FFY 2021-2024
Transportation Improvement Program

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

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

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

<table>
<thead>
<tr>
<th>Access &amp; Choices</th>
<th>Goals</th>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhance Transport options and choices for improved system performance</td>
<td>Improve regional connectivity (urban/rural) of all modes of the transportation networks including access to desired destinations.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Enhance transit service, amenities and facilities.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Mobility &amp; Prosperity</th>
<th>Goals</th>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficient movement of people, goods, and freight</td>
<td>Implement strategies that address system performance &amp; improve reliability, capacity and competitiveness for regional freight.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Preservation, Safety, &amp; Security</th>
<th>Goals</th>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prioritize preservation, safety, and security of the transportation network</td>
<td>Support projects and policies that improve safety and security.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Preserve and enhance transportation infrastructure and assets.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sustain &amp; Enhance</th>
<th>Goals</th>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimize adverse social, economic, and environmental impacts created by transportation</td>
<td>Promote density to reduce transportation costs &amp; reduce environmental impacts of transportation.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reduce single occupancy vehicle trips.</td>
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</tbody>
</table>

\(^1\) 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. 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

MPO staff and TAC members draft TIP text and review project submissions. → Public comment period MPO website posting and email notice about comment period is sent to e-subscription lists, legal ad, available for review at public libraries/Lecompton City Hall → Public comments are collected and revisions are made, as necessary. Comments and MPO responses are documented and posted online at: https://lawrenceks.org/mpo/tip/comments.

TAC considers public comments, MPO responses, and reviews TIP draft making a recommendation to MPO Policy Board. → MPO Policy Board considers public comments, MPO responses and takes action on the TIP. → Final approved TIP is posted online at: https://lawrenceks.org/mpo/tip.

Once approved, the TIP is sent to KDOT for approval and inclusion in the Statewide Transportation Improvement Program (STIP), https://www.ksdot.org/burProgProjMgmt/stip/stip.asp, which has its own public comment period.

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.
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.

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.
**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 which are 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**

<table>
<thead>
<tr>
<th>TIP Amendment Request Made to MPO Staff</th>
<th>Public Review Period</th>
<th>TAC Approval</th>
<th>MPO Approval</th>
<th>STIP Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 31, 2020</td>
<td>1/7/2021 to 1/22/2021</td>
<td>February 2, 2021</td>
<td>February 18, 2021</td>
<td>March 2021</td>
</tr>
<tr>
<td>March 5, 2021</td>
<td>3/11/2021 to 3/26/2021</td>
<td>April 6, 2021</td>
<td>April 15, 2021</td>
<td>May 2021</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>TIP Amendment Request Made to MPO Staff</th>
<th>Public Review Period</th>
<th>TAC Approval</th>
<th>MPO Approval</th>
<th>STIP Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 4, 2022</td>
<td>3/10/2022 to 3/25/2022</td>
<td>April 5, 2022</td>
<td>April 21, 2022</td>
<td>May 2022</td>
</tr>
<tr>
<td>May 6, 2022</td>
<td>5/12/2022 to 5/27/2022</td>
<td>June 7, 2022</td>
<td>June 16, 2022</td>
<td>July 2022</td>
</tr>
<tr>
<td>July 1, 2022</td>
<td>7/7/2022 to 7/22/2022</td>
<td>August 2, 2022</td>
<td>August 18, 2022</td>
<td>August 2022</td>
</tr>
</tbody>
</table>

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.
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)

<table>
<thead>
<tr>
<th>Source</th>
<th>Tax Percentage</th>
<th>Actual Collection</th>
<th>Projected Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2019</td>
<td>2020</td>
</tr>
<tr>
<td>Roads/Infrastructure &amp; Fire Equipment</td>
<td>0.30%</td>
<td>$5,124</td>
<td>$4,830</td>
</tr>
<tr>
<td>Transit</td>
<td>0.20%</td>
<td>$4,132</td>
<td>$3,349</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$9,256</strong></td>
<td><strong>$8,179</strong></td>
<td><strong>$9,605</strong></td>
</tr>
</tbody>
</table>

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.

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)

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

*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)

<table>
<thead>
<tr>
<th>FFY</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total O&amp;M</td>
<td>$18,952</td>
<td>$9,595</td>
<td>$9,731</td>
<td>$9,870</td>
<td>$48,148</td>
</tr>
</tbody>
</table>

*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)

<table>
<thead>
<tr>
<th>FFY</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total O&amp;M</td>
<td>$4,107</td>
<td>$4,184</td>
<td>$5,261</td>
<td>$5,340</td>
<td>$18,892</td>
</tr>
</tbody>
</table>

*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)**

<table>
<thead>
<tr>
<th>FFY</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total O&amp;M</td>
<td>$23,562</td>
<td>$14,289</td>
<td>$15,511</td>
<td>$15,736</td>
<td>$69,098</td>
</tr>
</tbody>
</table>

*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
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>
<thead>
<tr>
<th></th>
<th>FFY 2021</th>
<th>FFY 2022</th>
<th>FFY 2023</th>
<th>FFY 2024</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anticipated Funding</td>
<td>$115,360</td>
<td>$92,778</td>
<td>$114,811</td>
<td>$92,952</td>
<td>$415,902</td>
</tr>
<tr>
<td>Anticipated O&amp;M Expenditures</td>
<td>$42,971</td>
<td>$34,343</td>
<td>$36,208</td>
<td>$37,097</td>
<td>$150,619</td>
</tr>
<tr>
<td><strong>Funding Available for Projects</strong></td>
<td>$72,389</td>
<td>$58,434</td>
<td>$78,603</td>
<td>$55,856</td>
<td>$265,283</td>
</tr>
</tbody>
</table>

Table 8: Funding Available for Projects after Accounting for all O&M Expenditures (in $1,000s)
### Table 9: Funding Summary (in $1,000s)

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Anticipated Funding (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FFY 2021</td>
</tr>
<tr>
<td>Transit</td>
<td></td>
</tr>
<tr>
<td>Federal</td>
<td>$10,705</td>
</tr>
<tr>
<td>State</td>
<td>$869</td>
</tr>
<tr>
<td>Local</td>
<td>$15,878</td>
</tr>
<tr>
<td>Non-Transit</td>
<td></td>
</tr>
<tr>
<td>Federal</td>
<td>$2,247</td>
</tr>
<tr>
<td>State</td>
<td>$9,608</td>
</tr>
<tr>
<td>Local</td>
<td>$33,083</td>
</tr>
<tr>
<td>Transit Total</td>
<td>$27,451</td>
</tr>
<tr>
<td>Non-Transit Total</td>
<td>$44,938</td>
</tr>
<tr>
<td>Grand Total</td>
<td>$72,389</td>
</tr>
</tbody>
</table>

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)

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

*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.
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

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

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**

<table>
<thead>
<tr>
<th>Safety</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>9) Number of fatalities</td>
<td>7.1</td>
</tr>
<tr>
<td>10) Rate of fatalities per 100 million VMT</td>
<td>0.8</td>
</tr>
<tr>
<td>11) Number of serious injuries</td>
<td>15.0</td>
</tr>
<tr>
<td>12) Rate of serious injuries per 100 million VMT</td>
<td>1.1</td>
</tr>
<tr>
<td>13) Number of non-motorized fatalities &amp; serious injuries</td>
<td>4.2</td>
</tr>
</tbody>
</table>

**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)

---

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

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

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

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

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

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

<table>
<thead>
<tr>
<th>#</th>
<th>Project Name</th>
<th>Improvement with Safety Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>248</td>
<td>Bridge 0964-1000 replacement</td>
<td>Replace with a wider bridge</td>
</tr>
<tr>
<td>249</td>
<td>Repair bridge #071 on K-10 in Douglas County</td>
<td>Bridge repair</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>#</th>
<th>Project Name</th>
<th>Improvement with Safety Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>600</td>
<td>Various Railroad Safety Projects in the Region</td>
<td>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.</td>
</tr>
</tbody>
</table>
#140 was removed in Amendment 2. #139 & #247 were removed in Amendment 4. The online map is updated.

**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

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

<table>
<thead>
<tr>
<th>Bridge</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>14) Percentage of NHS bridges by deck area classified as in GOOD condition</td>
<td>95.8%</td>
</tr>
<tr>
<td>14) Percentage of NHS bridges by deck area classified as in POOR condition</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Pavement</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>18) Percentage of pavements of the Interstate System in GOOD condition</td>
<td>96%</td>
</tr>
<tr>
<td>18) Percentage of pavements of the Interstate System in POOR condition</td>
<td>0%</td>
</tr>
<tr>
<td>19) Percentage of pavements of the Non-Interstate NHS in GOOD condition</td>
<td>58%</td>
</tr>
<tr>
<td>19) Percentage of pavements of the Non-Interstate NHS in POOR condition</td>
<td>3%</td>
</tr>
</tbody>
</table>

## 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

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

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

The online map is updated.

#140 was removed in Amendment 2. #139 & #247 were removed in Amendment 4.

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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

<table>
<thead>
<tr>
<th>System Performance</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>6) Percent of the Person-Miles Traveled on the Interstate That Are Reliable (LOTTR)</td>
<td>99%</td>
</tr>
<tr>
<td>6) Percent of the Person-Miles Traveled on the Non-Interstate NHS That Are Reliable (LOTTR)</td>
<td>99%</td>
</tr>
<tr>
<td>8) Truck Travel Time Reliability (TTTR) Index on the Interstate system</td>
<td>1.07</td>
</tr>
</tbody>
</table>

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)

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

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**

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


**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**

<table>
<thead>
<tr>
<th>#</th>
<th>Project Name</th>
<th>How the Project Improves Transit ULB</th>
</tr>
</thead>
<tbody>
<tr>
<td>401</td>
<td>Independence Inc., FTA 5311 Operating &amp; Capital</td>
<td>Vehicle preventative maintenance/Purchase new vehicle</td>
</tr>
<tr>
<td>403</td>
<td>Lawrence Transit Capital Assistance</td>
<td>Purchase paratransit vehicles</td>
</tr>
<tr>
<td>412</td>
<td>Lawrence Transit Operating Funds</td>
<td>Vehicle preventative maintenance</td>
</tr>
<tr>
<td>416</td>
<td>Lawrence Transit Electric Buses</td>
<td>Replaces five diesel powered buses with electric buses</td>
</tr>
</tbody>
</table>

**Table 20: Projects addressing Lawrence Transit Safety Targets**

<table>
<thead>
<tr>
<th>#</th>
<th>Project Name</th>
<th>How the Project Improves Transit ULB</th>
</tr>
</thead>
<tbody>
<tr>
<td>403</td>
<td>Lawrence Transit Capital Assistance</td>
<td>Purchase paratransit vehicles</td>
</tr>
<tr>
<td>412</td>
<td>Lawrence Transit Operating Funds</td>
<td>Vehicle preventative maintenance</td>
</tr>
<tr>
<td>416</td>
<td>Lawrence Transit Electric Buses</td>
<td>Replaces five diesel powered buses with electric buses</td>
</tr>
</tbody>
</table>

**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](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.
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)
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

Water

University

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 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 correlate to additional scrutiny necessary to ensure these populations are not disproportionately affected.

Table 21: Transportation Disadvantaged Populations Scoring

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

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.
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**

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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.

<table>
<thead>
<tr>
<th>Transportation Disadvantaged Population Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤2</td>
</tr>
<tr>
<td>≤4</td>
</tr>
</tbody>
</table>

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

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)

<table>
<thead>
<tr>
<th></th>
<th>Number of Projects</th>
<th>Total Project Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIP Projects (2021-2024)</td>
<td>31</td>
<td>$114,804</td>
</tr>
<tr>
<td>TIP Projects Mapped (2021-2024)</td>
<td>23</td>
<td>$61,730</td>
</tr>
<tr>
<td>TIP Projects Mapped in EJ Zones (2021-2024)</td>
<td>10</td>
<td>$34,668</td>
</tr>
</tbody>
</table>

*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 prioritization 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)

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

*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.
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.

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

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

99% Confidence Interval Minority Block Groups

- Bridge
- Surfacing

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.

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

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

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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.

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#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

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

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 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

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

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. 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)

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

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)**

<table>
<thead>
<tr>
<th></th>
<th>Lawrence</th>
<th>Ej Zone</th>
<th>Eudora</th>
<th>Baldwin City</th>
<th>Lecompton</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019 % of Sidewalk on at least one Side of Streets</td>
<td>76%</td>
<td>72%</td>
<td>40%</td>
<td>37%</td>
<td>10%</td>
</tr>
<tr>
<td>2017 % of Sidewalk on at least one Side of Streets</td>
<td>72%</td>
<td>48%</td>
<td>34%</td>
<td>44%</td>
<td>14%</td>
</tr>
</tbody>
</table>

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. It utilizes a variety of data points to determine if transportation costs are affordable, 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.

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

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

<table>
<thead>
<tr>
<th>Location</th>
<th>Total Annual Transportation Costs</th>
<th>Annual Transportation Costs % Over Affordable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lawrence</td>
<td>$11,728</td>
<td>153%</td>
</tr>
<tr>
<td>Eudora</td>
<td>$13,649</td>
<td>179%</td>
</tr>
<tr>
<td>Baldwin City</td>
<td>$13,806</td>
<td>181%</td>
</tr>
<tr>
<td>Lecompton</td>
<td>$15,344</td>
<td>201%</td>
</tr>
<tr>
<td>Douglas County</td>
<td>$12,475</td>
<td>163%</td>
</tr>
</tbody>
</table>

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

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.
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.

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

2020 Population Estimates

- Least Dense
- Most Dense

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Date Exported: 8/6/2020
Source: Lawrence Transit & Plan 2040 Population Est.
Produced: Lawrence-Douglas County MPO
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.
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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Date Exported: 10/8/2020
Source: Lawrence Transit, 2018 ACS 5-yr Est., CDBG
Produced: Lawrence-Douglas County MPO
Income
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).
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.
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.
## Progress on Previous TIP Projects

### Table C-1: Completed Projects

<table>
<thead>
<tr>
<th>TIP #</th>
<th>Project Type</th>
<th>Project Name</th>
<th>Project Sponsor</th>
<th>Location</th>
<th>Description</th>
<th>Year</th>
<th>Cost (in 1,000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>110</td>
<td>Road</td>
<td>23rd St 2 way left turn lane</td>
<td>KDOT</td>
<td>23rd St: Louisiana St to Massachusetts St</td>
<td>Construction of a 2 way left turn lane on 23rd St from Louisiana St to Massachusetts St</td>
<td>2019</td>
<td>$1,800</td>
</tr>
<tr>
<td>111</td>
<td>Road</td>
<td>23rd St Resurfacing: Iowa St to Ousdahl Rd</td>
<td>KDOT</td>
<td>23rd St Resurfacing: Iowa St to Ousdahl Rd</td>
<td>Resurfacing 23rd St from Iowa St to Ousdahl St.</td>
<td>2019</td>
<td>$300</td>
</tr>
<tr>
<td>113</td>
<td>Road</td>
<td>Lawrence CCLIP, US-40/Tennessee St Intersection</td>
<td>KDOT</td>
<td>US-40/Tennessee St. Intersection</td>
<td>Construct new right turn lane eastbound to southbound</td>
<td>2019</td>
<td>$492</td>
</tr>
<tr>
<td>134</td>
<td>Road</td>
<td>US-40 Mill/Overlay, SN/DG CO to 0.15 miles W of E 50th Rd</td>
<td>KDOT</td>
<td>Shawnee/Douglas County Line to 0.15 Miles west of County Road E50th Road</td>
<td>0.5 Inch Cold Mill, 1.5 Inch Overlay and Edge Wedge Rock on Shoulders</td>
<td>2019</td>
<td>$148</td>
</tr>
<tr>
<td>200</td>
<td>Road</td>
<td>South Lawrence Trafficway</td>
<td>KDOT</td>
<td>SO Junct US 59/K10 E to K10</td>
<td>Linked to Project K-8392-01.</td>
<td>2016</td>
<td>$186,100</td>
</tr>
<tr>
<td>203</td>
<td>Road</td>
<td>19th St, Naismith to Iowa Reconstruction</td>
<td>Lawrence</td>
<td>19th St from Iowa St to Naismith Dr</td>
<td>Reconstruction of street will include subgrade treatment, surfacing, storm sewer, geometric improvements and multimodal facilities.</td>
<td>2017-2019</td>
<td>$3,775</td>
</tr>
<tr>
<td>Transit/ Paratransit 415</td>
<td>Paratransit</td>
<td>Bert Nash, FTA 5310 Capital Funds</td>
<td>Bert Nash Community Mental Health Center</td>
<td>Lawrence</td>
<td>Purchase a Ramp Mini-Van ($40) and a Full Size Van ($57).</td>
<td>2019</td>
<td>$97</td>
</tr>
</tbody>
</table>
### Table C-1: Completed Projects (Continued)

<table>
<thead>
<tr>
<th>TIP #</th>
<th>Project Type</th>
<th>Project Name</th>
<th>Project Sponsor</th>
<th>Location</th>
<th>Description</th>
<th>Year</th>
<th>Cost (in 1,000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>505 Alternatives</td>
<td>Transportation</td>
<td>19th &amp; Iowa St Ped/Bike Underpass</td>
<td>Lawrence</td>
<td>19th St &amp; Iowa St (US-59) Intersection</td>
<td>Pedestrian/bicycle underpass</td>
<td>2018</td>
<td>$3,169</td>
</tr>
<tr>
<td>601 Safety</td>
<td>Route 458 HRRR</td>
<td>Rte 458 E 1800 Rd. to E 2000 Rd</td>
<td>Douglas County</td>
<td>Safety study of county road network (major collectors) to identify needed safety improvements.</td>
<td>2016-2018</td>
<td>$1,293</td>
<td></td>
</tr>
<tr>
<td>602 Safety</td>
<td>Local Road Safety Plan</td>
<td>Massachusetts St, 11th to 14th St</td>
<td>Douglas County</td>
<td>County road network</td>
<td>2019</td>
<td>$40</td>
<td></td>
</tr>
<tr>
<td>604 Safety</td>
<td>Reconfigure Lanes</td>
<td>Massachusetts St: 11th St to 14th St</td>
<td>Lawrence</td>
<td>Reconfigure lanes for center turn lane and bike amenities.</td>
<td>2018</td>
<td>$164</td>
<td></td>
</tr>
<tr>
<td>705 Other</td>
<td>K-10 (US-40) &amp; 27th St/Wakarusa Dr Intersection Improvements</td>
<td>K-10 and 27th St/Wakarusa</td>
<td>KDOT</td>
<td>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 &amp; overlay north and south intersection legs &amp; reconstruct sidewalk crossing. Permanent seeding &amp; signage.</td>
<td>2019-2020</td>
<td>$576</td>
<td></td>
</tr>
<tr>
<td>705 Other</td>
<td>K-10 (US-40) &amp; 27th St/Waka. Intersection Improvements</td>
<td>K-10 and 27th St/Wakarusa</td>
<td>KDOT</td>
<td>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 &amp; overlay north and south intersection legs &amp; reconstruct sidewalk crossing. Permanent seeding &amp; signage.</td>
<td>2019-2020</td>
<td>$1,210</td>
<td></td>
</tr>
</tbody>
</table>
### Major Projects from the 2019-2022 TIP That Were Significantly Delayed

#### Table C-2: Significantly Delayed Projects

<table>
<thead>
<tr>
<th>TIP #</th>
<th>Project Type</th>
<th>Project Name</th>
<th>Project Sponsor</th>
<th>Location</th>
<th>Description</th>
<th>Original Year</th>
<th>Currently Programmed Year in the TIP</th>
<th>Cost (in 1,000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>106</td>
<td>Road/ Bridge Extension</td>
<td>Wakarusa Drive</td>
<td>Douglas County</td>
<td>Rte 458 to planned K-10 interchange at Wakarusa Dr</td>
<td>New road construction to extend Wakarusa Drive from planned K-10 interchange to Route 458. Includes new bridge over Wakarusa River. *Alignment not finalized</td>
<td>2018-2021</td>
<td>2021-2023</td>
<td>$6,300</td>
</tr>
<tr>
<td>107</td>
<td>Road</td>
<td>Kasold Reconstruction, Clinton Pkwy to HyVee</td>
<td>Lawrence</td>
<td>Kasold from 22nd St to Clinton Pkwy</td>
<td>Reconstruction of street including pavement, storm sewer, sidewalks, bicycle facilities, and median</td>
<td>2017-2018</td>
<td>2019-2020</td>
<td>$2,600</td>
</tr>
<tr>
<td>236</td>
<td>Road/ Interchange</td>
<td>SLT/K-10 West Leg in</td>
<td>Douglas County</td>
<td>I-70/K10 Junction South to 3500 ft N of K-10/US-40 Junction</td>
<td>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.</td>
<td>2016</td>
<td>2019</td>
<td>$4,200</td>
</tr>
<tr>
<td>243</td>
<td>Road</td>
<td>US-56 Improvements: Eisenhower</td>
<td>Eisenhower St to 1st St</td>
<td></td>
<td>Improvements to US-56 - Realign Eisenhower and construct 3 lane US-56 in Baldwin City.</td>
<td>2017</td>
<td>2020</td>
<td>$1,675</td>
</tr>
</tbody>
</table>
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 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**

<table>
<thead>
<tr>
<th>MPO #</th>
<th>KDOT #</th>
<th>Project Name/Location</th>
<th>Description</th>
<th>Federal Funding Source</th>
<th>Obligated in FFY 2020</th>
<th>Federal Funds Requested in TIP</th>
<th>Federal Funds Spent FFY 2020</th>
<th>Federal Funds Obligated To Date</th>
<th>Federal Funds Remaining/ Unobligated Obligation</th>
<th>Unobligated Funds Remaining</th>
<th>Bike &amp;/or Ped Elements</th>
<th>Act</th>
<th>Project Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>412</td>
<td>S077TA</td>
<td>Lawrence Transit - Operating Funds</td>
<td>Operating and Preventive Maintenance activities</td>
<td>$907</td>
<td>$2,523</td>
<td>$1,673</td>
<td>$0</td>
<td>No</td>
<td>Active</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>412</td>
<td>FTA</td>
<td>Lawrence Transit - Operating Funds</td>
<td>Operating and Preventive Maintenance activities</td>
<td>$907</td>
<td>$2,523</td>
<td>$1,673</td>
<td>$0</td>
<td>No</td>
<td>Active</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>412</td>
<td>S077TA</td>
<td>Lawrence Transit - Operating Funds</td>
<td>Operating and Preventive Maintenance activities</td>
<td>$907</td>
<td>$2,523</td>
<td>$1,673</td>
<td>$0</td>
<td>No</td>
<td>Active</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>402</td>
<td>S077TA</td>
<td>Lawrence Transit - Operating Funds</td>
<td>Operating and Preventive Maintenance activities</td>
<td>$907</td>
<td>$2,523</td>
<td>$1,673</td>
<td>$0</td>
<td>No</td>
<td>Active</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>402</td>
<td>S077TA</td>
<td>Lawrence Transit - Operating Funds</td>
<td>Operating and Preventive Maintenance activities</td>
<td>$907</td>
<td>$2,523</td>
<td>$1,673</td>
<td>$0</td>
<td>No</td>
<td>Active</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>402</td>
<td>S077TA</td>
<td>Lawrence Transit - Operating Funds</td>
<td>Operating and Preventive Maintenance activities</td>
<td>$907</td>
<td>$2,523</td>
<td>$1,673</td>
<td>$0</td>
<td>No</td>
<td>Active</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>514</td>
<td>New Freedom</td>
<td>Lawrence Transit - Operating Funds</td>
<td>Operating and Preventive Maintenance activities</td>
<td>$907</td>
<td>$2,523</td>
<td>$1,673</td>
<td>$0</td>
<td>No</td>
<td>Active</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>417</td>
<td>Act</td>
<td>Lawrence Transit - Operating Funds</td>
<td>Operating and Preventive Maintenance activities</td>
<td>$907</td>
<td>$2,523</td>
<td>$1,673</td>
<td>$0</td>
<td>No</td>
<td>Inactive</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>401</td>
<td>-</td>
<td>Lawrence Transit - Operating Funds</td>
<td>Operating and Preventive Maintenance activities</td>
<td>$907</td>
<td>$2,523</td>
<td>$1,673</td>
<td>$0</td>
<td>No</td>
<td>Active</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>514</td>
<td>-</td>
<td>Lawrence Transit - Operating Funds</td>
<td>Operating and Preventive Maintenance activities</td>
<td>$907</td>
<td>$2,523</td>
<td>$1,673</td>
<td>$0</td>
<td>No</td>
<td>Active</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>514</td>
<td>-</td>
<td>Lawrence Transit - Operating Funds</td>
<td>Operating and Preventive Maintenance activities</td>
<td>$907</td>
<td>$2,523</td>
<td>$1,673</td>
<td>$0</td>
<td>No</td>
<td>Active</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>514</td>
<td>-</td>
<td>Lawrence Transit - Operating Funds</td>
<td>Operating and Preventive Maintenance activities</td>
<td>$907</td>
<td>$2,523</td>
<td>$1,673</td>
<td>$0</td>
<td>No</td>
<td>Active</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Non-Transit Projects**

<table>
<thead>
<tr>
<th>MPO #</th>
<th>KDOT #</th>
<th>Project Name/Location</th>
<th>Description</th>
<th>Federal Funding Source</th>
<th>Obligated in FFY 2020</th>
<th>Federal Funds Requested in TIP</th>
<th>Federal Funds Spent FFY 2020</th>
<th>Federal Funds Obligated To Date</th>
<th>Federal Funds Remaining/ Unobligated Obligation</th>
<th>Unobligated Funds Remaining</th>
<th>Bike &amp;/or Ped Elements</th>
<th>Act</th>
<th>Project Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>601</td>
<td>C-4670-71</td>
<td>Replacement - Arterial Roadway</td>
<td>Replace narrow culverts and remove roadside trees to improve roadside safety</td>
<td>HSP</td>
<td>$763</td>
<td>$763</td>
<td>$0</td>
<td>No</td>
<td>Active</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>509</td>
<td>K-4330-04</td>
<td>South Lawrence Trailway,</td>
<td>Intersection improvements: add EB right turn lane on K-</td>
<td>HSP</td>
<td>$763</td>
<td>$763</td>
<td>$0</td>
<td>No</td>
<td>Active</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>705</td>
<td>KA-3034-05</td>
<td>East to K-10</td>
<td>Intersection improvements: add EB right turn lane on K-10, extend WB turn lane on K-10, add a NB right turn lane, rebuild pavement markings, mill &amp; overlay north, and south intersection legs &amp; reconstruct sidewalk crossing. Permanent seeding &amp; signage.</td>
<td>HSP</td>
<td>$748</td>
<td>$748</td>
<td>$0</td>
<td>Yes</td>
<td>Active</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>510</td>
<td>TE-0480-01</td>
<td>West Baldwin Ped-bike Connectivity Project Phase 1, 8th St Beet to 8th St</td>
<td>Design, engineer, and construct an ADA compliant, approximately 7,050’ long, if wide shared-use path.</td>
<td>TA</td>
<td>$580</td>
<td>$435</td>
<td>$435</td>
<td>$144</td>
<td>Yes</td>
<td>Active</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>226</td>
<td>U-0851-01</td>
<td>Lawrence Van Arnum Roundabout</td>
<td>Convert All Way Stop controlled intersection to two lane roundabout.</td>
<td>HSP</td>
<td>$600</td>
<td>$600</td>
<td>$0</td>
<td>No</td>
<td>Active</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>504</td>
<td>U-2050-01</td>
<td>Lawrence Safe Routes to School</td>
<td>New sidewalk construction along designated Safe Routes to School.</td>
<td>TA</td>
<td>$189</td>
<td>$189</td>
<td>$0</td>
<td>No</td>
<td>Active</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>504</td>
<td>U-2050-01</td>
<td>Lawrence Safe Routes to School</td>
<td>New sidewalk construction along designated Safe Routes to School.</td>
<td>TA</td>
<td>$189</td>
<td>$189</td>
<td>$0</td>
<td>No</td>
<td>Active</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Legend**

- FTF: FFY 2020 CARES
- STP: Surface Transportation Program
- NHPP: National Highway Performance Program
- SAFETI: Safe Routes to School
- TTA: Transportation Alternative Projects
- KDOT #: Kansas Department of Transportation
- MPO #: Metropolitan Planning Organization
- FTA: Federal Transit Administration
- FHWA: Federal Highway Administration
- FFY: Fiscal Year
- TE/TA: Transportation Enhancements/Transportation Alternatives
- للأسباب المختلفة والبيضاء الرسمية

**APPENDIX D**

**LATEST FEDERAL FISCAL YEAR - LIST OF OBLIGATED PROJECTS**

### Table D-1: Obligated Projects From FFY2020
**APPENDIX E**

**TIP PUBLIC PARTICIPATION**

**Figure E-1: TIP Development Timeline**

<table>
<thead>
<tr>
<th>Task</th>
<th>Date</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discuss TIP development with KDOT, FHWA, &amp; FTA</td>
<td>Mid-May</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implement updates (TIP form and database)</td>
<td>Prior to 6/2/20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discuss at TAC</td>
<td>6/12/20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIP project submission deadline to MPO staff</td>
<td>6/13/20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop new TIP</td>
<td>6/12/20 - 8/7/20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Send draft to KDOT, FHWA, and FTA for review</td>
<td>8/7/20 - 8/21/20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 day public comment period*</td>
<td>8/26/20 - 9/25/20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incorporate public comments</td>
<td>9/28/20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAC/MPO Policy Board consideration of incorporating public comments into final TIP</td>
<td>TAC - 10/6/20 MPO - 10/15/20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pending Policy Board approval post online and send to KDOT, FHWA, and FTA</td>
<td>10/15/20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inclusion in Kansas STIP</td>
<td>November</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*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**

<table>
<thead>
<tr>
<th>Public Comment Period</th>
<th># of Public Comments</th>
<th>TAC Action</th>
<th>Policy Board Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original Approval</td>
<td>8/26/20 to 9/25/20</td>
<td>0</td>
<td>October 16, 2020</td>
</tr>
<tr>
<td>Amendment 1</td>
<td>1/7/21 to 1/22/21</td>
<td>0</td>
<td>February 2, 2021</td>
</tr>
<tr>
<td>Amendment 2</td>
<td>3/16/21 to 3/31/21</td>
<td>0</td>
<td>April 6, 2021</td>
</tr>
<tr>
<td>Amendment 3</td>
<td>7/16/21 to 7/31/21</td>
<td>0</td>
<td>August 3, 2021</td>
</tr>
<tr>
<td>Amendment 4</td>
<td>9/10/21 to 9/25/21</td>
<td>0</td>
<td>October 5, 2021</td>
</tr>
</tbody>
</table>

TIP public comments and MPO staff responses can be viewed at [www.lawrenceks.org/mpo/tip/comments](http://www.lawrenceks.org/mpo/tip/comments).
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

<table>
<thead>
<tr>
<th>Category</th>
<th>Table ID</th>
<th>Measure</th>
<th>Table Name</th>
<th>Universe</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disability</td>
<td>B22010</td>
<td>Households with a person who has a disability</td>
<td>Receipt of food stamps/snap in the past 12 months</td>
<td>Households</td>
<td>5-yr ACS 2017-2018</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Food stamp or not)</td>
<td>by disability status for households</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>B15003</td>
<td>Less than high school diploma</td>
<td>Educational attainment for the population</td>
<td>25 Yrs and Over</td>
<td>5-yr ACS 2014</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>25 years and over</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minority</td>
<td>B02001</td>
<td>Non-white, excluding 2 or more races</td>
<td>Race</td>
<td>Total Population</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single Parent</td>
<td>B09002</td>
<td>Male householder without wife present, female</td>
<td>Own children under 18 years by family type and age</td>
<td>Own Children under 18 Yrs</td>
<td>2014 - 2018</td>
</tr>
<tr>
<td></td>
<td></td>
<td>householder without husband present</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zero Vehicles</td>
<td>B25044</td>
<td>Households without vehicles</td>
<td>Tenure by vehicles available</td>
<td>Occupied Housing Units</td>
<td></td>
</tr>
<tr>
<td>Youth &amp; Seniors</td>
<td>B01001</td>
<td>65+ and &lt;18</td>
<td>Sex by age</td>
<td>Total Population</td>
<td></td>
</tr>
<tr>
<td>Low &amp; Moderate Income</td>
<td><a href="https://www.hudexchange.info/programs/acs-low-mod-summary-data">https://www.hudexchange.info/programs/acs-low-mod-summary-data</a></td>
<td>Community Development Block Group (CDBG) income</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

### Table F-2: Point Thresholds

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

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](https://lawrenceks.org/mpo/transportation-disadvantaged).
## Summary of TIP Changes

### APPENDIX G

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

**Revision Summary: Administrative Revision 2**

<table>
<thead>
<tr>
<th>TIP #:</th>
<th>KDOT #:</th>
<th>Project Name:</th>
<th>Project Sponsor:</th>
<th>Action:</th>
<th>Transportation 2040 Inclusion:</th>
<th>Revision Description:</th>
<th>Total Project Cost:</th>
</tr>
</thead>
<tbody>
<tr>
<td>S13</td>
<td>U-2372-01</td>
<td>Lawrence Safe Routes to School Phase 2 (2021)</td>
<td>Lawrence</td>
<td>Revision</td>
<td>Strategy - Implement the Regional Pedestrian Plan; Maintain &amp; Implement a SRTS Program; page 156</td>
<td>Revise 2021 Local CONST from $110 to $125 and 2021 TA CONST from $400 to $500.</td>
<td>$675</td>
</tr>
</tbody>
</table>

**Public Comment Period:** NA

**MPO Policy Board Approval:** NA - Posted 11/9/2021
### TIP PROJECT LISTINGS

**APPENDIX H**

#### Example Listing

<table>
<thead>
<tr>
<th>Category of project</th>
<th>Date added into the TIP</th>
<th>Description of the work and tasks</th>
<th>Most recent project change</th>
<th>Notes or comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lawrence – Roadway Improvement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lawrence – Bridge Improvement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lawrence – Transit/Paratransit Improvement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Decoding the TIP

**TIP #:** Assigned based on project type by MPO:
- 100 – Roadway/Intersection
- 200 – Bridges
- 300 – ITS
- 400 – Transit/Paratransit

**Phase:**
- CAPITAL – Transit Capital
- CONSTRUCTION – Construction (includes preliminary engineering)
- OPERATING – Operating

**Project Type:**
- Bridge Improvement
- Bridge Interchange
- Bridge Operations
- Bridge Replacement
- Bridge rehabilitation
- Capital Improvement
- Geometric Improvement
- Grading
- Mill/Overlay
- Operating

**Work Type:**
- Access Management
- Bridge Rehabilitation
- Bridge Replacement
- Capital
- Geometric Improvement
- Grading
- Mill/Overlay
- Operating
- Other

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

**Fund Source:**
- Community Development Block Grant (CDBG)
- National Highway Performance Program (NHPP)
- Surface Transportation Program (STP)
- Highway Safety Improvement Program (HSIP)
- Safe Routes to Schools (SRTS)
- Safe Routes to School funding

### Table: Funding shown in 1,000s

<table>
<thead>
<tr>
<th>FFY</th>
<th>Fund Source</th>
<th>Phase</th>
<th>Federal</th>
<th>State</th>
<th>Local</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>State</td>
<td>PE</td>
<td>$0</td>
<td>$1</td>
<td>$0</td>
</tr>
<tr>
<td>2020</td>
<td>State-AC</td>
<td>CONST</td>
<td>$0</td>
<td>$1,425</td>
<td>$0</td>
</tr>
<tr>
<td>2020</td>
<td>State</td>
<td>CONST</td>
<td>$0</td>
<td>$357</td>
<td>$0</td>
</tr>
<tr>
<td>2021</td>
<td>STP</td>
<td>CONVERSION</td>
<td>$1,425</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>2021</td>
<td>Credit</td>
<td>OTHER</td>
<td>$0</td>
<td>$(1,425)</td>
<td>$0</td>
</tr>
</tbody>
</table>

**Federal Total:** $1,425

**Non-Federal Total:** $358

**Grand Total:** $1,783

**Total project cost in 1,000s:** $1,783
**Lawrence-Douglas County MPO**

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

(Includes the Program of Projects for the Lawrence Transit System)

<table>
<thead>
<tr>
<th>FFY</th>
<th>Fund Source</th>
<th>Phase</th>
<th>Federal</th>
<th>State</th>
<th>Local</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td>Local</td>
<td>PE</td>
<td>$0</td>
<td>$0</td>
<td>$500</td>
</tr>
<tr>
<td>2022</td>
<td>Local - LAW</td>
<td>PE</td>
<td>$0</td>
<td>$0</td>
<td>$166</td>
</tr>
<tr>
<td>2022</td>
<td>Local - LAW</td>
<td>ROW</td>
<td>$0</td>
<td>$0</td>
<td>$167</td>
</tr>
<tr>
<td>2022</td>
<td>Local - LAW</td>
<td>UTIL</td>
<td>$0</td>
<td>$0</td>
<td>$167</td>
</tr>
<tr>
<td>2023</td>
<td>Local</td>
<td>PE</td>
<td>$0</td>
<td>$0</td>
<td>$250</td>
</tr>
<tr>
<td>2023</td>
<td>Local</td>
<td>ROW</td>
<td>$0</td>
<td>$0</td>
<td>$150</td>
</tr>
<tr>
<td>2023</td>
<td>Local</td>
<td>UTIL</td>
<td>$0</td>
<td>$0</td>
<td>$100</td>
</tr>
<tr>
<td>2024</td>
<td>Local</td>
<td>CONST</td>
<td>$0</td>
<td>$0</td>
<td>$750</td>
</tr>
<tr>
<td>2024</td>
<td>Local - LAW</td>
<td>CONST</td>
<td>$0</td>
<td>$0</td>
<td>$6,500</td>
</tr>
<tr>
<td>2025</td>
<td>Local</td>
<td>CONST</td>
<td>$0</td>
<td>$0</td>
<td>$4,000</td>
</tr>
</tbody>
</table>

**Project Sponsor:** Douglas County/Lawrence

**TIP #: 106**  
**KDOT #:**

**Length (mi):** 2.00

**Project Type:** Road, Bridge

**Date Added:** 10/2016  
**Last Revised:** 10/2021

**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*

**Location:** Clinton Parkway to N 1200 Rd

**Work Type:** Grading, Bridge, Surfacing

**Revision History:** FFY19 A5, FFY21 A3, FFY21 A4

**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.

---

**Project Sponsor:** Lawrence

**TIP #: 107**  
**KDOT #:**

**Length (mi):** 0.16

**Project Type:** Road

**Date Added:** 10/2016  
**Last Revised:** 8/2019

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

**Location:** Kasold from 22nd St to Clinton Pkwy

**Work Type:** Reconstruction

**Revision History:**

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

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

---

**FFY 2019**  
**Fund Source:** Local  
**Phase:** PE  
**Federal:** $0  
**State:** $0  
**Local:** $170

**FFY 2020**  
**Fund Source:** Local  
**Phase:** CONST  
**Federal:** $0  
**State:** $0  
**Local:** $2,430

**Federal Total:** $0  
**Non-Federal Total:** $2,600  
**Grand Total:** $2,600
### Lawrence-Douglas County MPO

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

(Includes the Program of Projects for the Lawrence Transit System)

<table>
<thead>
<tr>
<th>Project Sponsor</th>
<th>Lawrence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TIP #: 117</strong></td>
<td>KDOT #:</td>
</tr>
<tr>
<td>Length (mi):</td>
<td>0.50</td>
</tr>
<tr>
<td><strong>Project Type:</strong></td>
<td>Road</td>
</tr>
<tr>
<td><strong>Date Added:</strong></td>
<td>Last Revised:</td>
</tr>
<tr>
<td><strong>Description:</strong></td>
<td>Reconstruction of Naismith from 19th to 23rd St including new pavement, curb and gutter, storm sewer, sidewalks and bike facilities.</td>
</tr>
</tbody>
</table>

#### Naismith Drive Reconstruction: 19th St. to 23rd St.

| **Location:** | 19th & Naismith to 23rd & Naismith |
| **Work Type:** | Reconstruction, Pedestrian/Bicycle |

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

<table>
<thead>
<tr>
<th>FFY</th>
<th>Fund Source</th>
<th>Phase</th>
<th>Federal</th>
<th>State</th>
<th>Local</th>
</tr>
</thead>
<tbody>
<tr>
<td>2023</td>
<td>Local</td>
<td>PE</td>
<td>$0</td>
<td>$0</td>
<td>$300</td>
</tr>
<tr>
<td>2024</td>
<td>Local</td>
<td>CONST</td>
<td>$0</td>
<td>$0</td>
<td>$4,000</td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th>Project Sponsor</th>
<th>KDOT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TIP #: 135</strong></td>
<td><strong>KDOT #: KA-5484-01</strong></td>
</tr>
<tr>
<td>Length (mi):</td>
<td>5.80</td>
</tr>
<tr>
<td><strong>Project Type:</strong></td>
<td>Road</td>
</tr>
<tr>
<td><strong>Date Added:</strong></td>
<td>10/2019</td>
</tr>
<tr>
<td><strong>Last Revised:</strong></td>
<td>8/2020</td>
</tr>
<tr>
<td><strong>Description:</strong></td>
<td>Surfacing</td>
</tr>
</tbody>
</table>

#### K-10: West of E1900 East to DG/JO County Line

| **Location:** | Beginning 0.48 miles West of E1900 thence east to the Douglas/Johnson County line |
| **Work Type:** | Surfacing |

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

<table>
<thead>
<tr>
<th>FFY</th>
<th>Fund Source</th>
<th>Phase</th>
<th>Federal</th>
<th>State</th>
<th>Local</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>State</td>
<td>PE</td>
<td>$0</td>
<td>$1</td>
<td>$0</td>
</tr>
<tr>
<td>2020</td>
<td>State-AC</td>
<td>CONST</td>
<td>$0</td>
<td>$992</td>
<td>$0</td>
</tr>
<tr>
<td>2020</td>
<td>State</td>
<td>CONST</td>
<td>$0</td>
<td>$248</td>
<td>$0</td>
</tr>
<tr>
<td>2021</td>
<td>NHPP</td>
<td>CONVERSION</td>
<td>$992</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>2021</td>
<td>Credit</td>
<td>OTHER</td>
<td>$0</td>
<td>($992)</td>
<td>$0</td>
</tr>
</tbody>
</table>

| Federal Total: | $992 |
| Non-Federal Total: | $249 |
| Grand Total: | $1,241 |
Lawrence-Douglas County MPO
FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)
(Includes the Program of Projects for the Lawrence Transit System)

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 hence east to Junction K-10/US-40/US-59
**Work Type:** Surfacing

**Revision 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.

<table>
<thead>
<tr>
<th>FFY</th>
<th>Fund Source</th>
<th>Phase</th>
<th>Federal</th>
<th>State</th>
<th>Local</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>State</td>
<td>PE</td>
<td>$0</td>
<td>$1</td>
<td>$0</td>
</tr>
<tr>
<td>2020</td>
<td>State-AC</td>
<td>CONST</td>
<td>$0</td>
<td>$3,010</td>
<td>$0</td>
</tr>
<tr>
<td>2020</td>
<td>State</td>
<td>CONST</td>
<td>$0</td>
<td>$755</td>
<td>$0</td>
</tr>
<tr>
<td>2021</td>
<td>NHPP</td>
<td>CONVERSION</td>
<td>$3,010</td>
<td>$0</td>
<td>$0</td>
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<tr>
<td>2021</td>
<td>Credit</td>
<td>OTHER</td>
<td>$0</td>
<td>($3,010)</td>
<td>$0</td>
</tr>
</tbody>
</table>

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

**Revision History:**

**Comments:**
Program addition as requested by Greg Schieber in 1R Project List.
Conversion to STP in 2021.

<table>
<thead>
<tr>
<th>FFY</th>
<th>Fund Source</th>
<th>Phase</th>
<th>Federal</th>
<th>State</th>
<th>Local</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>State</td>
<td>PE</td>
<td>$0</td>
<td>$1</td>
<td>$0</td>
</tr>
<tr>
<td>2020</td>
<td>State-AC</td>
<td>CONST</td>
<td>$0</td>
<td>$1,498</td>
<td>$0</td>
</tr>
<tr>
<td>2020</td>
<td>State</td>
<td>CONST</td>
<td>$0</td>
<td>$375</td>
<td>$0</td>
</tr>
<tr>
<td>2021</td>
<td>STP</td>
<td>CONVERSION</td>
<td>$1,498</td>
<td>$0</td>
<td>$0</td>
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<tr>
<td>2021</td>
<td>Credit</td>
<td>OTHER</td>
<td>$0</td>
<td>($1,498)</td>
<td>$0</td>
</tr>
</tbody>
</table>

Federal Total: $1,498  Non-Federal Total: $376  Grand Total: $1,874
Project Sponsor: KDOT
TIP #: 138 KDOT #: KA-5543-01
Length (mi): 12.30

Project Type: Road
Date Added: 2/2020
Description: Surfacing

FSYS 2020 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)
(Includes the Program of Projects for the Lawrence Transit System)

**Project** US-56 in Douglas County (1R Project)
**Name:**
**Location:** US-56: OS/DG county line East to 0.22 miles west of Junction US-59/US-56
**Work Type:** Mill/Overlay, Surfacing

**Revision History:**
Program addition as requested by Greg Schieber in 1R Project List.
Conversion to STP in 2021.

**Comments:**

<table>
<thead>
<tr>
<th>FFY</th>
<th>Fund Source</th>
<th>Phase</th>
<th>Federal</th>
<th>State</th>
<th>Local</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>State</td>
<td>PE</td>
<td>$0</td>
<td>$1</td>
<td>$0</td>
</tr>
<tr>
<td>2020</td>
<td>State-AC</td>
<td>CONST</td>
<td>$0</td>
<td>$1,425</td>
<td>$0</td>
</tr>
<tr>
<td>2020</td>
<td>State</td>
<td>CONST</td>
<td>$0</td>
<td>$357</td>
<td>$0</td>
</tr>
<tr>
<td>2021</td>
<td>STP</td>
<td>CONVERSION</td>
<td>$1,425</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>2021</td>
<td>Credit</td>
<td>OTHER</td>
<td>$0</td>
<td>($1,425)</td>
<td>$0</td>
</tr>
</tbody>
</table>

**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 Type: Road
Date Added: 10/2020
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).

**Project** Church Street Improvements: 15th St. to 14th St.
**Name:**
**Location:** Approximately 1,550 feet of improvements to Church St. beginning 600’ south of the 15th St. intersection,
**Work Type:** Access Management, Reconstruction, Safety

**Revision History:**

**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.).

<table>
<thead>
<tr>
<th>FFY</th>
<th>Fund Source</th>
<th>Phase</th>
<th>Federal</th>
<th>State</th>
<th>Local</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>State</td>
<td>CONST</td>
<td>$0</td>
<td>$1,249</td>
<td>$0</td>
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**Federal Total:** $0  **Non-Federal Total:** $1,922  **Grand Total:** $1,922
### Project 1

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

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

**Work Type:** Reconstruction

**Revision 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.

<table>
<thead>
<tr>
<th>FFY</th>
<th>Fund Source</th>
<th>Phase</th>
<th>Federal</th>
<th>State</th>
<th>Local</th>
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<tbody>
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<td>2025</td>
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**Federal Total:** $1,197  
**Non-Federal Total:** $644  
**Grand Total:** $1,841

---

### Project 2

**Project Sponsor:** KDOT  
**TIP #:** 143  
**KDOT #:** KA-6015-01  
**Length (mi):** 3.75

**Project Type:** Road

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

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

**Name:** 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

**Revision 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.

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<tr>
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<th>Phase</th>
<th>Federal</th>
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<tbody>
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<td>PE</td>
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<td>2021</td>
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**Federal Total:** $0  
**Non-Federal Total:** $1,200  
**Grand Total:** $1,200
Lawrence-Douglas County MPO

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

(Includes the Program of Projects for the Lawrence Transit System)

<table>
<thead>
<tr>
<th>FFY</th>
<th>Fund Source</th>
<th>Phase</th>
<th>Federal</th>
<th>State</th>
<th>Local</th>
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</thead>
<tbody>
<tr>
<td>2021</td>
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<td>CONST</td>
<td>$0</td>
<td>$0</td>
<td>$443</td>
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<tr>
<td>2021</td>
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<td>CONST</td>
<td>$0</td>
<td>$420</td>
<td>$0</td>
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**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).

**Location:** 31st St. (Louisiana St. to Neider Road) and Iowa St./US59 (23rd St. to County Route 458)

**Work Type:** Signal

**Revision History:** FFY21 A2, FFY21 A3

**Comments:**

---

**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

**Location:** Junction of US-24/K-32 to the Douglas/Leavenworth County Line

**Work Type:** Surfacing

**Revision History:**

**Comments:**

---

**FFY | Fund Source | Phase | Federal | State | Local
<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td>2022</td>
<td>State</td>
<td>CONST</td>
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<td>$32</td>
<td>$0</td>
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**Federal Total:** $0  **Non-Federal Total:** $32  **Grand Total:** $32

**Project Name:** US-24 Surfacing: Junction US-24/K-32 to the Douglas/Leavenworth County Line
<table>
<thead>
<tr>
<th>Project Sponsor:</th>
<th>Lawrence</th>
<th>11th St. - Indiana to Ohio; Louisiana - 11th to 12th Reconstruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIP #:</td>
<td>146</td>
<td></td>
</tr>
<tr>
<td>KDOT #:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length (mi):</td>
<td>0.25</td>
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<tr>
<td>Project Type:</td>
<td>Road</td>
<td>Reconstruction</td>
</tr>
<tr>
<td>Date Added:</td>
<td>10/2021</td>
<td></td>
</tr>
<tr>
<td>Last Revised:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Description:</td>
<td>11th St (Indiana to Ohio) including concrete pavement, storm sewer, bike/ped improvements &amp; sanitary sewer improvements at 11th/Ohio. Louisiana St (11th to 12th St) including concrete pavement, storm sewer, bike/ped improvements.</td>
<td></td>
</tr>
<tr>
<td>Location:</td>
<td>11th St. - Indiana St. to Ohio St. &amp; Louisiana St. - 11th St. to 12th St.</td>
<td></td>
</tr>
<tr>
<td>Comments:</td>
<td>Street is in failing condition (PCI = 27) and poor subgrade conditions require complete reconstruction. 11th Street is a collector street and on transit route.</td>
<td></td>
</tr>
<tr>
<td>FFY</td>
<td>Fund Source</td>
<td>Phase</td>
</tr>
<tr>
<td>2022</td>
<td>Local</td>
<td>PE</td>
</tr>
<tr>
<td>2023</td>
<td>Local</td>
<td>CONST</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Sponsor:</th>
<th>Douglas County</th>
<th>Route 1055 at North 700 Curve</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIP #:</td>
<td>208</td>
<td></td>
</tr>
<tr>
<td>KDOT #:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length (mi):</td>
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</tr>
<tr>
<td>Project Type:</td>
<td>Road</td>
<td>Rehabilitation, Bridge Replacement</td>
</tr>
<tr>
<td>Date Added:</td>
<td>10/2014</td>
<td></td>
</tr>
<tr>
<td>Last Revised:</td>
<td>6/2020</td>
<td></td>
</tr>
<tr>
<td>Description:</td>
<td>Roadside safety improvements, replace two bridges and one culvert.</td>
<td></td>
</tr>
<tr>
<td>Location:</td>
<td>Route 1055 from 725 North to 1670 East</td>
<td></td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FFY</td>
<td>Fund Source</td>
<td>Phase</td>
</tr>
<tr>
<td>2020</td>
<td>Local</td>
<td>ROW</td>
</tr>
<tr>
<td>2020</td>
<td>Local</td>
<td>UTIL</td>
</tr>
<tr>
<td>2020</td>
<td>Local</td>
<td>CONST</td>
</tr>
</tbody>
</table>

Federal Total: $0 Non-Federal Total: $2,050 Grand Total: $2,050
### Lawrence-Douglas County MPO

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

(Includes the Program of Projects for the Lawrence Transit System)

<table>
<thead>
<tr>
<th>Project Sponsor</th>
<th>Lawrence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TIP #:</strong></td>
<td>214</td>
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<tr>
<td><strong>KDOT #:</strong></td>
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</tr>
<tr>
<td><strong>Length (mi):</strong></td>
<td>1.47</td>
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<table>
<thead>
<tr>
<th>Project</th>
<th>Wakarusa Dr. Reconstruction: Research Pkwy to 23rd St</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location:</strong></td>
<td>Wakarusa: Research Pkwy to 23rd St</td>
</tr>
<tr>
<td><strong>Work Type:</strong></td>
<td>Reconstruction</td>
</tr>
<tr>
<td><strong>Date Added:</strong></td>
<td>10/2016</td>
</tr>
<tr>
<td><strong>Last Revised:</strong></td>
<td>10/2021</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>FFY</th>
<th>Fund Source</th>
<th>Phase</th>
<th>Federal</th>
<th>State</th>
<th>Local</th>
</tr>
</thead>
<tbody>
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**Revised History:** FFY2021 A4

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

---

<table>
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<th>Project Sponsor</th>
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<tbody>
<tr>
<td><strong>TIP #:</strong></td>
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<td><strong>Length (mi):</strong></td>
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<table>
<thead>
<tr>
<th>Project</th>
<th>Rte 458/1055 Improvements: E 1500 thru E 1600</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location:</strong></td>
<td>E1500 to E1600 &amp; N940 to N1000</td>
</tr>
<tr>
<td><strong>Work Type:</strong></td>
<td>Grading, Surfacing</td>
</tr>
<tr>
<td><strong>Date Added:</strong></td>
<td>8/2015</td>
</tr>
<tr>
<td><strong>Last Revised:</strong></td>
<td>8/2021</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>FFY</th>
<th>Fund Source</th>
<th>Phase</th>
<th>Federal</th>
<th>State</th>
<th>Local</th>
</tr>
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<tbody>
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<tr>
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**Revised History:** FFY19 A3, FFY21 A3

**Comments:**

---

**Federal Total:** $0

| Non-Federal Total: | $7,300 |
| Grand Total: | $7,300 |

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

---

G-9
### Lawrence-Douglas County MPO

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

(Includes the Program of Projects for the Lawrence Transit System)

<table>
<thead>
<tr>
<th>Project Sponsor:</th>
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<tbody>
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<td>KDOT #:</td>
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<tr>
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<tr>
<td><strong>Project</strong></td>
<td>Route 1055 Improvements: N1000 to N1180</td>
</tr>
<tr>
<td><strong>Name:</strong></td>
<td>N1180</td>
</tr>
<tr>
<td><strong>Location:</strong></td>
<td>N1000 to N1180</td>
</tr>
<tr>
<td><strong>Work Type:</strong></td>
<td>Grading, Surfacing</td>
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<tr>
<td>Date Added:</td>
<td>8/2015</td>
</tr>
<tr>
<td>Last Revised:</td>
<td>6/2020</td>
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</table>

#### 2019 Local ROW

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<th>Phase</th>
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<th>State</th>
<th>Local</th>
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</thead>
<tbody>
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<td>2019</td>
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#### 2020 Local UTIL

<table>
<thead>
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<th>Year</th>
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#### 2020 Local CONST

<table>
<thead>
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<th>Phase</th>
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<th>Local</th>
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<tbody>
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#### 2021 Local CONST

<table>
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<th>Local</th>
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### Lawrence

<table>
<thead>
<tr>
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<th>Lawrence</th>
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<tbody>
<tr>
<td>TIP #:</td>
<td>229</td>
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<tr>
<td>KDOT #:</td>
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</tr>
<tr>
<td>Length (mi):</td>
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<tr>
<td><strong>Project</strong></td>
<td>19th Street Reconstruction: O'Connell Rd to Harper St</td>
</tr>
<tr>
<td><strong>Name:</strong></td>
<td>Harper St</td>
</tr>
<tr>
<td><strong>Location:</strong></td>
<td>O'Connell Rd to Harper St</td>
</tr>
<tr>
<td><strong>Work Type:</strong></td>
<td>Reconstruction</td>
</tr>
<tr>
<td>Date Added:</td>
<td>8/2015</td>
</tr>
<tr>
<td>Last Revised:</td>
<td>10/2021</td>
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#### 2019 Local PE

<table>
<thead>
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<td>2019</td>
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#### 2019 Local ROW

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<th>Local</th>
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<td>$50</td>
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#### 2020 Local CONST

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<tbody>
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#### 2021 Local CONST

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<th>Local</th>
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<td>$2,600</td>
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**Federal Total:** $0  
**Non-Federal Total:** $2,532  
**Grand Total:** $2,532

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

---

**Description:**
- Construct paved shoulders; replace narrow culvert; flatten roadside slope.
- Reconstruct & tie into venture park and construct sidewalk & shared use path.
- PE/ROW are each estimated at 10% of Construction Costs.
Project Sponsor: Lawrence

<table>
<thead>
<tr>
<th>Year</th>
<th>Source</th>
<th>Phase</th>
<th>Federal</th>
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<tbody>
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<td>$0</td>
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<td>$3,000</td>
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TIP #: 230
KDOT #: LAW-4473-01

Length (mi): 0.75

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

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

Work Type: Reconstruction

Revision History: FFY21 A4

Comments:
PE/ROW are each estimated at 10% of Construction Costs.
Updated project description to include roundabout at Overland/Queens.

Project Sponsor: Lawrence

<table>
<thead>
<tr>
<th>Year</th>
<th>Source</th>
<th>Phase</th>
<th>Federal</th>
<th>State</th>
<th>Local</th>
</tr>
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<tbody>
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TIP #: 234
KDOT #: KA-4473-01

Length (mi): 2.01

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

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

Work Type: Reconstruction

Revision History: FFY21 A4

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.
### Lawrence-Douglas County MPO

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

( Includes the Program of Projects for the Lawrence Transit System)

<table>
<thead>
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<td><strong>Project Type:</strong></td>
<td>Road/Interchange</td>
<td><strong>Description:</strong></td>
<td>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.</td>
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<tr>
<td><strong>Project Name:</strong></td>
<td>SLT/K-10 West Leg in Douglas County</td>
<td><strong>Location:</strong></td>
<td>I-70/K10 Junction South to 3500 ft N of K-10/US-40 Junction</td>
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<td><strong>Work Type:</strong></td>
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<td>FFY21 A1, FFY21A3</td>
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<tr>
<td><strong>Comments:</strong></td>
<td>PE uses $3,360K of AC &amp; 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.</td>
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**Federal Total:** $4,960
**Non-Federal Total:** $3,240
**Grand Total:** $8,200

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<td><strong>Description:</strong></td>
<td>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.</td>
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<td><strong>Project Name:</strong></td>
<td>SLT/K-10 West Leg in Douglas County</td>
<td><strong>Location:</strong></td>
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<tr>
<td><strong>Comments:</strong></td>
<td>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.</td>
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**Federal Total:** $21,440
**Non-Federal Total:** $9,360
**Grand Total:** $30,800
### Project 1: US-56 Improvements: Eisenhower St to 1st St

**Project Sponsor:** KDOT  
**TIP #:** 243  
**Length (mi):** 0.30  
**Project Type:** Road  
**Date Added:** 7/2016  
**Last Revised:** 4/2021  
**Description:** Improvements to US-56 - Realign Eisenhower and construct 3 lane US-56 in Baldwin City.

**Location:** Eisenhower St to 1st St  
**Work Type:** Other/Reconstruction  
**Revision History:** FFY21 A2

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

### Project 2: Bridge 0964-1000 replacement

**Project Sponsor:** Douglas County  
**TIP #:** 248  
**Length (mi):** 0.15  
**Project Type:** Bridge  
**Date Added:** 10/2018  
**Last Revised:** 8/2021  
**Description:** Replace load posted, fracture critical bridge

**Location:** E 1000 Road 0.4 mi. South of Route 458  
**Work Type:** Bridge Replacement, Grading  
**Revision History:** FFY19, FFY21 A3

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Federal Total: $0  
Non-Federal Total: $1,800  
Grand Total: $1,800
**Lawrence-Douglas County MPO**

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

*(Includes the Program of Projects for the Lawrence Transit System)*

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<td><strong>Length (mi):</strong></td>
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**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

**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

**Revision 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.

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**Total:**

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

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**Project Type:** ITS

**Date Added:** 8/2021

**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

**Revision History:**

**Comments:**

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**Total:**

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

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**FFY2021 TIP**
Lawrence-Douglas County MPO
FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)
(Includes the Program of Projects for the Lawrence Transit System)

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

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<td>Description</td>
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Federal Total: $0  Non-Federal Total: $7,840  Grand Total: $7,840

FFY2021 TIP
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**Project Sponsor:** Lawrence Transit

**Project Name:** Lawrence Multimodal Transfer Facility

**Location:** Lawrence

**Project Type:** Transit/Paratransit

**Work Type:** Capital

**Date Added:** 7/2016

**Last Revised:** 10/2020

**Description:** Transit Facility

**Revision History:**

**Comments:**

**Federal Total:** $0

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

**Grand Total:** $4,500

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**Federal Total:** $10,476

**Non-Federal Total:** $9,885

**Grand Total:** $20,361

---

**Project Sponsor:** Lawrence Transit

**Project Name:** Lawrence Transit Operating Funds

**Location:** Lawrence

**Project Type:** Transit/Paratransit

**Work Type:** Operating

**Date Added:** 10/2014

**Last Revised:** 10/2020

**Description:** Operating, Preventative Maintenance, and Program Administration activities.

**Revision History:**

**Comments:**

Federal Transit 5307 Funds. 2021-2022 amounts are projected. Linked with project #402.
### Lawrence-Douglas County MPO

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

(Includes the Program of Projects for the Lawrence Transit System)

<table>
<thead>
<tr>
<th>Project Sponsor: Lawrence Transit</th>
<th>Project Name: Lawrence Transit Electric Buses</th>
<th>Location: Lawrence</th>
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<tbody>
<tr>
<td><strong>TIP #: 416</strong></td>
<td><strong>Fund Source</strong></td>
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<tr>
<td></td>
<td>2021 5339</td>
<td>PE</td>
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<tr>
<td>2021 5339</td>
<td>CAPITAL</td>
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<tr>
<td>2021 Local</td>
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**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.

---

<table>
<thead>
<tr>
<th>Project Sponsor: Lawrence Transit</th>
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<td><strong>Fund Source</strong></td>
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**Date Added:** 10/2020  
**Last Revised:** 8/2021  
**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.

**Federal Total:** $5,658  
**Non-Federal Total:** $0  
**Grand Total:** $5,658
### American Rescue Plan (ARP) Operating Assistance

**Project Sponsor:** Lawrence Transit  
**TIP #:** 419  
**KDOT #:**  
**Length (mi):** 0.00  
**Project Type:** Transit/Paratransit  
**Date Added:** Last Revised: 8/2021

#### 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.

#### Work Type:
Operating

#### Revision History:

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

No local match required.

<table>
<thead>
<tr>
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**Federal Total:** $4,512  
**Non-Federal Total:** $0  
**Grand Total:** $4,512

---

### Lawrence Transit Electric Buses Phase II

**Project Sponsor:** Lawrence Transit  
**TIP #:** 420  
**KDOT #:**  
**Length (mi):** 0.00  
**Project Type:** Transit/Paratransit  
**Date Added:** Last Revised: 8/2021

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

#### Work Type:
Vehicle Replacement

#### Revision History:

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

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

---
### Lawrence-Douglas County MPO

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

*(Includes the Program of Projects for the Lawrence Transit System)*

#### Project: Lawrence Safe Routes to School TA Phase 2
- **Fund Source**: Local
- **Phase**: PE
- **Year**: 2018
- **Federal**: $0
- **State**: $0
- **Local**: $65

- **Fund Source**: Local
- **Phase**: CONST
- **Year**: 2019
- **Federal**: $0
- **State**: $0
- **Local**: $100

- **Fund Source**: Local
- **Phase**: CONST
- **Year**: 2019
- **Federal**: $394
- **State**: $0
- **Local**: $0

#### Project: Various Lawrence Bike/Sidewalk/ADA Ramps Projects
- **Fund Source**: CDBG
- **Phase**: CONST
- **Year**: 2021
- **Federal**: $300
- **State**: $0
- **Local**: $0

- **Fund Source**: Local
- **Phase**: CONST
- **Year**: 2021
- **Federal**: $0
- **State**: $0
- **Local**: $675

- **Fund Source**: Local
- **Phase**: CONST
- **Year**: 2021
- **Federal**: $0
- **State**: $0
- **Local**: $325

- **Fund Source**: CDBG
- **Phase**: CONST
- **Year**: 2022
- **Federal**: $300
- **State**: $0
- **Local**: $0

- **Fund Source**: Local
- **Phase**: CONST
- **Year**: 2022
- **Federal**: $0
- **State**: $0
- **Local**: $675

- **Fund Source**: Local
- **Phase**: CONST
- **Year**: 2022
- **Federal**: $0
- **State**: $0
- **Local**: $325

- **Fund Source**: CDBG
- **Phase**: CONST
- **Year**: 2023
- **Federal**: $300
- **State**: $0
- **Local**: $0

- **Fund Source**: Local
- **Phase**: CONST
- **Year**: 2023
- **Federal**: $0
- **State**: $0
- **Local**: $675

- **Fund Source**: Local
- **Phase**: CONST
- **Year**: 2023
- **Federal**: $0
- **State**: $0
- **Local**: $325

- **Fund Source**: CDBG
- **Phase**: CONST
- **Year**: 2024
- **Federal**: $300
- **State**: $0
- **Local**: $0

- **Fund Source**: Local
- **Phase**: CONST
- **Year**: 2024
- **Federal**: $0
- **State**: $0
- **Local**: $675

- **Fund Source**: Local
- **Phase**: CONST
- **Year**: 2024
- **Federal**: $0
- **State**: $0
- **Local**: $325

- **Fund Source**: Local
- **Phase**: CONST
- **Year**: 2024
- **Federal**: $0
- **State**: $0
- **Local**: $325

- **Fund Source**: Local
- **Phase**: CONST
- **Year**: 2024
- **Federal**: $0
- **State**: $0
- **Local**: $325

#### Summary

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<td>$0</td>
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<tr>
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<tr>
<td>2023</td>
<td>Local</td>
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<td>$0</td>
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<tr>
<td>2024</td>
<td>CDBG</td>
<td>CONST</td>
<td>$300</td>
<td>$0</td>
<td>$0</td>
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<td>2024</td>
<td>Local</td>
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<td>$0</td>
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**Federal Total**: $1,200  
**Non-Federal Total**: $4,000  
**Grand Total**: $5,200
### Lawrence-Douglas County MPO

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

(Includes the Program of Projects for the Lawrence Transit System)

<table>
<thead>
<tr>
<th>FFY</th>
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---

**Project** 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

**Work Type:** Capital, Pedestrian/Bicycle, Safety

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

**Revision History:**

**Comments:**

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

---

**Project** West Baldwin Pedestrian/Bike Connectivity

**Name:** Project

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

**Work Type:** Pedestrian & Bicycle Work

**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.

**Revision History:** FFY19 AR2, FFY21 A3

**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.)

---

**Federal Total:** $480

**Non-Federal Total:** $400

**Grand Total:** $880

---

**Federal Total:** $1,013

**Non-Federal Total:** $353

**Grand Total:** $1,366
### Bluejacket Trail: Phase II

**Project Sponsor:** Eudora  
**TIP #:** 510  
**KDOT #:** TE-0480-01  
**Length (mi):** 1.34

**Project Type:** Transportation Alternative  
**Date Added:** 4/2019  
**Last Revised:** 8/2019

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

**Work Type:** Pedestrian & Bicycle Work

**Revision History:**

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

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<th>Phase</th>
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<th>Local</th>
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<td>TA</td>
<td>CONST</td>
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</table>

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

---

### West Baldwin Pedestrian/Bike Connectivity Project

**Project Sponsor:** Baldwin City  
**TIP #:** 511  
**KDOT #:** TE-0472-02  
**Length (mi):** 0.28

**Project Type:** Transportation Alternative  
**Date Added:** 6/2020  
**Last Revised:** 10/2021

**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.

**Work Type:** Pedestrian & Bicycle Work

**Revision History:** FFY21 A4

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

<table>
<thead>
<tr>
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<th>Phase</th>
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<td>CONST</td>
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**Federal Total:** $1,013  
**Non-Federal Total:** $412  
**Grand Total:** $1,425
**Project Sponsor:** Lawrence  
**TIP #:** 512  
**KDOT #:** TE-0490-01  
**Length (mi):** 0.61

**Project Type:** Transportation Alternative

**Date Added:** 6/2020  
**Last Revised:** 10/2021

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

**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

**Work Type:** Pedestrian & Bicycle Work

**Revision History:** FFY21 A2, FFY21 A4

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

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**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 Type:** Transportation Alternative

**Date Added:** 6/2020  
**Last Revised:** 11/2021

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

**Project Name:** Lawrence Safe Routes to School Phase 2

**Location:** Various sidewalk along 6 streets & 1 crossing improvement

**Work Type:** Pedestrian & Bicycle Work, Safety

**Revision History:** FFY21 AR2

**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.

<table>
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**Federal Total:** $500  
**Non-Federal Total:** $175  
**Grand Total:** $675

---

*Lawrence-Douglas County MPO*  
*FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)*  
*(Includes the Program of Projects for the Lawrence Transit System)*
### Lawrence-Douglas County MPO
**FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)**

(Includes the Program of Projects for the Lawrence Transit System)

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<th>TIP #:</th>
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<td>0.50</td>
<td>Pedestrian/Bicycle</td>
<td>10/2020</td>
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<td>Construct sidewalk on east side of Naismith Dr. with focus on Transit connection and improvements.</td>
<td>Pedestrian &amp; Bicycle Work, Other</td>
<td></td>
<td>2020 Access, Innovation, and Collaboration Grant Award</td>
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### Project: Naismith Drive Mobility Enhancement

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

### Project: Lecompton Sidewalk Loop Project: Historic Connectivity

<table>
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</table>

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

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<th>TIP #:</th>
<th>KDOT #:</th>
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<th>Project Type:</th>
<th>Date Added:</th>
<th>Last Revised:</th>
<th>Description:</th>
<th>Work Type:</th>
<th>Revision History:</th>
<th>Comments:</th>
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<tbody>
<tr>
<td>Lecompton</td>
<td>515</td>
<td>TE-0500-01</td>
<td>1.75</td>
<td>Transportation Alternative</td>
<td>4/2021</td>
<td>8/2021</td>
<td>Construct 5’ wide concrete sidewalk and install sharrows.</td>
<td>Pedestrian &amp; Bicycle Work</td>
<td>FFY21 A3</td>
<td>KDOT TA Project; FY23; $727,200 (max)</td>
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</table>
### Lawrence-Douglas County MPO

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

(Includes the Program of Projects for the Lawrence Transit System)

<table>
<thead>
<tr>
<th>Project Sponsor</th>
<th>Lawrence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project</strong></td>
<td>Lawrence Loop Shared Use Path: Michigan St. to Sandra Shaw Park</td>
</tr>
<tr>
<td><strong>Location</strong></td>
<td>Begins at Michigan St., 1/2 mile north of W 2nd St., ends at Sandra Shaw Park</td>
</tr>
<tr>
<td><strong>Work Type</strong></td>
<td>Pedestrian &amp; Bicycle Work</td>
</tr>
<tr>
<td><strong>Date Added</strong></td>
<td>4/2021</td>
</tr>
<tr>
<td><strong>Last Revised</strong></td>
<td>8/2021</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>Design and construction of 10’ shared use path.</td>
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<tr>
<th>FFY</th>
<th>Fund Source</th>
<th>Phase</th>
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<th>Local</th>
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**Project Sponsor:** Baldwin City  
**TIP #:** 517  
**KDOT #:** TE-0496-01  
**Length (mi):** 1.10  
**Project Type:** Transportation Alternative  
**Work Type:** Pedestrian & Bicycle Work  
**Date Added:** 4/2021  
**Last Revised:** 8/2021  
**Description:** Construct 5’ wide sidewalks in four sidewalk segments to fill in missing sidewalk gaps identified on the Safe Routes to School network.

<table>
<thead>
<tr>
<th><strong>Project</strong></th>
<th>Baldwin City Sidewalk Gap Project</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location</strong></td>
<td>11th St., Hwy 56 to High St.; High St., 4th St. to 2nd St.; 2nd St., Hwy 56 to Fremont St.; &amp; Quayle St., Middle School to 6th St.</td>
</tr>
<tr>
<td><strong>Revision History</strong></td>
<td>FFY21 A3</td>
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<tr>
<td><strong>Comments</strong></td>
<td>KDOT TA Project; FY22; $620,000 (max)</td>
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<table>
<thead>
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<th>Federal</th>
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<th>Local</th>
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**Federal Total:** $564  
**Non-Federal Total:** $887  
**Grand Total:** $1,451

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**Federal Total:** $620  
**Non-Federal Total:** $261  
**Grand Total:** $881
Lawrence-Douglas County MPO
FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)
(Includes the Program of Projects for the Lawrence Transit System)

<table>
<thead>
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<th>Project Sponsor:</th>
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<td>TIP #:</td>
<td>518</td>
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<td>TE-0497-01</td>
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<td>Length (mi):</td>
<td>0.61</td>
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**Project Type:** Transportation Alternative

**Date Added:** 4/2021  
**Last Revised:** 8/2021

**Description:** Construct 6' wide sidewalks to replace existing deteriorated 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.

**Revision History:** FFY21 A3

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

### Federal

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**Federal Total:** $1,111

**Non-Federal Total:** $547

**Grand Total:** $1,658

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<td>KDOT #:</td>
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<tr>
<td>Length (mi):</td>
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**Project Type:** Safety

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

**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.

**Revision History:**

**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.

### Federal

<table>
<thead>
<tr>
<th>FFY</th>
<th>Fund Source</th>
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<tr>
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**Federal Total:** $2,000

**Non-Federal Total:** $0

**Grand Total:** $2,000
### Project 1: DGCO: High Friction Surface Treatment

- **Location:** Routes 442 and 1055
- **Description:** Apply high-friction surface treatment to Horizontal Curves on RS-212 and RS-210

<table>
<thead>
<tr>
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<th>Fund Source</th>
<th>Phase</th>
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<th>Local</th>
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### Project 2: Rte 1061 / Rte 460 Intersection Safety

- **Location:** E 2200 RD from N 700 RD 0.3 miles north
- **Description:** Improvements to improve sight distance at the intersection of two county routes.

<table>
<thead>
<tr>
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<th>Fund Source</th>
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<th>Local</th>
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Lawrence-Douglas County MPO
FFY 2021 - 2024 Transportation Improvement Program Projects (Costs in 1,000s)
(Includes the Program of Projects for the Lawrence Transit System)

<table>
<thead>
<tr>
<th>Project Sponsor:</th>
<th>Lawrence</th>
<th>Project</th>
<th>Massachusetts Street - 14th to 23rd Street</th>
<th>Name:</th>
<th>Multi-Modal Improvements</th>
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<tr>
<td>TIP #:</td>
<td>607</td>
<td>Location:</td>
<td>Massachusetts St. - 14th St. to 23rd St.</td>
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<tr>
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<td>Work Type:</td>
<td>Pedestrian &amp; Bicycle Work, Mill/Overlay, Safety</td>
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<tr>
<td>Length (mi):</td>
<td>1.10</td>
<td>Revision History:</td>
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</tbody>
</table>

**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).

<table>
<thead>
<tr>
<th>FFY</th>
<th>Fund Source</th>
<th>Phase</th>
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<th>State</th>
<th>Local</th>
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<tbody>
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<table>
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<tr>
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<th>South Lawrence Trafficway Widening Study</th>
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<tr>
<td>TIP #:</td>
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<td>Location:</td>
<td>K-10 West Leg in Douglas County US 59/K10/Iowa to I70/KTA/K10 Junction</td>
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**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.

<table>
<thead>
<tr>
<th>FFY</th>
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<th>Phase</th>
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Lawrence-Douglas County MPO

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

(Includes the Program of Projects for the Lawrence Transit System)

**Project Sponsor:** Lawrence

**TIP #:** 706  **KDOT #:**

**Length (mi):** 0.00

**Project Type:** Intersection

**Date Added:** 8/2019  **Last Revised:** 10/2021

**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.

**Project Name:** Traffic Signal Coordination Study

**Location:** Arterial streets

**Work Type:** Operating, Planning, Signal

**Revision History:** FFY21 A4

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

<table>
<thead>
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<th>FFY</th>
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**Federal Total:** $0  **Non-Federal Total:** $470  **Grand Total:** $470