal Total: $0 **Non-Federal Total:** $1,800 **Grand Total:** $1,800

FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)

Project Sponsor: KDOT
TIP #: 249 **KDOT #:** KA-5683-01
Length (mi): 0.00
Project Type: Bridge
Date Added: 8/2020 **Last Revised:** 8/2021

Description:
Machine preparation, replace joints, patch deck, polymer overlay, pier repair and bridge painting

Project Name: Repair bridge #071 on K-10 in Douglas County
Location: K-10; Bridge #071 over the Wakarusa River located 7.05 miles east of the K-10/U.S. 59 junction in Douglas County
Work Type: Bridge Rehabilitation
Revison History: FFY21 A1, FFY21 AR1, FFY21 A3

Comments:
The PE Phase will utilize AC in the amount of $183 K with conversion to NHPP in 2022. The CONST Phase will utilize AC in the amount of $1,363 K with conversion to NHPP in 2022.

FFY	Fund Source	Phase	Federal	State	Local
2020	State	PE	$0	$46	$0
2020	State-AC	PE	$0	$183	$0
2021	State	CONST	$0	$340	$0
2021	State-AC	CONST	$0	$1,363	$0
2022	NHPP	CONVERSION	$1,546	$0	$0
2022	Credit	OTHER	$0	($1,546)	$0

Federal Total: $1,546 **Non-Federal Total:** $386 **Grand Total:** $1,932

Project Sponsor: Lawrence
TIP #: 300 **KDOT #:**
Length (mi): 0.12
Project Type: ITS
Date Added: 8/2021 **Last Revised:**

Description:
Project will replace the 3 signals on 6th (Massachusetts St, Vermont St, Kentucky St). Upgrades will include Accessible Pedestrian Signals and Detectors.

Project Name: 6th and Massachusetts St Traffic Signal Improvement Project
Location: 3 signals along 6th: Massachusetts St, Vermont St, and Kentucky St
Work Type: Signal
Revison History:

Comments:

FFY	Fund Source	Phase	Federal	State	Local
2022	Local	CONST	$0	$0	$100
2023	Local	CONST	$0	$0	$600

Federal Total: $0 **Non-Federal Total:** $700 **Grand Total:** $700

FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)

Project Sponsor: Independence Inc.
TIP #: 401 **KDOT #:**
Length (mi):

Project Name: Independence Inc., FTA 5311 Operating & Capital

Location: Lawrence

Project Type: Transit/Paratransit

Work Type: Operating/Capital

Date Added: 10/2014
Last Revised: 6/2020

Revison History:

Description:
Operating and Capital

Comments:
2019 – 5311 Admin- $32, Local Admin- $8; 2020 – 5311 Admin- $31, Local Admin- $8; 2021 – 5311 Admin- $41, Local Admin- $10.

Purchase Ramp Van in FY2020 & Ramp Minivan in FY2021.

FFY	Fund Source	Phase	Federal	State	Local
2021	Local	OPERATING	$0	$0	$50
2021	State	OPERATING	$0	$33	$0
2021	5311	OPERATING	$83	$0	$0
2021	Local	CAPITAL	$0	$0	$8
2021	5311	CAPITAL	$33	$0	$0

Federal Total: $116 **Non-Federal Total:** $91 **Grand Total:** $207

Project Sponsor: Lawrence Transit
TIP #: 403 **KDOT #:** PT-0701
Length (mi):

Project Name: Lawrence Transit Capital Assistance

Location: Lawrence

Project Type: Transit/Paratransit

Work Type: Special Work

Date Added: 10/2014
Last Revised: 6/2020

Revison History:

Description:
Comprehensive Transportation Program. Purchase of replacement paratransit vehicles.

Comments:
StateCTP

FFY	Fund Source	Phase	Federal	State	Local
2019	State-PT	CAPITAL	$0	$500	$0
2019	State-PT	OPERATING	$0	$759	$0
2020	State-PT	CAPITAL	$0	$1,000	$0
2020	State-PT	OPERATING	$0	$297	$0
2021	State-PT	CAPITAL	$0	$600	$0
2021	State-PT	OPERATING	$0	$721	$0
2022	State-PT	CAPITAL	$0	$600	$0
2022	State-PT	OPERATING	$0	$721	$0
2023	State-PT	CAPITAL	$0	$600	$0
2023	State-PT	OPERATING	$0	$721	$0
2024	State-PT	CAPITAL	$0	$600	$0
2024	State-PT	OPERATING	$0	$721	$0

Federal Total: $0 **Non-Federal Total:** $7,840 **Grand Total:** $7,840

FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)

Project Sponsor: Lawrence Transit
Project Name: Lawrence Multimodal Transfer Facility
TIP #: 410
KDOT #:
Length (mi):
Location: Lawrence
Project Type: Transit/Paratransit
Work Type: Capital
Date Added: 7/2016
Last Revised: 10/2020
Revison History:
Description: Transit Facility
Comments:

FFY	Fund Source	Phase	Federal	State	Local
2020	Local	PE	$0	$0	$1,000
2021	Local	CONST	$0	$0	$3,500

Federal Total: $0 **Non-Federal Total:** $4,500 **Grand Total:** $4,500

Project Sponsor: Lawrence Transit
Project Name: Lawrence Transit Operating Funds
TIP #: 412
KDOT #: 5307 FTA
Length (mi):
Location: Lawrence
Project Type: Transit/Paratransit
Work Type: Operating
Date Added: 10/2014
Last Revised: 10/2020
Revison History:
Description: Operating, Preventative Maintenance, and Program Adminstration activities.
Comments: Federal Transit 5307 Funds. 2021-2022 amounts are projected. Linked with project #402.

FFY	Fund Source	Phase	Federal	State	Local
2018	Local	OPERATING	$0	$0	$1
2018	5307	OPERATING	$5	$0	$0
2019	Local	OPERATING	$0	$0	$1,860
2019	5307	OPERATING	$2,447	$0	$0
2020	Local	OPERATING	$0	$0	$2,523
2020	5307	OPERATING	$2,523	$0	$0
2021	Local	OPERATING	$0	$0	$2,649
2021	5307	OPERATING	$2,649	$0	$0
2022	Local	OPERATING	$0	$0	$2,852
2022	5307	OPERATING	$2,852	$0	$0

Federal Total: $10,476 **Non-Federal Total:** $9,885 **Grand Total:** $20,361

FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)

Project Sponsor: Lawrence Transit
Project Name: Lawrence Transit Electric Buses
TIP #: 416 **KDOT #:**
Length (mi): 0.00
Location: Lawrence
Project Type: Transit/Paratransit
Work Type: Vehicle Replacement
Date Added: 8/2020
Last Revised:
Revison History:
Description: Procurement of five battery electric buses to replace five diesel powered buses, associated charging infrastructure, and project management.
Comments: FTA Low-No grant for $3.75 million awarded in June 2020.

FFY	Fund Source	Phase	Federal	State	Local
2021	5339	PE	$367	$0	$0
2021	5339	CAPITAL	$3,389	$0	$0
2021	Local	CAPITAL	$0	$0	$2,234

Federal Total: $3,756 **Non-Federal Total:** $2,234 **Grand Total:** $5,990

Project Sponsor: Lawrence Transit
Project Name: CARES Act Operating Funds
TIP #: 417 **KDOT #:**
Length (mi): 0.00
Location: Lawrence
Project Type: Transit/Paratransit
Work Type: Operating
Date Added: 10/2020
Last Revised: 8/2021
Revison History: FFY21, FFY21 A3
Description: CARES Act funds were apportioned to Lawrence Transit, eligible for similar uses as 5307 funds in response to lost revenue and challenges due to COVID-19. In Lawrence, funding will be used for operating costs.
Comments: Linked with CARES Act Capital Assistance project (#418). Project requires no local match.

FFY	Fund Source	Phase	Federal	State	Local
2021	5307	OPERATING	$1,921	$0	$0
2022	5307	OPERATING	$3,500	$0	$0
2023	5307	OPERATING	$237	$0	$0

Federal Total: $5,658 **Non-Federal Total:** $0 **Grand Total:** $5,658

FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)

Project Sponsor: Lawrence Transit
TIP #: 419 **KDOT #:**
Length (mi): 0.00

Project Name: American Rescue Plan (ARP) Operating Assistance

Location: City of Lawrence

Project Type: Transit/Paratransit

Work Type: Operating

Date Added: 8/2021 **Last Revised:** **Revison History:**

Description:
American Rescue Plan Act of 2021 (ARP) funds were apportioned to Lawrence Transit, eligible for similar uses as 5307 funds in response to lost revenues and challenges due to the COVID-19.

Comments:
In Lawrence, these funds will be used for salaries and operating costs as eligible under the 5307 program.

No local match required.

FFY	Fund Source	Phase	Federal	State	Local
2022	5307	OPERATING	$1,524	$0	$0
2023	5307	OPERATING	$2,988	$0	$0

Federal Total: $4,512 **Non-Federal Total:** $0 **Grand Total:** $4,512

Project Sponsor: Lawrence Transit
TIP #: 420 **KDOT #:**
Length (mi): 0.00

Project Name: Lawrence Transit Electric Buses Phase II

Location: City of Lawrence

Project Type: Transit/Paratransit

Work Type: Vehicle Replacement

Date Added: 8/2021 **Last Revised:** **Revison History:**

Description:
Procurement of two battery electric buses to replace two diesel powered buses, associated charging infrastructure, and project management.

Comments:
FTA Low-No grant for $1.8 million awarded in June 2021.

FFY	Fund Source	Phase	Federal	State	Local
2022	5339	PE	$192	$0	$0
2022	Local	PE	$0	$0	$48
2023	5339	CAPITAL	$1,624	$0	$0
2023	Local	CAPITAL	$0	$0	$619

Federal Total: $1,816 **Non-Federal Total:** $667 **Grand Total:** $2,483

FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)

Project Sponsor: Lawrence

TIP #: 506 **KDOT #:** U-2334-01

Length (mi): 1.68

Project Name: Lawrence Safe Routes to School TA Phase 2

Location: Various sidewalk along 6 streets in Lawrence

Project Type: Transportation Alternative

Work Type: Pedestrian & Bicycle Work

Date Added: 12/2017

Last Revised: 10/2018

Revison History:

Description:
New sidewalk construction along designated Safe Routes to School. Driveway and sidewalk ramp construction will be included for ADA compliance.

Comments:
This project will give a space for children to walk and/or bike to school along designated safe routes. The SRTS funding is an 80/20 (KDOT/City) cost share with KDOT contributing a max of $394,128.

FFY	Fund Source	Phase	Federal	State	Local
2018	Local	PE	$0	$0	$65
2019	Local	CONST	$0	$0	$100
2019	TA	CONST	$394	$0	$0

Federal Total: $394 **Non-Federal Total:** $165 **Grand Total:** $559

Project Sponsor: Lawrence

TIP #: 507 **KDOT #:**

Length (mi): 0.00

Project Name: Various Lawrence Bike/Sidewalk/ADA Ramps Projects

Location: Lawrence

Project Type: Pedestrian & Bicycle

Work Type: Pedestrian & Bicycle Work

Date Added: 10/2018

Last Revised: 10/2020

Revison History:

Description:
Pedestrian, Bicycle, & ADA ramp projects throughout Lawrence including in EJ areas. Community Development Block Grant (CDBG) is a HUD program administered by the Lawrence Development Services Dept. The City is allocated a % of CDBG funding each year.

Comments:
The CDBG is an estimate of anticipated funding. CONST funding may be used for additional work tasks. Local funding for ADA ramps at $325k/yr & Bike/Ped Program at $675k/yr. Local funding matching TA project specific funding will be listed separately.

FFY	Fund Source	Phase	Federal	State	Local
2021	CDBG	CONST	$300	$0	$0
2021	Local	CONST	$0	$0	$675
2021	Local	CONST	$0	$0	$325
2022	CDBG	CONST	$300	$0	$0
2022	Local	CONST	$0	$0	$675
2022	Local	CONST	$0	$0	$325
2023	CDBG	CONST	$300	$0	$0
2023	Local	CONST	$0	$0	$675
2023	Local	CONST	$0	$0	$325
2024	CDBG	CONST	$300	$0	$0
2024	Local	CONST	$0	$0	$675
2024	Local	CONST	$0	$0	$325

Federal Total: $1,200 **Non-Federal Total:** $4,000 **Grand Total:** $5,200

FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)

Project Sponsor: Lawrence
TIP #: 508 **KDOT #:** TE-0470-01
Length (mi): 0.60

Project Name: Lawrence Loop Shared-Use Paths - 8th St to 11th St & 29th St

Location: 11th St to 9th St through Hobbs Park and along Delaware St & 29th St Haskell Rail Trail to Haskell Ave

Project Type: Transportation Alternative
Work Type: Capital, Pedestrian/Bicycle, Safety

Date Added: 4/2019
Last Revised: 6/2020
Revison History:

Description:
Design and construction of 10' shared-use path

Comments:
KDOT TA Project; FY20; $480,000 (max.)

FFY	Fund Source	Phase	Federal	State	Local
2019	Local	PE	$0	$0	$100
2021	Local	CONST	$0	$0	$300
2021	TA	CONST	$480	$0	$0

Federal Total: $480 **Non-Federal Total:** $400 **Grand Total:** $880

Project Sponsor: Baldwin City
TIP #: 509 **KDOT #:** TE-0472-02
Length (mi): 0.50

Project Name: West Baldwin Pedestrian/Bike Connectivity Project

Location: Intersection of 8th Street/Elm St proceeding westerly to USD 348 property (+/- one-half mile)

Project Type: Transportation Alternative
Work Type: Pedestrian & Bicycle Work

Date Added: 4/2019
Last Revised: 8/2021
Revison History: FFY19 AR2, FFY21 A3

Description:
The Elm Street pedestrian sidewalk is to run along the south side of Elm St from Baker University (8th St) across existing Midland Railway Crossing and connecting to existing sidewalk on USD 348 property. A bulb out will be included at 8th St.

Comments:
Sidewalks will be improved to ADA standards. The project is to provide connectivity for the community at-large, and more specifically, to provide elementary students with a safe, pedestrian route. KDOT TA Project; FY20; $1,012,960 (max.)

FFY	Fund Source	Phase	Federal	State	Local
2022	Local	CONST	$0	$0	$353
2022	TA	CONST	$1,013	$0	$0

Federal Total: $1,013 **Non-Federal Total:** $353 **Grand Total:** $1,366

FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)

Project Sponsor: Eudora

TIP #: 510 **KDOT #:** TE-0480-01

Length (mi): 1.34

Project Name: Bluejacket Trail: Phase II

Location: 1201 Cedar St. to 1702 Cypress Ct. in Eudora

Project Type: Transportation Alternative

Work Type: Pedestrian & Bicycle Work

Date Added: 4/2019

Last Revised: 8/2019

Revison History:

Description:
Design, engineer, and construct an ADA-compliant, approximately 7,050' long, 8' wide shared-use path.

Comments:
Project is currently slated to start construction in August/September 2020.

FFY	Fund Source	Phase	Federal	State	Local
2019	Local	PE	$0	$0	$34
2020	Local	UTIL	$0	$0	$55
2020	Local	CONST	$0	$0	$87
2020	TA	CONST	$284	$0	$0

Federal Total: $284 **Non-Federal Total:** $176 **Grand Total:** $460

Project Sponsor: Baldwin City

TIP #: 511 **KDOT #:** TE-0472-02

Length (mi): 0.28

Project Name: West Baldwin Pedestrian/Bike Connectivity Project Phase 2 & 3

Location: East side of Midland Railway from Santa Fe Depot to Elm St

Project Type: Transportation Alternative

Work Type: Pedestrian & Bicycle Work

Date Added: 6/2020

Last Revised: 10/2021

Revison History: FFY21 A4

Description:
Phase 2 of West Baldwin Pedestrian/Bike Connectivity Project. The project includes a 10' shared use path from Elm Street to the Santa Fe Depot south of High Street.

Comments:
The project will include ADA accessiblity, decorative lighting, benches, decorative separation fence and trash receptacles. New storm drainage improvments.
Max $1,012,960 TA funding. Linked with #509 (the first phase of this project).

FFY	Fund Source	Phase	Federal	State	Local
2021	Local	PE	$0	$0	$149
2021	Local	UTIL	$0	$0	$10
2021	Local	CONST	$0	$0	$253
2021	TA	CONST	$1,013	$0	$0

Federal Total: $1,013 **Non-Federal Total:** $412 **Grand Total:** $1,425

FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)

Project Sponsor: Lawrence
TIP #: 512 **KDOT #:** TE-0490-01
Length (mi): 0.61

Project Name: Lawrence Loop Shared Use Path: Peterson Rd to Michigan St

Location: Begins at the intersection of Peterson Rd and N Iowa St, ends at Michigan Rd 1/2 mile north of W 2nd St

Project Type: Transportation Alternative
Work Type: Pedestrian & Bicycle Work

Date Added: 6/2020
Last Revised: 10/2021
Revison History: FFY21 A2, FFY21 A4

Description:
Design and construction of 10' shared use path.

Comments:
KDOT TA project, FY 21; $1,070,00 (max)

FFY	Fund Source	Phase	Federal	State	Local
2020	Local	PE	$0	$0	$216
2022	Local	CONST	$0	$0	$1,056
2022	TA	CONST	$1,070	$0	$0

Federal Total: $1,070 **Non-Federal Total:** $1,272 **Grand Total:** $2,342

Project Sponsor: Lawrence
TIP #: 513 **KDOT #:** U-2372-01
Length (mi): 0.90

Project Name: Lawrence Safe Routes to School Phase 2 (2021)

Location: Various sidewalk along 6 streets & 1 crossing improvement

Project Type: Transportation Alternative
Work Type: Pedestrian & Bicycle Work, Safety

Date Added: 6/2020
Last Revised: 11/2021
Revison History: FFY21 AR2

Description:
New sidewalk construction along designated Safe Routes to School. Driveway and sidewalk ramp construction will be included for ADA compliance.

Comments:
This project will give a space for children to walk and/or bike to school along designated safe routes. The SRTS funding is an 80/20 (KDOT/City) cost share with KDOT contributing a max of $500,000.

FFY	Fund Source	Phase	Federal	State	Local
2020	Local	PE	$0	$0	$50
2021	Local	CONST	$0	$0	$125
2021	TA	CONST	$500	$0	$0

Federal Total: $500 **Non-Federal Total:** $175 **Grand Total:** $675

FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)

Project Sponsor: Lawrence
TIP #: 514 **KDOT #:** TBD
Length (mi): 0.50

Project Name: Naismith Drive Mobility Enhancement
Location: Naismith Drive from 23rd St. to 19th St. (east side)

Project Type: Pedestrian/Bicycle
Work Type: Pedestrian & Bicycle Work, Other

Date Added: 10/2020
Last Revised:
Revison History:

Description:
Construct sidewalk on east side of Naismith Dr. with focus on Transit connection and improvements.

Comments:
2020 Access, Innovation, and Collaboration Grant Award

FFY	Fund Source	Phase	Federal	State	Local
2021	State	PE	$0	$36	$0
2021	Local	PE	$0	$0	$4
2021	State	CONST	$0	$290	$0
2021	Local	CONST	$0	$0	$82

Federal Total: $0 **Non-Federal Total:** $412 **Grand Total:** $412

Project Sponsor: Lecompton
TIP #: 515 **KDOT #:** TE-0500-01
Length (mi): 1.75

Project Name: Lecompton Sidewalk Loop Project: Historic Loop & Grand Loop Connectivity
Location: Connecting 2nd, 3rd, Elmore, Halderman, 7th, and Boone Streets

Project Type: Transportation Alternative
Work Type: Pedestrian & Bicycle Work

Date Added: 4/2021
Last Revised: 8/2021
Revison History: FFY21 A3

Description:
Construct 5' wide concrete sidewalk and install sharrows.

Comments:
KDOT TA Project; FY23; $727,200 (max)

FFY	Fund Source	Phase	Federal	State	Local
2023	Local	PE	$0	$0	$114
2023	Local	CONST	$0	$0	$261
2023	TA	CONST	$727	$0	$0

Federal Total: $727 **Non-Federal Total:** $375 **Grand Total:** $1,102

FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)

Project Sponsor: Lawrence

TIP #: 516 **KDOT #:** TE-0499-01

Length (mi): 0.47

Project Name: Lawrence Loop Shared Use Path: Michigan St. to Sandra Shaw Park

Location: Begins at Michigan St., 1/2 mile north of W 2nd St., ends at Sandra Shaw Park

Project Type: Transportation Alternative

Work Type: Pedestrian & Bicycle Work

Date Added: 4/2021

Last Revised: 8/2021

Revison History: FFY21 A3

Description:
Design and construction of 10' shared use path.

Comments:
KDOT TA project, FY23: $564,000 (max)

FFY	Fund Source	Phase	Federal	State	Local
2021	Local	PE	$0	$0	$150
2022	Local	ROW	$0	$0	$525
2023	Local	CONST	$0	$0	$212
2023	TA	CONST	$564	$0	$0

Federal Total: $564 **Non-Federal Total:** $887 **Grand Total:** $1,451

Project Sponsor: Baldwin City

TIP #: 517 **KDOT #:** TE-0496-01

Length (mi): 1.10

Project Name: Baldwin City Sidewalk Gap Project

Location: 11th St., Hwy 56 to High St.; High St., 4th St. to 2nd St; 2nd St., Hwy 56 to Fremont St; & Quayle St., Middle School to 6th St.

Project Type: Transportation Alternative

Work Type: Pedestrian & Bicycle Work

Date Added: 4/2021

Last Revised: 8/2021

Revison History: FFY21 A3

Description:
Construct 5' wide sidewalks in four sidewalk segments to fill in missing sidewalk gaps identified on the Safe Routes to School network.

Comments:
KDOT TA Project; FY22; $620,000 (max)

FFY	Fund Source	Phase	Federal	State	Local
2022	Local	PE	$0	$0	$106
2022	Local	CONST	$0	$0	$155
2022	TA	CONST	$620	$0	$0

Federal Total: $620 **Non-Federal Total:** $261 **Grand Total:** $881

FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)

Project Sponsor: Eudora
TIP #: 518 **KDOT #:** TE-0497-01
Length (mi): 0.61

Project Name: Eudora 10th St. Sidewalk Expansion
Location: Corner of 10th & Church St. to corner of Peach St. & 10th St.

Project Type: Transportation Alternative
Work Type: Pedestrian & Bicycle Work

Date Added: 4/2021
Last Revised: 8/2021
Revison History: FFY21 A3

Description:
Construct 6' wide sidewalks to replace existing detoriated sidewalk or install new sidewalk. Also will expand the reinforced concrete box culvert under 10th st. to improve stormwater/flood management. This sidewalk is in the Safe Routes to School Plan.

Comments:
KDOT TA Project; FY22; $1,111,074 (max)

FFY	Fund Source	Phase	Federal	State	Local
2022	Local	PE	$0	$0	$135
2022	Local	UTIL	$0	$0	$134
2022	Local	CONST	$0	$0	$278
2022	TA	CONST	$1,111	$0	$0

Federal Total: $1,111 **Non-Federal Total:** $547 **Grand Total:** $1,658

Project Sponsor: KDOT
TIP #: 600 **KDOT #:**
Length (mi):

Project Name: Various Railroad Safety Projects in the Region
Location:

Project Type: Safety
Work Type:

Date Added: 10/2014
Last Revised: 10/2020
Revison History:

Description:
Safety improvements along railroads in region as identified by KDOT. These funds may be used to benefit the region by working to correct or improve identified safety hazards at public railway-highway crossing in a proactive manner.

Comments:
This is a master project that would include any safety projects selected in region. State funds (SF) Conversions: 2020 SF to 2021 HSIP, 2021 SF to 2022 HSIP, 2022 SF to 2023 HSIP, 2023 SF to 2024 HSIP.

FFY	Fund Source	Phase	Federal	State	Local
2020	State-AC	CONST	$0	$500	$0
2021	HSIP	CONVERSION	$500	$0	$0
2021	Credit	OTHER	$0	($500)	$0
2021	State-AC	CONST	$0	$500	$0
2022	HSIP	CONVERSION	$500	$0	$0
2022	Credit	OTHER	$0	($500)	$0
2022	State-AC	CONST	$0	$500	$0
2023	HSIP	CONVERSION	$500	$0	$0
2023	Credit	OTHER	$0	($500)	$0
2023	State-AC	CONST	$0	$500	$0
2024	HSIP	CONVERSION	$500	$0	$0
2024	Credit	OTHER	$0	($500)	$0

Federal Total: $2,000 **Non-Federal Total:** $0 **Grand Total:** $2,000

FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)

Project Sponsor: Douglas County
TIP #: 605 **KDOT #:** C-5065-01
Length (mi): 1.46

Project Name: DGCO: High Friction Surface Treatment
Location: Routes 442 and 1055

Project Type: Road
Work Type: Surfacing

Date Added: 10/2020
Last Revised: 10/2021
Revison History: FFY21 A4

Description:
Apply high-friction surface treatment to Horizontal Curves on RS-212 and RS-210

Comments:
Safety Improvements in Douglas County

FFY	Fund Source	Phase	Federal	State	Local
2022	Local	CONST	$0	$0	$112
2022	HSIP	CONST	$1,011	$0	$0

Federal Total: $1,011 **Non-Federal Total:** $112 **Grand Total:** $1,123

Project Sponsor: Douglas County
TIP #: 606 **KDOT #:**
Length (mi): 0.40

Project Name: Rte 1061 / Rte 460 Intersection Safety Improvement
Location: E 2200 RD from N 700 RD 0.3 miles north

Project Type: Safety
Work Type: Geometric Improvement, Grading, Mill/Overlay

Date Added: 8/2021
Last Revised:
Revison History:

Description:
Improvements to improve sight distance at the intersection of two county routes.

Comments:
All local funding

FFY	Fund Source	Phase	Federal	State	Local
2022	Local	ROW	$0	$0	$50
2023	Local	CONST	$0	$0	$1,800

Federal Total: $0 **Non-Federal Total:** $1,850 **Grand Total:** $1,850

FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)

Project Sponsor: Lawrence
TIP #: 607 **KDOT #:**
Length (mi): 1.10

Project Name: Massachusetts Street - 14th to 23rd Street Multi-Modal Improvements

Location: Massachusetts St. - 14th St. to 23rd St.

Project Type: Safety

Work Type: Pedestrian & Bicycle Work, Mill/Overlay, Safety

Date Added: 10/2021
Last Revised:
Revison History:

Description:
2014 AARP report recommended bike/ped facilities on Mass. St. and intersection improvements at 19th/Mass. Construction of project anticipated in 2024 with street maintenance project. Project pending state grant funds (HSIP or TA).

Comments:
Mass. St. (11th-14th) reconfigured using 2018 KDOT safety funds. Mass. St. (14th-21st) is a gap in future primary network in T2040 & Lawrence Bikes. Connect to 21st St. Bike Blvd providing access to Iowa St. Complete a gap & provide multimodal downtown.

FFY	Fund Source	Phase	Federal	State	Local
2023	Local	PE	$0	$0	$100
2024	Local	CONST	$0	$0	$1,500

Federal Total: $0 **Non-Federal Total:** $1,600 **Grand Total:** $1,600

Project Sponsor: KDOT
TIP #: 700 **KDOT #:** KA-3634-01
Length (mi): 8.40

Project Name: South Lawrence Trafficway Widening Study

Location: K-10 West Leg in Douglas County US 59/K10/Iowa to I70/KTA/K10 Junction

Project Type: Other

Work Type: Road Widening

Date Added: 2/2019
Last Revised:
Revison History:

Description:
Study K10 becoming a 4-lane freeway. This project will review project area issues, current transportation needs, impacts on current projects, interchange configurations and reevaluate the environmental documentation for the preferred improvements.

Comments:
This project will include traffic analysis, full field survey and Public involvement. This project will include selected R/W acquisition as parcels become available.

Project is authorized for PE & ROW ONLY.

FFY	Fund Source	Phase	Federal	State	Local
2018	State	PE	$0	$4,000	$0
2018	State	ROW	$0	$175	$0

Federal Total: $0 **Non-Federal Total:** $4,175 **Grand Total:** $4,175

FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)

Project Sponsor: Lawrence

TIP #: 706 **KDOT #:**

Length (mi): 0.00

Project Name: Traffic Signal Coordination Study

Location: Arterial streets

Project Type: Intersection

Work Type: Operating, Planning, Signal

Date Added: 8/2019

Last Revised: 10/2021

Revison History: FFY21 A4

Description:
Provide a comprehensive update to the traffic signal system, optimize operations and development of a long-term city-wide traffic signal coordination and timing program.

Comments:
Project will improve traffic mobility and efficiency. Phase 2 will include 4 more corridors.

FFY	Fund Source	Phase	Federal	State	Local
2019	Local	PE	$0	$0	$300
2021	Local	PE	$0	$0	$170

Federal Total: $0 **Non-Federal Total:** $470 **Grand Total:** $470