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2040

Metropolitan Transportation Plan
Anchorage Bowl and Chugiak-Eagle River

Prepared for:
Anchorage Metropolitan Area Transportation Solutions

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2040 Metropolitan Transportation Plan
Anchorage Bowl and Chugiak-Eagle River

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To be completed at a later date
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Welcome to the 2040 Metropolitan Transportation Plan (MTP), a long-range transportation plan for the Anchorage Bowl and Chugiak-Eagle River. The MTP looks into the future and identifies transportation improvements to implement our community’s vision. It describes the current status of the transportation system, our transportation goals, proposed capital improvements, and a supporting implementation strategy. The 2040 MTP is an update of the 2035 MTP adopted in 2012 and refreshed with the Interim 2035 MTP in 2015.
Message from the Policy Committee Chair

To be added at a later date.
What is a Metropolitan Transportation Plan and What Is Needed?

The video is available at http://www.vimeo.com/221656563
Anchorage is growing: by 2040, Anchorage's population is expected to grow by 20 percent and employment is expected to grow by 21 percent (Figure 1-1). Our city's population is not just growing – its demographics are also changing. In the future, we can expect greater ethnic and racial diversity, more households with 65 and older residents, and households with fewer children. The overall population is expected to be less transient and families will be increasingly multi-generational. With Anchorage’s changing demographics there are expected to be corresponding changes in transportation needs and preferences. These demographic changes are explored more in Chapter 5.

Transportation affects almost all aspects of our lives – it influences the health of residents, facilitates economic development, contributes to environmental quality, and much more. As Anchorage grows and changes, our transportation system will need to respond to those changes in ways that accommodate the needs of its citizens.

The MTP is a blueprint for transportation decision-making over the next 20 years. The plan provides a vision for our future and sets forth goals and specific objectives for achieving that vision. The plan serves as the basis for transportation improvement decision-making that will determine how we get around Anchorage in the years to come. The plan’s long-term vision is essential because transportation improvements require long lead time to plan, design and implement. The MTP sets the stage for meaningful future transportation system improvements.

This MTP builds on previously adopted transportation and related plans, including the recently adopted Anchorage Bowl 2040 Land Use Plan, to facilitate multi-modal transportation improvements, with an emphasis on preservation of the existing system, connectivity, mobility, and consideration of land use. This plan was developed with a mix of technical tasks combined with robust public engagement to reflect Anchorage residents’ interests and preferences.

When approved the 2040 MTP will supersede the 2035 MTP and the Interim 2035 MTP.

Figure 1-1 Population and Employment Growth

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Employment</th>
</tr>
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<tbody>
<tr>
<td>2013</td>
<td>Existing: 298,440</td>
<td>Existing: 198,000</td>
</tr>
<tr>
<td></td>
<td>+20%</td>
<td>+21%</td>
</tr>
<tr>
<td>2040</td>
<td>358,363</td>
<td>239,500</td>
</tr>
</tbody>
</table>

Source: AMATS Socioeconomic Projection and Land Use Allocation Report, April 2016
What is AMATS?

Anchorage Metropolitan Area Transportation Solutions (AMATS) is the federally designated Metropolitan Planning Organization (MPO) responsible for transportation planning for the Anchorage Bowl, Chugiak, Eagle River, and coordination with Native Village of Eklutna, the federally recognized tribe within the AMATS planning area. Figure 1-2 shows the shape and extent of the land that makes up the AMATS planning area. One of the most important roles of AMATS is the preparation and adoption of the MTP. The following primary groups participate in AMATS planning and decision-making activities as shown on Figure 1-3. For more information on AMATS committees, refer to the Public Participation Plan on the AMATS website (http://www.muni.org/Departments/OCPD/Planning/AMATS/Documents/PPP/PPP_Final_PC_Approved_1_2017.pdf)
The Policy Committee (PC) is the primary decision-making body for AMATS. The Technical Advisory Committee (TAC) provides recommendations to the PC. AMATS staff, AMATS subcommittees, and the MOA Assembly provide recommendations to the PC through the TAC.
The MTP is the primary planning document used by AMATS to guide the long-term development and implementation of Anchorage’s transportation system. AMATS must maintain the MTP for its entire planning area. The MTP is federally mandated and must comply with the Statewide and Metropolitan Transportation Planning regulations issued by the U.S. Department of Transportation. The MTP is generally updated every 4 years, allowing AMATS to incorporate the latest data, identify changes affecting travel demand and traffic patterns, and adjust policies and projects based on changing conditions. The MTP is required to have at least a 20-year planning horizon. The MTP frames a plan for transportation throughout the AMATS area and serves as an element of the Municipality of Anchorage Comprehensive Plan for the Anchorage Bowl and Chugiak-Eagle River areas.

AMATS is also responsible for the Transportation Improvement Program (TIP). The TIP is generally a 4-year implementation plan that lists projects and strategies using federal funding over the life of the TIP.

Figure 1-4 summarizes the phases of the transportation planning process.
Guidance for Plan Development

In October 2016, the AMATS Policy Committee gave the MTP project team the following key assumptions and parameters to guide the plan development process:

**MTP Update Requirement:** AMATS must review and update the MTP at least every 4 years in air quality maintenance areas to avoid a lapse in the MTP Air Quality Conformity Determination.

**Air Quality Conformity:** The air quality conformity for the current Interim 2035 MTP was approved by the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) on November 19, 2015, and expires 4 years from that date on November 19, 2019. [A grace period of 1 year is permitted by federal regulations. The 2040 MTP will use this grace period extending the air quality conformity to November 19, 2020.]

**FHWA Planning Regulations:** The development of the 2040 MTP will follow FHWA planning regulations (23 Code of Federal Regulations [CFR] 450.322) regarding the development and content of the MTP, and shall draw principally from content provided in the 2035 MTP and Interim 2035 MTP. The MTP must have a horizon year of at least 20 years from the date of FHWA approval of the related Air Quality Conformity Determination.

**Conformity:** The 2040 MTP will follow Environmental Protection Agency (EPA) regulations for Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Projects (40 CFR 93[A]), particularly with respect to air quality and transportation modeling, cost estimating, and fiscal constraint, as follows:

- **Air Quality Modeling/Analysis:** Since the approval of the 2035 MTP in 2012, the EPA has 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). As a consequence, the requirement to meet an emission budget for CO and PM10 has been eliminated, and transportation/air quality monitoring is no longer required to estimate emissions. Thus, there is no requirement for air quality modeling analysis in AMATS MTPs or Transportation Improvement Plans (TIPs). An Air Quality Conformity Determination for the 2040 MTP will be prepared and adopted as part of the 2040 MTP in accordance with the requirements outlined in the
Fiscal Constraint: Conformity regulations still require a re-examination of project costs to determine whether the MTP is fiscally constrained. Revenue and cost assumptions identified in the 2035 MTP and Interim 2035 MTP will be reviewed and updated as part of the fiscal constraint analysis. Staff will work closely with DOT&PF Central Region in using the financial tool developed for the 2035 MTP and used for the Interim 2035 MTP to demonstrate fiscal constraint, and will review project cost and Maintenance & Operations estimates with DOT&PF Central Region and update as appropriate. [NOTE: Since this guidance was written DOT&PF Central Region is now DOT&PF Anchorage Field Office.]

Transportation Modeling: The AMATS Travel Demand Model updated in 2016 will be used for the preparation of the 2040 MTP. The updated model will be used to confirm the need for projects identified in the 2035 MTP and Interim 2035 MTP, and to identify whether additional projects are required to meet the transportation needs projected to 2040. [Note: Since this guidance was written the 2016 AMATS Travel Demand Model was used for the 2040 MTP.]

Socioeconomic Assumptions: The regional socioeconomic assumptions used for the AMATS Travel Demand Model Update and for this 2040 MTP are provided in the April 26, 2016, report titled “Socioeconomic Projections and Land Use Allocation Report,” prepared for AMATS by RSG with The McDowell Group.

Horizon Year: The horizon year for the MTP update is assumed to be 2040.

Knik Arm Crossing (KAC) Project: The AMATS PC expresses its reservations regarding the need, impact, and cost of the KAC project, and asks that the project be revisited as part of the 2040 MTP update process. [NOTE: Since this guidance was provided, the AMATS Policy Committee on August 24, 2017, determined that the KAC project was not to be included in the 2040 MTP.]

MTP Goals and Objectives will be reviewed and confirmed as still relevant and consistent with adopted land use plans, and will be changed as appropriate, following a review of the current Anchorage 2040 Land Use Plan Supplement to Anchorage 2020 – Anchorage Bowl Comprehensive Plan, when adopted. [NOTE: Since this guidance was written, the Anchorage Bowl 2040 Land Use Plan was adopted and used for the 2040 MTP.]

**Completed Projects:** The 2040 MTP will recognize the completion of projects, strategies, and planning efforts identified in the 2035 MTP and Interim 2035 MTP.

**Public Participation:** The 2040 MTP public participation activities will focus on AMATS public meetings, a minimum 30-day public review period that includes a work session and public hearing with the Municipal Assembly.

**FHWA Certification Review:** All relevant recommendations and corrective actions from the 2015 Certification Review by FHWA will be addressed and incorporated into the 2040 MTP as applicable.
Stakeholder engagement is an essential component in the development of the 2040 MTP. AMATS provided open and effective stakeholder engagement throughout the plan development process through public meetings, surveys, e-blasts, social media, and the project website.
A Public Involvement Plan (PIP) was developed at the start of the 2040 MTP planning process. The PIP outlined a broad-based public engagement process that provided a variety of communication channels to engage a wide cross-section of the Anchorage Bowl and Chugiaq-Eagle River. Methods included in-person public meetings, online interactive surveys, videos, online public meetings, and social media to reach new stakeholders as well as those who do not typically attend public meetings.

In addition to the methods described above, the public was given opportunities to review draft documents primarily through existing AMATS committees for public review such as the Policy Committee (PC), Technical Advisory Committee (TAC), and Citizens Advisory Committee (CAC). Broader public outreach efforts were mainly organized around the key phases depicted to right.

Figure 2-1 shows the major steps to develop the MTP.
Figure 2-1 Plan Development and Public Participation Process
This section summarizes the communication tools used to provide information to and solicit feedback from the public about the plan.

Fact Sheets/Frequently Asked Questions

For the project kick-off, the project team developed a fact sheet that used infographics to communicate information about Anchorage’s existing transportation system (see Figure 2-2). The fact sheet was made available in English, Hmong, Tagalog, Spanish, and Korean. The project team also developed a Frequently Asked Questions handout that provided general plan information and explained how the public can comment on the proposed plan (see Figure 2-3).

Fact sheets are available online at http://mtp2040.com/library.html
Figure 2-3 Frequently Asked Question Handouts in English and Tagalog.

Handouts are available online at http://mtp2040.com/library.html
Three videos were produced for the 2040 MTP webpage:

**Kickoff and Deficiency Analysis:** The first video (Figure 2-4) introduced the MTP process through vignettes of local people describing their vision for future transportation. This video encouraged people to visit the project website and sign up for future updates. The video was circulated on AMATS’ social media channels.

**Alternatives:** The second video advertised the public charrette and encouraged people to attend in person or via the online open house. The video was circulated on AMATS’ social media channels.

**Draft MTP:** The third video highlighted the public review draft MTP and how the project selection process reflects what the project team heard from stakeholders throughout the planning process. The video was circulated on AMATS’ social media channels.

To view the video, please visit https://vimeo.com/254782422
Interactive Website

The project’s official website, www.mtp2040.com, shown in Figure 2-5, provided electronic information and documentation about the MTP and the plan development process. The website allowed people to participate in surveys and watch MTP informational videos. It also allowed them to share their thoughts with the project team via a comment form. All events were advertised on the website, and all project meeting materials and documents were available as well. In 2018, the MTP website won an Award of Excellence from the Alaska Chapter of the Public Relations Society of America.
**E-blasts**
The email list was built by identifying key stakeholders and sending them an invitation to sign up for 2040 MTP updates. E-blasts about upcoming MTP-related events and opportunities for public comment were emailed to the project and AMATS contact lists. By the end of the project, there were approximately 325 email addresses on the project contact list, over 660 on the AMATS e-mail list, and 19 E-blasts were sent.

**Social Media**
Facebook events were created for public meetings and advertised via boosted posts (a paid Facebook post) focused on audiences in Eagle River and Anchorage. Opportunities for public comment were published on AMATS’ social media sites. MTP information was also shared on DOT&PF’s Facebook site. In addition, public meetings #1 and #3 were broadcast via Facebook Live for people who could not attend the meeting in person.

**Public and Online Meeting**
The project team held three rounds of public and online meetings.

**Meeting #1, Summer 2017:** This round of meetings focused on introducing the plan, describing the planning process, and presenting the draft goals and needs assessment. Meetings were held in the Anchorage Bowl and Chugiak-Eagle River, as well as online (see Figure 2-6). Approximately 30 attendees participated in the meetings. An open house format was used, with posters available, followed by a presentation and question and answer session. During the presentation, audience members were able to participate and give feedback using their mobile devices. Results were tabulated instantly and displayed for the entire audience.

![Figure 2-6 Online Open House #1](image)
Meeting #2 (Charrette), November 2017: This 3-day charrette was held to gather input on potential solutions for addressing the issues and needs of the Anchorage metropolitan transportation system and to formulate draft alternatives. The charrette provided a variety of engagement opportunities—weekend and weekday (Saturday, Monday, and Tuesday) as well as daytime and evening. The public were invited to drop by any time during the 3-day charrette to engage with staff from AMATS, MOA Public Transportation Department, DOT&PF, and HDR; to participate in individual planning exercises; and to engage with fellow residents during several break-out sessions exploring solutions and strategies to resolve issue areas identified earlier in the MTP process. The charrette included a series of breakout groups with discussion focused around specific modes and topics:

- Public Transportation
- Bicycle
- Pedestrian
- Roadways
- Land Use/Transit Connection
- Emergency Services
- Human Services Coordinated Transportation
- Freight

Charrette attendees also provided input through a series of open house stations (see Figure 2-7). Two evening community public meeting opportunities were offered, as well as a work session for AMATS TAC and PC members. Overall, 86 people signed in over the 3-day period, with the majority attending sessions on Saturday, November 4. Mayor Ethan Berkowitz also attended the charrette and provided support for the planning process.
Meeting #3, November 2019: The final public meeting presented the draft plan. Content to be added later.

Each meeting was advertised a minimum of 15 days prior to the meeting using the following methods:

- Email notifications to the project and AMATS contact lists
- Dates added to community calendars, including ADN and Alaska Public Media
- Flyers posted at the YMCA and local libraries
- Notices posted through Federation of Community Councils and What's Up ListServ emails
- Advertisements via paid media, including:
  - ADN print ad
  - ADN online ad
  - Alaska Public Media paid radio advertisement
  - AMATS Facebook post
  - Chugiak-Eagle River Star online ad
  - DOT&PF Facebook post
  - Facebook ads
Two surveys were conducted for the MTP 2040 Update. Survey summaries were posted to the project website.

**Survey #1**: In conjunction with the first public and online meeting, a MetroQuest survey was conducted. A MetroQuest survey is comprised of a series of standardized screens that guide individuals through key project information and request input from the public and stakeholders. The first MTP MetroQuest survey included the following topics:

- **Welcome – MTP 2040**: Visitors were introduced to the project and presented with pertinent facts about the MTP and how it will benefit the community.

- **Goals – Share Your Values**: Visitors were asked to rank draft goals and objectives according to their priorities, and to provide comments on those goals, if desired. They could also suggest additional priorities.

- **Survey – Tell Us What You Think**: Visitors ranked (on a scale from 1 to 5 stars) whether they like, dislike, or are neutral on several transportation topics. Topics included ways of meeting travel needs, obstacles to solving transportation issues, and important trends and opportunities. They could also provide comments and suggest additional items.

- **Problem Areas – Identify Existing Problems**: Visitors were asked to drag and drop at least three markers to identify existing problems with our transportation network and potential solutions (see Figure 2-8). They could...
also provide comments.

- **Wrap Up – About You:** Visitors were asked to provide a variety of demographic information about themselves (optional) and were given an opportunity to provide final comments.

**Survey #2:** A second MetroQuest survey (Figure 2-9) was held after the charrette to obtain feedback on the draft alternatives developed at the charrette. This survey included the following five topics:

- **Welcome – 2040 MTP:** Visitors were introduced to the two alternatives being considered for the 2040 MTP and presented with links to detailed descriptions of those alternatives.

- **Alternative Rating – Meeting Transportation Goals:** Visitors were presented with two alternative scenarios, Building on Today and Pushing the Envelope (later renamed to Focus on Moving Motor Vehicles and Include Broader Transportation Solutions), and asked to rate each scenario (from 1 to 5 stars, worst to best). Five indicators were provided for each alternative, and visitors were shown how each indicator might perform under that alternative (“worse than today” or “better than today”). Visitors were asked to rate how they liked each of the indicators (from 1 to 5 stars, worst to best) and provide comments, if desired.

- **Potential Strategies:** Visitors were asked to rate seven potential strategies to implement each of the two previous scenarios (Building on Today and Pushing the Envelope). They ranked the strategies on a scale (from 1 to 5 stars) on whether they like, dislike, or are neutral on those strategies. Strategies included options such as Congestion Management, High-Occupancy Vehicle Lanes, Better Pedestrian Access, Autonomous Vehicles, Increasing the Cost of Parking, Expanding Transit Service, and more. They were encouraged to comment and suggest additional strategies.

- **Tradeoffs:** Visitors were shown five high-traffic areas identified by the MTP 2040 modeling results (U-MED Area Access, Glenn Highway, Northern Lights, A/C Street, and Minnesota Drive) and a pair of options (“tradeoffs”) for each area. They were asked to indicate which option they would prefer (and to rate the strength of that preference), or whether they were “neutral” regarding that tradeoff. They were also allowed to provide optional comments.

- **Wrap Up – About You:** Visitors were asked to provide a variety of demographic information about themselves (optional) and were given an opportunity to provide final comments.

**Almost 500 people responded to our surveys.**

**They submitted 853 comments.**
Help shape our transportation future

The 2040 MTP is considering two alternatives (Building on Today and Pushing the Envelope) based on input from our November workshop. Each alternative takes a different approach to achieve our transportation goals. Share your thoughts with us!

Detailed Alternative Descriptions

Through the MTP, Anchorage Metropolitan Area Transportation Solutions (AMATS) works with the community to decide what transportation improvements are needed to keep up with the economy and changing population.
Chapter 2 // 14

Listening Posts

To reach people who do not usually participate in public meetings or planning processes, the team staffed listening posts at existing events. A booth was hosted by one or two staff members equipped with project materials, posters, and online surveys on iPads (see Figure 2-10). Six listening posts were held at community events/locations: Anchorage Transportation Fair (2017, 2018, and 2019), Mountain View Street Fair, Jitters in Eagle River, and the Eagle River Bear Paw Festival.

Comments

Comments were accepted throughout the MTP 2040 planning process at the AMATS email address: AMATSInfo@ci.anchorage.ak.us. XXX comments were received.

Other

The project team reached out to the public in other ways, including posting information about events on Anchorage Daily News (ADN) and the Alaska Public Media community calendars, posting flyers at the YMCA and local libraries, having information distributed via the What’sUp and Federation of Community Council listservs, placing ads in the ADN (online and print) and Chugiak-Eagle River Star, and purchasing radio advertisements through Alaska Public Media. A chronology of the public outreach activities can be found in Appendix B. Figure 2-11 highlights how the 2040 MTP has addressed some of the public comments.
What we’ve heard from the public:

- Provide more bicycle and pedestrian improvements
- Plan for new technology
- Maintain existing roads
- Integrate land use and transportation
- Decrease congestion

In response, the 2040 MTP recommendations includes:

18 transit related improvements worth an estimated $143.4 M.

Projects include:
- Transit intersection signal priority improvements
- Bus stop & facility improvements
- Fleet replacement / expansion

18 of the road projects are reconstruction/rehabilitation projects designed to keep the existing roadway system in a state of good repair.

Of the 51 road recommendations, 26 of them include improvements to the bicycle/pedestrian system.

In addition, there are 50 stand-alone non-motorized projects.

Land use plan used to prioritize road and non-motorized projects.
AMATS and MOA Reviews and Approval

Throughout the planning process, the AMATS committees reviewed and approved draft technical documents to provide guidance to the project team. This review process included opportunities for the public to listen to committee discussions and provide input directly to the committees. The project team first provided draft deliverables to the TAC. The TAC reviewed each draft, and considered comments from the various AMATS committees and the general public (including written comments and comments provided during TAC meetings). Once the TAC approved the draft, it was advanced to the PC for their approval. As part of the approval process, the public were also provided opportunities to submit written comments or speak at the PC and TAC meetings about the draft material. A document became final only after PC approval.

Several joint work sessions were held as part of the review and approval process to provide members of different committees an opportunity to discuss MTP-related issues. Every work session was open to the public.

The plan review and approval process produced two draft iterations of the MTP: the Public Review Draft Plan and the Public Hearing Draft Plan. The Public Review Draft Plan was released on TBA, which began an intensive public comment period. During that time, the recommendations contained in the draft plan were discussed extensively at a number of public forums, including Public Meeting #3 (discussed earlier in this chapter). The comments received were used to revise the Public Review Draft Plan and produce a Public Hearing Draft Plan. A comment response summary, provided to AMATS committees for review and approval, summarized the changes made to the plan during this process.

Two formal public hearings were held: one for the MOA Planning and Zoning Commission and the other for the Municipal Assembly. The public was also able to provide comment at AMATS TAC and PC meetings that considered approval of the Public Hearing Draft.

The Municipal Assembly and AMATS PC reviewed and adopted the Public Hearing Draft Plan on XXX. The accompanying Draft Air Quality Conformity Determination, discussed in Chapter 9, was approved by the AMATS PC on XXX and by the Federal Highway Administration and Federal Transit Administration on XXX.
Outreach to Specific Groups

The 2040 MTP project team took special measures to ensure inclusion of traditionally under-represented populations, policy makers, and regulatory/resource agencies.

Traditionally Under-represented: The MTP wanted to involve minority, low-income, and limited-English-proficiency populations into the transportation decision-making process. To increase participation by underserved populations, several tools were used including:

- Translating the Fact Sheet into Spanish, Tagalog, Korean, and Hmong. Meetings were held in transit-accessible locations,
- Dedicating a focus group session during the charrette on the needs of the traditionally under-represented, and
- Email outreach.

The project team also coordinated with local Alaska Native organizations.

Policymaker Participation: Regular updates and work sessions involving the Anchorage mayor and the rest of the AMATS PC were conducted as part of the planning process. The active involvement of these policymakers served to provide informed communications to their constituencies as well as to return vital feedback to the MTP team.

Regulatory/Resource Agencies: State and local resource agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation were consulted during the MTP’s Public Review process. The intent of this meeting was to solicit input on potential environmental mitigation measures and strategies to be considered in conjunction with implementation of the transportation projects listed in the MTP. The list of agencies is available on page 8-18.
The use of graphics in a plan is also a federal requirement. The 2040 MTP used videos, along with graphics, to help engage people. Examples of maps and graphics used throughout the planning process include congestion-level maps, maps of recommended roadway projects, charts to present data, and graphics to depict a variety of topics. Figure 2-12 shows a graphic used on the 2040 MTP website while Figure 2-13 shows a slide used in Public Meeting #1.
Chapter 3

Plan Goals, Objectives, and Performance Measures

The 2040 MTP establishes a set of goals and objectives that are developed based on local plans, with public involvement, designed to address federal transportation planning goals and factors, and provide a means for performance based planning.

This chapter outlines the 2040 MTP goals and objectives and confirms they are consistent with current transportation planning regulations.
Goals provide general guidelines about what the community intends to achieve through the transportation plan, while objectives define the strategies to attain the identified goal.

The basis for the 2040 MTP goals and objectives are those developed for the 2035 MTP and confirmed by the Interim 2035 MTP for the Anchorage Bowl and Chugiak-Eagle River. Those goals were refined to make them more measurable and to minimize redundancies (i.e., having the same measure for multiple objectives). They were refined based on public input and to also have a more direct relationship with the Moving Ahead for Progress in the 21st Century Act (MAP-21) (Public Law 112-141) and Fixing America’s Surface Transportation Act (FAST Act) (Public Law 114-94) national goals, planning factors, and local comprehensive plan goals (see Figure 3-1). These goals (Figure 3-2) and objectives are the foundation from which recommended project and policies will be developed and approved.
Figure 3-2 2040 MTP Goals

**Goals**

**GOAL 1 Preserve the Existing System:** Maintain the transportation system in a state of good repair.

**GOAL 2 Improve Safety:** Increase the safety and security of the transportation network.

**GOAL 3 Improve Travel Conditions:** Develop an efficient multi-modal transportation system to reduce congestion, promote accessibility, and improve system reliability.

**GOAL 4 Support the Economy:** Develop a transportation system that supports a thriving, sustainable, broad-based economy.

**GOAL 5 Promote Environmental Sustainability:** In developing the transportation network, protect, preserve, and enhance the community’s natural and built environment and quality of life, including the equity of all users and social justice, while considering our northern climate and supports planned land use patterns.

**GOAL 6 Quality Decision-Making:** Make sound public investments.
2040 Goals and Objectives

Goal 1
Preserve the Existing System

Maintain the transportation system in a state of good repair.
1A. Maintain and rehabilitate the existing transportation system to achieve and maintain a state of good repair for all modes.

Goal 2
Improve Safety

Increase the safety and security of the transportation network.
2A. Reduce vehicle, pedestrian, and bicyclist crashes, especially those resulting in traffic fatalities and serious injuries.
2B. Decrease emergency response time.
2C. Reduce vulnerability and increase resiliency of transportation infrastructure from natural hazards and disasters.
2D. Minimize conflicts between freight and other motorized and non-motorized travelers.

Goal 3
Improve Travel Conditions

Develop an efficient multi-modal transportation system to reduce congestion, promote accessibility, and improve system reliability.
3A. Decrease travel time.
3B. Improve, as necessary, expressway, arterial, and collector roads and intersections to safely and efficiently handle projected traffic.
3C. Establish an adequate number of access points from subdivisions to adjacent higher-order streets.
3D. Improve the existing transportation system efficiency through the implementation of effective and innovative transportation system management (TSM), transportation...
demand management (TDM), and Intelligent Transportation System (ITS) strategies.

3E. Promote bicycle, pedestrian, and transit use.
3F. Improve accessibility to major education, recreation, employment, commercial, health care, and other public facilities.
3G. Enhance the physical connectivity between neighborhoods by increasing the number of roadway, pedestrian, bicycle, and transit connections.
3H. Reduce congestion.
3I. Reduce the passenger vehicle miles traveled (VMT) and passenger vehicle hours traveled (VHT) per capita.
3J. Increase competitiveness of transit.
3K. Improve year-round mobility.
3L. Improve incident clearance time.
3M. Improve system reliability for all modes.

Develop a transportation system that supports a thriving, sustainable, broad-based economy.

4A. Optimize the transportation system to meet the needs of the Port of Alaska, Ted Stevens Anchorage International Airport, the Alaska Railroad, the military bases, employment centers, and industrial and commercial areas, as well as enhancing intermodal capabilities.
4B. Enhance travel and tourism.
4C. Promote a dynamic transportation system that supports the local and regional economy and job growth.
4D. Set policy and plan for new technology such as autonomous vehicles and electric vehicles.
In developing the transportation network, protect, preserve, and enhance the community's natural and built environment and quality of life, including the equity of all users and social justice, while considering our northern climate and supporting planned land use patterns.

5A. Promote transportation improvements that provide for the needs of traditionally underserved populations.

5B. Preserve and improve air quality to maintain the health and welfare of citizens.

5C. Reduce or mitigate storm water impacts of surface transportation.

5D. Use coordinated transportation and land use planning techniques that support intermodal connections to reduce reliance on auto trips.

5E. Coordinate transportation and land use decisions to support livable northern communities.

5F. Minimize adverse impacts on existing communities, such as neighborhood through-traffic movements, speeding, noise, and light pollution, etc.

5G. Minimize and mitigate impacts on the natural environment, such as water resources, fish and wildlife habitat, watersheds and wetlands, and parklands.

5H. Enhance aesthetics through transportation improvements consistent with community character.

5I. Match street design to the use and character of the community/neighborhood through Complete Streets, recognizing that characters may vary from primarily commercial to primarily residential and from primarily urban to primarily rural.

6A. Prioritize the projects within the MTP to optimize the benefit-cost ratio.

6B. Consider the life-cycle costs of projects when evaluating and selecting them within the MTP.

6C. Optimize benefits of capital expenditures.

6D. Continue to improve regional cooperation and planning to address important transportation issues.

6E. Reduce unnecessary project delivery delays (which add to project costs) through efficient coordination.

6F. Coordinate planning efforts across disciplines (such as transportation, land use, economic development, emergency management, parking management, public health, and the military) and geographic areas.
Federal Planning Requirements

The MTP is required to meet current federal transportation planning requirements when the plan is written and approved. Development of the 2040 MTP was guided by regulations implementing the FAST Act, which was passed on December 4, 2015. The FAST Act has a 5-year authorization and extends through Federal fiscal year 2020 (September 30, 2020).

MAP-21, signed into law in 2012, was a 2-year authorization to govern United States federal surface transportation spending. MAP-21 reinforced the eight planning factors introduced by SAFETEA-LU (the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users; 2005), and established a performance- and outcome-based program with an objective for states and MPOs to invest in projects that will make progress toward national performance goals for the Federal highway program. The FAST Act also continues the national goals (and themes) from MAP-21. These goals include:

- Safety
- Infrastructure condition
- Congestion reduction
- System reliability
- Freight movement and economic vitality
- Environmental sustainability
- Reduced project delivery delays

The FAST Act continues MAP-21’s overall performance management approach and added two additional factors. The 10 planning factors that metropolitan areas have to consider in their long range transportation planning process are listed in Table 3-1.

The AMATS MTP is consistent with the national transportation program, addresses priority issues, and leverages funding opportunities and initiatives incorporated in the national program. This update was prepared in accordance with the federal requirement that AMATS update its MTP every 4 years.

Table 3-1 shows the relationship between the national planning factors and the 2040 MTP goals.
Table 3-1 Comparison of FAST Act Planning Factors to 2040 MTP Goals

<table>
<thead>
<tr>
<th>FAST ACT Planning Factor</th>
<th>2040 MTP Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.</td>
<td>4, 6</td>
</tr>
<tr>
<td>Increase the safety of the transportation system for motorized and non-motorized users.</td>
<td>2</td>
</tr>
<tr>
<td>Increase the security of the transportation system for motorized and non-motorized users.</td>
<td>2</td>
</tr>
<tr>
<td>Increase accessibility and mobility of people and freight.</td>
<td>3, 4</td>
</tr>
<tr>
<td>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</td>
<td>5, 6</td>
</tr>
<tr>
<td>Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.</td>
<td>3, 4, 5</td>
</tr>
<tr>
<td>Promote efficient system management and operation.</td>
<td>3</td>
</tr>
<tr>
<td>Emphasize the preservation of the existing transportation system.</td>
<td>1</td>
</tr>
<tr>
<td>Improve the resiliency and reliability of the transportation system and reduce or mitigate storm water impacts of surface transportation</td>
<td>2, 5</td>
</tr>
<tr>
<td>Enhance travel and tourism.</td>
<td>4</td>
</tr>
</tbody>
</table>
Performance Measures and Targets

Under MAP-21 and later updated with the FAST Act, Congress directed FHWA and FTA to develop a set of Performance Measures that address safety, infrastructure condition, system performance, traffic congestion, on-road mobile source emissions, and freight movement. These performance measures are to be used for a data-driven process to increase transparency of federal funding and provide a framework for data driven decisions. Through various rulemakings FHWA and FTA developed performance measures that State DOTs, MPOs, and Transit Providers who receive federal funding are required to incorporate into their planning processes. MPOs are given an option to set their own targets or support the State DOTs with their targets. AMATS has elected to support the Alaska DOT in their FHWA targets and set targets for the FTA required measures.

Table 3-2 shows the Federally required performance measures and approved targets for AMATS.

Figure 3-2 2040 Relationship between Goals, Performance Measures, and Targets

Targets are a quantifiable level of performance or condition, expressed as a value for the measure, to be achieved within a set time period.

Performance Measures provided quantifiable evidence to determine progress toward meeting the goals.
### Table 3-2 Federally required performance measures and approved targets

<table>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Safety (PM1)</strong></td>
<td>Injuries &amp; Fatalities</td>
<td>Number of fatalities</td>
<td>75</td>
<td>75</td>
<td>80 or less</td>
<td>--</td>
<td>--</td>
<td>--</td>
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<tr>
<td></td>
<td></td>
<td>Fatality rate (per 100 million vehicle miles traveled)</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5 or less</td>
<td>--</td>
<td>--</td>
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<td></td>
<td></td>
<td>375</td>
<td>350</td>
<td>400 or less</td>
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<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of serious injuries</td>
<td>7.5</td>
<td>7</td>
<td>7.5 or less</td>
<td>--</td>
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<td>--</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Serious injury rate (per 100 million vehicle miles traveled)</td>
<td>55</td>
<td>55</td>
<td>70 or less</td>
<td>--</td>
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<td>--</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Number of non-motorized fatalities and non-motorized serious injuries</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td><strong>Infrastructure Condition (PM2)</strong></td>
<td>Pavement Condition</td>
<td>Percentage of pavements on the Interstate System in Good condition</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>--</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Percentage of pavements on the Interstate System in Poor condition</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>--</td>
<td>--</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Percentage of pavements on the non-Interstate NHS in Good condition</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
<td>--</td>
<td>--</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Percentage of pavements on the non-Interstate NHS in Poor condition</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Bridge Condition</td>
<td>Percentage of NHS bridges classified as in Good condition</td>
<td>40%</td>
<td>40%</td>
<td>40%</td>
<td>40%</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Percentage of NHS bridges classified as in Poor condition</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>--</td>
<td>--</td>
<td>--</td>
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<tr>
<td><strong>Performance of the NHS, Freight, and CMAQ Measures (PM3)</strong></td>
<td>Performance of the National Highway System</td>
<td>Percent of person miles traveled on the Interstate System that are reliable</td>
<td>92%</td>
<td>92%</td>
<td>92%</td>
<td>92%</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Percent of person miles traveled on the non-Interstate NHS that are reliable</td>
<td>70%</td>
<td>70%</td>
<td>70%</td>
<td>70%</td>
<td>--</td>
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</tr>
<tr>
<td></td>
<td>Freight Movement/ Economic Vitality</td>
<td>Truck Travel Time Reliability Index</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>--</td>
<td>--</td>
<td>--</td>
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<tr>
<td></td>
<td>Congestion Reduction</td>
<td>Annual Hours of Peak-Hour Excessive Delay Per Capita*</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>--</td>
<td>--</td>
<td>--</td>
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<tr>
<td></td>
<td></td>
<td>Percent of non-Single-Occupant Vehicle Travel*</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>--</td>
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<td>--</td>
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<td></td>
<td>Environmental Sustainability</td>
<td>On-Road Mobile Source Emissions Reduction - Carbon Monoxide</td>
<td>20</td>
<td>20</td>
<td>40</td>
<td>40</td>
<td>--</td>
<td>--</td>
<td>--</td>
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<tr>
<td></td>
<td></td>
<td>On-Road Mobile Source Emissions Reduction - PM$_{10}$</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>--</td>
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<td>--</td>
</tr>
<tr>
<td>Transit Asset Management</td>
<td>Rolling Stock</td>
<td>Bus</td>
<td>--</td>
<td>--</td>
<td>12%</td>
<td>20%</td>
<td>24%</td>
<td>10%</td>
<td>8%</td>
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<td></td>
<td></td>
<td>Cutaway Bus</td>
<td>--</td>
<td>--</td>
<td>38%</td>
<td>9%</td>
<td>n/a</td>
<td>4%</td>
<td>21%</td>
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<tr>
<td></td>
<td></td>
<td>Mini-Van</td>
<td>--</td>
<td>--</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
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<tr>
<td></td>
<td></td>
<td>Van</td>
<td>--</td>
<td>--</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
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<tr>
<td></td>
<td></td>
<td>Passenger Railcars</td>
<td>--</td>
<td>0%</td>
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<td>--</td>
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<tr>
<td></td>
<td></td>
<td>Locomotives</td>
<td>--</td>
<td>28%</td>
<td>--</td>
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<tr>
<td></td>
<td>Equipment</td>
<td>Non Revenue/Service Automobile</td>
<td>N/A</td>
<td>N/A</td>
<td>33%</td>
<td>26%</td>
<td>26%</td>
<td>26%</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Truck and other Rubber Tire Vehicles</td>
<td>N/A</td>
<td>N/A</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Truck &amp; Rubber Tired</td>
<td>N/A</td>
<td>38%</td>
<td>--</td>
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<tr>
<td></td>
<td></td>
<td>Steel Wheel Vehicle</td>
<td>N/A</td>
<td>47%</td>
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<tr>
<td></td>
<td></td>
<td>Automobile</td>
<td>N/A</td>
<td>42%</td>
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Table 3-2 Federally required performance measures and approved targets cont.

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</thead>
<tbody>
<tr>
<td>Facilities</td>
<td>Administration</td>
<td>Total number of reportable fatalities and rate per total vehicle revenue mile by mode**</td>
<td>N/A</td>
<td>N/A</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Maintenance</td>
<td>Total number of reportable fatalities and rate per total vehicle revenue mile by mode**</td>
<td>N/A</td>
<td>N/A</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Parking Structure</td>
<td>Total number of reportable fatalities and rate per total vehicle revenue mile by mode**</td>
<td>N/A</td>
<td>N/A</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Admin &amp; Maintenance</td>
<td>Total number of reportable fatalities and rate per total vehicle revenue mile by mode**</td>
<td>N/A</td>
<td>N/A</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Passenger Facilities</td>
<td>Total number of reportable fatalities and rate per total vehicle revenue mile by mode**</td>
<td>N/A</td>
<td>N/A</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Passenger &amp; Parking</td>
<td>Total number of reportable fatalities and rate per total vehicle revenue mile by mode**</td>
<td>N/A</td>
<td>N/A</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>Track</td>
<td>Total number of reportable fatalities and rate per total vehicle revenue mile by mode**</td>
<td>N/A</td>
<td>N/A</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

Note: N/A means that a target is not required for that year. -- means that a target is not set yet, but will be at a later date.

* Targets are not required for AMATS until after January 1, 2022

** Targets are not due until after July 20, 2020
Air Quality

Federal funding for local transportation projects is statutorily tied to achieving and maintaining minimum National Ambient Air Quality Standards (NAAQS). The AMATS region currently meets requirements for all six air pollutants for which there are standards. However, levels of PM-10 and CO sometimes approach or exceed standards. Although a standard has not been established for benzene, it is also a concern to area residents.

The Anchorage Bowl urbanized area is designated as a CO Maintenance Area. On January 7, 2013, the Environmental Protection Agency redesignated Eagle River area as a PM$_{10}$ maintenance area, signifying that the area which historically violated the PM$_{10}$ NAAQS is not in attainment of that standard and has an EPA-approved PM$_{10}$ air quality maintenance plan to remain so. Because motor vehicles are primary sources of air pollution, AMATS must demonstrate that this MTP will not cause the region to fail to meet standards. Particular attention must be paid to PM$_{10}$, CO emissions, and compliance with the Anchorage CO Maintenance Plan prepared by the MOA for the CO Maintenance Area and the Eagle River Limited PM$_{10}$ Maintenance Plan. A limited maintenance plan is a maintenance plan option with a streamlined NAAQS compliance demonstration process that EPA allows areas with sufficiently low potential to incur a future exceedance of the applicable NAAQS. This process is known as an Air Quality Conformity Determination and is discussed in detail in Chapter 9.

Environmental Justice

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (1994) is a tool for assuring the transportation planning process is consistent with Title VI of the Civil Rights Act of 1964. Each federal agency is required to identify high and adverse health or environmental effects of its programs on minority populations and low-income populations. As a result, MPOs, like AMATS, have to identify and address disproportionately high and adverse public health and environmental effects of transportation policies, programs, and activities on minority and low-income populations. How these issues are addressed by this plan is discussed in Appendix C.

Safety and Security

The FAST Act expanded on the safety and security provisions contained in SAFETEA LU and MAP-21. Safety and Security is discussed in Appendix D.
Chapter 4

Existing Conditions

The existing transportation system affects how we live, work, and play in the region. Understanding how the existing system works can help us identify trends that may become more serious problems in the future.
The Anchorage metropolitan area relies on a well-performing transportation system to efficiently move people and goods. At its best, an efficient transportation system can provide a quality experience for all users, enhance their safety, and influence the cost and speed of freight shipments.

The Anchorage transportation system is shaped by infrastructure, available travel options, and how we manage the system. Consistent with the 2035 MTP and Interim 2035 MTP, this chapter describes the overall transportation network and the performance of these essential elements:

- Roads
- Public transportation
- Non-motorized system
- Freight distribution and regional connections

This chapter also describes changes to the system since the adoption of the 2035 MTP in 2012. Additional information about the status of the metropolitan area transportation system is available in the 2016 AMATS Status of the System report.
The Anchorage transportation system is made up of a network of roadways, transit facilities and services, rail and goods movement facilities, airports, a seaport, and bicycle and pedestrian facilities. Figure 4-1 depicts the physical attributes of Anchorage’s current system. The transportation system allows residents and visitors to safely and efficiently access the goods and services they need.

While each mode is important, the latest data from the U.S. Census Bureau highlights the importance of roads for commuting purposes in the Anchorage region (see Figure 4-2). Auto travel remains the dominant mode of travel for work trips, though carpool rates are significant, and other modes, while used less, are important for commute travel in and around Anchorage (see Figure 4-2). The transportation system also supports diverse land uses needed to meet the residential, employment, commercial, service, and recreational needs of the community.
Transportation Improvements Since 2012

Improvements to the region’s roadways are vital for the continued growth and sustainability of the area. Roadway and bridge rehabilitations and expansions have the potential to reduce congestion and increase the mobility and safety of Anchorage residents. Table 4-1 and Figure 4-3 detail the roadway projects completed in the Anchorage Bowl and Chugiak-Eagle River since 2012, when the 2035 MTP was released.

<table>
<thead>
<tr>
<th>MTP 2035 #</th>
<th>Project Name</th>
<th>Location</th>
<th>Project Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>Seward Highway - Dimond Blvd to Dowling Road</td>
<td>Dimond Blvd to Dowling Road</td>
<td>Reconstruction</td>
</tr>
<tr>
<td>102</td>
<td>Dowling Road Extension - Phase II</td>
<td>C Street to Minnesota Drive</td>
<td>Add new facility</td>
</tr>
<tr>
<td>103</td>
<td>100th Ave Extension – Minnesota Dr to C St</td>
<td>Minnesota Dr to C St</td>
<td>Add new facility</td>
</tr>
<tr>
<td>105*</td>
<td>Glenn Hwy – Hiland Rd to Old Glenn Hwy (Artillery Rd – Eagle River)</td>
<td>Hiland Rd to Old Glenn Hwy (Artillery Rd)</td>
<td>Add new facility</td>
</tr>
<tr>
<td>106</td>
<td>Muldoon Rd Interchange</td>
<td>Glenn Hwy at Muldoon Rd</td>
<td>Reconstruction</td>
</tr>
<tr>
<td>109</td>
<td>Jewel Lake Rd – Dimond Blvd to International Airport Rd</td>
<td>Dimond Blvd to International Airport Rd</td>
<td>Rehabilitation</td>
</tr>
<tr>
<td>110</td>
<td>Arctic Blvd Rehabilitation – 36th Ave to Tudor Rd</td>
<td>36th Ave to Tudor Rd</td>
<td>Rehabilitation</td>
</tr>
</tbody>
</table>

* Project is currently in construction.
Table 4-1. MTP Road Projects Completed Since 2012 - Anchorage Bowl and Chugiak-Eagle River cont

<table>
<thead>
<tr>
<th>MTP 2035 #</th>
<th>Project Name</th>
<th>Location</th>
<th>Project Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>112</td>
<td>Spenard Rd Rehabilitation – Hillcrest Dr to Benson Blvd</td>
<td>Hillcrest Dr to Benson Blvd</td>
<td>Rehabilitation</td>
</tr>
<tr>
<td>113</td>
<td>O’Malley Rd – Seward Hwy to Lake Otis Pkwy</td>
<td>Seward Hwy to Lake Otis Pkwy</td>
<td>Reconstruction</td>
</tr>
<tr>
<td>122</td>
<td>Eagle River Rd Rehabilitation – MP 5.3-MP 12.6 (Eagle River)</td>
<td>MP 5.3-MP 12.6</td>
<td>Rehabilitation</td>
</tr>
<tr>
<td>123</td>
<td>Eklutna River Bridge Rehabilitation/Replacement (Eagle River)</td>
<td>Old Glenn Hwy</td>
<td>Rehabilitation</td>
</tr>
<tr>
<td>124</td>
<td>Abbott Rd – Lake Otis Pkwy to Birch Rd</td>
<td>Lake Otis Pkwy to Birch Rd</td>
<td>Rehabilitation</td>
</tr>
<tr>
<td>135</td>
<td>Regional Travel Survey</td>
<td>Southcentral Region</td>
<td>Survey</td>
</tr>
<tr>
<td>135</td>
<td>Travel Options Report Recommendations</td>
<td>Southcentral Region</td>
<td>Report</td>
</tr>
<tr>
<td>135</td>
<td>South Anchorage and Hillside Intersection Study</td>
<td>Nine intersections in South Anchorage and Hillside communities</td>
<td>Study</td>
</tr>
<tr>
<td>135</td>
<td>Complete Streets Plan</td>
<td>AMATS</td>
<td>Policy</td>
</tr>
<tr>
<td>135</td>
<td>Freeway Incident Management Plan</td>
<td>Glenn Highway</td>
<td>Incident Management Plan</td>
</tr>
</tbody>
</table>
Figure 4-3. MTP Road Projects Completed Since 2012 - Anchorage Bowl and Chugiak-Eagle River
The MOA and DOT&PF have been working together to fund and construct bicycle and pedestrian projects. Since 2012, there have been a number of significant non-motorized projects completed and in construction. Table 4-2 summarizes these projects.

### Table 4-2. MTP Non-Motorized Projects Completed Since 2012 - Anchorage Bowl and Chugiak-Eagle River

<table>
<thead>
<tr>
<th>MTP 2035 #</th>
<th>Project Name</th>
<th>Location</th>
<th>Project Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>503</td>
<td>Northern Lights Blvd</td>
<td>LaHonda Dr to Lois Dr</td>
<td>New Sidewalk</td>
</tr>
<tr>
<td>504</td>
<td>Checkmate Dr</td>
<td>Tudor Rd to Emmanuel Ave</td>
<td>New Sidewalk</td>
</tr>
<tr>
<td>513</td>
<td>10th Ave</td>
<td>P St to Medfra St</td>
<td>Bicycle Blvd</td>
</tr>
<tr>
<td>514</td>
<td>Arctic Blvd</td>
<td>Northern Lights Blvd to Fireweed Lane</td>
<td>Bicycle Lanes</td>
</tr>
<tr>
<td>524</td>
<td>Arctic Blvd</td>
<td>Fireweed Lane to 10th Ave</td>
<td>Bicycle Lanes</td>
</tr>
<tr>
<td>544</td>
<td>Wisconsin St</td>
<td>Spenard Rd to Northern Lights Blvd</td>
<td>Bicycle Lanes</td>
</tr>
<tr>
<td>554</td>
<td>Elmore Rd</td>
<td>Huffman Rd to O'Malley Rd</td>
<td>Shoulder</td>
</tr>
<tr>
<td>554</td>
<td>Elmore Rd</td>
<td>DeArmoun Rd to Huffman Rd</td>
<td>Bicycle Lane</td>
</tr>
<tr>
<td>555</td>
<td>Hillside Drive/Rabbit Creek Road</td>
<td>Clarks Rd to Abbott Rd</td>
<td>Shoulder</td>
</tr>
<tr>
<td>561</td>
<td>Peterkin Ave</td>
<td>Meyer to N. Bunn</td>
<td>Bicycle Blvd</td>
</tr>
<tr>
<td>564</td>
<td>Raspberry Rd</td>
<td>Jewel Lake Rd to Minnesota Drive</td>
<td>Bicycle Lanes</td>
</tr>
<tr>
<td>573</td>
<td>Boniface Pkwy</td>
<td>Debarr Rd to Carrs</td>
<td>New Sidewalk</td>
</tr>
<tr>
<td>606</td>
<td>DeArmoun Rd</td>
<td>Old Seward Hwy to 140th Ave</td>
<td>Bicycle Lane</td>
</tr>
<tr>
<td>609</td>
<td>Old Seward Hwy</td>
<td>Rabbit Creek to Hamilton</td>
<td>Bicycle Lane and Shoulder</td>
</tr>
</tbody>
</table>
Table 4-2. Non-Motorized Projects Completed Since 2012 - Anchorage Bowl and Chugiak-Eagle River cont.

<table>
<thead>
<tr>
<th>MTP 2035 #</th>
<th>Project Name</th>
<th>Location</th>
<th>Project Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>564</td>
<td>Raspberry Rd</td>
<td>Jewel Lake Rd to Minnesota Drive</td>
<td>Bicycle Lanes</td>
</tr>
<tr>
<td>573</td>
<td>Boniface Pkwy</td>
<td>Debarr Rd to Carrs</td>
<td>New Sidewalk</td>
</tr>
<tr>
<td>606</td>
<td>DeArmoun Rd</td>
<td>Old Seward Hwy to 140th Ave</td>
<td>Bicycle Lane</td>
</tr>
<tr>
<td>609</td>
<td>Old Seward Hwy</td>
<td>Rabbit Creek to Hamilton</td>
<td>Bicycle Lane and Shoulder</td>
</tr>
<tr>
<td>610</td>
<td>Turnagain Pkwy</td>
<td>Northern Lights Blvd to Illiamna Ave</td>
<td>Shared Road Bicycle Facility</td>
</tr>
<tr>
<td>620</td>
<td>4th Ave</td>
<td>Bunnell St to Boniface Blvd</td>
<td>New Sidewalk</td>
</tr>
<tr>
<td>N/A</td>
<td>Eagle River Road</td>
<td>VFW Rd to Eagle River Loop</td>
<td>Bicycle Lanes</td>
</tr>
<tr>
<td>N/A</td>
<td>Eagle River Loop</td>
<td>Glenn Hwy to Eagle River Rd</td>
<td>Install bike lanes and bike shoulder</td>
</tr>
</tbody>
</table>
Anchorage's public roadway network remains the primary resource for the movement of people and goods throughout the region. The importance of regional mobility and economic development cannot be overstated; the latest commute data from the U.S. Census Bureau indicates that driving is the most common mode for accessing employment, with over 75% of employees driving alone and an additional 12% carpooling. The 2014 Regional Household Travel Survey found that 86% of all trips were made by private vehicle. Total travel volume is a function of population and mode choice. According to the 2016 Status of the System report, the average annual population growth rates between 2010 and 2013 averaged 1.3% for the MOA and 2.8% in the Matanuska-Susitna Borough, and traffic on Glenn Highway increased by 1.4%. In total, between 2004 and 2013, the total population of the two regions increased 11%, and traffic on the Glenn Highway increased 15%.

### Road Characteristics

Approximately one-third of vehicular travel occurs on the freeway system, and much of the remaining traffic occurs on the region's primary arterials.

The region's roadway segments can be categorized by functional class, indicating the general capacity and purpose of the roadway, as described in Table 4-3 and shown on Figure 4-4.

Additionally, some of the roadways are designated as part of the National Highway System (NHS), indicating their strategic importance for the movement of goods and people (see Figure 4-5). Road ownership and maintenance are the responsibility of local, state, and federal agencies, as well as private entities. The State of Alaska owns many of the primary roadways that carry heavy traffic volumes, including the majority of the designated NHS roads, but the MOA owns and maintains a higher percentage of the total mileage.
### Table 4-3. Road Classification

<table>
<thead>
<tr>
<th>Facility Type</th>
<th>Characteristics</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freeway</td>
<td>Over 40,000 daily cars, variable number of lanes</td>
<td>Glenn and Seward Highways, Minnesota Drive</td>
</tr>
<tr>
<td>Expressway</td>
<td>Over 20,000 daily cars, 4 to 6 lanes</td>
<td>International Airport Road between Minnesota Drive and the airport</td>
</tr>
<tr>
<td>Major Arterial</td>
<td>Over 20,000 daily cars, 4 to 6 lanes</td>
<td>Tudor Road, Northern Lights Blvd, Old Seward Highway</td>
</tr>
<tr>
<td>Minor Arterial</td>
<td>10,000 to 20,000 daily cars, 2 to 4 lanes</td>
<td>Huffman Road</td>
</tr>
<tr>
<td>Collector</td>
<td>2,000 to 10,000 daily cars, 2 to 4 lanes</td>
<td>Baxter and Wisconsin Roads</td>
</tr>
<tr>
<td>Local</td>
<td>Less than 2,000 daily cars, 1 to 2 lanes</td>
<td>Neighborhood streets</td>
</tr>
</tbody>
</table>
Figure 4-4. Roadway Functional Classification

Source: Municipality of Anchorage GIS Data; Official Streets and Highways Plan 2014
Figure 4-5. National Highway System

Source: Municipality of Anchorage GIS Data
Roadway Congestion

Congested roadways hinder the ability of residents, employees, and logistics companies to complete daily activities. Reducing congestion and increasing mobility are important in maintaining Anchorage's economic competitiveness and residents' quality of life. This section highlights the average congestion levels, in terms of Level of Service, during commute hours for highways and intersections. Additionally, it discusses the average travel times for key corridors and the effects of collisions on non-recurring congestion.

Highway Level of Service

A measure of congestion for roads, where access is limited and flow is continuous, can be expressed using the Highway Segment Level of Service (LOS). The LOS for highways is based on traffic density, in terms of passenger cars per mile per lane, taking into account the freeway geometry and peak traffic volumes. This measure characterizes the extent to which the traffic flow exceeds the design capacity of the roadway. Table 4-4 shows the relationship of density and LOS; anything rated D, E, or F is typically considered congested.

Figure 4-6 shows the morning and afternoon LOS for the highways in the Anchorage region. During the AM peak hour commute, conditions on the main highways in Anchorage are uncongested (above LOS C). For the PM peak hour, Seward Highway experiences congested conditions, with the highest level of congestion occurring on Seward Highway between 36th Avenue and Tudor Road.

Table 4-4. Level of Service Criteria for Highway Segments

<table>
<thead>
<tr>
<th>Level of Service</th>
<th>Density (passenger cars per hour per lane)</th>
<th>Speed (mph)</th>
<th>Traffic Volume (passenger cars per hour per lane)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0-11</td>
<td>65</td>
<td>0-410</td>
</tr>
<tr>
<td>B</td>
<td>11-18</td>
<td>65</td>
<td>710-1,170</td>
</tr>
<tr>
<td>C</td>
<td>18-26</td>
<td>65</td>
<td>1,170-1,680</td>
</tr>
<tr>
<td>D</td>
<td>26-35</td>
<td>60-65</td>
<td>1,680-2,090</td>
</tr>
<tr>
<td>E</td>
<td>35-45</td>
<td>52-60</td>
<td>2,090-2,350</td>
</tr>
<tr>
<td>F</td>
<td>&gt;45</td>
<td>&lt;52</td>
<td>&gt;2,350</td>
</tr>
</tbody>
</table>
Figure 4-6. Highway LOS, Average AM and PM Peak Hours, 2013

Source: Status of the System Report, 2016, based on Municipality of Anchorage Traffic Department Travel Time Reports, Volumes from DOT&PF Annual Traffic Volume Reports.

Note: No segments meeting Level of Service E or F were identified.
Intersection LOS evaluates traffic conditions on roadways with traffic signals or stop signs. Similar to highway LOS, this metric reflects congestion levels at intersections, according to the available roadway capacity, speed, or delay experienced. In the case of an intersection, LOS A is uncongested, meaning that all vehicles will move through an intersection during a single green-light cycle, while an LOS of F is saturated, indicating that drivers have to wait for multiple cycles or at least experience significant delay. It is important to note that LOS measures delay, which is correlated with congestion, but long delays could be caused by other factors such as poorly timed traffic signals, multi-modal traffic, or particular operational conditions.

Figure 4-7 shows the intersection LOS for the peak hour morning and afternoon commutes in 2013. In general, intersection delay in the afternoon is worse than during the morning commute periods. In the morning, the intersections with the highest level of delay, with an LOS E rating, are Glenn Highway at Airport Heights Drive, and Tudor Road at Elmore Road. Tudor Road experiences LOS D for much of the corridor. Unsurprisingly, similar to when the Glenn Highway becomes stop controlled, the Seward Highway experiences an LOS of D when it encounters a traffic signal at 36th Avenue. In the afternoon, all intersections experience the same or worse delay than in the morning. Two intersections are LOS F (Glenn Highway at Airport Heights Drive and Boniface Parkway at Debarr Road), and intersections along the Tudor Road corridor experience LOS D or E.
Figure 4-7. Intersection LOS, Average AM and PM Peak Hours, 2013

Source: Status of the System Report 2016, based on Municipality of Anchorage Traffic Department Travel Time Reports, Volumes from DOT&PF Annual Traffic Volume Reports.
Roadway Travel Times

Corridor travel time is another method for assessing roadway conditions and congestion levels. This measure shows the average time it takes to travel from an origin to a destination, and can be used to assess vehicular, transit, or non-motorized travel times. Generally, longer travel times and more congestion occur during commuting hours, when many users are getting to and from home and work. Travel times during these peak periods and all times of day should be minimal for optimal roadway conditions. To track travel time changes over time, the AMATS Status of the System reports collects travel times on the same corridors for each report. The latest travel time data by time of day, collected in 2013 by MOA, is displayed in Figure 4-8. A comparison of afternoon travel time data from previous years is displayed in Figure 4-9.

Consistent with the highway and intersection LOS analyses, as seen in Figure 4-8, afternoon congestion is higher and travel times are longer than during other time periods. For all but two of the road segments listed, the travel time is 10% to 37% higher during the 4–6 PM travel time than during the 7–9 AM travel time. Notably, midday travel is generally slightly more congested than morning travel on four of the seven roads for which mid-day data is available.

Figure 4-8. Automobile Travel Times by Time of Day, Fall 2013

Source: AMATS Status of System 2016, based on Municipality of Anchorage Traffic Department Travel Time Reports.
Figure 4-9 shows changes in the peak afternoon travel time in 2006, 2010, and 2013. After the general decrease in travel times from 2006 to 2010, most corridors saw an increase in travel times by 2013. This trend means that the majority of corridors in 2014 had higher travel times than in 2006. Minnesota Drive/L Street and Glenn Highway had the most significant travel time increases over the 9 years, with travel time increases of more than 20%.

It is notable that travel times are largely dependent on speed and roadway improvements. Also, infrequent events, such as crashes or severe weather, can cause delays that affect all users. All users also include public transportation vehicles, emergency vehicles, school buses, and freight shipments, which could mean increased costs of shipment. Both predictable delays, such as rush-hour congestion, and unpredictable delays increase congestion and are cumbersome to users taking all types of trips.

Source: AMATS Status of System 2016, based on Municipality of Anchorage Traffic Department Travel Time Reports.

The majority of corridors in 2014 had higher travel times than in 2006. Minnesota Drive/L Street and Glenn Highway had the most significant travel time increases over the 9 years, with travel time increases of more than 20%.
Traffic Safety and Non-recurring Congestion

One of the primary goals of transportation managers is to maintain systems that are safe and reliable for the movement of people and goods. Monitoring traffic collisions over time allows planners and engineers to identify unsafe roadways or conflict zones. Data in Figure 4-10 show vehicle crash trends in the MOA.

Between 2005 and 2012, total crashes ranged from 6,000 to 8,000 crashes per year; however, since 2013, there has been a significant reduction in total reported crashes. Note: in 2013, collision reporting methodology changed to comply with State mandates. As a result, comparing information to previous years could be erroneous.

In terms of fatal crashes (indicated in Figure 4-10 call-outs), the number of fatalities is low but varies significantly by year, and there is no evident pattern suggesting that this type of crash has increased or decreased. Despite a decrease in overall vehicle crashes since 2013, the number of total fatal crashes remained steady with the previous 8 years. Traffic crashes can occur on any roadway; however, they cluster in areas with higher volumes. Figure 4-11 highlights areas with high and low crash frequencies in 2014. Crash frequencies are higher on major arterials and freeways, where average speeds are higher. In 2014, the intersection of East Benson Boulevard and Seward Highway had the highest number of incidents, and eight additional locations had at least 25 collisions. These include Boniface Parkway and Debarr Road, C Street and West 6th Avenue, Airport Heights Drive and Glenn Highway, Boniface Parkway and East Northern Lights Boulevard, East 36th Avenue and Seward Highway, East Northern

Figure 4-10. Vehicle Crashes by Type, 2005-2014

Note: Number in call-out boxes represents the number of crashes involving fatalities.
Source: MOA Traffic Report, 2014
Figure 4-11. Vehicle Crash Frequencies, 2014

Source: Municipality of Anchorage, Traffic Data Management System
Lights Boulevard and Seward Highway, and the Glenn Highway and Muldoon Road ramps. In the Chugiak-Eagle River region in 2014, the locations with greatest number of crashes were the intersection of Glenn Highway and Hiland Road/Eagle River Loop, followed by the Glenn Highway and the South Birchwood Loop and North Birchwood Loop ramps.

Table 4-5 shows the number of vehicular crashes, and their severity, on the Glenn Highway between 2005 and 2014. The severity of crashes on highways, given the increased speeds, are worse than that on arterial roadways. Crashes on the Glenn Highway were twice as likely to be fatal than crashes on all other roadways during the same period.

Traffic safety is not only important for the health and well-being of the Anchorage and Chugiak-Eagle River communities, it is also important for the operations of the roadway system. Unpredictable traffic conditions and beyond-normal rush hour traffic can be especially frustrating for commuters or travelers, as the extra time may cause them to be late for work or miss appointments. Non-recurring congestion has numerous causes, such as severe weather, road work, special events, stalled vehicles, and vehicle crashes. Table 4-5 shows that the stretch of Glenn Highway in the MOA generally sees more than 200 crashes per year, increasing the probability of congestion due to unpredictable events. While MOA lacks specific data for the overall impact of these events, reducing non-recurring delay through incident management is a high priority in maintaining the efficiency of the regional transportation system.

<table>
<thead>
<tr>
<th>Year</th>
<th>Fatalities</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>1</td>
<td>419</td>
</tr>
<tr>
<td>2006</td>
<td>0</td>
<td>195</td>
</tr>
<tr>
<td>2007</td>
<td>0</td>
<td>198</td>
</tr>
<tr>
<td>2008</td>
<td>2</td>
<td>299</td>
</tr>
<tr>
<td>2009</td>
<td>4</td>
<td>522</td>
</tr>
<tr>
<td>2010</td>
<td>4</td>
<td>205</td>
</tr>
<tr>
<td>2011</td>
<td>2</td>
<td>354</td>
</tr>
<tr>
<td>2012</td>
<td>0</td>
<td>230</td>
</tr>
<tr>
<td>2013</td>
<td>1</td>
<td>165</td>
</tr>
<tr>
<td>2014</td>
<td>0</td>
<td>178</td>
</tr>
</tbody>
</table>

Source: Municipality of Anchorage, Traffic Data Management System.
The Municipality of Anchorage's Public Transportation Department (PTD) aims to connect the region with safe, reliable transportation options through People Mover, AnchorRIDES, and RideShare. People Mover provides fixed-route bus service in Anchorage and Eagle River. Paratransit services are provided through AnchorRIDES for seniors age 60 and over, and for people with disabilities who need an alternative to People Mover. RideShare is a subsidized vanpooling program for groups of five or more riders who work and travel at agreed-upon times, days, and locations.

Ridership has increased from 172,972 passengers in 2001, to a peak demand of 198,510 passengers in 2011. However, in recent years - 2012 and 2013 passenger trips have been decreasing. However, the decrease in demand has not affected the productivity index, or passenger per revenue hour, as the system has adjusted to the demand, an important characteristic of on-demand paratransit services.

**Bus Service**

On October 23, 2017, a new transit system was implemented that improves bus frequency on many routes in the region. Prior to October 2017, People Mover operated one route on 20-minute headways (minutes between bus service), three on 30-minute headways, nine on 60-minute headways, and one commuter route with limited service. The new system has more frequent service, including, between the hours of 6 AM and 8:30 PM: four frequent routes with headways of 15 minutes, one route with 20-minute headways, three with 30-minute headways, three with 60-minute headways, and two commuter routes that operate during peak periods only. Figure 4-12 shows the location of the 13 different fixed bus routes in Anchorage as of October 2017. Frequencies of bus services for commuter routes and all lines after 8:30 PM and on weekends range from 30 to 60 minutes. Routing assistance, as well as service times and locations, can be found on the People Mover website or by calling 343-6543.

Prior to the launch of the new bus system in October 2017, there were two transit connections between Chugiak-Eagle River and the Anchorage Bowl. Riders could take People Mover Route 102, a fixed-route service during peak hours, or Eagle River Connect, a fixed-route service combined with a dial-a-ride service for the link between Chugiak-Eagle River and the University Medical (U-Med) area. As of October 2017, People Mover Route 92 provides the Anchorage Bowl to Eagle River connection with 30-minute (morning) and 30/60-minute (afternoon) headways during peak hours.

The latest People Mover map can be found at the People Mover website.
Figure 4-12. People Mover Bus Routes, as of October 2017

Source: Municipality of Anchorage
In 2008, for the first time since 1983, the system surpassed an annual ridership of 4 million. People Mover has experienced slightly declining ridership ever since. Transit ridership is affected by many factors, some outside the control of the transit agency. Factors include the population and employment density, the fare cost compared to other transportation costs, travel time, reliability of service, frequency of service, and other amenities. Figure 4-13 shows the average daily riders by People Mover for weekday and weekend trips between 2007 and 2016.
Looking beyond ridership alone, agencies track other metrics to determine how cost-effective their services are compared to similarly sized agencies. One such metric, transit system productivity, is a ratio of ridership to revenue hours. Transit systems aimed at maximizing ridership typically have higher productivity than those that are designed to provide service coverage. Prior to October 2017, People Mover operated a system aimed at providing service coverage over maximizing ridership. Between 2010 and 2014, bus revenue hours increased, while ridership declined slightly; Figure 4-14 illustrates the slight decline in productivity from 28.8 passengers per bus hour in 2010 to 25 passengers per bus hour in 2014.

PTD also offers AnchorRIDES, a demand responsive, curb-to-curb transportation service for seniors and people with disabilities. AnchorRIDES is a service that meets the requirements of the American’s with Disabilities Act (ADA) and is eligible for FTA paratransit funding. It also receives state and federal subsidies. Trips on AnchorRIDES increased from 173,000 passengers in 2001 to a peak in 2011 of 198,500 passengers, dropping to 167,000 in 2016.

Source: Municipality of Anchorage

Figure 4-14. People Mover Productivity, 2010-2016
Ride Sharing

Ride sharing, also known as carpooling, is an important component of a multi-modal transportation network. According to the most recent census data, almost 12% of all employees in the Anchorage area carpool to work. Most carpooling occurs among friends and family; the 2014 regional household travel survey found that only 17% of those Anchorage area carpool commute trips include driving with a non-household member (a total of 2% of all commute trips).

To complement informal carpooling, organized ride sharing services are an increasingly important transportation mode. Anchorage’s ride sharing system, RideShare, offers participants the opportunity to commute in organized carpools and vanpools. As shown in Table 4-6, there was a significant increase in vanpooling participation over the past 10 years, from 375 to 1,152 in 2011, though participation decreased in 2014 to 840. However, active vanpools remain steady at 65 and has experienced a steady increase since 2006. Active carpoolers have decreased steadily over time, from 659 to 250, though it may be possible that informal carpools have been established outside the formal RideShare system.

Table 4-6. Anchorage Ride Sharing Statistics, 2005-2014

<table>
<thead>
<tr>
<th>Year</th>
<th>Registered Applicants</th>
<th>Active Carpools</th>
<th>Active Carpoolers</th>
<th>Active Vanpools</th>
<th>Active Vanpoolers</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>4,602</td>
<td>328</td>
<td>659</td>
<td>24</td>
<td>375</td>
</tr>
<tr>
<td>2006</td>
<td>4,822</td>
<td>278</td>
<td>557</td>
<td>41</td>
<td>569</td>
</tr>
<tr>
<td>2007</td>
<td>4,946</td>
<td>181</td>
<td>365</td>
<td>42</td>
<td>637</td>
</tr>
<tr>
<td>2008</td>
<td>4,774</td>
<td>179</td>
<td>361</td>
<td>52</td>
<td>810</td>
</tr>
<tr>
<td>2009</td>
<td>4,823</td>
<td>179</td>
<td>361</td>
<td>52</td>
<td>917</td>
</tr>
<tr>
<td>2010</td>
<td>4,772</td>
<td>178</td>
<td>359</td>
<td>55</td>
<td>985</td>
</tr>
<tr>
<td>2011</td>
<td>5,151</td>
<td>137</td>
<td>276</td>
<td>66</td>
<td>1,152</td>
</tr>
<tr>
<td>2012</td>
<td>5,291</td>
<td>135</td>
<td>272</td>
<td>65</td>
<td>992</td>
</tr>
<tr>
<td>2013</td>
<td>2,249</td>
<td>124</td>
<td>250</td>
<td>65</td>
<td>972</td>
</tr>
<tr>
<td>2014</td>
<td>1,507</td>
<td>N/A</td>
<td>N/A</td>
<td>65</td>
<td>840</td>
</tr>
</tbody>
</table>

Source: AMATS Status of the System, 2016
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Non-Motorized Transportation

The Anchorage region has both pedestrian and bicycle systems that allow for residents to commute, run errands, and travel for other purposes without the use of a vehicle. Non-motorized trips are better for the environment, improve public health, are low cost, and can reduce congestion. Welcoming pedestrian and bicycle networks are serious and important components of a modern transportation system and especially important in Alaska. At a statewide level, close to 8% of employees in Alaska walk to work, more than any other state in the US (excluding the District of Columbia), and the state ranks number 6 in terms of bicycle commute mode share\[1]. According to the 2016 Benchmarking Report by the Alliance for Biking & Walking, Alaska spends more per capita on bicycling and walking projects than any other state; however, Alaska also ranks number one in pedestrian and bicyclist fatalities per commuter\[3]. In the Anchorage region, bicycling and walking to work are 3.1% and 1.2%, respectively, lower than the statewide averages. Based on the AMATS regional household travel survey for all trips, including running errands and recreational travel, bicycling is used for 1.5% of all trips and walking is used for 8.2% of trips.

**Pedestrian System**

Planning for pedestrian facilities in Anchorage is supported by the 2007 Pedestrian Plan. According to the 2016 Status of the System report, Anchorage has approximately 458 miles of sidewalks. Figure 4.12 shows the current location of sidewalk infrastructure in the Anchorage Bowl and Chugiak-Eagle River. Sidewalks are more common in the Anchorage Bowl area compared to Chugiak-Eagle River, given its rural character. In general, older neighborhoods such as Downtown, Fairview, Mountain View, Airport Heights, College Village, and South Addition are more likely to have complete sidewalk neighborhoods. According to the TIP, approximately 155 miles of sidewalks will be improved upon or added in the near future.
Figure 4-15. Sidewalks in Anchorage Bowl and Chugiak-Eagle River

Source: Municipality of Anchorage, 2017
An important mode of transportation, particularly in urban regions, is the bicycle. Figure 4.16 shows bicycle facilities in the Anchorage Bowl and Chugach-Eagle River. According to Anchorage’s Bicycle Plan 2010, there are 214 miles of bicycle facilities. Of the entire network, 204 miles correspond to multi-use pathways, 8 miles are greenbelt trails, 8 miles are bicycle lanes, and 2 miles are shared roadways.

Accurate estimates of bicycling activity is important for planners to understand travel patterns and implications for the safety and public health of residents. Estimates of bicycle ridership come from surveys (Census and Household Travel Surveys), but these data points do little for the understanding of where bicyclists are riding and why they choose to utilize or avoid certain routes. For better estimates of bicycling in specific locations, manual counts are necessary. The MOA conducted Bike to Work day counts between 2007 and 2014 and the results are detailed in Table 4.7. With the exception of 2013, when it snowed on Bike to Work Day[^4], the data highlights a steady increase in bike to work day participation over the six year period, with year to year increases at most count locations. Furthermore, the increase of fat-tire bicycles, better for riding on snow, has made commuting by bicycle more popular year-round in Anchorage.

Mobile phone data and automated count technologies can be utilized in the future to better understand bicycling activity in the Anchorage region.
Figure 4-16. Bicycle Facilities in Anchorage Bowl and Chugiak-Eagle River

Source: Municipality of Anchorage, 2014
Table 4-7. Bike to Work Day Counts, 2007-2014

<table>
<thead>
<tr>
<th>Location</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coastal/Chester Trail – West end of Westchester Lagoon</td>
<td>124</td>
<td>188</td>
<td>170</td>
<td>259</td>
<td>263</td>
<td>403</td>
<td>143</td>
<td>427</td>
</tr>
<tr>
<td>A Street and Chester Trail</td>
<td>225</td>
<td>308</td>
<td>274</td>
<td>258</td>
<td>568</td>
<td>693</td>
<td>328</td>
<td>699</td>
</tr>
<tr>
<td>Seward Highway and Chester Creek Trail</td>
<td>238</td>
<td>316</td>
<td>301</td>
<td>436</td>
<td>593</td>
<td>719</td>
<td>393</td>
<td>781</td>
</tr>
<tr>
<td>Chester Trail – Northern Lights Boulevard overpass at Goose Lake</td>
<td>159</td>
<td>242</td>
<td>231</td>
<td>336</td>
<td>455</td>
<td>466</td>
<td>223</td>
<td>529</td>
</tr>
<tr>
<td>Campbell Trail at Bittner House – South of Dowling</td>
<td>67</td>
<td>71</td>
<td>81</td>
<td>120</td>
<td>139</td>
<td>123</td>
<td>51</td>
<td>237</td>
</tr>
<tr>
<td>Tudor Road and Elmore Road</td>
<td>94</td>
<td>160</td>
<td>179</td>
<td>341</td>
<td>412</td>
<td>408</td>
<td>156</td>
<td>426</td>
</tr>
<tr>
<td>Tudor Road and C Street</td>
<td>170</td>
<td>171</td>
<td>209</td>
<td>303</td>
<td>266</td>
<td>364</td>
<td>147</td>
<td>394</td>
</tr>
<tr>
<td>Lake Otis Parkway and 36th Avenue</td>
<td>91</td>
<td>103</td>
<td>99</td>
<td>128</td>
<td>123</td>
<td>132</td>
<td>63</td>
<td>135</td>
</tr>
<tr>
<td>Lake Otis Parkway and Abbott Road</td>
<td>55</td>
<td>71</td>
<td>51</td>
<td>87</td>
<td>96</td>
<td>111</td>
<td>71</td>
<td>110</td>
</tr>
<tr>
<td>10th Avenue and N Street</td>
<td>63</td>
<td>101</td>
<td>72</td>
<td>109</td>
<td>129</td>
<td>161</td>
<td>57</td>
<td>216</td>
</tr>
<tr>
<td>15th Avenue and Arctic Boulevard/E Street</td>
<td>115</td>
<td>122</td>
<td>93</td>
<td>138</td>
<td>192</td>
<td>170</td>
<td>72</td>
<td>197</td>
</tr>
<tr>
<td>Benson Boulevard and Minnesota Drive</td>
<td>21</td>
<td>31</td>
<td>37</td>
<td>52</td>
<td>56</td>
<td>65</td>
<td>33</td>
<td>101</td>
</tr>
<tr>
<td>Boniface Parkway and Glenn Highway</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>58</td>
</tr>
<tr>
<td>Glenn Highway and Muldoon Road</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>121</td>
</tr>
<tr>
<td>Jewel Lake and International Airport Road</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>170</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,422</strong></td>
<td><strong>1,884</strong></td>
<td><strong>1,855</strong></td>
<td><strong>2,567</strong></td>
<td><strong>3,292</strong></td>
<td><strong>4,106</strong></td>
<td><strong>1,818</strong></td>
<td><strong>4,479</strong></td>
</tr>
</tbody>
</table>

Source: Annual Traffic Report, Municipality of Anchorage, Traffic Engineering
Collisions involving bicycle-vehicles and pedestrians-vehicles occur with higher frequency in areas frequented by bicyclists and pedestrians (Figure 4-17). These include areas with higher population density and areas with high density of employment or shopping destinations, such as downtown Anchorage and Northern Lights Blvd. In 2014, the highest number of crashes involving bicyclists and pedestrians occurred at East Northern Lights Boulevard and Seward Highway. The next highest number of incidents occurred on C Street and West Tudor Rd, East Benson Blvd and Seward Highway, and Boniface Pkwy and East Northern Lights Blvd. In the Eagle River/Chugiak region, there are five locations with reported crashes involving a pedestrian or bicyclist. Three of these locations are at an intersection with Old Glenn Highway.

Figure 4-17. Frequency of Crashes involving Bicyclists-Vehicles and Pedestrians-Vehicles, 2014
Figure 4-18 shows the number of pedestrian and vehicle crashes between 2003 and 2012. Figure 4-19 shows the number of bicycle and vehicle crashes for the same time frame.
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Freight Distribution and Regional Connections

Modal Freight and Regional Highway Links

Truck transportation remains the most important mode of transportation for freight movement from Anchorage to the surrounding regions. It is estimated that 90% of the consumer goods for 85% of Alaska comes through the Port of Alaska. Containers are loaded onto trains and trucks for regional and local distribution. A large share of freight from the Port of Alaska and the Ted Stevens Anchorage International Airport is moved by truck, using the region's freeways and principal arterials. Table 4-8 shows the daily truck volumes at selected locations in Anchorage.

Table 4-8. Daily Truck Volumes at Selected Locations, 2014

<table>
<thead>
<tr>
<th>Roadway Location</th>
<th>Number of Single-Unit Trucks</th>
<th>Number of Truck/Tractor Units</th>
<th>Trucks as a Percentage of All Vehicles (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alyeska Highway, Girdwood</td>
<td>291</td>
<td>38</td>
<td>11%</td>
</tr>
<tr>
<td>Dearmoun Road, Anchorage</td>
<td>568</td>
<td>32</td>
<td>11%</td>
</tr>
<tr>
<td>Old Seward Highway, Anchorage</td>
<td>332</td>
<td>97</td>
<td>5%</td>
</tr>
<tr>
<td>O’Malley Road, Anchorage</td>
<td>534</td>
<td>251</td>
<td>7%</td>
</tr>
<tr>
<td>Rabbit Creek Road, Anchorage</td>
<td>317</td>
<td>46</td>
<td>5%</td>
</tr>
<tr>
<td>Hillside Drive, Anchorage</td>
<td>120</td>
<td>16</td>
<td>6%</td>
</tr>
<tr>
<td>Elmore Road, Anchorage</td>
<td>670</td>
<td>612</td>
<td>10%</td>
</tr>
<tr>
<td>Jewel Lake Road, Anchorage</td>
<td>458</td>
<td>44</td>
<td>4%</td>
</tr>
<tr>
<td>International Airport Road, Anchorage</td>
<td>602</td>
<td>48</td>
<td>5%</td>
</tr>
<tr>
<td>Minnesota Drive, Anchorage</td>
<td>932</td>
<td>539</td>
<td>4%</td>
</tr>
<tr>
<td>Wisconsin Street, Anchorage</td>
<td>748</td>
<td>145</td>
<td>9%</td>
</tr>
<tr>
<td>3rd Avenue, Anchorage</td>
<td>892</td>
<td>399</td>
<td>12%</td>
</tr>
<tr>
<td>Debarr Road, Anchorage</td>
<td>314</td>
<td>24</td>
<td>2%</td>
</tr>
<tr>
<td>Providence Drive, Anchorage</td>
<td>96</td>
<td>23</td>
<td>3%</td>
</tr>
<tr>
<td>Eagle River Road, Eagle River</td>
<td>170</td>
<td>85</td>
<td>7%</td>
</tr>
</tbody>
</table>

Source: AMATS Freight Mobility Study
The Port of Alaska (POA) is a deep-water port that provides service through four bulk carrier berths and two petroleum berths. The POA serves virtually all of Alaska's population centers through its rail, trucking, and air connections. Over 250 communities rely on cargo shipped through the POA, and 74% of all waterborne non-fuel freight arriving in Southcentral Alaska pass through the POA. Figure 4-20 details the tonnage of cargo transported through the POA between 2008 and 2015. Domestic trade is the primary traffic through the POA, and although it suffered a decline in 2009, since 2010 it has increased at an average constant rate of 3%. Foreign trade has increased since 2008, doubling by 2010 and remaining steady through 2014, and then doubling again in 2015. While foreign exports are significant in some years, imports make up a large majority of foreign trade. The recent trends at the POA are expected to remain stable for the near future.

Figure 4-20. Port of Alaska Tonnage, 2008-2015

Source: American Association of Port Authorities
The Ted Stevens Anchorage International Airport (TSAIA) is the busiest airport in Alaska in terms of both passenger enplanements and cargo tonnage. TSAIA is crucial to cargo movement throughout the state. For many years, TSAIA carried more volume of air cargo than any airport in the United States, and since 2008, it is second only to Memphis in total tonnage carried, due to its strategic importance as a fueling station and crew stop for international air traffic. Approximately three-quarters of TSAIA cargo does not get offloaded in Anchorage; rather, the airlines stop to refuel at TSAIA while on international trips.\footnote{5}

Figure 4-21 shows the total number of enplaned passengers in the past decade, as well as the total cargo landed, according to the information collected by the Federal Aviation Administration.

Air travel to TSAIA, in both cargo and enplaned passengers, declined significantly during the great recession. Annual enplaned passenger travel revived and is up 4% over the past decade, but has not reached its pre-recession peak. Air cargo volume rebounded briefly after the recession, but is down 13% from 2004 levels.

Figure 4-21. TSAIA Enplaned Passengers and Cargo Volumes,
Freight rail is an important component of Anchorage's transportation network, allowing the movement of cargo without adding stress to the roadway networks. The Alaska Railroad Corporation (ARRC) operates more than 650 miles of passenger and freight rail in Alaska, and is the sole railroad provider in Anchorage. Figure 4-21 shows the freight rail cargo tonnage from 2000 to 2015, highlighting the change in coal, petroleum, and gravel tonnage. Overall, total tonnage carried on freight rail decreased by almost one quarter, though there have been increases in some types of cargo. Coal rail transport increased between 2000 and 2010, but has since declined to the lowest total tonnage in the reported period, largely driven by a dramatic decrease in exported coal. Gravel transport, largely driven by local construction, reached a high in 2005 at over 4 million tons, but has since declined and remained steady between roughly 2 and 2.5 million tons since 2007. Petroleum transport decreased even more significantly, with a reduction from approximately 2.7 million tons in 2003 to less than 400,000 tons in 2015.
Anchorage's primary connections to the rest of Alaska are the Glenn and Seward highways. The Glenn Highway, a 135-mile highway, connects Anchorage to the northwest, and the Seward Highway, leaves south of Anchorage and travels 125 miles to terminate in Seward on Alaska's southern coast. Daily traffic volumes on these two roadways show how connected Anchorage is to the surrounding regions (see Figure 4-23). Daily traffic on the Glenn Highway has increased five-fold since the 1970s and will continue to increase with the projected population growth in the Matanuska-Susitna Borough. Traffic on the Seward Highway has increased steadily over the past 40 years, though not as significantly as the traffic to the north.
Notes


