Metropolitan Transportation Plan

For the Anchorage Bowl and Chugiak–Eagle River

FEBRUARY 2024 FINAL
APRIL 2025 - AMENDMENT 1
DECEMBER 2025 - DRAFT AMENDMENT 2

2050 MTP
METROPOLITAN TRANSPORTATION PLAN

2050 MTP

METROPOLITAN TRANSPORTATION PLAN

Downtown Anchorage

PREPARED FOR

ANCHORAGE METROPOLITAN AREA TRANSPORTATION SOLUTIONS (AMATS)

PREPARED BY AMATS & R&M CONSULTANTS, INC.

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Anchorage, AK 99507

IN COOPERATION WITH

Burgess & Niple, Inc. (B&N)
Jacobs Engineering Group, Inc.
McKinley Research Group, LLC (MRG)
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AMATS

2050 MTP
METROPOLITAN TRANSPORTATION PLAN

2050 Metropolitan Transportation Plan

Anchorage Metropolitan Area Transportation Solutions

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May 24, 2024

Mr. Sean Holland, P.E.
Alaska Department of Transportation and Public Facilities
P.O. Box 196900
4111 Aviation Avenue
Anchorage, AK 99519

Subject: AMATS 2050 Metropolitan Transportation Plan Air Quality Conformity

Dear Mr. Holland, MPO Board Chair:

The air quality conformity analysis for the Anchorage Metropolitan Area Transportation Solutions (AMATS) 2050 Metropolitan Transportation Plan (MTP) submitted with AMATS letter of March 20, 2024, has been reviewed. We find that:

- Anchorage 2050 MTP is consistent with the Alaska State Implementation Plan to reduce ambient CO in Anchorage; and
- Anchorage 2050 MTP supports the PM10 control strategy for the Eagle River PM10 Maintenance Area, and the objectives and successful practices to manage PM10 emissions in the area.

The Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) approve the conformity determination for the AMATS 2050 Metropolitan Transportation Plan.

If you have any questions, please contact Julie Jenkins, FHWA Team Leader at (907) 586-7476, or Ned Conroy, FTA Senior Community Planner at (206) 220-4318.

Sincerely,

GERALD LELAND VARNEY
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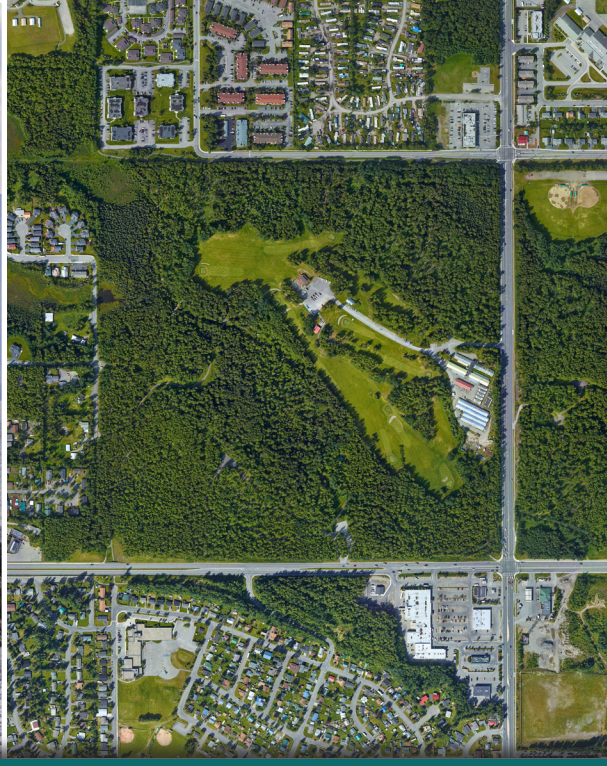
2050 MTP

ACKNOWLEDGMENTS

Thank you to the project team, consultant team, AMATS committee members, and members of the public that participated in this planning process. We are grateful for your time, effort, and input that shaped this plan.



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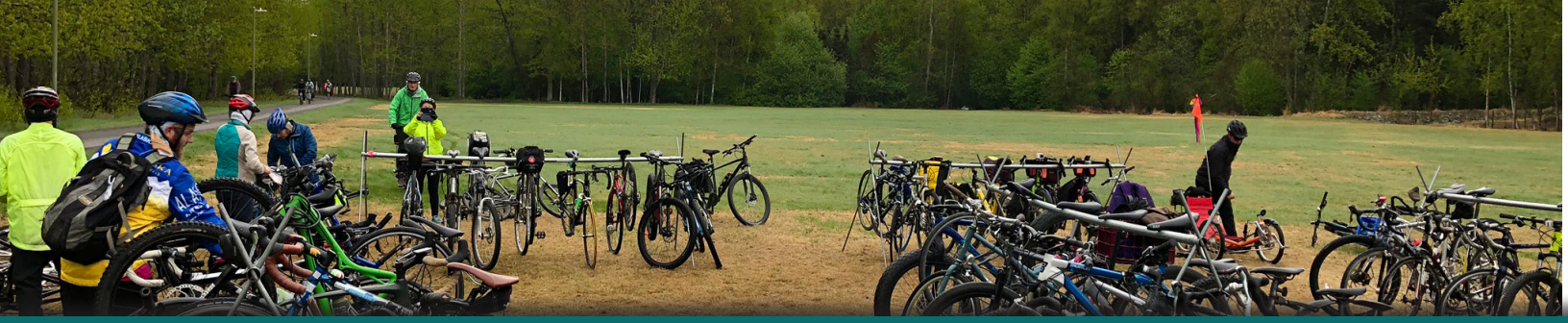
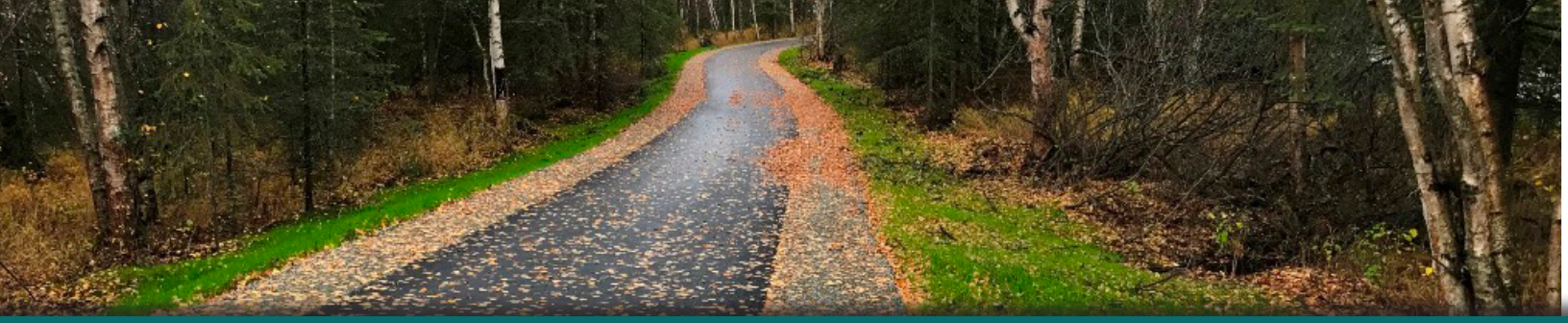


FIGURE

Above photo: *Biking group enjoys Anchorage trail network – courtesy of AMATS/Municipality of Anchorage.* ***Pictured on following page****: Multi-use path along Campbel Airstrip Road – courtesy of AMATS/Municipality of Anchorage.* ***Pictured on previous two pages:*** *Alaska Railroad Passenger Train heads south along Turnagain Arm; Russian Jack Springs Park and surrounding developments; Port of Alaska, Anchorage.*



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ABBREVIATIONS AND GLOSSARY

AADT – Average Annual Daily Traffic: Daily traffic volumes seasonally adjusted to compensate for different amount of traffic during different times of the year.

ACS – American Community Survey

Active Transportation – Any mode of transportation that is fully or partially human-powered, such as walking or bicycling.

Activity Center – Areas with concentrations of major employers, shopping centers, cultural, civic and education centers, and recreation.

ADA – Americans with Disabilities Act

Alaska DOT&PF – Alaska Department of Transportation and Public Facilities

AMATS – Anchorage Metropolitan Area Transportation Solutions

ARDSA – Anchorage Roads and Drainage Service Area

ARRC – Alaska Railroad Corporation

CBERRRSA – Chugiak/Birchwood/Eagle River Rural Roads Service Area

Channelization – The separation or regulation of conflicting traffic movements into definite paths of travel by traffic islands or pavement markings to facilitate the safe and orderly movements of both vehicles and pedestrians.

CIP – Capital Improvement Program: A municipal document that addresses funding for transportation and public facilities in the Municipality of Anchorage. Most projects funded in the CIP come from local taxes.

Community Resiliency – The ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions.

Complete Streets – Streets that are designed, used and operated to enable safe access for all traffic (defined as pedestrians, bicyclists, motorists and public transportation users of all ages and abilities) to safely move through the transportation network.

CMAQ – Congestion Mitigation and Air Quality: A federal program that emphasizes the importance of the link between transportation and air quality. To that end, CMAQ program funding is applied to transportation projects that reduce vehicle emissions and improve air quality. Transit and traffic flow improvement projects are included, as are projects such as ride sharing, vehicle emissions inspection and maintenance programs, bicycle and pedestrian improvements, and alternative fuels.

CPI – Consumer price index

CSS – Context Sensitive Solutions: is the implementing policy for Context Sensitive Design (CSD) which is a collaborative, interdisciplinary decision-making process and design approach that involves all stakeholders to develop a transportation facility that fits its physical setting.

Effective Use – The degree to which the transportation system can be successful in producing desired or intended result.

Equity – Equity in transportation seeks fairness in mobility, accessibility, and distribution of impacts to meet the needs of all community members. A central goal of transportation is to facilitate social and economic opportunities by providing equitable levels of access to affordable and reliable transportation options based on the needs of the populations being served, particularly populations that are traditionally underserved.

FHWA – Federal Highway Administration

FRA – Federal Railroad Administration

Freight Generators – Facilities housing businesses that individually or collectively produce and attract a large number of daily truck trips. Examples include Ted Stevens Anchorage International Airport, Port of Alaska, or University of Alaska Anchorage.

FTA – Federal Transit Administration

GIS – Geographic information system

GO – General obligation

HSIP – Highway Safety Improvement Program

Infrastructure – Infrastructure refers to the physical system that enables or facilitates the movement of people and goods.

Intermodal Capabilities – Intermodal describes an approach to planning, building, and operating the transportation system that emphasizes optimal use of transportation resources and connections between freight modes (trucks, ships, aircraft, trains, etc.).

ITS – Intelligent Transportation System: technologies that are integrated with the built transportation infrastructure to improve overall transportation system operations and safety.

JBER – Joint Base Elmendorf-Richardson

LRSA – Limited road service area

LRTP – Long-range transportation plan

Mat-Su – Matanuska-Susitna Borough

Photo on previous page: *People Mover provides bike racks for commuters year-round – courtesy the Public Transportation Department.* ***Photos above:*** *Alaska Railroad passenger train – courtesy of AMATS/ Municipality of Anchorage; Winter fat bike trail riding – courtesy of AMATS/ Municipality of Anchorage.*

ABBREVIATIONS AND GLOSSARY (CONTINUED)

MOA – Municipality of Anchorage

Mode share – Mode share refers to the type of transportation an individual traveler uses to reach their destinations. Most modes are self explanatory; "drive alone" signifies a passenger car with only one occupant while "shared ride" designates a passenger car with more than one occupant.

MTP – metropolitan transportation plan

NHS – National Highway System

O&M – Operations and Maintenance

PC – Policy Committee

PM10 – particulate matter less than 10 microns in diameter

PM2.5 – particulate matter less than 2.5 microns in diameter

PM&E – Project Management and Engineering

POA – Port of Alaska

PTD – Public Transportation Department

Security – Security is defined as the protection of the condition and value of transportation assets from external threats, such as major weather events (discrete), adverse effects of climate change (non-discrete), and deliberate sabotage vulnerabilities.

State of Good Repair – A condition in which the existing physical assets, both individually and as a system (a) are functioning as designed within their useful service life, (b) are sustained through regular maintenance and replacement programs. State of Good Repair represents just one element of a comprehensive capital investment program that also addresses system capacity and performance.

STIP – Statewide Transportation Improvement Program

TAC – Technical Advisory Committee

TAZ – Traffic Analysis Zone: A unit of geography commonly used in transportation planning models to represent trip origins and destinations, as well as the population, employment and other attributes that influence travel demand. TAZ boundaries are drawn so that their trip origins and destinations load onto the transportation network's roads, transit routes, and active transportation infrastructure in realistic ways. The urban area is divided into a set of contiguous zones.

TDM – Transportation Demand Management: a set of strategies aimed at maximizing traveler choices. Managing demand is about providing travelers, regardless of whether they drive alone, with travel choices, such as work location, route, time of travel and mode. Demand management is broadly defined as providing travelers with effective choices to improve travel reliability.

TIP – Transportation Improvement Program: A 4-year capital program of transportation projects, focused on federal funding for roadway, active transportation, and transit capital projects for the urbanized area. The TIP covers federal, state, and local funding. The document includes new

projects as well as previously funded projects that require additional effort.

Timely Emergency Response – Part of a comprehensive congestion management plan after an incident on a roadway, timely response refers to clearing the scene of an incident through multiple strategies including quick reporting, information to travelers to avoid the area such as the 5-1-1 system, cameras and websites and to provide space and access for first responders.

Travel Demand Model – a computer model used to estimate travel behavior and travel demand for a specific time frame. The travel demand model simulates road and transit performance within the region based on traffic analysis zones.

TSAIA – Ted Stevens Anchorage International Airport

TSMO – Transportation System Management and Operations: a set of strategies that focus on operational improvements that can maintain and even restore the performance of the existing transportation system before extra capacity is needed.

Underrepresented groups – are groups, often including vulnerable populations that face challenges engaging with the transportation process.

Underserved neighborhoods – are groups, neighborhoods, or populations, often including vulnerable populations that have additional barriers to access, which may include economic and geographic barriers.

UPWP – Unified Planning Work Program: Federally required document outlining the activities to be undertaken in support of federally funded transportation projects.

VHD – Vehicle Hours of Delay. Vehicle Hours of Delay indicates the amount of congestion experienced by drivers in the system by summarizing the total hours within a chosen time frame (day, time period of the day, etc.) drivers spend traveling below the posted speed limit due to high demand conditions.

VMT – vehicle miles traveled. This metric is calculated by multiplying the vehicle volume on a roadway segment by the length of the segment. To estimate vehicles miles traveled for a geographic area, the road segments results are summed for all the segments within that area.

Vehicle Revenue Miles – The miles traveled by a transit provider when a vehicle is in revenue service (i.e., the time when a transit vehicle is available to the general public and there is an expectation of carrying passengers).

Vulnerable Populations – refers to a broad category that includes minority and low-income populations but may also include many other demographic categories that face challenges engaging with the transportation process and reaping equitable benefits, such as children, the elderly, and the disabled.

Pictured on previous page: *Spenard Road pedestrian – courtesy of AMATS/Municipality of Anchorage; Winter driving hazards.* ***Above:*** *Road construction on East 15th Ave – courtesy of AMATS/Municipality of Anchorage.*

AMATS planning area is on the traditional homeland of the Eklutna Dena'ina.

AMATS is committed to recognizing and celebrating the culture and language of the Dena'ina people

Downtown Anchorage

Chapter 1

Introduction

This chapter sets the background and foundation for the purpose, need and intent of the metropolitan transportation plan. This first chapter also provides federal planning requirements for plan development.

MTP

Transportation Planning is critical to ensure that Anchorage can meet current and future transportation needs for all users through a comprehensive, continuous, and cooperative process. Anchorage Metropolitan Area Transportation Solutions (AMATS) is the designated metropolitan planning organization (MPO) that has overseen planning and programming of the Federal Highway Trust Fund dollars designated for the Anchorage Bowl, Chugiak, and Eagle River since 1976. The Metropolitan Transportation Plan (MTP) is the primary tool used by AMATS to plan for long-range transportation needs and recommend solutions based on anticipated funding availability over a minimum 20-year horizon. The MTP includes the whole transportation system: streets, sidewalks and pathways, trails, public transit, freeways, highways, and freight mobility. It is also required to address congestion management for a multimodal system and air quality standards and be based on land uses described in the current Comprehensive Plan and Land Use Plans for Anchorage and Chugiak-Eagle River.

Spenard Road at West 26th Ave – courtesy of AMATS/Municipality of Anchorage.

Since the 2040 MTP was written and approved by the AMATS Policy Committee in 2020, several significant world and regional events have occurred including the COVID-19 pandemic, which changed how people used transportation networks, and the 2020 Census, which updated socio-economic data to inform population and employment data.

Vision for 2050 MTP

Since the 2050 MTP is the primary tool AMATS uses to plan for the area's long-range transportation needs, the community's vision for the transportation network serves as a key guiding principle.

The following vision statement describes what Anchorage, Chugiak, and Eagle River aspire to by 2050:

Anchorage and Chugiak-Eagle River are vibrant winter communities with an adaptable & efficient multimodal transportation network that is equitable, safe, accessible, and reliable, which supports a sustainable economy, enhances and protects the natural and built environment, and fosters healthy, connected neighborhoods.

FHWA Planning Regulations

The 2050 MTP must comply with the applicable metropolitan planning and programming requirements described in 23 CFR 450, Subpart C regarding 2050 MTP development and content.

MTP Update Requirement

AMATS must review and update the MTP at least every four years in air quality maintenance areas to avoid a lapse in the MTP Air Quality Conformity Determination. This requires effective and timely coordination with stakeholders and the public to meaningfully incorporate feedback while meeting federal deadlines.

Planning Horizon

The 2050 MTP must encompass a minimum 20-year planning horizon.

Planning Factors

The 2050 MTP will address the following ten planning factors:

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
2. Increase the safety of the transportation system for motorized and non-motorized users.
3. Increase the security of the transportation system for motorized and non-motorized users.
4. Increase accessibility and mobility of people and freight.
5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.
6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.
7. Promote efficient system management and operation.
8. Emphasize the preservation of the existing transportation system.
9. Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.
10. Enhance travel and tourism.

National Goals

Congress has established seven national Federal-aid Highway Program performance goals in 23 USC 150(b) that the 2050 MTP will incorporate:

1. Safety. To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
2. Infrastructure Condition. To maintain the highway infrastructure asset system in a state of good repair.
3. Congestion Reduction. To achieve a significant reduction in congestion on the National Highway System.
4. System Reliability. To improve the efficiency of the surface transportation system.
5. Freight Movement and Economic Vitality. To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
6. Environmental Sustainability. To enhance the performance of the transportation system while protecting and enhancing the natural environment.
7. Reduced Project Delivery Delays. To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

Transportation Modeling

The 2050 MTP must project transportation demand for people and goods on existing and proposed transportation facilities for the planning horizon. The AMATS Travel Demand Model has been updated to include a

FEDERAL PLANNING REQUIREMENTS

Intersection of Tudor Road and Elmore Road with multiuse trail overpass – courtesy of AMATS/Municipality of Anchorage.

2019 base year as a separate but concurrent effort with MTP development. The updated model will confirm the level of need for projects identified in the 2050 MTP and inform any additional projects required to meet projected transportation needs by 2050. This will be one of many tools used to develop the 2050 MTP.

Performance-Based Approach

2050 MTP recommendations and project decisions will be determined based on the goals, objectives, and performance measures and targets established by the MPO to address federal performance standards.

Equity

The 2050 MTP will incorporate equity throughout its development. Both the process and final products should equitably prioritize the needs of the MPO population, regardless of their preferred mode of transportation. This can be achieved through the development of the goals and objectives, project criteria, project selection, and by ensuring that public participation activities recognize the barriers to participation that vulnerable populations face and provide solutions to minimize these barriers and successfully engage with these communities throughout all phases of project planning and development.

Community Impact Assessment and Environmental Justice

The Environmental Protection Agency's (EPA) environmental justice screening and mapping tool, EJSCREEN, was used to ensure a comprehensive approach when determining whether MTP recommendations would have disproportionate adverse effects on minority or low-income populations.

EPA Regulations

The 2050 MTP will follow Environmental Protection Agency (EPA) regulations stated in 40 CFR 93, Subpart A Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Projects.

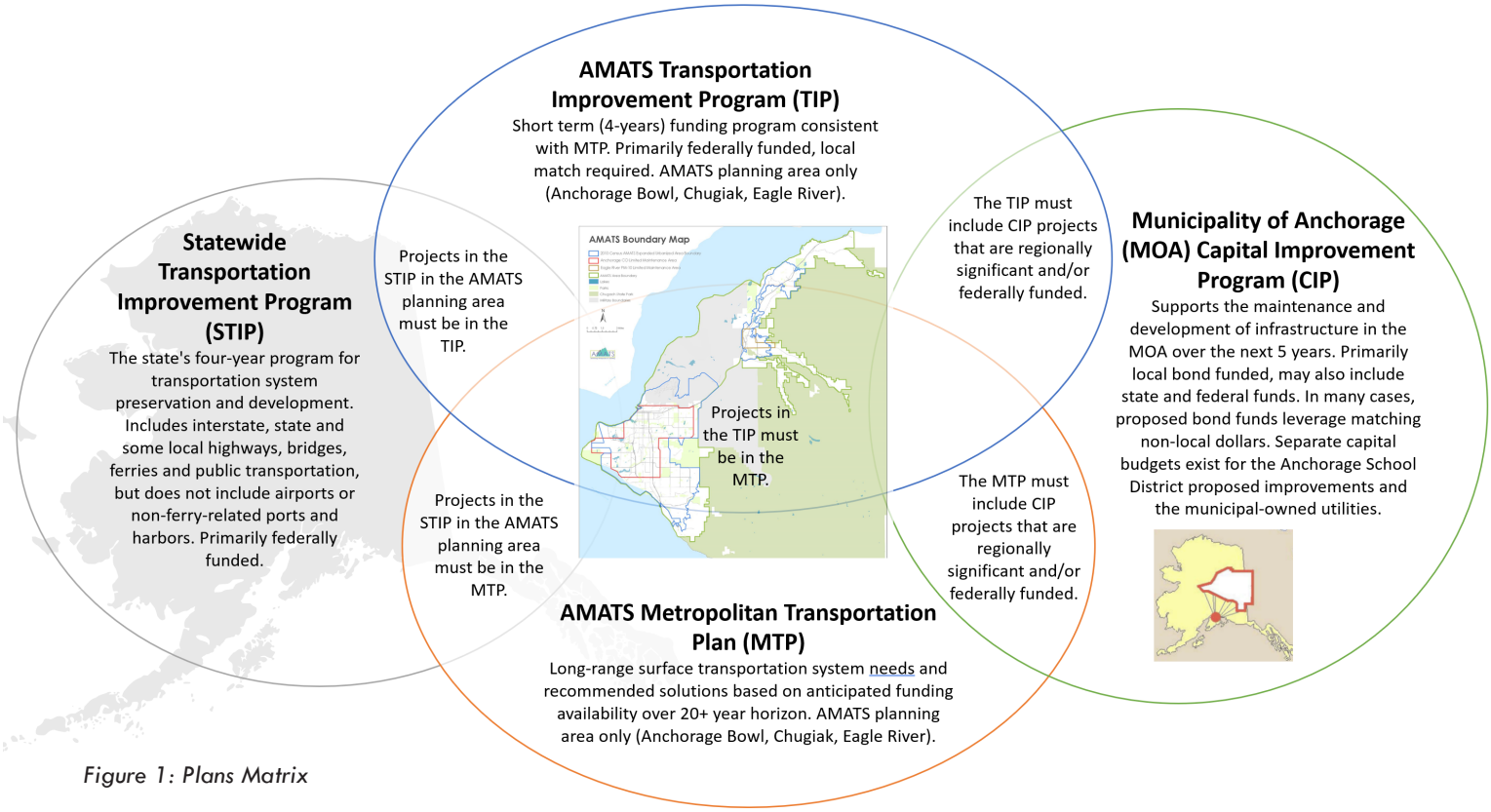


Figure 1: Plans Matrix

Air Quality Conformity

The EPA designated the Anchorage Bowl as a limited maintenance area for carbon monoxide (CO) and Eagle River as a limited maintenance area for particulate matter less than 10 microns in diameter (PM10). While air quality modeling is no longer required to estimate emissions, AMATS will prepare design concept and scope descriptions of all existing and proposed facilities for air quality conformity determinations. The 2050 Plan includes a discussion of potential environmental mitigation activities.

Fiscal Constraint

All recommended projects and programs in the 2050 MTP must be matched with reasonably anticipated funding. Unconstructed projects listed in the 2040 MTP were nominated and re-evaluated for consistency with 2050 MTP goals and objectives, local and state planning documents, funding availability and restrictions, etc. 23 CFR 450.324(f)(11) specifies the required elements and processes for an MTP's financial plan. Financial plan elements include estimated costs and reasonably expected revenue sources, additional funding strategies, and transportation control measures for air-quality non-attainment and maintenance areas. Anticipated funding is determined using historical trends and specific appropriations. Funding amounts, source eligibility, and timing must be considered when matching costs with revenues over the planning horizon.

Aside from the federal requirement, fiscal constraint has the primary benefit of making the MTP more implementable. A key change to better maintain fiscal constraint in the 2050 MTP is to account for the full range of project costs over their useful life (e.g., higher snow maintenance costs following new road construction require increasing the maintenance budget to cover those costs).

Organization of this MTP Document

Introduction

Chapter 1 sets the background and foundation for the purpose, need and intent of the metropolitan transportation plan. The first chapter also provides federal planning requirements for plan development.

Plan Development and Community Involvement

This section provides an overview of the plan development process including data collection through an iterative community engagement program to establish goals, objectives, project nominations, project screening and prioritization tools.

Goals, Objectives, and Prioritization Criteria

The goals and objectives presented in this planning framework chapter help to achieve the vision for the AMATS transportation system. The prioritization criteria developed during the planning public involvement process ensures that projects recommended will continue to achieve the MTP's goals.

Community and Transportation Profile

This section provides in depth information on the regional context of the AMATS area including the current demographic and socioeconomic conditions and trends. In addition, regional transportation and land use connections are detailed to identify the deficiencies and gaps in the current multimodal system including active transportation (walking and bicycling), public transportation, vehicle travel, and freight, setting the stage for the next chapter.

Future Transportation System

This chapter documents the forecasted or projected future transportation system including trends, scenario development, and analysis to ensure deficiencies are addressed.

Recommendations and Financial Plan

Chapter 6 combines project recommendations developed from the community and public engagement process and the fiscally constrained financial plan that will fund and program projects for implementation.

Implementation Strategies

This section provides the step by step actions needed to implement the plan recommendations and includes partnerships required to fully realize the community's vision for the transportation system. The performance measures established in this chapter will help to track how well progress will be made in the future to achieve the vision, goals, and objectives.

Air Quality and the MTP

This section details the federally required air quality conformity to ensure that future transportation project recommendations do not adversely impact the natural environment and especially air quality from vehicle carbon emissions.

Tribal Consultation and Resource Agency Review

This chapter covers the federally required Tribal Consultation and resource agency review that occurred as part of the 2050 MTP development process

Chapter 2

Plan Development Process and Community Involvement

This section provides an overview of the plan development process including data collection through an iterative community engagement program to establish goals, objectives, project nominations, project screening and prioritization tools.

MTP

Overview

The long-term success of the MTP is rooted in the plan development process and is guided by the existing conditions and deficiency analysis, community input, and desires for a future transportation network that serves all users and modes. Community involvement also informs and educates the public on the MTP's transportation planning process and involves them in recommendations and outcomes, resulting in a plan that follows best practices for safe and accessible transportation.

The MTP provides a 20-year outlook and vision that identifies current conditions and future needs. The MTP also provides guidance and a policy framework for transportation system improvements development through funding. Public Participation is central to MTP development. In addition to fulfilling federal planning requirements, effective public involvement improves decision making and ensures the MTP meets public needs and values. Development of the 2050 MTP followed public involvement guidelines described in AMATS' current Public Participation Plan. The 2050 MTP was developed through a four-phase process that occurred over three years. Figure 2a below shows the phases in an MTP plan. Figure 2b on the following page summarizes AMATS' plan development process and primary products, or actions taken.

Project Management Team

The plan was developed through an iterative process involving a multi-agency and multi-department Project Management Team including staff from AMATS, Alaska Department of Transportation and Public Facilities (Alaska DOT&PF) Planning, and the Municipality of Anchorage (MOA) Public Transportation Department and Planning Department. Along with a multi-disciplinary consultant team of transportation and land use planners, travel demand modelers, economists, and safety planning experts, the project team met regularly

Figure 2a: MTP Development Process

Phases in Developing an MTP

Evaluating Today's System

Examining the existing transportation network & community needs.

Public Input

Participating in the process is essential to a successful MTP update. Ensuring the 2050 MTP represents our community's goals and meets our needs.

Modeling & Analyzing Tomorrow's System

Exploring scenarios to see what issues and opportunities are in our future and how we can best meet our community's needs.

Building the Roadmap

Identifying projects, strategies and phasing recommendations based on regulations, best practices, fiscal constraints and community goals.

Figure 2b: AMATS MTP 2050 Development Process

Phase 1
DEFINE OUR VISION

Guiding Principles: How we approach the process

Vision Statement: Where we want to be

Goals & Objectives: What we want

Performance Measures & Targets: How we will know if we got to where we want to be

Phase 2
EVALUATE TODAY'S SYSTEM

Data Collection, Issues & Opportunities Identification

Status of the System: What we have

System Deficiency Summary: What needs to improve

Transportation Network Evaluation: How it performs

Phase 3
ANALYZE TOMORROW'S NETWORK

Modeling, Scenario Planning, Recommendations

2050 Model Runs: What 2050 will be like based on today's trends

Performance Based Scenarios: Our possible futures

Alternatives Analysis: Responses to current and anticipated needs

Project, Strategy, & Phasing Considerations: How to work towards getting the network we want.

Phase 4
BUILD OUR ROADMAP

Implementation Plan, Financial Plan, 2050 MTP

Project & Strategy Recommendations: What we need to build the desired network

Phasing & Implementation Plan: Specific steps to build the desired network and implement policy recommendations

Financial Plan: How it will be funded, matching costs with anticipated revenue

Draft 2050 MTP: Put it all together.

from plan update inception in 2021 through the Plan's final approvals and adoption. Workshops and work sessions were key to developing the framework of the plan during goals, objectives, performance measures, project screening and prioritization criteria, future scenario development and fiscal analysis of nominated projects.

Data Gathering and Background Research

Existing conditions analysis, travel demand modeling, scenario planning, and alternatives analysis incorporate socioeconomic, land-use, and Traffic Analysis Zone (TAZ)* data. Socioeconomic data sources include the Alaska Department of Labor and Workforce Development (ADOLWD) and the U.S. Census. 2019 is the base year for transportation projections. 2020 data are considered less reliable as an indicator of future travel demand due to COVID-19's short-term effects on travel. 2022 is the base fiscal year for financial projections.

* **Traffic Analysis Zone (TAZ)** = *A unit of geography commonly used in transportation planning models to represent trip origins and destinations, as well as the population, employment and other attributes that influence travel demand. TAZ boundaries are drawn so that their trip origins and destinations load onto the transportation network's roads, transit routes, and active transportation infrastructure in realistic ways. The urban area is divided into a set of contiguous zones.*

Other Plans

Several new plans developed since the 2040 MTP have guided the 2050 MTP development. These include:

1. The Spenard Corridor Plan (2021)
2. Transit on the Move Transit Plan (2020)
3. AMATS Non-Motorized Plan (2021)
4. Anchorage Climate Action Plan (2019)
5. Our Downtown: Anchorage Downtown District Plan (2021)

These plans, in addition to existing plans such as the Anchorage 2040 Land Use Plan, helped refine 2050 MTP goals and objectives and influence what projects are included in the MTP. These plans served as sources of strategies or project recommendations that were scored and ranked during 2050 MTP development and also provide a broader context to inform decision making, such as the land use and climate context.

Outreach and Community Involvement

All stakeholders need a transportation system that works for them, whether they walk, bike, roll, drive, or ride a bus. The 2050 MTP update focused on ensuring broad-based, inclusive involvement and input that reflects community priorities and shared values and complies with Title VI and environmental justice regulations. The community involvement process was integral to developing the MTP and shaping the policies and recommendations through an iterative process. The following tools were used to educate stakeholders and gather community input and feedback to inform the MTP.

Project Website

The MTP website is a central location for the public and stakeholders to access information on the planning process, from the timeline to planning documents and technical reports.

Project website – **amats2050.com** *(active during planning process),* **publicinput.com/2050_mtp** *(long term plan access)*

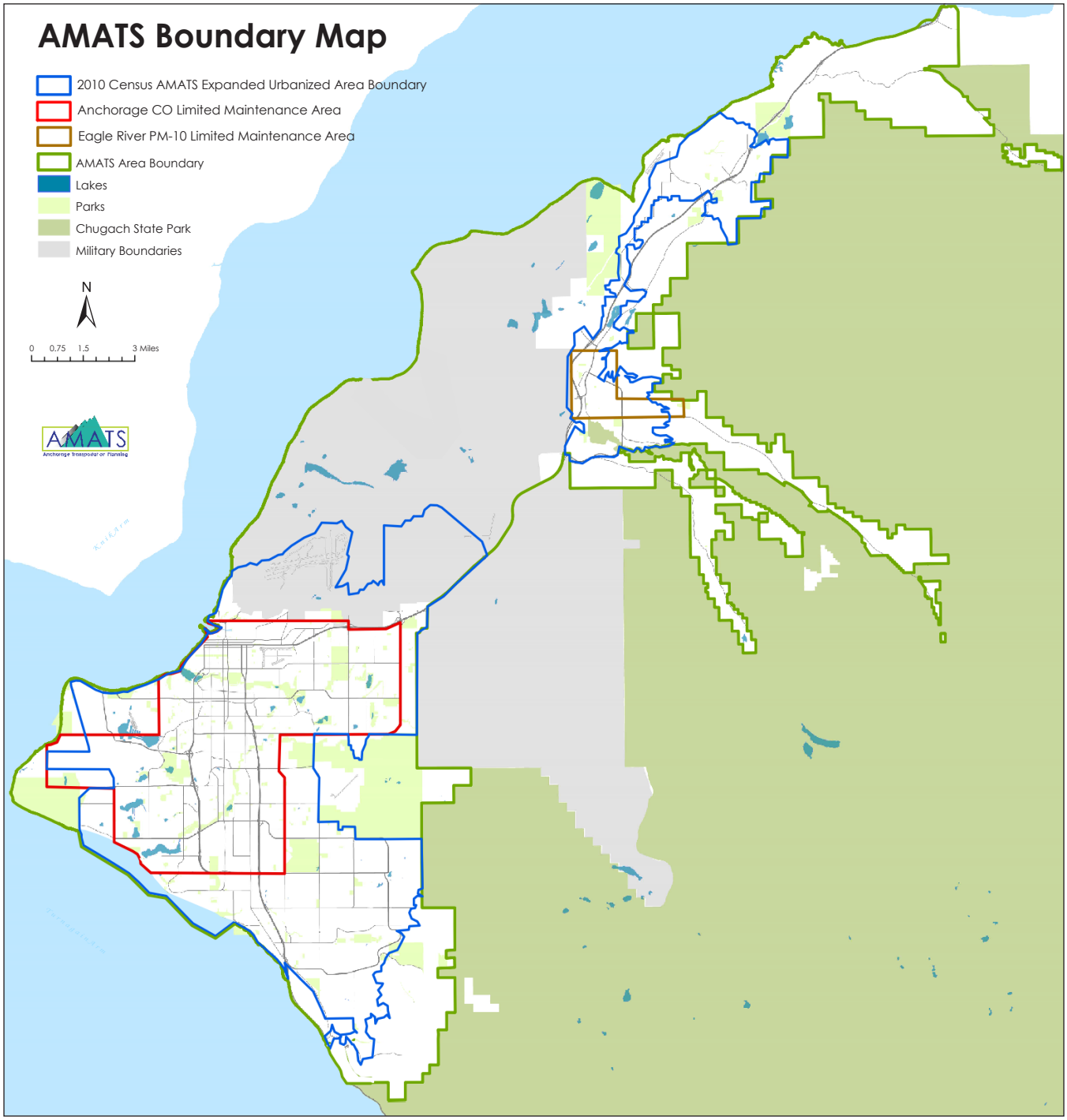
Fact Sheet

An AMATS 2050 Fact Sheet was shared throughout the plan development process to communicate the purpose and need, the schedule and planning area.

Community Survey

An online community survey was designed and made available to the public to develop the goals and objectives to help achieve the plan's vision for the 2050 MTP.

Figure 3: AMATS Boundary Map



Interactive Project Nominations Map

Use of an interactive online platform helped to collect detailed, usable, and timely data from the public. Digital storytelling with maps, images, text, and other exhibits on the Esri StoryMaps and similar platforms is an effective way to express and collect information, both qualitative and quantitative. The interactive map served as a primary communication tool to identify transportation system issues and opportunities during the project nomination process (see Figure 4).

AMATS Communications and Social Media

The existing AMATS communications protocol was used throughout the MTP process to share information, meetings, documents for review, and to notify interested residents of upcoming involvement opportunities including AMATS committee meetings and project specific workshops and work sessions. AMATS social media platforms were used to augment direct communications with the project and stakeholder list.

Public Workshops

Workshops 1 & 2 (Virtual & In Person) May 2022

Workshops 1 and 2 provided an overview of the MTP, including purpose of the plan and why it is being updated (see Figure 5). The goals from the public survey were also reviewed. Common themes from the workshop and online survey included:

- Transportation equity and fairness
- Winter maintenance of sidewalks
- Active transportation & transit accessibility, design
- Transportation & land use connection
- Walkable, connected places
- Environmental sustainability
- Reduce greenhouse gas emissions
- Reduce driving (vehicle miles traveled)

Attendees discussed in small groups at tables to identify aspects of the transportation system that answer the following questions and wrote their responses on corresponding colored post-it notes.

- What is working? (Green post-it)
- What would you change? (Pink post-it)
- Everything bagel (aka not sure which category it belongs to but needs to be stated) (Yellow post-it)

Workshops 3, 4, and 5

Workshops 3, 4, and 5 held August 2023 (virtual and in person) in Anchorage and Eagle River presented the draft plan for public feedback during a 60-day public comment period (see Appendix 2).

Transportation Fair

AMATS participated in the 2023 Transportation Fair at the University of Alaska Anchorage to inform the community of the project's status update and opportunities to participate in the future.

Figure 4: Interactive platform used to collect data from the public.

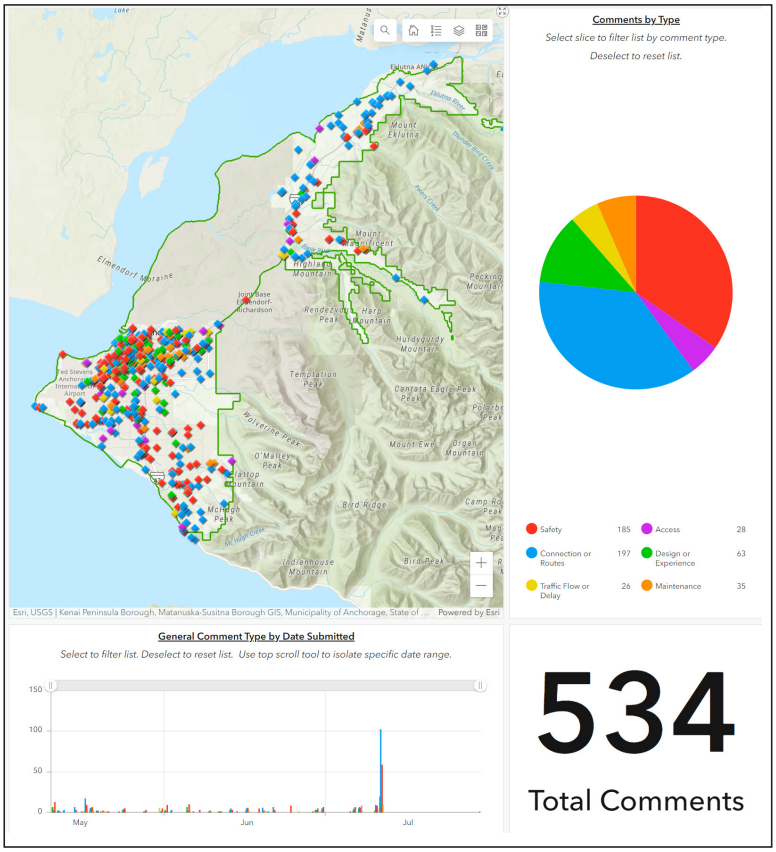


Figure 5: Overview of the MTP from Workshops 1 and 2, May 2022

What CAN and CAN'T the MTP Do?

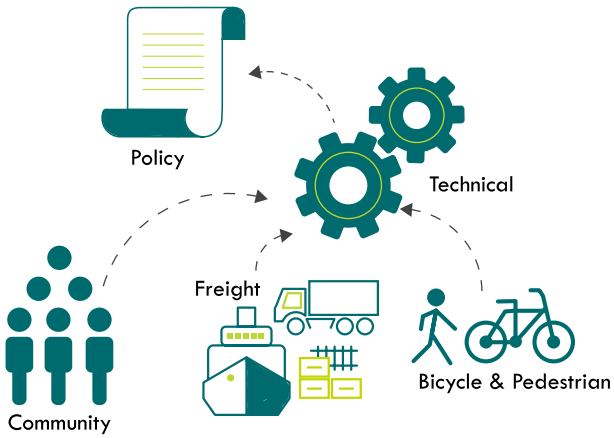
The MTP Can:	The MTP Can't:	How to Address	Next Steps
Set transportation funding priorities	Fund winter maintenance (i.e. snow removal)	Operations & Maintenance Dept. operating budget with property taxes	Contact your Assembly member
Establish criteria for funding recommendations	Fund transit operations (other than CMAQ* funds)	Increase Public Transportation Dept. operating budget (non-formula funds) with property taxes	Contact your Assembly member
Recommend funding for transportation plans, studies, programs	Change future land use	Land Use Plan (LUP)	Participate in LUP updates
Recommend funding for transportation infrastructure (physical assets)	Change posted speed limits without changing road design	Speed limits considered during project design	Recommend walkability/ accessibility improvements
Use scenario planning to improve decision making	Design projects	Project-specific public meetings	Participate in project-specific public meetings
Recommend policy changes			

*Congestion Mitigation & Air Quality (determined by formula)

AMATS 2050 MTP METROPOLITAN TRANSPORTATION PLAN

Figure 6: 2050 MTP Workshop 1 Exercise.

As part of the presentation, an interactive group exercise following precedent slides of local examples and definitions of the MTP Goals such as land use and connectivity, Complete Streets/Context Sensitive Solutions, 15-minute neighborhoods and economic activity as it relates to freight transportation.



AMATS Committees

The AMATS Committees reviewed the technical documents throughout the plan development process. Work sessions were held for:

- Goals, objectives, and performance measures and prioritization criteria
- Scenario development
- Recommended project list based on fiscal analysis
- Plan draft and public comment summary

Advisory Committees Responsibilities

Policy Committee (PC)

The PC has final authority to approve the MTP and supplemental materials. The PC provides overall direction and guidance and will address stakeholder and public input when making decisions. Key approvals during MTP development include:

- Public Involvement Plan
- Guiding Principles
- Goals, Objectives, and Performance Measures and Targets
- Financial Plan
- Project Scoring Criteria
- Recommended Projects and Strategies
- Air Quality Conformity Determination
- Full MTP Draft
- 2050 MTP development will include review and incorporation of the AMATS Resolution 2020-001

Technical Advisory Committee (TAC)

The TAC provides technical direction and guidance to help the PC make more informed decisions.

AMATS has three additional advisory committees that bring suggestions to the Policy Committee through the Technical Advisory Committee.

Community Advisory Committee (CAC)

The CAC provides community comments and views on the metropolitan planning process.

Freight Advisory Committee (FAC)

The FAC serves as an information resource on freight issues and concerns.

Bicycle and Pedestrian Advisory Committee (BPAC)

The BPAC provides review and comment on bicycle and pedestrian planning specific elements of the MTP.

Municipality of Anchorage Assembly

While the Assembly does not have authority to approve the MTP or its components, they are a valuable resource in determining public sentiment. The Assembly has the opportunity to review and provide comments on the draft MTP and hold a public hearing to solicit public comments.

Disposition of Comments

Public, Tribal, and Agency comments were collected and responded to in the comment response summary tables available on the AMATS 2050 MTP Public Input website located here:
2050 Metropolitan Transportation Plan PublicInput (https://publicinput.com/j4666).

Chapter 3

Goals, Objectives and Prioritization Criteria

The goals and objectives presented in this planning framework chapter help to achieve the vision for the AMATS transportation system. The prioritization criteria developed during the planning public involvement process ensures that projects recommended will continue to achieve the MTP's goals.

MTP

This section contains the goals and objectives developed for the 2050 MTP update. The goals are broad statements about what we want to achieve with the transportation system. Objectives are specific and measurable statements about how we will achieve the goals. Performance measures – which are included in Chapter 7 – provide a way to measure the success of how objectives and goals are being met.

Goals and Objectives

Goals and objectives for the 2050 MTP were based on the 10 planning factors described in Chapter 1 and further developed and refined based on public input. Public comment submitted during the MTP planning process showed that the public wanted to be able to see performance measures and targets.

GOAL 1

Maintain Existing Infrastructure

Maintain transportation infrastructure in a state of good repair

Objective 1A. Maintain and rehabilitate existing infrastructure to achieve a state of good repair with effective use for all modes of travel year-round.

Objective 1B. Increase transportation infrastructure resiliency to natural hazards.

GOAL 2

Improve Safety & Security

Provide safer and more secure places to live, walk, bike, ride the bus, and drive

Objective 2A. Reduce the number and severity of vehicle, pedestrian, bicycle, motorcycle and commercial vehicle crashes and fatalities by following the Safe System Approach.

Objective 2B. Improve ability to achieve timely emergency response.

Objective 2C. Minimize conflicts between different modes of travel, reduce unsafe behaviors, and increase attentiveness and awareness.

GOAL 3

Improve Access & Mobility Options

Support an efficient, reliable, and connected transportation system that equitably improves access and mobility to all activities

Objective 3A. Improve the existing transportation system efficiency through the implementation of effective and innovate strategies and technologies, such as: Transportation System Management and Operations (TSMO), Transportation Demand Management (TDM), and Intelligent Transportation Systems (ITS).

Objective 3B. Provide facilities to encourage transit use and improve pedestrian and bicycle travel.

Objective 3C. Implement transportation facilities that are appropriate for the intended adjacent land use and contribute to their placemaking opportunities.

People Mover transit center – courtesy of AMATS/Municipality of Anchorage.

Objective 3D. Enhance the connectivity of the existing transportation network, minimizing barriers and disconnections, and improving multimodal access to activity centers.

Objective 3E. Manage congestion to support land use goals and facility efficiency while avoiding unwanted induced demand impacts.

Objective 3F. Support the operation of safe and efficient scheduled transit services that minimize travel times and distances.

Objective 3G. Design, construct, and maintain multimodal facilities to support winter mobility.

People Mover maintenance trucks – courtesy of AMATS/Municipality of Anchorage

GOAL 4

Support the Economy

Develop a transportation system that supports a thriving, sustainable, broad-based economy, while maintaining or enhancing the surrounding area's land use character.

Objective 4A. Enhance intermodal capabilities of the transportation system to meet the needs of freight generators, the military bases, and other employment centers and industrial and commercial areas, while maintaining compatibility with the current adopted Land Use Plans.[1]

Objective 4B. Attract community investment and tourism through improved transportation system accessibility, aesthetics, placemaking and wayfinding.

Objective 4C. Promote an adaptable transportation system that supports the local and regional economy, job growth and livability.

Objective 4D. Plan and facilitate regional policy development for new technology.

Objective 4E. Coordinate street design standards to match current land use as well as future land use goals and policies by applying Context Sensitive Solutions and Complete Streets policies, and street typologies.

GOAL 5

Promote a Healthy Environment

Protect, preserve, and enhance the natural environment to promote sustainability and public health.

Objective 5A. Improve air quality and reduce greenhouse gas emissions.

Objective 5B. Increase community resiliency to climate change.

Objective 5C. Coordinate transportation and land use planning to support connections that reduce reliance on auto trips and encourage active transportation.

Objective 5D. Minimize and mitigate negative impacts on the natural environment by implementing the Context Sensitive Solutions process during transportation project development.

Objective 5E. Promote healthy lifestyles by connecting everyday destinations through increased active transportation.

GOAL 6

Advance Equity

Promote equitable transportation options, improvements, and maintenance activities for vulnerable populations.

Objective 6A. Improve multimodal access to employment,

1 Current adopted Land Use Plans include the 2040 Land Use Plan and Chugiak-Eagle River Comprehensive Plan.

education, recreation, and essential services for underserved neighborhoods.

Objective 6B. Minimize adverse impacts on existing neighborhoods resulting from transportation projects; when impacts are unavoidable, equitably distribute them to avoid disproportionate impacts to vulnerable populations.

Objective 6C. Improve the ability of underrepresented groups to participate in the transportation decision making process.

Project Prioritization Criteria

The 2050 MTP is required to include a fiscally constrained list of recommended transportation projects for the AMATS area. To develop that final list, projects must be identified, analyzed, and prioritized based on need, anticipated outcome, and fiscal constraints. The public and agency stakeholders provided AMATS with conceptual projects they would like to see in the AMATS planning area between now and 2050. Those projects were evaluated using the Project Prioritization Criteria (see Appendix 5).

Project Prioritization Criteria were used to inform decision makers on the anticipated ability of a proposed project to meet the 2050 Goals & Objectives.

Project Scoring

The following steps were used to score a project using the criteria:

1. Determine the general project type.
   - Only use the corresponding column to score the project. The other project-type columns will remain blank, as they are not applicable.
2. Review the criteria, and select points based on point descriptions.
3. If "select one" is stated in the description, choose the description that best fits the recommended project, adjusting the point value for any applicable bonuses and penalties. A project may receive negative points for multiple criteria.
4. If "select all that apply" is stated in the description, add the point values of all applicable statements, adjusting for any applicable penalties. A project may receive negative points for multiple criteria.
5. Add the total points for each MTP goal.
6. Combine the point totals for each MTP goal to receive the final project score.

High scoring projects were consistent with the goals and objectives; low scoring projects were inconsistent or only partly consistent with the goals and objectives. After scores were developed by staff, the Technical Advisory Committee and Policy Committee reviewed the scoring outcomes and applied fiscal constraints on the project list. Additional analysis included transportation demand modeling, a community impact assessment, and scenario planning that incorporated population and job growth projections for the AMATS area also informed decision makers' final project selections. Public input and review occurred throughout this process.

Project Scoring Example

Criteria (max 20 for each goal)

PROJECT	Maintain existing infrastructure	Improve safety & security	Improve access & mobility options	Support the economy	Healthy environment	Equity	TOTAL
Upgrade example road to Complete Street	8	11	14	12	15	20	**80**

Tudor Centre Drive – courtesy of AMATS/Municipality of Anchorage

Chapter 4

Community and Transportation Profile

This section provides in-depth information on the regional context of the AMATS area including the current demographic and socioeconomic conditions and trends. In addition, regional transportation and land use connections are detailed to identify the deficiencies and gaps in the current multimodal system including active transportation (walking and bicycling), public transportation, vehicle travel, and freight, setting the stage for the next chapter.

MTP

The community and transportation profile sets the context and existing conditions for planning the 2050 transportation system in Anchorage and Chugiak-Eagle River. This includes:

- applicable plans and studies,
- demographic, economic, and land use information,
- geography, environmental resources, and constraints,
- existing assets and condition of the transportation system, and
- trends, factors, forecasts, and risks that may affect future needs.

More details on the community and transportation profile can be found in the Existing Conditions Assessment & System Deficiencies Analysis and AMATS Socioeconomics Methodology technical reports.

Plans and Studies

The following documents contribute to the existing conditions assessment: (1) the current 2040 MTP;[1] (2) the Transit On the Move 2020 Transit Plan;[2] (3) the current AMATS Non-Motorized Plan;[3] (4) the Port of Alaska Enterprise Activities Budget which contains the Port of Alaska Modernization Plan;[4] (5) the Ted Stevens International Airport Master Plan[5]; and (6) the region's vision, goals, and objectives chosen as part of the 2050 MTP update. This chapter uses observed data where possible and synthetic data from the updated AMATS Travel Demand Model (TDM) that was developed to support the 2050 MTP update. System elements for which no data of any kind exists are also identified.

Demographic, Economic, and Land Use Information

Population and Employment

Over one third of Alaska's population lives in the AMATS planning area. Anchorage is among the most ethnically diverse communities in the United States. Over 100 languages are spoken in the city's streets and schools, representing cultures from around the globe and from across the Arctic.

In 2019, the population of the Municipality of Anchorage (MOA) within the AMATS planning area was just over 304,700. Over the last decade, the population in the MOA has slightly decreased; however, there was growth from 2010 to 2013, followed by a general pattern of decline from 2013 to 2020. The MOA population decline was driven primarily by net migration (i.e., in-migration minus out-migration), rather than natural increase (i.e., births minus deaths). All the population growth from natural increase was negated by out-migration, with some of that population relocating to the Mat-Su Borough.

From 2019 to 2050, the population in the AMATS planning area is projected to grow somewhat over 4%, while over the same time employment would grow about 25%, given Anchorage's role as the economic center of Alaska (see Table 1)[6]. The modeled total population for the AMATS planning area (including Joint Base Elmendorf-Richardson) is about 318,000 in 2050.

1 Anchorage Metropolitan Area Transportation Solutions. MTP2040, 2020. Available at: Transportation Planning/AMATS Metropolitan Transportation Plan (muni.org)
2 Municipality of Anchorage Public Transportation Department. Transit on the Move—2020 Transit Plan. 2019.
3 Anchorage Metropolitan Area Transportation Solutions. Non-Motorized Plan. 2021.
4 Port of Alaska. 2022 Proposed Utility/Enterprise Activities Budgets. 2022. https://www.muni.org/Departments/budget/utilitiesEnterprise/2022%20Utilities/2022%20Proposed/Web%2004%20-%20Port%20of%20Alaska.pdf
5 Ted Stevens International Airport. Master Plan. 2014. https://dot.alaska.gov/anc/about/masterPlan.shtml
6 McKinley Group. AMATS Socioeconomics Methodology. 2022.

While population change has affected travel patterns within the AMATS boundary, the most significant travel changes in the last few years occurred during the COVID-19 pandemic. An Alaska DOT&PF study of traffic counts within Anchorage shows that volumes dropped by almost 19% in 2020 and were still over 6% below 2019 as of 2022[7]. Long-term impacts of shifting travel patterns remain uncertain.

Table 1: 2019 and 2050 Estimates for Population and Employment within the AMATS Boundary

AREA	2019	2050	2019 TO 2050 CHANGE
Anchorage Bowl Total Population	265,290	277,403	**5%**
Anchorage Bowl Total Employment	193,547	241,561	**25%**
Chugiak-Eagle River Total Population	39,444	40,652	**3%**
Chugiak-Eagle River Total Employment	10,497	13,374	**27%**
Total Population within AMATS Boundary	304,734	318,055	**4%**
Total Employment within AMATS Boundary	204,043	254,935	**25%**

Source: McKinley Research Group, AMATS Socioeconomic Methodology Report. 2022.

Race, Ethnicity, and Language

Within Anchorage, the population of people of color has grown 22% between 2010 and 2020. The 2020 U.S. Census reports that 46% of residents within the AMATS boundary identify as people of color, which is defined as any race or ethnicity besides "white non-Hispanic/Latino". The breakdown by race among people of color is: 11% multiracial, 9% Asian, 9% Hispanic/Latino, and 8% Alaska Native/American Indian. Taken as a whole, Anchorage has lost just under 600 residents, or less than 1% since 2010. Disaggregating this shift by race reveals that this is due to varying rates of change across different racial/ethnic groups. The result is an increase in the overall racial and ethnic diversity of Anchorage over the past decade. Along with considerations of race and ethnicity, language is another important indicator to assess in the context of equity and accessibility in transportation. According to the 2016-2020 American Community Survey (ACS), 18% of the region's residents' primary spoken language in the home is something other than English. The most common of these languages is Spanish (5% of the population), followed by Tagalog (3%), and other Asian and Pacific Island languages (4%), including Samoan, Hmong, Korean, and others.

Age, Disability, and Income

Within the AMATS region, the ACS reports that seniors, age 65 and over, represent approximately 11% of the population; about 6% of households reported that they do not have access to a vehicle; and 11% of the population are individuals experiencing disabilities. While focused on different areas of need (e.g., physical access to stops, last-mile travel, etc.), each of these indicators represent populations for whom specific considerations must be made to ensure equitable access to the transportation system for all residents.

Income impacts the options available to individuals to meet their transportation needs, which in turn can perpetuate existing disparities. Approximately one in five residents in Anchorage are low-income, defined as having household income below 200% of the federal poverty level.

Housing costs commonly serve as an important economic indicator. According to the ACS, nearly half of households (44%) within the AMATS region are considered cost-burdened renters, meaning that they spend 30% or more of their income on rent. Additionally, 19% of renters reported that they spend more than 50% of their income on rent.

Health and Equity

The health and equity analysis of the Anchorage Non-Motorized Plan used a combination of six socioeconomic characteristics (age, race, income, educational attainment, Limited English Proficiency, and access to a vehicle) and seven health indicators (prevalence of obesity, coronary heart disease, cancer, diabetes, poor mental health, and asthma, and leisure-time physical activity) to identify vulnerable populations. In general,

7 AADT Source: Alaska DOT&PF; "Alaska Traffic Data," https://alaskatrafficdata.drakewell.com/publicmultinodemap.asp.

Figure 7: Equity Analysis Anchorage

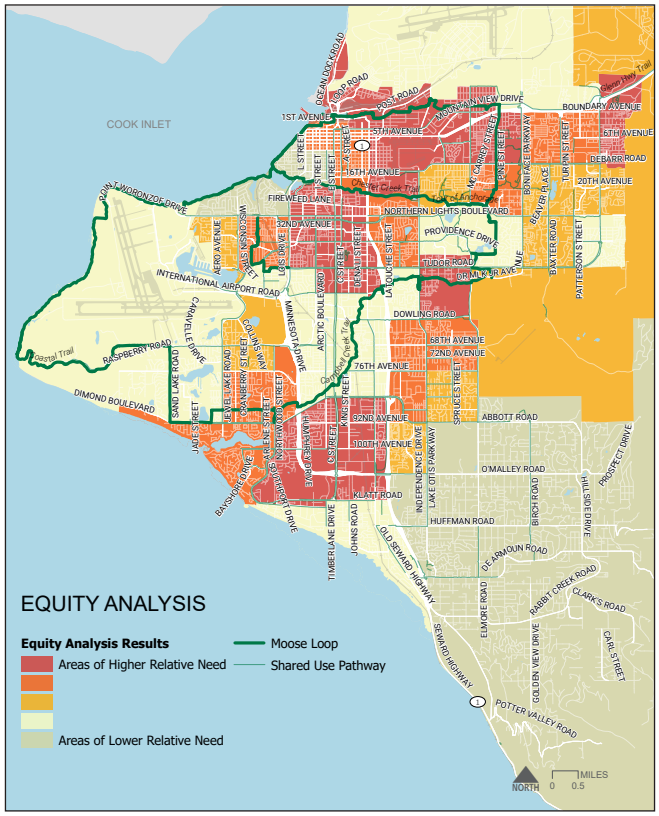
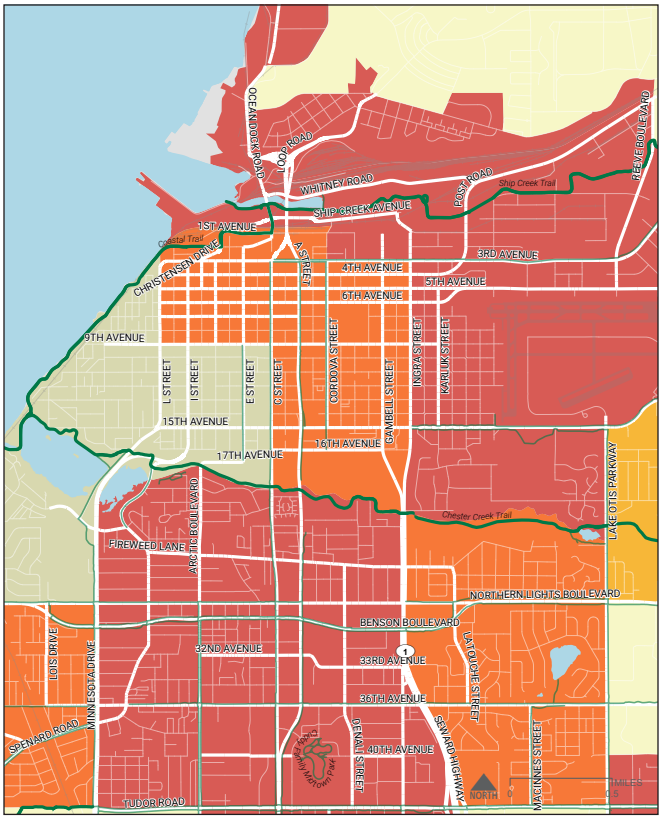
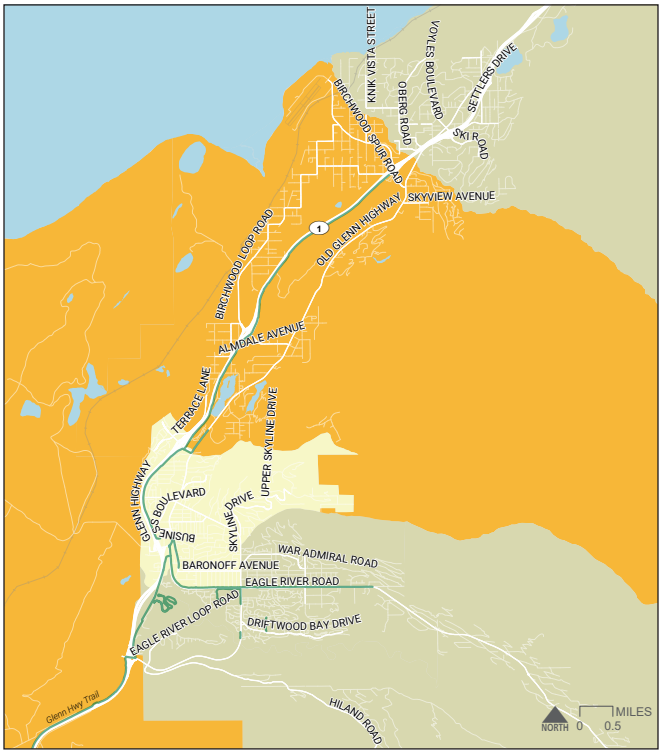


Figure 8: Equity Analysis Downtown



Source for figures 7-9 AMATS Non-Motorized Plan, https://www.muni.org/Departments/OCPD/Planning/AMATS

Figure 9: Equity Analysis Chugiak-Eagle River



census tracts with more adverse health outcomes and behaviors also have high composite equity scores. Areas in the northern, central, and southern part of the Anchorage Bowl are not only experiencing the worst health outcomes in the areas, but they also represent communities with high numbers of disadvantaged and minority populations (see Figures 7, 8 and 9).[8]

Land Use

Transportation infrastructure is a type of land use that influences what choices people make to travel and how they access destinations. How transportation land uses align with other types of land uses such as housing, can also have significant impacts on quality of life and cost of living. According to USDOT:

8 Anchorage Metropolitan Area Transportation Solutions. "Non-Motorized Plan." 2021. Available at: https://www.muni.org/Departments/OCPD/Planning/AMATS/Pages/1_nonmotorized.aspx. p. 34-39.

Tudor Centre Drive at Diplomacy Drive – courtesy of AMATS/ Municipality of Anchorage.

> *Housing costs are the single largest expense for most households. When combined with transportation costs, they account for approximately half of the average U.S. household budget. Combined housing and transportation costs strongly reflect aspects of the built environment. Those include density, land use mix, and overall accessibility, which influence public health through physical activity and access to basic amenities.*[9]

By facilitating the provision of more cost efficient forms of transportation, AMATS can help support conditions for more diverse forms of land use and help reduce living costs throughout its area.

The Anchorage 2040 Land Use Plan is the general land use plan for the Anchorage Bowl and sets the stage for future growth and development in the area. It recognizes a need to maximize land use efficiencies while accommodating and enhancing neighborhood characteristics and natural resources. Goal 6 of the Anchorage 2040 land use plan states specifically: "Anchorage coordinates transportation and land use to provide safe, efficient, and affordable travel choices." Actions within this goal which might relate to MTP activities include:

- 6-1 Update the Metropolitan Transportation Plan's (MTP) growth allocation model to reflect the 2040 LUP land use designations.
- 6-2 Adopt a policy and municipal street design criteria for "Complete Streets" and urban and mixed-use Street Typologies to serve all users and reflect adjacent land use patterns. Apply these in priority Reinvestment Focus Areas.
- 6-7 Facilitate one or a series of Targeted Area Rezonings in housing opportunity areas along public transportation corridors.
- 6-8 Develop a phasing and prioritization program for additional local and collector street connections, intersection and access improvements, right-of-way width, and pedestrian connections that are needed to support infill and redevelopment in neighborhoods, centers, and corridors targeted to experience growth and change, including in Special Study Areas identified along Lake Otis and Tudor near the UMED District, along northern Muldoon Road, and other areas shown on the Actions Map.
- 6-9 Establish a Framework Agreement between the Municipality and DOT&PF regarding the designation and improvement of streets or street segments where greater emphasis will be placed on multimodal, "Complete Street" design. Potential ways to achieve these streets will be identified, which may include ownership transfers and other case-by-case solutions.

Other relevant goals or actions from the 2040 Land Use Plan include:

- Goal 5: Coordinated and targeted infrastructure investments catalyze new growth, provide an acceptable return on investment, and equitably improve safety and quality of life.
- Action 5-1 Refine the criteria used for the review of capital projects to be included in the CIP to promote implementation of the capital priorities identified in the 2040 LUP, functional plans, and neighborhood and district plans.

Overall, the 2040 Land Use Plan calls for increased housing density over time, more mixing of uses, more travel choices, and promoting the use of public transportation. The "Transit-Supportive Development" overlay feature is intended to facilitate the growth of conditions over time which would lead to a more robust public transit system.

9 https://www.transportation.gov/mission/health/housing-and-transportation-affordability

Elsewhere in the AMATS planning area, the 2006 Eagle River Comprehensive Plan update has a stated transportation goal to: "Ensure development of a transportation network that provides an acceptable level of service, maximizes safety, minimizes environmental impacts, provides alternate transportation types and is compatible with planned land use patterns." Objectives within this goal include:

a. Increase transportation system efficiency during peak-hour periods.

b. Increase public transit ridership by improving service frequency and coverage.

c. Encourage transit access in the urban zoning districts by providing maintained sidewalks, pathways or trails

d. Periodically re-evaluate the feasibility of rail, air and other transportation alternatives as options for commuters.

e. Minimize residential and business relocations resulting from transportation projects.

f. Improve, as necessary, expressway, arterial and collector roads to safely and efficiently handle projected traffic.

g. Provide connectivity to and between subdivisions where important to accommodate normal as well as emergency traffic, recognizing physical environmental constraints and the need to minimize cut-through traffic within residential neighborhoods.

h. Review the existing road system to identify essential local road connections.

More recently adopted plans within the Anchorage Bowl also discuss transportation system investments and changes at length, including the 2020 Spenard Corridor plan ("Policy 2.12: Efficient multi-modal transportation systems in the Spenard Corridor (bicycle, pedestrian, transit, freight and motor vehicles) should enhance Anchorage's regional circulation network.") and the 2023 Our Downtown District Plan (Policy 7-1: "Safe, convenient, and reliable transportation is the bedrock of a functioning city; therefore, this plan supports upgrades to the transportation system to achieve multimodal projects and efficiencies integral to the revitalization of Downtown Anchorage." Policy 7-3: "Reducing single-occupant vehicles traveling to and from Downtown will provide environmental and economic benefits.").

Geography, Environmental Resources and Constraints

Anchorage sits on the traditional homelands of the Dena'ina Athabascans in Southcentral Alaska along the Cook Inlet. It is constrained by Turnagain Arm to the south, Knik Arm to the north, the Chugach Mountains to the east, and Joint Base Elmendorf-Richardson (JBER) to the northeast. The AMATS planning area includes the "Anchorage Bowl", which covers approximately 100 square miles and is the urban core area, as well as the communities of Chugiak and Eagle River to the north. The planning area is all within the MOA, which is almost 2000 square miles. The area has a subarctic climate with an average annual snowfall of 78 inches. The Anchorage Bowl is within the Campbell Creek, Chester Creek, and Ship Creek watersheds with a prevalence of lowland wetlands.

Climate Change Impacts

"Alaska's climate is changing faster than the rest of the United States. The scientific community agrees that the world is warming due to the human emissions of greenhouse gases. Over the last 50 years, Alaska has warmed twice as fast as the global average. The impacts of climate change are felt throughout the state. Thawing permafrost and receding sea ice threaten communities in the western, northern and interior regions of the state. In Southcentral Alaska, the impacts include increased wildfire risk, threats to human health and infrastructure, and less predictable freeze-thaw patterns. Communities and Alaska Native tribes throughout Alaska are creating climate action plans to cut emissions and adapt to these environmental changes.

In the absence of adaptation efforts, damage to public infrastructure caused by climate change could cost Alaska $142 to $181 million per year and a cumulative $4.2 to $5.5 billion by the end of the century. This burden will be heavily shouldered by

the Municipality of Anchorage, which serves as the commercial hub of the state. Much of the economic activity and supply chain infrastructure that serves the state is based in Anchorage."

– Anchorage Climate Action Plan, p.12, 2019

Transportation System: Existing Conditions, Deficiencies, and Forecast Results

The AMATS area transportation system includes active, public, vehicle, and freight transportation. Over the last 50 years, the transportation system has been significantly built up for vehicle and freight transportation. More recently, public input and policy guidance have shifted priority to improving and increasing active transportation infrastructure and transit use in the planning area.

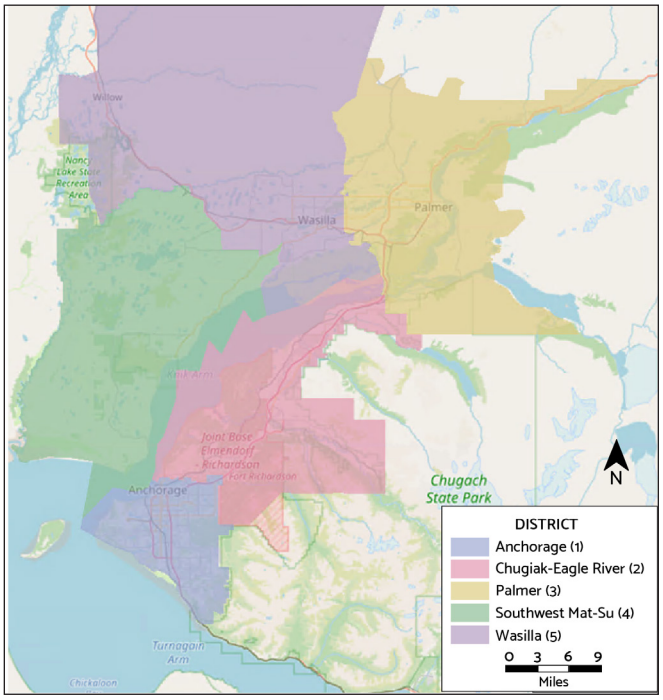
Table 2: Challenges and successes of AMATS transportation system.

TYPE	CHALLENGES	SUCCESSES
ACTIVE	• Gaps in the system • Winter maintenance • Safety	• Extensive multiuse trail system
PUBLIC	• Funding • Winter maintenance	• Rideshare • Increased route frequency
VEHICLE	• Reliance on vehicle transportation • Modal conflicts • Winter maintenance • Impact to adjacent land use and development	• Managed congestion • Vehicle access
FREIGHT	• Aging infrastructure • Modal conflicts • Winter maintenance • Impact to adjacent land use and development	• Managed congestion • Freight access

Modeling Methodology

To analyze the existing conditions and deficiencies and forecast results, AMATS uses a travel demand model that simulates road and transit performance within the AMATS planning boundary plus most of the Matanuska-Susitna Borough (Mat-Su), as shown by districts in Figure 10. The Mat-Su is included in the model due to the significant influence on the AMATS area transportation system. This report focuses on findings for the Anchorage Bowl, Chugiak-Eagle River, and the total AMATS planning area (the Bowl and Chugiak-Eagle River taken together).

Figure 10: Area Represented in the AMATS Travel Demand Model, Showing Model District



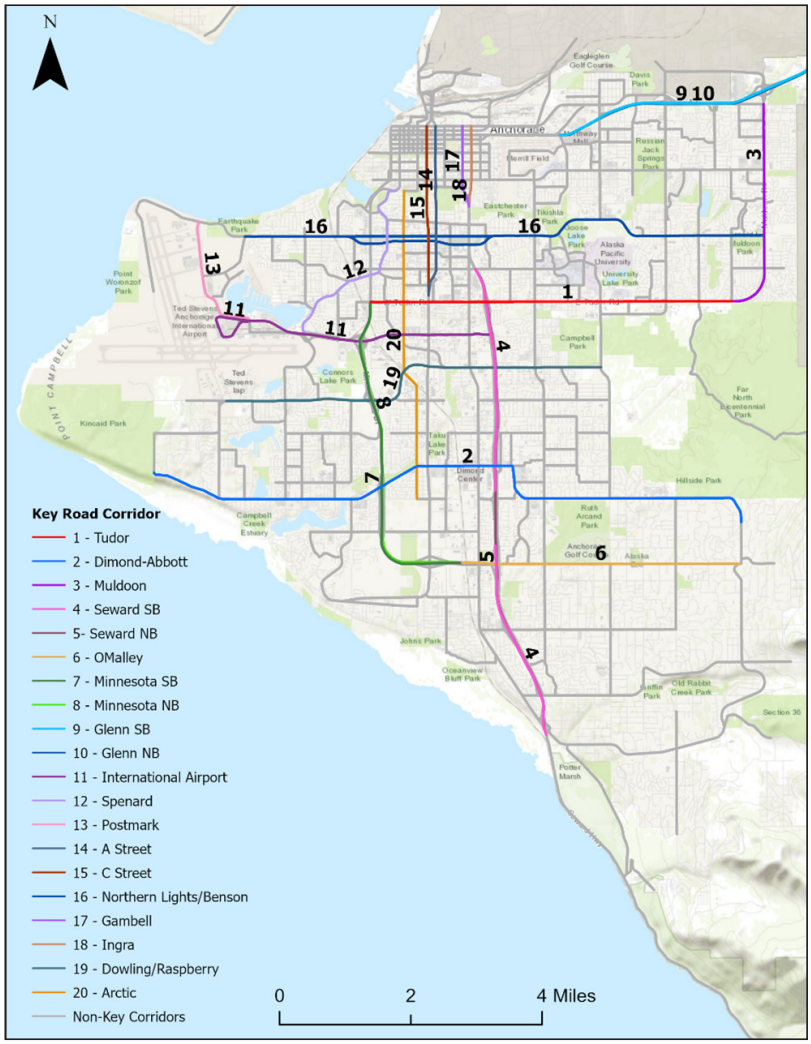
Source: RSG.

The model is calibrated to a base year of 2019, the last pre-pandemic year, and it estimates all travel for all households within its defined geography for a typical autumn or spring weekday when school is in session. In addition to analyzing existing conditions and deficiencies, the model was used to evaluate the different metropolitan transportation plan alternatives (see Chapter 5). To serve as a comparison point for the potential 2050 MTP alternatives and to help indicate possible deficiencies, AMATS used the model to forecast a "2050 Reference Alternative." This included the projected 2050 population and employment plus all transportation system investments completed or completely funded for 2019 through the end of 2050.

This section reports data on key corridors to provide information to which travelers can directly relate. The corridors appear in Figure 11. These are contiguous stretches of road chosen to represent trips travelers would experience during their daily lives within the AMATS planning area.

Mode share refers to the proportion of all travelers on the modeled weekday who use a particular type of transportation (transit, walk, bike, drive alone, shared ride, or school bus) to make a trip. The travel demand model shows 2019 conditions and forecasts 2050 conditions without new investments or policy changes (Table 3a and 3b). The 2050 Reference Alternative demonstrate no significant differences in mode shares from the 2019 base year estimates. This is likely due to the modest population growth and the fact that the 2050 Reference Alternative transportation system is not greatly different than that of the base year.

Figure 11: Key Road Corridors used for Performance Reporting



Source: RSG.

Active Transportation

The existing conditions for the active transportation (walking and biking) elements of the AMATS transportation system appear below mostly in the form of supply measures (e.g., the amount of infrastructure in the present and planned). The maps and facilities data are taken from the AMATS Non-Motorized Plan, which was adopted in 2021 by the AMATS Policy Committee. For bicycle infrastructure, the Plan focuses on "…closing gaps in the existing network, providing an on-street network and connecting the existing and planned shared use pathway network to increase the use of existing facilities."[10] For people walking, the Plan's goals are to "…provide flexibility in network implementation over time and improve the focus on safety and connectivity of the network."[11]

Table 3a: Estimated 2019 base year mode shares for all daily trips

TRANSPORT TYPE	ANCHORAGE BOWL	CHUGIAK–EAGLE RIVER	AMATS PLANNING AREA
DRIVE ALONE	45.69%	42.76%	**45.34%**
SHARED RIDE	40.52%	44.88%	**41.05%**
WALK	9.07%	9.43%	**9.12%**
BIKE	1.99%	0.99%	**1.87%**
TRANSIT	1.04%	0.02%	**0.92%**
SCHOOL BUS	1.68%	1.92%	**1.71%**

Source: RSG, AMATS 2019 Travel Demand Model

Table 3b: 2050 Reference alternative mode shares for all daily trips

TRANSPORT TYPE	ANCHORAGE BOWL	CHUGIAK–EAGLE RIVER	AMATS PLANNING AREA
DRIVE ALONE	45.92%	43.82%	**45.67%**
SHARED RIDE	40.49%	44.10%	**40.93%**
WALK	8.95%	9.25%	**8.99%**
BIKE	1.96%	0.96%	**1.84%**
TRANSIT	1.01%	0.02%	**0.89%**
SCHOOL BUS	1.67%	1.69%	**1.69%**

10 Anchorage Metropolitan Area Transportation Solutions. "Non-Motorized Plan." 2021. Available at: https://www.muni.org/Departments/OCPD/Planning/AMATS/Pages/1_non-motorized.aspx. p. 1.
11 Ibid. p. 1.

Figure 12: Existing Sidewalks in the Anchorage Bowl, 2021

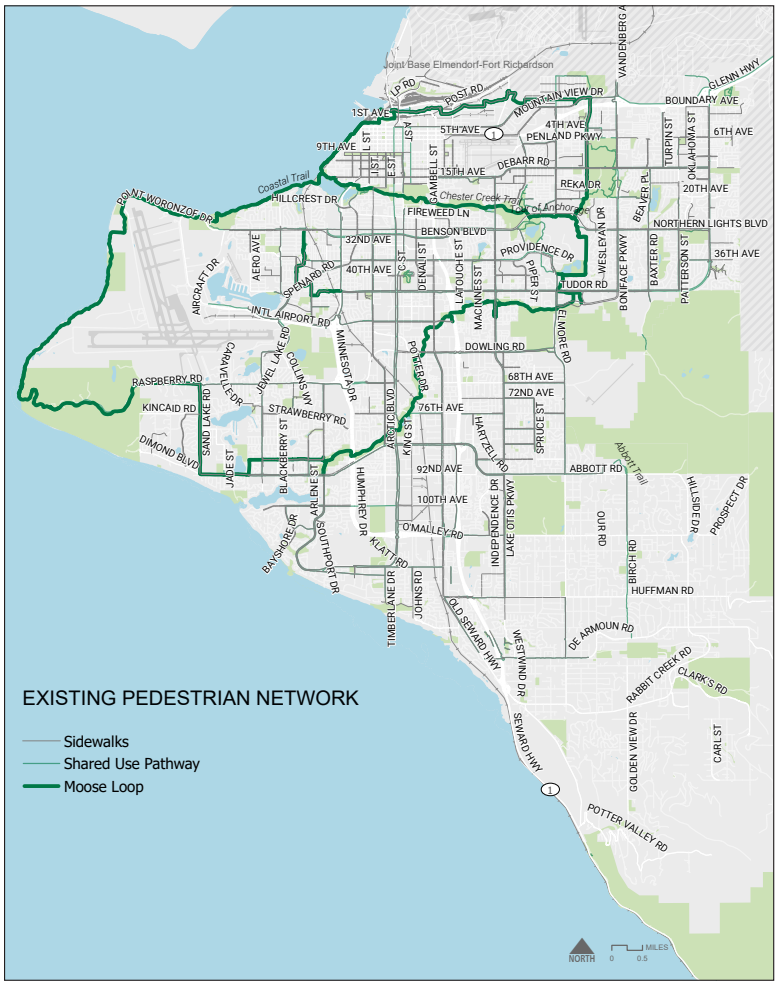


Figure 13 Existing Sidewalks in Chugiak-Eagle River, 2021

Source for figures 12-15 and Table 4: AMATS Non-Motorized Plan, https://www.muni.org/Departments/OCPD/Planning/AMATS/Pages/1_nonmotorized.aspx

Pedestrian Network

Assessing the current state of the pedestrian network is challenging because, as the Non-Motorized Plan remarks: "Sidewalk data was unavailable for roadways maintained by other entities [other than the MOA and Alaska DOT&PF] at the time of plan development."[12] The map of pedestrian infrastructure in Figures 12 and 13 were taken directly from the Non-Motorized Plan, but omits sidewalks in places where they in fact exist, such as the Anchorage central business district (where sidewalks are maintained by a neighborhood association).

The Non-Motorized Plan recommends making improvements to the region's pedestrian infrastructure by identifying Primary and Secondary corridors that should be prioritized rather than recommending individual projects. The corridor selection was based on criteria including the location of high injury locations from the region's Vision Zero planning process, the Alaska Highway Safety Improvement Program, a pedestrian demand analysis carried out during the non-motorized planning process, a parallel equity analysis, and the proximity to transit stops.

Bicycle Network

The Non-Motorized Plan was able to inventory existing bicycle facilities in three categories: bicycle lanes, bikeways (roads with paved shoulders), and shared use pathways (off-road facilities open to pedestri-

12 Anchorage Metropolitan Area Transportation Solutions. "Non-Motorized Plan." 2021. Available at: https://www.muni.org/Departments/OCPD/Planning/AMATS/Pages/1_non-motorized.aspx. p. 21.

Figure 14: Anchorage Bowl Existing Bicycle Facilities, 2021

Figure 15: Chugiak-Eagle River Existing Bicycle Facilities, 2021

ans and cyclists) (Table 4, Figure 14, and Figure 15).[13]

The regional AMATS Non-Motorized Plan proposes to add a considerable amount of new bicycle facilities: over 36 miles of shared use paths and over 100 miles of Separated Bikeways (the latter defined to be buffered or protected on-road bicycle lanes). In addition, the MOA revised its zoning code to require increased minimums for bicycle parking for new non-residential construction, which will provide added incentives to bicycle as these amenities come on line.[14]

Active Transportation Safety

Over the five-year time period from 2017-2021, pedestrians were involved in 3% of all crashes, but 30% of all pedestrian crashes resulted in a serious injury or death. There have been 42 pedestrian fatalities and 104 serious injuries over the past 5 years (see Figure 16).

EXISTING BICYCLE FACILITIES

BICYCLE LANES
25.7 MILES

BIKEWAY (PAVED SHOULDER)
70.7 MILES

SHARED USE PATHWAYS
180 MILES

Table 4: Anchorage Bowl and Chugiak-Eagle River Region Bike Facility Mileage 2021

13 Ibid. p. 19

14 Municipality of Anchorage Code. Title 21, Chapter 7. p. 7-101. Available at: https://www.muni.org/departments/ocpd/planning/projects/t21/pages/title21rewrite.aspx

Figure 16: Pedestrian Crash Trends

PRIMARY PEDESTRIAN TRENDS

42 Fatalities

TOP KSI IMPACT

- Angle
- Front-to-Front
- Sideswipe

TOP KSI HUMAN CIRCUMSTANCE

- Error/Confusion
- Erratic Operation
- Failure to Yield

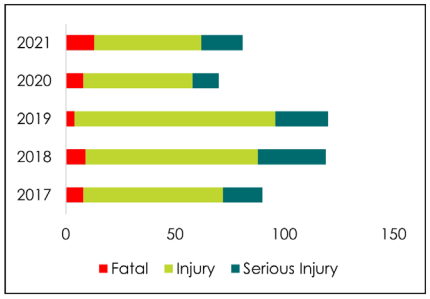


Figure 17: Bicycle Crash Trends

PRIMARY BICYCLE TRENDS

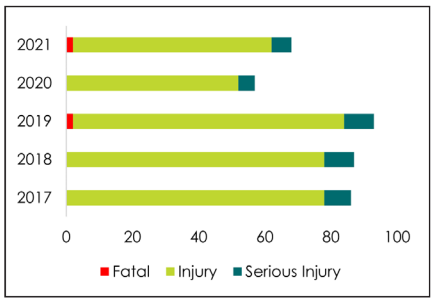
4 Fatalities

TOP KSI IMPACT

- Angle
- Front-to-Front
- Sideswipe

TOP KSI HUMAN CIRCUMSTANCE

- Error/Confusion
- Failure to Yield



Over the five-year time period from 2017–2021, bicyclists were involved in 2% of all crashes, but 10% of all bicycle crashes resulted in a serious injury or death. There have been 4 bicycle fatalities and 37 serious injuries over the last 5 years (see Figure 17).

See AMATS Safety Plan Existing Conditions Memorandum (2023) for additional details.

Figure 18: Barrier Analysis from the AMATS Non-motorized Plan

Source: AMATS Non-Motorized Plan, https://www.muni.org/Departments/OCPD/Planning/AMATS/Pages/1_nonmotorized.aspx

Active Transportation Discussion

The Non-Motorized Plan further identifies several programmatic activities that should support existing and new active transportation infrastructure. These include the vital need to develop a complete, comprehensive, and geo-located pedestrian infrastructure inventory and a winter maintenance approach that

prioritizes maintenance in primary pedestrian corridors, critical bicycle corridors, and areas where residents are most dependent on access to transit facilities.

Since not all desired investments have been completed since the Non-Motorized Plan was adopted in 2021and the key programs cited above have not yet been implemented, by the standards of the Non-Motorized Plan itself the region would be considered deficient in several regards for active transportation:

- Lacks significant new pedestrian corridors and bicycle infrastructure, including critical crossings and gaps in the network (see Figure 18), both for on street and off-street facilities
- Pedestrian infrastructure inventory data has not been updated
- The recommended winter maintenance program is not yet operational

Public Transportation

The MOA Public Transportation Department provides three services for community members: fixed route bus service (People Mover), paratransit service (AnchorRIDES), and a carpooling program (RideShare).[15]

The Public Transportation Department worked closely with members of the public in 2020 to create Transit On the Move (TOTM), which clearly sets forth the agency's goals and objectives. The objectives identified in that plan[16], reported on in the annual "Report Card," and most relevant to the regional scale of the AMATS plan update include:

- Increase access to the number of jobs by 5% & residents by 10% within 1/4 mile of bus stops
- Ensure that all fixed routes have 30 minutes or less peak frequency
- Increase vehicle revenue hours by 5% by adding trips or expanding span of service
- Achieve a Transit / Single-occupant-vehicle travel time ratio less than or equal to 1.5
- Operate so that all fixed routes are on-time at least 90% of the time
- Increase vanpool participants by 5%

In addition, the Public Transportation Department reports productivity in the form of systemwide and route-specific average riders per time-table revenue hour, which provides a useful means of integrating data about ridership with the quantity of transit service hours (service hours being a key driver of costs in a productivity measure.

People Mover

Table 5 shows historical operating and passenger statistics describing People Mover's multi-year service history in terms of vehicle revenue hours and total annual boardings. Vehicle revenue hours describe the sum of hours that transit vehicles are operating to serve passengers. If a route has one bus run per day and that run takes one hour from the first stop to the last stop, that route provides one vehicle revenue hour.

The Public Transportation Department's performance measures show that from 2019 to 2021 the number of jobs within one-quarter mile of a bus stop increased 3% from 55% to 58%, while the number

Table 5: People Mover Annual Operating Data 2010-2021

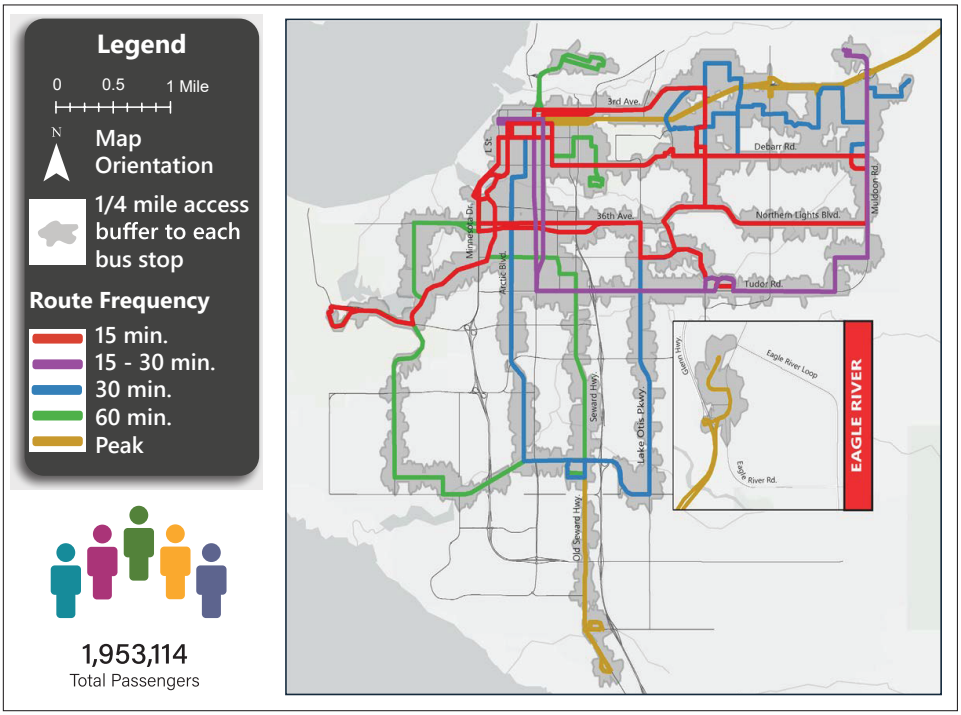
YEAR	VEHICLE REVENUE HOURS	PASSENGER BOARDINGS	TOTAL BOARDINGS/ REVENUE HOUR
2010	152,547	4,145,569	27.2
2011	153,155	4,148,501	27.1
2012	152,517	4,088,549	26.8
2013	153,255	3,986,877	26.0
2014	155,956	3,861,234	24.8
2015	158,040	3,649,698	23.1
2016	156,031	3,450,261	22.1
2017	156,009	3,241,607	20.8
2018	172,091	3,227,500	18.8
2019	177,247	3,410,108	19.2
2020	154,196	1,710,144	11.1
2021	183,414	1,953,114	10.6

Source: National Transit Database https://www.transit.dot.gov/ntd

15 Municipality of Anchorage Public Transportation Department. "Transit on the Move – 2020 Transit Plan." 2020
16 Ibid.

Transit service quality *from the rider's viewpoint can be described by the span of service (how long each given day a route is operating), service frequency (how often transit vehicles arrive at stops), and coverage (how much of a geographic area has walk-accessible service, regardless of route configuration; and how many jobs or homes are within a given distance of bus stops)*

Figure 19: People Mover 2021 Routes by Service Frequency



Source: Municipality of Anchorage Public Transportation Department. "Public Transportation 2021 System Report" https://www.muni.org/Departments/transit/PeopleMover/Pages/Programs.aspx

of residents meeting the same criterion also increased 3% from 39% to 42%.[17,18] While short of the Public Transportation Department's 5% increase target for jobs and 10% for residents, the 3% increases show meaningful progress during a pandemic when most other transit agencies were reducing service. The geographic deployment of the high-frequency service appears in Figure 19. Note that the southern and southwestern parts of the Anchorage Bowl and Eagle River, where fewer people live and work, currently have lower frequency routes.

AnchorRIDES

Paratransit is a demand-response service provided to seniors and individuals who qualify because they are unable to use fixed-route services. Table 6 shows that both vehicle revenue hours and ridership (measured in this table as complete passenger trips) for AnchorRIDES have been decreasing since 2013. The decrease in demand did not significantly affect productivity (passengers per revenue hour) as the system adjusted to the trend until the pandemic hit. Passenger trips, revenue hours, and fleet miles decreased during the pandemic and started to increase again in 2021, while remaining significantly below 2019 levels. Productivity also decreased significantly during the pandemic but started to return to pre-pandemic levels in 2021 (almost reaching 2015 productivity), indicating some success at adjusting service given the large drop in passengers that then began to rebound in 2020. The productivity recovery is noteworthy because demand-response service is costly to provide, and such costs can impact an agency's ability to offer fixed-route services.

RideShare

Ride sharing, often referred to as vanpooling, is when people share a trip in a sponsored vehicle to a common work destination or along a common corridor. Ride sharing provides many benefits to travelers and is an alternative to driving alone (i.e., single-occupancy vehicles).

17 Municipality of Anchorage Public Transportation Department. "Public Transportation 2019 System Report Card". 2020. Accessible online at https://www.muni.org/Departments/transit/PeopleMover/Pages/Programs.aspx

18 Municipality of Anchorage Public Transportation Department. "Public Transportation 2021 System Report". 2022. Accessible online at https://www.muni.org/Departments/transit/PeopleMover/Pages/Programs.aspx

Table 6: AnchorRIDES Operating Data, 2013-2021

YEAR	REVENUE HOURS	FLEET MILES	PASSENGER TRIPS	PASSENGERS/ REVENUE HOUR
2013	84,350	1,073,816	184,021	2.18
2014	79,122	1,028,856	174,663	2.21
2015	81,378	1,055,711	158,615	1.95
2016	80,864	1,072,643	174,245	2.15
2017	76,917	992,628	172,498	2.24
2018	63,284	812,240	132,917	2.10
2019	63,287	805,845	131,456	2.08
2020	46,199	524,335	78,001	1.69
2021	47,788	562,256	89,838	1.88

Source: National Transit Database https://www.transit.dot.gov/ntd

Table 7: Anchorage Public Transit Department Vanpool Utilization Data, 2017– 2021

YEAR	NUMBER OF VANPOOLS	VEHICLE REVENUE MILES	ANNUAL PASSENGER MILES	VEHICLE MILES SAVED
2017	72	1,396,775	6,081,006	4,684,231
2018	73	1,469,214	8,110,732	6,641,518
2019	82	1,474,126	8,524,142	7,050,016
2020	69	1,273,666	5,906,839	4,633,173
2021	70	1,302,578	6,278,401	4,975,823

Source: Municipality of Anchorage Transit "System Report Cards" 2018-2021

The primary ride-sharing program in the MOA is through the RideShare program. The MOA provides vanpool group subsidies and contracts with Commute with Enterprise to oversee the vanpool program[19]. The program provides a vehicle and matches a group of five or more riders with similar schedules and destinations within the MOA. The number of passengers per van is generally between five and fifteen passengers.

According to U.S. Census Bureau data, nearly 12% of people traveling to work in the MOA reported using carpools in the five years ending in 2021; the majority of these were two-person carpools, with 3-person and 4-or-more persons less common[20]. This is consistent with the 2040 Metropolitan Transportation Plan data on RideShare and private carpools.

The nature of vanpool ridership mostly serves large employers like hospitals, government offices, military bases, and the airport. These organizations are able to use vanpool successfully because they have many employees commuting to the same location. During the pandemic, vanpool riders were largely considered "essential" and thus returned to work in-person earlier than most commuters. While total passenger trips are still down in 2021 relative to 2019, there are signs of recovery.

Table 7 shows the number of reported vanpools and vehicle miles saved (annual passenger miles minus vehicle revenue miles) in the Municipality of Anchorage's formal RideShare vanpool program between 2017 and 2021. Over the past several years to 2021 the number of vanpools has remained relatively steady, varying between 69 and 82 vans. In 2020 vanpool travel was temporarily suspended for a few months and several vanpools ceased to exist.

As of early 2022, the number of active vanpools was 70. Of those, 68 travel between the Mat-Su Borough to Joint Base Elmendorf Richardson (JBER); the other two vanpools travel between Anchorage and Girdwood.

Public Transportation Discussion

People Mover achieved many of the Transit on the Move objectives:

- providing 30 minute or less headways on two thirds of its routes,
- fixed route revenue hours increased 3.5% from 2019 to 2021,
- 3% growth in accessible jobs and residents located within ¼ mile of a bus stop

19 https://www.muni.org/Departments/transit/ShareARide/Pages/default.aspx

20 Source: U.S. Census Bureau, 2019: ACS 5-Year Estimates, Table S0801. Retrieved on 2/10/2022 at: https://data.census.gov/cedsci/table?q=commute%20by%20mode&g=0500000US02020&tid=ACSST5Y2019.S0801.

- within one percentage point of achieving its bus 90% on-time goal
- a bus-to-car travel time ratio less than or equal to 1.5 on all but two routes

The Public Transportation Department's complete redesign of the People Mover routes and timetables in 2017 reversed a historic downward trend in ridership, including Saturdays. Although productivity for all days of the week declined during the pandemic, the success of the Saturday redesign kept productivity on that day higher than the other days of the week through 2021. Productivity in 2021 was about half of what it was in 2019 in the fixed route bus system and somewhat lower for paratransit than in 2019 (although paratransit showed an increase in 2021). During the pandemic, the Public Transportation Department made a conscious decision to not reduce service frequency or span, even with lower ridership, because of the essential service transit provides. Productivity is not a performance measure for transit, so lower productivity was sacrificed for quality service.

There is still progress to be made for People Mover and the MOA to meet the goal of growing ¼ mile access to a bus stop by 10% for residents and by 5% for jobs, achieving frequency targets systemwide, and recovering from the pandemic disruption of productivity.

The AnchorRIDES paratransit system is showing signs of post-pandemic recovery, with productivity rebounding to about 1.9 passengers per revenue hour in 2021 but still down from the 2019 figure of about 2.1.

The Rideshare vanpool program consistently saves four to seven million vehicle miles annually.

Improved winter maintenance for active transportation would also support public transportation ridership through the winter. All transit riders begin as active transportation users, either by walking or biking to a stop. In TOTM, project priority number 14 identifies a "Winter City Maintenance Plan." Additionally, as reported in several rider surveys, winter maintenance deficiencies are routinely identified as significant barriers to accessing the transit system.

The quality of winter maintenance is also important for residents to access healthcare. Active transportation facilities connect residents to public transit for medical appointments or to pick up medications.

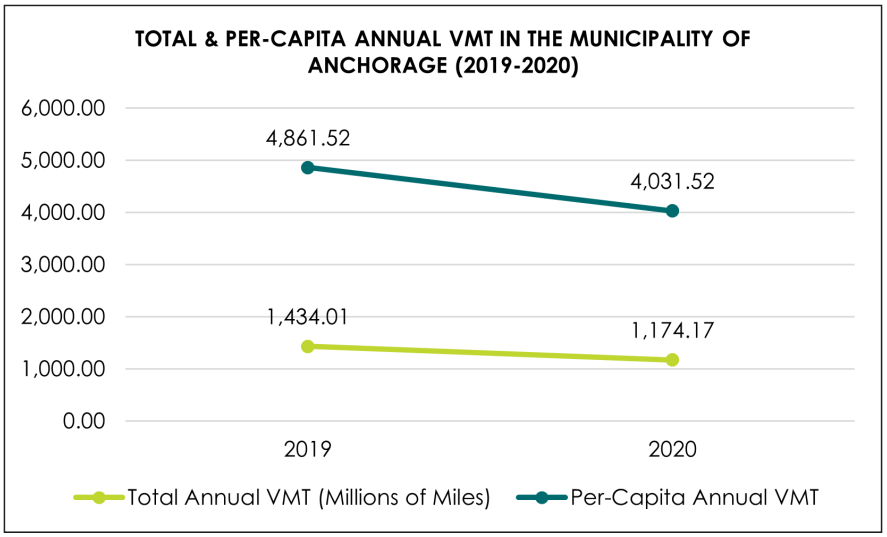
Poor winter maintenance can also cause temporary shutdowns of services like AnchorRIDES, which jeopardizes the Municipality's ADA compliance obligations.

Bus stop at Northern Lights Boulevard and Lake Otis Parkway – courtesy of AMATS/ Municipality of Anchorage.

Vehicle Transportation

The AMATS region's road system moves people via passenger vehicles, transit, walking, and biking and freight by truck. This section includes observed data about crashes, historic vehicle-miles traveled, and region-to-region comparisons of

Figure 20: Total & Per-Capita Annual VMT in the MOA



Source: VMT data source: Alaska DOT&PF, Highway Performance Monitoring System (HPMS), https://dot.alaska.gov/stwdplng/transdata/traffic_hpms.shtml. Population data source: Alaska DOLWD.

Table 8: 2019 and 2050 Reference Scenario Model Vehicle Miles Traveled by Facility Type

FACILITY TYPE	BASE ANCHORAGE BOWL	2050 REFERENCE ANCHORAGE BOWL		BASE CHUGIAK–EAGLE RIVER	2050 REFERENCE CHUGIAK–EAGLE RIVER		BASE TOTAL AMATS PLANNING AREA	2050 REFERENCE TOTAL AMATS PLANNING AREA	
	VMT	VMT	DIFF FROM BASE	VMT	VMT	DIFF FROM BASE	VMT	VMT	DIFF FROM BASE
Highway	749,762	809,850	8%	1,048,673	1,269,400	21%	1,798,435	2,079,250	16%
Major Arterial	1,722,713	1,868,869	8%	146,699	154,083	5%	1,869,412	2,022,952	8%
Minor Arterial	313,874	341,820	9%	14,654	14,112	-4%	328,528	355,932	8%
Collector	229,535	250,500	9%	84,826	98,562	16%	314,361	349,062	11%
Local	37,846	39,243	4%	6,662	6,887	3%	44,508	46,130	4%
On-Ramp	33,473	35,887	7%	11,503	12,553	9%	44,976	48,440	8%
Off-Ramp	37,687	40,568	8%	12,706	14,022	10%	50,393	54,590	8%
Frontage Road	15,249	16,488	8%	0	0	0%	15,249	16,488	8%
Total	**3,140,140**	**3,403,224**	**8%**	**1,325,722**	**1,569,619**	**18%**	**4,465,862**	**4,972,843**	**11%**

congestion; plus 2019 and 2050 forecast data from the AMATS regional travel demand model. These data illustrate how the roads perform currently and are likely to perform in a future without major changes to the system. Vehicles miles traveled are used as an indicator of overall road usage and a proxy for mobile source air pollutant emissions. Road users' experience of roadway performance is measured by Vehicle Hours of Delay (VHD) at the system and key corridors level, travel times through those key corridors, and congestion in the Anchorage region relative to that of other regions in the U.S.

Vehicle Miles Traveled

Figure 20 shows total annual vehicles miles traveled, and per-capita annual vehicles miles traveled in the MOA for 2019 and 2020 to illustrate the recent response to the COVID-19 pandemic.

The MOA total vehicles miles traveled decreased almost 260 million miles between 2019 and 2020 – an 18.12% change. Even accounting for the population decrease, per-capita annual vehicles miles traveled decreased by 830 miles (-17.07%) from 2019 to 2020. Going forward, in the absence of new societal disruptions or project and policy interventions, the travel model forecasting assumes a return to pre-pandemic traveler behavior.

Pivoting to the model data, the 2019 base year travel demand model reports about 4,465,900 daily total vehicles miles traveled for the AMATS planning area on a typical weekday. The 2050 Reference scenario forecasts an increase to about 4,972,800 vehicle miles traveled (an 11% change - see Table 8).

Vehicle Hours of Delay

Table 9 on the following page illustrates the forecast amount of delay by roadway type for the base year and 2050 Reference Alternative. The AMATS planning area estimates show 1,227 vehicle hours of delay in the base year, projected to increase to about 1,854 vehicle hours of delay in the 2050 Reference scenario (a 51% change). The higher percentage change in total delay relative to miles traveled indicates that congestion for drivers will increase absent any investments or policy changes. However, the forecast indicates that 2050 congestion would be most focused in the highway type roads (a 154% delay increase) rather than the arterials and local streets (forecast to range from 34% to 50% increases in delay).

The AMATS travel demand model summarizes vehicle hours of delay for all vehicles under analysis for a

Table 9: 2019 and 2050 Reference Scenario Model Vehicle Hours of Delay by Facility Type

FACILITY TYPE	BASE ANCHORAGE BOWL	2050 REFERENCE ANCHORAGE BOWL		BASE CHUGIAK–EAGLE RIVER	2050 REFERENCE CHUGIAK–EAGLE RIVER		BASE TOTAL AMATS PLANNING AREA	2050 REFERENCE TOTAL AMATS PLANNING AREA	
	VHD	VHD	DIFF FROM BASE	VHD	VHD	DIFF FROM BASE	VHD	VHD	DIFF FROM BASE
Highway	111	191	72%	60	244	307%	171	435	154%
Major Arterial	756	1,023	35%	12	15	25%	768	1,038	35%
Minor Arterial	83	117	41%	1	2	100%	84	119	42%
Collector	40	58	45%	0	1	100%	40	59	48%
Local	20	30	50%	0	0	0%	20	30	50%
On-Ramp	5	8	60%	1	1	0%	6	9	50%
Off-Ramp	50	68	36%	3	3	0%	53	71	34%
Frontage Road	85	93	9%	0	0	0%	85	93	9%
Total	**1,150**	**1,588**	**38%**	**77**	**266**	**245%**	**1,227**	**1,854**	**51%**

Source: RSG, AMATS 2019 Travel Demand Model

Figure 21: Vehicle Crash Trends

PRIMARY VEHICLE TRENDS:

42 Fatalities

TOP IMPACT:

- **Angle**
- **Front-to-Rear**
- **Sideswipe**

TOP HUMAN CIRCUMSTANCE:

- **Unsafe Speed**
- **Failure to Yield**
- **Swerve to Avoid Object**
- **Red Light Violation**

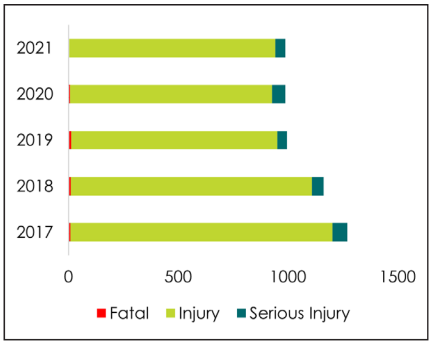
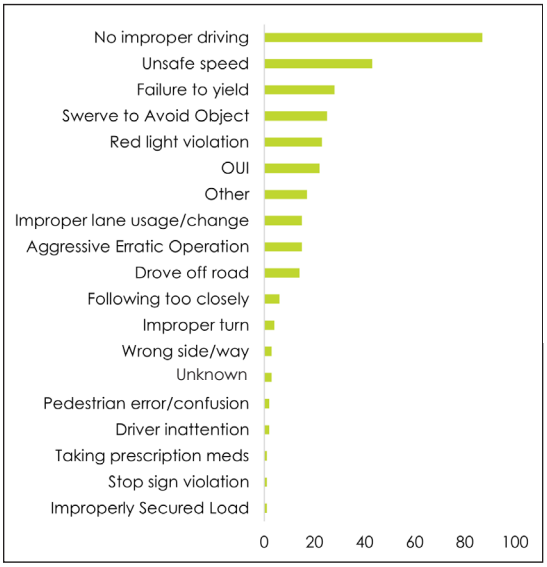
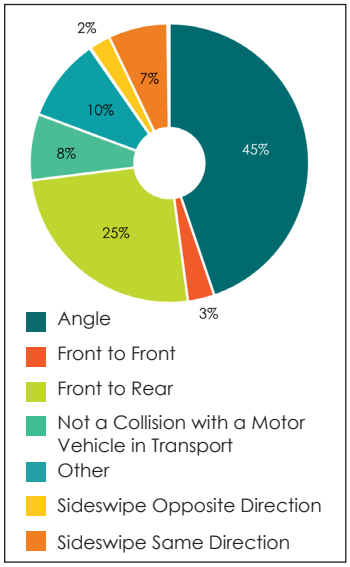


Figure 22: Primary Fatality and Serious Injury Vehicle Crash Trends





typical weekday as mentioned in the previous section (see Technical Report). In all corridors the forecast per-vehicle delay is low compared to other cities in the U.S. in both the base year and 2050 Reference Alternative. The highest delays occur on the Glenn Highway and Tudor Road corridors, but at 32 seconds of delay or less. Given these small numbers the percent change must be examined with care, but the percent changes repeat patterns from the cumulative delay statistics previously mentioned: the Glenn and Seward highways are projected to have the most increase in delay from 2019 to 2050, with Minnesota Drive and

Spenard Road showing the next highest increases.

Vehicle Transportation Safety

Over the five-year time period from 2017-2021, motor vehicles were involved in 94% of all crashes, and 2% of all vehicle crashes resulted in a serious injury or death. There have been 42 vehicle fatalities and 270 serious injuries over the last 5 years, including Passenger Cars and Trucks as vehicles (see Figures 21 and 22).

Over the five-year time period from 2017-2021, motorcyclists were involved in 1% of all crashes, but 28% of all motorcycle crashes resulted in a serious injury or death. There have been 11 motorcycle fatalities and 63 serious injuries over the last 5 years (see Figure 23).

Figure 23: Motorcycle Crash Trends

PRIMARY MOTORCYCLE TRENDS:

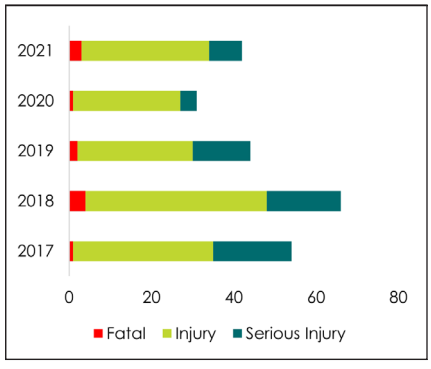
11 Fatalities

TOP IMPACT:

- **Angle**
- **Front-to-Rear**
- **Sideswipe**

TOP HUMAN CIRCUMSTANCE:

- **Unsafe Speed**
- **Erratic Operation**
- **Swerve to Avoid Object**



See AMATS Safety Plan Existing Conditions Memorandum (2023) for additional details.

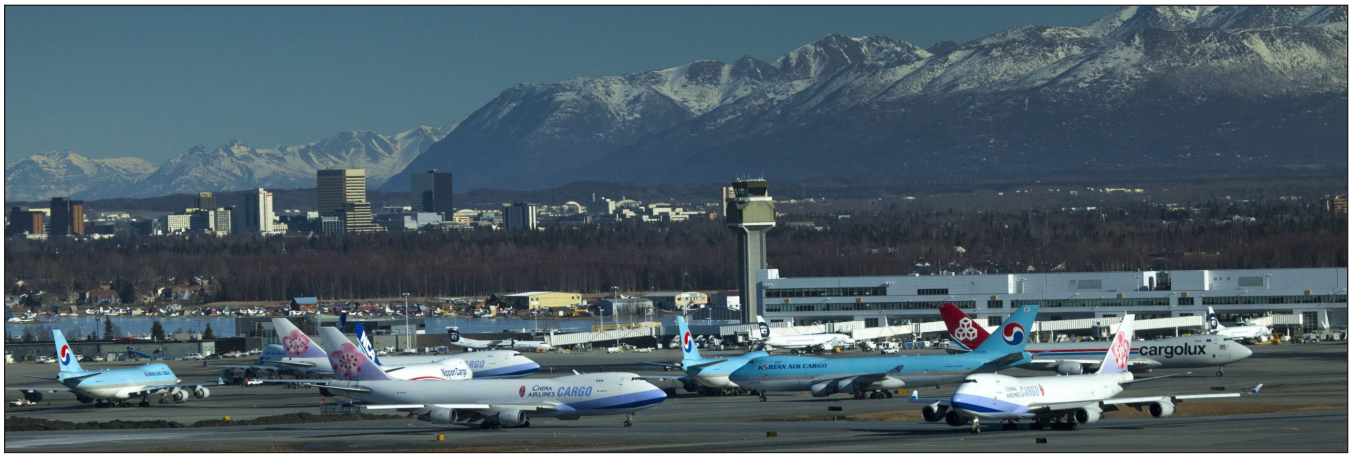
Vehicle Transportation Discussion

If the AMATS planning area, as forecast in the 2050 Reference scenario, has an 11% overall vehicle miles traveled increase, then – absent changes to the vehicle fleet – greenhouse gases and other air pollutant emissions would increase proportionally. While an increase in electric vehicle use by 2050 could reduce consumption of gasoline and therefore air pollutant emissions, electric vehicles are associated with other impacts from the batteries and brakes to increased wear and tear on the roads due to the heavier weight vehicles.

In terms of road user experience, while travelers in vehicles in Anchorage experience congestion, the base year system is not heavily congested across multi-hour time periods nor is it very congested compared to other U.S. cities. It is noteworthy that the off-peak periods such as midday experience as much delay as the morning commute period given the travel usage patterns in the AMATS planning area. This has implications for road system management (e.g., signal timing adapted to the daily traffic pattern) and transit service provision (e.g., supporting the Public Transportation Department's goal of increasing the frequency of service on all routes and all time periods). The forecasted increase in driver delay falls mostly on the highways which are forecast to have a delay increase of 154%, with all other road types increasing by 50% or less. This is logical given that the region has three main highways with no alternative routes.

The off-peak period travel time increase between the base year and 2050 scenarios is much more uniform across the selected corridors compared to the morning commute increase. This is likely due to the more dispersed nature of off-peak travel, which includes more shopping and miscellaneous trips, as opposed to peak travel which includes more work trips along concentrated corridors. This pattern also reinforces the interpretation that the highways carry significant amounts of commuter traffic.

Alaska in general and the AMATS planning area specifically show pronounced seasonal variations in traffic. Statewide, the interstate facilities show the most variation month to month with lower volume facilities showing much less variability. Since the model estimates autumn weekdays with school in session it bears remarking that Anchorage has a particularly heavy increase in road traffic during the summer given its unique economy, climate, and tourism industry, and that the numbers in this report do not represent summer conditions. In general, the majority of transportation infrastructure construction occurs in late spring through early fall, another factor that impacts all transportation. Additionally, snow plowing and winter maintenance influences congestion and safety of vehicle transportation from late fall through spring.



Ted Steven's Anchorage International Airport – courtesy of AMATS/Municipality of Anchorage.

Freight Transportation

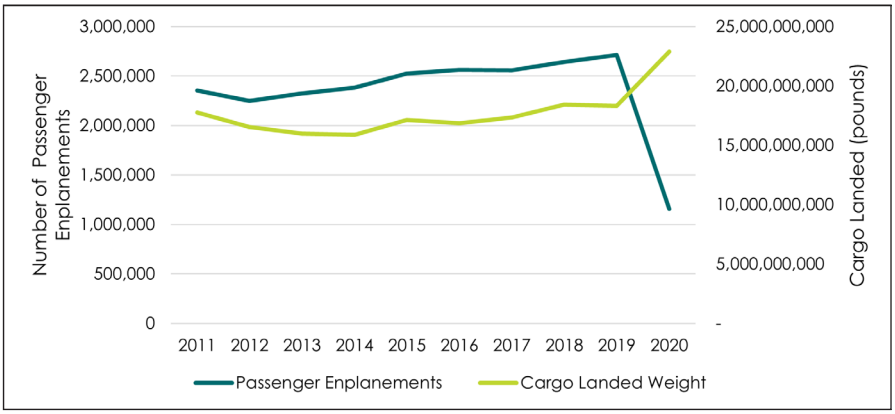
Alaska has an abundance of natural resources, which are typically exported to both domestic and international markets. The state produces few of the consumer goods that its population demands, however. As a result, Alaska is heavily dependent on imports and relies on a safe, efficient, and reliable freight transportation system.[21] The goods movement system in Anchorage is extensive, multimodal, and interconnected; and consists of one of the world's largest international cargo airports, a deep-water seaport, and supporting highway and rail links.

Airport

Currently, Ted Stevens Anchorage International Airport is the second largest cargo airport in the U.S. and the fourth largest in the world, in terms of volume, handling more than 3.5M metric tons in 2021, a 12.6 percent increase from 2020 volumes[22]. As the largest airport in Alaska, Ted Stevens Anchorage International Airport is a regional and statewide economic driver and supports one in ten jobs in Anchorage. Ted Stevens Anchorage International Airport is actively investing in cargo projects at the airport, including the extension of taxiways, expansion and redevelopment of airparks, and various roadway access and apron improvements. Figure 24 depicts the total number of passenger enplanements annually at the airport over the past decade, as well as the total cargo landed (in pounds).

According to the current airport Master Plan, the airport will require near-term upgrades to the airfield and supporting facilities to remain compliant with FAA design standards. For freight it anticipates adding cargo aprons, buildings, and support facilities within its mid-term planning horizon (7 to 15 years). On its landside, it anticipates passenger parking, rental car, and access facilities to reach capacity within its long-term planning horizon (20 years).[23]

Figure 24: TSAIA Passenger and Cargo Volumes, 2011-2020



Source: FAA Passenger Boarding (Enplanement) and All-Cargo Data for U.S. Airports. Retrieved 2/10/2022 at: https://www.faa.gov/airports/planning_capacity/passenger_allcargo_stats/passenger/

Note: The 2019 and 2020 counts reflect the COVID-19 pandemic. FAA data is not available for 2021 at the time of writing. However, the TSAIA reported in early 2022 that passenger and land cargo counts rebounded in 2021.

21 Alaska Statewide Long-Range Transportation Plan
22 Airports Council International
23 Ted Stevens International Airport. Master Plan. 2014. https://dot.alaska.gov/anc/about/masterPlan.shtml

Port

The Port of Alaska (POA) in Anchorage serves as Alaska's primary cargo terminal for inbound freight. The Port of Alaska serves deep-water vessels operating year-round and its facilities support a variety of vessel types, including general cargo (lift on/off, roll on/off, breakbulk), liquid bulk (petroleum), dry bulk (cement), dry barge, and passenger cruise ships. About half of all Alaska inbound freight cargo (by weight) comes through the Port of Alaska, about half of which is delivered to final destinations outside of Anchorage[24]. The landside access road (Ocean Dock Road) to the port generated an annualized average of over 920 trucks per day in 2021 (see Table 10), placing it among the top seven key freight corridors identified in Anchorage by the Alaska DOT&PF. The trend over the past decade is an annual average increase of tonnage by 3.5%, with the annual average percent increasing even more within the past five years at 7.4% (2017-2021).

The Port of Alaska is undergoing a multi-year, multi-phased modernization program to upgrade its aging docks and related infrastructure. In 2022, the POA finished the construction and began operations of its new Petroleum and Cement Terminal. The Port's Enterprise Activities Budget indicates that the next phase of modernization will be updating two of its general cargo docks, funding permitting. This is critical because corrosion on the pilings of the older facilities could create weight limits that constrain on-dock operations.[25]

Railroad

The Alaska Railroad Corporation (ARRC) is a regional (class II) railroad that provides year-round rail transportation services – both freight and passenger – in Anchorage and throughout Southcentral and Interior Alaska. The Alaska Railroad Corporation's mainline extends south from Anchorage to Whittier and Seward and north to Fairbanks. Freight movement is the Alaska Railroad Corporation's "bread-and-butter," typically generating more than half of its operating revenues.[26] That value accrues to about 3.7 million tons of cargo moved annually by over 680 railcars along 656 miles of track.[27] The Corporation's Anchorage yard is a vital depot for the carrier and is located close to the Port of Alaska. Key commodities include petroleum, barge/interline services, trailers/containers on flat cars, coal, gravel, and other miscellaneous freight movement such as project cargo (large, indivisible items such as mining and construction equipment) or scrap.

The COVID-19 pandemic heavily impacted the Alaska Railroad Corporation's passenger and freight business, but these volumes rebounded in 2022. Seasonal tourism rail passenger ridership between Anchorage and Fairbanks (traveling through Denali National Park and Preserve) helps to eliminate the number of motor coaches traveling from Anchorage northward. The Alaska Railroad Corporation indicates this represents about 14,000 motor coaches being removed from the roadways annually (assuming roughly half a million rail passengers/year).[28] The Corporation estimates that its 2022 hopper and tanker operations (carrying gravel, coal, and petroleum) replaced the need for over 200,000 truck trips while its rail trailer and container carriage supplied goods movements that would have required over 47,000 truck trips.[29]

Port of Alaska – courtesy of AMATS/Municipality of Anchorage.

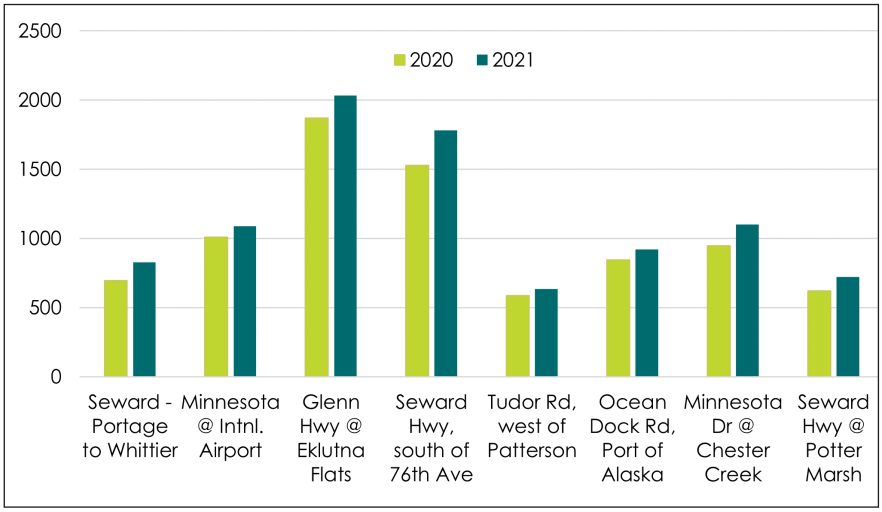
24 https://www.portofalaska.com/
25 Port of Alaska. 2022 Proposed Utility/Enterprise Activities Budgets. 2022.
26 ARRC. 2021 Freight Services Fact Sheet. https://www.alaskarailroad.com/sites/default/files/Communications/2021_FCTSHT_ARRC_Freight_Business_or.pdf
27 ARRC. 2023 Railroad at a Glance. https://www.alaskarailroad.com/sites/default/files/Communications/FACT-SHEET_2023_ARRC_Quick-Facts_or.pdf
28 Ibid.
29 Ibid.

Table 10: Truck Volumes on Key Freight Corridors

SEGMENT	TRUCK AADT*	TRUCK PERCENTAGE
Minnesota Dr @ International Airport Rd	1,089	3.0
Glenn Hwy @ Eklutna Flats	2,035	6.3
Seward Hwy, south of 76th Ave	1,782	3.8
Tudor Rd, west of Patterson	636	3.0
Ocean Dock Rd, Port of Alaska	922	46.8
Minnesota Dr @ Chester Creek	1,100	4.0
Seward Hwy @ Potter Marsh	721	7.0

Source: Alaska Department of Transportation & Public Facilities Annual Traffic Volume Report, 2021

Figure 25: Truck Volumes on Key Freight Corridors, 2020-2021



Motor Freight

Trucking carries most of the freight in Anchorage and plays three primary roles in the regional supply and distribution chain:

- Connects Anchorage businesses and manufacturers to regional and domestic markets.
- Provides drayage services to connect airports and marine terminals to warehouses, distribution centers, and other facilities.
- Provides door-to-door services to shippers and end consumers.

Table 10 provides truck volumes at selected locations in Anchorage that were identified by the Alaska DOT&PF as high volume or critical truck routes.

As shown in Figure 25, truck volumes in each of these locations has grown since 2020.

The Anchorage highway system also provides critical connectivity to markets and population centers across the state through two primary corridors: the Glenn Highway and Seward Highway. As with most highways, this is a shared system that provides connectivity and mobility for both passengers and freight.

* **AADT** – *Average Annual Daily Traffic. Daily traffic volumes seasonally adjusted to compensate for different amount of traffic during different times of the year.*

Freight Transportation Discussion

Given the vital aspects of air and sea freight at Ted Stevens Anchorage International Airport and the Port of Alaska, respectively, it will be important for those facilities to continue the momentum of their respective enhancement and modernization programs to avoid suffering future deficiencies. Internally the Airport needs to complete its airfield upgrades in the near term, upgrade its cargo aprons and supporting facilities in the midterm, and plan for landside improvements including passenger parking, rental car parking, and passenger access upgrades in the long term. The Port of Alaska needs to continue its modernization plan and deliver upgrades that will sustain its general cargo terminals at full working capacity.

The roadway picture for freight is more nuanced. Roadway congestion for drivers is not extreme in the region – the highest projected 2050 delay per vehicle among the selected corridors is just over a half minute on the Glenn Highway.

Quality and efficient winter maintenance is critical to supporting freight movement. Improvements to winter maintenance for all modes of transportation support improved freight movement in the winter by increasing safety and reducing conflicts.

System Deficiency Summary

Active Transportation Needs

- The Anchorage Bowl – especially to the east, south, and southeast – needs a large, but as yet unquantified, number of new sidewalks and sidepaths, with priority for the Pedestrian Corridors identified in the AMATS Non-motorized Plan.
- Chugiak-Eagle River area needs added sidewalks or sidepaths.
- More protected pedestrian crossings, quantity not yet set.
- Fill gaps in the existing pedestrian sidewalk and sidepath system, quantity not yet determined.
- Fill gaps and connections in the existing bicycle network by adding 180 miles of shared use pathways.
- The AMATS Non-motorized Plan proposes 25.7 miles of bicycle lanes and 70.7 miles of bikeways (paved shoulders) to build out a comprehensive on-street bicycle network in the planning area.
- Cyclists and pedestrians need facilities to have a continuous maintenance program to ensure that they are safe to use year-round (especially in the winter).
- More nighttime lighting would improve safety, especially on the shared use path system.
- A comprehensive bicycle and pedestrian data acquisition, management, and analysis program that sustains both an up-to-date infrastructure inventory and performance measures that capture utilization and maintenance status.

Public Transportation Needs

- Bus system needs service upgrades to five of its fifteen existing routes to 30-minute headways to meet the frequency target.
- Bus service planning and/or land use policies need to allow an increase in the percent of residents within 1/4 mile of a bus stop by about 7% to reach the goal of a 10% increases each planning cycle.
- Bus service planning and/or land use policies need to allow an increase in the percent of jobs within 1/4 mile of a bus stop by about 2% to reach the goal of a 5% increases each planning cycle.
- People Mover needs to increase revenue-hours by 1.5% to meet its 5% growth target.

Spenard bike lane – courtesy of AMATS/Municipality of Anchorage

Vehicle Transportation System Needs

- The base year system is not heavily congested across multi-hour time periods nor is it very congested compared to other U.S. cities.

Freight Transportation System Needs

- Port of Alaska needs to complete modernization of its two general cargo terminals.
- Ted Stevens Anchorage International Airport needs to complete near-term airfield upgrades to FAA standards.
- Ted Stevens Anchorage International Airport needs to complete mid-term cargo apron and cargo support facility upgrades.
- Ted Stevens Anchorage International Airport needs to plan for and fund long-term landside passenger parking, rental car parking, and access improvements.

Safety Summary

During the 2017-2021 timeframe, 18,437 crashes occurred. A total of 573 crashes resulted in a Fatal or Serious (KSI) Injury and 99 crashes resulted in a fatality (see Figure 26). The following trends were observed through a crash data review within the analysis period:

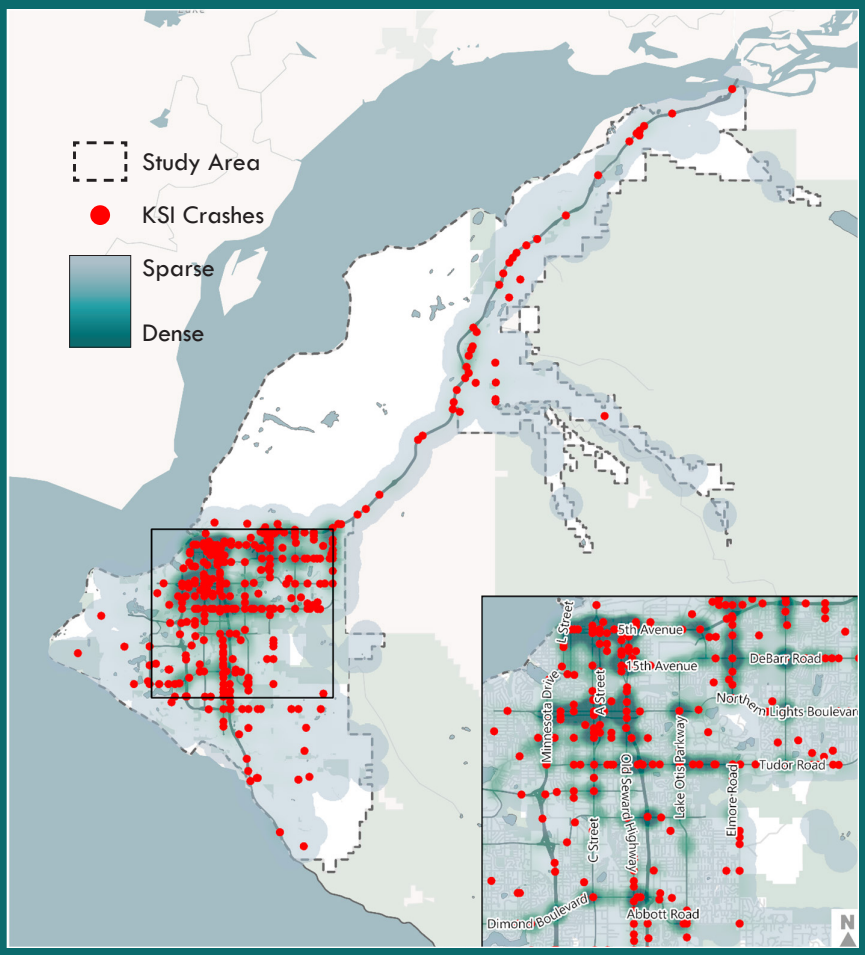
- Total crashes have decreased, but the proportion of KSI crashes has stayed relatively steady. 2018 and 2021 had the highest number of fatal crashes during the analysis period.
- Pedestrians, cyclists, and motorcyclists are over-represented in high-severity crashes.
- The highest crash concentrations for all crashes and bicycle and pedestrian crashes are in downtown and midtown Anchorage. These areas align with bicycle and pedestrian network priorities identified in the 2021 Anchorage Non-Motorized Plan.
- Most total crashes are multi-vehicle crashes, but most fatal crashes are pedestrian-involved crashes. Multi-vehicle and fixed object crashes are frequent and are second and third to pedestrian crashes as the prevalent crash types in fatal collisions, and combined account for 81.8 percent of all fatal crashes.
- The most common collision manner is angle crashes, suggesting intersection-related crashes.
- More total crashes occur during winter months when days are shorter, but more fatal and serious injury crashes occur between August and October, with January experiencing a peak as well.
- More fatal and serious injury vehicular crashes occur when roads are dry, which may be attributable to driver behaviors. More serious and a higher proportion of pedestrian crashes occur during fall and winter months, which may be attributable to less daylight/dark conditions. Roadway condition does not appear to influence pedestrian crash severity though there are more

pedestrian crashes when roadways are dry – pedestrians that are able may be avoiding inclement weather and thus increase exposure during dry conditions.

- The most cited human circumstances for crashes are failure to yield, aggressive erratic operation, and red-light violation.

See AMATS Safety Plan Existing Conditions Memorandum (2023) for additional details.

Figure 26: 5-year fatal and serious injury crashes 2017-2021



The heat map shows all 573 fatal and serious injury crashes over the five-year period from 2017-2021 in the AMATS planning area. The most severe crashes were in highest concentration inside the Anchorage Bowl, particularly in Downtown and Midtown Anchorage with a secondary concentration of crashes along Glenn Highway.

People Mover Bus – courtesy of the Public Transportation Department

Chapter 5

2050 Transportation Scenarios

This chapter documents the forecasted or projected future transportation system including trends, scenario development, and analysis to ensure deficiencies are addressed.

MTP

The 2050 transportation scenarios and alternatives are based on the vision, goals, objectives, and recommended project list. More details about the 2050 transportation scenarios and alternatives can be found in the MTP Alternative Analysis Travel Forecast Findings technical report.

The first step in determining the 2050 scenarios was a strategic planning model. AMATS used the VisionEval strategic planning model to quickly test hundreds of possible combinations of future transportation policies, capital investments, and operational tactics (see VisionEval technical reports).

Using the strategic planning results, the proposed project list, and with feedback from stakeholders and the AMATS Technical Advisory and Policy Committees, the project team identified several scenarios to analyze with the travel demand model*

* **Travel Demand Model** – *a computer model used to estimate travel behavior and travel demand for a specific time frame. The travel demand model simulates road and transit performance within the region based on traffic analysis zones.*

As described in Chapter 4, the **2050 Reference Alternative** provides a comparison to these alternatives. The 2050 Reference Alternative includes the Trend Land Use, no additional pricing, and only transportation

Travel Demand Model Scenarios

1. **"ALL PROJECTS" (AP)** – includes all candidate projects in the cost-constrained list (see Chapter 5).
2. **"INCREASED TRANSIT" (IT)** – excludes roadway expansion projects while including a 54% increase in transit service hours by increasing frequency on all current routes beyond the cost-constrained list. This scenario also includes all the roadway operations, complete streets, and new transit route investments present in the "All Projects" scenario. The increased service hours constitute a hypothetical test of what could happen; how such an approach would be funded is covered in the financial analysis for the MTP.
3. **"TREND" LAND USE (Trend LU)** – projects current and historic housing and employment growth patterns to 2050 (within the constraints of the Anchorage 2040 Land Use Plan).
4. **"DENSE" LAND USE (Dense LU)** – assumes a higher-than-trend concentration of growth in housing and employment in the areas the Land Use Plan designates as high-density. Areas that received higher density in this scenario were those the Land Use Plan designated as "City Center," "Urban Residential-High Density," "Compact Mixed Residential - Medium Density," "Town Center," "Regional Commercial Center," "Commercial Corridor," and "General Industrial."
5. **"MEDIUM PRICING" (MP)** – increase in the form of an additional 10-cent-per-gallon fuel tax. For analysis purposes the same future fleet mix as in 2019 was assumed.
6. **"HIGH PRICING" (HP)** – increase that includes the 10-cent fuel tax, increases both the cost and the geographic extent of parking charges by 50%, and applies a 3 cents per mile road use charge that could be applied as a global vehicle-miles traveled fee or an equivalent fuel tax.

projects that are completed after the 2019 base year or for which funding is fully committed.

Congestion Management Process

The Congestion Management Process is an integral part of the MTP process: vision and goals, data analysis and modeling, framework for developing and evaluating transportation projects, toolbox of congestion mitigation strategies, and ongoing system monitoring.

Congestion Management Process performance metrics including vehicle hours traveled, vehicle miles traveled, vehicle hours of delay, and selected corridor travel times were used in the travel model to help develop alternatives. These data were published in the Alternatives Analysis Forecast (MTP Technical Report 7) for all plan alternatives and used to select the final Preferred Alternative. The analysis assumed that the region will in all alternatives make investments in travel demand management (TDM) and transportation system management and operations (TSMO) improvements.

Along with the timing of the 2050 MTP planning process, AMATS worked on a Destination UMED TDM study and the area's first TSMO Plan. AMATS is also working with Alaska DOT&PF on the Seward-Glenn Planning and Environmental Linkages Study. Recommendations from these plans will be considered for incorporation into future MTP revisions and Transportation Improvement Programs.

Highlighted (*) projects in Tables 20, 21, and 22 support the 2016 Congestion Management Process results.

Sidewalk, road, and drainage upgrade on East 17th Avenue. – Courtesy of AMATS/Municipality of Anchorage.

Alternatives Analysis Findings

Across all alternatives the variations in the outcomes are small in magnitude. Table 11 shows in broad strokes the direction (plus or minus) and magnitude (more or fewer symbols) of the outcomes that each individual scenario produced.

Table 11: Summary of Investment, Land Use, and Pricing Scenario Effects.
More "plus" signs indicate more supportive of goal; more "minus" signs indicate less supportive

OUTCOMES BY ACTION	VEHICLE TRAVEL		ACTIVE MODE USAGE		
	VMT	VHD	TRANSIT	BIKE	WALK
TREND LAND USE, ALL PROJECTS (AP) INVESTMENTS	++	+	+	_	no change
INCREASED TRANSIT (IT) INVESTMENTS	+	_ _	++	_	_
DENSE LAND USE	+++	+++	+	++	++
MED PRICING	+	no change	no change	no change	no change
HIGH PRICING	+	++	++	++	++

Table 12: Forecast Base Year and 2050 Daily Mode Share for the AMATS Planning Area (Anchorage Bowl plus Chugiak-Eagle River)

Travel Mode	Base	2050 Reference	2050 Trend Land Use All Projects	2050 Trend Land Use Increased Transit	2050 Dense Land Use All Projects	2050 Dense Land Use Increased Transit	2050 Trend Land Use Increased Transit Medium Pricing	2050 Dense Land Use All Projects High Pricing
DRIVE ALONE	45.34%	45.67%	45.65%	45.61%	45.51%	45.47%	45.60%	44.25%
SHARED RIDE	41.05%	40.93%	40.83%	40.87%	40.78%	40.82%	40.87%	41.49%
WALK	9.12%	8.99%	9.06%	8.98%	9.16%	9.07%	8.98%	9.43%
BIKE	1.87%	1.84%	1.83%	1.82%	1.89%	1.89%	1.82%	2.05%
TRANSIT	0.92%	0.89%	0.94%	1.03%	0.96%	1.06%	1.03%	1.02%
SCHOOL BUS	1.71%	1.69%	1.69%	1.69%	1.70%	1.70%	1.69%	1.76%

Source: RSG, AMATS 2019 Travel Demand Model

For example, the High Pricing scenario by itself produces among the highest increases in walking of all the scenarios at about the same order of magnitude that the Dense Land Use scenario would achieve by itself.

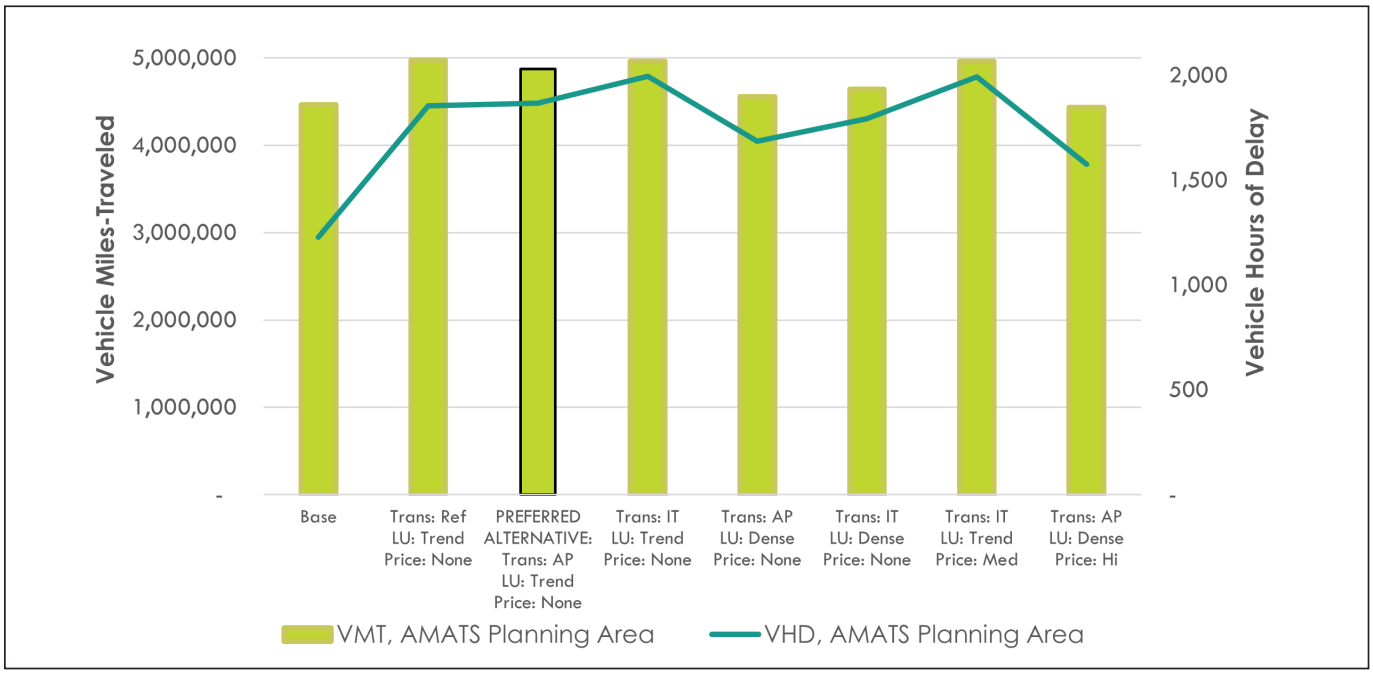
Table 12 breaks down mode share by alternative.

Figure 27 on page 46 shows more detail around vehicle miles traveled and vehicle hours of delay for each alternative.

In general, the drive-alone mode share is relatively unchanged in response to the mix of supply and demand in most of the alternatives tested, with the exception that the Dense Land Use--High Pricing alternative lowers drive-alone choice somewhat with a corresponding increase in shared-ride. The forecasts show some interchangeability between the transit, walk, and bike modes because of the ease travelers making short trips have of switching from bike to transit or transit to bike, and so on.

Chester Creek culvert replacement on Northern Lights Boulevard – courtesy of AMATS/Municipality of Anchorage.

Figure 27: Daily Forecast Vehicle Miles Traveled (VMT) and Vehicle Hours of Delay (VHD) for the AMATS Planning Area by Alternative



Source: RSG, AMATS 2019 Travel Demand Model

Both the All Projects and Increase Transit alternatives would increase travel times for motor vehicles on several road corridors. This should be interpreted as a direct result of intentional speed limit reductions and other Complete Streets approaches designed to achieve better safety outcomes in the form of both fewer crashes and less injurious or costly crashes. While the model does not measure crashes, these safety benefits should be factored into any decisions made based on this report. The findings show that the transportation investments in both the All Projects and Increased Transit scenarios achieve outcomes independent of each other and could be combined to greater effect if desired and if funding becomes available.

Increasing transit service frequency by about 54% increases transit trip-making (as measured by change in linked transit trips) by about 10% regardless of the land use configuration (and adds to the increased transit usage that would result from concentrating future growth more densely). This higher transit usage lowers VMT somewhat and would thus have modest effects reducing air pollutant emissions and congestion, serving the MTP's equity, mobility, economic, and environmental goals.

North end of Spenard Road under construction – courtesy of AMATS/ Municipality of Anchorage.

Monument sign – courtesy of AMATS/Municipality of Anchorage.

The specific new Complete Streets projects proposed in the recommended project list create shorter routes for drivers to desirable destinations in ways that slightly decrease system vehicle-miles traveled and slightly decrease roadway congestion. The forecast data indicate that these specific investments taken together increase mobility without increasing vehicle-miles traveled. Conversely, the scenarios without these projects show slightly more congestion (higher delay) regardless of other factors. These specific roadway projects would thus be beneficial to both the MTP mobility and environmental goals.

The recommended new transit route projects have modest effects at the system scale that benefit the mobility and environmental goals.

While AMATS does not control land use decisions nor the cost of fuel or transportation facilities, the analysis shows that concentrating future population and employment growth in the high-density designations of the Anchorage 2040 Land Use Plan has noticeable effects on lowering vehicle-miles traveled; shifting travel to transit, walk and bike; and lowering congestion. These are all outcomes supportive of the MTP goals. Additionally, all the pricing tactics--if properly implemented--would have beneficial outcomes for the MTP goals by lowering congestion and shifting some travel to transit and active modes. Such tactics would also produce increased revenues to help fund MTP investments.

Preferred Alternative

The preferred alternative includes the cost constrained "All Projects" list described in Chapter 6. This alternative was chosen because the projects identified are under the purview of AMATS and within the federally required fiscal constraint. The additional alternatives findings help to guide policy and program implementation strategies (see Chapter 7) that support the vision, goals, and objectives of this plan. In addition, there are community needs such as maintenance and operations that are not directly included in the preferred alternative that should be addressed to support the goals and objectives.

The preferred alternative prioritizes active transportation, public transportation, and Complete Streets throughout the AMATS planning area. The travel demand model analysis shows that this alternative addresses system deficiencies identified by previous plans, public input, and generally supports the goals and objectives of this plan. The "All Projects" preferred alternative lowers vehicle-miles traveled within the AMATS planning area and, to a lesser amount, lowers congestion measured by vehicle-hours of delay (see Figure 27, noting that alternatives with All Projects investments show delay lower relative to vehicle miles traveled than Alternatives with the Increase Transit investments); increases transit utilization slightly, as measured by boardings; and, has minimal effects on biking while increasing walking slightly (see Table 12).

If funding changes and/or this alternative is not implemented, a significant increase in VMT, a reduction in active transportation infrastructure, and reduction in the transits system could occur.

Multi-use trail bridge – courtesy of AMATS/Municipality of Anchorage.

Chapter 6

Financial Plan and Recommended Project List

This chapter combines project recommendations developed from the community and public engagement process and the fiscally constrained financial plan that will fund and program projects for implementation.

MTP

Financial Plan

Federal regulations require the Metropolitan Transportation Plan (MTP) financial plan demonstrate fiscal constraint. Table 13 on the following page provides a summary of the project financial analysis, Table 14 on the following page provides a summary of operations and maintenance financial analysis, and detailed financial analyses are included in Appendix 4. These tables show that the MTP is fiscally constrained in the short term and long term. In the mid-term, there are costs that will be carried over to the long term.

MTP Revenue Sources and Assumptions

There are three main funding sources identified to implement the MTP recommendations:

1. MUNICIPAL

- Municipality of Anchorage (MOA) Capital Improvement Program (CIP) bonds for roadway and non-motorized projects
- MOA local funds for transit
- General obligation bond proceeds for transit

2. STATE

- Legislative grants for roads and non-motorized
- State general obligation bonds for roads
- Alaska Mental Health Trust Authority

3. FEDERAL

- Federal Other reflects possible grants such as Reconnecting Communities, Strengthening Mobility and Revolutionizing Transportation (SMART), and Infrastructure for Rebuilding America (INFRA). This funding has not historically been available, but the Infrastructure Investment and Jobs Act presents more opportunities.
- FHWA National Highway System (NHS)
- FHWA Non-NHS
- Highway Safety Improvement Program (HSIP)
- Carbon Reduction Program (CRP)
- Alaska Railroad Corporation (ARRC)
- AMATS Marketing & RideShare (CMAQ)
- Congestion Mitigation and Air Quality Program (pass through 5307)
- State of Alaska Department of Health Nutrition Transportation Seniors (this is a federal grant with a state pass-thru)
- FTA allocations and discretionary funding (this funding includes increases based on service expansions and future projects such as the Muldoon Hub and Downtown Transit Center

Table 13: Project Costs (in million dollars)

2023-2050 PROJECT COSTS AND REVENUE	SHORT TERM (2023-2026)	MID-TERM (2027-2034)	LONG TERM (2035-2050)
COMPLETE STREETS AND ACTIVE TRANSPORTATION	$379.4	$767.1	$1,417.5
TRANSIT AND RAILROAD	$64.7	$146.9	$ 321.3
COMBINED PROJECT COSTS	$444.1	$914.0	$1,738.7
INFLATION	included	$158.3	$364.9
TOTAL COST (PROJECT COST + INFLATION)	$444.1	$1,072.2	$2,103.6
REVENUE	$444.1	$896.4	$2,357.7
REMAINING COST	$0.0	$175.8	$ (254.1)

Table 14: Operations and Maintenance (O&M) Financial Summary (in million dollars)

2023-2050 O&M EXPENSES AND REVENUE	SHORT TERM (2023-2034)	LONG TERM (2035-2050)
Road and Active Transportation Expenses	$1,214.0	$2,568.8
Public Transportation Expenses	$428.7	$ 663.6
Road and Active Transportation Revenue	$1,214.0	$ 2,568.8
Public Transportation Revenue	$428.7	$663.6
TOTAL	**$ 0**	**$ 0**

Inflation Assumptions: Revenues and Costs in Year of Expenditure Dollars

Capital Revenues: An inflation rate of 2.5% per year is used, which was calculated by averaging the historical Urban Consumer Price Index (CPI) for the State of Alaska for 2003 to 2022, and the U.S. Western Urban CPI for 2017-2022. The year in which the CPI is applied varies by funding source.[1]

Capital Project Costs: An inflation rate of 4.5% per year is applied to the short-term (2027-2034) road, bicycle, pedestrian, transit, and trails projects to reflect significantly higher inflation anticipated to continue in the short term. This inflation is based on the National Highway Construction Cost Index (NHCCI) from the Federal Highway Administration (FHWA). The inflation rate is decreased to 3.5% per year for long-term (2035-2050) road, bicycle, pedestrian, transit, and trails projects in recognition of changing oil prices and construction materials cost over time.

Methodology for Determining Year of Expenditure for Projects

The financial plan does not establish the specific year in which each project will be constructed. Rather, it updates and tallies the total estimated capital cost for all projects in 2022 dollars, then applies the inflation rate of 4.5% per year applied to the short term (2027-2034), and 3.5% per year for long-term (2035-2050), to identify the program costs in year of expenditure dollars. The projected revenue is then reduced from that total amount, and the balance is then increased by 2.5% and carried over to the next year. This methodology is applied to each mode. By the year 2050, the projected revenues must be sufficient to cover the cost of recommended improvements to meet the federal requirements for a fiscally constrained MTP.

Cost Estimates for Projects

Cost estimates for projects are developed cooperatively by the MOA and Alaska DOT&PF. The 2050 MTP will show costs in 2022 dollars and inflated where described above.

Operations and Maintenance

Operations and maintenance activities are critical to ensure a transportation system that meets the needs of all area residents. Revenue for operations and maintenance comes from the MOA, Alaska DOT&PF, and some federal funding for public transportation. This work includes signing, marking, lighting, street sweeping, traffic signal operation, snow clearing, sanding, pothole repair, landscaping, and sidewalk maintenance.

1 Sources: US Department of Labor, Bureau of Labor Statistics, State of Alaska labor statistics

Ongoing costs to operate and maintain the transportation system are part of the annual operating budgets for the Municipality of Anchorage and State of Alaska. Transportation system construction, rehabilitation, and preservation is costly. As shown by the best estimate for funding in the financial constraint analysis, AMATS estimates there will be sufficient revenues to cover project implementation and maintenance through 2050. If funding is reduced from this estimate, fewer projects will be implemented, operations and maintenance would be reduced, and the goals and objectives of this plan may not be attained.

Table 15: Revenue Summary
Revenue funding shown in year of expenditure, millions of dollars. Detailed fiscal constraint analysis data shown in Appendix 4.

CAPITAL REVENUE SOURCES	SHORT TERM (2023-2026)	MID-TERM (2027-2034)	LONG TERM (2035-2050)	TOTAL
MOA ROAD CAPITAL (ROAD BONDS TO LRTP PROJECTS)	$38.4	$94.6	$288.6	$421.6
STATE LEGISLATIVE GRANTS (NOT INCLUDING STATE BONDS) - NHS	$0.0	$0.0	$0.0	$0.0
STATE LEGISLATIVE GRANTS (NOT INCLUDING STATE BONDS) -NON-NHS	$0.0	$0.0	$0.0	$0.0
FEDERAL OTHER	$25.5	$15.0	$21.4	$61.9
FHWA NHS (ANCHORAGE & CHUGIAK/EAGLE RIVER)	$95.2	$171.9	$460.5	$727.6
FHWA NON-NHS (ANCHORAGE & CHUGIAK/EAGLE RIVER)	$81.2	$189.6	$512.6	$783.5
HSIP	$54.6	$128.6	$348.5	$531.7
GO BOND	$0.0	$0.0	$0.0	$0.0
ROAD REVENUE SOURCE TOTAL	**$294.9**	**$599.7**	**$1631.6**	**$2526.2**
NON-MOTORIZED FUNDS (25% OF AMATS ALLOCATION)	$24.8	$70.2	$189.8	$284.9
TRANSPORTATION ALTERNATIVES PROGRAM (AMATS)	$7.6	$16.6	$44.8	$69.1
AMATS CARBON REDUCTION	$14.8	$32.1	$86.9	$133.8
MOA CAPITAL (BONDS TO BIKE/PED MTP PROJECTS)	$13.3	$30.8	$83.3	$127.4
STATE LEGISLATIVE GRANTS - NON-MOTORIZED	$0.0	$0.0	$0.0	$0.0
BIKE/PED/TRAILS REVENUE SOURCE TOTAL	**$60.5**	**$149.8**	**$404.9**	**$615.2**
MUNICIPAL BONDS - PUBLIC TRANSPORTATION	$4.8	$9.8	$19.6	$34.2
CONGESTION MITIGATION AND AIR QUALITY PROGRAM (PASS THRU 5307)	$17.9	$35.8	$71.6	$125.3
FTA 5307 URBANIZED AREA PROGRAM	$20.0	$42.4	$92.6	$155.0
FTA 5339 BUS & BUS FACILITIES PROGRAM	$2.5	$5.0	$9.9	$17.4
DISCRETIONARY - FTA 5339B BUS & BUS FACILITIES COMPETITIVE PROGRAM	$4.0	$8.0	$16.0	$28.0
DISCRETIONARY - FTA 5339C LOW OR NO EMISSION PROGRAM	$0.0	$20.0	$0.0	$20.0
DISCRETIONARY - FTA AREAS OF PERSISTENT POVERTY PROGRAM	$0.0	$0.0	$0.0	$0.0
DISCRETIONARY - FTA 5309 CAPITAL INVESTMENT GRANTS	$6.5	$0.0	$8.0	$14.5
DISCRETIONARY - FTA TRANSIT ORIENTED DEVELOPMENT	$0.0	$0.9	$0.0	$0.9
TRANSIT REVENUE SOURCE TOTAL	**$55.7**	**$121.8**	**$217.7**	**$395.2**
RAILROAD REVENUE	$9.0	$25.1	$103.5	$137.6
RAILROAD REVENUE SOURCE TOTAL	**$9.0**	**$25.1**	**$103.5**	**$137.6**
ESTIMATED TOTAL SOURCES OF FUNDING	**$420.1**	**$896.4**	**$2357.7**	**$3674.2**

Operations and Maintenance Expenses and Revenue

Table 16a: O&M Revenue Estimates for MTP Update (funding shown in millions of dollars)

SOURCES OF FUNDING	SHORT TERM (2023-2034)	LONG TERM (2035-2050)	TOTAL
AMATS PAVEMENT REPLACEMENT - COMPLETE STREETS *	$40.8	$56.9	$97.7
AMATS PAVEMENT REPLACEMENT - ACTIVE TRANSPORTATION	$30.3	$56.9	$87.2
DOT&PF PAVEMENT REPLACEMENT	$334.2	$714.5	$1048.7
MOA ROAD CAPITAL (BONDS PAVEMENT REPLACEMENT)**	$109.5	$237.7	$347.2
AK LEGISLATIVE CAPITAL PROGRAM (NOT INCLUDING STATE BONDS) -NON-NHS PAVEMENT REHAB	$0.0	$0.0	$0.0
DOT&PF M&O BUDGET	$165.4	$359.0	$524.5
TRAFFIC SIGNAL MANAGEMENT	$29.7	$64.4	$94.0
MS4 PERMIT COMPLIANCE	$15.7	$22.9	$38.7
DEFERRED MAINTENANCE	$19.9	$29.9	$49.8
MOA ARDSA M&O BUDGET	$415.4	$911.3	$1326.7
MOA CBERRRSA M&O BUDGET	$53.1	$115.2	$168.3
MOA PUBLIC TRANSPORTATION M&O BUDGET	$428.7	$663.6	$1092.3
Estimated Total Sources of Funding	**$1642.7**	**$3232.4**	**$4875.2**

Table 16b: O&M Expenses for MTP Update (funding shown in millions of dollars)

EXPENSES	SHORT TERM (2023-2034)	LONG TERM (2035-2050)	TOTAL
DOT&PF (FEDERAL AND STATE)	$565.0	$1190.8	$1755.7
AMATS PAVEMENT REPLACEMENT	$71.0	$113.9	$184.9
MOA ARDSA	$415.4	$911.3	$1326.7
MOA CBERRRSA	$53.1	$115.2	$168.3
PAVEMENT REPLACEMENT PROJECTS MOA	$109.5	$237.7	$347.2
MOA PUBLIC TRANSPORTATION	$428.7	$663.6	$1092.3
Estimated Total Expenses	**$1642.7**	**$3232.4**	**$4875.2**

Table 17: Number of recommended projects by mode

MODE	SHORT TERM 2023-2034)	LONG TERM (2035-2050)	TOTAL
COMPLETE STREETS	68	29	97
NON-MOTORIZED	32	75	107
TRANSIT	19	7	19
RAILROAD	14	14	14

Goal 1: Maintain Existing Infrastructure

Goal 2: Improve Safety and Security

Goal 3: Improve Access & Mobility Options

Goal 4: Support the Economy

Goal 5: Promote a Healthy Environment

Goal 6: Advance Equity

Recommended Project List

The project lists were developed by compiling previously nominated projects and projects nominated through the 2050 MTP public involvement process. This included nearly 200 Complete Streets projects and over 350 non-motorized projects. Staff then ranked these projects based on the 2050 MTP criteria, as approved by the Technical Advisory and Policy Committees in 2022. Cost estimates for projects were developed cooperatively with the MOA and Alaska DOT&PF.

Once the financial analysis was approved, staff identified the projects, in rank order, that fit within the financial constraint. Projects from the 2023-2026 Transportation Improvement Program (TIP) and 2023 Statewide Improvement Program (STIP) are included under short term funding. The financially constrained project list was used as an input to the travel demand model, which identified draft alternatives for the plan. Plans and studies are included in the project list.

Table 18: Number of recommended projects by MTP goal. Some projects support multiple goals. See key for list of goals.

MODE	GOAL 1	GOAL 2	GOAL 3	GOAL 4	GOAL 5	GOAL 6	ALL GOALS
COMPLETE STREETS	68	80	80	54	54	51	40
NON-MOTORIZED	35	105	37	106	107	107	35
TRANSIT	16	19	19	19	19	19	16
RAILROAD	12	1	3	0	0	0	0

Table 19a: Number of recommended projects by federal performance area. Some projects support multiple performance areas.

MODE	SAFETY	INFRASTRUCTURE CONDITION	CONGESTION REDUCTION	SYSTEM RELIABILITY	FREIGHT MOVEMENT AND ECONOMIC VITALITY	ENVIRON-MENTAL SUSTAIN-ABILITY	REDUCED PROJECT DELIVERY DELAYS	ALL
COMPLETE STREETS	80	68	82	81	54	54	14	13
NON-MOTORIZED	105	35	107	107	107	107	7	6

Table 19b: Number of recommended projects by federal performance area. Some projects support multiple performance areas.

MODE	ROLLING STOCK	EQUIPMENT	FACILITIES	INFRASTRUCTURE
TRANSIT	2	7	8	11
RAILROAD	2	5	6	6

Table 20: MTP Complete Streets Projects
*Projects with *(highlighted) support the 2016 Congestions Management Process (CMP) results*

Complete Streets Projects

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
TIP CS 18	**O'Malley Road Reconstruction (Seward Highway to Hillside Drive)** - Reconstruct the roadway to improve safety and capacity at intersections and improve pedestrian facilities and 3 lane section east of Lake Otis Pkwy, and 5 lane section between Seward Hwy and Lake Otis Pkwy.	$350,000	TIP	Safety, Infrastructure Condition, Congestion Reduction, System Reliability	1, 2, 3
TIP CS 1	**Fireweed Lane Rehabilitation (Spenard Road to Seward Highway)** - This project would rehabilitate Fireweed Lane from Spenard Road to the Seward Highway and include a road diet, changing Fireweed from 4 lanes to a maximum of 3 lanes (2 with a center turn lane). This project would also include non-motorized improvements.	$50,000,000	TIP; short term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
TIP CS 2	**Spenard Road Rehabilitation (Benson Blvd to Minnesota Drive)** - Project will rehabilitate to improve traffic flow. This project would also include non-motorized improvements.	$22,500,000	TIP	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
TIP CS 3	**Rabbit Creek Road Rehabilitation (Seward Highway to Goldenview Drive)** - Project would rehabilitate Rabbit Creek Road from the Seward Highway to Goldenview Drive and will look at left turn accommodations where possible. Project will includes non-motorized improvements.	$33,550,000	TIP; short term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability	1, 2, 3
TIP CS 4	**East 4th Avenue Signal and Lighting Upgrade (Cordova Street to Ingra Street)** - Reconstruct the traffic signal and street lighting system along 4th Ave between Cordova St and Ingra St. Sidewalk and curb ramps will also be replaced.	$5,160,000	TIP	Safety, Infrastructure Condition, Congestion Reduction, System Reliability	1, 2, 3
TIP CS 5	**Potter Drive Rehabilitation (Arctic Blvd to Dowling Road)** - This project would rehabilitate Potter Drive from Arctic Boulevard to Dowling Road and include non-motorized improvements.	$7,850,000	TIP	Safety, Infrastructure Condition, Congestion Reduction, System Reliability	1, 2, 3
TIP CS 6	**Mountain Air Drive (Rabbit Creek Road to Sandpiper Drive)** - Extend Mountain Air Drive from Rabbit Creek Road to Sandpiper Drive. Recommend separated pathway. Purpose: Circulation, access, and safety.	$15,000,000	TIP; short term	Safety	2
TIP CS 7	**Academy Drive/Vanguard Drive Area Traffic Circulation Improvements (Brayton Drive to Abbott Road)** - Project would improve and align Academy Drive and Vanguard Drive west of Abbott Road. Project would include non-motorized improvements and consider adjacent land use.	$18,700,000	TIP; short term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability	1, 2, 3

Canyon Road upgrade – courtesy of AMATS/Municipality of Anchorage.

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
TIP CS 8	**Safety Improvement Program (Traffic Count Support)** - Collect traffic data within the AMATS area completed by the ADOT&PF Central Region Highway Data Section and MOA Traffic Department Data Section.	$17,640,000	TIP; short term; long term	Safety	2
TIP CS 9	**Spenard Road Rehabilitation (Minnesota Drive to Northwood Drive)** - Project would rehabilitate Spenard Road from Minnesota Drive to Northwood Drive. Project would include non-motorized improvements and consider adjacent land use.	$18,000,000	TIP; short term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
TIP CS 10	**Chugach Way Rehabilitation (Spenard Road to Arctic Blvd)** - Project would rehabilitate Chugach Way from Spenard Road to Arctic Blvd and include non-motorized improvements. Project would use the Chugach Way Area Transportation Elements Study for design development.	$11,600,000	TIP; short term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability	1, 2, 3
TIP CS 11	**Eagle River Road Rehabilitation (milepost 0.0 to 5.3, Old Glenn Highway to Oriedner Road)** - Project will construct selected traffic, safety, drainage, intersection, roadside hardware, and ADA improvements from Milepoint 0 to 5.3 (Old Glenn Highway to Oriedner Road). Special consideration will be made to improve the non-motorized facilities both parallel to and within the roadway, including a separated multi-use pathway. The project may also include work on signing, striping, signalization, ITS equipment, pavement, digouts, guardrail, lighting, utility adjustments, and/or utility relocations.	$60,000,000	TIP; short term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability	1, 2, 3

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
TIP CS 12	**3rd Avenue Signals and Lighting Upgrade (E Street to Cordova Street)** - The purpose of the project is to replace traffic signals and lighting systems to meet current electrical safety standards and design criteria; sidewalks and pavement will be replaced as necessary to facilities electrical work and meet ADA requirements.	$10,170,000	TIP; short term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability	1, 2, 3
TIP CS 13	**Lois Drive & 32nd Ave Upgrade (Benson Blvd to Minnesota Drive)** - Project would upgrade Lois Drive and 32nd Ave from Benson Blvd to Minnesota Drive to current collector standards. This project would look at including lighting upgrades, addition of non-motorized facilities, and drainage upgrades were possible.	$16,800,000	TIP; short term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability	1, 2, 3
TIP CS 14	**Folker Street Upgrade (Tudor Road to 40th Ave)** - Project would upgrade Folker from Tudor Road to 40th Ave to current local standards. This project would look at including lighting upgrades, non-motorized facilities, and drainage upgrades where possible.	$7,400,000	TIP; short term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability	1, 2, 3
TIP CS 15	**Dale Street Upgrade (Tudor Road to 40th Ave)** - Project would upgrade Dale Street from Tudor Road to 40th Ave to current local standards. This project will include non-motorized facilities on Dale Street from Tudor Road to 40th Ave to link up with the non-motorized facilities on Tudor Road and 40th Ave. This project would look at including lighting and drainage upgrades where possible.	$6,000,000	TIP; short term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability	1, 2, 3
TIP CS 16*	**5th Ave Signals and Lighting Upgrade (L to H St)** - The purpose of the project is to replace traffic signals and lighting systems to meet current electrical safety standards and design criteria; sidewalks and pavement will be replaced as necessary to facilitate electrical work and meet ADA requirements.	$11,000,000	TIP; short term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability	1, 2, 3
TIP CS 17*	**5th Ave (H St to Cordova St) and 6th Ave (L St to Cordova St) Signals and Lighting Upgrade** - The purpose of the project is to replace traffic signals and lighting systems to meet current electrical safety standards and design criteria; sidewalks and pavement will be replaced as necessary to facilities electrical work and meet ADA requirements.	$11,000,000	short term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability	1, 2, 3
TIP Plans 13	**Port of Alaska Multimodal Improvements Study** - This project will study and make recommendations on how to improve the Ocean Dock Road connection to the Port of Alaska.	$50,000	TIP	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability, Reduced Project Delivery Delays	all

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
TIP Plans 1	**AMATS MTP Updates** - Funding for the AMATS Metropolitan Transportation Plan updates and Interim updates.	$4,600,000	TIP; short term; long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability, Reduced Project Delivery Delays	all
TIP Plans 2*	**AMATS Minnesota Drive and I/L Street Corridor Plan (International Airport Road to 3rd Ave)** - Project would provide a comprehensive analysis of the Minnesota Drive and I/L Street corridor's current conditions, anticipated growth patterns and their impacts, likely outcomes and reasonable mitigation alternatives. It would include recommended improvements based on identified needs and community input, and a timeline for implementation. Project would include modeling analysis and engineering work as needed. The project should be evaluated for rehabilitation as a Complete Street, adhering to the AMATS Complete Streets policy.	$700,000	TIP	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability, Reduced Project Delivery Delays	all
TIP Plans 3*	**AMATS Tudor Road Corridor Plan (Muldoon Road to Minnesota Drive)** - Project would provide a comprehensive analysis of the Tudor Road corridor's current conditions, anticipated growth patterns and their impacts, likely outcomes and reasonable mitigation alternatives. It would include recommended improvements based on identified needs and community input, and a timeline for implementation. Project would include modeling analysis and engineering work as needed.	$700,000	TIP	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability, Reduced Project Delivery Delays	all
TIP Plans 4	**AMATS Northern Lights Boulevard and Benson Boulevard Corridor Plan (LaTouche Street to Minnesota Drive)** - Project would provide a comprehensive analysis of the Northern Lights Blvd and Benson Blvd corridor's current conditions, anticipated growth patterns and their impacts, likely outcomes and reasonable mitigation alternatives, such as a lane reduction. It would include recommended improvements based on identified needs and community input, and a timeline for implementation. Project would include modeling analysis and engineering work as needed.	$700,000	TIP	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability, Reduced Project Delivery Delays	all

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
TIP Plans 5	**AMATS Complete Street Plan** - This plan will build on the AMATS Complete Street policy to provide planning guidance for street types, sidewalks, roadways, intersections, curbsides and ADA accessibility as well as plan implementation. This plan will also develop multi-modal street typologies for the AMATS area and a corresponding street typology map. These typologies may include recommendations for development review, streetscape design, traffic signal upgrades, recommended road reclassifications, and bicycle and pedestrian facilities design.	$450,000	TIP	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability, Reduced Project Delivery Delays	all
TIP Plans 6	**AMATS Regional Household Travel Survey** - Conduct a Regional Household Travel Survey to gather information on travel behaviors and patterns of the households in the region.	$600,000	TIP	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability, Reduced Project Delivery Delays	all
TIP Plans 7	**Downtown Streets Engineering Study** - Project will implement the Our Downtown Anchorage District Plan through a streets engineering study that will address the Plan's transportation & circulation policies, Plan action items, assess ROW ownership and management in the Downtown district, identify opportunities for complete streets, and include modeling as needed.	$550,000	TIP	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability, Reduced Project Delivery Delays	all
TIP Plans 9	**Non-Motorized Facilities Inventory and Mapping** - Project would inventory the non-motorized facilities within the AMATS area. Project would create a GIS layers with this information.	$300,000	TIP	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability, Reduced Project Delivery Delays	all
TIP Plans 10*	**A/C Street Corridor Plan (Tudor Road to 3rd Ave)** - Project would provide a comprehensive analysis of the A and C Street corridor's current conditions, anticipated growth patterns and their impacts, likely outcomes to consider the potential rehabilitation of A and C Street into Complete Streets, adhering to the AMATS Complete Streets Policy. Complete Street improvements included would be based on community input, and a timeline for implementation. Project would include modeling analysis and engineering work as needed.	$700,000	TIP	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability, Reduced Project Delivery Delays	all

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
TIP Plans 11	**AMATS Climate Action Plan** - This project will build on the Anchorage Climate Action Plan (adopted May 2019) by developing a climate action plan for the AMATS planning area. This data-based project will inventory current and past Anchorage/Chugiak-Eagle River transportation system greenhouse gas (GHG) emissions (including carbon) in order to quantitatively evaluate strategies and actions to reduce future GHG emissions, including carbon reduction strategies, related to transportation. The project will focus on equity and include a strategic implementation plan.	$450,000	TIP	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability, Reduced Project Delivery Delays	all
TIP Plans 12	**Anchorage Human Services Coordinated Transportation Plan** - Federal transit law requires that projects selected for funding under the Enhanced Mobility for Seniors and Individuals with Disabilities (Section 5310) Program be "included in a locally developed, coordinated public transit-human services transportation plan," and that the plan be "developed and approved through a process that included participation by seniors, individuals with disabilities, representatives of public, private, and nonprofit transportation and human services providers and other members of the public" utilizing transportation services. These coordinated plans identify the transportation needs of individuals with disabilities, older adults, and people with low incomes, provide strategies for meeting these needs, and prioritize transportation services for funding and implementation.	$600,000	TIP; short term; long term	Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Reduced Project Delivery Delays	3, 4, 6
TIP CMAQ 1	**Anchorage Ridesharing/Transit Marketing** - This project funds the Municipal RideShare program which promotes, subsidizes, and contract manages an area-wide vanpool commuter service; and a comprehensive public transportation marketing effort.	$19,100,000	TIP; short term; long term	Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	3, 4, 5, 6
TIP CMAQ 2	**Air Quality Public & Business Awareness Education Campaign** - The goal of this program is to further inform the public about air quality issues and what steps people may take to reduce pollution.	$8,400,000	TIP; short term; long term	Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	4, 5
TIP CMAQ 3	**Arterial Roadway Dust Control** - Magnesium chloride (MgCl2) dust palliative applied to approximately 70 miles of high volume State and Municipal roadways prior to and after spring sweeping.	$2,800,000	TIP; short term; long term	Congestion Reduction, System Reliability, Environmental Sustainability	5

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
TIP CMAQ 4	**Traffic Control Signalization -** Program would provide proactive efficiencies with better/more updated signal timing plans to address intersection congestion and improve air quality. Funding supports development of Traffic Management Center and emergency vehicle and low priority transit signal preemption.	$11,200,000	TIP; short term; long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Environmental Sustainability	1, 2, 3, 5
TIP CMAQ 5	**Non-Motorized Facility Maintenance Equipment** - This project will purchase maintenance equipment that will be used to plow and sweep non-motorized facilities during the winter and summers months within the AMATS area. $500K in FY24 will be provided by Alaska DOT&PF outside the AMATS allocation.	$3,300,000	TIP	Congestion Reduction, System Reliability, Environmental Sustainability	3, 5, 6
TIP CMAQ 6	**Non-Motorized Facility Maintenance Equipment for Winter Greenbelt Trails** - This project will purchase maintenance equipment that will be used to groom greenbelt trails during the winter months within the AMATS area.	$658,000	TIP	Congestion Reduction, System Reliability, Environmental Sustainability	3, 5, 6
TIP CMAQ 7	**Bus Stop & Facility Improvements** - This project funds new and existing facilities and bus stop sites to meet both the federally mandated Americans with Disabilities Act [ADA] requirements and the operational needs. Typical bus stop activities include design/engineering, bus shelters, benches, trash receptacles, landscaping, grading, pacing, utility relocations, lighting, curb adjustments, drainage, constructing paths, and construction/reconstruction of turnouts. Typical facility activities include design/engineering, upgrades, rehabilitation, and construction/reconstruction not limited to safety, security, facility equipment, structures, underground storage tanks, parking lots, sidewalks, and drainage. Table 5 funds supplement FTA funds in projects 4, 7, 10, and 11 on Table 9.	$24,000,000	TIP; short term; long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
TIP CMAQ 8	**Capital Vehicles** - This project provides funding for the replacement and expansion of the Public Transportation Department fleet. The fleet consists of MV-1, 22' and 40' buses that provide service to AnchorRIDES, and People Mover. Vehicles will be replaced based on the FTA defined useful life and the People Mover Transit Asset Management Plan	$54,000,000	TIP; short term; long term	Congestion Reduction, System Reliability, Environmental Sustainability	3, 5, 6
TIP CMAQ 9	**Demo Operations/Expansion** - This project will provide for operational assistance and/or operational service expansion for fixed route, MOA demand response, and/or mictrotransit public transit service	$458,000	TIP	Congestion Reduction, System Reliability, Environmental Sustainability	3, 5, 6

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
TIP CMAQ 10	**Seniors and Youth Ride Free** - Provide transit trips for people 18 and under and 60 and over.	$1,000,000	TIP	Congestion Reduction, System Reliability, Environmental Sustainability	3, 5, 6
TIP HSIP 1*	**Gambell Street Utility Pole Removal and Increased Lighting**	$8,250,000	TIP	Safety	2
TIP HSIP 2*	**Gambell and Ingra Streets - Overhead Signal Indication Upgrades**	$8,325,000	TIP	Safety	2
TIP HSIP 3*	**5th Ave: Concrete Street to Karluk Street Pedestrian Improvements**	$3,867,000	TIP	Safety	2
TIP HSIP 4	**Anchorage Flashing Yellow Arrow and Signal Head Display Improvements**	$22,326,000	TIP	Safety	2
TIP HSIP 5*	**Tudor Road: Baxter Road to Patterson Street Channelization**	$8,467,000	TIP	Safety	2
TIP HSIP 6	**Old Seward Highway: Industry Way/120th Avenue Channelization**	$2,077,000	TIP	Safety	2
TIP HSIP 7	**Ocean Dock Road Railroad Crossing Device Upgrades**	$1,280,000	TIP	Safety	2
TIP NHS 1	**Seward Highway O'Malley Road to Dimond Boulevard Reconstruction** - Reconstruct the Seward Highway between O'Malley Road and Dimond Blvd which may include: a new undercrossing connecting 92nd Ave to Academy Drive, minor modifications to the existing interchanges within the project limits, upgrades to the frontage roads with a focus on non-motorized facilities and multi-modal traffic safety, pathway and sidewalk improvements, noise walls and drainage improvements.	$40,000,000	short term	Safety, Congestion Reduction, System Reliability	2, 3
	Amendment 2 edited this project description				
TIP NHS 2*	**Glenn Highway: Airport Heights to Parks Highway Rehabilitation** - Projects consists of rehabilitation of the Glenn Highway between Airport Heights and the Parks Highway to be coordinated with HSIP safety improvements.	$66,500,000	short term	Infrastructure Condition	1
	Amendment 1 deleted this project 1/16/2024				
~~TIP NHS 3~~	~~**Seward Highway Mile Post 98.5 to 118 Bird Flats to Rabbit Creek** - Reconstruct the Seward Highway from Bird Flats to Rabbit Creek to better accommodate traffic flow and address safety concerns. The funding shown in the MTP is only for the termini of the project within the AMATS boundary (13% of the project length). The current estimate for the entire project is $694,028,000 based on TIP Administrative Modification #2.~~	~~$90,224,000~~	~~short term~~	~~Safety, Infrastructure Condition~~	~~1, 2~~

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
TIP NHS 4*	**Seward Highway and Tudor Road Interchange Reconstruction** - Project will reconstruct the Tudor Road Interchange. Interchange is at the end of its design life and has operational issues with the current traffic loads.	$36,000,000	short term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality	1, 2, 3, 4
TIP NHS 5*	**Glenn Highway Incident Management Traffic Accommodations** - Project will construct modifications and improvements to facilitate efficient through travel along the Glenn Highway and nearby roads between Airport Heights and the Parks Highway so that during times when lanes are blocked by crashes or other events, ensuing traffic congestion is mitigated, and gridlock does not preclude travel between Anchorage, Eagle River, and the Matanuska Valley.	$19,900,000	short term	Congestion Reduction, System Reliability	3
TIP NHS 6*	**Glenn Highway and Hiland Road Interchange Preservation and Operational Improvements** - Project will evaluate alternatives to make short term improvements to the Hiland Road interchange utilizing the existing bridge over the highway	$8,640,000	short term	Infrastructure Condition	1
STIP 1*	**Seward Highway at 36th Avenue Interchange** - Reconstruct as a controlled access interchange including frontage road connections, bike and pedestrian accommodations, safety related improvements, drainage, and other associated improvements.	$102,000,000	short term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality	1, 2, 3, 4
STIP 3	**Tract J Emergency Access Road** - The Tract-J project supports the Port of Alaska and aims to construct a new, high-standard access road that can better accommodate heavy truck traffic as an alternative to Ocean Dock Road or Bluff Road should an emergency condition block their use. The project also includes necessary improvements to drainage and roadway lighting.	$5,622,733	short term	Freight Movement and Economic Vitality	all
TIP Other 1	**Campbell Tract Facility Alternate Entrance Alignment** - Relocate the entrance road 260' to align with East 68th Avenue.	$4,921,000	TIP	Safety	2
TIP Other 2	**AK094 & AK105 (Construction & Road Improvements at APU)** - Upgrade and extend University Lake Drive approximately 1/4 mile eastward to a two lane urban road with accommodations for pedestrians.	$2,951,000	TIP	Congestion Reduction, System Reliability	3
CIP1	**48th Avenue Upgrade (Cordova Street to Old Seward Highway)** - to urban collector standards.	$8,100,000	short term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality	1, 2, 3, 4

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
CIP2	**Cordova Street Reconstruction (48th Avenue to International Airport Road)** - to urban collector standards.	$6,000,000	short term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality	1, 2, 3, 4
CIP3	**68th Avenue Reconstruction (Brayton Drive to Lake Otis Parkway)** - to urban collector standards.	$12,000,000	short term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality	1, 2, 3, 4
CIP4	**120th Avenue Upgrade (Johns Road to Old Seward Highway)** - to urban collector standards.	$8,000,000	short term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality	1, 2, 3, 4
CIP5	**Canyon Road Improvements (Upper De Armoun Road to Chugach State Park)** - upgrade and include a parking lot for trail users.	$5,000,000	short term	Congestion Reduction, System Reliability, Freight Movement and Economic Vitality	3, 4
CIP6	**Lore Road Reconstruction (Sandlewood Place to Lake Otis Parkway)** - include installation of traffic calming measures.	$12,000,000	short term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
CIP7	**Northwood Drive Extension (88th Avenue to Dimond Boulevard)** - construct a missing link in the road network and enhance traffic circulation in the vicinity of Dimond High School.	$20,000,000	short term	Congestion Reduction, System Reliability	3
CIP8	**Ocean Dock Road Upgrade (Port Entrance to Whitney Road)**	$10,000,000	short term	Safety, Infrastructure Condition	1, 2
CIP9	**Spruce Street Upgrade/Extension (Dowling Road to 68th Avenue)** - upgrade to urban collector standards and construct the collector from Dowling Road to 64th Avenue.	$10,000,000	short term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability	1, 2, 3
CIP10	**West Dimond Boulevard Upgrade (Jodhpur Road to Westpark Drive)** - to current collector standards including pedestrian facilities to provide access to Kincaid Park.	$10,000,000	short term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability	1, 2, 3
CIP11	**Whitney Road Upgrade (North C Street to Post Road)**	$12,000,000	short term	Infrastructure Condition, Congestion Reduction, Freight Movement and Economic Vitality	1, 3, 4

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
CPS020*	**36th Avenue (Spenard Road to Lake Otis Parkway)** - rehabilitate to remove a vehicle lane, install a separated bike lane through intersections, widen sidewalks, and slow speeds to 30 miles per hour.	$35,400,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
CPS026*	**5th & 6th Avenue Complete Streets (I to Reeve)** - remove a lane of traffic, slow speeds, add protected bike lanes, and upgrade pedestrian infrastructure. Consider adding green scaping and urban tree planting	$55,800,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
CPS142	**Muldoon Road (Tudor Road to Glenn Highway)** - rehabilitate to add additional non-motorized facilities and slow speeds.	$68,300,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
CPS006	**15th Avenue (L Street to Gambell Street)** - rehabilitate to a two lane roadway with protected bike lanes, reduce speed, raised medians, and single lane roundabouts at K Street, E Street, and Cordova Street. Remove telephone poles and add street lighting, crosswalks at intersections, ADA ramps, and signage.	$11,000,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
CPS008	**15th Avenue Complete Street & North-South crossing (Karluk Street to Orca Street)** - reconstruct to remove a lane of traffic and add speed reduction, protected bike lanes, and pedestrian under/overpass crossings where possible.	$5,400,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
CPS014	**32nd Avenue and 33rd Avenue Upgrade (Arctic Boulevard to Old Seward Highway)** - Rehabilitate to collector standards, to include non-motorized improvements and consider adjacent land use.	$13,700,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
CPS037*	**A and C Complete Streets Project (9th Avenue to 15th Avenue)** - Reconstruct to reduce speeds and allow safe non-motorized travel, encourage high quality residential development, and reduce vehicle and noise pollution.	$12,800,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
CPS023	**42nd Avenue Upgrade (Lake Otis Parkway to Florina Street)** - to current urban standards including a new road base, storm drain installation, curb and gutters, pedestrian facilities, street lighting, and landscaping.	$6,640,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
CPS072	**Denali Street Complete Street (Fireweed Lane to Tudor Road)** - reconstruct and include non-motorized infrastructure.	$19,200,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
CPS146	**North Lane Street (Ames Avenue to McPhee Avenue)** - rehabilitate to widen sidewalks, narrow travel lanes, and add bike infrastructure.	$4,000,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
CPS118*	**Ingra Street (3rd Avenue to 15th Avenue)** - rehabilitate Ingra Street to a 3-lane Blvd and include separated non-motorized facilities.	$37,500,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
CPS115*	**I St & L Street Reconstruction to Complete Streets (9th Avenue to Westchester Lagoon)** - use a 25 mile per hour design speed and consider the following design elements: buffered bike lanes, enhanced vegetation, upgraded school zones, improved bus stops, improved pedestrian crossing at 12th Avenue, reduce lane widths, crosswalks on all 4 corners at 9th Avenue, transition L St to 2 traffic lanes, slow traffic platoons at 13th Avenue, remove L Street left turn lane at 13th Avenue for the buffered bike path. On I Street, add bulb outs and non-motorized connection signage, striping, enhanced transit stop.	$27,100,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
CPS148	**Northway Drive (Debarr Road to Penland Parkway)** - replace a vehicle lane with protected bike lanes and add pedestrian crosswalks. Consider kid-friendly landscaping.	$3,280,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
CPS141*	**Minnesota Drive Separated Bikeway (Dimond Road to Hillcrest Drive)** - Consider noise protection.	$12,500,000	long term	Safety, Congestion Reduction, System Reliability, Environmental Sustainability	2, 3, 5, 6
CPS074	**Dimond Boulevard (C Street to Corbin Drive)** - rehabilitate to support active transportation users.	$34,600,000	long term	Safety, Congestion Reduction, System Reliability, Environmental Sustainability	2, 3, 5, 6

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
CPS021*	**36th Avenue Corridor Study (Spenard Road to Denali Street)** - a comprehensive analysis of the corridor's current conditions, anticipated growth patterns and impacts, likely outcomes and reasonable mitigation alternatives. Include recommended improvements based on identified needs and community input, a timeline for implementation, modeling analysis, and engineering work as needed.	$250,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
CPS092*	**Gambell Street (3rd Avenue to 15th Avenue)** - rehabilitate to a 3-lane Blvd and include separated non-motorized facilities.	$37,500,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
CPS192	**Transit Supportive Development Corridor Strategic Implementation Plan (Spenard Road, 15th Avenue/DeBarr Road, Northern Lights Boulevard) and Secure Bicycle Parking Facility Study** - study and develop a strategic implementation plan for projects to support transit, and locations to install secured bike parking facilities in conjunction with local businesses, the community, and agencies.	$400,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability, Reduced Project Delivery Delays	2, 3, 4, 5, 6
CPS089	**Eyak Drive Pedestrian Street (15th Avenue to Cordova Street)** - convert to pedestrian street.	$2,320,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
CPS075	**Dimond Boulevard intersection with Victor Road and Northwood Drive** - redesign the intersection to extend bike lanes through the intersection, add bike detection, and add the 4th leg crosswalk.	$2,000,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
CPS198*	**Lake Otis Parkway at 20th Avenue Channelization** – This project would construct safety improvements to this intersection. Dedicated left-hand turn lanes on Lake Otis Parkway are anticipated. The curb bulb-out on the northeast side of the intersection may be removed to allow for an optional straight ahead/right-turn lane traveling north on Lake Otis Parkway. In addition, the traffic signals will be altered to match the new lane configuration.	$3,000,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
CPS165	**Photo Avenue (Spenard Road to end of the road)** - redesign to be a non-motorized only boulevard.	$1,760,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
CPS043	**Anchorage Winter Cross-Sections Study and Implementation Plan** - document various snow conditions and existing wintertime cross sections on multiple complete street corridors and identify improved designs and maintenance to better accommodate snow storage needs while improving travel conditions for all users.	$250,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability, Reduced Project Delivery Delays	all
CPS151	**Old Glenn Highway (Eagle River Loop Road to North Eagle River Access Road)** - rehabilitate to slow speeds, add additional non-motorized crossing options, add improved traffic calming, and improve active transportation facilities.	$15,000,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	1, 3, 4, 5
CPS096*	**Glenn Highway Management Study (Airport Heights Drive to Knik River Bridge)** - study tolling, including a review of federal and Alaska regulations/legislation and ways to dedicate toll funding for maintenance/transportation improvements. Explore High Occupancy Vehicle (HOV) lanes and Bus Rapid Transit (BRT) lanes as options.	$500,000	long term	Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2
CPS117*	**Ingra Street (15th Avenue to 20th Avenue)** - install slower speed notification infrastructure.	$150,000	long term	Safety	all
CPS077	**Duben Avenue (Muldoon Road to Bolin Street)** - add non-motorized infrastructure and traffic calming.	$13,100,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
CPS091	**Forest Park Drive (Northern Lights Boulevard to Hillcrest Drive)** - rehabilitate and add traffic calming infrastructure.	$4,560,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
CPS002	**100th Avenue/Victor Road Intersection Study** - evaluate the options for enhancing safety.	$100,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
CPS047*	**Artillery Road Interchange Reconstruction** - reconstruct the interchange, including lengthening the southbound on ramp and the intersection of Old Glenn Highway and Eagle River Road near the artillery interchange to accommodate turning traffic from Eagle River Road.	$32,800,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
CPS199	**Potter Valley Life Safety Access Road (Romania Drive to Potter Valley Road)** - Analyze and plan for road improvements from Romania Drive to Potter Valley Road to improve the safety and functionality of the existing network of public roads by aligning a vital secondary access route for emergency services and evacuation.	$8,500,000	TIP	Safety, Infrastructure Condition	1, 2
		ADDED IN AMENDMENT 2			

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
CPS200	**Atelier Life Safety Access Road (Atelier Drive to Klutina Drive)** - Project would create a secondary access route to improve public safety and emergency access. Vision is a limited access recreational road, potentially gated, with access to vehicular traffic only during an emergency (allowing emergency vehicles a secondary access as well as a secondary evacuation route).	$15,500,000 **ADDED IN AMENDMENT 2**	TIP	Safety	2

Coastal Trail at Westchster Lagoon – courtesy of AMATS/Municipality of Anchorage.

Table 21: MTP Active Transportation Projects
*Projects with *(highlighted) support the 2016 Congestions Management Process (CMP) results*

Active Transportation Projects

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
TIP NMO 9*	**Chugach Foothills Connector Phase II** - Project will construct a multi-use path on Tudor Road between Regal Mountain Drive and Campbell Airstrip Road.	$250,000	TIP	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
TIP NMO 1	**Downtown Trail Connection (Coastal Trail to Ship Creek Trail)** - Project will construct a connection between the Tony Knowles Coastal Trail to the Ship Creek Trail in downtown Anchorage.	$13,260,000	TIP	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
TIP NMO 2	**Fish Creek Trail Connection (Northern Lights Boulevard to the Tony Knowles Coastal Trail)** - This project will construct a connection of the Fish Creek Trail to the Tony Knowles Coastal Trail.	$15,900,000	TIP	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
TIP NMO 4*	**Northern Lights Boulevard Sidewalk/Pathway Rehabilitation (Minnesota Drive to Seward Highway)** - Project will rehabilitate the sidewalks along Northern Lights Blvd from Minnesota Drive to Seward Highway. This project will make ADA improvements to sidewalks and bus stops, reconstruct portions of the sidewalks, relocate utilities, widen the sidewalks where possible, and reconstruct/relocate/consolidate driveways.	$4,950,000	TIP	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
TIP NMO 5*	**Glenn Highway Trail Connection (Ski Road to Settlers Drive)** - Project will construct an extension of the Glenn Highway Separated Pathway from Ski Road to Settlers Drive (approximately 0.5 miles). This project may also include, as necessary: curb ramps, lighting, drainage improvements, vegetation clearing, signing, striping, and utilities.	$6,000,000	TIP	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
TIP NMO 6*	**Campbell Creek Trail Grade Separated Crossing at Lake Otis Parkway** - Project would construct an elevated non-motorized crossing over Lake Otis Blvd to connect the east and west portions of the Campbell Creek Trail.	$13,000,000	TIP; short term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
TIP NMO 7*	**Multi-use Pathway from Tudor Road to Northern Lights Boulevard** - Project would construct a multi-use pathway along the Alaska Railroad corridor from Tudor Road to Northern Lights Blvd. This project would connect to the existing trail to the north and existing trail on Taft and Tudor Road.	$15,284,000	TIP; short term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
TIP NMO 8	**AMATS Non-Motorized Safety Campaign** - Project will produce a non-motorized safety campaign to help provide education and safety equipment. Campaign is based on analyses of data with a multi-media approach that could incorporate crash behavior patterns, MOA generated heat maps, public polling and focus group (s) results.	$2,800,000	TIP; short term; long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
TIP NMO 10	**Potter Marsh Improvements** - This project would make improvements to the Potter Marsh southern parking facility.	$100,000	TIP	Infrastructure Condition	1, 3, 4

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
TIP Plans 8	**AMATS Recreational Trails Plan Update** - A comprehensive update of all recreational trails within the AMATS area. This update will include primary and secondary linkages to established multi-use pathways as well as recreational facilities such as single track bicycle trails, hiking networks and bicycle parks within the planning area. This plan will also study trail expansion opportunities and strengthening the connections between recreational trail development and fostering economic growth within the AMATS area.	$450,000	TIP	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability, Reduced Project Delivery Delays	all
TIP CMAQ 1	**Anchorage Ridesharing/Transit Marketing** - This project funds the Municipal RideShare program which promotes, subsidizes, and contract manages an area-wide vanpool commuter service; and a comprehensive public transportation marketing effort.	$13,500,000	TIP	Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	3, 4, 5, 6
TIP CMAQ 6	**Bus Stop & Facility Improvements** - This project funds new and existing facilities and bus stop sites to meet both the federally mandated Americans with Disabilities Act [ADA] requirements and the operational needs. Typical bus stop activities include design/engineering, bus shelters, benches, trash receptacles, landscaping, grading, pacing, utility relocations, lighting, curb adjustments, drainage, constructing paths, and construction/reconstruction of turnouts. Typical facility activities include design/engineering, upgrades, rehabilitation, and construction/reconstruction not limited to safety, security, facility equipment, structures, underground storage tanks, parking lots, sidewalks, and drainage.	$2,000,000	TIP	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
TIP CMAQ 9	**Seniors and Youth Ride Free** - Provide transit trips for people 18 and under and 60 and over.	$1,916,000	TIP	Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	3, 5, 6
TIP CMAQ 10*	**Microtransit** - Establish a new on-demand service, to be managed by the MOA Public Transportation Department. Includes professional services, software, equipment and/or other Microtransit technology. The primary goals of the project are to connect residents to jobs, activity centers, and existing fixed-route bus service while providing a low-cost transportation alternative to single-occupancy vehicles.	$225,000	TIP	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
TIP CMAQ 11	**Muldoon Transit Hub Mixed Use Development** - Develop a mixed-use transit oriented development to replace the existing collection of on-street bus stops at/near the intersection of Muldoon Road and Debarr Road. This project would include property acquisition or lease negotiation, final design, and construction. FY23 is funded with grant funding outside the AMATS allocations.	$3,705,000	TIP	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability, Reduced Project Delivery Delays	2, 3, 4, 5, 6
CIP NMO 1	**E 20th Avenue Pedestrian Improvements (Tikishla Park to Bragaw Street)** - construct a pedestrian facility. Consider noise protection.	$4,500,000	short term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
CIP NMO 2	**East Northern Lights Boulevard Pedestrian Overpass** - replace the existing overpass at Rogers Park Elementary with an ADA compliant structure.	$10,000,000	short term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
NMO250	**Mountain View Drive (Taylor Street to McCarrey Street)** - widen sidewalks. Consider landscaping and bollards	$1,800,000	short term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
NMO057*	**9th Avenue (LaTouche Street to Gambell Street)** - construct pedestrian infrastructure.	$680,000	short term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO193*	**Gambell and Ingra Streets (East 16th Avenue to East 3rd Avenue)** - construct pedestrian infrastructure.	$5,500,000	short term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
NMO036	**4th Avenue at Karluk Street** - install non-motorized crossing infrastructure.	$100,000	short term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO146	**Denali Street (Tudor Road to East Fireweed Lane) and Eagle Street (East International Airport Road to Tudor Road)** - construct a separated bikeway and pedestrian infrastructure. Consider noise protection.	$3,460,000	short term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
NMO043	**6th Avenue (Bragaw Street to Cherry Street)** - redesign to be a primarily non-motorized route, including new non-motorized infrastructure, intersection redesign, traffic calming, lighting, and wayfinding. Consider enhanced shared roadway as per the AMATS Non-Motorized Plan.	$6,000,000	short term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO028	**3rd Avenue (C Street to Post Road)** - construct pedestrian infrastructure, including adding non-motorized crossing infrastructure at A Street and Karluk Street.	$1,880,000	short term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO067	**Airport Heights Drive (Debarr Road to Glenn Highway)** - construct non-motorized facilities on the west side of the road and non-motorized crossing infrastructure at Airport Heights Drive and Glenn Highway. Consider noise protection.	$1,800,000	short term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO319*	**Seward Highway (East 20th Avenue to Energy Court)** - construct pedestrian infrastructure. Consider noise protection.	$2,300,000	short term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO096	**Boundary Avenue (Homecrest Place to Boniface Parkway)** - construct a separated bikeway as per the AMATS Non-Motorized Plan. Consider noise protection.	$4,320,000	short term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO038*	**5th and 6th Avenue (M Street to Reeve Boulevard)** - rehabilitate to remove a lane of vehicular traffic on each road and add a separated bikeway, widen sidewalks, improve non-motorized crossing infrastructure.	$13,600,000	short term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
NMO033	**40th Avenue (Wellness Street to west of Lake Otis Parkway)** - construct an enhanced shared roadway as per the AMATS Non-Motorized Plan.	$1,620,000	short term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO148*	**Dimond Boulevard (Minnesota Drive to Arctic Boulevard)** - rehabilitate to add non-motorized infrastructure and transit access. Consider noise protection.	$17,500,000	short term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
NMO004	**13th Avenue (Nelchina Street to C Street and E Street to S Street)** - construct missing sidewalks, widen existing sidewalks, and construct an enhanced shared roadway as per the AMATS Non-Motorized Plan. Consider noise protection.	$3,420,000	short term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO252	**Mountain View Drive at McCarrey Street Non-motorized Wayfinding** - install non-motorized wayfinding signage to the Ship Creek Trail and to the Glenn Highway Trail.	$150,000	short term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO098	**Bragaw Street (East Northern Lights Boulevard to Mountain View Drive)** - construct a multi-use separated pathway including non-motorized crossing infrastructure at Bragaw and Penland Parkway. Consider noise protection.	$3,500,000	short term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO344*	**Tudor Road Pedestrian Safety (Harding Drive to Muldoon Road)** - install pedestrian safety infrastructure, including lighting and sidewalks/pathways. Consider noise protection and landscaping.	$17,400,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO144	**Debarr Road (Boston Street to Cross Pointe Loop)** - construct missing sidewalks.	$520,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO001*	**10th Ave (Gambell Street/Ingra Street)** - install non-motorized crossing infrastructure at the intersections.	$250,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
NMO288*	**East Tudor Road to Glenn Highway Pathway** - construct a shared use pathway as per the AMATS Non-Motorized Plan along the JBER perimeter, including a connection at Chanshtnu Muldoon Park.	$12,400,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO158	**E Loop Road (Government Hill to Downtown)** - construct a non-motorized connection, which could include protected bike lane.	$3,000,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
NMO182*	**Fairview Greenway Phase I** - construct a separated pathway along the east side of Ingra Street from 20th Avenue to a point approximately 200' south of 15th Avenue where it will enter an enhanced bike/ped tunnel under Ingra Street. On the west side of Ingra, the pathway will travel in a northwesterly direction to an enhanced tunnel under 15th Avenue and terminating at surface of an improved Hyder Street.	$11,000,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO183	**Fairview Non-Motorized Street Network Study** - study non-motorized street network and make recommendations.	$200,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability, Reduced Project Delivery Delays	all
NMO291	**Penland Parkway to Mountain View Neighborhood** - construct a non-motorized connection.	$10,000,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO021*	**27th Avenue (Blueberry Road to Minnesota Drive)** - construct an enhanced shared roadway as per the AMATS Non-Motorized Plan.	$1,540,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO031	**3rd Avenue (C Street to L Street)** - construct a separated bikeway as per the AMATS Non-Motorized Plan.	$1,080,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO119	**Career Center/Seawolf/Piper Street (East 48th Avenue to East Northern Lights Boulevard)** - construct a separated bikeway as per the AMATS Non-Motorized Plan.	$2,820,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO268	**Northern Lights Boulevard at Bragaw Street Non-Motorized Crossing improvements** - install non-motorized crossing infrastructure at the intersection. Consider islands or medians. Include safety study in project process.	$15,000,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
NMO315	**Richmond Avenue (Meyer Street to Ship Creek Multi-use Trail)** - construct an enhanced shared roadway as per the AMATS Non-Motorized Plan.	$440,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
NMO244	**Meyer Street (Peterkin Avenue to Richmond Avenue)** - construct an enhanced shared roadway as per the AMATS Non-Motorized Plan.	$120,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO019	**East 20th Avenue (Russian Jack Spur Elementary School Access Gate to Rosemary Street)** - construct an enhanced shared roadway as per the AMATS Non-Motorized Plan.	$1,220,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO220*	**Hyder Pedestrian Boulevard (15th Avenue to 5th Avenue**) - convert into a pedestrian boulevard that encourages multimodal transportation and blends pedestrian and vehicle space ("Woonerf" techniques).	$1,380,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO263	**North Bunn Avenue (Peterkin Avenue to Mountain View Drive)** - construct an enhanced shared roadway as per the AMATS Non-Motorized Plan.	$140,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO064*	**A Street (Whitney Road to West Tudor Road)** - construct non-motorized infrastructure on both sides, including bike lanes, pedestrian infrastructure, separated pathway, additional crossing infrastructure. Consider protected bike lanes.	$41,000,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO006	**15th Avenue (LaTouche St and Orca Street)** - construct a non-motorized overcrossing.	$10,000,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO090	**Blueberry Road (West Fireweed Lane to West Benson Boulevard)** - construct an enhanced shared roadway as per the AMATS Non-Motorized Plan.	$520,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO034	**West 40th Avenue/Wilson Street (Harrison Street to Chugach Way)** - construct an enhanced shared roadway as per the AMATS Non-Motorized Plan.	$320,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO035*	**41st Avenue (Wilson Street to Minnesota Drive)** - construct an enhanced shared roadway as per the AMATS Non-Motorized Plan.	$500,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
NMO290*	**Patterson Street Non-motorized Corridor (Boundary Ave to Tudor Road)** - rehabilitate into a non-motorized primary corridor with signage, consider enhanced shared roadway.	$6,000,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
NMO155	**Dimond Center Transit Center Pedestrian Infrastructure** - install additional non-motorized infrastructure.	$250,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO294	**Pine Street/McCarrey Street (8th Avenue to Chena Avenue)** - rehabilitate to widen sidewalks.	$1,080,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
NMO139	**Cordova Street (East 15th Avenue to East 3rd Avenue)** - construct a separated bikeway as per the AMATS Non-Motorized Plan and include non-motorized crossing infrastructure at Cordova Street and 16th Ave intersection. Consider noise protection.	$1,660,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO277	**Old Seward Highway (East Dowling Road to East 36th Avenue)** - construct a separated bikeway as per the AMATS Non-Motorized Plan.	$3,000,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO007	**15th Avenue at Sitka Street Intersection** - construct non-motorized crossing infrastructure.	$100,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
NMO010*	**16th Avenue (Lake Otis Parkway to Sunrise Drive/Airport Heights Drive)** - construct non-motorized facilities. Consider enhanced shared roadway.	$980,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO054*	**8th Avenue at A Street and C Street Intersections** - redesign and install non-motorized crossing infrastructure.	$500,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
NMO223	**Jelinek/Zappa/Pauline/Valley Streets (Boundary Ave to DeBarr Road) safety study** - study and identify non-motorized infrastructure for safety.	$250,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability, Reduced Project Delivery Delays	all
NMO321*	**Seward Highway Pedestrian Tunnel (33rd Avenue/Old Seward Hwy to Energy Court)** - construct a pedestrian tunnel.	$10,000,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO032	**West 40th Avenue (Old Seward Highway to Arctic Boulevard**) - construct an enhanced shared roadway as per the AMATS Non-Motorized Plan.	$2,000,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO084*	**Benson Boulevard Pathway Rehabilitation (Seward Highway to LaTouche Street)** - rehabilitate to widen and replace pavements on the south side.	$300,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
NMO091*	**Boniface Parkway (DeBarr Road to 22nd Avenue)** - construct pedestrian infrastructure. Consider noise protection.	$1,900,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO160	**E & G Street Bike Infrastructure (2nd Avenue to 15th Avenue)** - construct separated bikeways.	$1,780,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO231*	**Lake Otis Parkway (68th Avenue to Abbott Road)** - widen sidewalks.	$3,000,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
NMO239	**LaTouche Street (East 36th Avenue to Northern Lights Boulevard)** - construct a separated bikeway as per the AMATS Non-Motorized Plan on the east side of the street, add crosswalk lights, and add crosswalk striping for non-motorized crossings at the intersections of LaTouche Street and Northern Lights Boulevard and Benson Boulevard.	$1,380,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
NMO259	**Non-Motorized Pathway Connection from Trail at Patterson Street/Hunt Ave to Muldoon Road** - construct a non-motorized pathway from the existing trail.	$1,080,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO253	**Multi-use path from West 40th Ave and Indiana Street to Arctic Boulevard** - construct a multi-use pathway.	$120,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO335	**State Street study (Chanshtnu Muldoon Park Trail to East 20th Avenue)** - study and identify non-motorized infrastructure for safety.	$100,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
NMO292	**Petersburg Street to 56th Avenue Non-Motorized Pathway** - construct a multi-use pathway connection.	$400,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO092*	**Boniface Parkway at 6th Avenue Pedestrian Signal** - add a pedestrian signal or beacon at the intersection.	$1,000,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
NMO278	**Old Seward Highway (Huffman Road to O'Malley Center Drive)** - construct a separated bikeway as per the AMATS Non-Motorized Plan.	$2,300,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO343*	**Tudor Road Pathway (MacInnes Street to Lake Otis Parkway Campbell Creek Bridge)** - construct a pathway from Tudor Road/MacInnes Street to the Lake Otis Parkway Campbell Creek Bridge shown in the 2023-2026 TIP. Consider noise protection.	$1,700,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO210*	**Harrison Street (West 40th Avenue to Tudor Road)** - construct an enhanced shared roadway as per the AMATS Non-Motorized Plan.	$500,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
NMO211	**Hartzell Road (Abbott Road to Lore Road)** - construct a separated bikeway as per the AMATS Non-Motorized Plan.	$1,000,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO258	**Non-motorized Pathway Connection from Creekside Center Drive to Creekside Street** - construct a pathway connection.	$260,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO197*	**Glenn Highway Non-motorized Overhead Crossing (Boundary Avenue to pathway and regional commercial center)** - construct a non-motorized overcrossing.	$10,000,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO205*	**Glenn Highway Southside Pathway Extension (Airport Heights Drive to Bragaw Street)** - construct a non-motorized pathway connection to the existing pathway at Bragaw Street along the south side of the Glenn Highway.	$1,500,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO026	**36th Avenue at Patterson Street non-motorized pathway to Campbell Creek Trail** - construct a non-motorized pathway.	$11,040,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO359	**Wisconsin Street (Spenard Road to Northern Lights Boulevard)** - install non-motorized crossing infrastructure, including redesigning the intersections at 35th Avenue, 40th Avenue, and Northern Lights Boulevard to carry the bike lanes through the intersections and adding bike detection.	$2,340,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
NMO276	**Nunaka Valley Non-Motorized Infrastructure Study** - study and make recommendations for non-motorized infrastructure.	$200,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
NMO124*	**Chester Creek Trail at Seward Highway** - widen the Chester Creek Trail tunnel.	$15,000,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability, Reduced Project Delivery Delays	all

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
NMO333	**Spenard Road (Wisconsin Street to International Airport Road)** - install non-motorized crossing infrastructure.	$860,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
NMO346	**Turpin Street (East 16th Avenue to Boundary Avenue)** - add bike lanes and redesign intersections to continue bike lanes through entire road.	$2,320,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO014	**17th Avenue (Chester Creek to E Street at 15th Avenue)** - construct sidewalk on the north side, add a separated bikeway, and widen the existing sidewalk on the south side.	$440,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO267	**Northern Lights Boulevard (Lovejoy Drive to Wesleyan Drive)** - rehabilitate the pathway on the north side to provide a buffer and include non-motorized crossing infrastructure at Lovejoy Drive. Consider noise protection.	$3,440,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
NMO169	**Eagle Street (East Fireweed Lane to Chester Creek Trail)** - construct an enhanced shared roadway as per the AMATS Non-Motorized Plan.	$660,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO293	**Pine Street and San Roberto Avenue Intersection** - install pedestrian crossings and associated signals.	$250,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
NMO052	**88th Avenue (Jewel Lake Road to Blackberry Street)** - construct a pedestrian facility on the south side. Consider routes for walking to school	$500,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO334	**Spenard Road at Hillcrest Drive Intersection** - redesign the intersection to support non-motorized users.	$500,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
NMO364	**Wayfinding study for Non-Motorized Users, including trail users** - Analyze and plan implementation of wayfinding signage, including paved and soft surface trails.	$400,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability, Reduced Project Delivery Delays	all
NMO354	**Wayfinding for Non-Motorized Users, including trail users** - funding to implement wayfinding signage, including on paved and soft surface trails.	$2,000,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
NMO140	**Creekside Center Drive at 10th Avenue** - install crosswalks.	$100,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO313	**Redwood Place/Zarvis Place/Wentworth Street/Stanford Drive/Campus Drive/Mallard Lane (Alumni Drive to LaTouche Street) enhanced shared roadways and wayfinding** - construct enhanced shared roadways as per the AMATS Non-Motorized Plan, include wayfinding signage, and consider other non-motorized facilities to connect the neighborhood to the Campbell Creek and Chester Creek trails, such as a bike boulevard.	$3,540,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
NMO316	**Russian Jack School Park Pathway repaving and new connection from Pine Valley Court** - widen and replace the pavement and add new non-motorized pathway connections from Pine Valley Court and E 20th Avenue at Wesleyan Drive to Russian Jack Park trails and elementary school.	$1,720,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
NMO306	**Railroad Non-Motorized Pathway and Crossing Study** - study the feasibility of a non-motorized pathways along the Alaska Railroad Right of Way, including a railroad crossing in the Spenard area, to make recommendations for safety improvements and future projects. Consider pedestrian signal on Spenard Road at Alaska Railroad crossing.	$1,500,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO355	**Wellness Avenue (Health Drive to East 40th Avenue)** - construct an enhanced shared roadway as per the AMATS Non-Motorized Plan.	$360,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Timeline	Federal Performance Areas	MTP Goals
NMO190	**Forest Park Drive (West Northern Lights Boulevard to Hillcrest Drive)** - construct an enhanced shared roadway as per the AMATS Non-Motorized Plan.	$1,160,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO027*	**36th Avenue (Woodland Park to Minnesota Drive)** - extend the non-motorized pathway.	$1,060,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6
NMO189	**Foothill Drive (Sherwood Avenue to Cheney Lake Park) and Sherwood Avenue (Foothill Drive to Patterson Street)** - construct enhanced shared roadways as per the AMATS Non-Motorized Plan on Foothill Drive from Sherwood Avenue to Cheney Lake Park and on Sherwood Avenue from Foothill Drive to Patterson Street.	$960,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
NMO338	**Study to Convert Non-Through Streets into Pedestrian Streets** - study converting not fully connected through streets into pedestrian streets.	$500,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability, Reduced Project Delivery Delays	2, 3, 4, 5, 6
NMO002*	**12th Avenue (C Street to E Street)** - construct an enhanced shared roadway as per the AMATS Non-Motorized Plan.	$280,000	long term	Safety, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
NMO345	**Turnagain Blvd and Spenard Road Intersection** - install non-motorized crossing infrastructure.	$100,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	all
NMO202*	**Glenn Highway Pathway Connection at Artillery Road** - construct a connection for the Glenn Highway Pathway south to the Glenn Highway Pathway North through the Artillery Road Interchange.	$1,000,000	long term	Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability	2, 3, 4, 5, 6

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

Art installation and covered bike parking on the north end of Spenard Road – courtesy of AMATS/Municipality of Anchorage.

Table 22: MTP Transit Projects
*Projects with *(highlighted) support the 2016 Congestions Management Process (CMP) results*

Transit Projects

MTP Number	Project	2022 Cost Estimate	Estimated Annual Cost	Timeline	Federal Performance Areas	MTP Goals
TIP Transit 1	**Preventative Maintenance/Capital Maintenance** - Federal Transit Administration (FTA) allows grantees to use capital funds for overhauls and preventative maintenance. FTA assistance for those items is based on a percentage of annual vehicle maintenance costs.	$18,000,000	$4,500,000	TIP	Rolling Stock, Equipment	all
TIP Transit 2	**Fleet Replacement/Expansion** - This project funds the fleet expansion and replacement for the AnchorRIDES paratransit service, as well as the fixed route fleet.	$100,000	$100,000	TIP	Rolling Stock, Equipment	all
TIP Transit 3	**ADA Complementary Paratransit Services** - Costs associated with ADA paratransit programs are eligible for this funding for the ADA paratransit eligibility process, with a transportation skills assessment and a travel training program for people who could benefit from individualized instruction regarding how to independently ride People Mover buses. May also be used to purchase AnchorRIDES trips.	$300,000	$300,000	TIP	None	all
TIP Transit 4	**Bus Stop Improvements/1% Section 5307 Transit Improvements** - This project funds the upgrade of bus stop sites to meet both the federally-mandated ADA requirements and the operational needs. Typical improvements include bus shelters, benches, trash receptacles, landscaping, grading, paving, utility relocations, lighting, curb adjustments, drainage, constructing paths, and construction/reconstruction of turnouts.	$700,000	$150,000	TIP	Facilities, Infrastructure	all

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Estimated Annual Cost	Timeline	Federal Performance Areas	MTP Goals
TIP Transit 5*	**ITS/Automated Operating System/ Management Information Systems** - This project funds information systems necessary for efficient management of the public transportation system. Typical projects include: Geographical Information Systems [GIS] capabilities, upgrades to the automated maintenance system, refueling, and inventory system; a new computerized dispatch system; and upgrades to the scheduling/ run-cutting process, customer information and telephone communications system, and desktop computers. Funds staff and capital resources to provide project oversight, capital, and day-to-day operational support for ITS for all public transportation services.	$200,000	$50,000	TIP	Equipment	all
TIP Transit 6	**Fleet Improvement/Support Equipment/Support Vehicle** - This project funds improvements to existing transit and paratransit fleets. Typical projects include a ticket reader and issue attachment; security systems; transit/signal improvements for headway enhancements; mechanical equipment and other improvements for facilities; mobile display terminals and vehicle communications; radios and locations systems. Funds the purchase of replacement vehicles and equipment to support operation of the transit system. Typical purchases include pickup racks, maintenance trucks with special equipment, supervisor vehicles, shift change vehicles, fork lifts, sweepers, and bus access snow removal equipment.	$3,200,000	$700,000	TIP	Equipment, Facilities	all
TIP Transit 7	**Transit Centers/Support Facilities** - This project supports an on-going effort to provide major transit facilities key areas of the city and major destinations. The Anchorage Comprehensive Plan and 2040 Land Use Plan (LUP) identified neighborhood, town, regional, commercial, and city centers that function as focal points for community activities with a mix of retail, residential, and public services and facilities. Anchorage Talks Transit coordinated with the LUP and implemented a frequent bus network along transit supportive development corridors. These corridors should provide pedestrian connections to surrounding neighborhoods and transit. Existing and future facility improvements along these corridors and in areas like Midtown, Downtown, U-Med, Dimond Center and Muldoon, are vital to the implementation of these community planning documents.	$3,450,000	$750,000	TIP	Facilities, Infrastructure	all
TIP Transit 8	**Operating Assistance** - Section 5307 operating assistance for fixed route, demand responsive, and/ or microtransit public transit service.	$300,000	$100,000	TIP	Maintenance	all

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Estimated Annual Cost	Timeline	Federal Performance Areas	MTP Goals
TIP Transit 9	**Section 5310 Enhanced Mobility of Seniors & Individuals with Disabilities** - Projects may include purchasing buses and vans; wheelchair lifts, ramps, and securement devices; transit-related information technology systems including scheduling/routing/ one-call systems; mobility management programs; and acquisition of transportation services under a contract, lease, or other arrangement. Other activities may include travel training; volunteer driver programs; building an accessible path to a bus stop, including curb-cuts, sidewalks, accessible pedestrian signals or other accessible features; improving signage or way-finding technology; providing same day service or door-to-door service; purchasing vehicles to support new accessible taxi, ride-sharing and/or vanpooling programs; and mobility management programs.	$960,000	$240,000	TIP	Rolling Stock, Equipment, Infrastructure	all
TIP Transit 10	**Section 5339 Bus and Bus Facilities Program** - This program includes capital projects to replace, rehabilitate and purchase buses, vans, and related equipment, and to construct bus-related facilities, including technological changes or innovations to modify low or no emission vehicles or facilities.	$2,880,000	$720,000	TIP	Rolling Stock, Equipment, Facilities	all
TIP Transit 11	**Section 5339(b) Bus and Bus Facilities Competitive Program** - This competitive program that addresses significant repair and maintenance needs, improves the safety of transit systems, and deploys connective projects that include advanced technologies. Examples include projects to replace, rehabilitate and purchase buses, vans, and related equipment; to replace, rehabilitate, and construct bus-related facilities; including technological changes or innovations to modify vehicles and/or facilities.	$2,250,000	$562,500	TIP	Rolling Stock, Equipment, Facilities	all
TIP CMAQ 11	**Muldoon Transit Hub Mixed Use Development** - replace the existing collection of on-street bus stops at/ near the intersection of Muldoon Road and Debarr Road. This project would include property acquisition or lease negotiation, final design, and construction.	$14,155,000	TBD	TIP	Facilities, Infrastructure	2, 3, 4, 5, 6
TRN100*	**30-Minute Frequencies** - Increase all existing 60-minute frequency routes to 30 minutes. Transit on the Move (TOTM) Priority # 7.	as funding available	TBD	Short Term/ Long Term	Infrastructure	all
TRN101*	**New Route 36th Ave** - Establish a new east/west connection between the airport and the Muldoon and Debarr Transit Hub with 30-minute frequency. Provide service on International Airport Road, 36th Avenue, C Street, and Boniface Parkway with direct access to the Loussac Library and the Anchorage Neighborhood Health Center (ANHC). TOTM Priority #4.	$3,500,000	$3,500,000	Short Term/ Long Term	Infrastructure	all

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

MTP Number	Project	2022 Cost Estimate	Estimated Annual Cost	Timeline	Federal Performance Areas	MTP Goals
TRN102*	**Increase weekend Span of Service** - Increase weekend service hours from 8 am – 8 pm to 8 am – 10 pm or 7 am – 9 pm. TOTM Priority #2	$1,000,000	$1,000,000	Short Term/ Long Term	Infrastructure	all
TRN103*	**Restore holiday service on 5 holidays** - Martin Luther King Jr. Day, President's Day, Seward's Day, Veteran's Day, and Day After Thanksgiving. TOTM Priority # 9	$700,000	$700,000	Short Term/ Long Term	Infrastructure	all
TRN104*	**New Route Independence Park** - Provide additional service in South Anchorage that connects the Dimond Transit Center with the Muldoon and Debarr Transit Hub via Independence Park, Elmore Road and Baxter Road with 30-minute frequency. This route would provide direct access to the shopping center at C Street and 100th Avenue and the Alaska Native Medical Center. TOTM Priority #6.	$4,100,000	$4,100,000	Short Term/ Long Term	Infrastructure	all
TRN105	**Permanent Restroom and Break Facilities** - build facilities throughout the system to streamline operations and make the system more efficient.	$1,500,000	TBD	Short Term/ Long Term	Facilities, Infrastructure	2, 3, 4, 5, 5
TRN106	**Downtown Transit Center** - build new transit center to better support riders, increased routes, and frequencies, and allow for more operational efficiencies.	$8,850,000	TBD	Short Term/ Long Term	Facilities, Infrastructure	2, 3, 4, 5, 6

Table 23: MTP Railroad Projects

Railroad Projects

MTP Number	Project	Estimated Annual Cost	Timeline	Federal Performance Areas	MTP Goals
TIP ARRC 1	**1% Transit Security on the Alaska Railroad Corporation projects.**	$200,000	Short term/ long term	Facilities	2
TIP ARRC 2	**Preventative Maintenance (5307)** - This project partially funds statewide maintenance costs of passenger vehicle railcars and locomotives. Preventive maintenance is defined as all activities, supplies, materials, labor, services and associated costs required to preserve or extend the functionality and serviceability of the asset.	$29,000,000	Short term/ long term	Rolling Stock, Equipment	1
TIP ARRC 3	**1% Associated Transit Enhancements** - can include benches, landscaping, and other transit related amenities.	$200,000	Short term/ long term	Facilities	3
TIP ARRC 4	**Track Rehabilitation (5307)** - Rail and tie rehabilitation within AMATS planning area	$350,000	Short term/ long term	Infrastructure	1

**Highlighted projects support the 2016 Congestions Management Process (CMP) results.*

Alaska Railroad along Turnagain Arm.

MTP Number	Project	Estimated Annual Cost	Timeline	Federal Performance Areas	MTP Goals
TIP ARRC 5	**Radio and Communication System (5307)** - replace and/or upgrade radio system equipment and communication components.	$75,000	Short term/ long term	Equipment, Facilities	1
TIP ARRC 6	**Bridge Rehabilitation (5307)** - bridge engineering, preventive maintenance, rehabilitation, replacements, and other bridge improvements within AMATS boundaries.	$350,000	Short term/ long term	Infrastructure	1
TIP ARRC 7	**Signal and Detector System (5307)** - replace, upgrade or improve in-track detector and at-grade signal systems equipment and communication components within AMATS planning area.	$100,000	Short term/ long term	Infrastructure	1
TIP ARRC 8	**Facility Rehab (5307)** - replace, upgrade or improve ARRC buildings and related functional appurtenances within AMATS planning area.	$225,000	Short term/ long term	Equipment, Facilities	1, 3
TIP ARRC 9	**Track Rehabilitation (5337)** - rail and tie rehabilitation within AMATS planning area.	$2,120,000	Short term/ long term	Infrastructure	1
TIP ARRC 10	**Preventative Maintenance (5337)** - partially funds statewide maintenance costs of passenger vehicle railcars and locomotives. Preventive maintenance is defined as all activities, supplies, materials, labor, services and associated costs required to preserve or extend the functionality and serviceability of the asset.	$19,500,000	Short term/ long term	Rolling Stock, Equipment	1

MTP Number	Project	Estimated Annual Cost	Timeline	Federal Performance Areas	MTP Goals
TIP ARRC 11	**Bridge Rehabilitation (5337)** - bridge engineering, preventive maintenance, rehabilitation, replacements, and other bridge improvements within AMATS planning area.	$6,000,000	Short term/ long term	Infrastructure	1
TIP ARRC 12	**Radio and Communication System (5337)** - replace, upgrade or improvements to radio and communication locations, equipment, systems or components.	$400,000	Short term/ long term	Equipment, Facilities	1
TIP ARRC 13	**Signal and Detector System (5337)** - replace, upgrade or improve in-track detector and at-grade signal systems equipment and communication components within AMATS planning area.	$200,000	Short term/ long term	Infrastructure	1
TIP ARRC 14	**Facility Rehab (5337)** - replace, upgrade or improve ARRC buildings and related functional appurtenances within AMATS planning area.	$200,000	Short term/ long term	Facilities	1, 3

Community Impact Assessment and Environmental Justice

Through a Community Impact and Environmental Justice Analysis (CIA), a sample of projects recommended by the MTP prioritization and selection process were analyzed to ensure they will be beneficial without significant or mitigatable negative impacts on the immediate neighborhood, EJ populations or greater community, including the environment. Eight projects were selected with representation across project categories: five from Complete Streets, two Non-Motorized/Active Transportation, and one Transit. Projects assessed were selected to provide variation in geography across the AMATS boundary, scopes of work, and context to provide more representative testing of assumptions made during the selection process for project recommended in the MTP.

The high-level assessments consider categories identified in the FHWA's Community Impact Assessment Guide (2018), as appropriate, given the generalities of the recommended projects' scope of work. Impact categories considered include safety, mobility and access, physical aspects such as wetlands, drainage, barriers and shadowing, economic impacts, land use compatibility, effects on neighborhoods, displacement, and community cohesion. These preliminary assessments have been done not knowing full design recommendations, therefore some assumptions were made using professional judgement and are noted throughout the assessment.

Community members gather for public workshop.

While based on limited project scopes, this CIA provides valuable early insight to any anticipated significant negative impacts, which, if found, would result in reconsideration of a project's inclusion as scoped in the MTP recommended project list. CIA conclusions may be taken into consideration during the next MTP and guide changes in plan objectives, nomination process, selection criteria, and final recommendations. As each project is funded, more in-depth analysis across impact categories will be conducted as part of the design, environmental assessment, and permitting processes. See Community Impact Assessment and Environmental Justice Appendix 6.

Projects Assessed in the CIA

Complete Street Projects

1. 5th & 6th Avenue Complete Streets
2. Muldoon Road - Tudor Road to Glenn Hwy Complete Streets
3. Northway Drive – DeBarr Road to Penland Parkway Complete Streets
4. Dimond Boulevard from C Street to Corbin Drive Complete Streets
5. Old Glenn Highway from North Eagle River Loop Road to Eagle River Access Road Complete Streets

Non-Motorized Projects

6. Mountain View Drive – Taylor Street to McCarrey Street
7. Denali Street – East International Airport Road on Eagle Street to East Fireweed Lane

Transit Projects

8. New Transit Route 36th Ave

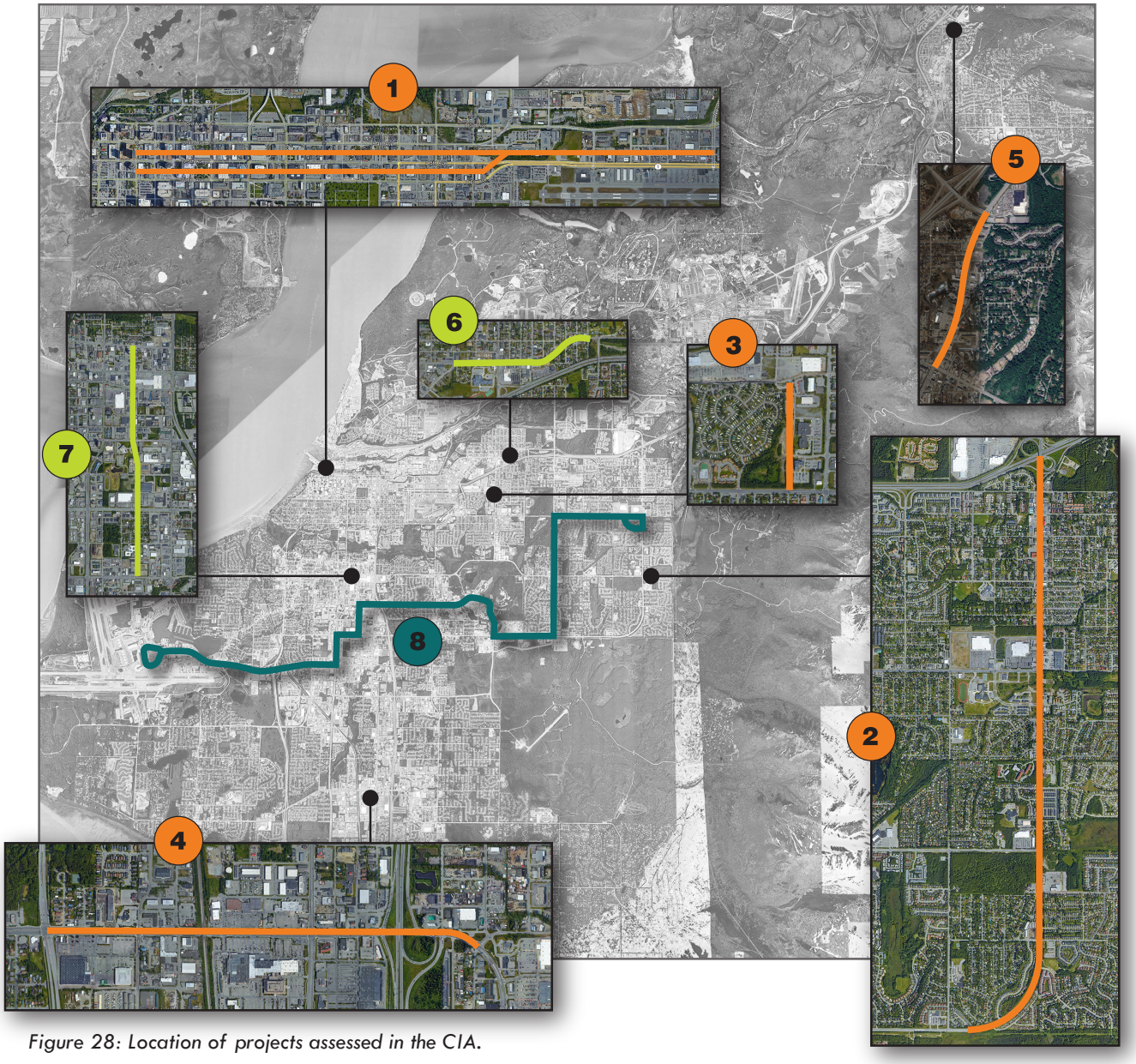


Figure 28: Location of projects assessed in the CIA.

Point Woronzof, Ted Stevens Anchorage International Airport.

Chapter 7

Implementation Strategies

This section provides the step by step actions needed to implement the plan recommendations and includes partnerships required to fully realize the community's vision for the transportation system. The performance measures established in this chapter will help to track how well progress will be made in the future to achieve the vision, goals, and objectives.

MTP

Performance measures are key to guiding implementation of the 2050 MTP. In addition to the fiscally constrained recommended project list, policies and actions will help AMATS meet the 2050 MTP goals and objectives. Consulting and coordinating with stakeholders, tribal governments, and resource agencies is critical throughout implementation.

Performance Measures

Performance measures should be based on actual data and have targets for a set time. AMATS has elected to support Alaska DOT&PF with their FHWA targets and the MOA Public Transportation Department with their FTA targets to provide quantifiable progress. As of May 2023, Alaska DOT&PF has met or made significant progress toward the 2021 targets. Updated targets were adopted by the AMATS Policy Committee in June 2023. A key action of this MTP, already in process, is to create a public dashboard for the performance measures that will be regularly updated. (See Table 24)

Implementation Strategies

Meeting the goals and objectives of the 2050 MTP will require more than adding cost-constrained projects to our transportation system. Policies, programs, and actions also support the transportation vision for the community. The interconnectivity of transportation with topics such as land use and public health requires efforts not solely reliant upon AMATS. This chapter includes some recommended implementation strategies outside of AMATS purview. (See Table 25).

Strategic Planning Strategies

The following implementation strategies came from the strategic planning process of the MTP development. These actions strongly support the goals and objectives of the MTP, but many are outside AMATS purview. They are included here as recommendations to partner agencies and policymakers to support the goals of this plan.

The alternatives that included strategies from Table 26 were not selected as the preferred alternative because they are not fiscally constrained. These actions, however, would have a significant impact towards meeting the goals and objectives of this plan and should be pursued to meet the needs of our community.

Coordinated Efforts

The following regionally significant transportation projects have ongoing implementation and support the MTP goals and objectives.

- Port of Alaska: Modernizing the port (currently in process) is essential for safe, reliable, and cost-effective port operations. The modernization will improve the Port's resiliency, improve operational efficiency, and accommodate modern shipping operations through changing statewide economic conditions and market needs.
- Ted Stevens Anchorage International Airport: Projects to upgrade the airport, such as the Alaska Cargo and Cold Storage, support an improved transportation system in Anchorage.
- Alaska Long Trail: This is a recreational and active transportation connected trail network from Seward to Fairbanks under initial phases of development. Existing trails in the AMATS planning area will be connected north and south.
- Alaska DOT&PF Carbon Reduction Strategy: This strategy is being developed to comply with the Bipartisan Infrastructure Law signed on November 15, 2021 (23 CFR 175) through a Carbon Reduction Program (CRP). The CRP encourages strategies to reduce transportation emissions, defined as

CO2 emissions, from on-road highway sources. The CRP outlines five types of eligible projects, with four related to general construction and one related to planning.

- Federal Discretionary Grants: Under the Infrastructure Investment and Jobs Act (IIJA), a variety of competitive grant programs are available to many organizations and agencies to fund various types of transportation projects and activities.
- Seward-Glenn Planning and Environmental Linkages Study: AMATS and Alaska DOT&PF are working on a Planning and Environmental Linkages Study examining National Highway System needs and improvements between the Seward Highway and Glenn Highway on 5th and 6th Avenues and Gambell and Ingra Streets. The study is evaluating ways to improve safety, livability, regional travel between the Seward and Glenn Highways, and local travel within the surrounding neighborhoods. The project will also identify ways to improve access between the Port of Alaska and the highway network. Recommendations from this study will be considered for incorporation into future MTP revisions and Transportation Improvement Programs.

Table 24: System Performance Report
✓= On Target, X= Not on Target, – = Need More Information

PERFORMANCE MEASURES			2021 Target	2021 Actual	2022 Target	2022 Actual	2023 Target	2023 Projected	2024 Target	2025 Target	2026 Target	Status
1A-1 (FHWA) Percentage of pavements of the Interstate System in Good condition			20%	34.3%	N/A	30.1%	N/A	31.3%	20%	N/A	20%	✓
1A-2 (FHWA) Percentage of pavements of the Interstate System in Poor condition			10%	0.9%	N/A	0.9%	N/A	0.9%	5%	N/A	5%	✓
1A-3 (FHWA) Percentage of pavements of the non-Interstate NHS in Good condition			15%	24.2%	N/A	25.4%	N/A	29%	15%	N/A	15%	✓
1A-4 (FHWA) Percentage of pavements of the non-Interstate NHS in Poor condition			15%	7.5%	N/A	7.6%	N/A	6.2%	10%	N/A	10%	✓
1A-5 (FHWA) Percentage of NHS bridges classified as in Good condition			40%	34%	N/A	36%	N/A	N/A	40%	N/A	40%	X
1A-6 (FHWA) Percentage of NHS bridges classified as in Poor condition			10%	6%	N/A	5.8%	N/A	N/A	10%	N/A	10%	✓
1A-7 (FTA) Infrastructure: Percentage of track segments under performance restriction			N/A	N/A	1.42%	N/A	N/A	N/A	N/A	N/A	N/A	–
1A-10 (FTA) Rolling Stock: Percentage of revenue vehicles exceeding useful life benchmark[1]	People Mover	Bus	38%	38%	54%	59%	18%	N/A	25%	20%	3%	X
		Cutaway Bus	11%	20%	27%	17%	0%	N/A	0%	0%	21%	✓
		Mini-Van	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	–
		Van	87%	87%	87%	87%	N/A	N/A	N/A	N/A	N/A	–
	ARRC	Passenger Railcars	N/A	N/A	0%	N/A	N/A	N/A	N/A	N/A	N/A	–
		Locomotives	N/A	N/A	0%	N/A	N/A	N/A	N/A	N/A	N/A	–
1A-11 (FTA) Equipment: Percentage of non-revenue vehicles exceeding useful life benchmark	People Mover	Non-Revenue/Service Automobile	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	–
		Trucks & other Rubber-Tire Vehicles	30%	66%	64%	N/A	11%	N/A	11%	19%	0%	X
	ARRC	Truck & Rubber Tired	N/A	N/A	25%	N/A	N/A	N/A	N/A	N/A	N/A	–
		Steel Wheel Vehicle	N/A	N/A	38%	N/A	N/A	N/A	N/A	N/A	N/A	–
		Automobile	N/A	N/A	0%	N/A	N/A	N/A	N/A	N/A	N/A	–

1 Useful Life Benchmark: The expected lifecycle of a capital asset for a particular transit provider's operating environment, or the acceptable period of use in service for a particular transit provider's operating environment.

PERFORMANCE MEASURES			2021 Target	2021 Actual	2022 Target	2022 Actual	2023 Target	2023 Projected	2024 Target	2025 Target	2026 Target	Status
1A-12 (FTA) Facilities: Percentage of facilities rated under 3.0 on the TERM scale[2]	People Mover	Administration	0%	0%	0%	0%	0%	N/A	0%	0%	0%	–
		Maintenance	0%	0%	0%	0%	0%	N/A	0%	0%	0%	–
		Parking Structures	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	–
		Passenger Facilities	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	–
	ARRC	Admin & Maintenance	N/A	N/A	9%	N/A	N/A	N/A	N/A	N/A	N/A	–
		Passenger & Parking	N/A	N/A	0%	N/A	N/A	N/A	N/A	N/A	N/A	–
2A-1 (FHWA) Number of fatalities			75	70	70	83	70	86	75	N/A	N/A	X
2A-2 (FHWA) Fatality rate (per 100 million vehicle miles traveled)			1.4	1.11	1.3	1.3	1.3	1.33	1.25	N/A	N/A	X
2A-3 (FHWA) Number of serious injuries			330	279	325	330	325	310	300	N/A	N/A	X
2A-4 (FHWA) Rate of serious injuries (per 100 million vehicle miles traveled)			6	4.41	5.9	5.17	5.9	4.81	5.5	N/A	N/A	✓
2A-5 (FHWA) Number of non-motorized fatalities and serious injuries			60	53	58	55	58	70	55	N/A	N/A	X
2A-6 (FTA) Total number of reportable fatalities			0	0	0	0	0	N/A	N/A	N/A	N/A	✓
2A-7 (FTA) Fatality rate per total vehicle revenue miles by mode			0	0	0	0	0	N/A	N/A	N/A	N/A	✓
2A-8 (FTA) Total number of reportable injuries	People Mover		N/A	N/A	N/A	N/A	7	N/A	N/A	N/A	N/A	–
	AnchorRIDES		N/A	N/A	N/A	N/A	3	N/A	N/A	N/A	N/A	–
	RideShare		N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	–
2A-9 (FTA) Injury rate per total vehicle revenue mile by mode	People Mover		N/A	N/A	N/A	N/A	3	N/A	N/A	N/A	N/A	–
	AnchorRIDES		N/A	N/A	N/A	N/A	1.6	N/A	N/A	N/A	N/A	–
	RideShare		N/A	N/A	N/A	N/A	1.4	N/A	N/A	N/A	N/A	–
2A-10 (FTA) Total Number of reportable safety events	People Mover		N/A	N/A	N/A	N/A	13	N/A	N/A	N/A	N/A	–
	AnchorRIDES		N/A	N/A	N/A	N/A	9	N/A	N/A	N/A	N/A	–
	RideShare		N/A	N/A	N/A	N/A	3	N/A	N/A	N/A	N/A	–
2A-11 (FTA) Safety event rate per total vehicle miles by mode	People Mover		N/A	N/A	N/A	N/A	2.6	N/A	N/A	N/A	N/A	–
	AnchorRIDES		N/A	N/A	N/A	N/A	1.8	N/A	N/A	N/A	N/A	–
	RideShare		N/A	N/A	N/A	N/A	4.3	N/A	N/A	N/A	N/A	–
3A-1 (FHWA) Percent of person miles traveled on the Interstate System that are reliable			92%	97%	N/A	98%	N/A	N/A	92%	N/A	92%	✓
3A-2 (FHWA) Percent of person miles traveled on the non-Interstate NHS that are reliable			70%	88.1%	N/A	90.5%	N/A	N/A	70%	N/A	70%	✓
3A-3 (FTA) Mean distance between major mechanical failures by mode	People Mover		N/A	N/A	N/A	N/A	10746	N/A	N/A	N/A	N/A	–
	AnchorRIDES		N/A	N/A	N/A	N/A	75608	N/A	N/A	N/A	N/A	–
	RideShare		N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	–

2 Transit Economic Requirements Model (TERM) Scale. A 1-5 rating: (https://www.transit.dot.gov/PerformanceManagement)

PERFORMANCE MEASURES	2021 Target	2021 Actual	2022 Target	2022 Actual	2023 Target	2023 Projected	2024 Target	2025 Target	2026 Target	Status
3E-1 (FHWA) Annual hours of peak-hour excessive delay per capita	N/A	9.5	N/A	N/A	N/A	N/A	11	N/A	12	–
3E-2 (FHWA) Percent of non-Single-Occupancy-Vehicle (SOV) travel	N/A	N/A	N/A	N/A	N/A	N/A	24.5%	N/A	25%	–
4A-1 (FHWA) Truck Travel Time Reliability Index	N/A	1.6	N/A	1.7	N/A	N/A	2	N/A	2	✓
5A-1 (FHWA) On-road mobile source emissions reduction – carbon monoxide	N/A	N/A	40	173.7	40	N/A	N/A	N/A	N/A	✓
5A-2 (FHWA) On-road mobile source emissions reduction – PM10	N/A	N/A	4	59.3	4	N/A	N/A	N/A	N/A	✓

= *Goal 1: Maintain Existing Infrastructure*

= *Goal 2: Improve Safety and Security*

= Goal 3: Improve Access & Mobility Options

= Goal 4: Support the Economy

= Goal 5: Promote a Healthy Environment

= Goal 6: Advance Equity

Table 25: MTP Implementation Strategies with corresponding related goals.

IMPLEMENTATION STRATEGIES	CORRESPONDING GOALS
Set targets for and adopt new, local performance measures proposed through this MTP process (Appendix 3). Performance measure targets are set through a process between AMATS and Alaska DOT&PF as required in an agreement between the parties. First data is gathered and provided for review by both parties. Then a meeting is held to discuss the data and establish a target that best fits the available data. AMATS targets are reviewed by the Technical Advisory Committee and approved by the Policy Committee.	
Continuously review and revise local performance measures to track data related to goals and objectives of the MTP.	
Begin data collection for proposed local performance measures that currently lack baseline data.	
Incorporate performance measures and targets from related planning efforts.	
Create checklist for projects that incorporate Complete Streets supportive elements.	
Explore removing Right Turn on Red at select locations, with a focus on intersections with high crash rates.	
Update and improve the AMATS regional travel demand model to include active transportation improvements and accommodate transportation system management/ travel demand management strategies.	
Work with AMATS committees to define an achievable mode split target consistent with MTP goals.	
Review the Congestion Management Process performance measures to develop a connectivity index for bike and pedestrian travel.	

IMPLEMENTATION STRATEGIES	CORRESPONDING GOALS
Develop a plan to use the health and equity information from the non-motorized plan to enhance AMATS' capability to address equity, environmental justice, and Title VI issues. Identify update cycle for the data.	
Develop a plan to expand affordable and convenient transportation options to traditionally underserved populations, including children, elders, and people with disabilities.	
Coordinate efforts and encourage collaboration on winter maintenance priorities. Establish priorities to meet the needs of the community based on transit routes, active transportation needs, and equity considerations.	
Work with the AMATS committees to identify funding for improved winter maintenance.	
Evaluate adding a new MTP or TIP screening criteria that considers life cycle cost.	
Develop a cost/benefit analysis tool for use with the MTP and TIP.	
Explore with planning partners the opportunities and tools available to establish dedicated funding sources for transit operations that will also support implementation of the 2040 Land Use Plan goals.	
Support infrastructure for electric vehicles	

Table 26: Strategic Planning Implementation Strategies

STRATEGIC PLANNING IMPLEMENTATION STRATEGIES	CORRESPONDING GOALS
Increase in transit revenue miles by 50% to promote higher transit mode share, lower emissions, and promote walking and bicycling.	
Use pricing policy to better balance the impacts of driving with the costs to promote a shift to transit and active transport modes, with the effect of lowering congestion and emissions. Specific tactics found to produce such outcomes included a 10-cent-per-gallon real increase in fuel taxes, 50% higher parking fees at the destination ends of personal travel plus a 50% increase in the area subject to such fees, and the equivalent of a 3-cent-per-mile road usage charge. These tactics could also increase revenues to help fund MTP investments.	
Increase road operations efficiencies for driving through a 10% higher investment in intelligent transportation system improvements within the planning geography to mitigate some congestion and lower emissions by making vehicle travel more efficient.	
Allow for increased density of land uses (both residential and employment) per the policies in the Anchorage 2040 Land Use Plan for small but noticeable changes across multiple outcomes: lowering emissions, increasing transit and active transport usage, promoting walking and biking, and lowering roadway congestion. Increasing density of land uses would also increase the tax revenue from property owners moving into the area.	

Tony Knowles Coastal Trail.

Chapter 8

Air Quality and the MTP

This section details the federally required air quality conformity to ensure that future transportation project recommendations do not adversely impact the natural environment and especially air quality from vehicle carbon emissions.

MTP 8

Air quality in Anchorage has remained in attainment of national ambient air quality standards (NAAQS) promulgated by the U.S. Environmental Protection Agency (EPA) for more than twenty years, except for uncontrolled wildfire smoke occasionally impacting large regions of Alaska during spring and mid-summer. The EPA has established standards for ground level ozone, sulfur oxides, nitrogen dioxide, airborne lead, and carbon monoxide (CO), as well as for particulate matter less than 2.5 microns in diameter (PM-2.5) and less than 10 microns in diameter (PM-10). These standards for criteria pollutants were established to protect the most sensitive individuals, including those with existing respiratory or other chronic health conditions, children, and the elderly. To ensure compliance with these standards, Anchorage maintains a network of air quality monitoring sites.

Background

Anchorage enjoys low levels of most types of air pollution. In 2014, the American Lung Association ranked Anchorage as one of the three cleanest cities in the United States with respect to annual average PM-2.5 and ozone pollution. Sulfur oxides and nitrogen dioxide also are not a significant concern locally. This is compared to almost half of the United States population that lives in areas that do not meet national air quality standards.

PM-10

Under specific meteorological conditions, large amounts of dust from the Matanuska, Knik, and Susitna River valleys north of the MOA can be transported to Anchorage, Eagle River, and Chugiak by wind (see Figure 29). This phenomenon has been responsible for

Figure 29: Glacial Dust Carried by High Winds

Glacial Dust from Susitna River Valley to Anchorage by High Winds, September 24, 2010

Dust from Matanuska River blows south towards Anchorage – courtesy of AMATS/Municipality of Anchorage

many of the PM-10 exceedances that have occurred in Anchorage over the years. The EPA excludes violations resulting from volcanic eruptions or transport of glacial river dust if the exceedances can be classified as an exceptional event, not caused by human actions.

The Air Quality Conformity analysis performed for this MTP is in conformance with the Alaska State Implementation Plan for air quality and meets conformity requirements outlined in 40 CFR 93 for PM-10. The analysis concludes that the MTP will not undermine the ability of the Municipality of Anchorage (MOA) to maintain compliance with the NAAQS for PM-10.

Carbon Monoxide

During the past two decades, Anchorage has experienced a dramatic improvement in CO air quality (Figure 31). In the early 1980s, Anchorage violated the standard as many as 50 times per year. Since then, concentrations have dropped more than 70 percent. In addition, no violations of the federal standard, which is set at 9 parts per million (ppm) for an 8-hour average, have been measured since 1996. Continual advancements in technology to control air pollution on newer vehicles are largely responsible for this improvement.

In January 2012, the EPA approved a revised CO control plan for Anchorage that showed the vehicle inspection and maintenance program was no longer necessary to meet the federal CO standard. Effective May 2, 2014, Anchorage was reclassified as a Limited Maintenance area for CO. Anchorage continues to implement CO reduction measures such as the RideShare vanpool program to maintain compliance with the CO standard.

Figure 30 illustrates the trend in CO concentrations. The highest CO concentrations in Anchorage occurs in mid-winter. When temperatures are cold and daylight hours are short, strong temperature inversions develop. These inversions trap vehicle emissions of CO and other pollutants close to the ground. CO emissions also increase during vehicle start-ups when engines are cold. Some of the highest CO concentrations in Anchorage are found in residential areas where vehicles parked outside are warmed-up before the morning commute.

Figure 30: Trend in Annual 2nd Maximum 8-hour CO Concentration at Anchorage Monitoring Stations (1980 – 2021)

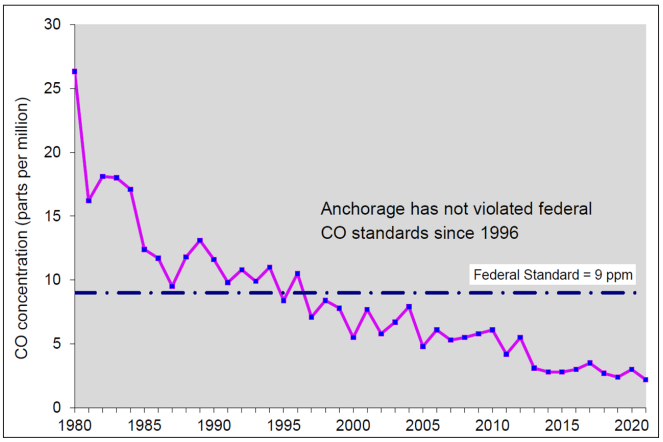


Figure 31: Plug@20 Advertising Campaign

The MOA promotes the use of engine block heaters when temperatures fall below 20°F to reduce cold start emissions (Figure 31).

The Air Quality Conformity Determination analysis performed for this MTP is in conformance with the Alaska State Implementation Plan for air quality and meets conformity requirements outlined in 40 CFR 93 for CO. The analysis concludes that the MTP will not undermine the ability of the MOA to maintain compliance with the NAAQS for CO.

Lead

In 2008, The EPA established a more stringent air quality standard for airborne lead based on current scientific evidence of health impacts. The new standard is about one-tenth its former level. Merrill Field was selected by the EPA as one of 15 airports nationwide for inclusion in a one-year study to determine whether airports serving large numbers of piston aircraft comply with the NAAQS for lead. Sampling completed by the Anchorage Health Department on the Merrill Field runway apron in October 2012 at the location of expected maximum impact determined that daily average concentrations of airborne lead were less than half the new federal standard.

Conclusion Regarding Anchorage CO and Eagle River PM10 Conformity

The air quality analysis performed by MOA for this MTP demonstrates that the 2050 Metropolitan Transportation Plan is in conformance with the Alaska State Implementation Plan for air quality and meets conformity requirements outlined in 40 CFR 93 for CO. Furthermore, it has been determined that the no element of the 2050 MTP will undermine the ability of the Municipality of Anchorage to maintain future compliance with either the CO or PM10 national ambient air quality standards.

Winter bike riding in Anchorage – courtesy of AMATS/Municipality of Anchorage.

Anchorage Skyline

Chapter 9

Tribal Consultation and Resource Agency Review

This chapter covers the federally required Tribal Consultation and resource agency review that occurred as part of the 2050 MTP development process.

MTP

Current federal requirements governing development of plans like the AMATS MTP dictate that AMATS must consult, as appropriate, with tribes and state and local agencies responsible for land-use management, natural resources, environmental protection, conservation, and historic preservation. Among the consultation activities, the recommendations of the MTP must be compared with applicable state conservation plans or maps and available inventories of natural or historic resources to assess possible impacts of the plan.

The following federal, state, tribal, and local resource agencies were contacted as part of the 2050 MTP process:

- Alaska Department of Environmental Conservation, Air Quality
- Alaska Department of Fish and Game, Wildlife Management
- Alaska Department of Natural Resources, Office of Project Management and Permitting
- Alaska Department of Natural Resources, Parks and Outdoor Recreation
- Alaska Department of Transportation and Public Facilities Statewide Environmental Office
- Alaska Mental Health Trust Authority, Land Office
- Alaska State Historic Preservation Office
- Anchorage Historic Preservation Commission
- Joint Base Elmendorf-Richardson
- Municipality of Anchorage Health Department, Air Quality
- Municipality of Anchorage Heritage Land Bank
- Municipality of Anchorage Parks and Recreation
- Municipality of Anchorage Planning Department, Coastal Zone Planning
- Municipality of Anchorage Project Management and Engineering Department, Watershed Management Section
- Native Village of Eklutna
- University of Alaska Anchorage, Facilities and Campus Services
- U.S. Army Corps of Engineers
- U.S. Bureau of Land Management, Lands/Realty Group
- U.S. Department of Commerce, National Oceanic and Atmospheric Administration, ESA Section 7
- U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Habitat Conservation Division
- U.S. Department of the Interior, U.S. Fish and Wildlife Service
- U.S. Environmental Protection Agency (EPA)

Outreach efforts included an individual meeting with the Native Village of Eklutna and a meeting with resource agency representatives to discuss major recommendations in the MTP as well as phone calls and email exchanges. An interactive map was created to show the relation of the locations of recommended complete streets, active transportation, and public transportation projects in the draft MTP to natural resources and historical places in the AMATS planning area. This map was shared with the resource agencies for review.

The resource agencies were invited to provide input, suggestions, and guidance about projects or programs for the MTP projects. The consultation from Native

Village of Eklutna and resource agencies was considered to be guidance that complements other formal guidance, such as the National Environmental Policy Act (NEPA) requirements. Several agencies responded with suggestions, and their recommendations are provided in the following section.

Native Village of Eklutna

The Native Village of Eklutna has near-term and long-term development plans that will connect to the surface transportation system. AMATS will continue to work with and support the efforts of the Native Village of Eklutna through implementation of the 2050 MTP.

Joint Base Elmendorf-Richardson (JBER)

One long-term active transportation project in the MTP (NMO288 - East Tudor Road to Glenn Highway Pathway) is proposed along the border of the base and the municipality. Ongoing consultation with JBER will be required as that project is funded and implemented to avoid any issues along the boundary and ensure the safety of residents along the corridor due to adjacent activity on base.

University of Alaska Anchorage

Multiple projects are on and around the University of Alaska Anchorage (UAA) campus. The resource agency interactive map base layer needs to be updated to accurately reflect land ownership and type. Additionally, the following project-specific feedback was provided for NMO313 - Redwood Place/Zarvis Place/Wentworth Street/Stanford Drive/West Campus Drive/Mallard Lane (Alumni Drive to LaTouche Street) enhanced shared roadways and wayfinding; NMO267 - Northern Lights Boulevard (Lovejoy Drive to Wesleyan Drive); and NMO268 - Northern Lights Boulevard at Bragaw Street Non-Motorized Crossing improvements. Ongoing coordination with UAA will continue as these long-term projects move to implementation.

Alaska State Historic Preservation Office

From a historical perspective, Anchorage is coming of age. Going forward, changing transportation circulation could affect neighborhood character. Zoning and historic impacts should be considered as the plan is implemented.

U.S. Army Corps of Engineers

A Department of the Army authorization may be required if anyone proposes to place dredged and/or fill material into waters of the U.S., including wetlands and/or perform work in navigable waters of the U.S. Some of the proposed activities, including road extensions and trails, may require placement of fill and/or work in waters of the U.S. If that is the case, U.S. Army Corps of Engineers should be contacted at the earliest convenience.

A copy of the Department of the Army permit application can be found online at *www.poa.usace.army.mil/Missions/Regulatory.*

Sample drawings can also be found at *www.poa.usace.army.mil/Portals/34/docs/regulatory/guidetodrawings2012.pdf.*

Section 404 of the Clean Water Act requires that a Department of the Army permit be obtained for the placement or discharge of dredged and/or fill material into waters of the U.S., including jurisdictional wetlands (33 U.S.C. 1344). The U.S. Army Corps of Engineers defines wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Section 10 of the Rivers and Harbors Act of 1899 requires that a Department of the Army permit be obtained for structures or work in or affecting navigable waters of the U.S. (33 U.S.C. 403). Section 10 waters are those waters subject to the ebb and flow of the tide shoreward to the mean high water mark, and/or other waters identified by the Alaska District. Aquaculture structures and work would require Section 10 Authorization.