



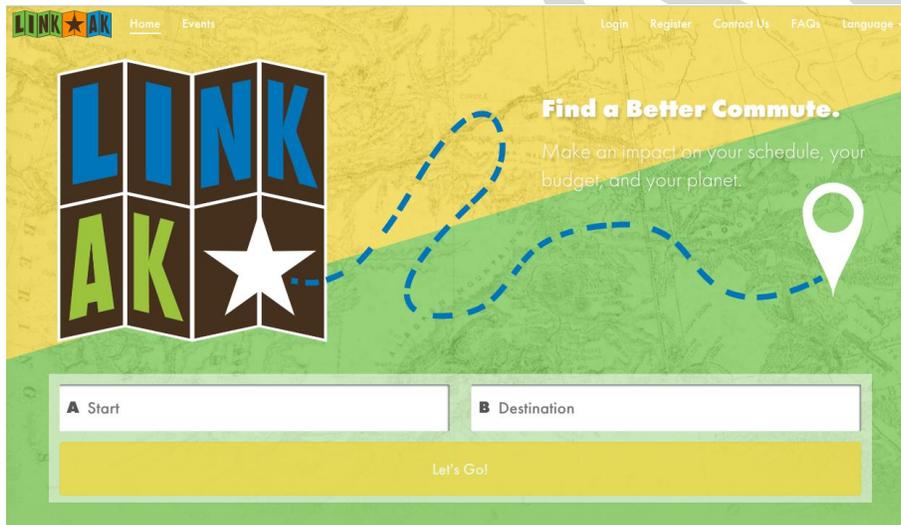
LAND USE &
TRANSPORTATION

Land Use and Transportation

In 2017, for the first time in 40 years, the largest source of greenhouse gas emissions in the United States wasn't electricity production but transportation – cars, trucks, planes, trains and shipping. Transportation emissions currently account for 47% of all the greenhouse gas emissions produced in Anchorage and highway motor fuel accounts for 53% of end use energy consumption.^{44,45} An estimated 14,000 to 50,000 commuters drive from the Matanuska-Susitna Borough to Anchorage daily, a 45-mile or longer trip one-way.^{46,47}

According to the recent United Nations Intergovernmental Panel on Climate Change (IPCC) report⁴⁸, decarbonizing the transportation sector requires electrifying vehicle fleets, shifting mobility choices from low- to high-efficiency modes, and transforming urban planning to curtail sprawl and make walking, biking, and transit use easier. Technology-focused measures, such as improving energy efficiency and switching fuel sources, are prominent in scientists' best roadmaps for mitigating transportation emissions. Structural and behavioral changes, namely "the switching of passengers and freight from less- to more-efficient travel modes (e.g. cars, trucks and airplanes to buses and trains)," will be critical, too.⁴⁹

The solutions for curbing vehicle emissions in Anchorage are clear: use less gasoline and diesel fuel. Following the IPCC recommendations, Anchorage can accomplish this by shortening the distances people travel every day, reducing the number of vehicle trips taken each day, increasing the use of non-motorized transportation and public transit, and encouraging the adoption of electric vehicles.



Tools such as LinkAK are available to Anchorage residents to compare travel modes by greenhouse gas emissions, calories, and cost.⁵⁰

As the climate continues to warm, adaptation solutions will be necessary to address the wear and tear on infrastructure caused by more frequent freeze-thaw cycles, icier roads and sidewalks, and more

⁴⁴ Municipality of Anchorage Greenhouse Gas Emissions Study, 2015 Report

⁴⁵ Anchorage Energy Landscapes and Opportunities Analysis, 2017

⁴⁶ <https://www.muni.org/Departments/OCPD/Pages/transportation.aspx>

⁴⁷ <https://www.ktva.com/story/37229388/task-force-to-study-commuter-rail-between-anchorage-mat-su>

⁴⁸ <https://www.ipcc.ch/sr15/>

⁴⁹ <https://www.citylab.com/transportation/2018/10/un-climate-report-transportation-choices/572494/>

⁵⁰ <https://linkak.org/#/>

frequent flooding. There will also be benefits, such as decreased studded tire wear on the roads as the winter season is shortened at both ends. Some adaptation efforts are already being examined by the State and Municipality, such as modifying Anchorage’s standards for storm drain infrastructure.

Smart growth policies that curb urban sprawl contribute to both mitigating and adapting to climate change. Smart growth strategies bring environmental benefits, such as improved air quality, and save people money on transportation costs. Anchorage can pursue policies right away to achieve these goals. Land use planning that encourages mixed-use development and affordable housing options close to Anchorage’s commercial centers will decrease travel distances for Anchorage workers. Building non-motorized infrastructure and investing in a robust bus system will create alternatives to single occupancy vehicle trips. Investing in public transportation makes commuting alternatives like van rideshares, carpooling, and even light rail more realistic and viable for Anchorage workers who live in the Mat-Su Borough. Replacing vehicles in the Municipal fleet with electric vehicles and investing in charging stations will reduce emissions and provide the infrastructure to encourage residents to buy electric vehicles.

In January 2019, Anchorage Community Development Authority installed an electric vehicle charging station in an EasyPark garage in downtown Anchorage. The charging station will be free to use through the end of 2019. (Credit: EasyPark Alaska)⁵¹



Achieving equity in land use planning and transportation is a central goal of this plan. Pedestrians and People Mover passengers in Anchorage are predominantly from Anchorage’s low-income neighborhoods. Minority populations are overrepresented in Anchorage transit usage statistics. Conversely, amenities for bike commuting, such as workplaces that allow for reliable and secure bike storage, are more frequently available to comparatively affluent cyclists. In addition, high average home prices in Anchorage, particularly in neighborhoods close to downtown and other commercial centers, make it difficult for Anchorage residents to live close to their workplaces. Development policies that address these equity issues are essential for making Anchorage a more walkable,

⁵¹ http://www.easyparkalaska.com/latest-news/19-01-02/Downtown_Anchorage_Receives_Its_First_Electric_Vehicle_Charging_Station.aspx

bikeable, and livable community with a sense of place that reflects the diversity of Anchorage’s residents.

As in other sectors, some adaptation and mitigation actions of the Land Use and Transportation sector that will impact Anchorage are not under the jurisdiction of the Municipality, and require legislative advocacy at the state and federal level.

Case Study: AMATS Passes Complete Streets

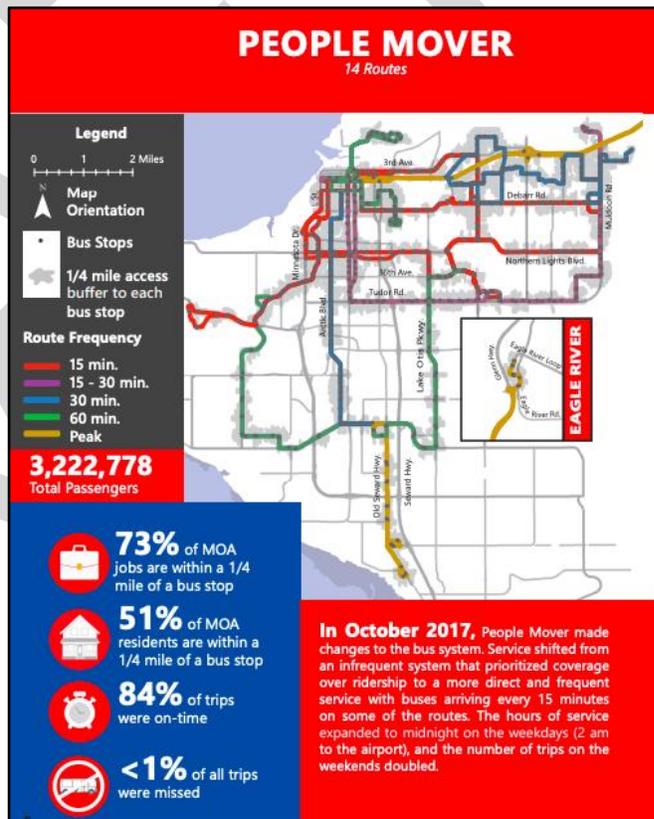
The Anchorage metropolitan planning organization, Anchorage Metropolitan Area Transportation Solutions (AMATS), passed a “Complete Streets” policy in 2018. Complete Streets is a policy to govern project planning and engineering standards, expanding the focus of street and roadway design from just cars to all users. By taking into consideration the needs of pedestrians, bicyclists, motorists, and transit riders, the new program will increase safety, lower congestion, and provide better alternative modes of transportation.

Case Study: Anchorage People Mover

Before the new bus system, People Mover had grappled with declining weekday ridership. In 2015, average weekday ridership was down 5.5% from 2014. In 2016, it decreased by 5.9%. In the first 10 months of 2017 - before People Mover implemented the new bus system - ridership had decreased by 3.9%.

During the first year of the new bus system, weekday average ridership decreased by just 1.9%. That’s significantly less than what was projected. Saturday average ridership decreased 3.0%, while Sunday average ridership increased 17.2%.

The Municipality is tracking ridership metrics and adjusting the People Mover routes as necessary to meet community needs. For example, People Mover includes neighborhood routes as a mechanism to help people within some neighborhoods access the more frequent, standard routes. Initially, the neighborhood and commuter routes were not on-time as consistently as the frequent, standard routes. People Mover then made changes to Routes 21 and 31. Additionally, the Route 11 was split into two routes on July 2, 2018: Routes 11 and 41. This helped improve overall on-time performance.⁵²



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<http://www.muni.org/Departments/transit/PeopleMover/Documents/Transit%20on%20the%20Move/System%20Report%20Card.pdf>

Climate Action Plan sectors

The Anchorage Climate Action Plan puts Anchorage on a path to reduce greenhouse gas emissions 80 percent from 2008 levels by 2050, with an interim goal of 40 percent by 2030. This document details objectives and actions to achieve these emissions goals and to support resilience and preparedness for climate impacts.

Key

The objectives and associated actions are grouped into the following sectors:

- Buildings and Energy
- Land Use and Transportation
- Consumption and Solid Waste
- Health and Emergency Preparedness
- Food Systems
- Urban Forest and Watersheds
- Outreach and Education

TERMINOLOGY

“Vision” = A broad statement that describes our desired position by 2050 within each sector.

“Objectives” = Steps towards achieving mitigation targets and adaptation goals by 2030.

“Actions” = Detailed policies, projects and activities to achieve our objectives.

CO-BENEFITS refer to the intended or unintended benefits for the local environment and community as a result of mitigation and adaptation actions that are directed at addressing climate change. The co-benefits column indicates the actions that have the potential for significant, direct co-benefits. For example, actions to reduce the number of cars on the road have environmental quality and health co-benefits because these actions will improve air quality in Anchorage. The co-benefits assessed in this plan include:

- High potential to support jobs and prosperity
- High potential to advance equity
- High potential to improve local environmental quality
- High potential to improve health

PRIMARY MUNICIPAL LIAISON & POTENTIAL PARTNERS

To assist with implementation and accountability, primary municipal liaisons and potential partners are identified. For Municipality lead actions, the Primary Municipal Liaison is the primary entity responsible for initiating the implementation of the action and reporting on progress. For partner (university and other) lead actions, the Primary Municipal Liaison will be the main point of contact for the Municipality. Successful implementation will often require collaboration and coordination with other departments as well as public and private sector partners.

The full list of municipal departments included in the plan is included in the Appendix.

IMPLEMENTATION TIMEFRAME

- **Near-term** = Plan adoption to June 2020
- **Mid-term** = 2020 to 2025
- **Long-term** = 2026 and beyond
- **Existing and/or ongoing** = currently underway
- **Uncertain** = depends on funding or other factors

Land Use and Transportation

2050 Vision: Anchorage will have walkable, well-designed, and connected neighborhoods that employ mixed-use development and diverse transportation options while celebrating our unique cultures and communities.

Objective 5. Make Anchorage a more livable community by increasing convenience and safety.

No.	Actions	Co-benefits	Primary Municipal Liaison	Potential Partners	Timeline
5A	Align Title 21 with the 2040 Land Use Plan and Metropolitan Transportation Plan 2040 goals.		Planning Department	Anchorage Assembly, Planning and Zoning Commission, developers	Ongoing
5B	Determine a target for infill development (the use of land within a built-up area for further construction) and redevelopment in commercial and residential centers.	environment, health	Planning Department	Anchorage Assembly, Planning and Zoning Commission, MOA Real Estate Department, developers	Ongoing
5C	Amend zoning code to allow mini city centers in neighborhoods in order to create more walkable/bikeable communities.		Planning Department	Office of Energy and Sustainability (OES), Project Management and Engineering (PM&E), Office of Economic and Community Development (OECD), Traffic Department	Ongoing
5D	Prioritize and conserve green spaces in transportation, development, and planning projects equitably across Anchorage. Increase incentives for developers to design in-fill projects that prioritize existing green space (Urban Forests and Watersheds Action 21C).	environment, health	Project Management and Engineering (PM&E), Planning Department	Anchorage Metropolitan Area Transportation Solutions (AMATS), Traffic Department, Parks & Recreation (P&R)	Mid-term
5E	Adopt a Complete Streets policy for all MOA transportation improvement projects to parallel the AMATS Complete Streets Policy.	environment, equity	OECD	Anchorage Assembly, PM&E, AMATS, Planning Department, nonprofits	Mid-term
5F	Increase capacity of Maintenance & Operations Department to address with unpredictable winter weather conditions, including rain on snow events. This includes both winter road maintenance and summer repairs.	health	Maintenance & Operations (M&O)	Traffic, AMATS, Public Transportation Department (PTD), P&R, Alaska Department of Transportation and Public Facilities (AK DOT&PF)	Mid-term
5G	Invest in safe and covered bus stops with benches. Prioritize winter maintenance so that residents can easily access bus stops.	health, equity	PTD	Planning Department, APD, M&O (Street Maintenance)	Mid-term

Objective 6. Reduce Single Occupancy Vehicles (SOV) trips.

No.	Actions	Co-benefits	Primary Municipal Liaison	Potential Partners	Timeline
6A	Develop a Short-Range Transit Plan informed by a public transportation feedback survey to expand frequency, connectivity, and coverage of the public transportation system.	equity, jobs and prosperity	PTD	Valley Transit, AMATS	Near-term
6B	Expand participation in the Employer Sponsored Pass program for workplaces to purchase bus passes for employees, students, etc.	equity	PTD	Planning Department, large employers	Uncertain
6C	Promote the reduced fare program on People Mover and create youth (under 18) ride free.	equity	PTD	Anchorage School District (ASD), University of Alaska Anchorage (UAA), Youth Advisory Commission, local businesses, nonprofits	Near-term
6D	Explore opportunities for increasing public transit commuter options between the Mat-Su Valley and Anchorage.	health, jobs and prosperity	PTD	OES, OECD, Planning Department, AMATS, Valley Transit, Alaska Railroad, Mat-Su Borough, Palmer, Wasilla	Mid-term
6E	Encourage carpooling and transit use by improving coordination and developing strategies with other agencies (e.g. using Link AK, creating carpool lanes, developing workplace incentives, addressing logistical challenges such as finding people who have similar travel needs).	Jobs and prosperity	PTD	Anchorage Health Department (AHD), M&O, AMATS, PM&E, large employers (including MOA, State of Alaska, Mat-Su Borough)	Uncertain
6F	Continue to expand and connect non-motorized transportation facilities. Quickly fund and implement policies and projects recommended by the Anchorage Non-Motorized Plan, such as secure and covered bike storage options.	health, equity	AMATS, PM&E, Traffic Department	Bike Anchorage, Anchorage Park Foundation, AK DOT&PF, M&O, PTD, Anchorage Police Department (APD), P&R, Federation of Community Councils (FCC)	Ongoing
6G	Make it easier for people to walk or bike by improving coordination and developing strategies with other agencies (e.g. lighting, winter maintenance of sidewalks, bike trails and lanes). Prioritize safe routes to school to improve access and appeal of neighborhood schools.	health, equity	AMATS, PM&E, Traffic Department	AK DOT&PF, PTD, M&O, P&R	Near-term
6H	Support the mode share targets in the 2040 Metropolitan Transportation Plan and create a mode share (percent of travelers using a particular transportation type) tracking method.		PTD, Traffic Department	AMATS, AHD	Ongoing
6I	Promote the social benefits and importance of reducing carbon emissions through the use of transportation	health	AHD	Bike Anchorage, PTD, OES	Near-Term

	modes other than single-occupancy vehicles (e.g. creating a Bus to Work Day, expanding Bike to Work Day).				
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Objective 7. Reduce carbon emissions in the transportation sector.

No.	Actions	Co-benefits	Primary Municipal Liaison	Potential Partners	Timeline
7A	Conduct a municipal fleet inventory and develop a procurement policy to incorporate EVs through right-timing purchases with a planned vehicle-replacement schedule.		OES	Purchasing and Finance Departments, Large MOA fleets: Anchorage Fire Department (AFD), APD, Solid Waste Services, Anchorage Water Wastewater Utility (AWWU), M&O, Municipal Light & Power (ML&P)	Mid-term
7B	Monitor economic viability of transitioning public transit fleet (e.g. People Mover and Anchor Rides) to electric or other alternative fuel vehicles.	health	PTD, OES	MOA Finance Department, OECD	Ongoing
7C	Cycle out ASD engines or buses that are over 20 years old. Require similar standards from leased buses.	health	OES	ASD	Near-term
7D	Work with utilities, city and borough planners, and other stakeholders to develop an Electric Vehicle Infrastructure plan for the highway corridor from Fairbanks to Homer to Glennallen, with a focus on the Valley to Anchorage commuters. Apply for Volkswagen settlement funding through Alaska Energy Authority to begin phase I implementation of the plan.	health, Jobs and prosperity	OES	Planning Department, AMATS, AK DOT&PF, Fairbanks Metropolitan Area Transportation System, AK Department of Environmental Conservation, regional and local planning depts. along the corridor, Renewable Energy Alaska Project, Railbelt electric utilities, Anchorage Community Development Authority (ACDA)	Near-term
7E	Support the development of low-carbon transportation fueling infrastructure for fleets and the general public.	health	OES	M&O, OECD, Anchorage electric utilities, ACDA	Uncertain
7F	Support electric car charging station infrastructure in new commercial and multifamily housing during initial construction phase by laying conduit for charging stations and right sizing electrical panels.	equity	Planning and Permitting Departments	Anchorage electric utilities, ACDA	Mid-term
7G	Support enforcement of existing Idle Free Zones and explore opportunities for expanding the number of zones.	health	APD	AHD, ASD	Near-term