Active Transportation Planning Toolkit for Small- and Mid-Sized Communities

March 2022

Photo: LiveWell Douglas County

Kansas Active Transportation

Kansas Department of Transportation

"Active transportation" is an umbrella term for human-powered modes of transportation such as walking and cycling as opposed to the use of personal motorized vehicles such as cars, trucks and SUVs. Recently, this term has also been used to include electric-assist bicycles, scooters, and wheelchairs. The focus of this document is on how Kansas communities can better accommodate and improve safety for these smaller, slower, and more vulnerable modes as accepted and welcome parts of the overall transportation system. The term "active transportation" reinforces that these modes are valid forms of transportation, not just forms of recreation.

Active Transportation Modes

Walking and biking are often considered recreational, but for many people these modes are an important way to travel to essential destinations like work, school, grocery stores, and medical services. In addition, "active transportation" covers active modes beyond just walking and biking, including skating, scooting, or using mobility assistance devices. Improving active transportation facilities makes it easier and more convenient for everyone to use these active modes, whether they're getting from Point A to Point B or exercising recreationally.

Tomahawk Trail, Leawood, Kansas. Photo: Toole Design

Introduction

Congratulations! By using this toolkit, you're taking an important first step in making it easier, safer, and more attractive to get around your community by walking, biking, wheeling, scootering, and other active modes. This toolkit was developed as part of the Kansas Active Transportation Plan to help small and mid-sized communities (communities with populations up to 20,000) like yours develop their own active transportation plans (ATPs.)

Why develop an active transportation plan?

These plans will help create safe, connected active transportation networks that serve residents and visitors of all ages, abilities, and backgrounds. While the target audience for this toolkit is the city staff of small to mid-size local jurisdictions, much of the process and many of the tools may also be useful to citizens, consultants, and communities of larger sizes.

Your community's plan will create a vision for active transportation over the next decade, and will help guide investment decisions that are supported by community members and reflect local needs and priorities. Having a plan in place is a great way to help secure future funding from various sources. It's also an important way to make sure the county, community groups, decision makers, neighboring communities, and KDOT know your plans.

In this toolkit, we've put together a simplified planning process for you to follow while developing your own active transportation plan. It includes worksheets, templates, visual aids, and other tools to help you along the way. We've even included an easy-to-use document template for you to record your vision and goals, recommendations, maps, and more, so you can easily share them with your community. All the Planning Toolkit resources can be found on **KDOT's Active Transportation Planning Toolkit** website.

Ready to get started? In this guide, you'll follow these steps to create your plan:

1. Assemble a team and identify roles and responsibilities
2. Identify your vision and goals
3. Document current active transportation conditions
4. Engage community members and stakeholders
5. Identify and map active transportation networks
6. Develop and prioritize recommendations
7. Find funding for your projects
8. Plan for maintenance and conduct ongoing evaluation
9. Share your plan

More at KDOT Active Transportation Planning Toolkit website

Step 1: Assemble a Planning Team

Your first step in developing an Active Transportation Plan (ATP) for your community will be to determine who will take the lead in the planning process. Most likely, you'll utilize city staff for this effort, but you'll also want to identify those who might help you gather data and draft the plan. You'll also need to identify key stakeholders to engage in the process, see more on that in **Section 4.** Depending on the size of your community and city staff, there may be some tasks that will require more time or skill that might be a good fit for technical assistance. See below for more on when to get technical assistance.

When to Get Technical Assistance

This toolkit provides guidance for the high-level elements of active transportation planning, but many municipalities may need additional resources to complete an ATP. Working with County, state, or consultant resources for technical assistance can provide cost-efficient support for certain aspects of active transportation planning if existing internal staff and resources are not available to you. Consider seeking technical assistance for the following tasks:

High-level mapping analysis: This toolkit provides guidance for creating basic maps using Powerpoint, but some projects require more advanced mapping that involves spatial analyses or complex graphics.

Engineering drawings: While concept and illustrative design can help secure grant funding and community support, technical engineering drawings are required to advance projects to implementation. In addition, for projects that involve intersections of major roadways, highways, and bridges, you'll want to get engineering support early in the project to think through realistic concept ideas.

Cost estimates: Cost estimates are critical to establish the basis for project decisions and to create metrics to measure project success. Technical support for cost estimates should include contingencies for environmental review, construction management, traffic control, and other needs, and should be based on current municipality bid items.

Benefits of Active Transportation

Planning for active transportation in your community has many potential benefits including accommodating transportation demand with an affordable way of getting around as well as promoting a safer, healthier, connected, and more sustainable quality of life for Kansans.

Better safety: Research shows that speed is the primary factor determining the severity of traffic collisions, including those involving people walking and biking. Reducing speeds in areas where land uses attract active transportation users (like neighborhoods and commercial districts) is crucial to supporting, encouraging, and improving safety for these modes in Kansas.

Improved health and lower healthcare costs: Active lifestyles can make significant positive impacts on physical and mental health and reduce the overall costs of providing healthcare in Kansas. Seven of the top 10 leading causes of death in Kansas are due to chronic diseases.

Reduced pollution: Increasing active transportation in Kansas can help make the air cleaner today, as well as help reduce the impacts of human-caused climate change. Biking and walking are zero-emission transportation modes - when people use active transportation instead of driving, motor vehicle-related air pollution emissions go down.

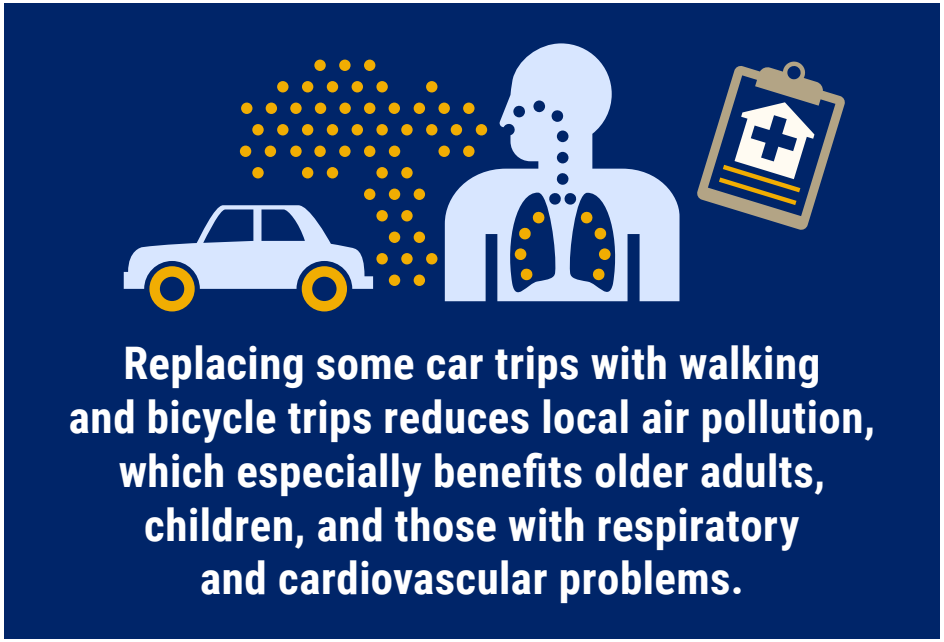
Increased economic vitality and quality of life: Active transportation helps make communities more livable. Nationally, people who agree they have places to walk to nearby also report that they are more satisfied with their quality of life. In addition, communities that invest in mobility alternatives like walking and cycling often generate higher property values and tax revenues after making such investments.

For more benefits, see the **Kansas Active Transportation Plan**.

Step 2: Identify Your Vision and Goals

Just like with any other type of plan, it's important to know where you're headed before you try to get there. Your community might have already developed a vision and goals for active transportation as part of a master transportation plan, comprehensive plan, or another community-driven process. If not, you'll need to do so as part of the active transportation planning process. If you already have an active transportation vision and goals, it will be important to work with the community to reconfirm these and make any adjustments needed. **Section 4** of this guide walks you through a community engagement process to help you do that. You'll also want to document your community's vision and goals so you can connect the plan recommendations back to them and set performance measures to check your progress.

Not sure where to start? As part of the Kansas ATP, KDOT worked extensively with the public to identify a statewide vision for active transportation and specific goals to support that vision. These are a great jumping off point for creating a tailored vision and goals that are right for the needs of your community. You may also choose to adopt the following as is.



Kansas Active Transportation Plan Vision

Kansas will be a place where people of all ages, abilities, and backgrounds have safe and convenient options to walk, bike, roll and use other active modes for transportation and recreation.

Goals

Safety: Reduce the frequency and severity of crashes involving pedestrians, bicyclists, and other active transportation users.

Equity: Invest in underserved communities and prioritize the needs of populations that rely on active transportation and transit to reach jobs and essential services.

Mobility: Increase the regular use of walking, cycling, wheeling, and other active transportation modes.

Community Health and Vibrancy: Promote active transportation activity and infrastructure to improve people's health, positively impact the environment, improve quality of life, and spur economic development.

Culture Shift and Education: Normalize active transportation as a vital part of the overall transportation system.

System Longevity: Maintain and preserve active transportation system investments and funding sources.

Step 3: Document Current Active Transportation Conditions

Before you can determine a list of projects for your community, you'll want to understand and document the active transportation conditions and infrastructure that exist today. This can then be supplemented with community and stakeholder input on active transportation needs.

Documenting Current Infrastructure

Start with a snapshot of the existing physical conditions in your community. Document the locations and lengths of sidewalks, trails, and on-street bike routes, and map those routes so that it is easy to understand the connections they make and the existing gaps in the active transportation network. Include the results of this assessment in the **Active Transportation Plan Template**. More mapping guidance is provided in **Section 5** and in the **Guide to Creating Active Transportation Maps** on the **KDOT Active Transportation Planning Toolkit** website.

In addition to mapping existing conditions, you will want to provide a brief, written description of the current active transportation infrastructure in your community in your ATP. You can keep this assessment simple using the following questions as your guide. Pay special attention to accessibility for persons with mobility issues:

- Is there a continuous sidewalk network? Are there any major gaps in sidewalks?
- Are there marked crosswalks at major intersections or at midblock crossings near important destinations?
- Are there curb ramps at most crossing locations (e.g. where sidewalks and trails cross roadways)? Are they ADA accessible?
- Are there any bike lanes or trails? Where do they lead? Do they connect major or critical destinations?
- Are there major destinations that can't be currently reached by walking, cycling, using a wheelchair, etc. (schools, parks/trails, main street, major commercial or business areas)?
- Is there additional infrastructure such as bike racks, bikeshare, fix-it stations, etc. that makes it easier to walk and bike?

Additional Questions for a More Comprehensive Assessment

If your community has additional resources and volunteers, you can take the existing conditions analysis a step further and conduct a more comprehensive assessment of current active transportation infrastructure than described to the left. You many want to zero in on a few key areas of activity in your community like the Main Street corridor or around schools. Below are some additional considerations that can be documented in a more detailed assessment:

- Are sidewalks in good conditions (no major cracks or upheavals) and wide enough for a stroller or wheelchair or two people to walk side by side?
- Are there pedestrian push buttons at signals?
- Are there locations where crashes or near misses involving pedestrians or bicyclists have occurred? Check with police to see if you can obtain crash data.
- Are there areas perceived as dangerous for active transportation?
- Are there areas that have been historically underserved?

Walking and biking audits can be a great way to document some of the conditions listed above. The **KDOT Active Transportation Resource website** provides several great resources on active transportation audits that will help get you started. Also, check out the Minnesota Department of Health's **Inclusive Walk Audit Facilitator's Guide** to help plan walk audits with people with mental or physical disabilities.

Note that in larger communities, you may need to enlist the help of volunteers or a consultant time to help with this assessment. Additional resources for volunteer walk audits and bicycling conditions assessments can be found in the Resources section of this Guide. If there are transit services in your community, it may also be appropriate to describe who provides those services, the type of services offered (e.g. fixed route buses, van pool, dial-a-ride, paratransit), and the routes if applicable. For transit riders, an accessible, connected route to transit stops is essential.

If your community maintains a GIS database of the existing sidewalks, trails, and on-street bike routes you can simply review and update the data that you have prior to creating a map. However, many small communities do not maintain GIS data for sidewalks, trails, and bikeways, so this information will need to be mapped as part of the planning process. The **KDOT Active Transportation Planning Toolkit website** provides a user-friendly mapping template and a step-by-step process of how to use it to create maps of existing conditions and your planned active transportation network. More information on mapping can be found in **Section 5**.

Making the Case for Active Transportation

It's important to show the need and potential for greater active transportation in your community. Part of your background research should include developing an understanding of who the key active transportation user groups in your community are. Some questions to think about: What are the basic demographics of your community? How many people currently walk, bike and use other active modes? Who has access to a car and who doesn't? What about people of different ages, abilities, and backgrounds? Do you have an Ages 8-80 network in mind for your community? If so, what does that look like?

Basic demographic information can be found at **https://data.census.gov/cedsci/**. A brief overview of the benefits of active transportation is provided in Introduction **Section 1** of this toolkit and in the **KDOT Active Transportation Resource website**.

Hearing from Diverse Voices

Communities should strive to engage with a diverse group of community members in the ATP planning process, including people with cognitive, auditory, vision, and mobility disabilities, people of color, youth, and older adults. These community members can speak from their own experiences on how to make active transportation networks and designs more accessible which can lead to better results for people of all abilities and ages.

Conducting walk audits with a diverse mix of community members is one strategy that can be effective in gathering input from a variety of stakeholders. See the call-out box on the previous page and check the **KDOT Active Transportation Resource website** for tips on ensuring you're being inclusive in assessing existing needs.

Step 4: Engage Community Members and Stakeholders

Community engagement is essential to the successful development and implementation of all planning documents. This section of the toolkit provides guidance for developing an engagement and communication approach that 1) complements your overall active transportation planning process; 2) touches as many stakeholders as possible; and 3) proactively gathers meaningful feedback. We've provided a brief overview of the following community engagement topics:

- Establishing engagement goals
- Identifying stakeholders
- Utilizing engagement strategies and tools
- Evaluating ongoing engagement
- Integrating meeting agendas and other tools

Engagement Goals

Develop community engagement goals at the beginning of your planning process to inform the overall approach to engagement and communication. Each goal should correspond with the various phases of the overall active transportation planning effort. You should tailor these goals to the needs of your community and staff or volunteer time available to implement various activities. Example engagement goals might address:

- Building awareness of the planning process and active transportation
- Gathering community input on issues, opportunities, recommendations, priorities
- Targeting stakeholder groups
- Managing expectations
- Providing educational materials regarding key issues
- Other

Working with Stakeholders

Stakeholders include various individuals and groups who are affected by or have an interest in active transportation. You'll need to plan opportunities for stakeholders to share their vision for the future with city staff and one another. In addition, you should try to 1) reach as many stakeholders as possible and 2) increase opportunities to gather meaningful input from them. This will involve the following key steps:

- **Compiling a comprehensive list of stakeholders that is representative of the community and some high-level understanding of the following:**
  - Who is a decision-maker, supporter, someone in opposition, and/or those who have a general interest
  - Stakeholders' key issues and preferences
  - Best ways to reach stakeholders
  - What stakeholders can do (amount of decision-making power available to them)
  - How they can help advance the planning effort
- **Building awareness of and gathering feedback related to:**
  - The overall project
  - "Big ideas" for active transportation
  - Issues, opportunities, gaps, and barriers
  - Improvement ideas
  - Recommendations
  - City processes and priorities, e.g. for plan adoption and capital improvements
  - Implementation

Examples of stakeholders you'll want to engage:

- Residents
- Property owners
- Elected and/or appointed officials
- Limited English Proficiency (LEP) speakers
- Businesses
- Schools
- Large employers
- Economic development organizations
- Transportation businesses and agencies
- Faith-based institutions
- Non-profit organizations
- Advocacy groups
- County government
- KDOT
- Metropolitan Planning Organizations if applicable
- Others

Strategies & Tools

Once you have identified your engagement goals and have a list of key stakeholders, you can leverage a variety of strategies and tools to connect with them such as:

- Developing a central message and customize it as needed to address specific stakeholder groups
- Utilizing a short, catchy "hook" or brand and incorporate it into the central message
- Crafting strategies for building awareness and communicating the message. Examples include:
  - » Be proactive and inclusive
  - » Avoid technical or "planner" jargon. Instead use a common vernacular expressed in English (and other languages as appropriate)
  - » Keep messages upbeat and inspiring
  - » Be "sharable" for social media
  - » Mark project milestones

You know your community best. Use engagement and communications tools that have been successful in your community. The table to the right shows examples of tools that have been effective in Kansas communities.

Example Engagement and Communication Tools

PRINT	IN-PERSON	TELEPHONE / DIGITAL	NEWS MEDIA
• Fliers • Posters • Mailers • Handouts • Comment forms / Opinion surveys • Dot activities • Visual preference exercises	• Stakeholder interviews • Focus group discussions • Advisory Group or Steering Committee Meetings • Workshops • Open Houses • Town Hall Meetings • "Pop-ups" at special events or popular gathering spaces • Neighborhood meetings • Public official briefings • Canvassing • Storytelling • Gamification	• Phone calls • Website or web page • Social media • E-mail • Online meetings • Online neighborhood groups (NEXTDOOR) • Slideshows • Opinion surveys • Real-time polling • Visual preference surveys • Storytelling • Video • QR Codes • Gamification	• Press releases and conferences • Interviews • Storytelling • Television and radio programming • Newspaper stories and ads

Example fliers, surveys, press release, and social media posts are available at **KDOT's Active Transportation Planning Toolkit website.**

Evaluation of Outreach

As time and resources allow, conduct ongoing evaluation of your engagement and communication efforts to determine if the strategies and tools are reaching the target audiences and achieving your desired engagement goals.
Example metrics may include:

- Number of meetings held
- Number of meeting participants
- Number and type of comments received
- Analytics for websites, videos, social media, and e-mail marketing
- Media coordination efforts and corresponding results

Sample Meeting Agendas

For a small- or mid-size community active transportation plan, you should plan to hold at least two engagement opportunities during the planning process. Typically, this should include one meeting at the beginning of the process to talk about vision, goals, issues, opportunities, gaps and barriers, and a second meeting to discuss draft recommendations. Sample agendas for a planning process involving two public meetings are below.

Public Meeting No. 1

- Welcome
- Project overview, process, and schedule
- Discussion Questions / Comment Forms / Map Exercise
  (To create a base map, see **Guide to Creating Active Transportation Maps on KDOT's Active Transportation Planning Toolkit website**)
  - » How would you describe transportation options in our community today?
  - » What would you like transportation options to look like in the future?
  - » What's the most important thing you'd like the community's active transportation plan to do?
  - » Maps-Where would you like to be able to walk and bike? What are the key gaps and barriers?
- Next Steps

Public Meeting No. 2

- Welcome
- Draft vision, goals, and recommendations based on Meeting 1 input
- Discussion Questions / Comment Forms
  - » Which goals and recommendations are most important?
  - » What's missing?
  - » What other comments do you have?
- Next Steps

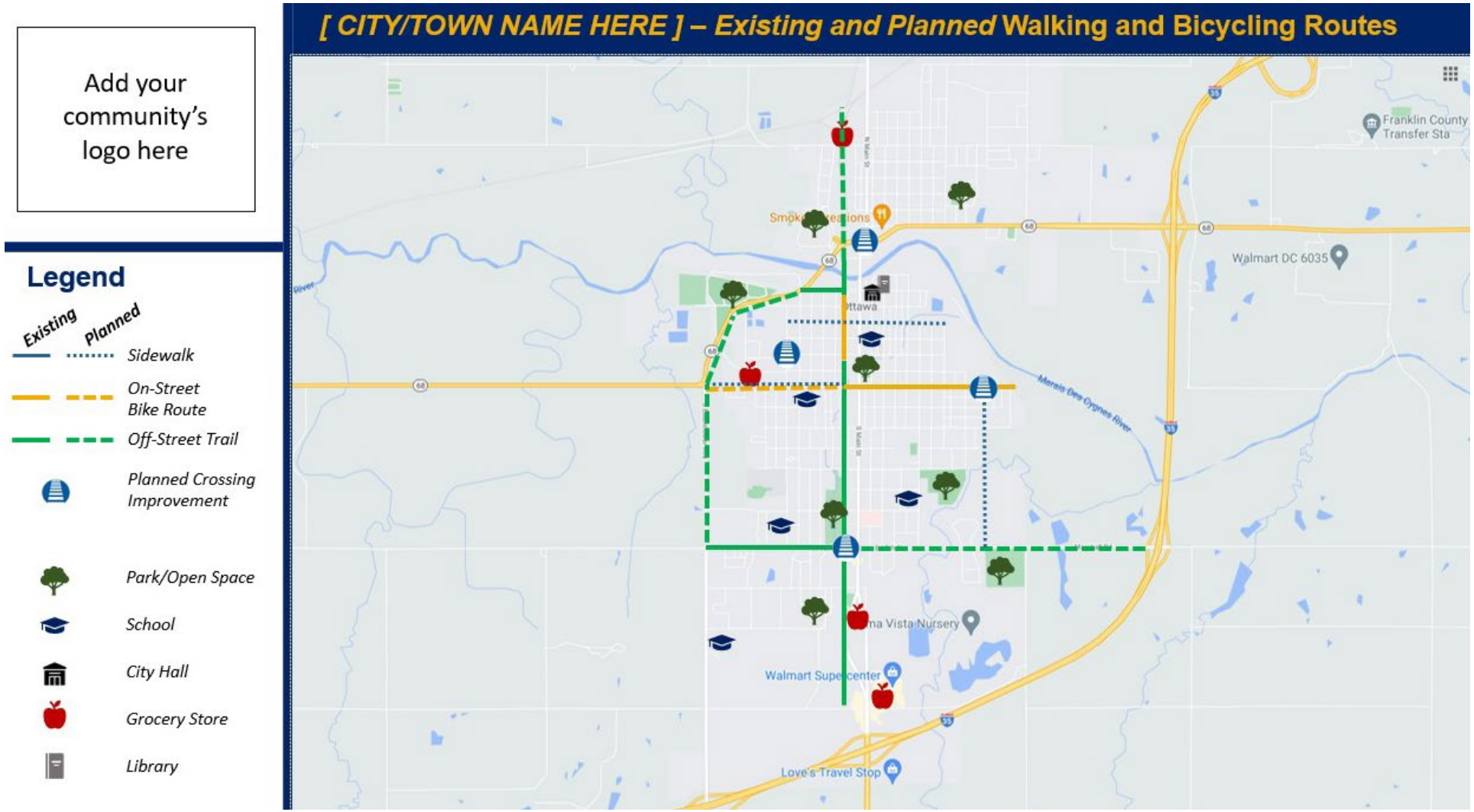
Step 5: Identify and Map Active Transportation Networks

Maps are one of the most valuable components of an Active Transportation Plan. As you assess existing conditions and gather input from stakeholders and community members, you will likely want to create maps to summarize your findings. Maps can be used to:

- Provide a snapshot of the existing conditions of pedestrian and bicycle infrastructure (See **Section 3**).
- Identify barriers to active transportation, such as bridges, highways, railroad tracks, or rivers
- Show planned active transportation infrastructure. See more on how to plan networks in **Section 6**.
- Identify popular destinations, such as parks, trails, schools, and commercial areas
- Gather public input on active transportation needs
- Portray recommendations for future infrastructure

The Guide to Creating Active Transportation Maps that accompanies this toolkit was developed for small communities in Kansas that are interested in developing maps, but don't have previous map making experience or access to sophisticated map making tools. It provides step-by-step instructions for how to develop maps using Microsoft PowerPoint. The guide explains how to copy a base map from Google Maps or Bing Maps into a PowerPoint map template and provides step-by-step directions on how to add icons and routes. You can follow the five simple steps outlined in the mapping guide and easily create a customized map for your community's Active Transportation Plan for the purposes described above. If you have staff with GIS skills, you may also find the **KDOT ArcGIS tool** helpful for highlighting areas of interest and potentially for creating base maps.

A sample map for Ottawa, Kansas made with the Guide to Creating Active Transportation Maps



Step 6: Develop and Prioritize Recommendations

Once you've developed your vision and goals, summarized current active transportation infrastructure, gathered public input, and identified gaps, barriers, and network needs, you'll begin to develop draft recommendations. One easy way to categorize recommendations is using the "6 Es".

The "6 Es" of Active Transportation

Not all the recommendations in your plan will be for new infrastructure. A successful plan contains a range of recommendation types including infrastructure projects, policies, and programs. Active transportation planning and design can be broken down into 5 "Es": Education, Encouragement, Enforcement, Evaluation, and Engineering. A sixth "E", Equity, should also be prioritized throughout the process of developing recommendations.

- **Equity** programs help improve access to safe active transportation opportunities for underserved communities. Equity initiatives must make an intentional effort to include voices and perspectives that are often excluded from the planning conversation and prioritize low-income and communities of color when planning infrastructure
- **Engineering** is the design and construction of improvements to the built environment.
- **Education** is the array of programs that teach people of all ages how to walk and bike safely and communicate to motorists how to safely share the road.
- **Encouragement** programs get people excited about active transportation, either by providing incentives for developing active transportation habits or by creating the venue for active transportation.
- **Enforcement** programs help deter unsafe behaviors by users of all travel modes. Enforcement is most successful as a safety strategy when law enforcement is well-trained and efforts are made to ensure no specific community or user group is targeted.
- **Evaluation** programs include performance measures that help communities track and celebrate progress around active transportation. Evaluation outcomes inform future plan revisions and updates, which may be made every 5 to 10 years.

This section of the toolkit begins with ways to identify key projects that will build the active transportation network in your community and follows with descriptions of example recommendations for programs, policies, and amenities to further support and promote active transportation in your community.

Project, Policy, and Program Identification

Active transportation plans use a combination of infrastructure (projects) and non-infrastructure (supportive policies and programs) recommendations that encourage active transportation. While the right approach for your community depends on your level of resources, time, and technical expertise, developing active transportation recommendations generally includes the following actions:

Develop a planned network

During this step you will develop a rough framework for your planned network of active transportation infrastructure based on findings from your existing conditions analyses and input from the public. Refer back to those analyses to understand where there are gaps in the existing network, barriers to active transportation, important destinations to be reached, and the greatest needs within your community. The network will identify routes and specific point locations where new or improved infrastructure can create a safer and more comfortable experience for people to be able to travel by active transportation modes.

Think about the best and most appropriate type of active transportation infrastructure for your selected routes. Refer to the **Active Transportation Infrastructure Visual Glossary** for more information on the infrastructure options and when they are most appropriately used. The most appropriate treatments may vary depending on whether you are working in an urban, suburban, or rural community. Create maps of the planned network using the **The Guide to Creating Active Transportation Maps on the KDOT Active Transportation Planning Toolkit website**.

Follow these guiding principles below as you develop your network:

Safety

The frequency and severity of crashes are minimized and conflicts with motor vehicles are limited.

Comfort

Conditions do not deter using active transportation due to stress, anxiety, exposure, or concerns over safety.

Connectivity

All destinations can be accessed using the active transportation network and there are no major gaps or missing links.

Accessibility

People of all ages and abilities have access to the active transportation network.

Directness

Trip distances and times are minimized by the presence of direct routing and frequent and safe crossing opportunities.

Cohesion

Distances between parallel and intersecting routes are minimized, and block lengths are minimized.

Attractiveness

Routes direct pedestrians and bicyclists through lively areas and personal safety is prioritized.

Unbroken Flow

Stops, such as long waits at traffic lights and crossings, are limited. Street lighting is consistent and pedestrian-scaled.

Bikeway Examples

An overview of typical bikeways is provided below with descriptions modified from the FHWA Bikeway Selection Guide, February 2019. An assessment of roadway context, speeds, and traffic volumes are all essential to determining the most appropriate bikeway. For greater details on how to select the best bikeway for your community, refer to the full **Bikeway Selection Guide**.

Shoulders

- A paved section of roadway outside of the travel lane with no less than 5ft wide riding space to accommodate bicycles.
- Often used in rural contexts; shoulder widths should be based on traffic volumes and posted speeds. For rural roads over 45 mph and/or 3,000-6,000 vehicles per day, shared use paths may be desirable.
- Shoulders can be differentiated with contrasting pavement materials and/or surface coloring, wide solid white edge line markings, buffered white edge lines, and/or rumble strips. Attention should be paid to rumble strip design and shoulder maintenance to ensure a usable safe facility.

Bike Boulevards

- Low-stress bikeways primarily located on low-volume, low-speed local streets.
- Treatments such as shared lane markings, wayfinding signs, and traffic calming features are implemented to prioritize bicycle travel, including at crossings with higher volume arterials.
- A key aspect design is to ensure comfortable and safe crossings of intersecting arterials so that travel along the bicycle boulevard can be maintained.
- At approaches to higher speed and volume streets, many bicycle boulevards transition to bike lanes, separated bike lanes, or shared use paths.

Conventional Bike Lanes

- Exclusive space for bicyclists to operate one-way on the roadway through the use of pavement markings and signs.
- Width determined by context, speed and traffic volumes, minimum 5 feet.
- Research shows improvements to bicyclist safety; however, many studies do not account for factors such as exposure, maintenance, or differences in implementation.
- Intersections can be enhanced with bicycle lane extensions through the intersections, green colored pavement, and regulatory signs.
- Conventional lanes may also transition to shared lanes or one-way separated bike lanes.

Buffered Bike Lanes

- Similar to conventional bike lanes, but provides additional horizontal separation between cyclists and motorized travel lanes with street painting only.
- Typically used on streets with moderate traffic volumes (1,500 to 6,000 vehicles per day) and low speeds (20 to 30 mph typical speeds).
- Often implemented on streets with excess width but without high enough vehicle speeds or volumes to warrant physical separation.
- Painted buffer increases lateral separation between bicyclists and hazards such as passing motor vehicles and car doors.

Separated Bike Lanes

- A bike lane physically separated from motor vehicle traffic by parking, landscaping, curb, flexpost, or other vertical element.
- Can provide a low-stress bicycling environment along busier corridors (greater than 6,000 vehicles per day or speeds above 30 mph).
- May be at sidewalk level, street level, or intermediate height.
- May be one-way or two-way configuration.
- Separate sidewalk is provided for pedestrians.
- Requires clear bike lane markings or protective treatments at intersections.

Shared Use Paths / Trails

- Fully separated from traffic and intended for shared use by a variety of users, including pedestrians, bicyclists, and joggers.
- Can provide a low-stress bicycling environment along busier roadway corridors (greater than 6,000 vehicles per day or speeds above 30 mph) or outside of a roadway environment in parks, along streambeds or railway corridors, etc.
- Minimum width of 10', typically range from 10' to 14' depending on frequency and the variety of users.
- Major road crossings may have signals, crossing beacons, refuge islands, or bridges and underpasses.
- Can provide connections along non-roadway corridors (e.g. rivers and railways).
- Can have separate pedestrian space or jogging surface.

Enhanced Crossing Treatment Examples

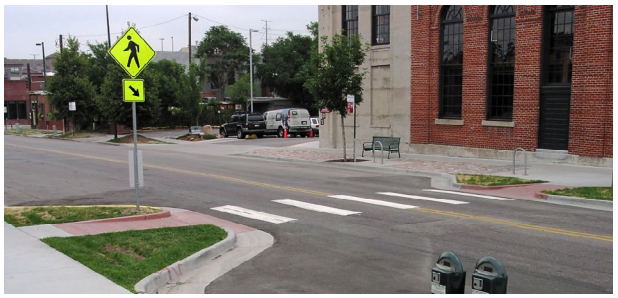
Marked Crosswalk

- Indicates to pedestrians the recommended location to cross the roadway and alerts approaching motorists as to where pedestrians may be crossing the street.
- When combined with other treatments such as curb extensions or a Rectangular Rapid Flashing Beacon,marked crosswalks improve safety.
- Crosswalks should directly connect the approaching sidewalks and should be located to maximize the visibility of pedestrians.
- Marked crosswalks should be at least 8 feet wide or the width of the approaching sidewalk, whichever is greater.

Medians and Crossing Island

- Also known as refuge islands or center islands.
- Raised areas that are constructed in the center portion of a roadway, serving as a place of refuge for people who cross the road mid-block or at an intersection.
- Allows pedestrians and bicyclists to concentrate their attention on one direction of traffic at a time while crossing the roadway.
- Refuges can drastically reduce pedestrian delay and vehicle conflicts by increasing the number of safe gaps that are available.
- A width of 8’ or greater is preferred to allow storage space for a bicycle and to allow space for a level landing and truncated domes.

Curb Extension



- Extends the sidewalk into the roadway to reduce the crossing distance of the roadway for pedestrians and pedestrian exposure to vehicular traffic.
- Provides visual cues to drivers that encourage them to reduce speeds and be aware of pedestrians and bicyclists.
- Improves intersection sight distance for vehicles and pedestrians since they restrict parking near the intersection.
- Provides additional space to construct ADA-compliant curb ramps.
- Can be used at intersections and mid-block crosswalks.
- Most appropriate in urban or town settings.

Raised Crosswalk

- Combines a marked crosswalk with a speed table that extends the full width of the crossing.
- A speed table is a traffic calming device that raises the entire wheelbase of a motor vehicle. This type of vertical deflection can have a positive effect for bicyclists and pedestrians, as it reduces motor vehicle speeds.
- Typically used at midblock locations with marked crosswalks.
- Also good for locations with high bicycle and pedestrian activity, roundabout crossings, and locations where shared use paths cross commercial driveways or ramps.

Pedestrian Hybrid Beacon (PHB)

- Formerly known as a High-intensity Activated crosswalk (HAWK), a PHB is a beacon installed at unsignalized locations to assist pedestrians in crossing a street at a marked crosswalk.
- Warns and controls traffic with the use of two side-by-side red lenses and a single yellow below the red.
- Most effective at locations where signs and markings do not provide adequate safety measures and/or where installation of a conventional traffic signal is unwarranted and/or cost prohibitive.

Rectangular Rapid Flashing Beacon (RRFB)

- A crossing enhancement at uncontrolled intersections that can be activated manually by a pedestrian pushbutton or by a pedestrian detection system.
- Typically includes one RRFB device on each end of a crosswalk with two rapidly and alternatively flashing rectangular yellow indications attached to a pole supplementing the pedestrian warning sign or school crossing sign at a crosswalk.
- Most effective on roadways with volumes less than 12,000 vehicles per day and with speeds less than 40 mph.
- Can reduce vehicle-pedestrian crashes by 47%

For additional treatment resources, visit the **KDOT Active Transportation Resources website.**

The most successful plans include, not only infrastructure projects, but a variety of programs, policies, and amenities or support infrastructure that improve conditions by establishing a culture of active transportation and creating a friendly policy and political environment for it. Without programs and policies in place to support active transportation, infrastructure projects can only go so far.

Programs

You should work to select the programs that are right for your community based on the needs identified in your assessment of existing conditions and through public input. The **Kansas Active Transportation website** and the **Pedestrian and Bicycle Information Center** have a wealth of information including many examples of active transportation programs.

Policies

Policies are formal statements that institutionalize your community's intentions and processes around active transportation. Policies should proactively address how to create a better active transportation culture, while also reacting to current active transportation challenges. This approach requires political support, coordinated transportation and land use planning, supportive programs, adequate funding, and implementation champions.

Some examples of possible active transportation policy recommendations include:

- Roadway design standards and guidelines
- Complete streets policies
- Vision Zero policies and action plans
- Maintenance policies related to bikeways, trails, sidewalks, and roadways
- Zoning and subdivision regulations that promote walkable and bikeable development
- Parking requirements (bicycle, parking minimums, back-in, etc.)
- Residential speed limits

Amenities and Support Infrastructure

Amenities and support infrastructure refer to the physical, non-network aspects of the built environment that make it easier to walk and bike. This may include items such as:

- Bikeshare and scooter share systems
- Wayfinding signage
- Bicycle parking, lockers, and showers
- Street furniture
- Lighting
- Water fountains
- Bicycle fix-it stations
- Etc.

A variety of program examples are provided in the tables at the end of this section and are organized by the 6 "Es". These are also provided as worksheets in the Active Transportation Plan Template to help you select the programs, policies, and supportive infrastructure that you would like to include in your plan.

Photo: Jared Tremblay

Identify programs, policies, and supportive infrastructure

Determine which programs, policies and support infrastructure will be most effective to encourage more people to choose active transportation and to shape future development to support active transportation. Select and design programs to promote equity and reach people of all ages, abilities, and backgrounds, especially the most vulnerable. You can use the worksheets in the document template to select your programs and identify who will be in charge of leading them. You should work with a variety of partners to implement these projects, which may include groups such as:

- Public health departments
- Schools
- Community organizations
- Park districts
- Bike clubs
- Community centers
- Retirement communities
- Children's organizations
- Libraries
- Volunteer groups

Continue to engage community members

As you develop a planned network and begin to identify programs, polices, and supportive infrastructure, be sure to vet them with key stakeholders and community members. Sharing your preliminary recommendations with a variety of communities and listening to their feedback with genuine interest and curiosity will help you develop equitable projects that serve those with the greatest need. Refer back to **Section 4**-Community Engagement for ideas on how to effectively engage with the public during this step of the planning process. Be sure to communicate with the public to let them know how their feedback has helped you develop your draft recommendations.

Explain your rationale and finalize projects

Incorporate community feedback in order to finalize your list of infrastructure and non-infrastructure recommendations. Your plan should include a narrative that explains the reasoning behind routes chosen, infrastructure selected, recommended programs and policies, and other aspects of the final plan. The rationale should incorporate both technical and equity considerations and resonate with your community's unique local context and stated **vision and goals**. There are tables provided in the **ATP Document Template** to help you organize this information.

Prioritize Planned Infrastructure Projects

After developing a network of active transportation infrastructure, you'll want to prioritize which projects should be funded and implemented in the short-, mid- and long-term time frames. Agencies and communities have limited funding and resources, so this step is critical to successful implementation. It will help your community determine how much funding needs to be allocated into their capital improvement programs for active transportation projects, since most 'high priority' or 'short term' projects are planned within a five year time frame.

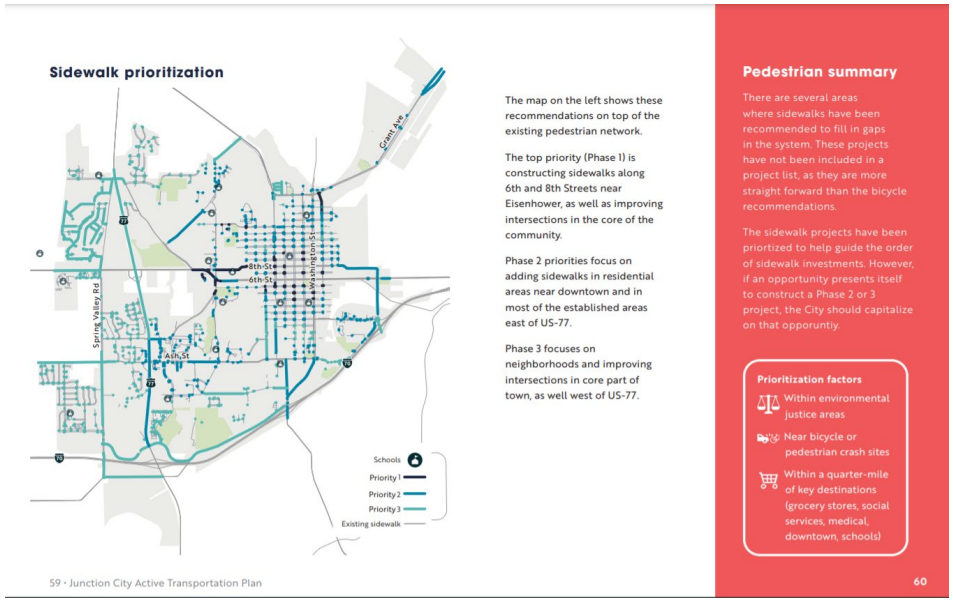
There are different approaches to prioritizing projects, and most communities either use a quantitative or a qualitative approach. Quantitative project prioritization approaches are more complex and use measurable data to determine which projects are both feasible, given real-world constraints, and align with stakeholders' priorities. A qualitative approach is simpler and typically involves ranking projects through a stakeholder voting activity. This section explains a qualitative approach for undertaking a project prioritization process.

Qualitative Prioritization Approach

A qualitative approach to project prioritization often works well for smaller communities that have a limited planned network of active transportation infrastructure or for communities that do not have the staff or financial resources to undertake a more complex GIS-based, quantitative approach. Smaller communities or under-resourced communities may not have staff available to perform a complex GIS-based prioritization process, and may instead opt for a simpler approach to prioritizing projects. In these cases, communities can use a simple voting activity (in-person activity or online survey) for stakeholders and/or community members that ranks various planned projects. Broad public and stakeholder participation in the prioritization process is critical to ensure that final recommendations align with local needs and does not reflect the pet projects of a few. Voting activities can be as simple as ranking projects from first to last, and averaging the votes to determine a prioritized order of projects.

Another method is to ask stakeholders to distribute a limited number of "votes" amongst all of the planned projects based on what is most important to them. The point totals are then added up to determine the prioritized ranking of projects. This method does not limit the amount of points that can be distributed to each project (one project could be assigned 50 points, while another could get 0), which allows participants to place greater emphasis on individual projects that they feel strongly about prioritizing. These voting activities can be designed for ranking specific planned projects, or they can be designed to weight various criteria as part of a quantitative approach.

Priority project list example, Junction City



Quantitative Prioritization Approach

Does your community have the staffing resources and expertise to undertake a more detailed, quantitative prioritization approach? Quantitative approaches generally use GIS datasets to score and rank projects based on a set of criteria such as bike, pedestrian, and car traffic counts, so you'll need staff or a consultant that is well versed with GIS analysis. The first step will be determining the criteria you'll use in your prioritization process. Typically, four or five criteria is enough for a prioritization process, so select the ones that are most relevant and important to your community. Incorporating too many metrics increases the amount of work needed and dilutes each factor's impact, which can cause misleading results. A well-designed prioritization process should accurately reflect the community's goals and priorities when it comes to active transportation.

There are several common approaches to project scoring. Many communities assign a weight to each criteria based on its importance, then calculate the final score for each project as the sum of the weighted criteria values. Projects are then divided into high-, medium-, and low-priority categories based on their scores. Another option is to score projects on each individual criteria so that every project receives an equity score, a safety score, etc. Thresholds are defined that identify the high priority projects for each category. Priority projects in each category receive points and projects with the most number of points are considered the highest priorities.

Example Active Transportation Programs

Program	Equity	Education	Encouragement	Enforcement	Evaluation
Youth curriculum on active transportation	X	X	X		
Group skills rides	X	X	X		
Walk/bike audits (a simple assessment of existing walking and biking conditions in a particular area)	X	X			X
Walk/bike challenges and competitions (programs developed to incentive and encourage active transportation)	X	X	X		
Walk/bike clubs	X	X	X		
Public education campaigns	X	X	X		
Adult bicycling courses	X	X	X		
Crash reports that include pedestrian and bicycle crash trends	X			X	X
Community events like Open Streets or “Ciclovia” events (public events that often block off portions of a street to motor vehicle traffic and promote safe walking and bicycling infrastructure)	X	X	X		
Community or school health and wellness policies	X	X	X		
Employer incentives for active transportation	X	X	X		

Example Active Transportation Programs

Program	Equity	Education	Encouragement	Enforcement	Evaluation
Bicycle-Friendly Businesses (a program that recognizes employers for their efforts to encourage a more welcoming atmosphere for bicycling employees, customers and the community)	X	X	X		
Bicycle rodeos (a bicycle skills event which provides an opportunity for bicyclists to practice and develop skills that will help them to become better bicyclists)	X	X	X		
Walk and bike to school/work events	X	X	X		
Walking school buses (a group of children walking to school with one or more adults)	X	X	X		
Speed reduction program	X			X	
Bicycle and pedestrian counts	X				X
Temporary demonstration projects (short-term, low-cost, temporary roadway projects used to pilot potential long-term design solutions for improved active transportation infrastructure)	X	X	X		
Walking/biking route maps and signage	X	X	X		
Other ideas from your community!					

Step 7: Find Funding for Your Plan and Projects

Once your plan is complete, you'll need to find funding for your projects and programs. You'll be able to use your plan to make a strong case for your projects and show community needs and support. There are typically a limited number of implementing agencies who have the legal authority and financial resources to build infrastructure projects, such as county engineers, city departments of public works, and KDOT Districts. Lead agencies collaborate with the public, health departments, local advocacy groups, private businesses, and other stakeholders throughout plan development. During implementation it is important to continue to work with these groups to maintain support for active transportation projects. The table below identifies responsibilities across all agencies involved in active transportation implementation.

Implementation Responsibilities of Agencies and Organizations in Kansas

Agency	Responsibility	Description
KDOT	State owned facilities outside of municipalities	KDOT incorporates bicycling and walking facilities into state and U.S. highways. KDOT also supports the implementation of local projects through technical resources and funding.
MPOs/ RTPOs	While MPOs/RTPOs do not own roadways, they support local communities with technical resources and funding. Federal law requires MPOs to develop a Transportation Improvement Program (TIP).	A TIP is a list of upcoming transportation projects covering a period of at least four years that includes active transportation projects. TIPs are fiscally constrained, showing the specific funding sources that are committed to each project.
Counties	County owned facilities	County agencies incorporate bicycling and walking facilities in county transportation projects.
Cities/Villages	City or town owned facilities	Municipal agencies incorporate bicycling and walking facilities in local transportation projects.
Parks Districts	Trails and parks under their jurisdiction	Parks Districts have tools for planning, designing, implementing, and maintaining trails and trail networks.
Advocacy Organizations and Community Stakeholders	While advocacy organizations do not own roadways, they play an active role in championing projects, educating community members, fundraising, and other key elements of project implementation.	Advocacy organizations support education and encouragement around new and existing bicycling and walking facilities.
Transit Agencies	Transit facilities	Transit agencies provide seating, bicycle parking, bike racks on buses, and other active transportation amenities to encourage first and last mile connections.

Funding Strategies

Most likely, you'll need to explore a range of funding options, including federal, state, regional, local, and private sources to fund your priority projects. You may find opportunities to combine funding sources into single projects for cost efficiency and completeness. Make sure you continue to coordinate with key stakeholders to refine priorities for implementation projects and develop a long-term capital plan for improvements. Don't forget to look for ways to include active transportation projects in scheduled reconstruction, repaving, and restriping projects.

Consider evaluating the following funding sources as part of your ATP implementation:

State and Federal Funding: KDOT manages several funding programs that can be used for standalone active transportation including the Transportation Alternatives Program, Cost Share Program, and RAISE discretionary grants. For updated information on relevant funding, visit the **Kansas Active Transportation website**.

Regional Funding: In most of the state, MPOs or RTPOs oversee federally funded programs to local jurisdictions.

Local Funding: Work with partners to leverage resources that fill gaps in your budget. Local funds are typically used to fill these gaps and match federal and state funding sources. These types of funds may include general funds, bond measures, special improvement districts, taxes, fines, and fees.

Private Funding: Developers also play a role in active transportation projects through development approval conditions, right-of-way dedication, and frontage improvements.

Foundations: Look for health and community foundations who may fund projects or help with match grants.

For updated information on relevant funding, visit the Kansas Active Transportation Funding Opportunities website.

Applying for Funding

The lead applicant should be the agency that will ultimately own and maintain an infrastructure project or the organization that will implement the program or initiative. It is helpful to have partner organizations or agencies endorse your community's ATP before applying for funding. For example, if a city is applying for Safe Routes to School (SRTS) infrastructure funding, the school district should endorse the ATP. It is also important to consider the application timeline and any specific requirements early on in the planning process.

Adapting priority projects

In some cases, your top-ranked projects may simply be unfeasible given your financial constraints. For example, a section of separated bike lane may have scored highly across all prioritization criteria and enjoy broad public support. However, drainage would pose a significant challenge to the facility and may require street reconstruction, which is not programmed in any existing budgets or plans.

Iterative project delivery (IPD) is a way to make incremental changes to the roadway environment and can move otherwise unattainable projects forward and help decision makers and the public understand the benefits of investing in permanent treatments when funding becomes available. These types of projects utilize low-cost temporary demonstrations or semi-permanent (1 month-1 year) installations to test new infrastructure. Installing a separated bike lane using temporary barriers would complete a key connection in the active transportation network without the high upfront cost of street reconstruction. See **Project Delivery on KDOT's Active Transportation Resources website**.

In other cases, you may need to divide top-ranked projects into phases, breaking them down into manageable chunks that can be funded and constructed individually. Ensure that each phase contributes to a meaningful expansion of the active transportation network, such as connecting to a new destination, rather than being too small to provide any real benefits.

Step 8: Plan for Maintenance and Conduct Ongoing Evaluation

Maintenance and ongoing network and program evaluation are crucial components of a well-functioning trail, sidewalk, and bikeway network. A timely response to maintenance issues will encourage more people to use the infrastructure and boost confidence in the active transportation network. Ongoing evaluation of the plan implementation is also important to make sure you are meeting project goals and increasing the safety and attractiveness of active transportation.

In addition to the system-wide maintenance approaches discussed in this section, individual projects may include a maintenance plan that details costs to maintain the new infrastructure, including personnel and equipment needs.

What kind of maintenance is needed for active transportation infrastructure?

Several activities contribute to the maintenance of sidewalks, trails, and bikeways, including those which are corrective, preventative, routine, and seasonal. Comprehensive maintenance covers the life of a trail from the conceptual stage to its eventual end. Trail, sidewalk, and bikeway maintenance includes:

- Pavement preservation (e.g. surface treatments, crack treatments, pothole repair, resurfacing)
- Sweeping
- Pavement markings (e.g. epoxy, latex, polypreform, thermoplastic)
- Vegetation management
- Sign and signal maintenance
- Traffic control (i.e. detours)
- Snow and ice clearing
- De-Icing and Anti-icing

Frequency of Maintenance Activities

The first step to approaching maintenance is to understand how often maintenance should be performed. Many activities, such as signage updates or replacements, are performed as needed, while other tasks such as snow removal are seasonal (see Table 1). Creating a winter maintenance approach is important to encourage year-round travel by active transportation modes. More information on winter maintenance such as types of equipment needed for different facility types and how to consider snow removal in the design of infrastructure can be found in this **Winter Maintenance Resource Guide**.

Table 1: Maintenance Activity Frequency

Frequency	Maintenance Activity
As Needed	Tree/brush clearing and mowing
	Sign replacement
	Map/signage updates
	Trash removal/litter clean-up
	Replace/repair trail support amenities (parking lots, benches, restrooms, etc.)
	Repair flood damage: silt clean-up, culvert clean-out, etc.
	Patching/minor regrading/concrete panel replacement
	Sweeping
Seasonal	Snow and Ice Control
	Planting/pruning/beautification
	Culvert/drainage cleaning and repair
	Installation/removal of seasonal signage
Yearly	Surface evaluation to determine need for patching/regrading/ re-striping of bikeways
	Evaluate support services to determine need for repair/replacement
	Perform walk audits to assess ADA compliance of infrastructure
5-year	Repaint or repair trash receptacles, benches, signs, and other trail amenities, if necessary
	Sealcoat asphalt shared use paths
10-year	Resurface/regrade/re-stripe shared use paths
20-year	Assess and replace/reconstruct shared use paths/ sidewalks

Plan for Maintenance

Creating a strong maintenance program begins in the design phase. Agencies responsible for maintenance should be involved in discussions about the placement of infrastructure and its design, as well as maintenance investment decisions. Maintenance staff should help identify typical maintenance issues, such as areas with poor drainage or frequent public complaints. They may have suggestions for design elements that can mitigate these issues or facilitate maintenance activities and can provide estimates for ongoing maintenance costs for existing and planned infrastructure.

Maintenance Activities

Different facility types require different types of strategies to be maintained. Table X breaks down maintenance activities and strategies for each by facility type.

Table X: Maintenance Strategy Recommendations

	Maintenance Activity	Strategy
Shared Use Paths/ Separated Bike Lanes	Pavement Preservation	Develop and implement a comprehensive pavement management system for the shared use path network.
	Snow and Ice Control	Design shared-use paths to accommodate existing maintenance vehicles.
	Drainage Cleaning/Repairs	Clear debris from all drainage devices to keep drainage features functioning as intended and minimize trail erosion and environmental damage.
		Check and repair any damage to trails due to drainage issues.
	Sweeping	Implement a routine sweeping schedule to clear shared-use paths of debris.
		Provide trail etiquette guidance and trash receptacles to reduce the need for sweeping.
	Vegetation Management	Implement a routine vegetation management schedule to ensure user safety.
		Trim or remove diseased and hazardous trees along trails.
		Preserve and protect vegetation that is colorful and varied, screens adjacent land uses, provides wildlife habitats, and contains prairie, wetland and woodland remnants.
	ADA Requirements	Conduct walk and bike audits to assess accessibility of new, planned, and existing shared-use paths.
		Ensure that ADA compliance is incorporated into the design process for new infrastructure.
Paved Shoulders/ Bike Lanes	Pavement Markings	Explore approaches to routinely inspect pavement markings for bicycle infrastructure and replace as needed.
		Consider preformed thermoplastic or polymer tape on priority bikeways adjacent to high-volume motor vehicle routes (preformed thermoplastic or polymer tape are more durable than paint and requires less maintenance).
	Snow and Ice Control	Clear all signed or marked shoulder bikeways after snowfall on all state-owned infrastructure that do not have a maintenance agreement with a local governmental unit in place.
	Sweeping	Implement a routine sweeping schedule to clear high-volume routes of debris.
Bicycle Boulevards/ Shared Lanes	Sign Replacement	Repair or replace damaged or missing signs as soon as possible.
Sidewalks	Pavement Preservation and Repair	Conduct routine inspections of high-volume sidewalks and apply temporary measures to maintain functionality (patching, grinding, mudjacking).
		Consider using public agency staff or hiring contractors for sidewalk repairs, rather than placing responsibility on property owner (property owner can still be financially responsible).
	Snow and Ice Control	Educate the public about sidewalk snow clearance.
		Require sidewalk snow clearance to a width of five feet on all sidewalks.
		Establish required time frames for snow removal.
		Implement snow and ice clearing assistance programs for select populations.

Plan Evaluation and Performance Measures

The ability to effectively evaluate the success of your ATP is essential. As you build out your active transportation network, you'll want to measure whether these investments are paying active transportation dividends (i.e. more people traveling by active transportation). Performance measures can help track the effectiveness of your investments. Bicycle and pedestrian counts, crash records, and other data contribute to building a case for continued improvement of and investment in AT infrastructure.

Your community should establish baseline targets and revisit these on a regular basis. Data on these measures should be documented and published for public review.

There are two types of performance measures:

- **Inventory measures** evaluate the implementation of recommended improvements. For example, miles of bike lanes built, number of enhanced crossings, miles of wide sidewalks, or the percentage of the population within a given distance of a bike facility. These inventory measures may also include the percentage increase in these improvements each year.
- **Outcome measures** evaluate the effectiveness of active transportation in changing and shifting behaviors, leading to desirable community outcomes. For example, outcome measures could include the reduction in crash rates or in rates of bicycle, transit, or pedestrian travel on streets with active transportation improvements.

  A few examples of performance measures are included below. Use the Performance Measures Worksheet in the ATP Document Template on the **KDOT Active Transportation Planning Toolkit website** to select the best measures for measuring your community's success and establish targets. You should think about what data is already being collected in your community that you can use from sources such as the US Census, MPOs or RTPOs, regional planning agencies, public health agencies, etc.

Inventory Measures

Category	Measure
Active Transportation Infrastructure Built	Miles of network built
	Number of high priority infrastructure projects built
	Number of bicycle parking facilities
	Number of infrastructure projects built to serve priority communities
Active Transportation Counts	Number of people traveling by active transportation at count locations
	Number of students traveling by active transportation to school
Education/Encouragement Programming	Number of children and adults who participate in pedestrian and bicycle education programming every year.
	Number of people engaged through public education campaigns
	Number of people in target populations engaged through public educations campaigns
	Number of Bicycle Friendly Businesses

Outcome Measures

Performance Measure	Measure
Public Opinion	Increase in public support and comfort with active transportation
Safety	Number of crashes involving bicyclists/pedestrians
	Severity of crashes
Mode Share	Share of people traveling by active transportation
Public Health	Rates of obesity and chronic diseases
	Reported rates physical activity
	Rates of air pollution

Plan reporting and updates

In addition to conducting ongoing evaluation and reporting, you'll want to update your plan on a regular basis in order to celebrate success, identify changing community needs and priorities, and incorporate new developments in active transportation designs and technologies. We recommend reporting on and updating your plan on approximately the following schedule:

Activity	Timeline
Report on performance measures	Every 2 years
Update maps showing existing and planned infrastructure	Every 2 years
Reassess conditions and update full plan	Every 5 years

Step 9. Share Your Plan

Once you've completed your plan, you'll want to share it with the community and stakeholders!

- Post your plan on you city's website and share through social media
- Send an email update with a link to the plan to the email contact list you developed for the plan
- Share your plan on **KDOT's Active Transportation Plan and Policy Registry** so it will be available to relevant KDOT staff working on projects in your jurisdiction

For more active transportation resources and links to the tools and templates mentioned in this plan visit the **KDOT Active Transportation Resources website**.

Glossary

There are many terms used to describe different components of the transportation system, treatments, and bikeway types. To promote consistency and ease of understanding, the following terms are used throughout this Active Transportation Plan.

Accessible - Able to be reached or used by people of all levels of abilities. Often used to describe a facility that is compliant with the Americans with Disabilities Act (ADA, see below).

Active Transportation - an umbrella term for all the ways people can get around in an active manner, such as walking, biking, using mobility assistance devices (such as wheelchairs and scooters), in-line skating, skateboarding, and more.

Americans with Disabilities Act (ADA) - The Americans with Disabilities Act (ADA) prohibits discrimination against people with disabilities in employment, transportation, public accommodation, communications, and governmental activities. Federal standards provide guidance on accessible routes, curb ramps, transit shelters and other elements of the build environment.

Infrastructure – In the context of this plan, infrastructure refers to any type of physical treatment or facility designed to be used by active transportation modes (biking, walking, skateboarding, using a wheelchair, riding a scooter). Infrastructure examples could be linear, such as sidewalks, trails, or on-street bikeways, or they could be at specific locations, such as curb extensions, pedestrian crossing islands, or marked crosswalks.

Barrier – In the context of this plan, a barrier is some kind of obstacle that prevents movement or access via active transportation. Natural barriers could be lakes, rivers, or mountains, while unnatural barriers could be highways, walls, or fences.

Bikeway – Any type of bicycle facility, including paths in separate rights-of-way and on-street bikeways. Includes bike lanes, paved shoulders, signed bike routes, and sidepaths.

Bikeshare – A service made available by public or private entities where individuals may access shared bicycles on a short-term basis for a price or for free.

Capital Improvement Program (CIP) – A short-range plan which identifies and plans for capital projects and related financing options.

Complete Streets - Streets that are designed to provide safe and convenient travel along and across streets for all users, including pedestrians, bicyclists, riders and drivers of public transportation, as well as drivers of other motor-vehicles, and people of all ages and abilities, including children, older adults, and individuals with disabilities.

Curb Extension – Treatment or application designed to visually and physically narrow the roadway in order to create safer and shorter crossing distances for pedestrians while increasing the available space for street furniture, benches, plantings, and trees.

FHWA – Federal Highway Administration

Gap - In the context of this plan, a gap is a break in continuity of infrastructure. An example could be a section of sidewalk that is missing between two other segments of sidewalks.

Network – In the context of this plan, “network” refers to the system of active transportation infrastructure that are connected to enable access to a wide variety of destinations.

Mid-Block Crossing – Designated crosswalks away from an established intersection provided to facilitate crossings at places where there is a significant pedestrian desire line such as bus stops, parks, and building entrances.

Mode Split – The percentage of travelers using a particular type of transportation (e.g., driving, biking, walking, transit).

Pavement Markings – Pavement markings are used to convey messages to roadway (or shared use path) users. They indicate which part of the road to use, provide information about conditions ahead, and indicate where passing is allowed.

Performance Measure – A metric used to determine progress or setbacks toward achieving a specific goal and objective. Performance measures are usually tracked regularly (e.g., annually) to understand trends.

Raised Crosswalk – traffic calming treatment at a pedestrian crossing or crosswalk that raises the entire wheelbase of a vehicle to encourage motorists to reduce speed.

Right-of-Way – A right to make a way over a piece of land, usually to and from another piece of land, for transportation purposes.

Separated Bike Lane – One- or two-way bikeway that combines the user experience of a sidepath with the on-street infrastructure of a conventional bike lane. They are physically separated from both motor vehicle and pedestrian traffic.

Shared Lane Marking – Shared lane markings (or "sharrows") are pavement markings that denote shared bicycle and motor vehicle travel lanes.

Shared Use Path – Shared use paths, also commonly referred to as trails or greenways, are paths designed for and generally used by bicyclists, pedestrians, and other non-motorized users.

Traffic Calming – A strategy to slow the speed of motor vehicle traffic to a "desired speed" by incorporating physical features, such as chicanes, mini traffic circles, speed humps, and curb extensions.

Walkable – An area or a route that is suitable or safe for walking (see definition below).

Walking - Walking is an inclusive term that includes both ambulatory and non-ambulatory modes. Walking encompasses all forms of mobility devices, including using a wheelchair, cane, walker, or other mobility device that allows the user to travel at human speed.

Wayfinding – A system of directional signs along streets or paths that assist people in finding major destinations. Wayfinding can be designed specifically for drivers, bicyclists, or pedestrians