Fairbanks Metropolitan Area Transportation System

FAIRBANKS METRO 2040

"A ROADMAP TO 2040"

January 2015

FMATS
FAIRBANKS METROPOLITAN AREA TRANSPORTATION SYSTEM

KITTELSON & ASSOCIATES, INC.

Fairbanks Metro 2040

"A Roadmap to 2040"

Prepared For:

FMATS
FAIRBANKS METROPOLITAN AREA TRANSPORTATION SYSTEM

Fairbanks Metropolitan Area Transportation System

Prepared By:

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Project No. 13671

January 2015

Fairbanks Metropolitan Area Transportation System
Metropolitan Planning Organization

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EXECUTIVE SUMMARY

The 2040 update of the Fairbanks Metropolitan Area Transportation System (FMATS) Metropolitan Transportation Plan lays out a long-range vision for the transportation system in the Fairbanks metropolitan area. This plan has been developed through extensive coordination between local and State agencies and involvement of area residents. It describes the existing transportation system, outlines future needs, and summarizes planned projects to meet those needs. It includes the project costs and planned timeframe of implementation given expected funding.

PLAN REQUIREMENTS

Fairbanks Metropolitan Transportation System (FMATS) is the designated metropolitan planning organization (MPO) for the urbanized portion of the Fairbanks North Star Borough (FNSB). One of the requirements of a MPO includes developing and updating a metropolitan transportation plan (MTP), sometimes also referred to as a long-range transportation plan (LRTP). FMATS is required to update the MTP every four years. The last MTP was adopted in 2010.

Purpose of the MTP

The purpose of the MTP is best described by the eight federal planning factors that must be considered. These factors are listed in Chapter 2.

Purpose of Updating the MTP

Updates to the MTP serve several purposes. The horizon year of the Plan is extended to ensure that future needs are identified and planned for with sufficient time to provide appropriate solutions. Existing and near-term needs are reviewed to determine if planned improvements remain valid and appropriate. Current and planned land uses are evaluated for their efficiency and consistency with the existing and planned transportation system. Management, operations, and maintenance programs are evaluated to ensure that system efficiency, safety, security, and preservation are being accomplished. Interagency communication and coordination plans for emergency management and response are reviewed to determine whether transportation improvements are needed. Forecasts of future funding are used to determine what is financially feasible and whether any needs will go unmet due to fiscal constraint. Finally, new federal legislation, the Moving Ahead for Progress in the 21st Century Act (MAP-21), has been passed. MAP-21 implements new requirements on the metropolitan transportation planning process.

DEVELOPING THE PLAN

The priorities of this Plan and the identification of transportation needs within the Fairbanks community were arrived at with the involvement of community members outside the project team. Information was shared with, and valuable input was received from, staff of local agencies, business owners, citizen groups, freight shippers and receivers, and other members of the Fairbanks area community. This outreach was primarily accomplished through:

- FMATS Policy and Technical Committee meetings;
- a workshop with FMATS Technical Committee members and other agency stakeholders;
- public open houses at different stages of the planning process;
- the project web page; and
- presentations and comment opportunities at existing interest group meetings.

The outreach process is described in greater detail in Chapter 1.

GOALS

Goals for this Plan update are created based on a review of the previous MTP; input from FMATS and ADOT&PF staff and from the FMATS Technical Committee; and, the federal requirements. The goals provide a clear vision of what FMATS aims to achieve. They have been endorsed by both the Technical and Policy committees and were formally adopted in January 2015.

Goals

1. **Coordinate planning efforts to provide an integrated transportation and land use system that embodies smart growth principles and stimulates the economy to grow.**
2. **Provide a safe, efficient, secure, and interconnected multi-modal transportation system for all users.**
3. **Protect the environment, improve air quality, and promote energy efficiency.**
4. **Optimize the utility and lifespan of the existing transportation system.**
5. **Ensure adequate transportation facilities to support economic development.**

PLAN OUTLINE

This plan is divided into eight chapters:

Chapter 1 – Introduction – Plan Context

Chapter 2 – Plan Goals and Performance Targets

Chapter 3 – Existing Conditions

Chapter 4 – Future Needs

Chapter 5 – Regional Corridors

Chapter 6 – Freight Plan

Chapter 7 – Implementation Plan

Chapter 8 – Financial Plan

Introduction-Plan Context

This chapter outlines the context in which the plan is created, including the process by which it was developed and the requirements and guidelines it is intended to satisfy.

Plans Goals and Performance Measures

Chapter 2 summarizes the goals of the plan, as well as the performance measures established during this process that will allow FMATS to monitor the success of implementing this plan and achieving its goals.

Existing Conditions

The Existing Conditions chapter explores the existing mobility within the region, including roads, transit, bicycle, and pedestrian options; discusses accomplishments of the previous plan; and provides a baseline assessment of how the existing system is performing.

Future Needs

Future needs are developed for the transportation system based on the existing conditions assessment, planned improvements, and forecast transportation conditions. Needs may arise out of safety, security, mobility, connectivity, and/or accessibility issues. This chapter organizes the

identified future needs by mode: roadway (auto), transit, bicycle, and pedestrian.

Regional Corridors

This chapter discusses the identified needs and possible projects along key corridors and within sub-areas of the region. Many of these corridors traverse more than one jurisdiction and serve multiple types of users.

Freight Plan

The Freight Plan chapter is based on a combination of interviews with area freight stakeholders, reviews of relevant data and studies, and feedback from the FMATS Technical Committee and members of the freight industry.

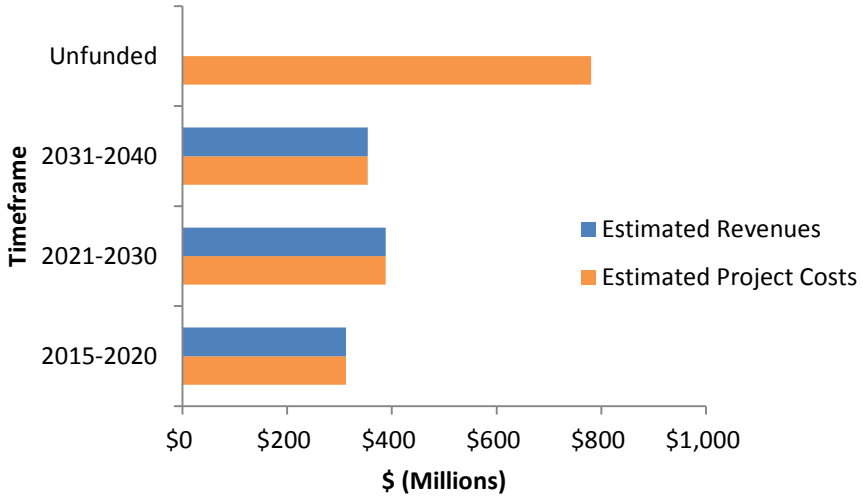
Recommended Plan

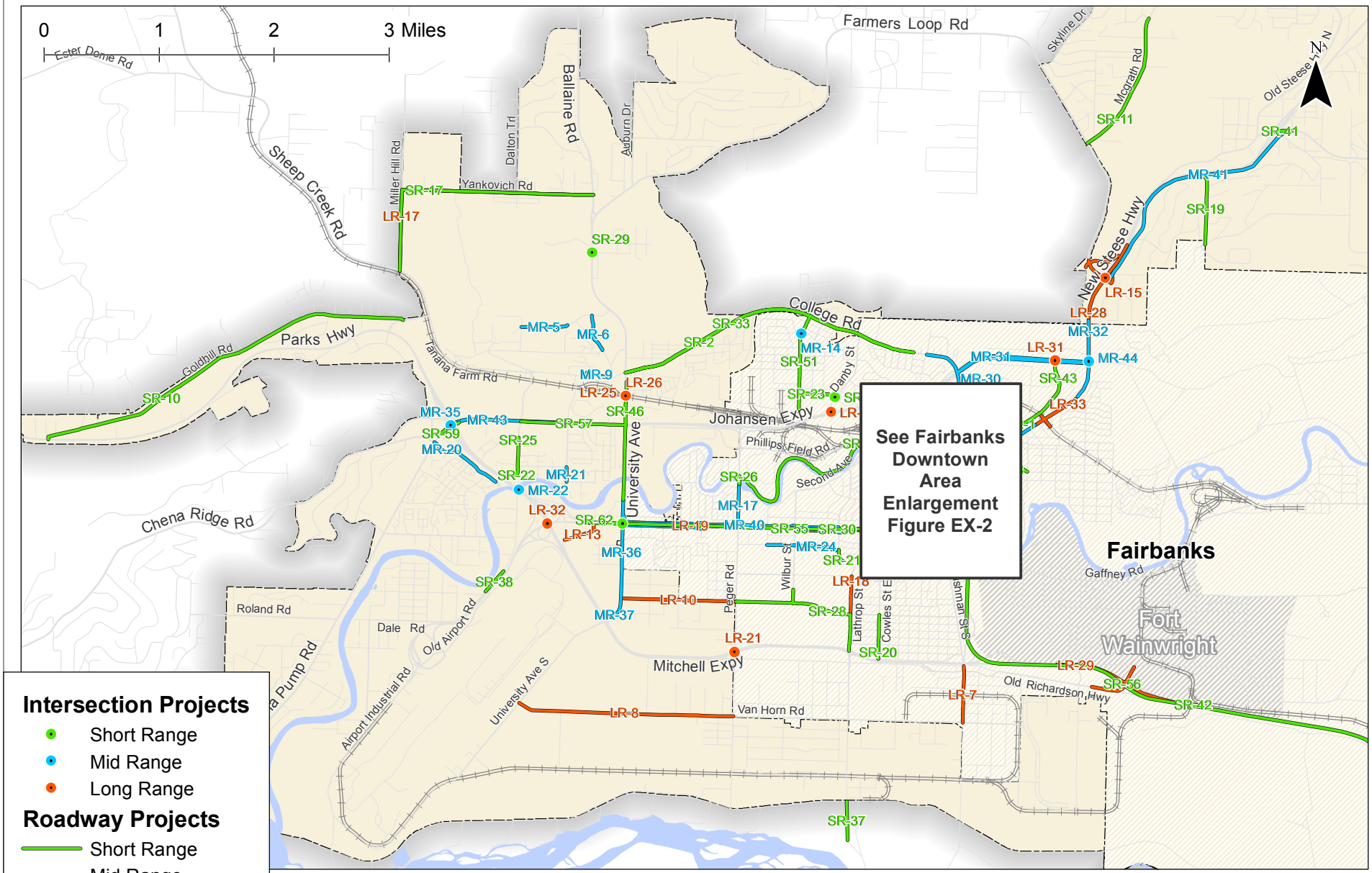
Chapter 7 presents the Technical Committee's recommended set of projects that help to ensure the efficient and safe multimodal movement of people and goods within and through the Fairbanks region. Sources for these projects include the 2035 MTP, projects developed through the TIP process, other planning efforts that have been completed since the adoption of the most recent MTP (e.g., 2013 Short and Long Range Transit Plan, Non-Motorized Transportation Plan), and projects developed through the MTP update process. Figures EX-1 through EX-5 illustrate the project locations.

Financial Plan

This chapter contains the funding plan that supports the fiscally constrained portion of the 2040 MTP. Included in this section are cost estimates for each project described in Chapter 7. To more discretely demonstrate cost feasibility, expected revenue levels are estimated for each timeframe through the horizon year. Figure EX-6 summarizes the project cost and revenue estimates for each timeframe.

Figure EX-6 Summary of Cost Estimates and Revenues by Timeframe





Planned Projects
Fairbanks Core Area
Fairbanks, Alaska

Figure
EX-1

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Coordinate System: NAD 1983 StatePlane Alaska 3 FIPS 5003 Feet

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Intersection Projects
- Short Range
- Mid Range
- Long Range

Roadway Projects
- Short Range
- Mid Range
- Long Range
- City Boundaries
- MPO Boundary

Planned Projects
Fairbanks Core Area
Fairbanks, Alaska

Figure
EX-2

Coordinate System: NAD 1983 StatePlane Alaska 3 FIPS 5003 Feet

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Planned Projects
North Pole and Greater Fairbanks Region
North Pole, Alaska

Figure
EX-3

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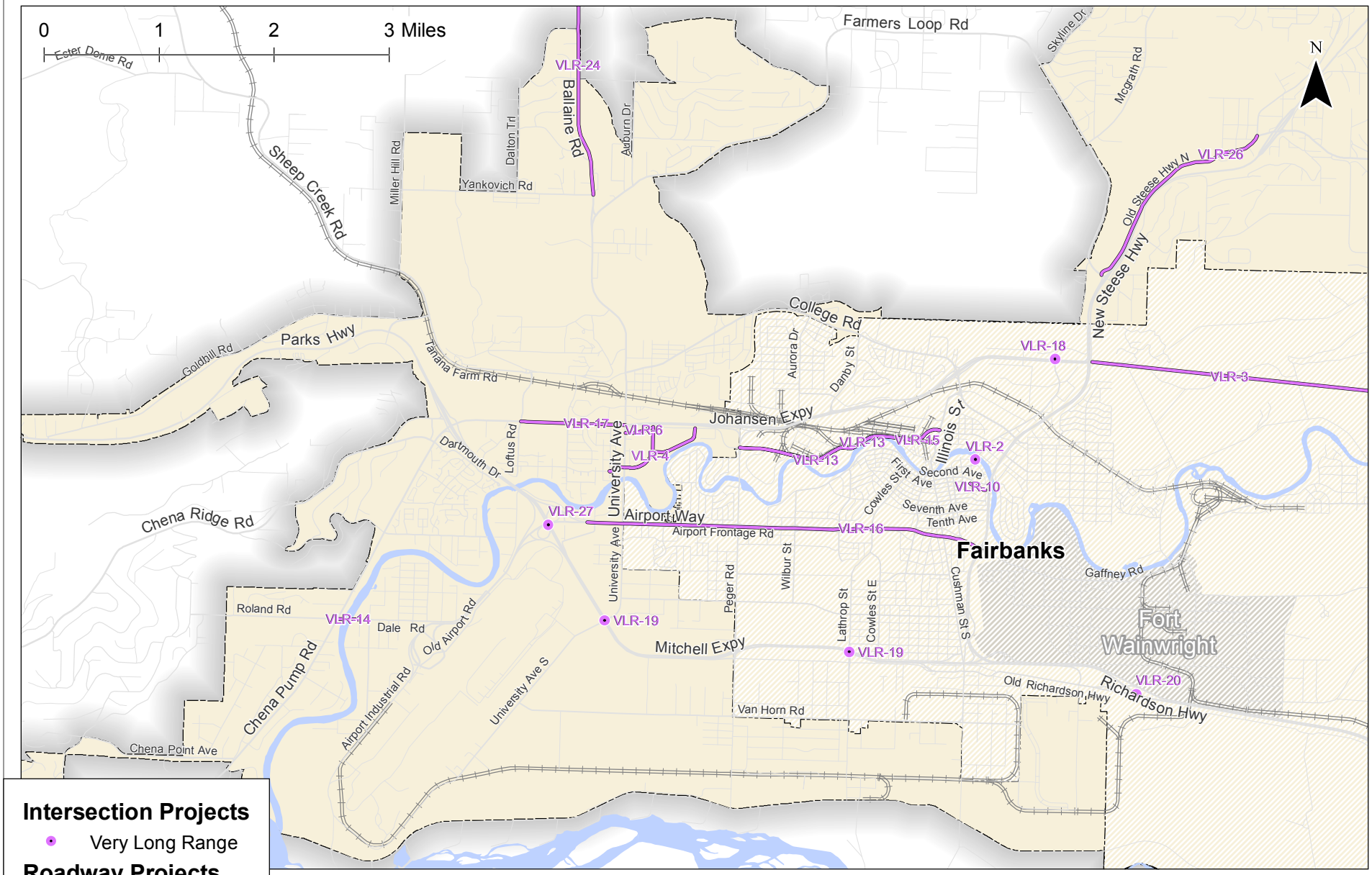

Intersection Projects
- Very Long Range

Roadway Projects
- Very Long Range
- City Boundaries
- MPO Boundary

Very Long-Range Projects
Fairbanks Core Area
Fairbanks, Alaska

Figure
EX-4

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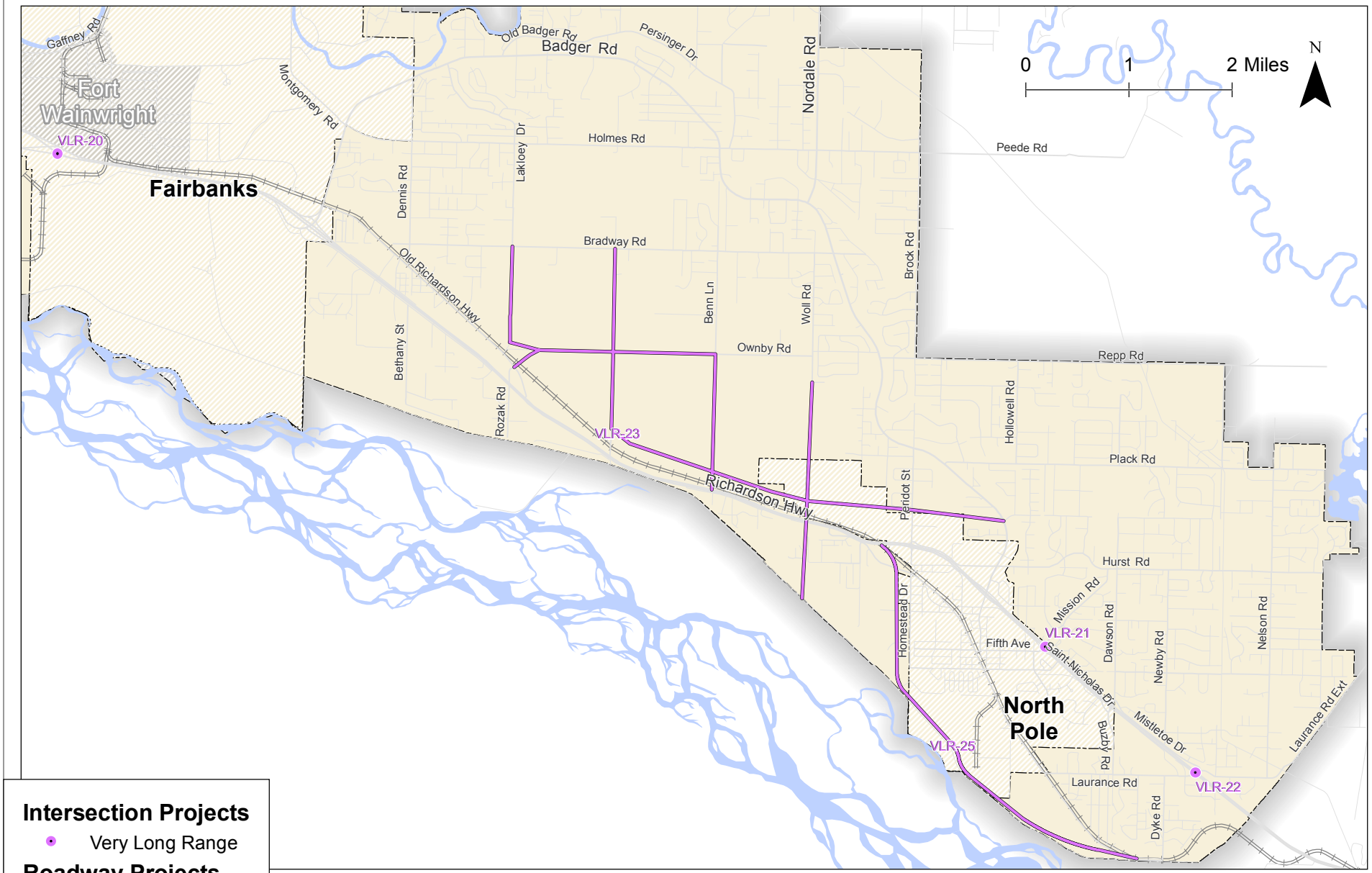

Intersection Projects
- Very Long Range

Roadway Projects
- Very Long Range
- City Boundaries
- MPO Boundary

Very Long-Range Projects
North Pole and Greater Fairbanks Region
North Pole, Alaska

Figure
EX-5

H:\projfile\13671 - FMATS MTP Update\gis\Task_08\7-5 Very Long Range Projects North Pole.mxd - jsommerville - 12:43 PM 1/8/2015

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Coordinate System: NAD 1983 StatePlane Alaska 3 FIPS 5003 Feet

Chapter 1 - Introduction

CHAPTER 1 - INTRODUCTION – PLAN CONTEXT

The 2040 update of the Fairbanks Metropolitan Area Transportation System (FMATS) Metropolitan Transportation Plan (MTP) lays out a long-range vision for the transportation system in the Fairbanks metropolitan area. This plan has been developed through extensive coordination between local and State agencies and involvement of area residents. It describes the existing transportation system, outlines future needs, and summarizes planned projects to meet those needs. It includes the project costs and planned timeframe of implementation given expected funding. This chapter outlines the context in which the plan is created, including the process by which it was developed and the requirements and guidelines it is intended to satisfy.

METROPOLITAN TRANSPORTATION PLANNING IN FAIRBANKS

A portion of the Fairbanks North Star Borough (FNSB) became a designated urbanized area following the 2000 Census in May 2002. The designation is applied to areas with a population of over 50,000 residents. At the time of the 2000 Census, the urban area had a population of approximately 52,000 residents. The population of the urbanized area has since grown to nearly 65,000 residents, an increase of about 25%, as of the 2010 Census.

This urban designation mandates additional federal regulations related to transportation planning, including the formation of a metropolitan planning organization (MPO). Title 23 of the US Code of Federal Regulations (CFR) outlines the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) requirements for the MPO. In order to receive federal funds for future transportation improvements, the MPO must establish a "continuing, cooperative and comprehensive transportation planning process" (3-C Process) to oversee the development of transportation policies, plans and programs for the urbanized area.

On April 14, 2003, the Governor of the State of Alaska designated FMATS as the official MPO for the Fairbanks area. Prior to this designation, FMATS had existed since 1969 under an informal agreement between the Alaska Department of Transportation & Public Facilities (ADOT&PF) and local government officials. After this designation, in accordance with federal regulations, ADOT&PF, the Fairbanks North Star Borough (FNSB), the City of Fairbanks and the City of North Pole formally implemented the FMATS operating agreement and by-laws. In 2008, FMATS hired its first full-time staff and a new office was opened in the City of Fairbanks City Hall.

One of the requirements of a MPO includes developing and updating a MTP, previously known as a long-range transportation plan (LRTP). Updates are required every five years, except in air quality non-attainment or maintenance areas. The Fairbanks area has been designated as a PM 2.5 non-attainment area and therefore must update its plan every four years. The last MTP was adopted in July 2010 (2035 MTP). Title 23 of the US CFR contains additional requirements for the MTP.

The first FMATS plan was completed in 1971, and a major update was done in 1985. Another major update was completed in 2005, which was the first plan for the formal MPO. An update was prepared in 2010 and serves as the basis for this new plan.

The region covered by FMATS includes the Census designated urbanized area, the contiguous area expected to become urbanized within the 20-year forecast period, as shown in Figure 1-1.

PLAN REQUIREMENTS

FMATS is responsible for preparing the MTP and the associated Transportation Improvement Program (TIP). In addition, FMATS must monitor the progress of completing the TIP and its success in achieving the goals and objectives of the MTP. As a public agency that is provided access to federal funding, FMATS is closely monitored for its management of those funds and the transportation facilities and services they are intended to deliver.

FMATS serves in a planning, coordination, and monitoring role, as it has no ownership or jurisdictional control over transportation facilities or services. The MPO must work in cooperation with local, state, and federal agencies and with private transportation providers to ensure transportation programs and projects are systematically accomplished.

Purpose of the MTP

The purpose of the MTP is best described by the eight federal planning factors that must be considered. These factors are listed in Chapter 2 and described in in full detail in 23 CFR 450.

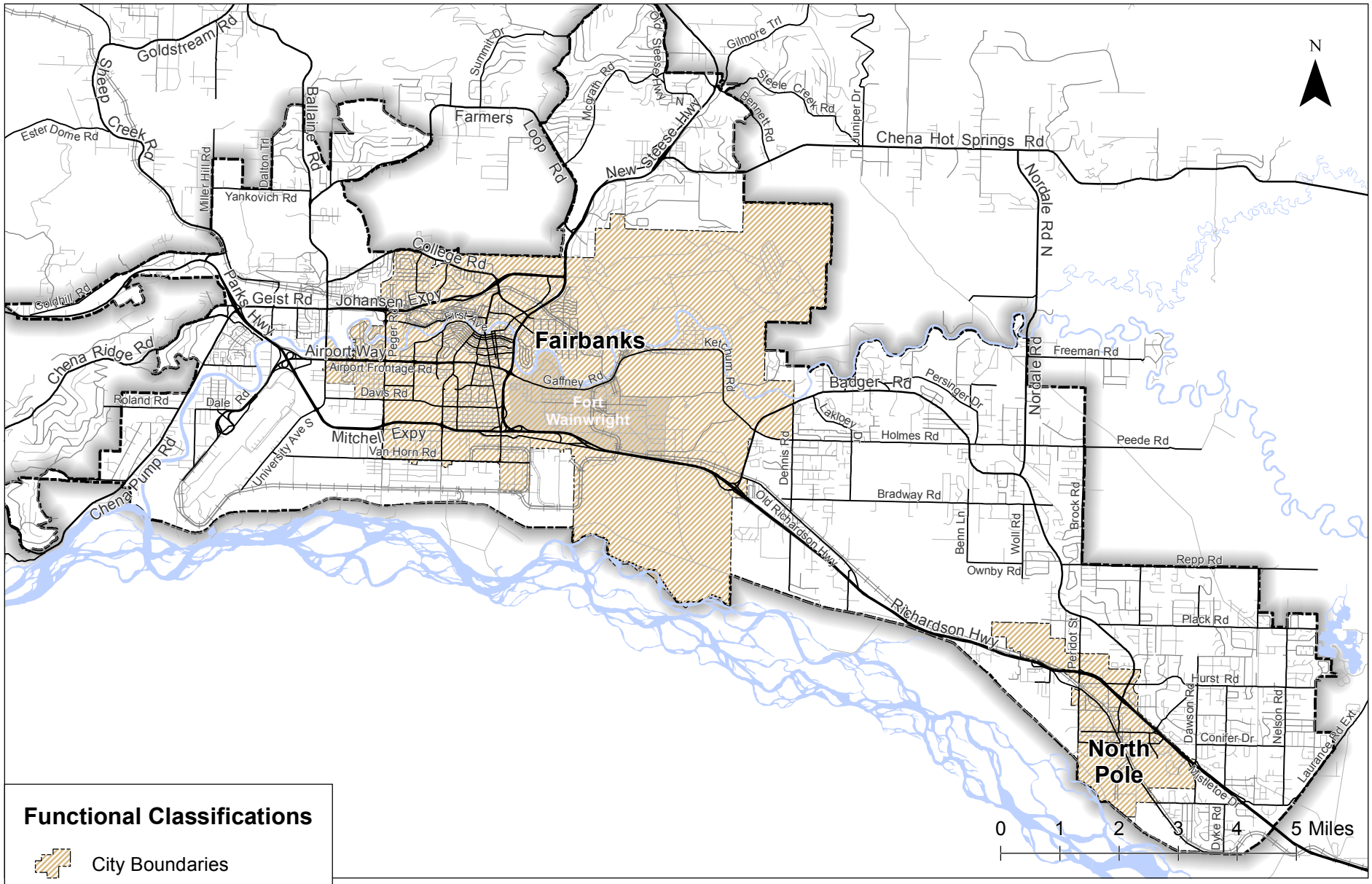
Purpose of Updating the MTP

Updates to the MTP serve several purposes. The horizon year of the Plan is extended to ensure that future needs are identified and planned for with sufficient time to provide appropriate solutions. Existing and near-term needs are reviewed to determine if planned improvements remain valid and appropriate. Current and planned land uses are evaluated for their efficiency and consistency with the existing and planned transportation system. Management, operations, and maintenance programs are evaluated to ensure that system efficiency, safety, security, and preservation are being accomplished. Interagency communication and coordination plans for emergency management and response are reviewed to determine whether transportation improvements are needed. Forecasts of future funding are used to determine what is financially feasible and whether any needs will go unmet due to fiscal constraint. Finally, new federal legislation has been passed that implements new requirements on the metropolitan transportation planning process (see next section).

MAP-21

The current federal transportation authorization bill, Moving Ahead for Progress in the 21st Century Act (MAP-21), was signed into law in July 2012. It replaced the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which was the bill under which the 2035 MTP was prepared. MAP-21 supplies the funds and refines the programmatic framework for investments needed to maintain and grow the country's transportation infrastructure.

As with SAFETEA-LU, MAP-21 addresses the many challenges facing our transportation system today – challenges such as improving safety, reducing traffic congestion, improving efficiency in freight movement, increasing intermodal connectivity, and protecting the environment – as well as laying the groundwork for addressing future challenges.



Functional Classifications

- City Boundaries
- MPO Boundary
- Railroad

FMATS Study Area
FMATS Region, Alaska

Figure **1-1**

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In addition, MAP-21 puts an emphasis on performance measurement. It defines national goals in seven areas:

- Safety
- Infrastructure Condition
- Congestion Reduction
- System Reliability
- Freight Movement and Economic Vitality
- Environmental Sustainability
- Reduced Project Delivery Delays

MAP-21 also requires the US Department of Transportation (USDOT) to set performance measures for the following:

1. Pavement condition on the Interstate System and the remainder of the National Highway System (NHS)
2. Bridge condition on the entire NHS
3. Performance of the Interstate System and the remainder of the NHS
4. Serious injuries and fatalities, both the number and the rate per vehicle miles traveled
5. Traffic congestion
6. On-road mobile source emissions
7. Freight movement on the Interstate System

Once USDOT sets measures in these areas, states have one year to develop targets for each measure. States are to coordinate with MPOs and public transportation providers in defining the targets. The MPO then has 180 days after the state has established its performance targets to define its own targets. These targets are to be coordinated with the state's targets and any targets set by local public transportation providers.

To date, the USDOT has only issued the notice of proposed rulemaking for the safety measures. Subsequent releases are expected to follow for the remaining measures over the course of the remainder of 2014. The effective date of all proposed measures is currently expected to occur sometime in 2015 (Reference 1).

Livable and Sustainable Communities

Federal, state, and local agencies are leading a growing movement to provide communities with a high quality of life that is increasingly sustainable. Livability and sustainability have become central themes to transportation, housing, land use, and economic development plans being prepared throughout the United States and the world. The FMATS MTP respects these plans of local agencies and seeks to promote these themes, as well.

Providing more transportation options to improve access to housing, jobs, businesses, services, and social activities is core to this effort. Active transportation (such as walking, running, biking and, in the Fairbanks region, skiing) results in a more physically fit community, minimizes auto emissions, extends the useful life of existing transportation facilities, and delays or eliminates the need to widen roadways.

A partnership of federal agencies that includes the Departments of Transportation and Housing and Urban Development and the Environmental Protection Agency has developed six principles to guide local communities in their effort to gain better access to affordable housing, more transportation options, and lower transportation costs, while protecting the environment in communities nationwide. Listed below are the partnership's principles for sustainability:

- Provide more transportation choices
- Promote equitable and affordable housing
- Enhance economic competitiveness
- Target resources to existing communities
- Coordinate and leverage federal policies and investments
- Value unique characteristics of communities, no matter their size

FMATS readily acknowledges the value and importance of this movement toward sustainability and improving the livability of the region. The principles listed above are an effective representation of guidance FMATS provides to local agencies responsible for land use and transportation decision making in the region. As the goals described in the following sections show, FMATS is committed to incorporating Smart Growth and context sensitive solutions into its planning efforts, as well as planning for all modes of transportation.

DEFINING THE TRANSPORTATION GOALS

The priorities of this Plan and the identification of transportation needs within the Fairbanks community were developed with the involvement of community members outside the project team. Information was shared with, and valuable input was received from, staff of local agencies, business owners, citizen groups, freight shippers and receivers, and other members of the Fairbanks area community. This outreach was primarily accomplished through:

- FMATS Policy and Technical Committee meetings;
- A workshop with FMATS Technical Committee members and other agency stakeholders;
- Public open houses at different stages of the planning process;
- The project web page; and
- Presentations and comment opportunities at existing interest group meetings.

The Plan goals resulting from this process are described in Chapter 2.

FMATS Policy and Technical Committees

FMATS is guided by two standing committees, the Policy Committee and the Technical Committee. As its name implies, the Technical Committee is responsible for providing technical oversight of MPO activities. This group is primarily made up of engineers, planners, and other technical specialists in the fields of transportation, land-use, and air quality, representing a variety of local agencies. The Policy Committee is responsible for the overall guidance that directs FMATS and the Technical Committee. Its charge includes the adoption of this Plan, as well as the TIP. This committee's membership is primarily executive-level representatives from the various governing organizations within the FMATS boundary (e.g. the Cities and the Borough), as well as the directors of the Northern Region of ADOT&PF and the Alaska Department of Environmental Conservation, Division of Air Quality.

Throughout the course of this project, a number of meetings have been held with both committees. These meetings were advertised on the FMATS and DOT&PF websites and published in the Fairbanks Daily News-Miner. The project team presented work products at some meetings, while FMATS staff provided update briefings at the other

meetings. Both committees provided feedback on key products throughout the course of the project, including the goals and objectives, the existing conditions analysis, future needs, and alternatives analysis. The committees have reviewed the final Plan, including the proposed implementation plan, upon the adoption of the final Plan.

April 2014 Workshop/Charrette

In addition to the standing meetings, a workshop was held in Fairbanks on April 6, 2014, with FMATS and ADOT&PF staff and FMATS Technical Committee members. This meeting presented travel demand model results, deficiencies in the system by mode, and a list of possible projects for inclusion in the MTP.

Attendees were asked to discuss and determine potential projects for inclusion in the MTP. Projects were developed from identified system deficiencies and the project list supplied by the consulting team. The projects on the supplied list were assembled from the current MTP, FMATS Non-Motorized Plan, adopted/approved plans by local and state agencies, various accepted studies, technical work by the consulting team, and public input. Projects addressing all modes were included. Based on their knowledge of the system, attendees confirmed, rejected, or proposed additional projects to address needs.

The workshop produced a draft list of projects for inclusion in the MTP.

Resource Agency Involvement

Input was sought from a wide range of agencies beyond the official participation on the FMATS Technical and Policy Committees for both the transportation and air quality conformity aspects of the Plan. Interagency Consultation meetings where held periodically to discuss the development of Plan elements and their impact on the environmental review process. Participating agencies include:

- Alaska Department of Environmental Conservation
- Environmental Protection Agency
- Federal Highway Administration
- Federal Transit Administration

Public Open Houses

An open house was held on February 18, 2014 at the JP Jones Community Development Center at 2400 Rickert Street in Fairbanks. The meeting was held in a general open house format where the public and interested parties could view presentation boards and provide comments to the project team and agency staff. Formal comment cards were distributed that could be completed and returned at the meeting. Not including individuals staffing the open house, 17 people were in attendance between 4:00 PM and 7:00 PM.

Outreach for this event spanned a number of mediums to various groups. Ads were published in the Fairbanks Daily News-Miner, as well as a Community Perspective Column, and on the FMATS and DOT&PF websites. Radio and television advertisements and interviews informed area residents of the upcoming meeting and why they should attend. A number of e-mails, the FMATS newsletter, and other notifications were sent to targeted local audiences.

Stations were set up to present the following key topics at the open house:

- Project purpose and themes
- Projects completed since the 2035 MTP
- Planned roadway projects
- Identified roadway needs
- Identified transit needs
- Identified pedestrian needs

- Identified bicycle needs
- Identified freight needs

Each of the stations relating to a transportation mode was set up with maps displaying planned projects and/or identified needs for that particular mode; descriptions of the planned improvements and identified needs; and, blank sheets of chart paper where members of the public could provide specific comments related to the information being presented on the maps (e.g., areas not identified on the maps that they think need to be improved). An agency staff member or project team member was present at each station to answer questions and facilitate discussion regarding additional needed improvements or ideas for solutions to previously identified areas of need.

all property owners in the planning area. These mailers notified the recipient of the open house and encouraged participation in that meeting as well as through the project website.

In addition to project staff, 14 people attended the North Pole meeting and 59 were in attendance in Fairbanks.

Display boards supplemented by project staff presented the following information:

- Project purpose and themes
- Plan development process
- Public comment summary
- Draft Implementation Plan
- Plan adoption process

In addition to the static boards, a full list of project description handouts were available. A presentation was also given to the Fairbanks attendees, providing an overview of the draft MTP as a whole. The public was encouraged to provide comments via forms provided and to review the draft MTP on the project website and provide further comments there.

In addition to the blank sheets of chart paper at each station, attendees also were encouraged to submit written comments on a comment sheet provided at the sign-in table. A detailed listing of the comments and the outreach undertaken for the event is contained within the Technical Appendix.

A second round of public outreach was conducted through a pair of open houses, which were held in North Pole on November 19th, 2014 and in Fairbanks on November 20th, 2014. The outreach for these open houses was similar to that undertaken for the first open house, with the addition of approximately 21,000 postcards sent to

Project Website

The project team and FMATS maintained an interactive and informative project website throughout the duration of this plan: **http://fmats.us/programs/metropolitan-transportation-plan/**. This website has been advertised on, and linked to and from the FMATS home page. It has received additional advertising through targeted emails, social media outreach, and newspaper advertisements. The primary purpose of the website is to engage area residents outside of the traditional open house setting. This has been accomplished through including a map-based feedback tool and online and mail-in comment forms, posting project status updates, and providing relevant project documents for download and viewing by the general public.

The interactive map-based feedback tool opened for comments at the beginning of February 2014 and closed at the end of May 2014. During this time, the website received a total of 87 comments. The Technical Appendix lists all of the comments. They may also be seen on the project website, though comments may no longer be added.

The draft MTP was posted on the website for public review in November 2014. The Policy Committee released the draft plan for a 30-day public comment period that ran through December 19, 2014. In addition to the comments received through the open houses, 11 people provided comment through the project website during this comment period.

Freight Stakeholder Meeting

The project team met with the freight stakeholders in an effort to inform the freight community of the long range planning process and identify freight issues and constraints in the system that need addressing. A number of intersections and areas were identified as issues within the system and are reported in Chapter 3.

Plan Adoption

The Plan adoptions process was conducted through the FMATS Technical and Policy Committees. Public comment on the draft Plan was sought through a 30-day public review period in November and December, 2014. The public comments were considered and incorporated into the final Plan. This final version went before the Technical Committee to be recommended for adoption by the Policy Committee, a decision which occurred on January 21, 2015.

Throughout the Plan development process, public and agency input was sought to ensure the Plan reflected the concerns and vision of the communities it serves.

Chapter 2 – Plan Goals and Performance Targets

CHAPTER 2 – PLAN GOALS AND PERFORMANCE MEASURES

This chapter summarizes the goals of the plan, as well as the performance measures established during this process that will allow FMATS to monitor the success of implementing this plan and achieving its goals.

PROJECT GOALS

Goals for this Plan update are created based on a review of the 2035 MTP, input from FMATS and ADOT&PF staff and from the FMATS Technical Committee, and the requirements set forth for MTPs in 23 CFR 450. The goals provide a clear vision of what FMATS aims to achieve. They have been endorsed by both the Technical and Policy committees and were formally adopted in January 2015.

Goals

1. **Coordinate planning efforts to provide an integrated transportation and land use system that embodies smart growth principles and stimulates the economy to grow.**
2. **Provide a safe, efficient, secure, and interconnected multi-modal transportation system for all users.**
3. **Protect the environment, improve air quality, and promote energy efficiency.**
4. **Optimize the utility and lifespan of the existing transportation system.**
5. **Ensure adequate transportation facilities to support economic development.**

Relating the Goals to Planning Factors

Federal requirements for the MTP process are laid out in 23 CFR 450. In this section of the Federal code, eight planning factors are outlined that must be addressed by the MTP process. These factors are:

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

In order to ensure that these factors are appropriately addressed in the MTP process, the goals must reflect these factors. To help identify if goals speak to a planning factor, the theme(s) of each factor is identified. The goals are then compared to these factors and their themes to determine if each factor is addressed by the goals of the Plan. As Table 2-1 illustrates, at least one goal is related to each of the planning factors.

Project Objectives

The project team and members of the FMATS Technical Committee developed objectives related to each of the goals. The objectives were developed to exude SMART characteristics. Those characteristics include being strategic, measureable, agreed to by multiple agencies, realistically achievable, and time bound. Table 2-2 summarizes the goals and subsequent objectives.

Table 2-1 2040 MTP Goals and Related Planning Factors

Proposed 2040 MTP Goals	Planning Factors
Goal #1: Coordinate planning efforts to provide an integrated transportation and land use system that embodies smart growth principles and stimulates the economy to grow	• Economic Vitality • Environment, Community, Economic Development
Goal #2: Provide a safe, efficient, secure, and interconnected multi-modal transportation system for all users	• Safety • Efficient Operation • Security • Accessibility/Mobility • Integration/Connectivity
Goal #3: Protect the environment, improve air quality, promote energy efficiency, and enhance regional quality of life	• Environment, Community, Economic Development • Efficient Operation
Goal #4: Optimize the utility and lifespan of the existing transportation system	• Efficient Operation • System Preservation
Goal #5: Ensure adequate transportation facilities to support economic development	• Economic Vitality • Efficient Operation

Table 2-2 2040 MTP Goals and Objectives

Proposed 2040 MTP Goal	Proposed 2040 MTP Objective
1. Coordinate planning efforts to provide an integrated transportation and land use system that embodies smart growth principles and stimulates the economy to grow.	1.1 Ensure that the MTP and the transportation and land use elements of comprehensive plans are consistent with each other.
	1.2 Ensure that local land use plans, proposed developments, and local and regional transportation plans are consistent with each other.
	1.3 Support consistency between transportation agencies by applying a mutually agreed to project development and prioritization process.
	1.4 Incorporate smart growth principles in local and regional plans.
	1.5 Provide X land use briefings per year to the FMATS Technical Committee to ensure consistency between transportation and land use planning efforts.
2. Provide a safe, efficient, secure, and interconnected multi-modal transportation system for all users.	2.1 Reduce the frequency and severity of crashes by X% by year YYYY.
	2.2 Develop and maintain an inventory of critical infrastructure.
	2.3 Reduce the number of structurally deficient bridges by X in Y years.
	2.4 Reduce the number of gaps in the transportation system by X% in Y years.
	2.5 Increase the percentage of the transportation system that is equipped with two or more modes by X% in Y years and three or more modes by Y% in Z years.
	2.6 Provide major destinations (as defined in the MTP) with at least two multimodal routes to the regional arterial network by year YYYY.
3. Protect the environment, improve air quality, and promote energy efficiency.	3.1 Achieve a no net loss of environmentally sensitive lands and improve the quality of impacted areas to better than pre-development standards.
	3.2 Prepare a list of financially feasible projects and programs that reduces emissions by XX% by year YYYY.
	3.3 Improve the energy efficiency of facilities and fleets by X% by year YYYY.
4. Optimize the utility and lifespan of the existing transportation system.	4.1 Maintain XX% of constructed facilities to adopted standards through established maintenance programs.
	4.2 Implement within X years YY% of all system efficiency improvement projects.
5. Ensure adequate transportation facilities to support economic development.	5.1 Reduce the number of identified major freight bottlenecks by X in Y years.
	5.2 Reduce the number of at-grade rail crossings that significantly limit freight rail operations by X in Y years.

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Chapter 3 – Existing Conditions

CHAPTER 3 – EXISTING CONDITIONS

People in the Fairbanks Metropolitan Area travel using many modes of transportation. Most commonly, people drive or carpool to their destinations, but public transportation, walking, and bicycling also play significant roles. This chapter explores the existing mobility within the region, including roads, transit, bicycle, and pedestrian options; discusses accomplishments of the previous plan; and, provides a baseline assessment of how the existing system is performing. An assessment of existing freight service, including the Alaska Railroad, is provided in the Freight Plan chapter of this Plan.

ACCOMPLISHMENTS SINCE THE 2035 MTP

The 2035 MTP was adopted in July 2010. Since then, FMATS has completed a number of projects and studies.

Projects Completed or In-Progress

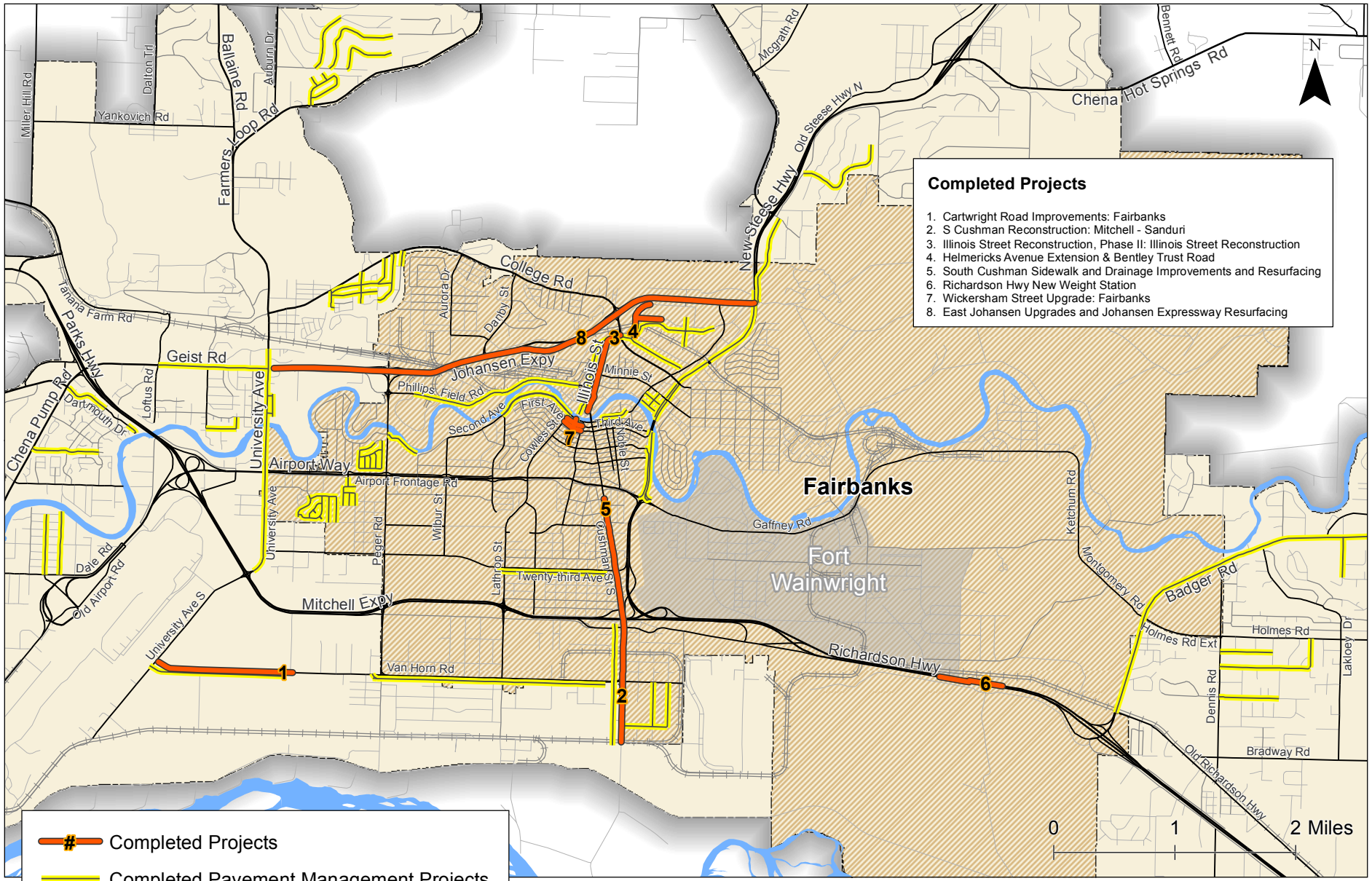
A number of projects identified in the current MTP have been completed or are currently in-progress. Table 3-1 and Figures 3-1 and 3-2 illustrate the roadway projects. Table 3-2 summarizes projects from the 2035 MTP that are currently in progress.

Table 3-1 Roadway Projects Completed Since Adoption of 2035 MTP

2035 MTP Project #	2025 MTP Project Name	Description
Completed Projects		
SR-6	NHS Pavement Management/Preventive Maintenance	Repaved, maintained, and/or upgraded various roads and signal systems in the FMATS area
SR-8	Cartwright Road Improvements	Reconstructed Van Horn Road West (Cartwright Road) from Peger Road toward Fairbanks International Airport
SR-12	S Cushman Reconstruction: Mitchell – Sanduri	Rehabilitated South Cushman Street from the Mitchell Expressway to Sanduri Street.
SR-15	Illinois Street Reconstruction (Phase II)	Reconstructed Illinois /Cushman St. from First Ave. to College Rd., including the Chena River and Noyes Slough crossings, and constructed a new section of Barnette St. from First Ave. north to Illinois St. Extended utilities along Barnette St. to Second Ave.
SR-16	Helmericks Avenue Extension & Bentley Trust Road	Constructed a connection between Helmericks Avenue and the private road behind the Bentley Mall via an extension of Mehar Avenue, including an at-grade crossing of the railroad.
SR-18	North Pole Interchange Pedestrian Facility	Constructed pedestrian facilities along St. Nicholas Drive from Dawson Interchange to Santa Claus Lane, replaced the culverts at Beaver Springs Slough, and installed highway lighting.
SR-21	Wickersham Street Upgrade	Reconstructed Wickersham Street from 1st Avenue to 6th Avenue and 2nd and 3rd Avenues from Barnette to Cowles.
SR-29	North Pole Bike Path Rehab/Connections	Rehabilitated and connected bike trails and repaved Park Way within the City of North Pole.
SR-30	City of Fairbanks/Curb Corner Upgrades	Upgraded sidewalk corners and sidewalks within City limits to meet ADA requirements. Stage I completed in 2012 and Stage II completed in 2013.
N/A	South Cushman Sidewalk and Drainage Improvements	Installed new pedestrian facilities. Drainage work included installation of storm drain facilities and reconstruction of water and sanitary sewer mains and service connections.
N/A	South Cushman Street Resurfacing	Reconstructed a stabilized base and asphalt concrete surface on South Cushman Street from 14th to 28th Avenue.
N/A	Johansen Expressway Resurfacing	A preventive maintenance project repaved and improved approximately 4.2 miles of the Johansen Expressway. Project replaced guardrail end terminals, bridge elements, signing and striping, and upgraded traffic devices.
N/A	Richardson Highway Weigh Station	Construct a new weigh station on the Richardson Highway west of the Badger Interchange.

Table 3-2 Roadway Projects In-Progress Since Current Plan Adopted

2035 MTP Project #	2025 MTP Project Name	Description
In-Progress - 2015 Completion		
SR-9	College/Margaret/Antoinette Intersection Improvements	Reconstruct intersection including elimination of offset between Margaret Avenue and Antoinette Avenue and provide left-turn lanes on College Road.
SR-10	College Road Pavement Rehabilitation	Rehabilitate and repave College Road between University Avenue and Mary Leigh Avenue, including the College/Danby intersection and intersection improvements along the route.
SR-11	College Road Right-Turn Lanes	Construct separate right turn lane for westbound traffic at the intersection of College Road/Old Steese Highway. Create dual right-turn lane by installing a new right-turn lane for eastbound traffic at the intersection of College Road/Steese Expressway.
SR-17	Noble Street Upgrade: Fairbanks	Reconstruct Noble Street from 1st Avenue to Gaffney Road.
SR-19	Plack Road Bike/Pedestrian Facility: FNSB	Construct a bicycle / pedestrian path on Plack Road from Badger Road to Nelson Road.
In-Progress – Completion Beyond 2015		
SR-2	Airport Way West Improvements	Construct intersection improvements at Airport Road, Dale Road, the Airport Access Road, and Hoselton Road, to include bicycle/pedestrian facilities along Hoselton Road to the Boat Street path.
SR-5	3rd Street Widening	Reconstruction of 3rd Street between Hamilton/Farewell and the Minnie Street Bridge. Work may include widening and signalizing the 3rd Street/Steese Expressway intersection and the possible addition of dual left turn lanes.
SR-20	University Avenue Widening, Phase I: Thomas Street to Chena River Recreation Site	Widen, rehabilitate and add a center median to University Avenue between the Mitchell Expressway and College Road. Along the corridor the project will improve access, replace the Chena River Bridge, and upgrade the Airport Way and Geist Road intersections.
SR-22	Yankovich/Miller Hill Bike Path	Construct a sidepath along Ballaine Road, Yankovich, Miller Hill, Sheep Creek, and West Tanana Loop.
SR-25	FMATS: Safety and Efficiency Improvements	This safety project will consist of reapplication of pavement markings and installation of rumble strips at 5 intersections in the Fairbanks area. Other work will include repairing or replacing signs and improving illumination.
MR-8	Cushman, Barnette, and Gaffney Upgrades	Converted Cushman Street from Gaffney Road to 10th Avenue to two-way flow, reconstructed Gaffney Road from Cushman Street to Noble Street



Roadway Projects Completed Since 2035 MTP
Fairbanks, Alaska

Figure **3-1**

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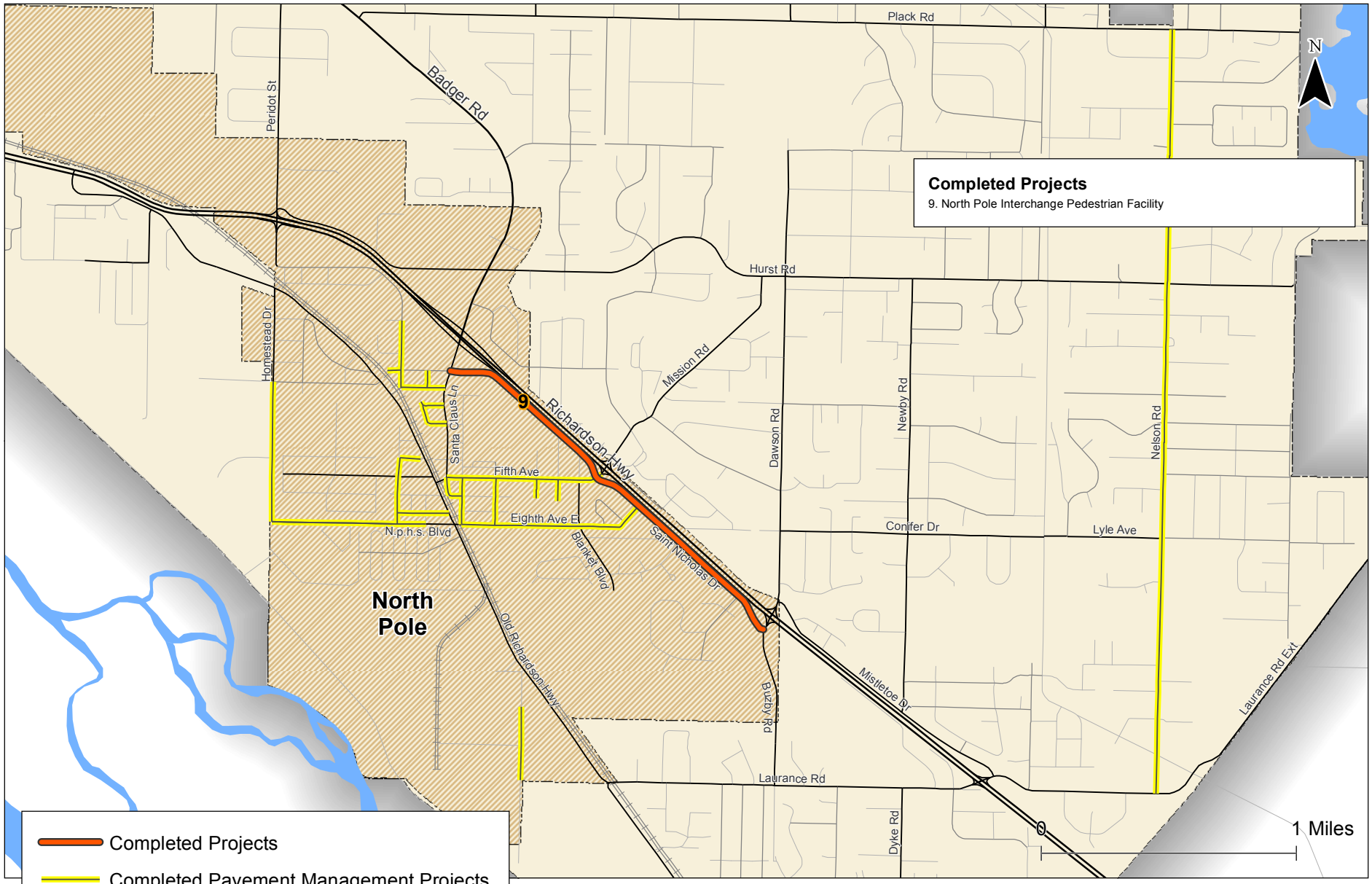

Roadway Projects Completed Since 2035 MTP North Pole, Alaska

Figure 3-2

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Studies Completed

In addition to the projects listed above, FMATS has completed the following studies since the 2035 MTP was adopted:

- College Road Corridor Study
- Fairbanks Area Safe Routes to School
- FMATS Non-motorized Transportation Plan
- Richardson Highway/Steese Expressway Corridor Study (ADOT&PF)

Additionally, FMATS facilitated the Art Advisory Committee and Historical Plaques Committee, task forces that selected public art and historical plaques, respectively, for the green space created in downtown Fairbanks by the Illinois Street Reconstruction project.

Programs

FMATS has not undertaken new programs since the adoption of the 2035 MTP. However, the *Public Participation Plan*, which guides FMATS' public involvement program, was updated in 2013. The annual pavement management/preventative maintenance program is ongoing. Additionally, ADOT&PF is undertaking a number of systematic improvements to its facilities, including converting signalized intersections from video to radar detection, adding flashing yellow arrows for left-turn movements at several intersections, updating signal timing and installing interconnect at certain intersections, and upgrading curve warning and passing signs and signal mast arms and heads at numerous locations.

ROADWAY FACILITIES

The auto is the primary mode of transportation for Fairbanks area residents. The U.S. Census Bureau estimates that approximately 86% of Fairbanks area commuters travel to work in a private vehicle, with approximately 72% driving alone[1]. Fairbanks area roads also provide for the movement of goods within the area and to regions in Alaska beyond Fairbanks. Vehicle emissions contribute to regional air quality issues and reducing congestion on the area roads is one way to help reduce emissions. Therefore it is important to ensure that a roadway network is in place that is able to safely and efficiently move people and goods in order to preserve the economic vitality and quality of life of the region.

Functional Classification

The functional classification of a roadway defines its role and context in the overall transportation system. It is a factor in determining specifications such as roadway width, right-of-way needs, access spacing, pedestrian and bicycle facilities, and level of maintenance. The functional classification also plays a role in the project scoring process and in determining the level of local match required for projects using federal funding.

[1] *MAP-21 Putting Performance into Action.* United States of America Department of Transportation. https://www.fhwa.dot.gov/tpm/about/action.pdf. December 2013.

Generally, functional classification systems include the major categories of *arterial, collector*, and *local* roads. These classes are listed in order of their hierarchy in terms of moving people. That is, the primary purpose of arterials is to move people and goods across a region, while the primary purpose of a local road is to provide access to individual properties. Collectors are designed to provide the link between the two. Within each major category there are typically sub-categories, such as *major, minor, principal*, etc. ADOT&PF applies twelve classifications to roadways in Alaska: Rural Interstate, Urban Interstate, Rural Other Principal Arterial, Urban Other Principal Arterial, Rural Minor Arterial, Urban Minor Arterial, Rural Major Collector, Rural Minor Collector, Urban Collector, Rural Local Road, Urban Local Road, and Local Road. The ADOT&PF classification of FMATS area roadways are shown in Figure 3-3. For the purposes of simplifying the graphic, all local roads have been grouped together under one display color.

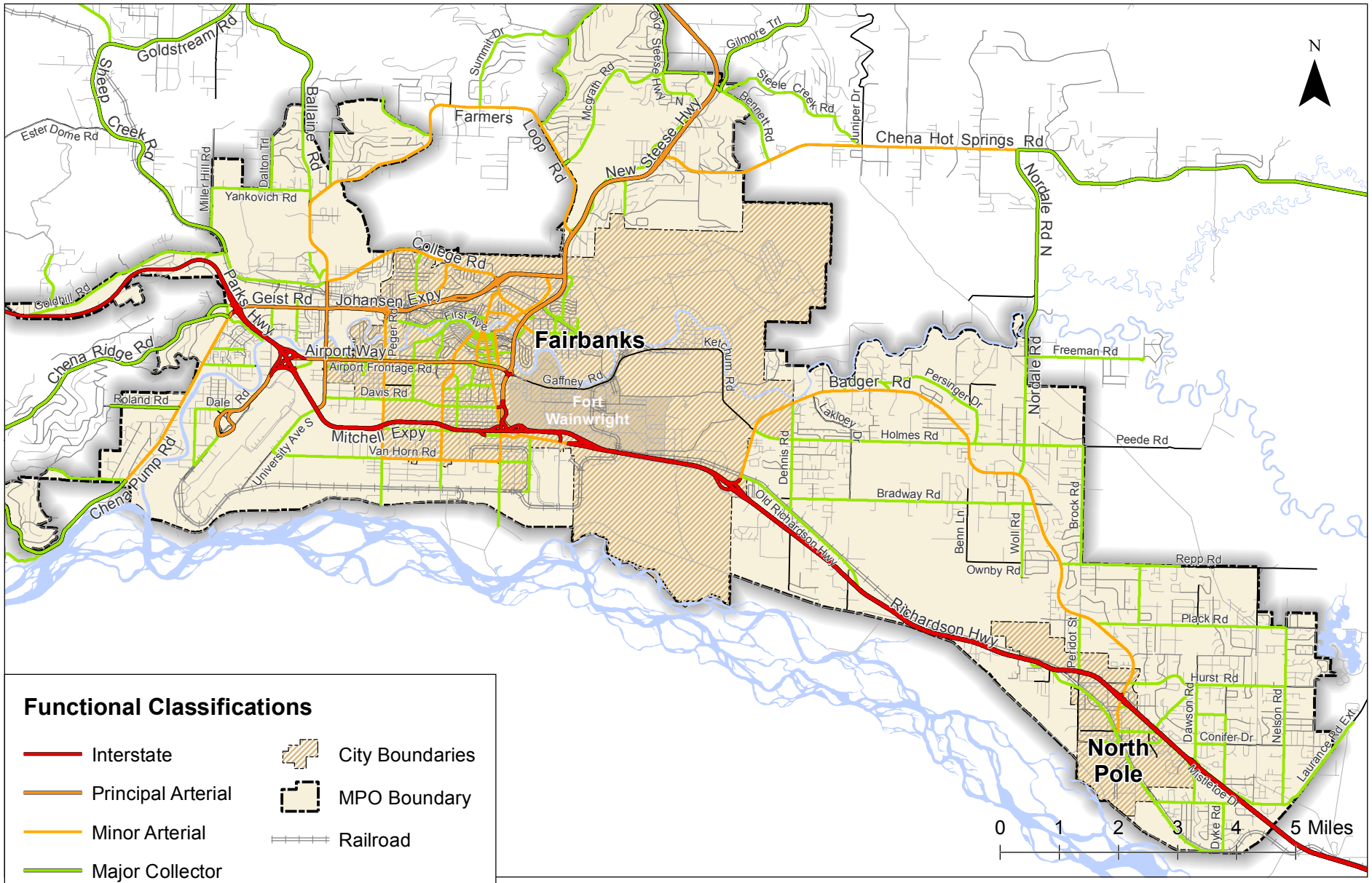
Roadway Traffic Volumes

ADOT&PF provided average daily traffic (ADT) volumes for 2012 for most major roadways within the study area. These volumes are shown in select locations in Figure 3-4.

Current Safety Analysis and Programming

The Fairbanks region generally relies on ADOT&PF to assemble and store crash data as well as to perform safety analysis to identify safety issues on the entire public system from the regional perspective. Safety-specific projects in the region are identified and developed through the federally-mandated Highway Safety Improvement Program (HSIP). Through this program, the ADOT&PF executes an annual systematic safety screening analysis. Project candidate locations identified in this screening process are analyzed in further detail to identify any crash patterns. Where crash patterns are identified, countermeasures are identified and projects are ranked using a benefit/cost ratio. There are currently 12 HSIP projects under construction or in the design phase at the time of the writing of this plan.

The HSIP process is conducted annually, using dedicated funding to identify and address safety issues as they develop. As a result, the HSIP can be more responsive and thorough than a high-level regional analysis. Therefore, this plan focuses on safety issues identified through studies and potential future safety issues resulting from forecast traffic volume growth, while the HSIP will address more immediate safety issues.



Functional Classifications

- Interstate
- Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Local
- City Boundaries
- MPO Boundary
- Railroad

FMATS Study Areas and Roadway Classification FMATS Region, Alaska

Figure **3-3**

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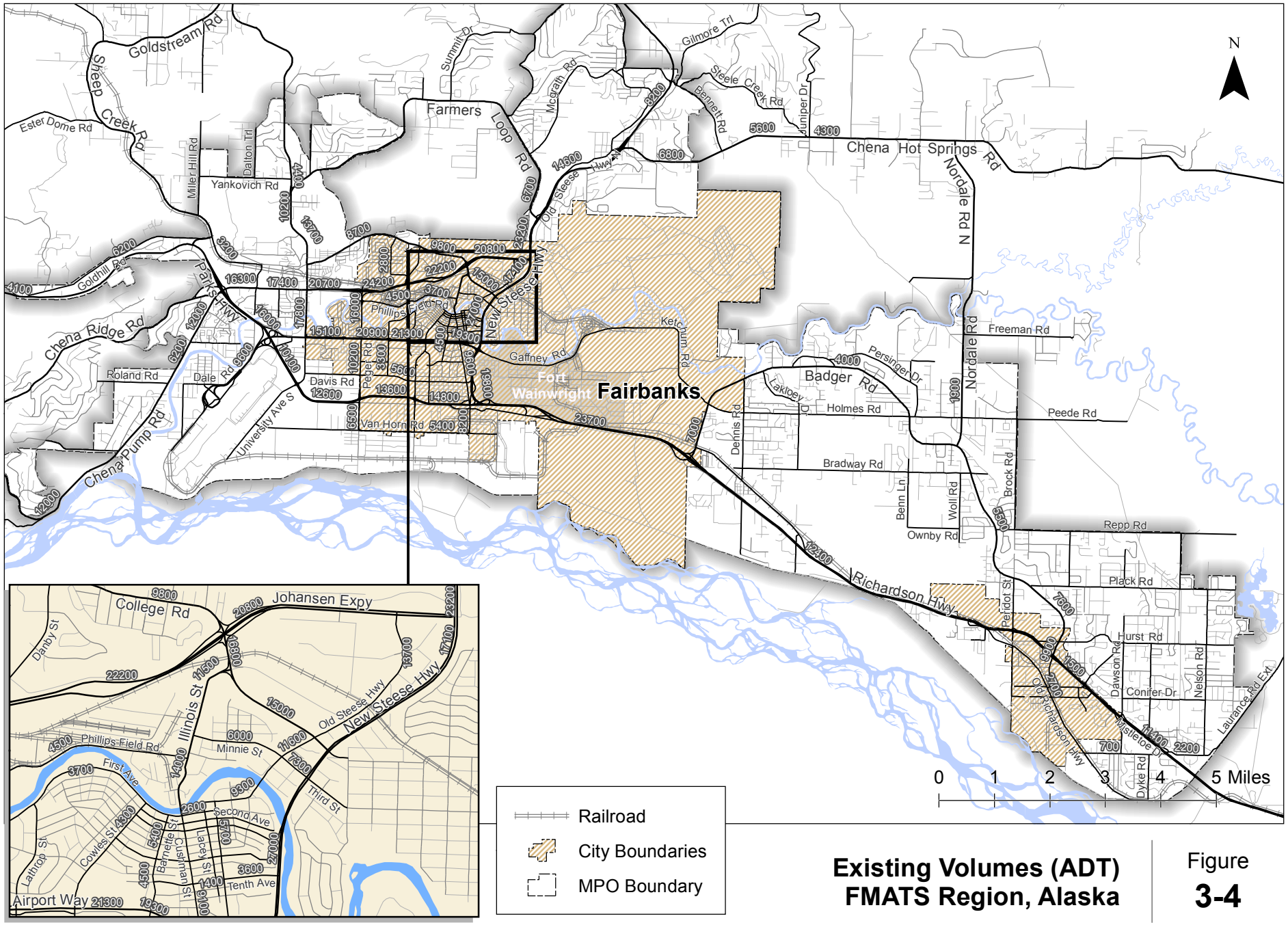

Existing Volumes (ADT) FMATS Region, Alaska

Figure 3-4

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Existing Roadway Issues

Figure 3-5 shows the existing roadway issues that have been identified by other recent studies, as well as the operations evaluation completed for this plan. These issues include motor vehicle traffic congestion and locations included in the HSIP program with identified crash patterns.

Preservation and Maintenance

Regular maintenance of roadway pavement improves travel and reduces the long-term maintenance and rehabilitation costs. ADOT&PF maintains a statewide pavement management system. This system includes the monitoring of most paved arterial and collector roads within the FMATS region. Pavement roughness and rutting conditions are annually surveyed during the summer months to assess their current condition and to predict future maintenance and project needs. Based on this evaluation, road segments are given a pavement serviceability rating. ADOT&PF also uses an automated maintenance management system to track assets, such as roads, bridges, airports, and water ports.

Both ADOT&PF and FMATS have an annual preventative maintenance program focused on roadway maintenance. Projects included in these programs include overlays, crack sealing, rehabilitation projects, hardware and software upgrades for signals, and bike and pedestrian facility rehabilitation. In 2013, FMATS spent an amount equal to 36% of the annual Federal allocation on the Preventative Maintenance line item. FMATS also uses pavement data as an element of project scoring for inclusion in the TIP.

ADOT&PF also maintains and repairs classified roadway crossings of railroad tracks.

Scenic Byways

Alaska has designated certain roadways and waterways as Scenic Byways in order to promote their scenic, cultural, and recreational characteristics. These roadways are eligible to receive grants to enhance their notable characteristics and to apply to the national program. There are not necessarily special regulations that apply to these roadways; rather the program is designed to promote tourism along the route.

Within the FMATS area, the Richardson Highway from milepost 362 to the eastern MPO boundary is designated as a Scenic Byway in the Alaska state program. It does not currently have national designation. However, the *North Richardson Highway Scenic Byway Corridor Partnership Plan*, completed in March 2009, ensures that the byway is eligible to apply for national designation by addressing criteria set forth by the National Scenic

Byways Program (NSBP). The plan contains implementation items related to its main goals and designates responsibility for each item. Many of these items are related to non-transportation functions, such as tourism and education. However, the plan does promote bicycle and pedestrian accessibility and safe travel along the corridor. The plan also notes that the currently planned projects in the FMATS area are not expected to have a negative impact on the scenic nature of the corridor.

TRANSIT SYSTEM

Transit systems serve multiple trip types and populations. They serve commuter trips and personal discretionary trips (e.g. shopping). Transit provides another transportation option for those who may choose to take public transportation instead of another mode and they enhance the mobility of those whose demographic status may require that they rely on public transportation for certain trips (e.g., student, elderly, and low-income populations). By providing this alternative option to those who may otherwise choose to travel via a private vehicle, congestion and vehicle emissions may be reduced.

Public transportation within the FMATS area is primarily provided by the Fairbanks North Star Borough (FNSB). The FNSB provides fixed-route bus service, also known as Metropolitan Area Commuter System (MACS), and a demand-responsive service known as Van Tran.

MACS service currently includes nine fixed-route bus lines, which are shown in Figure 3-6. All but two routes, the Grey Line and Yellow Line, begin/end at the Transit Center in downtown Fairbanks.

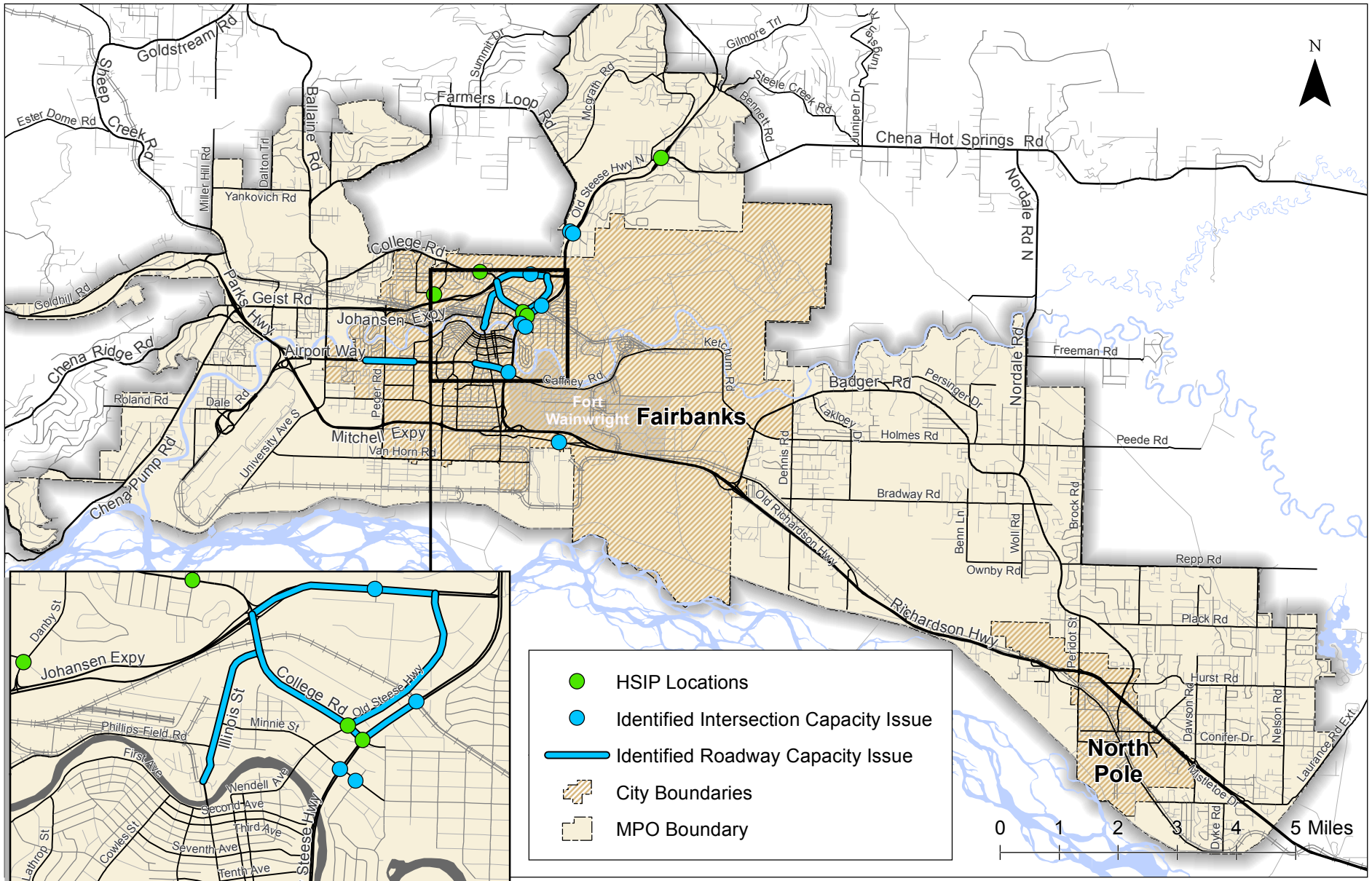
The Blue and Red routes have the highest ridership of the existing MACS lines. The Blue Line served approximately 151,000 passengers in 2012, while the Red Line served approximately 119,000. Ridership on the next highest route, the Purple Line, was approximately 99,000 passengers, while the Green Line had ridership levels of approximately 54,000 passengers. The Yellow Line served approximately 31,000 passengers and the Grey and Orange served approximately 9,000 passengers each (Reference 3). The Gold Line was not operating in 2012.

Bus fares are currently $1.50 per ride for a regular adult fare. Discounted fares of $0.75 are available to active military members and their dependents, school-age children, disabled, and Medicare cardholders. Day passes are $3.00 (regular) and $2.00 (discount) and monthly passes are $40 (regular) and $20 (discount). Seniors and children under 5 ride free, as do University of Alaska-Fairbanks (UAF) faculty, staff, and students.

The FNSB completed its *Short and Long Range Transit Plan* in June 2013. This document provides a more detailed summary of existing conditions of the transit system. The 2013 plan identified a number of existing issues through a survey of riders, including:

- Sunday service is the most often requested improvement.
- The majority of community members surveyed responded that MACS does not meet their travel needs.
- Call for increased frequency on the Red and Blue Lines.
- There are few locations with shelters, which are especially important during the winter months for passenger comfort.

The plan also includes a Transit Needs Index (TNI) analysis, which does not identify any areas with a high TNI that are not adequately served by MACS.



Identified Roadway Needs from HSIP and Studies
FMATS Region, Alaska

Figure **3-5**

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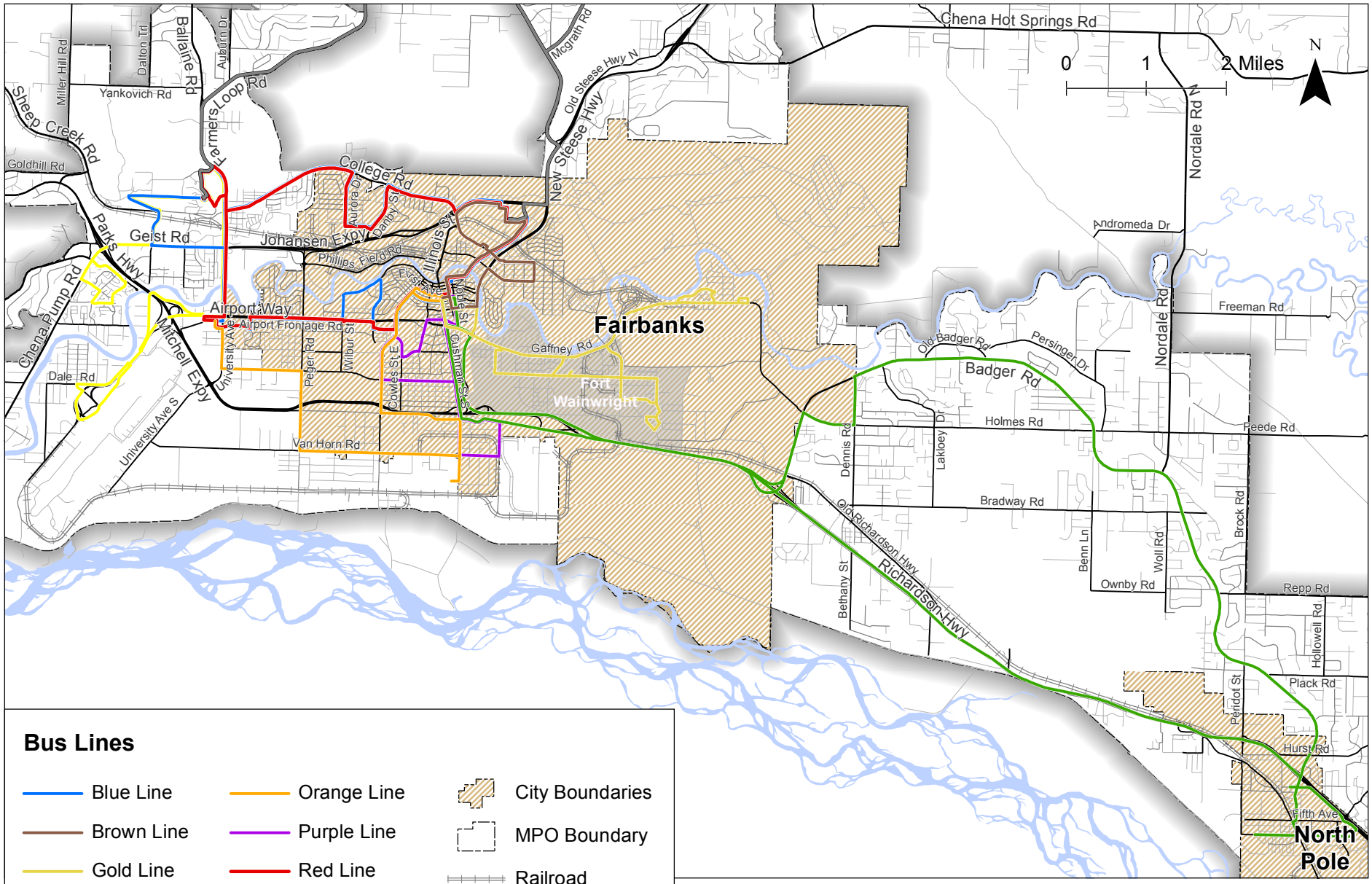

MACS Fixed Route Bus Lines
FMATS Region, Alaska

Figure
3-6

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PEDESTRIAN AND BICYCLE SYSTEM

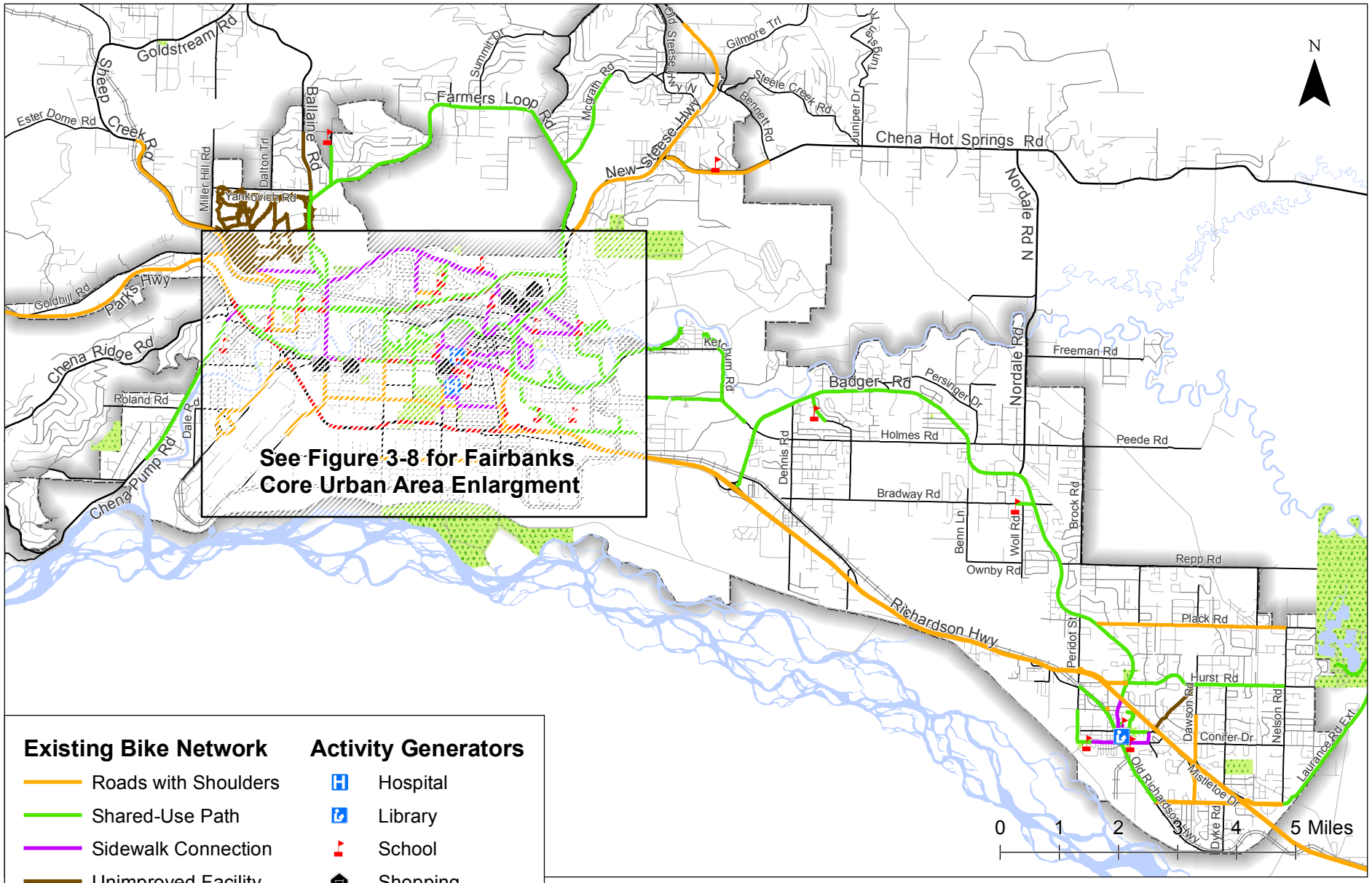
Pedestrian and bicycle facilities are an important component of a vibrant, healthy, and safe community. These facilities are utilized for a number of purposes. They provide residents of all ages and economic groups with the option of traveling without getting in a car, which is particularly important in an area that has identified air quality issues, such as Fairbanks. They also provide a safe and fun place for adults, children, and families to recreate within their community.

The most obvious pieces of a bicycle and pedestrian system are on-street bike lanes or shoulders, multi-use paths, and sidewalks. In addition, a complete street network, which typically resembles a grid pattern and has a high level of connectivity minimizes out-of-direction travel, which is important for pedestrians and bicyclists since they are typically slower modes of travel, especially over longer distances. Additionally, it provides alternate routes for these users so they may avoid traveling on higher-volume, higher-speed roadways. The presence of a collector system is essential to providing these alternate routes.

Climate Challenges

Wintertime weather can present an obstacle to the use of the pedestrian and bicycle system in northern climates, such as the Fairbanks area. Cold temperatures can make being outside generally unpleasant and snow and ice can make bicycling and walking difficult or even hazardous. The effects of snow are compounded when snow is plowed into the bicycle lane, shoulder, or sidewalk. Consequently design elements and maintenance procedures to counter these effects must be implemented in order to ensure that the system is accessible year-round. A planter strip in between the roadway and the sidewalk can store snow being removed from the roadway, as well as from the sidewalk. Maintenance-wise, snow removal is generally the best option for bikeways (Reference 4), as de-icing agents can damage bicycles and gravel can present hazards. Areas such as Minneapolis, Minnesota and Madison, Wisconsin have seen bicyclists and pedestrians continue to use their trails in the winter due to their plowing efforts. FMATS has considered designating a network of pedestrian facilities that will be maintained during the winter to a defined standard (e.g. snow removed within 72 hours of a snow event).

Use of the pedestrian and bicycle system by motorized vehicles, such as snow machines, is not addressed in this plan; however, it is included in other planning studies.



Existing Bike Network

- Roads with Shoulders
- Shared-Use Path
- Sidewalk Connection
- Unimproved Facility
- Bikes Prohibited
- MPO Boundary

Activity Generators

- Hospital
- Library
- School
- Shopping
- Parks

Bicycle Facilities and Bicycle Activity Generators FMATS Region, Alaska

Figure **3-7**

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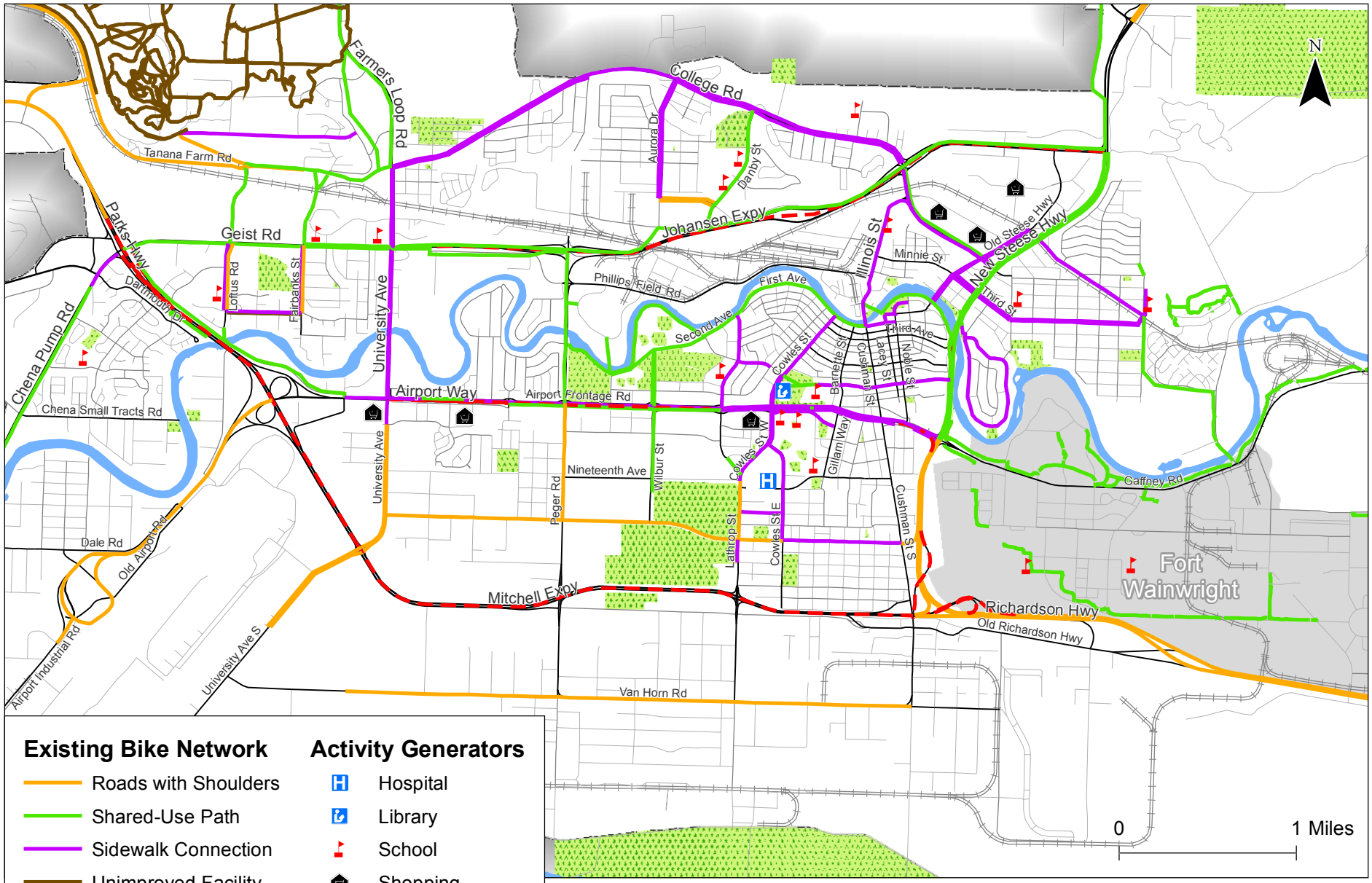

Existing Bike Network

- Roads with Shoulders
- Shared-Use Path
- Sidewalk Connection
- Unimproved Facility
- Bikes Prohibited
- MPO Boundary

Activity Generators

- Hospital
- Library
- School
- Shopping
- Parks

Bicycle Facilities and Bicycle Activity Generators
Faribanks Core Urban Area
Fairbanks, Alaska

Figure **3-8**

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Bicycle Facilities

In order to make bicycling a viable transportation form, bicycle facilities should connect residential areas to schools, retail areas, major attractions (e.g., parks, the Carlson Center), and employment centers. These areas are collectively called "activity generators" in this plan. Figures 3-7 and 3-8 display the existing bicycle network, and the locations of major activity generators throughout the FMATS area. Facilities where bicyclists are prohibited are also shown on the figures.

As Figures 3-7 and 3-8 show, there are a number of multi-use pathways in the FMATS area. Many of these pathways are located parallel to major roadway facilities and provide the opportunity for bicyclists to make longer regional trips while separated from high-volume, high-speed roadways (e.g., Johansen Expressway, Farmer's Loop Road, Steese Expressway). These facilities provide regional connectivity for commuter and recreational trips.

The network available to bicyclists in North Pole is generally well connected. Multi-use paths provide connections to the schools, and shoulder and pathways exist near many of the major roadways. Also, low volume roadways provide good connections within the City.

Sidewalks as Bicycle Facilities

Bicycle riding on sidewalks is permitted in Alaska, except in business districts or where a regulatory traffic control device prohibits it (Reference 5). Generally speaking, including sidewalks as a part of the designated bicycle network is discouraged. Sidewalks are typically designed for pedestrians, who travel at slower speeds and with different maneuvering abilities (i.e. narrow sidewalks with frequent obstacles make bicycling uncomfortable and force the rider to travel at slower speeds). Auto drivers are generally not looking for bicyclists, who are traveling at higher speeds than pedestrians, riding on the sidewalk at driveways and intersections. Also, riding on the sidewalk introduces conflicts with pedestrians, who travel at slower speeds and can change direction quickly. This degrades the experience for both types of users and increases the potential for a collision. Increasing the width of the sidewalk does not necessarily make it an acceptable bicycle route.

Existing Bicycle System Issues

Gaps and other issues on the priority bicycle network have been identified by the *FMATS Non-Motorized Transportation Plan* and updated by this plan to reflect completed projects. Issues are generally divided into the following categories:

- *Pedestrian Conflicts* – These are typically on streets where sidewalks are the designated bicycle routes and conflicts between bicyclists and pedestrians occur
- *Crash Issues* – Areas with a high concentration of bicycle-motor vehicle crashes
- *Driveway Conflicts* – Areas with frequent spacing of busy driveways
- *Maintenance Issues* – Locations where existing infrastructure are in need of repair
- *Bike Facility Needs* – Gaps in the existing system that should be filled

- *Bridge Crossing Issue* – Bridges that are difficult for bicyclists due to a lack of space or challenging access
- *Intersection Crossing Issue* – Identified concern about a difficult intersection crossing
- *Path Abruptly Ends* – Shared-use path ends without clear indication of where bicyclists should proceed

Further discussion on these issues can be found in Chapter 4 of this MTP and in the *FMATS Non-Motorized Plan*.

Pedestrian Facilities

To promote walking, continuous sidewalks should connect neighborhoods to activity generators and separate pedestrians from vehicular traffic. Activity generators for pedestrians include those previously mentioned for bicyclists as well as transit stops. A quality pedestrian network will provide for the following uses:

- Relatively short trips (under a mile) to major pedestrian attractors, such as schools, parks, open spaces, retail centers, churches, libraries, recreational centers, and community centers.
- Recreational trips, such as jogging or hiking.
- Commute trips, where mixed-use development is provided and people choose to live near where they work.
- Access to transit (generally trips around ¼-mile to bus stops).

Figure 3-9 shows the existing sidewalk and shared-use path network in the FMATS area.

Existing Pedestrian System Issues

Issues identified by the *FMATS Non-Motorized Transportation Plan* and updated by this plan to reflect completed projects are categorized as follows:

- *Sidewalks* – There are few gaps on high volume and/or speed roadways, indicating area agencies have done a good job ensuring the most critical facilities provide at least some sort of accommodation
- *Intersection Crossings* – Intersections with challenging crossing issues
- *Conflicts with Cyclists* – Streets on which cyclists use the sidewalk for riding

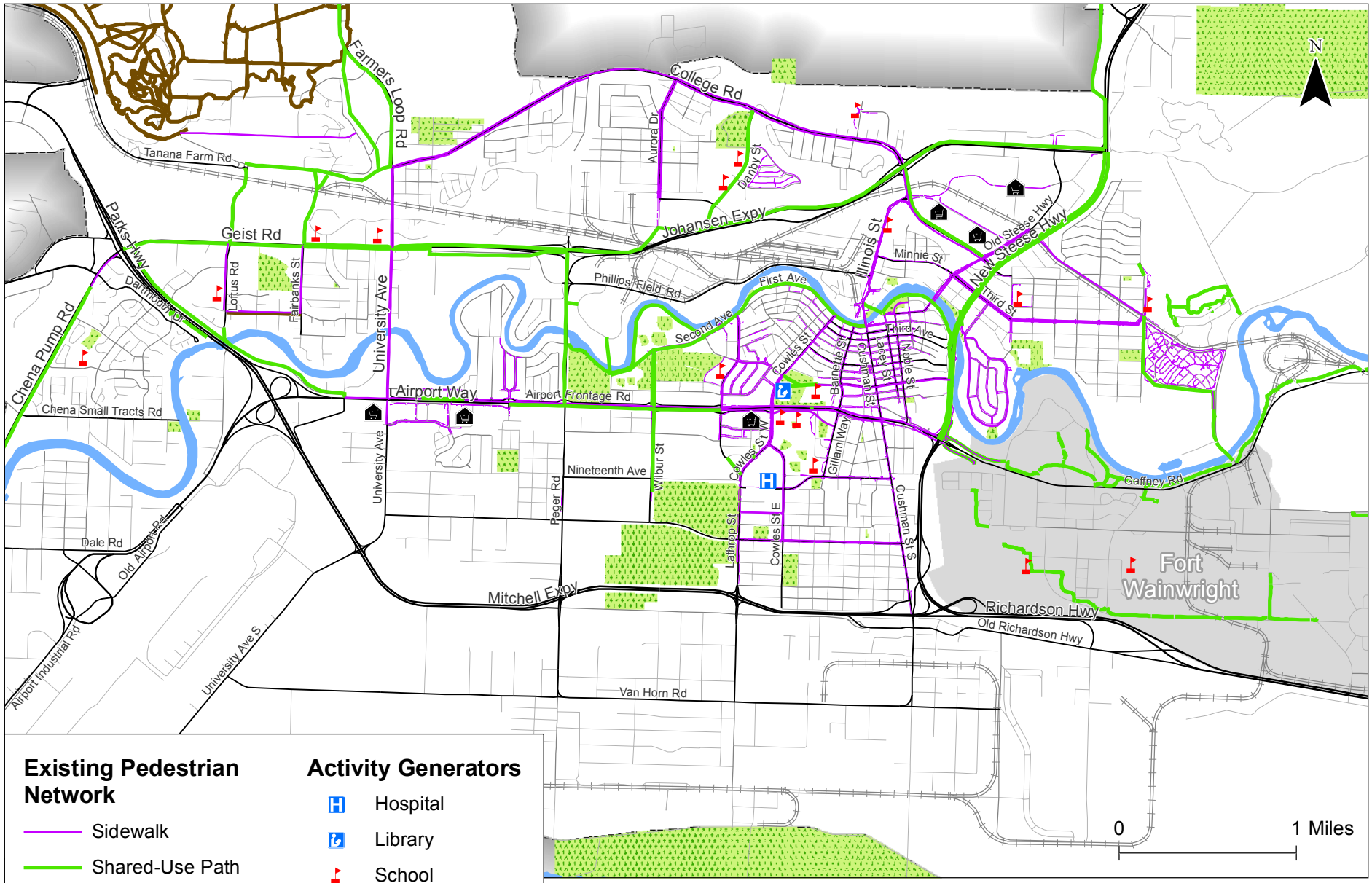
Further information about the information shown in the figures can be found in the non-motorized plan.

Other considerations include Americans with Disabilities ACT (ADA) compliance issues and Safe Routes to School. Fairbanks is undertaking efforts to improve its existing facilities to ADA standards. The Safe Routes to School program has inventoried and reviewed the areas within the immediate vicinity to most junior high and elementary schools in the Fairbanks North Star Borough.

AIR TRAVEL

Fairbanks International Airport (FAI) handles all passenger traffic into and out of the Fairbanks region. FAI is situated approximately four miles west of downtown Fairbanks and is owned and operated by ADOT&PF. The airport hosts a variety of passenger airlines and is a critical passenger and cargo hub for many Alaskan communities that are not accessible by highway or rail.

Figure 3-10 shows the number of passengers enplaned and deplaned at FAI over the last five fiscal years (FYs) and Figure 3-11 shows the amount of cargo enplaned and deplaned over the same period (Reference 6).



Existing Pedestrian Network

- Sidewalk
- Shared-Use Path
- Unimproved Facility
- MPO Boundary

Activity Generators

- Hospital
- Library
- School
- Shopping
- Parks

Pedestrian Facilities and Pedestrian Activity Generators, Fairbanks Core Urban Area Fairbanks, Alaska

Figure **3-9**

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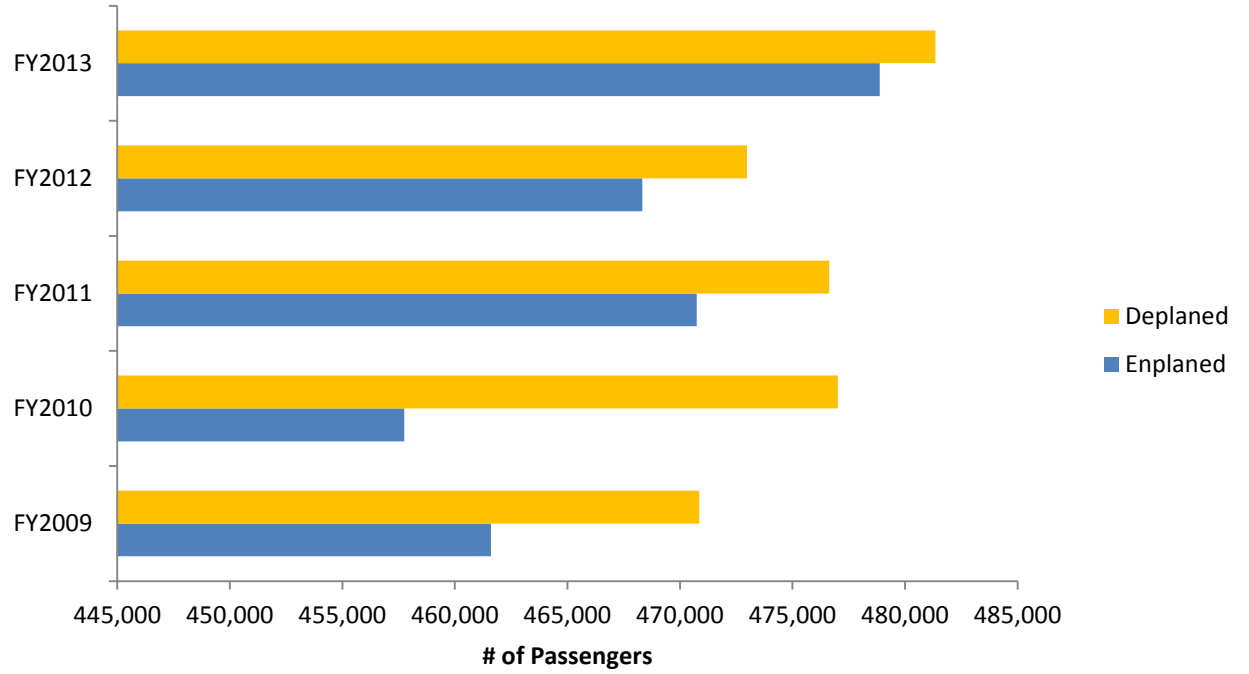


Figure 3-10 Number of Passengers Deplaned and Enplaned at Fairbanks International Airport

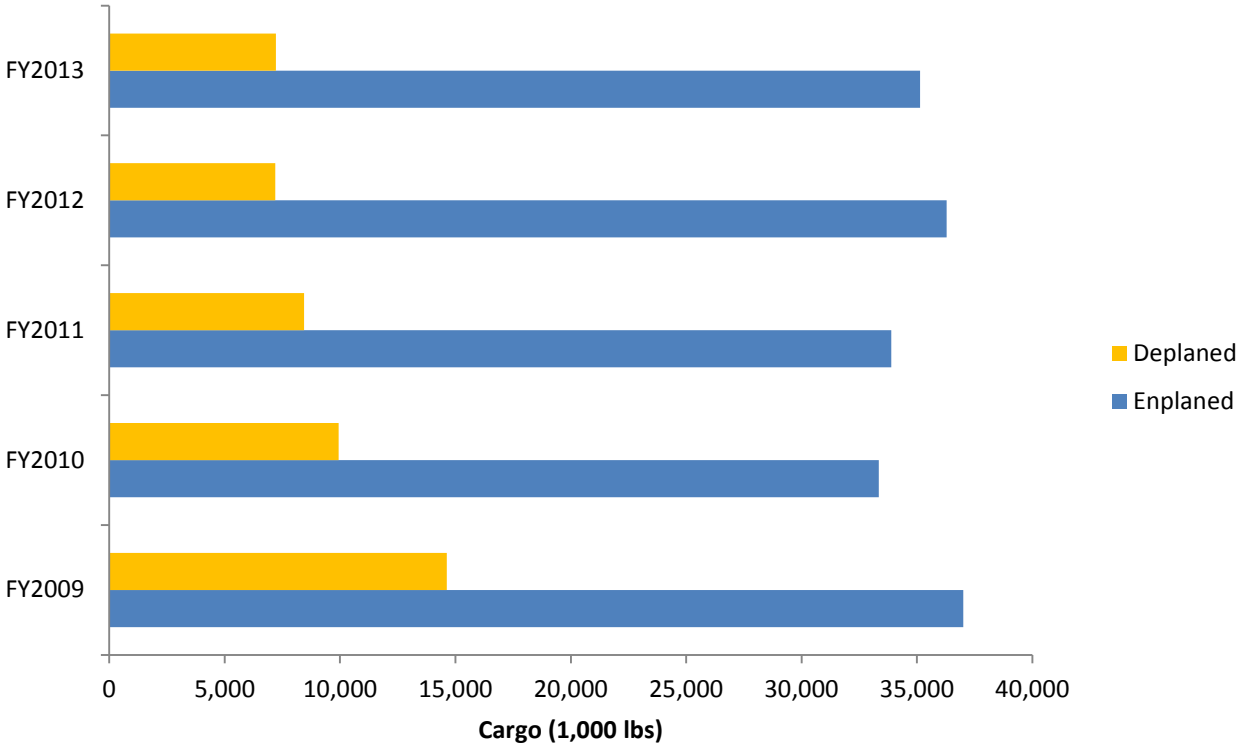


Figure 3-11 Cargo Deplaned and Enplaned at Fairbanks International Airport

The number of passengers passing through FAI has increased since FY 2009. The amount of cargo deplaning has decreased over that time period, while the amount of cargo enplaning has remained relatively steady.

FAI is undertaking a master plan currently. Once completed, this plan will outline a strategic vision for the future of the airport.

SECURITY

Security in the Fairbanks region can be defined as the protection of persons or property from intentional damage or destruction caused by vandalism, criminal activity, or terrorist events.

Facilities that are considered crucial or vital to security include elements of the system that are perceived or known to be most vulnerable. These tend to be at specific points and on connecting segments of the system. Examples of the crucial points on the system are bridges, interchanges, and intermodal facilities. Connecting segments that are considered to be vital to security are evacuation routes, state and interstate highways/freeways, transmission lines, and mainline freight and passenger rail lines. FMATS' role is to provide coordination among public and private entities whose direct responsibility is to guard the security of these facilities, ensure their continuous availability, and provide for their safe and efficient maintenance and operation during typical and extraordinary circumstances.

Critical roadways in the Fairbanks region include the Parks Highway, Mitchell Expressway, and Richardson Highway, which are National Highway System (NHS) and Strategic Highway Network (STRAHNET) routes. Other designated NHS routes in the region include Airport Way, Geist Road, Johansen Expressway, and the Steese Expressway. The Mitchell Expressway and Steese Expressway provide access to Fort Wainwright and the Fairbanks International Airport.

Significant multimodal and cargo facilities are also important to security. Within the Fairbanks region, these include:

- Three primary cargo airports: the Fairbanks International Airport (FAI), Eielson Air Force Base, and Ladd Army Airfield at Fort Wainwright
- The Alaska Railroad track
- The Trans-Alaska Pipeline

The roles and responsibilities of regional transportation providers, among other agencies, during emergency response are defined in the *Fairbanks North Star Borough Emergency Operations Plan* (EOP) and the *University of Alaska Fairbanks Emergency Operations Plan*. These plans outline roles for state, local, and borough government agencies.

FMATS also uses security as a Special Consideration in the scoring criterion for its TIP.

STATE OF THE SYSTEM

The proposed 2040 MTP Goals and associated objectives, as summarized in Chapter 2, were established for the purpose of gauging the effectiveness of the MTP and the MPO within the FMATS Metropolitan Planning Area (MPA). The existing system was evaluated against the objectives to serve as a baseline for future system evaluation. FMATS will evaluate the system against the objectives annually to measure the effectiveness of transportation projects in the short- and long-term to ensure that the goals established in this Plan are being incrementally achieved.

A number of the suggested objectives in this Plan are either not available at this time or meant for long term analysis and were thus not considered in this report.

Objectives in Support of Goal 1

Coordinate planning efforts to provide an integrated transportation and land use system that embodies smart growth principles and stimulates the economy to grow.

The objectives supporting Goal 1 are policy-focused and are implemented as local land use plans are updated over time. Therefore, no Goal 1 objectives were evaluated at this time.

Objectives in Support of Goal 2

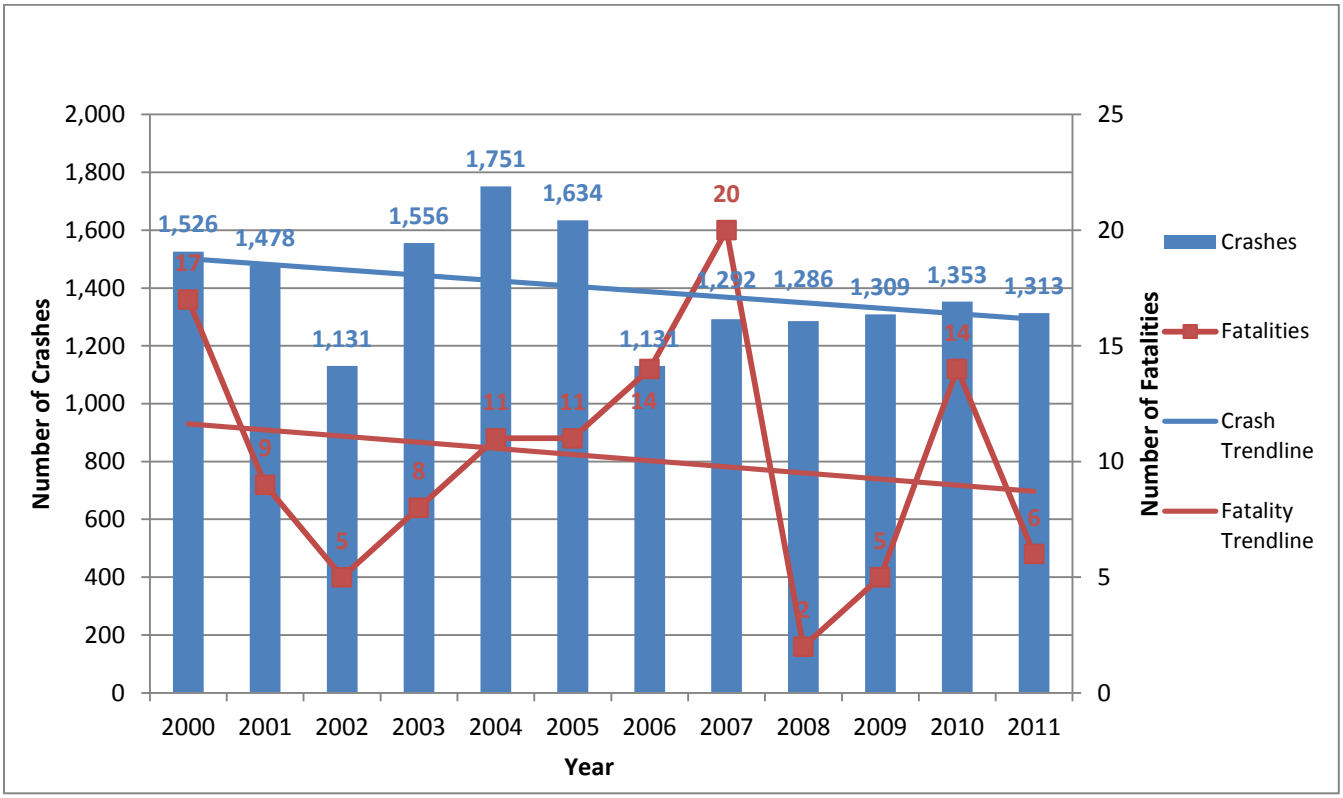
Provide a safe, efficient, secure, and interconnected multi-modal transportation system for all users.

Objective 2.1: Reduce the frequency and severity of crashes by X% by year YYYY.

In order to provide for a safe, efficient, secure and interconnected transportation system for all users, the total crashes, severity of crashes, and frequency of crashes in the FMATS MPA were reviewed. The crash data taken into consideration for this performance measure includes all of the reported crashes, either from law enforcement or individuals, on all routes in the FMATS MPA.

According to the crash data provided by ADOT&PF, Northern Region, there appears to be a decreasing trend in total recorded crash frequency in the FMATS MPA from 2000 to 2011. A decreasing trend in the total crash related fatalities in the FMATS MPA from 2000 to 2011 is apparent as well. The total accidents and fatalities in the FMATS MPA from 2000 to 2011 are shown in Figure 3-12.

Figure 3-12 Total Crashes and Fatalities in the FMATS Area by Year



When considering the total number of crashes in the FMATS MPA that occurred from 2000 to 2011, there are certain characteristics that are exhibited by the majority of crashes. The majority of total crashes occur on routes that are not on the National Highway System (NHS), which is evident by the 74.1% of total crashes that occurred on non-NHS routes. There have also been a higher number of crashes in the FMATS MPA during the fall and winter than during the spring and summer, with 79.4% of the total crashes in the FMATS MPA occurring between September 21 and March 21 of each calendar year. A detailed analysis of select crash characteristics in the FMATS MPA from 2000 to 2011 is shown in Table 3-2.

The crash types reported in the FMATS MPA are disaggregated into five categories, as follows:

- Multi-vehicle;
- Running off road/hitting fixed object;
- Animal/moose;
- Bicycle and pedestrian; and,
- Other.

The majority of the total crashes (68%) are between two or more vehicles. These multi-vehicle crashes include angle, head-on, rear-end, and sideswipe crashes. The second most frequent crash type experienced in the FMATS MPA are vehicles running off the road or hitting a fixed object, accounting for 19% of the total crashes. The next three most common types of crashes in the FMATS MPA were 1) animal related, 2) other, and 3) bicyclist and pedestrian related, with the percentages of each crash type 7%, 4%, and 2% respectively. A complete breakdown of the total crashes in the FMATS MPA by type are shown in Figure 3-13.

Table 3-2 Crashes in the FMATS MPA by Year: Select Characteristics

Year	Total Reported Crashes	Non-NHS Crashes	Non-NHS Crashes Percentage	Fall and Winter Crashes (Jan. 1 – March 20; Sep. 21 – Dec. 31)	Fall and Winter Crashes Percentage	Fatalities	Major Injuries
2000	1,526	1,109	72.7%	1,157	75.8%	17	47
2001	1,478	1,090	73.7%	1,076	72.8%	9	44
2002	1,131	843	74.5%	924	81.7%	5	72
2003	1,556	1,186	76.2%	1,270	81.6%	8	62
2004	1,751	1,249	71.3%	1,418	81.0%	11	56
2005	1,634	1,189	72.8%	1,266	77.5%	11	57
2006	1,131	876	77.5%	906	80.1%	14	44
2007	1,292	942	72.9%	1010	78.2%	20	61
2008	1,286	973	75.7%	973	75.7%	2	32
2009	1,309	950	72.6%	1051	80.3%	5	48
2010	1,353	993	73.4%	1,162	85.9%	14	60
2011	1,313	1,012	77.1%	1114	84.8%	6	75
Total	**16,760**	**12,412**	**74.1%**	**13,327**	**79.5%**	**122**	**658**

Figure 3-13 Total Crashes in FMATS 2000 - 2011: By Type

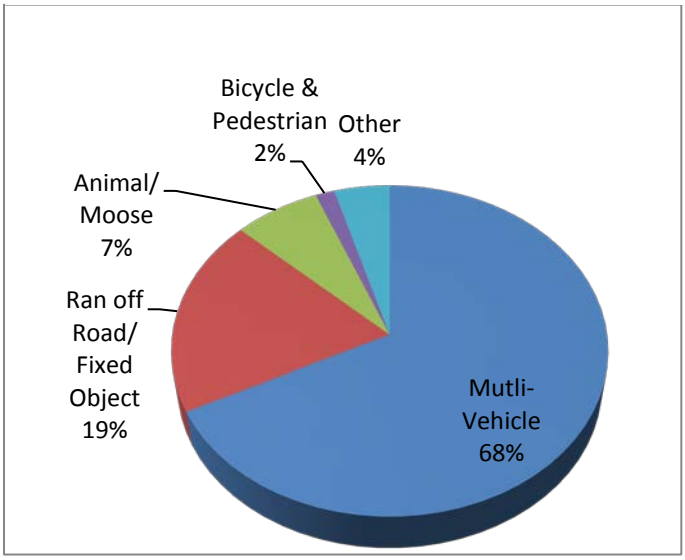
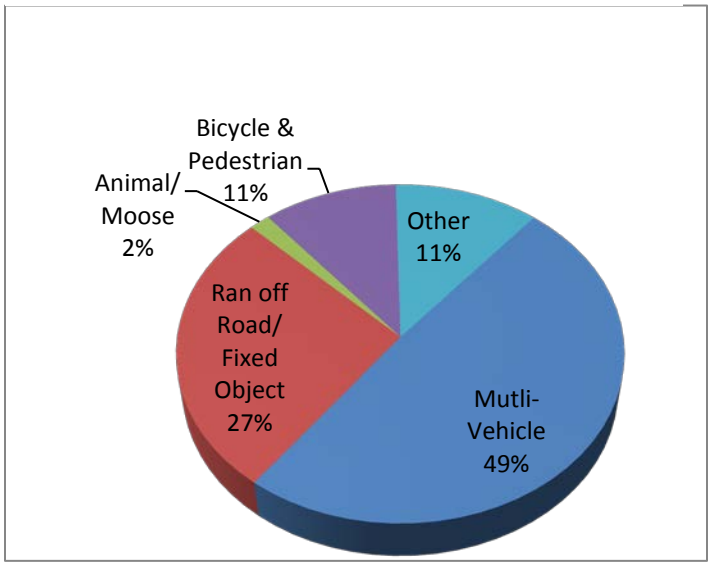


Figure 3-14 Total Fatalities in FMATS 2000 - 2011: By Type



While multi-vehicle crashes account for the majority of total crashes (68%), they only account for 49% of the total fatalities in the FMATS MPA. Crashes that involve a vehicle running off the road account for 19% of total crashes, but 27% of the fatalities. The type of crashes which saw the largest percentage differential of total fatalities compared to total crashes were bicycle and pedestrian related crashes, making up only 2% of total crashes but accounting for 11% of fatalities. This fatality-related trend involving bicycles and pedestrians seems to be increasing with 8 of 13 bicycle and pedestrian related fatalities occurring between 2002 and 2008. A breakdown of the total fatal crashes in the FMATS MPA are shown in Figure 3-14.

Considering the relatively recent formation of the MPO in 2003, it is difficult to establish a baseline condition relating to crashes in the FMATS MPA. However, in terms of providing for a safe, efficient, secure, and interconnected transportation system for all users, there is a decreasing trend in the number of total crashes since 1994 in the FMATS **MPA.**

As major transportation projects are constructed within the FMATS MPA, it would be beneficial to track the specific crashes along the newly constructed or rehabilitated sections of roadway. Tracking specific roadway metrics before and after projects within the FMATS MPA are completed would indicate the safety improvements along specific sections of roadway, if they exist.

Objective 2.3 Reduce the number of structurally deficient bridges by X in Y years.

Based on the 2013 Alaska Bridge Report developed by ADOT&PF, three of the 69 bridges in Fairbanks are structurally deficient. Table 3-3 lists the structurally deficient bridges in Fairbanks with their status of repair.

Table 3-3 Fairbanks Structurally Deficient Bridges

Bridge Num	Name	Route	Status of Repair
0209	Noyes Slough	Aurora Dr	Planning
0263	Chena River	University Ave	Design (2012-2015 TIP)
0532	Chena River	Wendell St	Design

As shown in Table 3-3, all of the bridges have projects for repairs in process.

2.4 Reduce the number of gaps in the transportation system by X% in Y years.

As documented in previous sections, the bicycle and pedestrian system has a number of gaps. Nine roadways are identified as needing bicycle facilities and another 16 roadways are identified as needing pedestrian facilities. The 2013 Transit Plan included a Transit Needs Index (TNI) analysis, which did not identify any gap areas with a high TNI that are not adequately served by the Metropolitan Area Commuter System (MACS). Further analysis of these gaps and issues are presented in Chapter 4.

Objectives in Support of MTP Goal 2 Not Evaluated at This Time

2.2 Develop and maintain an inventory of critical infrastructure and regularly update the regional emergency response plan.

2.5 Increase the percentage of the transportation system that is equipped with two or more modes by X% in Y years and three or more modes by Y% in Z years.

2.6 Provide major destinations (as defined in the MTP) with at least two multimodal routes to the regional arterial network by year YYYY.

Objectives in Support of Goal 3

"Protect the environment, improve air quality, and promote energy efficiency."

Data supporting these objectives are not readily available, thus none of the objectives supporting Goal 3 were evaluated at this time.

Objectives in Support of Goal 4

"Optimize the utility and lifespan of the existing transportation system."

No objectives in support of MTP Goal 4 were evaluated at this time.

FMATS did, however, complete a number of projects under the Preventive Maintenance Program, as well as rehabilitation projects that extended the lifespan of the existing transportation system. A list of the projects included in the FMATS Preventive Maintenance Program in which construction funding was obligated from 2009 to 2014 are shown in Table 3-4, and a list of projects that are programmed in the 2012-2015 TIP Amendment #6 are shown in Table 3-5.

Table 3-4 FMATS Preventive Maintenance Program and Rehabilitation Projects 2009 – 2014

Project Name	Obligated Construction Funding 2009 - 2014
Fairbanks/North Pole Load Center Upgrades Stage II (63170)	$616,470
FMATS Area Crack Sealing FFY2010 (63442)	$524,071
FMATS Area Signal Upgrades FFY2010 (63446)	$765,420
FMATS Area Surface Upgrades FFY2011 (63814)	$1,216,738
FMATS Area Surface Upgrades FFY2013 (62358)	$1,571,778
FMATS Area Surface Upgrades FFY2014 (63372)	$1,936,032
FMATS Bike Path Rehabilitation (63448)	$325,921
FMATS Preventative Maintenance FFY12-14 (61324)	$450,000
FMATS Preventative Maintenance Program (76717)	$235,000
FMATS Surface and Approach Upgrades (61888)	$1,790,005
FNSB Surface and Approach Upgrades (63172)	$900,000
FNSB Surface Upgrades FFY2010 (63444)	$522,860
Nordale Road Pavement Rehabilitation (63158)	$2,249,250
North Pole Citywide Pavement Rehabilitation (62023)	$1,006,494
Phillips Field Road Upgrade (65199)	$3,921,433
South Cushman Street Resurfacing (62687)	$2,866,098
South Cushman: Mitchell – Sanduri (63289)	$4,328,000
Van Horn Road Rehabilitation/Safety Improvements (61175)	$276,901
Total: 18	**$25,502,471**

Source: FMATS List of Federally Obligated Projects FFY09 - FFY14

Please Note: The funding analysis from FFY09 – FFY14, shown in Table 3-4, only took into account obligated construction (phase 4) funding.

Table 3-5 FMATS Preventive Maintenance Program and Rehabilitation Projects in the 2012 - 2015 TIP Amendment #6

Project Name	Programmed funding
College Road Rehabilitation (University to Danby) & Intersection (62164)	$8,299,900
Gillam Way Rehabilitation (63784)	$283,000
Total: 2	**$8,582,900**

Source: FMATS 2012 – 2015 TIP Amendment #6

Please Note: The funding analysis from FFY12 – FFY15, shown graphically in Table 3-5 took into account programmed funding for all project phases. Only reports funds programmed for the 2014 and 2015

Objectives in Support of Goal 5

Ensure adequate transportation facilities to support economic development.

Objective 5.1 Reduce the number of identified major freight bottlenecks by X in Y years.

Through discussion with freight stakeholders, a number of issues were identified for effective freight movement. The majority of the issues relate to the ability to make left and right turns due to geometric constraints, lack of gaps, or signal timing. Other issues include overhead mast arm clearance and pedestrian and bicycle conflicts.

Objective 5.2 Reduce the number of at-grade rail crossings that significantly limit freight rail operations by X in Y years.

Currently, there are 68 rail crossings that are located within the FMATS MPA. Of these crossings, 3 are separated and 65 are at grade. These crossings are owned and maintained by several organizations, including the City of Fairbanks, the Fairbanks North Star Borough, ADOT&PF, the military, private, the Alaska Railroad Corporation (ARRC), and "orphan" crossings.

Of the 65 at-grade crossings, 45 are passive control type. Passive control types have signs and pavement markings in advance of the crossing. Active control types include flashing lights or flashing lights with gates. While no crossing will be changing control type, all 65 at grade crossings will be receiving updated signage and delineation to comply with current MUTCD standards.

A summary of the total rail crossings in the FMATS MPA are shown in Appendix D. (Source: Alaska Railroad Corporation)

Chapter 4 – Future Needs

CHAPTER 4 – FUTURE NEEDS

Future needs are developed for the transportation system based on the existing conditions assessment, planned improvements, and forecast transportation conditions. Needs may arise out of safety, security, mobility, connectivity, and/or accessibility issues. This chapter organizes the identified future needs by mode: roadway (auto), transit, bicycle, and pedestrian. Freight needs are discussed in detail in Chapter 6.

IDENTIFIED ROADWAY FACILITIES

The primary sources of future roadway needs include the 2035 MTP, completed and current studies, and the forecast year 2040 travel demands that were developed through a regional travel demand model. These demands were then evaluated to determine where additional capacity may be needed beyond what is currently planned. The following summarizes this process.

Travel Demand Model Update

A new travel demand model has been constructed for the FMATS region that replaces the model developed by Dr. Ming Lee of the University of Alaska-Fairbanks (UAF). The new model represents the roadway network that exists today, along with the households and employment that were present in 2013. The model has been calibrated to measured traffic volumes taken in 2013. Estimates of new jobs and households expected by 2040 were developed by an expert panel of local professionals and were assigned to areas within the region where growth is thought to most likely occur. The panel included FMATS, FNSB, and ADOT&PF planning staff and real estate experts. Finally, the list of projects contained in the 2035 FMATS MTP were added to the existing roadway network in the model and a 2040 travel demand forecast was produced.

Figures 4-1 and 4-2 depict the total growth for housing and employment, respectively. The number of households is expected to increase by 29 percent, from about 34,600 to 44,700, and the number of jobs is forecast to increase by 21 percent, from about 46,800 to 56,600. While the percentages are not equal, they ultimately yield a jobs-household ratio of approximately 1.3, which is fairly typical for a metropolitan area.

Figure 4-1 Total Household Growth (2013-2040)

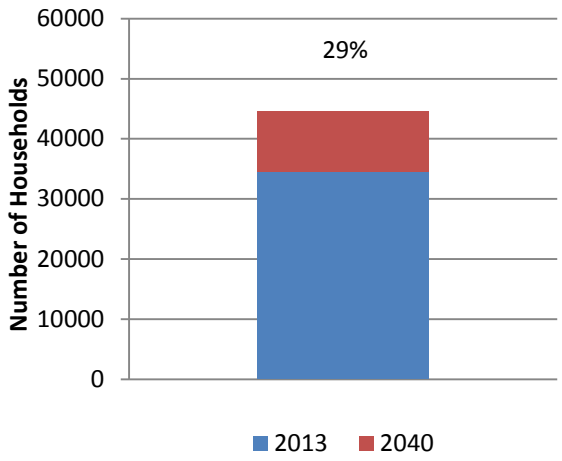
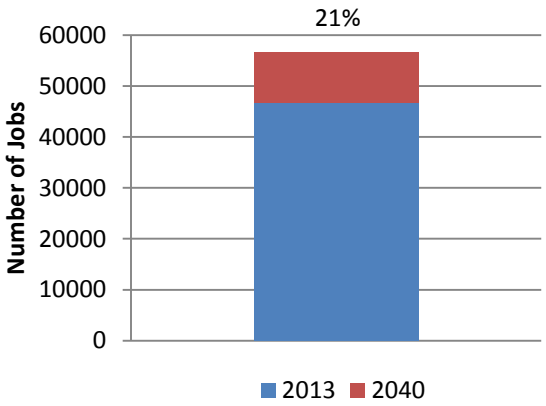


Figure 4-2 Total Employment Growth (2013-2040)



Vehicle Volume Growth

Figure 4-3 shows the 2040 ADT link volumes for selected roadway segments and Table 4-1 shows growth rates on select roadway sections.

Future Roadway Needs Analysis

Roadways Requiring Additional Capacity after Planned Improvements

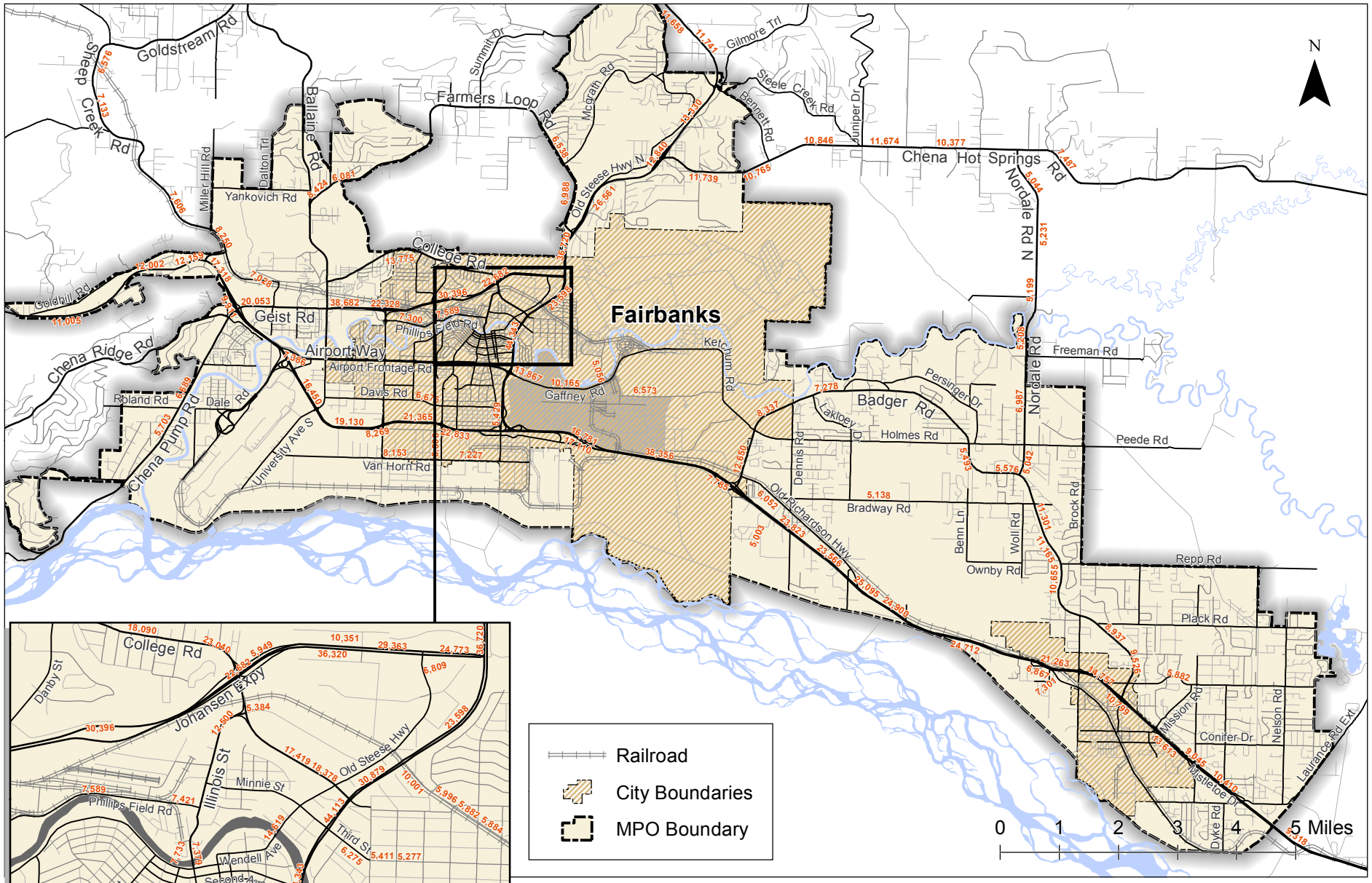
Future capacity needs have been identified on specific roadways based on their forecast future volume-to-capacity ratio (V/C). This analysis assumes that all of the planned, financially constrained projects from the 2035 MTP have been constructed by 2040. Therefore, this analysis identifies locations that may require a greater level of improvement beyond what is proposed in the 2035 MTP.

A number of improvement concepts have arisen since the 2035 MTP was adopted and have been assumed in the forecast. These additional projects are anticipated to be constructed in the next 25 years and have some effect on capacity of the roadway system. Table 4-2 lists the non-MTP project locations, descriptions, and effects on capacity.

As Table 4-1 shows, traffic volumes are generally expected to grow at annual rates under 2% per year, and in most instances, under 1% per year.

Table 4-1 2013-2040 Growth Rates on Select Segments

Roadway	Segment	2013 ADT Volume	2040 ADT Volume	Annual Growth Rate (%)
Mitchell Expressway	West of Peger Road	14,000	19,200	1.38
Johansen Expressway	East of Peger Road (Aurora Junction)	27,000	34,400	1.02
Steese Expressway	South of 3rd Street	35,000	44,400	0.99
Richardson Highway	West of Old Richardson (Fairbanks)	25,000	34,400	1.39
	East of Badger Road (North Pole)	13,000	13,600	0.17
Airport Way	East of Wilbur Street	23,000	26,700	0.60
College Rd	East of Johansen Expressway	15,000	17,500	0.62
University Avenue	North of Airport Way	18,000	22,700	0.97
Peger Road	North of Airport Way	19,500	24,200	0.89
S Cushman St	North of 23rd Avenue	10,600	12,500	0.66



Future Year 2040 Volumes (ADT)
FMATS Region, Alaska

Figure
4-3

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Table 4-2 Non-MTP Projects Included in Analysis

Location	Project Description	Effects on Capacity
Dennis Rd	Extend Dennis Road from Badger Road to Seawolf Drive	Increases Capacity
Doyon St	Add new minor collector street	Increases Capacity
Cushman St	Change Cushman Street from 3-lanes northbound to 2-lanes northbound from 1st Ave to 10th Ave	Reduces Capacity
Cushman St Bridge	Change Bridge from 3-lanes northbound to 2-lanes northbound	Reduces Capacity
Richardson to Old Richardson	Remove the existing off-ramp in conjunction with interchange improvements (east of Robert Mitchell Expy Interchange)	Reduces Capacity
Richardson to Old Richardson	Convert to grade separated interchange with Old Richardson Hwy	Increases Capacity
Richardson Hwy	Add 3rd southbound lane from Airport Road/Gaffney Road to Robert Mitchell Expressway	Increases Capacity
Steese Expressway	Remove the west leg of Trainor Gate road and Old Steese Hwy	Reduces Capacity
Steese Expressway	Convert to grade separated interchange at Airport Way/Gaffney Road and Steese Expressway	Increases Capacity
Farmers Loop Rd	Convert to grade separated interchange at Farmers Loop Road and Steese Expressway	Increases Capacity
Old Steese Hwy	Convert to 5-lane section between Johansen Expressway and Trainor Gate Road	Increases Capacity
Johansen Expressway	Add 3rd westbound lane between College Road and Steese Expressway	Increases Capacity
Baranof Ave	Realign College Road to create a 4-legged intersection at Hamilton Ave and Baranof Ave	Increases Capacity
Baranof Ave	Reclassify Baranof to minor arterial between Hamilton and Trainor Gate	Increases Capacity
Old Steese Hwy	Realign Old Steese Highway with Farmers Loop Extension at Farmers Loop Road and install a 2-lane roundabout at intersection	Increases Capacity
Birch Hill Rd	Realign Birch Hill Road with City Lights Boulevard at Fairhill Drive	Increases Capacity
Steese Expressway	Convert to grade separated interchange at Steese Expressway and Johansen Expressway	Increases Capacity
Trainor Gate	Convert to one-way westbound only between Steese Highway and Old Steese Highway	Reduces Capacity

For planning purposes, ADOT&PF maintains an operational standard of V/C less than 0.90 for its roadways. Table 4-3 shows those segments with a future V/C of 0.90 or higher. All reported V/C are from the peak p.m. hour; the peak a.m. hour has no links with a V/C over 0.90.

Table 4-3 Segments with 2040 V/C of 0.90 or Higher With Planned Improvements

Roadway	Segment	Direction	Future V/C Range
Richardson Highway	East of Mitchell Expy EB on ramp	EB	1.0-1.2
College Road	Old Steese Hwy to Steese Hwy	EB	0.9-1.0
Peger Road	30th Ave and Van Horn Rd	NB	0.9-1.0
Cushman Street	23rd Ave to 25th Ave	SB	0.9-1.0
	25th Ave to 26th Ave	SB	1.0-1.2
	26th Ave to 28th Ave/Mitchell Expy On-Ramp	SB	0.9-1.0
	30th Ave to 32nd Ave	NB	1.0-1.2
	32nd Ave to Bidwell Ave	NB	0.9-1.0
Steese Expressway	South of Farmer's Loop Rd	NB	1.0-1.2
	North of Johansen Expy	**NB**	**>1.2**
	Trainor Gate to College Rd	NB	1.0-1.2
	College Rd and 3rd St	NB/SB	>1.2
	3rd St and 10th Ave	NB	1.0-1.2
		SB	**>1.2**
	10th Ave to Airport Way	SB	1.0-1.2
	South of 10th Ave	NB	1.0-1.2
	North of Airport Way	NB	0.9-1.0
	South of Airport Way	SB	0.9-1.0
Johansen Expressway	Merhar Ave to Hunter St	EB	1.0-1.2
	Hunter St to Old Steese Hwy	EB	0.9-1.0

NB=Northbound, SB=Southbound, EB=Eastbound, WB=Westbound

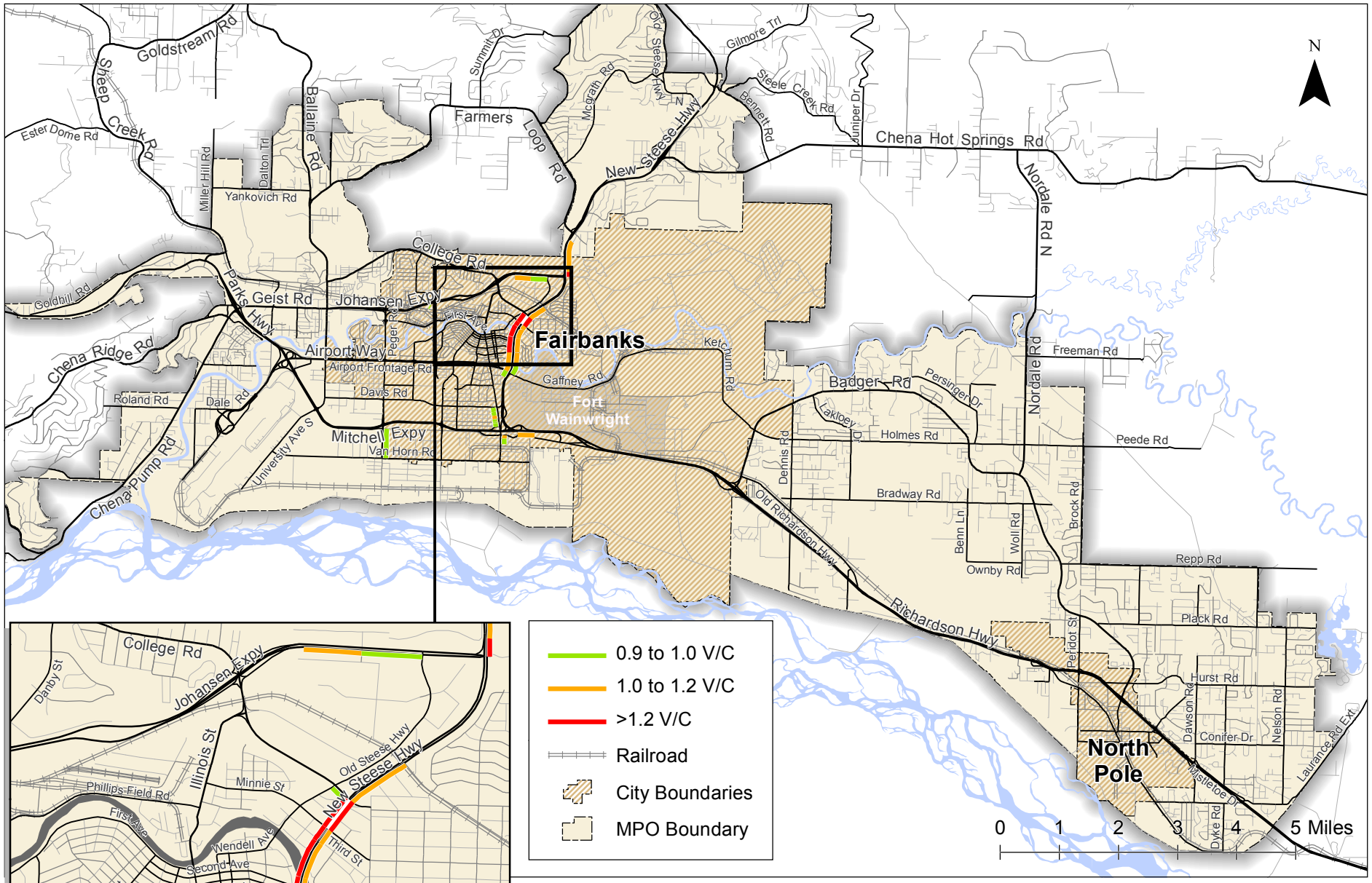
As shown in Table 4-3, there are 22 segments that are forecast to have a V/C ratio at or above 0.90 by 2040. Many of these segments currently have V/C between 0.90 and 1.0. Figure 4-4 shows the roadway segments that are expected to have V/C at or above 0.90 in 2040.

There are three segments where the V/C is forecasted to be over 1.20 (as indicated by the bold text in Table 4-3). These locations are noteworthy since congestion will be significant. All five of the roadway segments in this category are on the Steese Highway.

Other Roadway Needs

Other improvements or considerations not relating to V/C on the roadway system are as follows:

- Investigate high crash rate areas that don't have planned projects; and,
- Revisit areas where planned projects need to be clarified or reprioritized.



Future Year 2040 V/C of 0.90 and Higher
FMATS Region, Alaska

Figure **4-4**

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TRANSIT SYSTEM

The future needs of the transit system are arrived at through a review of previous plans, including (1) the 2035 MTP and the 2013 *Fairbanks North Star Borough Short & Long Range Transit Plan*, (2) a density analysis based on forecast population and employment figures in each transportation analysis zone (TAZ) in the travel demand model, (3) feedback from FMATS Technical Committee members and the general public, and (4) needs identified in the existing conditions analysis. These needs include specific needs at certain locations, area needs for sections of FMATS, and general needs that apply to all transit service.

In Figures 4-5 and 4-6, current MACS routes are overlaid on forecast 2040 employment and household density forecasts, respectively, in order to identify areas that may be underserved by transit in the future. An analysis of the information reveals that the current transit system serves what is forecast to be the densest areas of the FMATS region, which are largely concentrated around the Fairbanks downtown core area.

General Needs

These general needs relate to the transit system as a whole and apply to multiple or all routes:

- Provide service on Sundays;
- Improve headways on Red and Blue Lines; and,
- Improve bus stop shelters and amenities.

BICYCLE AND PEDESTRIAN SYSTEM

Future bicycle and pedestrian needs have been determined by identifying issues that are not addressed in the current MTP. The gaps and issues identified in this process come from an overview of the *FMATS Non-Motorized Transportation Plan,* existing conditions analysis, and feedback from the FMATS Technical Committee at a February workshop and the general public at a February open house.

Figures 4-7 through 4-10 show the bicycle and pedestrian system issues. The majority of these needs involve pedestrian and bicycle conflicts from sharing facilities, lack of shoulder or sidewalk facilities along a roadway, or in an area where bicycle activity, pedestrian activity, and/or traffic conditions may warrant their presence.

Specific Needs

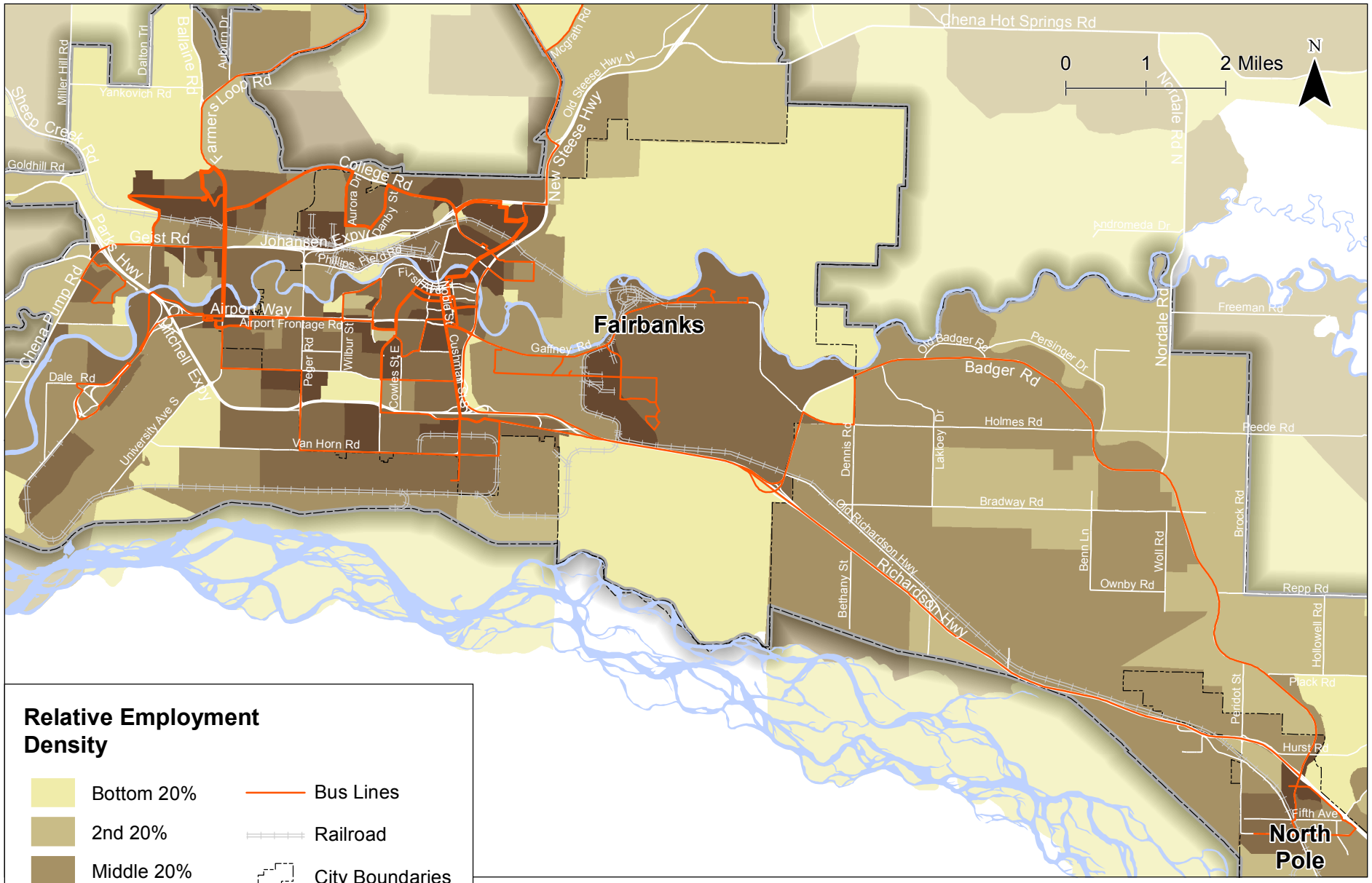
Based on an evaluation of the existing system, future growth, and public input, bicycle and pedestrian connections and improvements are needed to the following facilities:

- Geist Road (Parks Highway to University Avenue)
- Airport Way (University Avenue to Steese Highway)
- Peger Road Bridge
- Johansen Bike Path

A number of roadways are important connections for bicycles but lack adequate facilities and planned improvements to accommodate and promote bicycle use. These include:

- College Road (University Avenue to Caribou Way and Johansen Expressway to Steese Highway)

- University Avenue (Thomas Street to College Road)
- Geist Road (Parks Highway to University Avenue)
- Airport Way (University Avenue to Steese Highway)
- Bradway Road (Dennis Road to Benshoof Drive)



MACS Fixed Route Bus Lines and Relative Employment Densities for 2040 (per TAZ) FMATS Region, Alaska

Figure **4-5**

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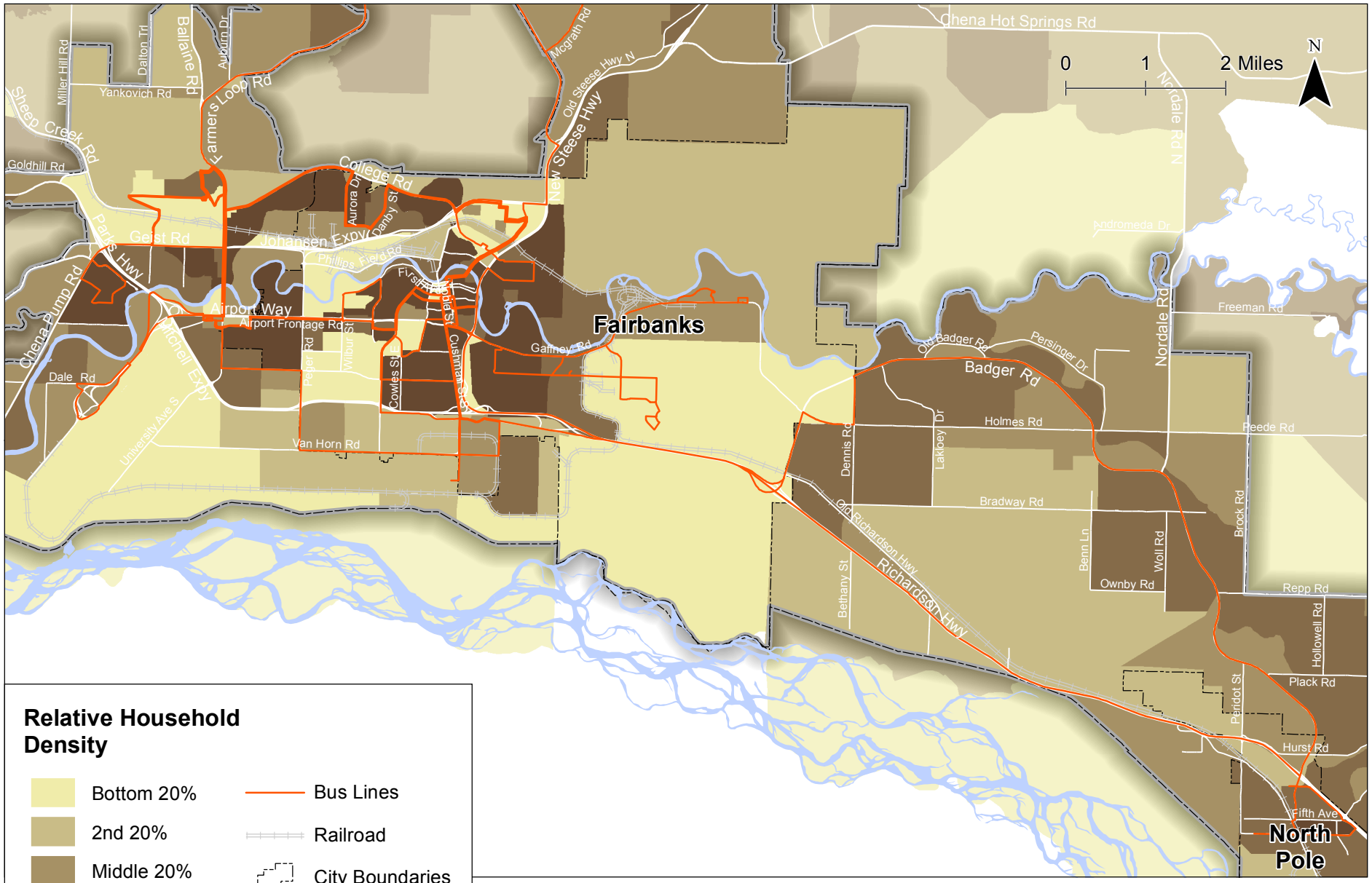

MACS Fixed Route Bus Lines and Relative Household Densities for 2040 (per TAZ) FMATS Region, Alaska

Figure **4-6**

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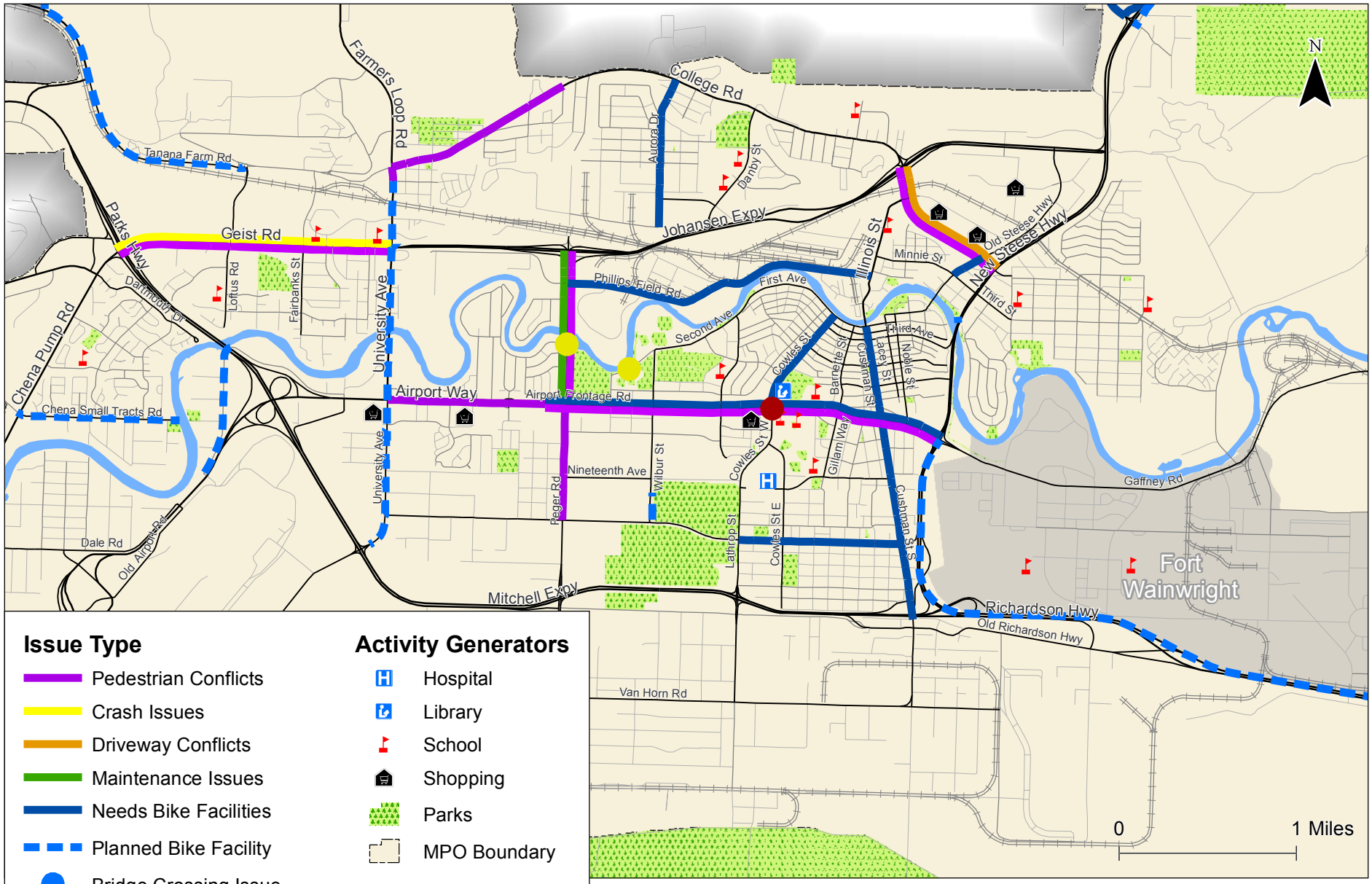

Issue Type

- Pedestrian Conflicts
- Crash Issues
- Driveway Conflicts
- Maintenance Issues
- Needs Bike Facilities
- Planned Bike Facility
- Bridge Crossing Issue
- Intersection Crossing Issue
- Path Abruptly Ends

Activity Generators

- Hospital
- Library
- School
- Shopping
- Parks
- MPO Boundary

Gaps and Other Issues on Priority Bicycle Network Fairbanks, Alaska

Figure **4-7**

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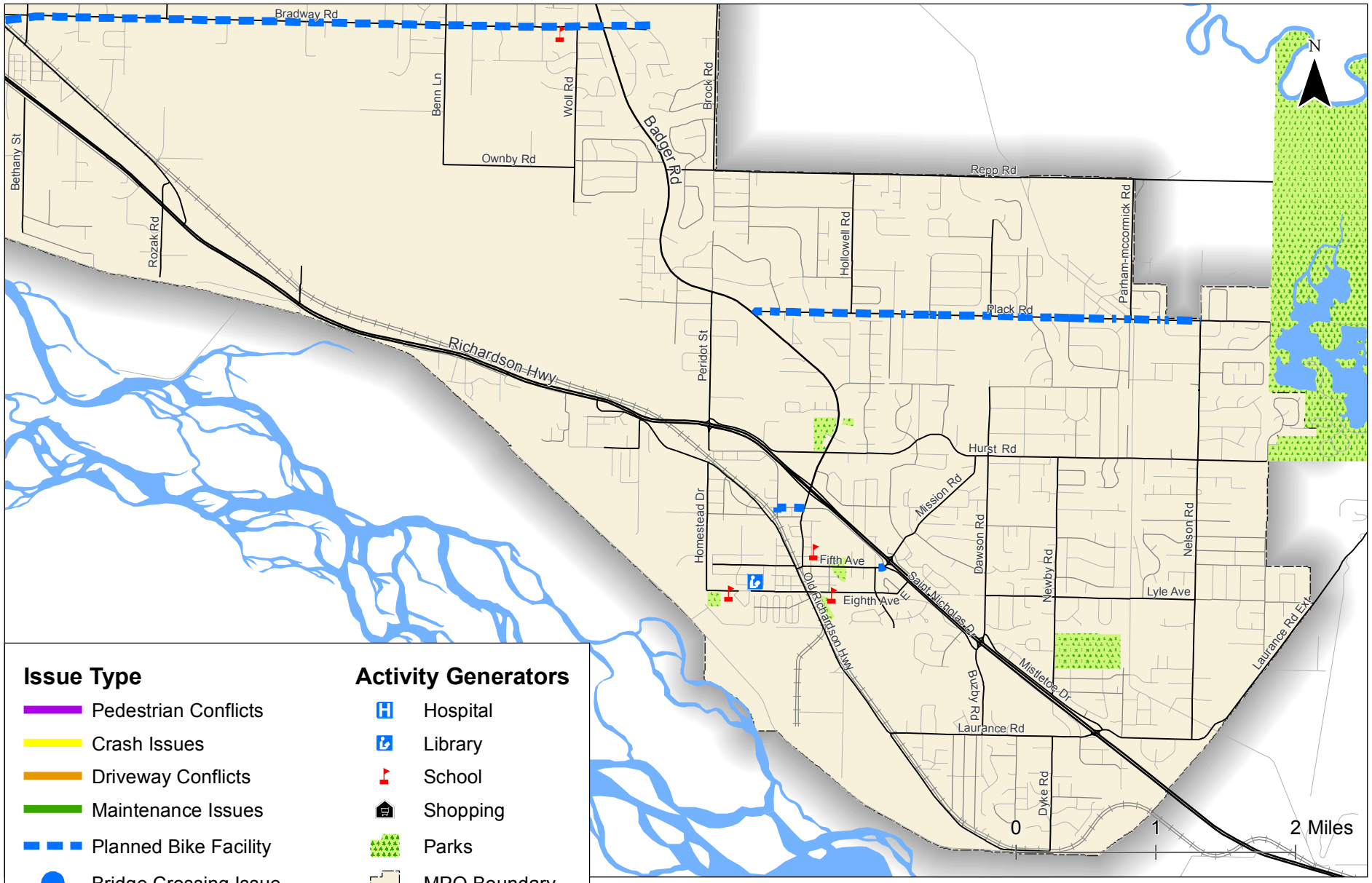

Issue Type

- Pedestrian Conflicts
- Crash Issues
- Driveway Conflicts
- Maintenance Issues
- Planned Bike Facility
- Bridge Crossing Issue
- Intersection Crossing Issue
- Path Abruptly Ends

Activity Generators

- Hospital
- Library
- School
- Shopping
- Parks
- MPO Boundary

Gaps and Other Issues on Priority Bicycle Network North Pole, Alaska

Figure **4-8**

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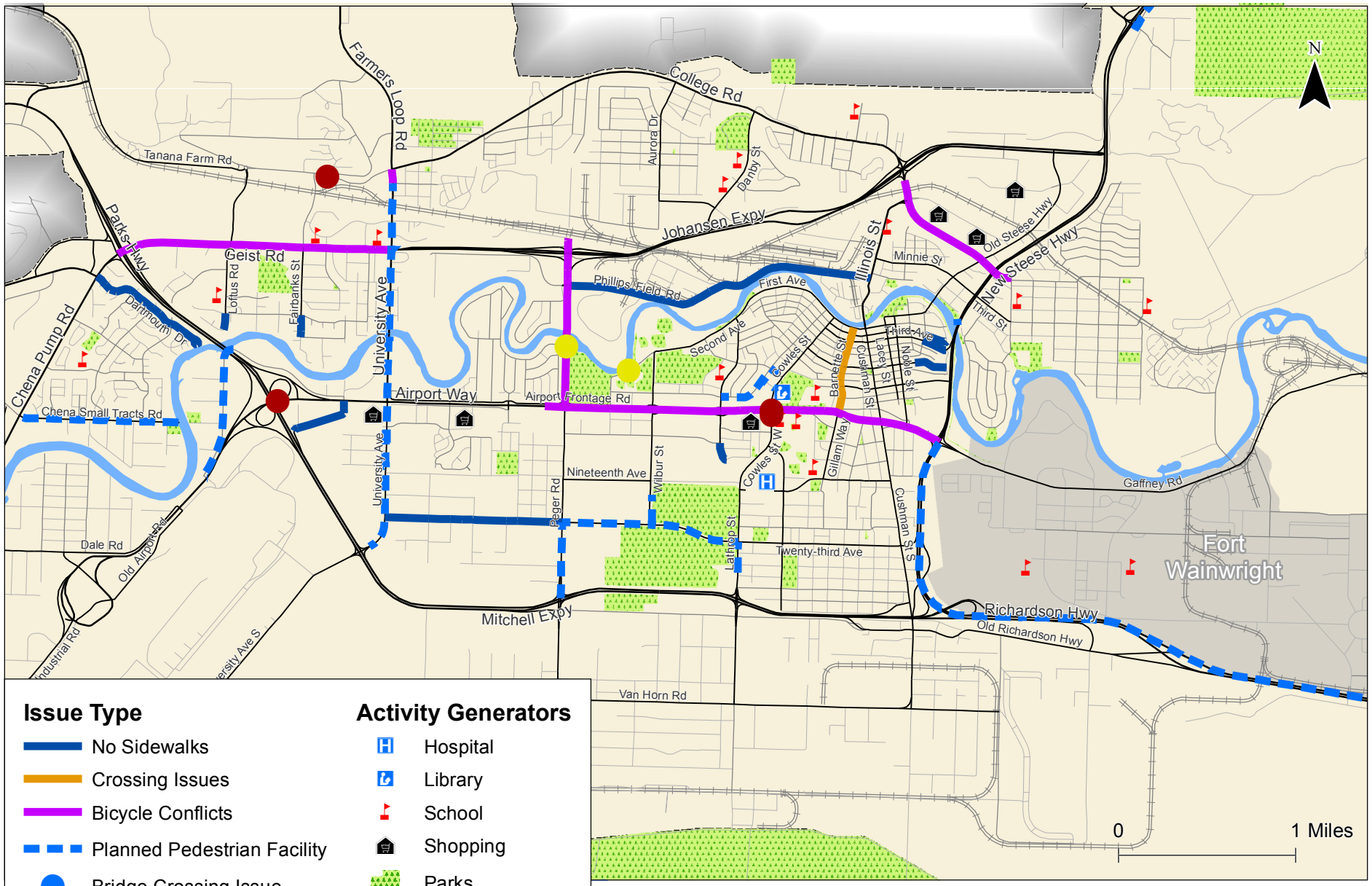

Issue Type

- No Sidewalks
- Crossing Issues
- Bicycle Conflicts
- Planned Pedestrian Facility
- Bridge Crossing Issue
- Intersection Crossing Issue
- Path Abruptly Ends

Activity Generators

- Hospital
- Library
- School
- Shopping
- Parks
- MPO Boundary

Gaps and Other Pedestrian Issues
Fairbanks, Alaska

Figure **4-9**

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Gaps and Other Pedestrian Issues
North Pole, Alaska

Figure
4-10

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TRANSPORTATION ENGINEERING/PLANNING

Coordinate System: NAD 1983 StatePlane Alaska 3 FIPS 5003 Feet

Likewise there are roadways that are important connections for pedestrians that lack adequate facilities to accommodate and promote walking. These include:

- Loftus Road (Birch Lane to the south)
- Fairbanks Street (Birch Lane to the south)
- Dartmouth Drive (Chena Pump Road to end of road)
- Old Airport Way (Parks Westbound Exit ramp to Airport Way)
- Lathrop Street (Eagan Avenue to the south)
- Davis Road (University Avenue to Peger Road)
- Philips Field Road (Peger Road to Illinois Street)
- 3rd Avenue (Hall Street to the east)
- 4th Avenue (Hall Street to the east)
- 7th Avenue (Noble Street to the east)
- Bradway Road (Dennis Road to Benshoof Drive)
- Eagan Avenue (Wilbur Street to Pioneers Home)

Pedestrian crossing issues occur at the follow intersections:

- Farmers Loop Road and Army Road
- College Road at the Tanana Valley Farmer's Market
- Parks Highway and Airport Way
- Cowles Street and Airport Way frontage road
- 5th Ave – Mission Road/Richardson Highway

General Needs

These needs pertain to bicycle and pedestrian facilities throughout the FMATS area.

- Increase summertime and wintertime maintenance (e.g. shoulder and sidewalk clearing).
- Decrease conflicts with snow machines.
- Provide ADA ramps at intersections where they are lacking.

SECURITY NEEDS

In addition to the modal deficiencies noted above, needs related to incorporating security into the planning process, as well as specific roadway projects that would aid emergency operators, also have been identified. The process by which these needs were determined, as described in Section 3, included reviewing existing plans and policies and soliciting input from emergency operations and security stakeholders.

Security stakeholders identified the following projects that would improve their ability to respond to emergencies:

- Extension of Dawson Road from Plack Road to Hurst Road;
- Construction of the Dennis Road Bridge over the Chena River to provide increased vehicle accessibility to the property behind Ft. Wainwright;
- Improved roadway maintenance on Peridot Road; and,
- Construction of a bridge across the Chena River at the Carlson Center.

SUMMARY

Twenty-two roadway segments are forecast to have a V/C of 0.9 or higher in the year 2040. Of those 22 segments, three are forecast to have a V/C of over 1.2, all of which are on the Steese Highway. Transit is forecast to continue to cover the densest areas but may need to improve headways and institute Sunday service. The primary bicycle and pedestrian system needs involve conflicts with sharing facilities, lack of shoulder or sidewalk along a roadway, or in an area where bicycle activity, pedestrian activity, and/or traffic conditions may warrant their presence. These future needs, along with the freight needs presented in Chapter 6, are considered during development of the 2040 MTP project list.

Chapter 5 – Regional Corridors

CHAPTER 5 – REGIONAL CORRIDORS

This section discusses the identified needs and possible projects along key corridors and within sub-areas of the region. Many of these corridors traverse more than one jurisdiction and serve multiple types of users. The corridors that are included in this analysis typically fall within at least one of five categories:

- Corridors or areas that have regional significance and are expected to require improvements within the horizon year of this Plan.
- Locations for which questions still exist regarding the most appropriate type of improvement or improvement timing to meet future demand.
- Locations that require improvement beyond what is identified in the current MTP.
- Areas where multiple needs across several modes have been identified.
- Corridors or areas where other transportation planning efforts have been completed and now need to be incorporated in the MTP.

CORRIDOR IDENTIFICATION

A list of corridors was chosen for further analysis to determine potential improvements during the completion of the 2035 MTP and now this plan. Based on the feedback received during the outreach for this plan and the analysis described in Chapter 4, no new corridors were added to the list. The final list of corridors and sub-areas includes the following, and are also shown in Figure 5-1:

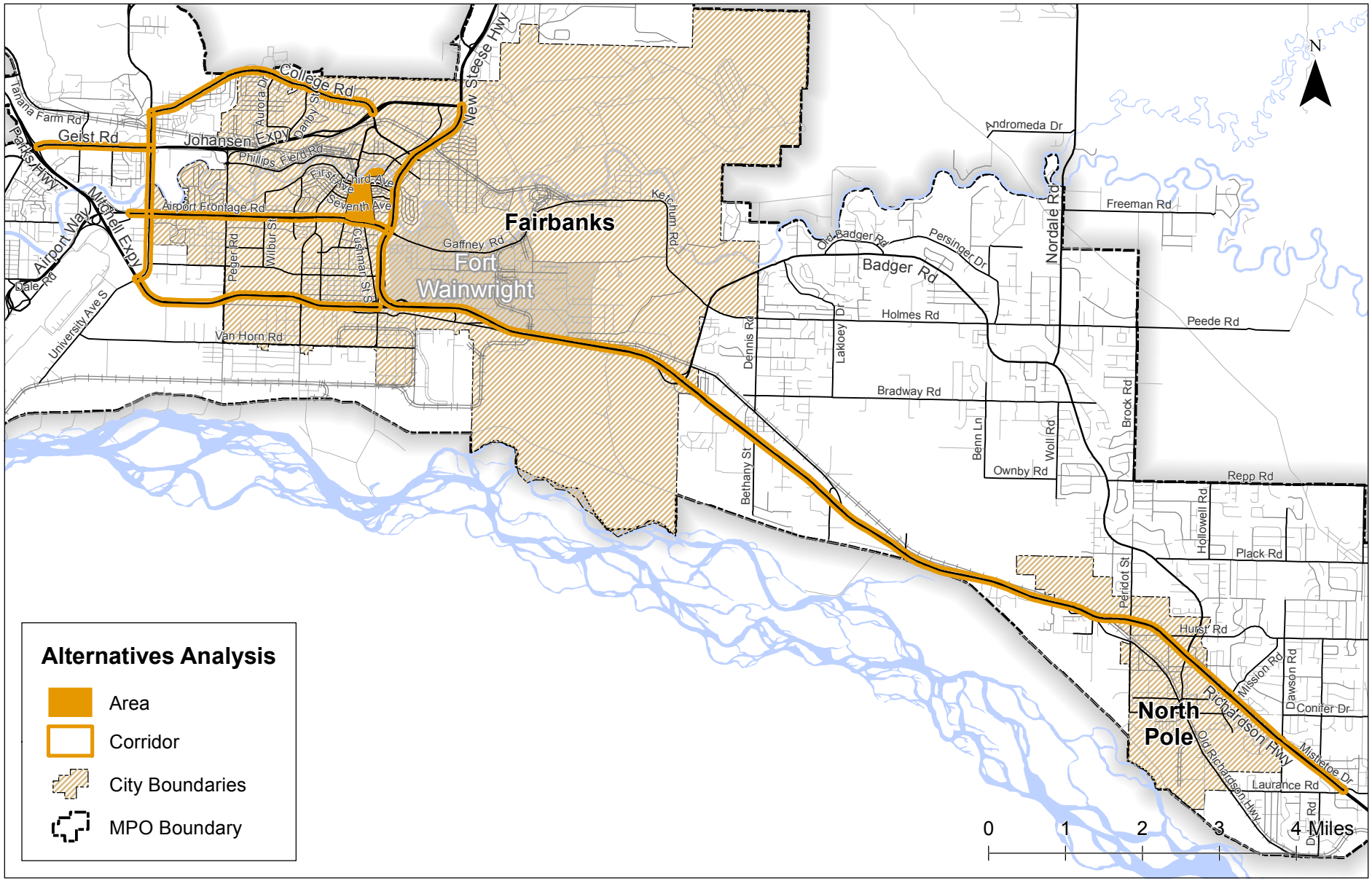
- Airport Way: Richardson Highway – Peger Road
- College Road: University Avenue – Johansen Expressway
- Downtown Fairbanks
- Geist Road: University Avenue – Parks Highway
- Mitchell Expressway: University Avenue – Richardson Highway
- Richardson Highway: Airport Way – North Pole
- Steese Highway: Airport Way – Johansen Expressway
- University Avenue: College Road – Mitchell Expressway

Three corridors and sub-areas included in the current MTP were removed from this list:

- S Cushman Street from Van Horn Road to Airport Way - planned projects from the 2035 MTP have been constructed and bicycle and pedestrian solutions are addressed in the current Non-Motorized Plan[1]
- Phillips Field Road: Peger Road to Illinois Street - it is addressed in greater detail in the Non-Motorized Plan
- Steese Highway/ Johansen Expressway/ College Road Area – recent and ongoing studies are addressing this area and recommendations are included in this update

A description of each corridor is included in the remainder of this section. The corridors are listed in alphabetical order.

[1] FMATS. *FMATS Non-Motorized Transportation Plan*. 2012.



Alternatives Analysis Areas
FMATS Region, Alaska

Figure **5-1**

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Airport Way: Richardson Highway – Sportsman Way

Airport Way, shown below in Figure 5-2, previously served as the primary east-west travel corridor through Fairbanks for decades.

Since the completion of the Johansen Expressway and the Mitchell Expressway, Airport Way now serves more local trips. Significant commercial development has taken place along Airport Way over the last few decades. Additionally, there are a number of residential neighborhoods that are located in close proximity. Airport Way is generally a divided highway with two through lanes in each direction and turn lanes at traffic signals. A significant portion of Airport Way has local roadways that function as frontage and backage roads between traffic signals. These roadways allow access to be limited along Airport Way and also provide a place for pedestrians and bicycles. ADT volumes currently range from approximately 15,100 to 21,300 and are projected to increase to approximately 17,100 to 28,800 vehicles per day by 2040.

The *Airport Way Improvements Reconnaissance Study*[2] (*Reconnaissance Study*) was completed for this corridor and provides detailed alternative improvement options. Likewise, the *Vision Fairbanks Downtown Plan*[3] (*Vision Fairbanks*) includes improvement options for Airport Way intersections near downtown (e.g., Cushman Street). There are conflicts between what is recommended in each study where they overlap. Also, there is no guidance on how the *Reconnaissance Study* should be implemented.

Planned Projects

The projects contained in the 2035 MTP for Airport Way are placeholders for funding to implement improvements identified by the *Reconnaissance Study*. This study provided three options for reducing crashes and improving operations on Airport Way. All three Airport Way options maintain two through travel lanes, but utilize different parallel frontage road systems, access management techniques, and intersection improvements. In the vicinity of downtown, *Vision Fairbanks* includes different recommendations along Airport Way than in the *Reconnaissance Study*. The key differences proposed by *Vision Fairbanks* are listed below:

- Changes to the Gaffney Road alignment
- Abandonment of Gaffney Road from Noble Street to Cushman Street
- Two-way traffic on Cushman Street and Barnette Street through downtown to Illinois Street

Figure 5-2 Airport Way

[2] Kittelson & Associates, Inc. *Airport Way Improvements Reconnaissance Study*. 2007.

[3] Crandall Arambula, PC. *Vision Fairbanks Downtown Plan*. 2008.

It is important to note that *Vision Fairbanks* has been adopted as part of the FNSB Comprehensive Plan and by the City of Fairbanks in Resolution

4318 as a guide for future downtown development and actions taken may evolve based on changing conditions.

The *FMATS Non-Motorized Transportation Plan* (*Non-Motorized Plan*) recommends specific bicycle routes be designated and improved parallel to and on both sides of Airport Way using a combination of the existing shared-use facilities and local streets.

Potential Alternatives

The differences between the *Reconnaissance Study* alternatives listed above and *Vision Fairbanks* are relatively minor with respect to the operation of Airport Way. They mostly impact access to specific businesses and, therefore, will be dependent on what is recommended during the future design phases of the improvement projects. The roundabout at Cushman Street and Airport Way would need to be reviewed in greater detail to verify any operational and right-of-way impacts.

Recommendation

All of the alternatives within the *Reconnaissance Study* would result in improved traffic operations and improved multi-modal connectivity on Airport Way, thereby satisfying the goals of this update. A specific alternative will continue to not be included in the MTP. Projects of this magnitude are best determined through a more thorough public involvement and evaluation process. The future project development process should utilize the *Reconnaissance Study* recommendations and the minor changes recommended in *Vision Fairbanks* to determine the specific improvements based on a detailed evaluation of the impacts and public input.

The recommendations from the *Non-Motorized Plan* should be implemented as described in the plan and in coordination, if necessary, with other projects along the corridor.

College Road: University Avenue – Johansen Expressway

College Road, shown in Figure 5-3, is the northernmost east-west connection in the urbanized Fairbanks area. This section provides a connection between the University of Alaska-Fairbanks (UAF), northern Fairbanks neighborhoods, the Bentley Trust area, Creamer's Field, and downtown Fairbanks (via Illinois Street). The roadway is four lanes wide with sidewalks generally on either side. ADT volumes currently range from approximately 8,700 to 9,800 and are forecast to grow to a range of 14,000-18,000 vehicles per day by 2040.

Figure 5-3 College Road

Previous studies have identified College Road as having a crash rate above the statewide average and as one of the more popular routes in the region for bicycling. The *College Road Corridor Study*[4] was undertaken to address both of these points. This study found that certain locations along the corridor have crash rates that exceed the statewide average, but none that exceed the critical crash rate. It also noted that the corridor is challenging for bicyclists and has a lack of marked pedestrian crossings west of Danby Street. Adequate capacity is expected for projected motor vehicle traffic demand through 2040.

Planned Projects

The 2035 MTP contains one project for this corridor that has not yet started: Johansen Expressway Ramps/College Road/Illinois Street Improvements. This project will add turn lanes, signals, and other improvements to reduce congestion and reduce crashes.

ADOT&PF is undertaking the reconstruction of the College Road/Margaret Avenue/Antoinette Avenue intersection to align the approaches and remove the intersection offset. This project is in construction.

Other corridor improvements currently in design include:

- Pavement rehabilitation between University Avenue and Mary Leigh Avenue
- Installation of a westbound right-turn lane at Aurora Drive (Tanana Valley Fairgrounds Access Road)
- Completion of the sidewalk on the south side of College Road between Aurora Drive and Alaska Way

[4] Kittelson & Associates, Inc. *College Road Corridor Study*. 2014

The *College Road Corridor Study* affirmed these improvements and put forth additional recommendations for this corridor:

- Provide enhanced pedestrian crossings were warranted
- Evaluate the need for additional bus pullouts
- Realign Johansen Expressway off-ramp to reduce pedestrian/bicycle conflicts
- Reconstruct College Road between the Margaret Avenue and the Steese Expressway to widen shoulders

Potential Alternatives

The *College Road Corridor Study* evaluated four cross-section alternatives including a three-lane concept with shoulder bike lanes in addition to four-lane cross-sections. The study concluded that the three-lane configuration provided vehicular safety and non-motorized travel benefits with a reduction in vehicle capacity.

Recommendation

The Johansen Expressway Ramps/College Road/Illinois Street Improvements project should be maintained to meet future congestion and safety needs. The additional *College Road Corridor Study* recommendations would enhance the non-motorized safety and efficiency of the corridor under the current four-lane configuration and should be incorporated into this MTP Update.

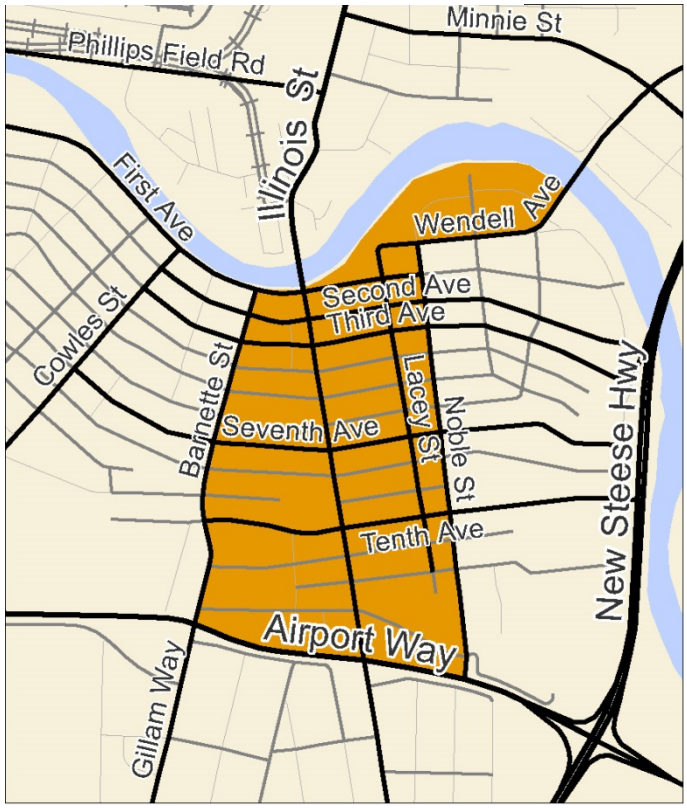
Downtown Fairbanks

Downtown Fairbanks, shown in Figure 5-4 remains the center of commerce within Fairbanks.

As part of *Vision Fairbanks*, a number of multi-modal transportation improvements have been proposed to support the development goals of Downtown Fairbanks, particularly along Cushman Street, which is proposed in the plan to be a

"signature" street with two-way traffic. Further study of the two-way concept on Cushman and Barnette Streets, along with the ongoing Illinois Street project resulted in a decision to keep the streets with one-way motor vehicle flow (Cushman has two-way traffic from Airport Way to 10th Avenue). Further discussions have since focused on developing Cushman and Barnette streets into "complete streets" that better accommodate all users.

Figure 5-4 Downtown Fairbanks



The *Non-Motorized Plan* also contains a number of recommendations for bicycle routes and sidewalk infill in Downtown Fairbanks.

Planned Projects

There are a number of planned projects within the 2035 MTP for the downtown, which include:

- Airport Way/Cushman Street Intersection Improvements
- Noble Street Upgrade
- Barnette Street Traffic Revision: Fairbanks
- Cushman, Barnette Upgrades
- Illinois Street Reconstruction, Phase III: Cushman Street Bridge Replacement
- Wendell Street Bridge Intersection Improvements
- Lacey Street Reconstruction: Airport Way-1st Ave

In addition, a complete streets study was undertaken to evaluate *Vision Fairbanks'* recommendation of converting Cushman Street and Barnette Street to two-way traffic through the downtown. The recommendations of that study included:

- Maintain the one-way configuration of Cushman Street and Barnette Street, but reduce both to two lanes to allow for wider sidewalks
- Add a Barnette Street bicycle lane
- Remove traffic signals at Cushman Street/7th Avenue and Barnette Street/5th Avenue
- Provide streetscape improvements

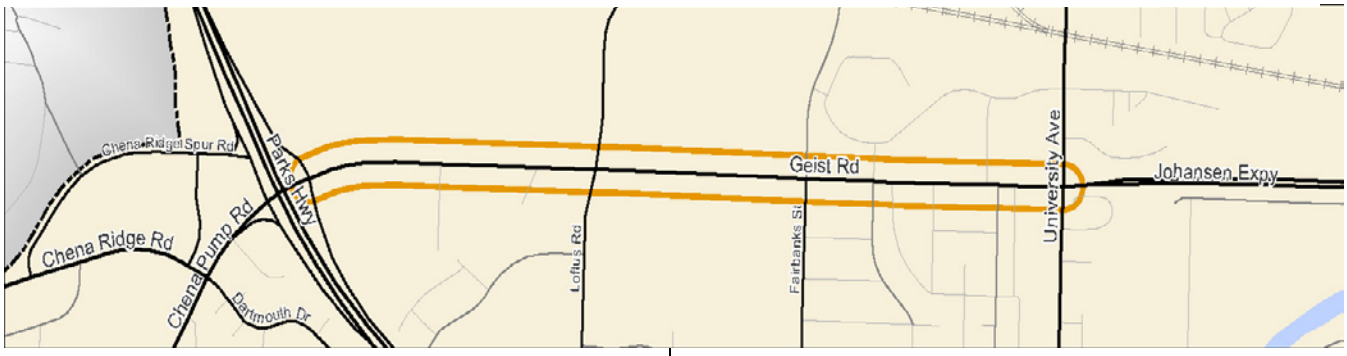
Recommendation

The 2035 MTP projects should be carried forward and evaluated based on timing of need in the 2040 MTP Update. The more recent *Cushman Street/Barnette Street Complete Streets Study* recommendations would provide the desired streetscape and multimodal improvements for these downtown corridors. The improvements recommended for the downtown, especially the sidewalk and streetscape improvements should remain a priority.

Geist Road: University Avenue – Parks Highway

Geist Road, shown in Figure 5-5, and the Johansen Expressway combine to provide the primary east-west cross-town arterial on the north side of Fairbanks. The high-speed Johansen Expressway

Figure 5-5 Geist Road



ends on the east side of University Avenue, becoming Geist Road, which is an urban five-lane arterial with at-grade intersections and commercial driveways. The land uses to the south of Geist Road are primarily residential with some small commercial businesses. To the north of Geist Road are primarily educational uses: the University of Alaska-Fairbanks (UAF), West Valley High School, and Hutchison High School. Because of these surrounding land uses, the corridor has a significant amount of pedestrian and bicycle traffic. A multi-use pathway exists along the south side of Geist Road and there is an overhead pedestrian crossing between University Avenue and Fairbanks Street, although it is not ADA compliant. Existing ADT volumes are between 16,300 and 17,400 and are projected to increase to a range from 20,100 to 26,500 vehicles by 2040. It should be noted that the future project planned for this corridor includes improvements to local circulation on the north and south sides of Geist Road through new roadway connections, which are projected to alleviate some of the demand on Geist Road itself. The primary question regarding Geist Road is whether the 2035 MTP recommendation for a boulevard, as opposed to a grade-separated expressway, should continue to be the recommended option in this MTP Update.

Planned Projects

The *Geist Road Boulevard Concept* (*Boulevard Concept*) is currently planned in the very long-term and includes the installation of a raised median, a new traffic signal, and a south-side circulation road.

The *Non-Motorized Plan* calls for driveway treatments on the south side of Geist Road and extension of the shared-use path on the north side.

Potential Alternatives

Two potential improvement alternatives were reviewed. The first is the currently planned *Boulevard Concept* and the second is a grade-separated concept that reconstructs Geist Road to be similar to the Johansen Expressway west of University Avenue.

Boulevard Concept

The more detailed analysis conducted for the 2035 MTP shows that this concept should provide for adequate traffic operations and reduce crashes along the corridor. It also improves non-auto transportation facilities, which as previously stated, are particularly important along this corridor due to the surrounding land uses. This concept would have limited environmental and land use impacts, as compared to an expressway.

Expressway Concept

An expressway would provide more capacity than the *Boulevard Concept* and would likely provide more of a crash reduction benefit as well.

Expressways generally impede, as opposed to enhance, multi-modal connectivity. The construction of an expressway would likely have significant costs, as well as impacts to the surrounding land uses.

Recommendation

Based on the goals of the MTP, the *Boulevard Concept* should substantially remain as the recommended improvement for Geist Road. While traffic volumes are not projected to grow, safety improvements need to be considered along the roadway as well as improvements for pedestrians and bicycles. The *Boulevard Concept* should reduce crashes through the installation of the median and by creating a single signalized left-turn access location for businesses on the south side of Geist Road at Rebecca Street. This Plan will also consolidate the left-turning vehicles crossing the multi-use path to signalized intersections.

The recommendations from the *Non-Motorized Plan* for driveway treatments on the south side of Geist Road and extension of the shared-use path on the north side should be implemented.

Mitchell Expressway: University Avenue – Richardson Highway

The Mitchell Expressway, shown in Figure 5-6 is a continuation of the George Parks Highway along the south edge of the urbanized Fairbanks area and merges with the Richardson Highway at the east end of this corridor.

This corridor has a high-order classification of Urban Interstate by ADOT&PF and has a speed limit of 55 MPH. ADT volumes range from approximately 12,600 to 14,800 along the corridor and are forecast to grow to a range of 19,000 to 23,000 vehicles by 2040. The roadway is four lanes wide with opposing directions separated by a grassy median. Due to its classification and high speeds, bicycles and pedestrians are prohibited from using the Mitchell Expressway. This section of the Mitchell Expressway has at-grade signalized intersections at University Avenue, Peger Road, and Lathrop Street. The intersections to the west of this corridor are grade-separated interchanges.

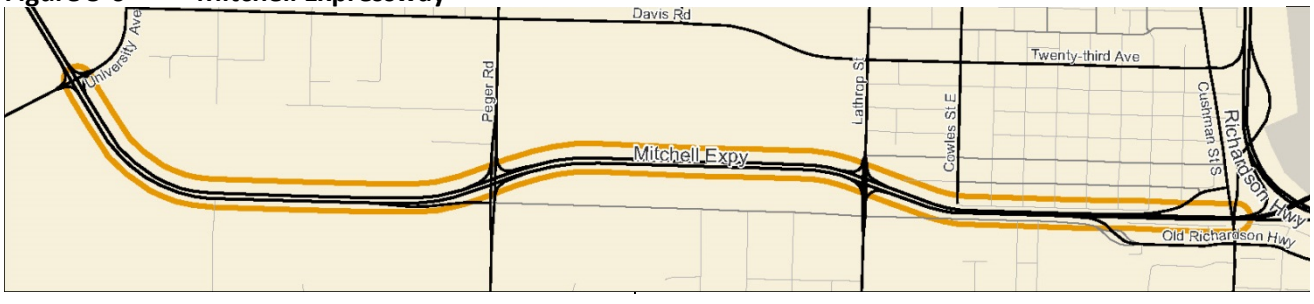
Planned Projects

The *Mitchell Expressway Interchange, Phase I* project is currently planned for the long-term. This project would construct a grade-separated interchange at a location to be determined in the future, depending on future traffic patterns. The candidate locations are currently Peger Road, University Avenue, and Lathrop Street. Phases II and III of this project are in the very long-term in the 2035 MTP.

Potential Alternative

Make the Peger Road Interchange a Near-Term Project: Programming this interchange would satisfy certain objectives of MTP goals, though also would have shortcomings compared to other

Figure 5-6 Mitchell Expressway



potential projects. An interchange would improve freight movement and enhance the capacity of the Mitchell Expressway and Peger Road. It may also reduce crashes at the intersection. On the other hand, interchanges are expensive and consume large portions of construction budgets. Other interchanges in the area may be higher priorities.

Recommendation

Given the number of other potential interchanges in the region, it is not clear that Peger Road is the highest priority.

Richardson Highway: Airport Way – North Pole

The Richardson Highway between Fairbanks and Eielson Air Force Base was constructed as a divided four-lane facility with partial access control in the early 1970's. Later, the FMATS Policy Committee designated this route as an "Ultimate Freeway" in recognition of the potential for long-term growth in the area and the need to maintain a high-speed arterial corridor. Recent improvements over the past five years have included the modification of the Badger Road interchange to reduce grades on the ramps and install roundabouts at the terminals and construction of the Dawson Road interchange in North Pole. Current ADT volumes in this corridor, shown in Figure 5-7, range from approximately 13,000 (North Pole) to 25,000 (east of Mitchell Expressway) and are projected to increase to a range of 13,600 to 34,400 vehicles by 2040.

Planned Projects

A number of projects have been planned for this corridor. In particular, a number of grade-separation projects are identified, some of which do not have a definite location (i.e., future North Pole interchanges). Additional local road connections south of Badger Road that can connect to one or two access locations on the Richardson Highway are currently recommended as a very-long range project, too. Following is a list of the planned projects from the 2035 MTP:

- Richardson Highway: MP 353-357 Access and Safety Improvements
- Richardson Highway: 3-Mile/Old Richardson Interchange
- Richardson Highway: Access/Safety Improvements (Rozak Road-Peridot Street)
- Richardson Highway: 3-Mile Railroad Crossing Overpass
- Richardson Highway: North Pole Area Interchange, Phase I
- Richardson Highway: North Pole Area Interchange, Phase II
- Richardson Highway: North Pole Area Interchange, Phase III
- Richardson Highway Area Roadway Improvements

The North Pole interchange projects are located approximately two miles west of Peridot Street (most likely location for Phase I) and on the intersections of Laurance Road and Mission Road (Phases II-III).

The *Richardson Highway/Steese Expressway Corridor Study* proposes a new interchange at the Old Richardson Highway and a new railroad overcrossing at Milepost 359.

Other planned projects for the corridor include a bicycle and pedestrian connection between North Pole and Fairbanks and a realignment of the railroad to the south of the Richardson Highway along the Tanana levee. The *Non-Motorized Plan* contains the recommended alignment of parallel bicycle routes. An environmental assessment has been completed for the railroad realignment.

Potential Alternatives

The evaluation of alternatives primarily focuses on confirming the need and importance of the

Figure 5-7 Richardson Highway

improvements already planned as part of the current MTP. In order to meet the long-term safety goal, grade separation at the major intersections will be needed as traffic volumes grow. In addition, the multi-modal connectivity provided by the grade-separated interchanges in North Pole is important because the highway bisects North Pole and access is limited along the corridor. This makes a well-connected local roadway system important.

Richardson Highway (Mitchell Expressway – Badger Road): The interchange at Old Richardson Highway and the railroad overcrossing should continue to remain as projects in the MTP Update. These improvements will provide safety benefits and the necessary capacity to accommodate future growth without further widening. Based on the projected year 2040 traffic volumes, a third through lane should not be required if the interchange is constructed at Old Richardson Highway; therefore, this project should be moved into the very-long range timeframe beyond the 2040 planning horizon. These lanes may be needed at some point in the future, but that will likely be well beyond 2040, according to the current projections. These recommendations are consistent with feedback received at the November workshop.

Richardson Highway (Badger Road to North Pole): The access and safety improvement projects should remain as projects. They include identifying and improving access across the railroad tracks to the area north of the Richardson Highway. The local road connections identified should continue to remain beyond the planning horizon year. Their precise location should be identified by further study. They will likely be constructed by private development in the area. As part of this study, another long-term interchange location should be considered at either Rozak Road, Rentals Road, Benn Lane (extension south), or at some location between these roadways. This is consistent with feedback received at the November workshop.

North Pole Interchanges: Many factors will influence the phasing of interchanges in North Pole. The need for the interchanges is driven primarily by the need to provide local circulation and safe travel along the Richardson Highway.

Consequently, the prioritization of these interchanges is best served by a circulation study that includes a more detailed analysis and public involvement, as was recommended in the 2035 MTP. Absent such a study, the following prioritization is recommended based on the areas served by each location, as well as feedback from the November workshop. A location west of Peridot Street should be considered the first priority for the time being. This would be done in coordination with elimination of at-grade railroad crossings in the area, so it is dependent on future ARRC projects. Laurance Road should be the second priority, given its proximity and connection to the Dawson Road interchange. A full interchange at Mission Road is not needed given the proximity to Dawson Road and Badger Road. Some type of grade-separated connection at Mission Road is important to provide for local connectivity and multi-modal access. The need for the Mission Road underpass should continue to be reviewed and considered for construction.

Recommendation

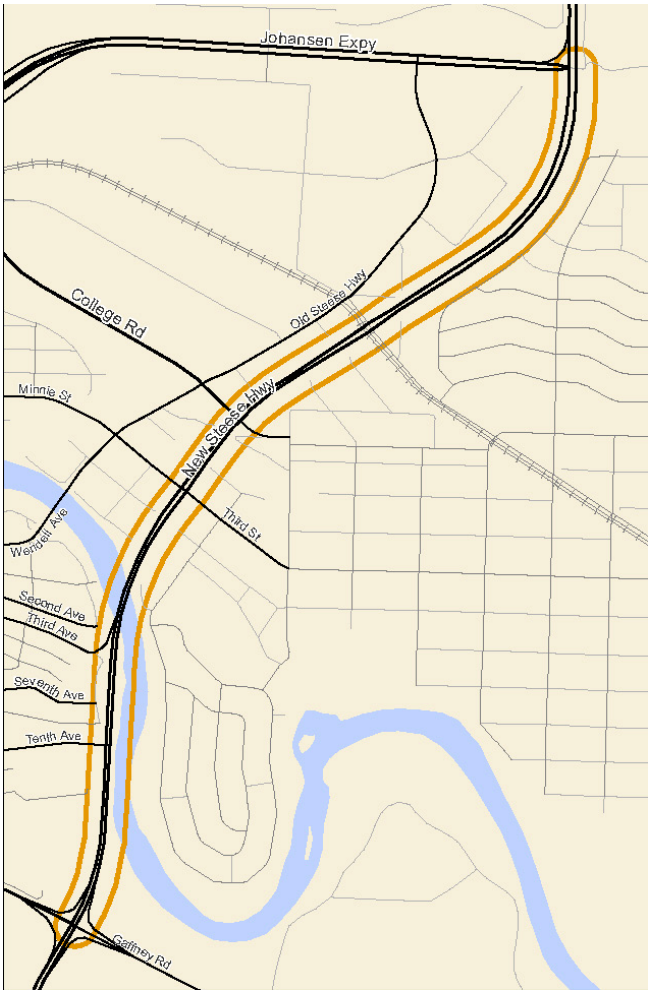
The results from the *Richardson Highway/Steese Expressway Corridor Study* should be incorporated into the next update of the MTP. A similar study should be implemented to evaluate and prioritize other proposed interchanges or improvements east of Badger Road.

Steese Highway: Airport Way – Johansen Expressway

The Steese Highway, shown in Figure 5-8, is the only major north/south cross-town arterial roadway on the east side of Fairbanks. It also provides a primary link to outlying areas, such as Farmers Loop Road, Chena Hot Springs Road, and the Elliott Highway to the north, and the Richardson Highway to the south. Major retail developments in the area north of College Road and changing demographics have contributed to high growth in traffic. The Steese Highway currently has two through lanes in each direction with traffic signals at key intersections. ADT volumes currently range from 17,100 (Trainor Gate Road – Johansen Expressway) to 27,000 (south of 10th Avenue) and are projected to increase to a range of approximately 23,600 to 40,400 by 2040.

The primary issue on the Steese Highway is the need to increase its capacity at critical intersections to accommodate forecast traffic volumes, while at the same time preventing it from becoming a barrier to pedestrians and bicyclists wishing to cross it. Forecast volumes exceed the capacity of the current roadway. ADOT&PF is currently undertaking the *Richardson Highway/Steese*

Figure 5-8 Steese Highway



Expressway Corridor Study to identify future improvements for this corridor.

Planned Projects

There are a number of projects planned for the Steese Highway in the 2035 MTP, which are listed below:

- Johansen/Steese Intersection Improvements
- Steese Expressway: Added Through Lane from Airport Way to Farmers Loop Road
- Steese Expressway Interchanges

The *Reconnaissance Study* also includes widening and improvement options for Steese Highway at Airport Way and 10th Avenue. The *Non-Motorized Plan* recommends crossing improvements be considered at the 3rd Street and Johansen Expressway interchanges.

A draft of the *Richardson Highway/Steese Expressway Corridor Study* anticipated in April 2015 includes five projects that affect the Steese Highway in the study area. The projects propose new grade-separated interchanges at Johansen Expressway, College Road, 3rd Street, and Airport Way. Other improvements within the projects involve constructing frontage roads on both sides of the Steese Highway.

Potential Alternatives

Alternatives for this corridor are being examined as a part of the *Richardson Highway/Steese Expressway Corridor Study*.

Recommendation

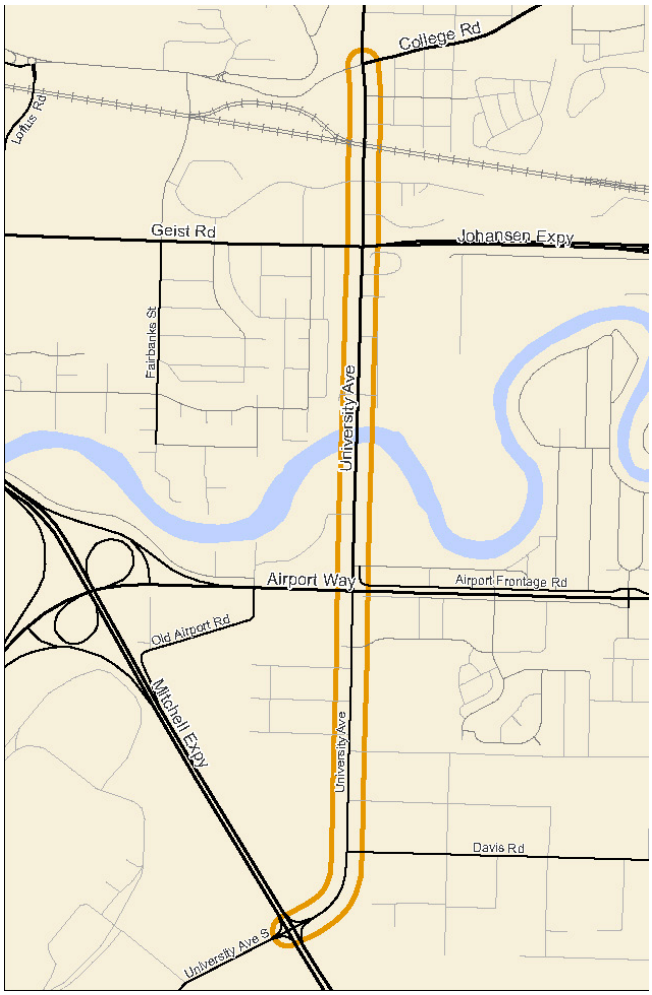
The results from the *Richardson Highway/Steese Expressway Corridor Study* should be incorporated into this MTP Update.

University Avenue: College Road – Mitchell Expressway

As shown in Figure 5-9, University Avenue connects the University of Alaska-Fairbanks (UAF) campus to the network of major regional east-west corridors and the residential areas south of Airport Way.

Surrounding land uses are residential, open space, or commercial (in the Airport Way area). The roadway is four lanes wide, with sidewalks on either side (College Road-Rewak Drive). ADT volumes currently range from approximately 7,700 (near the Mitchell Expressway) to 20,900 (near UAF) and are forecast to grow to a range of 9,500-25,000 vehicles by 2040.

Figure 5-9 University Avenue



There are a number of different identified issues on this section of University Avenue. There are no sidewalks from Davis Road to Rewak Drive. The sidewalks on the bridge over the Chena River have been identified as being uncomfortably narrow. There are no bicycle lanes or shoulders along the roadway from College Road to Airport Way. Given the proximity of UAF, West Valley High School, and Hutchison Institute of Technology to this corridor, providing for all modes is important.

Planned Projects

The University Avenue Rehabilitation and Widening Project is a fairly comprehensive project for which an environmental assessment (EA) has been completed. The EA provides for a number of improvements, including access management, intersection improvements at the Geist Road-Johansen Expressway and Airport Way intersections, a six-foot wide shoulder on either side of University Avenue, a five-foot wide sidewalk on the east side of University Avenue, an eight-foot wide bicycle path on the west side of University Avenue, a new bridge over the Chena River with a seven-foot wide sidewalk on the east side and a fourteen-foot wide bicycle path on the west side, and ADA improvements. Currently, only the section from Thomas Street (just south of College Road) to the Chena River Recreation Area is funded. The University Avenue Railroad Overpass project will grade-separate the existing railroad crossing of University Avenue, south of College Road.

There also is an unfunded very long range priority project, University/Goldizen Signal, that would signalize the University Avenue/Goldizen Avenue intersection. Goldizen Avenue would be extended east to Phillips Field Road. A new link to the west to Birch Lane also would be considered in this project.

Potential Alternatives

The proposed improvements that are planned address the key deficiencies identified on the corridor. The EA for the University Avenue Rehabilitation and Widening Project provides for continuous sidewalk on the east side of the roadway, including a wider sidewalk across the bridge, which should adequately serve pedestrians on that side of the road. Eight feet is generally considered narrow for two-way traffic of both bicyclists and pedestrians. To encourage bicyclists to use the shoulder, it could be designated as a bike lane. An additional advantage provided by the bike lane designation comes at areas with right-turn lanes. At these locations, the bike lane remains adjacent to the through lane and right-turning traffic merges across the bike lane, whereas a shoulder stays next to the curb and right-turns travel across the shoulder.

Recommendation

Under the scenario described above, there would be connectivity along the corridor for pedestrians (east-side sidewalk) and bicyclists (shoulders and west-side shared-use path). If pedestrians are to be given the opportunity to utilize the shared-use path as well, then widening the pathway to ten feet should be considered. The decision to widen the path should be based on the anticipated levels of use by each type of user.

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Chapter 6 – Freight Plan

CHAPTER 6 – FREIGHT PLAN

The Freight Plan section is based on a combination of interviews with area freight stakeholders, reviews of relevant data and studies, and feedback from the FMATS Technical Committee and members of the freight industry.

INTRODUCTION

Located at the intersection of the Alaska Railroad, Trans-Alaska Pipeline, and Parks, Richardson, and Dalton Highways, Fairbanks serves as a critical hub for freight transportation in Alaska. From Fairbanks, freight shippers can reach the North Slope oil fields, Canada, the contiguous United States, Anchorage, Valdez, and other locations within northern and interior Alaska. As a result of this location, much of the freight traffic that travels to and from Fairbanks is passing through to other locations, such as the North Slope oil fields, the gold mines north and south of Fairbanks, outlying communities of Alaska's interior, or Anchorage. According to interviews with the Alaska Railroad Corporation (ARRC) conducted for the 2035 MTP, the primary commodities being transported to and from Fairbanks include refined petroleum, coal used for power generation by Fairbanks area municipal utilities and the military bases, and oil field supplies, including heavy equipment, chemicals, and other supplies.

FREIGHT INFRASTRUCTURE

Freight can be shipped to and from Fairbanks via truck, rail, pipeline, or air. The following provides a summary of the infrastructure supporting each mode.

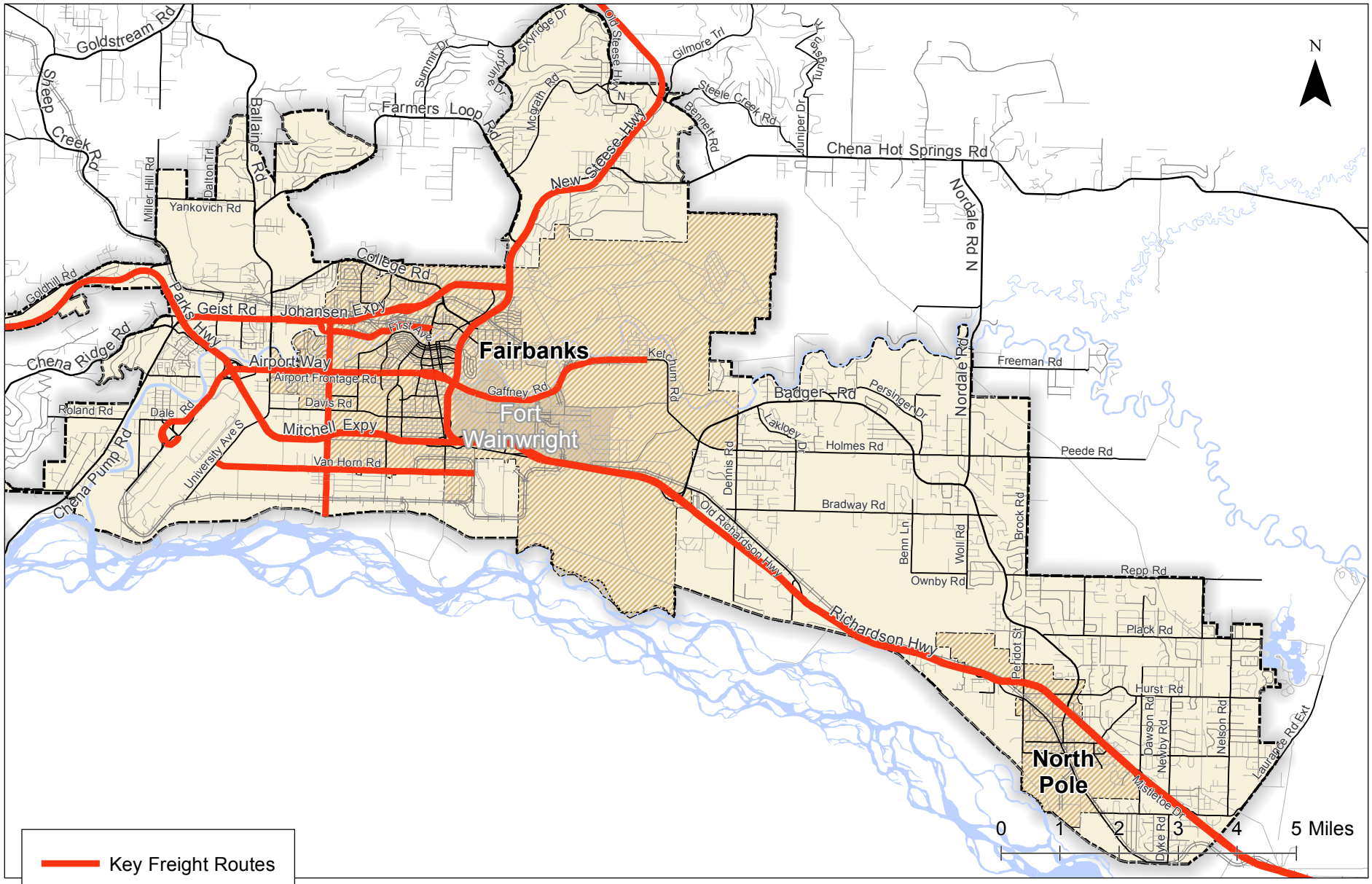
Highways and Truck Traffic

The 2035 MTP identified several roadways in the region as critical freight infrastructure. These roadways are divided into two categories: local connectors and intercity highway links. Local connectors are those routes that link freight generators with each other and with long-distance intercity facilities. Intercity highway links connect the Fairbanks area to the distance cities and resource areas that are critical to the region's economy. All intercity highway links have been identified as "critical," as there is generally only a single route for trucks moving between Fairbanks and distant destinations, such as Anchorage, Valdez, Canada, and the North Slope.

The local connector routes that have been identified as critical freight infrastructure are shown in Figure 6-1 and are:

- The Mitchell Expressway, which forms a key east-west link between the Parks and Richardson highways around the City of Fairbanks.
- Airport Way, which passes through central Fairbanks, linking Fairbanks International Airport to the Steese and Richardson highways and Fort Wainwright.

- The Richardson Highway, which links the Cities of Fairbanks and North Pole, Fort Wainwright, and Eielson Air Force Base. It also forms an important intercity link to Valdez and to Canada and the lower 48 states via the Alaska Highway.
- The Steese Highway, which connects Fairbanks to the Dalton Highway and to other points northeast, including Fort Knox Mine, 25 miles northeast of Fairbanks—one of the largest gold mines in the state.



Freight Local Connector Routes
Fairbanks, Alaska

Figure **6-1**

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- Gaffney Road, which links Fort Wainwright to downtown Fairbanks and other facilities, including the Steese Highway, the Richardson Highway, and Airport Way.
- Geist Rd – Johansen Expressway, which runs east-west, north of downtown Fairbanks, linking the Parks Highway and the Steese Highway.
- Phillips Field Road, which is a key truck route serving downtown Fairbanks and ARRC facilities.
- Peger Road, which runs north-south through Fairbanks linking key local east-west connectors the Johansen Expressway, Airport Way, and the Mitchell Expressway.
- Van Horn Road, which provides access to an increasing number of industrial properties.

Intercity highway links are shown in Figure 6-2 and include:

- The Dalton Highway (AK-11), which is the only road that connects the oilfields of Prudhoe Bay to the rest of Alaska, begins about 80 miles outside of Fairbanks via the Steese and Elliott highways. From there, the Dalton Highway runs north over 400 miles to Alaska's Arctic coast. It is largely constructed of gravel and serves primarily as a haul road for trucks carrying supplies to the oil fields on the North Slope and ore from active mining areas.
- The Parks Highway (AK-3), which is the key highway link connecting Fairbanks to Anchorage, Alaska's largest city, and to the ports in Anchorage and Whittier. For most of its length it is a two-lane facility.
- The Alaska Highway (AK-2), which forms a highway link via the Richardson Highway to Canada and the contiguous U.S. This land route is sometimes used for time-sensitive shipments, although a combination of water and rail or truck is a significantly more economical way to move freight to and from Fairbanks.

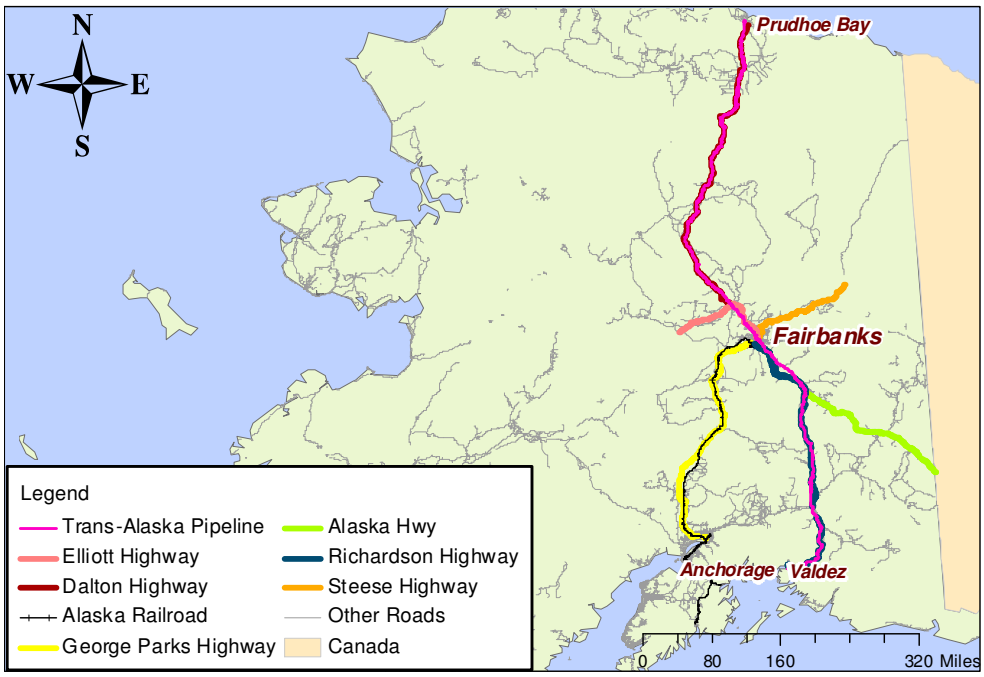
Table 6-1 shows the daily truck traffic at selected points along the routes identified above for which data is available. Trucks on these critical freight routes make up 4 to 9 percent of the traffic mix, totaling between approximately 270 and 2,000 trucks per day. Outside the region, truck traffic makes up a more significant portion of the traffic on the three intercity links described above, ranging from 16 to over 70 percent.

Table 6-1 Estimated Truck Traffic Volumes

Roadway	Location	Existing Daily Traffic	% Trucks	Existing Daily Trucks
Airport Way	Washington Dr-University Ave	15,100	4%	600
	Steese Hwy-Noble St	19,300	4%	770
Parks Highway	Chena River Bridge	16,000	6%	960
Johansen Expressway	East of University Ave	20,700	7%	1,450
Mitchell Expressway	Lathrop St-30th Ave	14,800	7%	1,040
Peger Road	Chena River Bridge	16,000	6%	960
Philips Field Road	Nome Dr	4,500	6%	270
Richardson Highway	Moose Creek	8,000	9%	720
	3-Mile	25,000	8%	2,000
Steese Expressway	South of Johansen Expressway	17,100	7%	1,200

Source: ADOT&PF Northern Region Annual Traffic Volume Report 2010-2012

Figure 6-2 Statewide Freight Infrastructure of Critical Importance



Rail Cargo

ARRC owns and operates the railroad within Fairbanks, which connects south to Anchorage and other coastal cities. The northern terminus of the mainline of the railroad is Fairbanks. Spur lines of the railroad extend to Eielson Air Force Base and Fairbanks International Airport. ARRC's Fairbanks Depot is located northwest of downtown, between the Johansen Expressway and Phillips Field Road across from Danby Street. The depot includes intermodal, maintenance, and passenger facilities.

Inbound rail freight of total rail tonnage, comprises primarily coal and oil field supplies, including heavy equipment, chemicals, and supplies, as well as refined petroleum. Coal moving inbound from the Usibelli Coal Mine, located near Healy, Alaska, for municipal utilities and military bases in the Fairbanks area totals 500,000 to 600,000 tons per year depending on the weather, comprising about 15 percent of the area's total rail freight. Oil field supplies inbound from Anchorage, totaling approximately 100,000 tons per year represent approximately 5 percent, although this volume tends to fluctuate by up to 15 percentage points from year to year.

ARRC freight trains are unscheduled and may move any time over a 24-hour period. All trains entering and departing the Fairbanks area cross University Avenue (8 per day in summer / 6 per day in winter). Approximately 4 trains per day—2 petroleum trains and 2 switching trains—cross the Steese and Richardson highways.

In addition to freight trains, ARRC operates passenger trains, and carried an average of 90,000 passengers to or from the Fairbanks depot between 2010 and 2013.

Pipeline

The Trans-Alaska Pipeline stretches 800 miles from Prudhoe Bay, on Alaska's northern coast, to Valdez, east of Anchorage. Its northern portion closely parallels the Dalton Highway before it passes

through Fairbanks and North Pole and continues south to Valdez. Feeder pipelines along its course allow refineries to remove and return oil to the pipeline. Since its completion in 1977, the Trans-Alaska Pipeline has had an enormous impact on the Alaska economy; the value of the oil it has carried is greater, in real dollars, than all of the fish, lumber, minerals, fur, and other natural resources ever extracted in the State. The pipeline is estimated to be carrying about 535,000 barrels per day currently[1], a reduction from the estimated 700,000 barrels per day cited in the 2035 MTP and the 2.1 million barrels per day carried at the pipeline's peak in 1988[2]. This declining throughput poses challenges to the pipeline's operation, including corrosion and ice issues from water separating from the crude oil and wax deposit build-up. The pipeline's operator is taking steps to overcome these challenges, including heating recirculating oil at pump stations, more frequent cleaning, and completing a study to consider the long-term impacts of continually declining throughput[3].

Air Cargo

There are three primary cargo airports in the Fairbanks region. Fairbanks International Airport (FAI) handles all commercial cargo and passenger traffic into and out of the Fairbanks region. Eielson Air Force Base and Ladd Army Airfield at Fort Wainwright handle cargo and passenger traffic for the military.

FAI is situated approximately 4 miles west of downtown Fairbanks and is owned and operated by ADOT&PF. The airport's strategic northern location makes it possible to reach 90 percent of the industrialized northern hemisphere in 9.5 hours or less. Additionally, FAI has runways up to 11,800 feet in length and generally good flying conditions. The airport currently hosts cargo airlines FedEx, Northern Air Cargo, and Everts Air Cargo, and is working to enhance its position as a refueling location for international air cargo carriers. The airport also hosts a variety of passenger airlines and is a critical passenger and cargo hub for many Alaskan communities that are not accessible by highway or rail.

Together, FAI and Ted Stevens Anchorage International Airport (ANC) comprise the Alaska International Airport System. Fairbanks serves as the primary alternate airport for ANC as well as the hub for Northern Alaska and the arctic. During the

[1] Alyeska Pipeline Service Company. *Throughput*. http://www.alyeska-pipe.com/TAPS/PipelineOperations/Throughput. Accessed September 2014.

[2] Alyeska Pipeline Service Company. *Overview of TAPS*. http://www.alyeska-pipe.com/TAPS. Accessed September 2014.

[3] Alyeska Pipeline Service Company. *Declining Throughput*. http://www.alyeska-pipe.com/TAPS/PipelineOperations/LowFlowOperations. Accessed September 2014.

Mt. Redoubt eruptions that began on March 22, 2009, FAI experienced a significant increase in cargo traffic due to diversion from ANC.

Air cargo landings at FAI have fallen by 36-percent since 2005. According to the FAI airport manager, the number of cargo flights handled at FAI has been declining since Russian airspace was opened to international cargo flights. Bypassing Fairbanks, in favor of this more direct route through Russia, results in one-way time savings of approximately 4-hours for US-Europe routes.

Eielson Air Force Base, 20 miles southeast of Fairbanks, handles military air cargo for itself and for Fort Wainwright Army Base. It occupies over 63,000 acres and includes a 14,500-foot runway, the second longest in North America.

Freight Volume Forecast

Though several proprietary commodity flow datasets are available to support regional planning efforts, there is currently no publicly available dataset that provides a comprehensive and consistent data source for commodity flow movement at the regional level in Alaska. Therefore, future freight volumes are based on differing sources. Increases in freight truck volume are derived from the sketch planning tool developed for the 2035 MTP. Pipeline volume is based on an assumption that throughput continues to decline at a steady rate, with the specific rate taken from the Alyeska Pipeline Service Company's June 2011 *Low Flow Impact Study*. Rail car volumes are based on an interview with ARRC staff and the assumption that a natural gas pipeline is completed. Air cargo volumes are forecasted from the ongoing Master Plan effort. Table 6-2 summarizes the forecast volumes.

Table 6-2 Freight Volume Forecast

Mode	Freight Volume Measure	Baseline[A]	Change in Volume	2040 Volume
Air	Annual Air Cargo Landings at FAI	4,954 (2010)	0.1%/year	5,065[B]
Rail	Daily Trains Entering/Departing Fairbanks Area (Summer)	3	0	3
	Daily Trains Entering/Departing Fairbanks Area (Winter)	3	0	3
Pipeline	Barrels per Day	535,000	(-5.4%)/ year	119,500
Truck	Airport Way: Washington Dr-University Ave	600	2%/year	1,020
	Airport Way: Steese Hwy-Noble St	770		1,310
	Parks Highway: Chena River Bridge	960		1,640
	Johansen Expressway: East of University Ave	1,450		2,470
	Mitchell Expressway: Lathrop St-30th Ave	1,040		1,780
	Peger Road: Chena River Bridge	960		1,640
	Phillips Field Road: Nome Dr	270		460
	Richardson Highway: Moose Creek	720		1,230
	Richardson Highway: 3-Mile	2,000		3,410
	Steese Expressway: South of Johansen Expressway	1,200		2,050

[A]Baseline year is 2013, except where noted.

[B] FAI forecasts use a 2030 horizon year.

As the table shows, air and truck cargo volumes are expected to continue to grow. However, pipeline and rail volumes are expected to decrease by 2040, unless economic conditions significantly change. According to interviews conducted with the ARRC for the 2035 MTP, the construction of the proposed Alaska Natural Gas Pipeline will result in the elimination of all coal trains passing through the Fairbanks area. The elimination of coal trains is expected to result in a net reduction of 1 train per day through the Fairbanks area by 2040. However, it is likely that rail traffic will increase during construction of the proposed natural gas pipeline. It is also worth noting that there are resource development projects under differing stages of consideration in the Fairbanks area. These projects could increase rail traffic in Fairbanks; however, these projects are currently too early in development to determine if they will come to fruition and what impacts, if any, they will have on rail traffic in Fairbanks.

IDENTIFIED FREIGHT CONSTRAINTS AND ISSUES

Future freight needs have been determined through reviews of previous plans and feedback from the FMATS Technical Committee members and members of the freight industry. Needs and concerns for freight in the FMATS area include specific needs at certain locations, area needs, and general needs. Figure 6-4 shows the needs summarized below. The numbers 1 through 7 and letters A through E in the figure correspond to the issue descriptions below.

Specific Needs

The needs at specific intersections and on specific links with their respective identification number from the figure are:

1. **Johansen Expressway and Old Steese Highway:** Westbound left-turn signal phase too short
2. **S Cushman Street and 23rd Avenue:** Westbound left-turn difficult for long trailers
3. **Mitchell Expressway and Peger Road:** Eastbound and westbound left-turn signal phase too short
4. **Buzby Road and Laurance Road:** Difficult truck turning maneuvers
5. **Richardson Highway and Old Richardson Highway:** Difficult to enter Richardson Highway from Old Richardson Highway in North Pole due to limited gaps; trucks divert to Buzby Road
6. **Old Steese Highway and Trainor Gate:** Constant traffic flow restricts left-turns
7. **34th Street from S Cushman Street to MacArthur Street:** No drainage or paving along this section of 34th Street

Area Needs

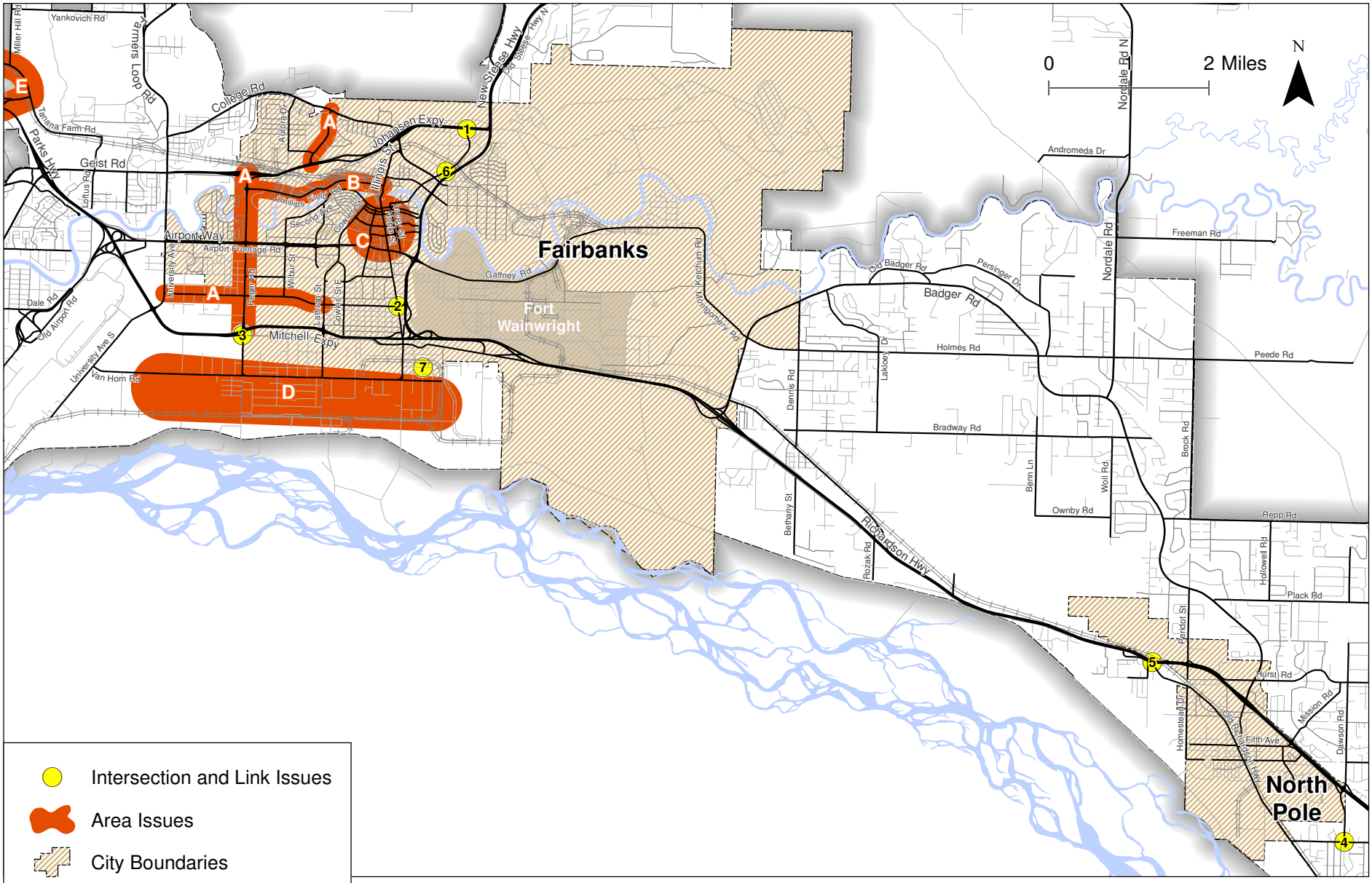
The following needs pertain to specific areas with reference letters from Figure 6:

A. **Peger Road, Davis Road, and Danby Street:** Overhead signal mast arm clearance issues
B. **Philips Field Road:** Pedestrian and Bicycle conflicts
C. **Downtown area:** Difficult to park downtown and hard to push pallets in winter
D. **Van Horn Road:** Many industrial and shipping companies moving to the Van Horn Road area
E. **Goldstream Road:** Occasional freight route due to less restrictive height limitations

General Needs

Improvements and considerations relating to the freight system as a whole are as follows:

- Reduction of the number of at-grade railroad crossings
- Increased freight traffic due to potential trucking of natural gas to Fairbanks.



Identified Freight Issues and Constraints
FMATS Region, Alaska

Figure **6-3**

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Coordinate System: NAD 1983 StatePlane Alaska 3 FIPS 5003 Feet

RECOMMENDED PLAN

The recommended plan of actions to enhance freight mobility in the Fairbanks area is divided into two sections: 1) ongoing activities to involve the freight community in the planning process, and 2) specific projects on freight routes included in Section 7 of this Plan.

Ongoing Activities

FMATS is committed to ongoing efforts to ensure that the needs of the freight community are being identified and appropriately addressed. Continuing to engage area freight stakeholders in the planning process will be vital to the success of freight planning in the Fairbanks region. To this end, FMATS reserves a seat on its Technical Committee for a representative of freight carriers, in addition to a seat for the ARRC. FMATS is also preparing to undertake a regional freight plan that will engage and comprehensively study the needs of the freight community.

Planned Projects

There are a number of projects contained in Chapter 7 of this Plan that directly address freight community concerns or will enhance the safety and mobility of key freight routes. These projects are shown in Chapter 7 and their descriptions from Chapter 7 are replicated here:

SR-24 *FMATS Freight Mobility Plan* - Conduct a study to characterize the movement of freight within the Metropolitan Planning Area and identify deficiencies and make recommendations for future freight investments.

SR-38 *Airport Way West Improvements* - Construct a new frontage road to link Dale Road and Hoselton Roads, construction of a roundabout intersection to replace the two existing intersections, and construction of bicycle and pedestrian facilities along Hoselton Road. Previously was known as *Airport Way/Dale Road/Pikes Safety Improvement/Signal*.

SR-39 *Richardson Highway: MP 353-357, Safety/Access Improvements* - Improvements to frontage roads and intersections on the Richardson Highway between Old Richardson Highway and Badger Road to consolidate access and increase safety on the high-speed Richardson Highway. Previously only covered mileposts 354-357.

SR-40 *Steese Highway and 3rd Street Widening* - Major upgrade of the existing Steese Expressway intersection and reconstruction of 3rd Street (Old Steese-Hamilton Avenue). Previously was known as *Steese Expressway/3rd Street Intersection*.

SR-41 *Chena Hot Springs Road Interchange Improvements* - Construct hybrid roundabouts at the Steese Expressway/Chena Hot Springs Interchange.

SR-42 *Richardson Highway MP 359 Railroad Overpass* - Construct a grade-separated railroad crossing at MP 359 of the Richardson Highway and a pedestrian underpass east of the railroad crossing.

SR-43 *Old Steese Highway Upgrade* - Upgrade the Old Steese Highway from the intersection at Trainor Gate Road to, and including, the intersection at Johansen Expressway. Improvements will include intersection upgrades, bicycle/pedestrian facilities, drainage improvements and utility relocations. The big picture improvements include adding capacity (lanes) on Old Steese between Trainor and Helmericks, adding pedestrian facilities along the corridor, and changing Trainor Gate Road between new and Old Steese to one way westbound.

SR-55 *Airport Way Study Update* - Update 2007 Airport Way Study recommendations and

emphasize economic development along the Airport Way corridor.

MR-25 *Phillips Field Road - Realign Pioneer Road to meet Driveway Street* - Realign Pioneer Road on the south side to meet Driveway Street on the north side to accommodate freight traffic.

MR-28 *Airport Way/Cushman Street Intersection Reconstruction* - Major intersection improvements to improve capacity, traffic operations, and safety. Work will include added through-lanes and turn-lanes on Cushman Street.

MR-30 *Johansen Expressway Ramps/College Road/Illinois Street Improvements* - Construction of improvements to the Johansen/College Interchange Ramps and on College Road (Johansen Expressway – Illinois Street) to handle traffic growth and to improve safety. Work will include added turn-lanes at the Johansen Expressway ramps, intersection improvements at Illinois Street (Illinois Street Reconstruction project), a possible signal at College Road/Sam's Club, a possible roundabout at College Road/Illinois Street, and improvements to make the crossings of the Johansen Expressway ramp terminals more comfortable for non-motorized users.

MR-31 *Johansen Expressway Widening* - Widen Johansen Expressway to accommodate additional westbound traffic between Steese Expressway and College Road.

MR-32 *Johansen Expressway Interchange (at Steese Expressway)* - Construct a grade-separated interchange at the intersection of Steese Expressway and Johansen Expressway. Realign adjacent accesses as necessary to accommodate the selected interchange configuration.

MR-34 *Airport Way Interchange and 10th Avenue Frontage Road* - Construct a grade-separated interchange at the intersection of Steese Expressway and Airport Way. Realign adjacent non-motorized facilities as necessary to accommodate the selected interchange configuration. Remove the signalized intersection at Steese Expressway and 10th Avenue and construct a frontage road providing access to Steese Expressway via the Steese Expressway/Airport Way intersection.

MR-39 *Danby Street Interchange Study* - Study a grade-separated interchange on Johansen Expressway at Danby Street.

LR-19 *Airport Way Corridor Improvements, Stage I* - This is the first in a series of projects to implement the recommendations of the Airport Way Improvements Reconnaissance Study.

LR-20 *Johansen Expressway/Danby Street Interchange* - Construction of a grade-separated intersection to handle long-term traffic growth and improve safety on the Johansen Expressway.

LR-21 *Mitchell Expressway Interchange, Stage I* - Construction of a grade-separated interchange on the Mitchell Expressway to provide for long-term growth in the Fairbanks area and help to implement the original "Ultimate Freeway" status of the Richardson Highway/Mitchell Expressway/Parks Highway Corridor (Eielson-Ester). Ongoing monitoring of community and traffic growth and changing travel patterns are important in selecting one of the alternate locations, which include Peger Road, University Avenue, and Lathrop Street.

LR-22 *Richardson Highway: Access/Safety Improvements (Rozak Road – Peridot Street)* - Consolidation of intersection and driveway access onto the Richardson Highway with needed links to collector roads on both the north and south sides of the corridor. Special considerations are needed

for future access to large undeveloped parcels of land to the north of the Richardson Corridor and the Alaska Railroad tracks.

LR-28 *Farmers Loop Road Interchange (at Steese Expressway)* - Construct a grade-separated interchange at the intersection of Steese Expressway and Farmers Loop Road. Realign adjacent accesses as necessary to accommodate the selected interchange configuration. Construct improvements at the intersection of Farmers Loop Road and Farmers Loop Spur.

LR-29 *Old Richardson Highway Interchange* - Construct a grade-separated interchange at the intersection of Richardson Highway and Old Richardson Highway. This may include additional access to Fort Wainwright.

LR-33 *Trainor Gate Road Intersection Improvements* - Remove the existing 4-way intersection at Trainor Gate Road and Steese Expressway and construct a one-way access ramp between Steese Expressway and Old Steese Highway and a frontage road connecting Trainor Gate Road to Hamilton Avenue and 3rd Street. Remove the west leg of the Trainor Gate Road intersection on Old Steese Highway. Construct grade-separated railroad crossings near the Steese Expressway and Old Steese Highway intersections and a grade-separated pedestrian crossing over Steese Expressway. (Some of this work may be done in conjunction with the 2014 Old Steese Highway Upgrade project.)

VLR-5 *Phillips Field Road Improvements* - Reconstruct Phillips Field Road to improve safety for all transportation modes, including intersection improvements.

VLR-15 *Phillips Field Road/Minnie Street Realignment* - Realign Phillips Field Road to create a four leg intersection with Minnie Street.

VLR-16 *Airport Way Corridor Improvements, Stage II* - This is the second in a series of projects to implement the recommendations of the Airport Way Improvements Reconnaissance Study.

VLR-17 *Geist Road Improvements* - Reconstruction of Geist Road (University Avenue – Loftus Road) to provide for long-term traffic growth and access to local business, schools, and residential areas. Work will include a raised median, signal at the Geist Road/Rebecca Street intersection, and a south traffic circulation road (Rebecca Street – University Avenue).

VLR-18 *Johansen Expressway Interchanges* - Very long-term growth in the Fairbanks area may require construction of an interchange on the Johansen Expressway to eliminate the at-grade intersections at Old Steese Highway and at Hunter Drive.

VLR-19 *Mitchell Expressway Interchange, Stages II and III* - Construct two more grade-separated interchanges on the Mitchell Expressway to provide for long-term growth in the Fairbanks area and help to implement the original "Ultimate Freeway" concept for the Richardson Highway/Mitchell Expressway/Parks Highway Corridor (Eielson-Ester). Ongoing monitoring of community and traffic growth and changing travel patterns are important in selecting one of the alternate locations, which include Peger Road, University Avenue, and Lathrop Street.

VLR-20 *Richardson Highway: 3-Mile/Old Richardson Interchange* - Construct a grade-separated crossing at the Richardson Highway/Old Richardson Crossover. Alternates would include either a partial overpass (outbound Richardson Highway) or a full diamond interchange.

VLR-21 *Richardson Highway: North Pole Area Interchange Phase II* - Construct another Richardson Corridor grade-separated crossing in the North Pole area. Ongoing monitoring of

community and traffic growth and changing travel patterns are important in selecting one of the alternate locations, which include Peridot Street, Laurance Road, and Mission Road (most likely only an underpass).

VLR-22 *Richardson Highway: North Pole Area Interchange Phase III* - Construct another Richardson Corridor grade-separated crossing in the North Pole area. Ongoing monitoring of community and traffic growth and changing travel patterns are important in selecting one of the alternate locations, which include Peridot Street, Laurance Road, and Mission Road (most likely only an underpass).

VLR-25 *North Pole, Alaska, Road/Rail Crossing Reduction Project* - Realign the railroad track along a portion of ARRC Eielson Branch to reduce the number of at-grade road-rail crossings in the City of North Pole and enhance safety. It includes elimination of a major at-grade road-rail crossing of the Richardson Highway, a NHS roadway. The project will be accomplished by relocating the railroad from the population center of North Pole to a rural area along or near the Tanana River Levee structure. The project will extend from Richardson Highway Milepost 355 to Highway Milepost 347, popularly known as Mile 9, to the easterly portion of the City of North Pole.

VLR-28 *Fairbanks Rail Realignment* – This project will optimize the alignment of mainline and branch track within the Fairbanks Area to improve customer response and minimize transportation conflicts with the adjacent communities.

ARRC Projects

The ARRC also has a number of projects planned that will impact the Fairbanks area that may or may not occur within the planning horizon. The two primary projects are listed here and described below:

- Northern Rail Extension
- Fairbanks Area Rail Line Relocation

The Northern Rail Extension project will lengthen the railroad approximately 80 miles from its current terminus near the Chena River overflow structure near North Pole to Delta Junction. The extension is expected to generate additional freight traffic, primarily military, between Fairbanks and Delta. In addition to military freight, the extension is also expected to carry both military and civilian passengers, and could potentially carry agricultural goods from the region. This is not expected at this time to amount to a net increase in train traffic entering and exiting Fairbanks to and from Anchorage. Phase 1 of this project, which involves constructing a new crossing of the Tanana River at Salcha, is complete.

The purpose of the Fairbanks Area Rail Line Relocation project is principally to resolve safety concerns created by development that has occurred around the railroad tracks during the past 80 years. The re-alignment is not expected to result in additional rail traffic. Work is currently beginning on the process to conduct the North Pole area section of this project. Currently, funding and management agreements between agencies are being completed, given that the benefits of this project extend beyond the railroad to the regional roadway system as well. Projects VLR-26 and VLR-29, previously described above, are all components of this effort.

Though the cumulative effects of these projects on rail volumes are currently unknown, they will result in improved operating speeds, reduced safety concerns, and a slightly expanded service area. This could support or even encourage an increase in rail volumes that are higher than the current forecast volumes shown earlier in this section.

Chapter 7 – Implementation Plan

CHAPTER 7 – RECOMMENDED PLAN

This section presents the Technical Committee's recommended set of projects that help to ensure the efficient and safe multimodal movement of people and goods within and through the Fairbanks region. Sources for these projects include the 2035 MTP, projects developed through the TIP process, other planning efforts that have been completed since the adoption of the 2035 MTP (e.g., 2013 Short and Long Range Transit Plan, Non-Motorized Transportation Plan), and projects developed through the MTP update process. Though a number of projects are roadway focused, this plan recommends that sidewalks and paths along project roadways be evaluated at the same priority and the roadway itself.

PROJECT PRIORITIES

Planned projects are prioritized into four timeframes:

- Short Range (SR) – 2015-2020
- Medium Range (MR) – 2021-2030
- Long Range (LR) – 2031-2040
- Very Long Range (VLR) – Beyond 2040

Projects have been placed into the first three timeframes to match projected funding levels (documented in Chapter 8) and represent the fiscally constrained project list. There is a recognized desire to construct projects in the VLR timeframe, if and when funding becomes available, but they are a lower priority than those in the other timeframes. The prioritization of projects into the four timeframes was done by FMATS and ADOT&PF staff. It is informed by the 2035 Plan, the analysis done as part of this update, the results of other planning efforts, and the Plan goals. These timeframes have been confirmed by the Technical and Policy Committees.

Furthermore, the projects within each timeframe are categorized as either FMATS or Non-FMATS designation. ADOT&PF has full jurisdiction over the NHS routes and determines the funding priorities for those routes. They must consult with local governments in setting their priorities, and this Plan is an important step in that process.

The final lists of projects for each timeframe are contained within Tables 7-1 through 7-4. Locations of these projects are illustrated in Figures 7-1 through 7-5. Brief project descriptions follow and a more detailed financial analysis showing expected costs and revenues to fund these projects is presented in Chapter 8.

Table 7-1 Short Range Projects (2015-2020)

Project ID	Project
FMATS Projects	
SR-1	Old Steese Highway - Wendell Bridge to Trainor Gate Road
SR-2	College Road Pavement Rehabilitation
SR-3	Noble Street Upgrade: Fairbanks
SR-4	FMATS: Safety and Efficiency Improvements

Project ID	Project
SR-5	FMATS Sidewalk Improvement Project
SR-6	FMATS Improvement Program
SR-7	FMATS Intersection Improvements
SR-8	Barnette Street Improvements
SR-9	Gillam Way Upgrade: Airport Way - 17th Avenue
SR-10	Goldhill Bicycle and Pedestrian Facility
SR-11	McGrath Road Upgrade
SR-12	Cowles St Reconstruction (East Cowles - 1st Ave)
SR-13	Cushman Street Road Reconstruction
SR-14	FMATS Sign Replacement - Stage III
SR-15	Plack Road Bike/Pedestrian Facility: FNSB
SR-16	Fairbanks Bicycle Route Signage and Pavement Markings
SR-17	Yankovich Road/Miller Hill Road Multi-Use Path
SR-18	Steese Expressway to Front Street Bicycle/Pedestrian Path
SR-19	Birch Hill Bicycle and Pedestrian Facility: FNSB
SR-20	Cowles Street E: 23rd Ave - 29th Ave
SR-21	Lathrop Street: Eagan Ave - 16th Ave
SR-22	Loftus Road Sidewalk
SR-23	Wembley Avenue: Aurora Dr - Danby St
SR-24	FMATS Freight Mobility Plan
SR-25	Loftus Road: Wood River Dr -Birch Ln
SR-26	Peger Road Undercrossing
SR-27	Chena River Walk Stage III
SR-28	FMATS Pedestrian Improvements - Stage I
SR-29	Farmers Loop Road/Army Road
SR-30	Airport Way Beautification
SR-31	Badger Road Corridor Study
SR-32	FMATS Sidewalk Improvements Study
SR-33	College Road Bus Pullouts
SR-34	Transportation Demand Management (TDM) Strategies
SR-35	North Pole Intersection Improvements
SR-36	North Pole Streetlight Standardization and Improvement Project
SR-37	Lathrop Street Extension
Non-FMATS Projects	
SR-38	Airport Way West Improvements
SR-39	Richardson Highway: MP 353-357, Safety/Access Improvements
SR-40	Steese Highway and 3rd Street Widening
SR-41	Chena Hot Springs Road Interchange Improvements
SR-42	Richardson Highway MP 359 Railroad Overpass
SR-43	Old Steese Highway Upgrade
SR-44	NHS Pavement Management/Preventive Maintenance
SR-45	Danby Street/Wembley Roundabout (HSIP)
SR-46	University Ave Widening, Stage I - Thomas St - Chena River Recreation Site
SR-47	FNSB Air Quality Programs (CMAQ)
SR-48	FNSB Statewide Implementation Plan (SIP)

Project ID	Project
SR-49	PM2.5 VMT and Classification Study
SR-50	Northern Region Signal Interconnect
SR-51	City of Fairbanks Pedestrian Facilities Upgrade
SR-52	FNSB Air Quality Educational Outreach
SR-53	TIP/LRTP Conformity Analysis
SR-54	Wendell Avenue Bridge: Fairbanks
SR-55	Airport Way Study Update
SR-56	MP 356-362 Bicycle/Pedestrian Path (Richardson Hwy)
SR-57	Geist Road: University Ave – Loftus Rd
SR-58	Cowles St/Airport Frontage Rd
SR-59	Parks Hwy/Chena Pump Rd-Geist Rd
SR-60	Increase Red/Blue Headways
SR-61	Bus Stop Shelters
SR-62	Fred Meyer West Transit Center
SR-63	Transit Maintenance Center Expansion
SR-64	Transit Center Security
SR-65	Sunday Service
SR-66	Six New Buses
SR-67	New E-350 Cutaway Van
SR-68	Heavy Duty Diesel Anti-idling
SR-69	Carlson Center Motor Vehicle Plug-in Infrastructure
SR-70	Plug-in Infrastructure, Big Dipper, North Pole Library and Fairbanks Library
SR-71	FNSB Air Quality Hot Spot Guidance Program

Table 7-2 Medium Range Projects (2021-2030)

Project ID	Project
FMATS Projects	
MR-1	Fairbanks Cushman Street Bridge Replacement
MR-2	Minnie Street Reconstruction
MR-3	Dyke Rd. Improvements
MR-4	Dawson Road Extension (Hurst Road - Plack Road)
MR-5	North Tanana Dr Extension (UAF)
MR-6	Tanana Loop Reconstruction (UAF)
MR-7	Bradway Road Reconstruction
MR-8	Peridot Street Reconstruction: FNSB
MR-9	Tanana Loop and Alumni Drive Intersection Improvements
MR-10	FMATS Intersection Improvements
MR-11	FMATS Safety and Efficiency Improvements
MR-12	FMATS Improvement Program
MR-13	College Road Reconstruction Stage II
MR-14	Noyes Slough Bridge (Aurora Drive)
MR-15	7th Avenue (Fbks): Cowles St – Steese Hwy

Project ID	Project
MR-16	FMATS Bicycle Facility Improvement Program
MR-17	Peger Road: Chena River – Airport Way
MR-18	5th Avenue (NP): Santa Claus Ln – Therron St
MR-19	8th Avenue (NP): St Nicholas Dr – Blanket Blvd
MR-20	Dartmouth Drive: Chena Pump Road – Stanford Dr
MR-21	Fairbanks Street: Birch Ln – Teal Ave
MR-22	Boat Street Path - Chena River Bridge
MR-23	College Road Pedestrian Crossings
MR-24	Egan Ave. Pedestrian Improvements
MR-25	Phillips Field Road - Realign Pioneer Road to meet Driveway Street
MR-26	Lacey Street Reconstruction
MR-27	Richardson Highway Corridor Study: Badger Road to Eielson
Non-FMATS Projects	
MR-28	Airport Way/Cushman Street Intersection Reconstruction
MR-29	NHS Pavement Management/Preventive Maintenance
MR-30	Johansen Expressway Ramps/College Road/Illinois Street Improvements
MR-31	Johansen Expressway Widening
MR-32	Johansen Expressway Interchange (at Steese Expressway)
MR-33	College Road and 3rd Street Improvements
MR-34	Airport Way Interchange and 10th Avenue Frontage Road
MR-35	Chena Pump Road Roundabout Interchange
MR-36	University Avenue Widening, Stage II: Chena River Recreation Site - Swenson Ave
MR-37	University Avenue Widening, Stage III: Swenson Ave - Parks Highway
MR-38	FNSB Air Quality Programs (CMAQ)
MR-39	Danby Street Interchange Study
MR-40	Airport Way: Steese Hwy – Parks Hwy
MR-41	Farmers Loop - Chena Hot Springs Road Trail Connections: FNSB
MR-42	Richardson Highway (NP) Alternate Route: Peridot St – Laurance Rd
MR-43	Geist Road: Parks Hwy – Fairbanks St
MR-44	Steese Hwy/Johansen Expwy

Table 7-3 Long Range Projects (2031-2040)

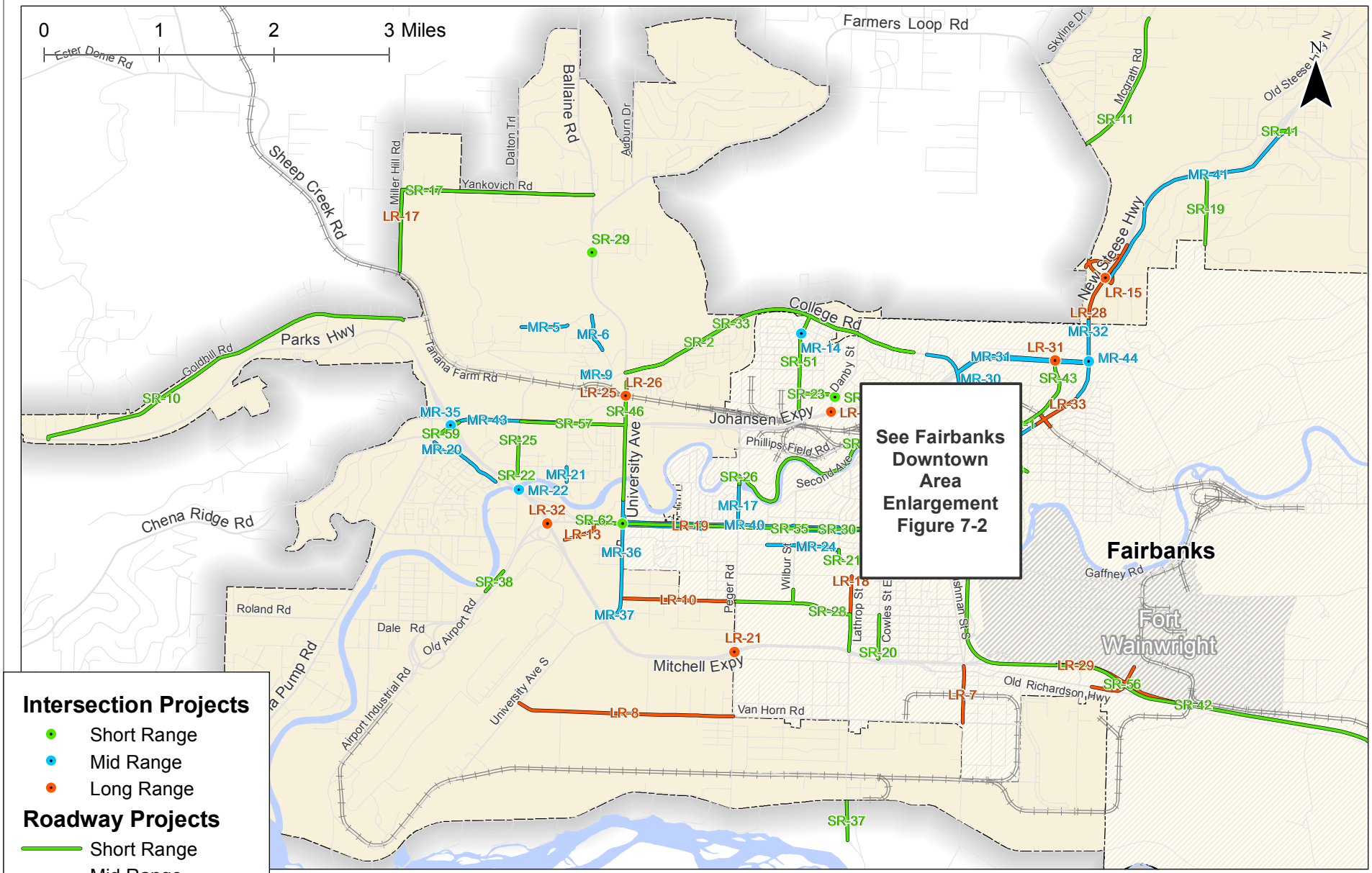
Project ID	Project
FMATS Projects	
LR-1	Dennis Road Extension: North Pole
LR-2	Holmes Road Reconstruction
LR-3	Lyle Ave Extension (Newby Road - Nelson Road)
LR-4	FMATS Safety and Efficiency Improvements
LR-5	FMATS Sidewalk Improvement Project
LR-6	FMATS Improvement Program

Project ID	Project
LR-7	S Cushman Street: Mitchell Expwy – Van Horn Rd
LR-8	Van Horn Rd – University Ave – Peger Rd
LR-9	Geist Road Access Management
LR-10	Davis Road: University Ave – Peger Rd
LR-11	2nd Avenue (Fbks): Hall St – Clay St
LR-12	7th Avenue (Fbks): End of sidewalk – 3rd Ave
LR-13	Old Airport Way: Mitchell Expwy – Airport Way
LR-14	5th Ave-Mission Road/Richardson Highway
LR-15	Old Steese Hwy/Farmers Loop Rd
LR-16	FMATS Sidewalk Improvements
LR-17	Yankovich Road/Miller Hill Road Upgrade
LR-18	Lathrop Street: 19th Avenue – Davis Road
Non-FMATS Projects	
LR-19	Airport Way Corridor Improvements, Stage I
LR-20	Johansen Expressway/Danby Street Interchange
LR-21	Mitchell Expressway Interchange, Stage I
LR-22	Richardson Highway: Access/Safety Improvements (Rozak Road – Peridot Street)
LR-23	NHS Pavement Management/Preventive Maintenance
LR-24	University Ave Widening, Stage V
LR-25	University Ave Widening, Stage VI
LR-26	University Ave Widening, Stage IV - Railroad Crossing
LR-27	FNSB Air Quality Programs (CMAQ)
LR-28	Farmers Loop Road Interchange (at Steese Expressway)
LR-29	Old Richardson Highway Interchange
LR-30	Johansen Path Bridge to Charles Street
LR-31	Old Steese Hwy/Johansen Expwy
LR-32	Parks Hwy/Airport Way
LR-33	Trainor Gate Road Intersection Improvements

Table 7-4 Very Long Range Projects (Beyond 2040)

Project ID	Project
FMATS Projects	
VLR-1	Steamship Nenana Renovation: Fairbanks
VLR-2	Wendell Street Bridge Intersection Improvements: Fairbanks
VLR-3	Dennis Road/Lazelle Road Corridor: Steese Expressway/Johansen Expressway-Badger
VLR-4	Goldizen Road Local Connections
VLR-5	Phillips Field Road Improvements
VLR-6	University Avenue/Goldizen Signal (Phillips Field Road-Birch Lane)
VLR-7	FMATS Intersection Improvements
VLR-8	FMATS Improvement Program
VLR-9	Fairbanks Area Street Improvements
VLR-10	3rd Avenue (Fbks): Hall St – Steese Hwy

Project ID	Project
VLR-11	FMATS Sidewalk Improvements
VLR-12	Barnette Street Crossing Study
VLR-13	Phillips Field Road: Peger Rd – Illinois St
VLR-14	Chena Pump Road Connection
VLR-15	Phillips Field Road/Minnie Street Realignment
Non-FMATS Projects	
VLR-16	Airport Way Corridor Improvements, Stage II
VLR-17	Geist Road Improvements
VLR-18	Johansen Expressway Interchanges
VLR-19	Mitchell Expressway Interchange, Stages II and III
VLR-20	Richardson Highway: 3-Mile/Old Richardson Interchange
VLR-21	Richardson Highway: North Pole Area Interchange Phase II
VLR-22	Richardson Highway: North Pole Area Interchange Phase III
VLR-23	Richardson Highway Area Roadway Improvements (Local Roads)
VLR-24	Ballaine Road Bicycle Corridor: Yankovich Road-Goldstream Road
VLR-25	North Pole, Alaska, Road/Rail Crossing Reduction Project
VLR-26	Old Steese Highway: Farmers Loop Rd – Chena Hot Springs Rd
VLR-27	Airport Way/Parks Highway Undercrossing
VLR-28	Fairbanks Rail Realignment
VLR-29	Rail Extension from Pioneer Park to the Morris Thompson Cultural and Visitors Center



Planned Projects
Fairbanks Core Area
Fairbanks, Alaska

Figure
7-1

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Coordinate System: NAD 1983 StatePlane Alaska 3 FIPS 5003 Feet

Intersection Projects
- Short Range
- Mid Range
- Long Range

Roadway Projects
- Short Range
- Mid Range
- Long Range
- City Boundaries
- MPO Boundary

Planned Projects
Fairbanks Core Area
Fairbanks, Alaska

Figure **7-2**

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Coordinate System: NAD 1983 StatePlane Alaska 3 FIPS 5003 Feet

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Planned Projects
North Pole and Greater Fairbanks Region
North Pole, Alaska

Figure
7-3

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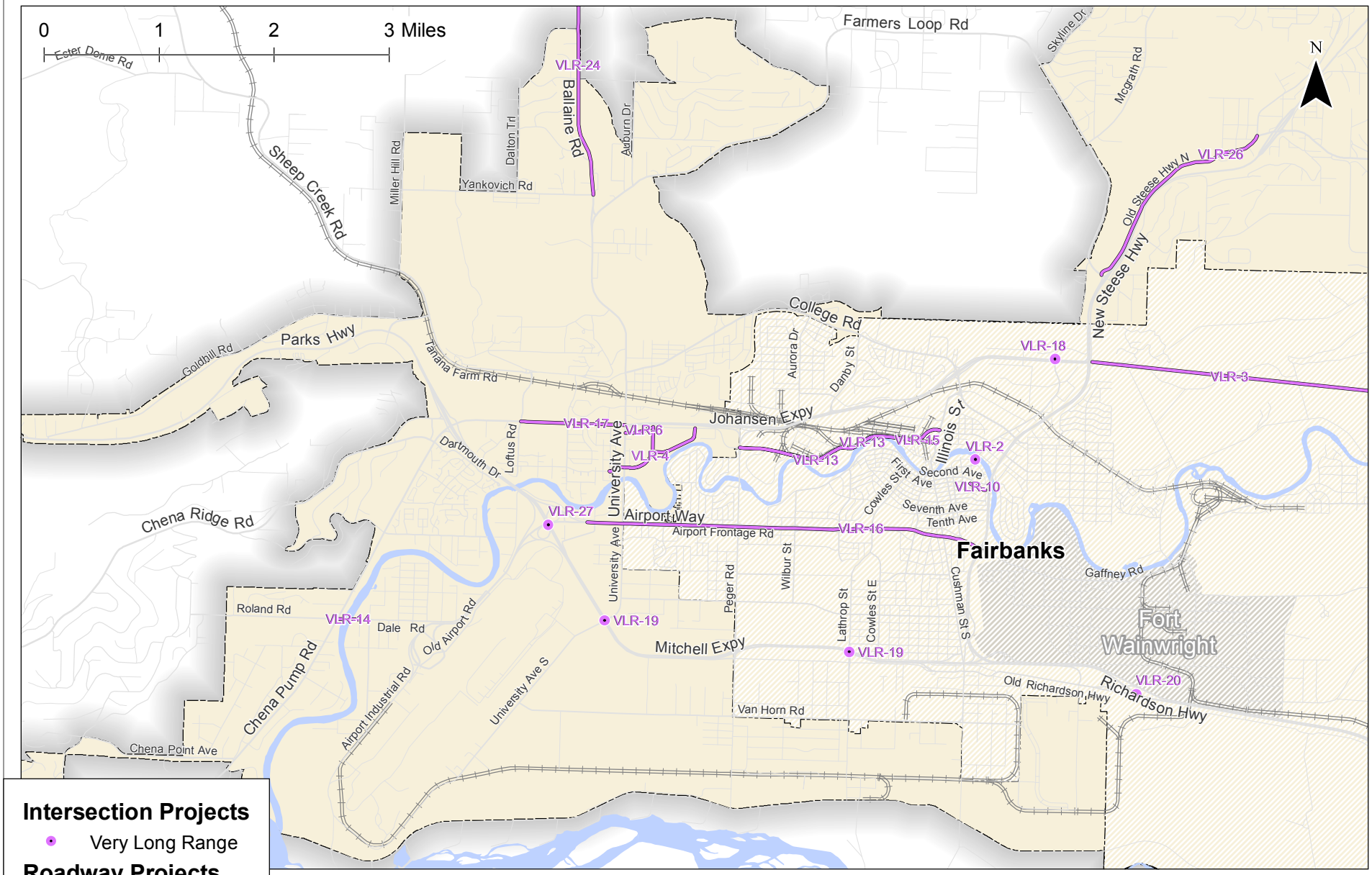
TRANSPORTATION ENGINEERING/PLANNING

Coordinate System: NAD 1983 StatePlane Alaska 3 FIPS 5003 Feet



Very Long-Range Projects
Fairbanks Core Area
Fairbanks, Alaska

Figure **7-4**

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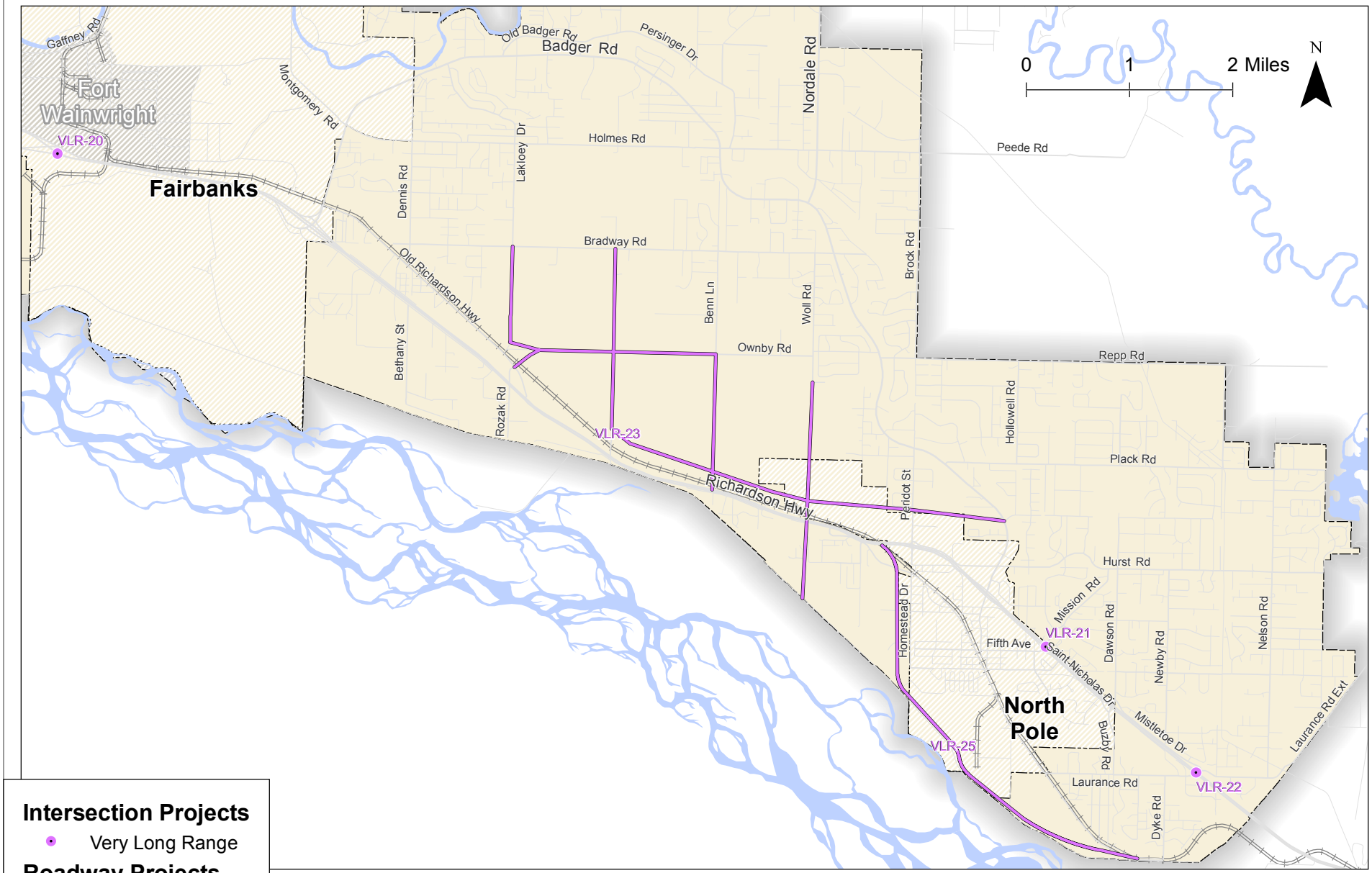
Coordinate System: NAD 1983 StatePlane Alaska 3 FIPS 5003 Feet



Intersection Projects
- Very Long Range

Roadway Projects
- Very Long Range
- City Boundaries
- MPO Boundary

Very Long-Range Projects
North Pole and Greater Fairbanks Region
North Pole, Alaska

Figure **7-5**

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Kittelson & Associates, Inc.
Transportation Engineering/Planning

Coordinate System: NAD 1983 StatePlane Alaska 3 FIPS 5003 Feet

PROJECT DESCRIPTIONS

Short-Range Projects

FMATS Projects

SR-1 *Old Steese Highway: Wendell Bridge to Trainor Gate Road* - Reconstruct the Old Steese Highway between the Wendell Avenue Bridge project and Trainor Gate Road to accommodate all users.

SR-2 *College Road Pavement Rehabilitation* - Rehabilitate and repave College Road between University Avenue and Mary Leigh Avenue, including the College Road/Danby Street intersection and intersection improvements along the route.

SR-3 *Noble Street Upgrade: Fairbanks* - Reconstruct Noble Street from 1st Avenue to Gaffney Road.

SR-4 *FMATS Safety and Efficiency Improvements* - Funding for low-cost improvements to enhance the safety and efficiency of the existing transportation system. Projects may include signing, striping, lighting upgrades, signal timing, signal controller upgrades, and maintenance.

SR-5 *FMATS Sidewalk Improvement Project* - Funding for improved connectivity, safety, mobility, and access for pedestrians throughout the MPA.

SR-6 *FMATS Improvement Program* - Funding for the annual Preventative Maintenance or Rehabilitation Activities Program within the FMATS Area for non-NHS routes.

SR-7 *FMATS Intersection Improvements* - Funding for intersection enhancements related to capacity, safety, and/or multimodal accessibility within the FMATS boundary.

SR-8 *Barnette Street Improvements* - Part of the complete streets project: rehabilitate the roadway, widen sidewalks, install a southbound bike lane, signal modifications, controller upgrades, and street enhancements, as allowable.

SR-9 *Gillam Way Upgrade: Airport Way – 17th Avenue* - Upgrade of Gillam Way to include added sidewalks, drainage, and illumination. Provide needed safety improvements in the area of local schools.

SR-10 *Goldhill Road Bicycle and Pedestrian Facility* - Widen the shoulders on Goldhill Road to accommodate bicycles and pedestrians. Improvements also will include resurfacing the roadway, approach work, signing, and striping.

SR-11 *McGrath Road Upgrade* - Major reconstruction of the lower portion of McGrath Road to improve safety and provide for increasing travel demands and multiple transportation modes.

SR-12 *Cowles Street Reconstruction (East Cowles – 1st Avenue)* - Reconstruction to handle increasing travel demands, to improve safety, and reduce maintenance costs.

SR-13 *Cushman Street Road Reconstruction* - Reconstruct Cushman Street. Work will include analyzing and upgrading traffic signals at intersecting roads, upgrading controller cabinets, improving site distance, ADA improvements, illumination and drainage improvements and possible one-way to two-way conversions for 2nd, 4th and 5th Streets only. The scope will include making Cushman Street a "Complete Street".

SR-14 *FMATS Sign Replacement - Stage III* - Replace signs in accordance with the City of Fairbanks and City of North Pole's established sign management plans.

SR-15 *Plack Road Bike/Pedestrian Facility: FNSB* - Construct a bicycle/pedestrian path on Plack Road from Badger Road to Nelson Road.

SR-16 *Fairbanks Bicycle Route Signage and Pavement Markings* - Install bicycle route signs and/or pavement markings within the MPA.

SR-17 *Yankovich Road/Miller Hill Road Multi-Use Path* - Construct a separated bicycle/pedestrian trail along Yankovich and Miller Hill Roads in the Farmers Loop/UAF area.

SR-18 *Steese Expressway to Front Street Bicycle/Pedestrian Path* - Construct a bicycle/pedestrian path from the Steese Expressway separated path to Front Street.

SR-19 *Birch Hill Bicycle and Pedestrian Facility: FNSB* - Construct a bike/pedestrian facility along Birch Hill Road to allow safe access to the Birch Hill Recreational Trail System.

SR-20 *Cowles Street E: 23rd Avenue – 29th Avenue* - Construct sidewalk from existing sidewalk to the end of Cowles Street E.

SR-21 *Lathrop Street: Eagan Avenue – 16th Avenue* - Construct sidewalk from existing sidewalk to the end of Lathrop Street.

SR-22 *Loftus Road Sidewalk* - Construct sidewalk to connect the shared-use path to the existing sidewalk along Loftus Road north of Birch Lane.

SR-23 *Wembley Avenue: Aurora Drive - Danby Street* - Construct sidewalk along the north side of Wembley Avenue.

SR-24 *FMATS Freight Mobility Plan* - Conduct a study to characterize the movement of freight within the Metropolitan Planning Area and identify deficiencies and make recommendations for future freight investments.

SR-25 *Loftus Road: Wood River Drive -Birch Lane* - Investigate potential improvements to make crossing this section of Loftus Road more comfortable for non-motorized users. Crossings are recommended along this road as part of the previously mentioned Safe Routes to School project.

SR-26 *Peger Road Undercrossing* - Investigate potential improvements to make the undercrossing at the Chena River Bridge feel more secure.

SR-27 *Chena River Walk Stage III* - Continue expansion of the Chena River Walk to the north side of the Chena River with approximately 11,500 linear feet of pathway from Peger Road to Barnette Street and up to three pedestrian bridges to connect to existing facilities.

SR-28 *FMATS Pedestrian Improvements - Stage I* - Construct new facilities to improve connectivity within the FMATS boundary on Wilbur Street, Davis Road, Peger Road, and Lathrop Street with possible mid-block crossings.

SR-29 *Farmers Loop Road/Army Road* - Investigate potential improvements to make this unsignalized intersection crossing more comfortable for non-motorized users.

SR-30 *Airport Way Beautification* - Construct landscape and hardscape improvements on Airport Way.

SR-31 *Badger Road Corridor Study* - Conduct study of future road conditions on Badger Road.

SR-32 *FMATS Sidewalk Improvements Study* - Study and prioritize missing sidewalks.

SR-33 *College Road Bus Pullouts* - Add new bus pullouts along College Road.

SR-34 *Transportation Demand Management (TDM) Strategies* - A further investigation of Transportation Demand Management (TDM) strategies should be added to the MTP. While this project is not a capital improvement project, it could eliminate the need for several of the capital improvement projects in the proposed project list, resulting in a great savings.

SR-35 *North Pole Intersection Improvements* - Analysis, design, and construction of traffic improvements with emphasis on pedestrian safety, road function, and quality of life. The intersections in question are Santa Claus Lane and E 5th Avenue and North Pole High School Boulevard at Old Richardson Highway and 8th Avenue.

SR-36 *North Pole Streetlight Standardization and Improvement Project* - Upgrade the streetlights in older subdivisions and illuminate several areas in the city currently not illuminated. The project has four major areas of concentration: the city core, Highway Park, Ford and Morning Star Subdivisions.

SR-37 *Lathrop Street Extension* - Extend South Lathrop Street, to include non-motorized facilities, into the newly developed Tanana Lakes Recreation Area.

Non-FMATS Projects

SR-38 *Airport Way West Improvements* - Construction of a new frontage road to link Dale Road and Hoselton Roads, construction of a roundabout intersection to replace the two existing intersections, and construction of bicycle and pedestrian facilities along Hoselton Road. Previously was known as *Airport Way/Dale Road/Pikes Safety Improvement/Signal*.

SR-39 *Richardson Highway: MP 353-357, Safety/Access Improvements* - Improvements to frontage roads and intersections on the Richardson Highway between Old Richardson Highway and Badger Road to consolidate access and increase safety on the high-speed Richardson Highway. Previously only covered mileposts 354-357.

SR-40 *Steese Highway and 3rd Street Widening* - Major upgrade of the existing Steese Expressway intersection and reconstruction of 3rd Street (Old Steese-Hamilton Avenue). Previously was known as *Steese Expressway/3rd Street Intersection*.

SR-41 *Chena Hot Springs Road Interchange Improvements* - Construct hybrid roundabouts at the Steese Expressway/Chena Hot Springs Interchange.

SR-42 *Richardson Highway MP 359 Railroad Overpass* - Construct a grade-separated railroad crossing at MP 359 of the Richardson Highway and a pedestrian underpass east of the railroad crossing.

SR-43 *Old Steese Highway Upgrade* - Upgrade the Old Steese Highway from the intersection at Trainor Gate Road to, and including, the intersection at Johansen Expressway. Improvements will include intersection upgrades, bicycle/pedestrian facilities, drainage improvements and utility relocations. The big picture improvements include adding capacity (lanes) on Old Steese between Trainor and Helmericks, adding pedestrian facilities along the corridor, and changing Trainor Gate Road between new and Old Steese to one way westbound.

SR-44 *NHS Pavement Management/Preventive Maintenance* - Funding for the annual DOT&PF Preventative Maintenance Program within the FMATS Area for NHS routes. Recommendations for pavement rehabilitation are developed under the ongoing Pavement Management System.

SR-45 *Danby Street/Wembley Roundabout (HSIP)* - Construct a single-lane roundabout at the intersection of Danby Street and Wembley Avenue.

SR-46 *University Avenue Widening, Stage I - Thomas Street - Chena River Recreation Site* - Major reconstruction of University Avenue from Thomas Street to the Chena River Recreation Site. This phase includes a new bridge over the Chena River and major intersection improvements at the Johansen Expressway.

SR-47 *FNSB Air Quality Programs (CMAQ)* - Funding to support ongoing efforts and recommendations outlined under the Fairbanks North Star Borough Carbon Monoxide Air Quality Maintenance Plan.

SR-48 *FNSB Statewide Implementation Plan (SIP)* - Prepare a Fairbanks PM 2.5 Non-Attainment Area Statewide Implementation Plan (SIP). This project includes inventory development, data collection, analysis, modeling, identifying control measures, and components that demonstrate attainment.

SR-49 *PM2.5 VMT and Classification Study* - To fund vehicle volume, classification, speed counts, and traffic counting equipment within the PM2.5 non-attainment area. Conduct a baseline study of local road VMT, as well as data analysis and reporting.

SR-50 *Northern Region Signal Interconnect* - Improve capabilities of the Northern Region to communicate with signals, monitor, and perform signal timing modifications as necessary. Upgrade signal timing plans, controllers, and other related items. This project will include upgrades at NR DOT&PF to incorporate improvements to interconnecting communication systems and provide for training, maintenance, and operational funding to ensure efficiency in the signal timing systems.

SR-51 *City of Fairbanks Pedestrian Facilities Upgrade* - Reconstruct pedestrian facilities on Aurora Drive, Cowles Street, Lacey Street and 5th, 6th, 7th, 8th, 9th, and 10th Avenues from Cowles Street to Noble Street, and 10th Avenue from Noble Street to the Steese Highway.

SR-52 *FNSB Air Quality Educational Outreach* - Develop a multimedia campaign, perform surveys, acquire and operate variable message signs, and create and distribute public messages targeting transportation, air quality, and home heating.

SR-53 *TIP/LRTP Conformity Analysis* - Preparation of a PM 2.5 conformity determination for short- and long-term transportation plans and individual projects in the entire nonattainment area with the FNSB, consisting of FMATS and the associated "donut area" within the PM 2.5 Boundary.

SR-54 *Wendell Avenue Bridge: Fairbanks* - Rehabilitate or replace the Wendell Street Bridge #0532, widen sidewalks, and provide pedestrian access to the bridge along the north and south sides under the bridge.

SR-55 *Airport Way Study Update* - Update 2007 Airport Way Study recommendations and emphasize economic development along the Airport Way corridor.

SR-56 *MP 356-362 Bicycle/Pedestrian Path (Richardson Highway)* - Construct a paved bicycle/pedestrian path on the Richardson Highway between MP 356 - 362, starting from the Richardson Highway/Airport Way intersection, continuing along the Richardson Highway to the Badger Loop North Bound Ramp, and terminating at the Badger Road/Old Richardson Highway intersection.

SR-57 *Geist Road: University Avenue – Loftus Road* - Install pavement markings and/or signs

across major driveways and unsignalized intersections.

SR-58 *Cowles Street/Airport Frontage Road* - Investigate potential improvements to make this unsignalized intersection crossing more comfortable for non-motorized users (possibly done in conjunction with the designation of the Airport Way bicycle route described previously).

SR-59 *Parks Highway/Chena Pump Road-Geist Road* - Investigate potential improvements to make the crossings of the ramp terminals more comfortable for non-motorized users.

SR-60 *Increase Red/Blue Headways* - Increase PM peak service on Red and Blue lines.

SR-61 *Bus Stop Shelters* - Add benches and shelters to key stops.

SR-62 *Fred Meyer West Transit Center* - Construct an improved transfer facility at Fred Meyer West.

SR-63 *Transit Maintenance Center Expansion* - Construct a larger vehicle storage and maintenance facility.

SR-64 *Transit Center Security* - Improve security and maintenance of the Transit Center.

SR-65 *Sunday Service* - Add Sunday service for MACS Red and Blue lines.

SR-66 *Six New Buses* – Purchase six Gillig low-floor 35-foot buses.

SR-67 *New E-350 Cutaway Van* - Purchase a new E-350 Cutaway Van.

SR-68 *Heavy Duty Diesel Anti-idling* - Support existing anti-idling pilot at DOT&PF by assisting with Telemetric purchase and installation. To expand anti-idling to other heavy duty vehicle fleets within the FNSB non-attainment area. Implement other vehicle emission reduction techniques through inspection and retrofit upgrades.

SR-69 *Carlson Center Motor Vehicle Plug-in Infrastructure* - Install 600 plug-ins at the Carlson Center.

SR-70 *Plug-in Infrastructure, Big Dipper, North Pole Library and Fairbanks Library* - Install 75 plug-ins at the Fairbanks Warm Storage Facility, 300 plug-ins at the Big Dipper Ice Arena, 25 plug-ins at the North Pole Library, and 50 plug-ins at the Fairbanks Library.

SR-71 *FNSB Air Quality Hot Spot Guidance Program* - Update mobile air quality monitoring equipment. Provide targeted public outreach.

Medium-Range Projects

FMATS Projects

MR-1 *Fairbanks Cushman Street Bridge Replacement* - Reconstruction or upgrade of the existing Cushman Street bridge to meet current seismic standards.

MR-2 *Minnie Street Reconstruction* - Reconstruct Minnie Street from Erceg Street to the Old Steese Highway. Work includes upgrading sidewalks to ADA compliance, shoulders to accommodate bicyclist, storm drain system, utility relocations, and rehabilitation or replace the Noyes Slough Bridge.

MR-3 *Dyke Road Improvements* - Construct paved shoulders for bicyclists and pedestrians along Dyke Road from Laurance Road to the Old Richardson Highway.

MR-4 *Dawson Road Extension (Hurst Road - Plack Road)* - Extend Dawson Road north from Hurst

Road to provide an alternate travel route between the growing Plack Road and Repp Road area and Richardson Highway Corridor in North Pole via the Richardson/Dawson Interchange.

MR-5 *North Tanana Drive Extension (UAF)* - Reconstruct Kuskokwim Way between North Tanana Drive and Sheenjek Drive, approximately 2,100 feet, to include construction of sidewalk, shoulders to accommodate bicyclists, illumination, drainage improvements, and paving.

MR-6 *Tanana Loop Reconstruction (UAF)* - Reconstruct 1,700 feet of Tanana Loop between Yukon Drive and North Tanana Drive. Widen the sidewalk to 8 feet and extend it to North Tanana Drive. Add 4-foot bike lanes to both sides of the roadway.

MR-7 *Bradway Road Reconstruction* - Reconstruction of Bradway Road in the Badger Road area to provide a maintainable pavement structure and to provide for increasing travel demands and multiple transportation modes.

MR-8 *Peridot Street Reconstruction: FNSB* - Reconstruct Peridot Street from the Richardson Highway to City limits, approximately 0.21 miles, and pave. Provide street lights and bike/pedestrian facilities as funding allows.

MR-9 *Tanana Loop and Alumni Drive Intersection Improvements* - Demo two non-stop controlled right-turn lanes at the Tanana/Alumni intersection. Widen and reconstruct existing 3-way stop controlled intersections to include designated right-turn lanes. Realign westbound Tanana Loop such that the intersection with South Chandalar is farther north to provide acceptable offset between intersections. Tie existing pedestrian facilities together by installing a sidewalk on the south side of Alumni Drive and east side of South Chandalar Drive.

MR-10 *FMATS Intersection Improvements* - Funding for intersection enhancements related to capacity, safety, and/or multimodal accessibility within the FMATS boundary.

MR-11 *FMATS Safety and Efficiency Improvements* - Funding for low-cost improvements to enhance the safety and efficiency of the existing transportation system. Projects may include signing, striping, and lighting upgrades, signal timing, signal controller upgrades, and maintenance.

MR-12 *FMATS Improvement Program* - Funding for the annual Preventative Maintenance or Rehabilitation Activities Program within the FMATS Area for non-NHS routes.

MR-13 *College Road Reconstruction Stage II* - Reconstruct College Road from Margaret Avenue to the Steese Expressway and narrow College Road median to add 3-foot shoulders. (Approximately 1.2 miles)

MR-14 *Noyes Slough Bridge (Aurora Drive)* - Replace functionally obsolete and structurally deficient bridge #0209 over the Noyes Slough.

MR-15 *7th Avenue (Fairbanks): Cowles Street – Steese Highway* - Install bicycle route signs and/or pavement markings. Consider full Bicycle Boulevard treatments.

MR-16 *FMATS Bicycle Facility Improvement Program* - Rehabilitate or reconstruct bicycle facilities in the MPA.

MR-17 *Peger Road: Chena River – Airport Way* - Widen shoulders, if possible, and designate as bike lanes.

MR-18 *5th Avenue (NP): Santa Claus Lane – Therron Street* - Construct sidewalk from Santa Claus Lane to 5th Avenue's terminus at Therron Street.

MR-19 *8th Avenue (NP): Saint Nicholas Drive – Blanket Boulevard* - Construct sidewalk from the terminus of the shared-use path west of Blanket Boulevard to Saint Nicholas Drive.

MR-20 *Dartmouth Drive: Chena Pump Road – Stanford Drive* - Construct sidewalk along Dartmouth Drive.

MR-21 *Fairbanks Street: Birch Lane – Teal Avenue* - Construct sidewalk on west side of Fairbanks Street.

MR-22 *Boat Street Path - Chena River Bridge* - Improve the ramp connections onto the bridge to provide a smooth transition for cyclists.

MR-23 *College Road Pedestrian Crossings* - Install pedestrian crossings on College Road where warranted.

MR-24 *Egan Avenue Pedestrian Improvements* - Install pedestrian facilities between Moore Street and Lathrop Street along Egan Avenue.

MR-25 *Phillips Field Road - Realign Pioneer Road to meet Driveway Street* - Realign Pioneer Road on the south side to meet Driveway Street on the north side to accommodate freight traffic.

MR-26 *Lacey Street Reconstruction* - Reconstruct Lacey Street from 10th to 1st Avenue and provide improved facilities for all users.

MR-27 *Richardson Highway Corridor Study: Badger Road to Eielson* - Identify corridor projects emphasizing local land uses and developing future land use recommendations.

Non-FMATS Projects

MR-28 *Airport Way/Cushman Street Intersection Reconstruction* - Major intersection improvements to improve capacity, traffic operations, and safety. Work will include added through-lanes and turn-lanes on Cushman Street.

MR-29 *NHS Pavement Management/Preventive Maintenance* - Funding for the annual DOT&PF Preventative Maintenance Program within the FMATS Area for NHS routes. Recommendations for pavement rehabilitation are developed under the ongoing Pavement Management System.

MR-30 *Johansen Expressway Ramps/College Road/Illinois Street Improvements* - Construction of improvements to the Johansen/College Interchange Ramps and on College Road (Johansen Expressway – Illinois Street) to handle traffic growth and to improve safety. Work will include added turn-lanes at the Johansen Expressway ramps, intersection improvements at Illinois Street (Illinois Street Reconstruction project), a possible signal at College Road/Sam's Club, a possible roundabout at College Road/Illinois Street, and improvements to make the crossings of the Johansen Expressway ramp terminals more comfortable for non-motorized users.

MR-31 *Johansen Expressway Widening* - Widen Johansen Expressway to accommodate additional westbound traffic between Steese Expressway and College Road.

MR-32 *Johansen Expressway Interchange (at Steese Expressway)* - Construct a grade-separated interchange at the intersection of Steese Expressway and Johansen Expressway. Realign adjacent accesses as necessary to accommodate the selected interchange configuration.

MR-33 *College Road and 3rd Street Improvements* - Construct improvements at the College Road and 3rd Street intersections.

MR-34 *Airport Way Interchange and 10th Avenue Frontage Road* - Construct a grade-separated

interchange at the intersection of Steese Expressway and Airport Way. Realign adjacent non-motorized facilities as necessary to accommodate the selected interchange configuration. Remove the signalized intersection at Steese Expressway and 10th Avenue and construct a frontage road providing access to Steese Expressway via the Steese Expressway/Airport Way interchange.

MR-35 *Chena Pump Road Roundabout Interchange* - Study a roundabout interchange at the Chena Pump Road/Parks Highway interchange.

MR-36 *University Avenue Widening, Stage II: Chena River Recreation Site - Swenson Avenue* - Major reconstruction of University Avenue from the Chena River Recreation Site to Swenson Avenue. This phase includes major intersection improvements at Airport Way.

MR-37 *University Avenue Widening, Stage III: Swenson Avenue - Parks Highway* - Major reconstruction of University Avenue from Swenson Avenue to the Parks Highway.

MR-38 *FNSB Air Quality Programs (CMAQ)* - Funding to support ongoing efforts and recommendations outlined under the Fairbanks North Star Borough Carbon Monoxide Air Quality Maintenance Plan.

MR-39 *Danby Street Interchange Study* - Study a grade-separated interchange on the Johansen Expressway at Danby Street.

MR-40 *Airport Way: Steese Highway – Parks Highway* - Designate and construct improvements to parallel routes on the north and south sides of Airport Way.

MR-41 *Farmers Loop - Chena Hot Springs Road Trail Connections: FNSB* - Construction of an all-season trail connection that will link from Farmers Loop Road in the McGrath Road area to Chena Hot Springs Road. This will connect the Farmers Loop Bike Trail and adjacent winter trails to the Chena Hot Springs multi-use trail.

MR-42 *Richardson Highway (NP) Alternate Route: Peridot Street – Laurance Road* - Design and construct improvements to parallel routes on the north and south sides of the Richardson Highway through North Pole.

MR-43 *Geist Road: Parks Highway – Fairbanks Street* - Construct an extension of the existing shared-use path on the north side of the road to the Parks Highway.

MR-44 *Steese Highway/Johansen Expressway* - Investigate potential improvements to make this signalized intersection crossing more comfortable for non-motorized users.

Long-Range Projects

FMATS Projects

LR-1 *Dennis Road Extension: North Pole* - Reconstruction to handle increasing travel demands, to improve safety, and reduce maintenance costs. Extend Dennis Road from Badger Road to Seawolf Drive, to provide public access to an existing residential area. Project to include pedestrian facilities from Badger Road to the north side of Chena River.

LR-2 *Holmes Road Reconstruction* - Rehabilitate Holmes Road and provide accommodations for bicycles and pedestrians to improve safety and provide for increasing residential development in the area.

LR-3 *Lyle Avenue Extension (Newby Road – Nelson Road)* - Construct a new road link between Nelson Road and Newby Road/Conifer Drive to provide improved access to the Richardson

Highway/Dawson Road interchange. This project is warranted if a future interchange is not constructed at Richardson Highway/Laurance Road.

LR-4 *FMATS Safety and Efficiency Improvements* - Funding for low-cost improvements to enhance the safety and efficiency of the existing transportation system. Projects may include signing, striping, and lighting upgrades, signal timing, signal controller upgrades, and maintenance.

LR-5 *FMATS Sidewalk Improvement Project* - Funding for improved connectivity, safety, mobility, and access for pedestrians throughout the MPA.

LR-6 *FMATS Improvement Program* - Funding for the annual Preventative Maintenance or Rehabilitation Activities Program within the FMATS Area for non-NHS routes.

LR-7 *S Cushman Street: Mitchell Expressway – Van Horn Road* - Install bicycle lanes.

LR-8 *Van Horn Road – University Avenue – Peger Road* - Install bicycle lanes to provide a complete connection around southern Fairbanks.

LR-9 *Geist Road Access Management* - Study access management and path conflicts on Geist Road.

LR-10 *Davis Road: University Avenue – Peger Road* - Construct sidewalk on the south side of Davis Road.

LR-11 *2nd Avenue (Fairbanks): Hall Street – Clay Street* - Construct sidewalk along the north side of 2nd Avenue.

LR-12 *7th Avenue (Fairbanks): End of sidewalk – 3rd Avenue* - Construct sidewalk along 7th Avenue from where the MLH Manor (near Noble Street) existing sidewalk ends to 3rd Avenue. Approximately 0.2 miles.

LR-13 *Old Airport Way: Mitchell Expressway – Airport Way* - Construct sidewalk along Old Airport Way.

LR-14 *5th Avenue - Mission Road/Richardson Highway* - Investigate potential improvements to allow non-motorized users to cross the Richardson Highway at this location. This may require an overpass, which could be completed in conjunction with a future interchange at this location.

LR-15 *Old Steese Hwy/Farmers Loop Road* - Investigate potential improvements to make this unsignalized intersection crossing more comfortable for non-motorized users.

LR-16 *FMATS Sidewalk Improvements* - Study and prioritize missing sidewalks.

LR-17 *Yankovich Road/Miller Hill Road Upgrade* - Major reconstruction of Yankovich Road and Miller Hill Road to improve safety and to handle increasing travel demands.

LR-18 *Lathrop Street: 19th Avenue – Davis Road* - Convert the existing shoulders to designated bike lanes.

Non-FMATS Projects

LR-19 *Airport Way Corridor Improvements, Stage I* - This is the first in a series of projects to implement the recommendations of the Airport Way Improvements Reconnaissance Study.

LR-20 *Johansen Expressway/Danby Street Interchange* - Construction of a grade-separated intersection to handle long-term traffic growth and improve safety on the Johansen Expressway.

LR-21 *Mitchell Expressway Interchange, Stage I* - Construction of a grade-separated interchange on the Mitchell Expressway to provide for long-term growth in the Fairbanks area and help to implement the original "Ultimate Freeway" status of the Richardson Highway/Mitchell Expressway/Parks Highway Corridor (Eielson-Ester). Ongoing monitoring of community and traffic growth and changing travel patterns are important in selecting one of the alternate locations, which include Peger Road, University Avenue, and Lathrop Street.

LR-22 *Richardson Highway: Access/Safety Improvements (Rozak Road – Peridot Street)* - Consolidation of intersection and driveway access onto the Richardson Highway with needed links to collector roads on both the north and south sides of the corridor. Special considerations are needed for future access to large undeveloped parcels of land to the north of the Richardson Corridor and the Alaska Railroad tracks.

LR-23 *NHS Pavement Management/Preventive Maintenance* - Funding for the annual DOT&PF Preventative Maintenance Program within the FMATS Area for NHS routes. Recommendations for pavement rehabilitation are developed under the ongoing Pavement Management System.

LR-24 *University Avenue Widening, Stage V* - Relocation of eight utilities in conflict with the University Avenue Widening project.

LR-25 *University Avenue Widening, Stage VI* - Relocation of utilities associated with the Alaska Railroad overcrossing.

LR-26 *University Avenue Widening, Stage IV* - Railroad Crossing - Construction of a new railroad overcrossing of University Avenue.

LR-27 *FNSB Air Quality Programs (CMAQ)* - Funding to support ongoing efforts and recommendations outlined under the Fairbanks North Star Borough Carbon Monoxide Air Quality Maintenance Plan.

LR-28 *Farmers Loop Road Interchange (at Steese Expressway)* - Construct a grade-separated interchange at the intersection of Steese Expressway and Farmers Loop Road. Realign adjacent accesses as necessary to accommodate the selected interchange configuration. Construct improvements at the intersection of Farmers Loop Road and Farmers Loop Spur.

LR-29 *Old Richardson Highway Interchange* - Construct a grade-separated interchange at the intersection of Richardson Highway and Old Richardson Highway. May include additional access to Fort Wainwright.

LR-30 *Johansen Path Bridge to Charles Street* - Complete the partially constructed bicycle/pedestrian overcrossing of the Johansen Expressway between the railroad depot and College Road and provide a paved connection to the railroad depot and Illinois Street.

LR-31 *Old Steese Highway/Johansen Expressway* - Install guide signs to direct northbound non-motorized travelers on the Old Steese Highway to the shared-use path along the Johansen Expressway.

LR-32 *Parks Highway/Airport Way* - Investigate potential improvements to make the crossings of the ramp terminals more comfortable for non-motorized users.

LR-33 *Trainor Gate Road Intersection Improvements* - Remove the existing 4-way intersection at Trainor Gate Road and Steese Expressway and construct a one-way access ramp

between Steese Expressway and Old Steese Highway and a frontage road connecting Trainor Gate Road to Hamilton Avenue and 3rd Street. Remove the west leg of the Trainor Gate Road intersection on Old Steese Highway. Construct grade-separated railroad crossings near the Steese Expressway and Old Steese Highway intersections and a grade-separated pedestrian crossing over Steese Expressway. (Some of this work may be done in conjunction with the current Old Steese Highway Upgrade project.)

Very Long-Range Projects

Projects included in this timeframe are currently considered not likely to be funded within the horizon of this plan. However, should funds become available, projects from this group may be constructed by 2040. As updates to this plan are completed, region needs and/or priorities may shift and projects from this group may replace projects from one of the previous three timeframes. Figures 7-4 and 7-5 illustrate these projects.

FMATS Projects

VLR-1 *Steamship Nenana Renovation: Fairbanks* - Restoration work on the sternwheeler Nenana to address safety and historic preservation requirements.

VLR-2 *Wendell Street Bridge Intersection Improvements: Fairbanks* - Construct a new, 2-way street connecting the Wendell Bridge to 1st Avenue, realign Hall Street and revise access to existing parking lots. Work also includes improving pedestrian and bike facilities, drainage, illumination, and street enhancements.

VLR-3 *Dennis Road/Lazelle Road Corridor: Steese Expressway/Johansen Expressway-Badger Road* – Construction of a new roadway link north of the Chena River and through Fort Wainwright between the Steese Expressway/Johansen Expressway intersection and the Badger Road area. This proposed corridor could also include links to Nordale Road and Chena Hot Springs Road. Concern has been expressed for this corridor in the 2006 *Joint Land Use Study* in that it could encourage further development, which could present a land use conflict with Fort Wainwright. Any future planning related to this corridor would need to be closely coordinated with Fort Wainwright personnel.

VLR-4 *Goldizen Road Local Connections* - At the time of redevelopment of the quarry along Goldizen Road, adequate connectivity through a local street system should be provided between University Avenue and Phillips Field Road. The exact location of the roadways will be determined during development.

VLR-5 *Phillips Field Road Improvements* - Reconstruct Phillips Field Road to improve safety for all transportation modes, including intersection improvements.

VLR-6 *University Avenue/Goldizen Signal (Phillips Field Road-Birch Lane)* - Signalization of University Avenue/Goldizen Avenue and upgrade of Goldizen Avenue with a link to Phillips Field Road to the east of University Avenue. This project would occur in response to possible redevelopment of the large industrial properties in this area. Also, give consideration to a new link to the west to provide alternate access to the Birch Lane residential area.

VLR-7 *FMATS Intersection Improvements* - Funding for intersection enhancements related to capacity, safety, and/or multimodal accessibility within the FMATS boundary.

VLR-8 *FMATS Improvement Program* - Funding for the annual Preventative Maintenance or

Rehabilitation Activities Program within the FMATS Area for non-NHS routes.

VLR-9 *Fairbanks Area Street Improvements* - Funding to support further implementation of local comprehensive plans.

VLR-10 *3rd Avenue (Fairbanks): Hall Street – Steese Highway* - Construct sidewalk along the 3rd Avenue from Hall Street to the Steese Highway shared-use path connection.

VLR-11 *FMATS Sidewalk Improvements* - Study and prioritize missing sidewalks.

VLR-12 *Barnette Street Crossing Study* - Study pedestrian crossing needs on Barnette Street between 1st Avenue and Airport Way.

VLR-13 *Phillips Field Road: Peger Road – Illinois Street* - Construct a shared-use path along the north side of the Chena River, if feasible. Bicycle lanes should be considered where they are feasible along Phillips Field Road, if this path cannot be built.

VLR-14 *Chena Pump Road Connection* - Construction of a new roadway link between the Chena Pump Road area and Airport Way, including pedestrian facilities, to provide an alternative travel route. This project would also require construction of a new Chena River Bridge.

VLR-15 *Phillips Field Road/Minnie Street Realignment* - Realign Phillips Field Road to create a four-leg intersection with Minnie Street.

NON-FMATS

VLR-16 *Airport Way Corridor Improvements, Stage II* - This is the second in a series of projects to implement the recommendations of the Airport Way Improvements Reconnaissance Study.

VLR-17 *Geist Road Improvements* - Reconstruction of Geist Road (University Avenue – Loftus Road) to provide for long-term traffic growth, access to local business, schools and residential areas. Work will include a raised median, signal at the Geist Road/Rebecca Street intersection and a south traffic circulation road (Rebecca Street – University Avenue).

VLR-18 *Johansen Expressway Interchanges* - Very long-term growth in the Fairbanks area may require construction of an interchange on the Johansen Expressway to eliminate the at-grade intersections at Old Steese Highway and at Hunter Drive.

VLR-19 *Mitchell Expressway Interchange, Stages II and III* - Construction of two more grade-separated interchanges on the Mitchell Expressway to provide for long-term growth in the Fairbanks area and help to implement the original "Ultimate Freeway" status of the Richardson Highway/Mitchell Expressway/Parks Highway Corridor (Eielson-Ester). Ongoing monitoring of community and traffic growth and changing travel patterns are important in selecting one of the alternate locations, which include Peger Road, University Avenue, and Lathrop Street.

VLR-20 *Richardson Highway: 3-Mile/Old Richardson Interchange* - Construction of a grade-separated crossing at the Richardson Highway/Old Richardson Crossover. Alternates would include either a partial overpass (outbound Richardson Highway) or a full diamond interchange.

VLR-21 *Richardson Highway: North Pole Area Interchange Phase II* - Construction of another Richardson Corridor grade-separated crossing in the North Pole area. Ongoing monitoring of community and traffic growth and changing travel patterns are important in selecting one of the alternate locations, which include Peridot Street,

Laurance Road, and Mission Road (most likely only an underpass).

VLR-22 *Richardson Highway: North Pole Area Interchange Phase III* - Construction of another Richardson Corridor grade-separated crossing in the North Pole area. Ongoing monitoring of community and traffic growth and changing travel patterns are important in selecting one of the alternate locations, which include Peridot Street, Laurance Road, and Mission Road (most likely only an underpass).

VLR-23 *Richardson Highway Area Roadway Improvements (Local Roads)* - Construct street connections north of the Richardson Highway, south of Bradway Road, and west of Woll Road. The exact location of the roadways will be determined at the time property begins to develop.

VLR-24 *Ballaine Road Bicycle Corridor: Yankovich Road-Goldstream Road* - Major reconstruction of the old Ballaine Road Bike Path through the Goldstream Valley.

VLR-25 *North Pole, Alaska, Road/Rail Crossing Reduction Project* - This project will realign the railroad track along a portion of ARRC Eielson Branch to reduce the number of at-grade road-rail crossings in the City of North Pole and enhance safety. It includes elimination of a major at-grade road/rail crossing of the Richardson Highway, a NHS roadway. The project will be accomplished by relocating the railroad from the population center of North Pole to a rural area along or near the Tanana River Levee structure. The project will extend from Richardson Highway Milepost 355 to Highway Milepost 347, popularly known as Mile 9, to the easterly portion of the City of North Pole.

VLR-26 *Old Steese Highway: Farmers Loop Road – Chena Hot Springs Road* - Widen shoulders where feasible and install signs reminding bicyclists and motor vehicles to "share the road." Note that ADOT&PF is currently considering a project to connect Farmers Loop Road to Chena Hot Springs Road. The recommendations from the ADOT&PF project will likely affect the need for this project.

VLR-27 *Airport Way/Parks Highway Undercrossing* - Study a pedestrian/bicycle undercrossing under the Parks Highway near Airport Way.

VLR-28 *Fairbanks Rail Realignment* - This project will optimize the alignment of mainline and branch track within the Fairbanks Area to improve customer response and minimize transportation conflicts with the adjacent communities.

VLR-29 *Rail Extension from Pioneer Park to the Morris Thompson Cultural and Visitors Center* - Construct a rail track from Pioneer Park to the Morris Thompson Cultural and Visitors Center.

ANALYSIS OF THE FUNDED NETWORK

The analysis contained within Section 4 of the Plan examined the 2035 roadway network as it was previously planned. Due to shifts in funding, regional priorities, and area needs, the planned network from this Plan is different. Therefore, a final model run was conducted assuming build-out of the network planned in funded timeframes described above. The results of this model run were examined using the methods described in Section 4. Figure 7-6 shows the forecast segment V/C ratios for all roadway links in the travel demand model. Table 7-5 shows those segments with a future V/C ratio of 0.90 or higher. All reported V/C ratios are from the peak p.m. hour; the peak a.m. hour has no links with a V/C ratio over 0.90.

As shown in Table 7-5, there are five segments that are forecast to have a V/C ratio at or above 0.90 in 2040. Only one segment, an off-ramp that is part of

the proposed Steese Highway expressway concept, is forecast to have demand exceeding capacity in 2040.

Table 7-5 Segments with 2040 V/C of 0.90 or Higher With Planned Improvements

Roadway	Segment	Direction	Future V/C Range
Johansen Expressway	Hunter Rd to Johansen Expy/College Rd Ramps	Eastbound	0.9-1.0
Steese Hwy	Third Street Northbound Off Ramp	Northbound	>1.0
East Frontage Rd	3rd St to College Rd	Northbound	0.9-1.0
Old Steese Hwy	Front St to Wendell Ave	Northbound	0.9-1.0
Airport Way	Noble St to Airport Wy/Steese Hwy Ramps	Eastbound	0.9-1.0

POLICY AND PROGRAM ACTIONS

FMATS has carefully considered the guidance and requirements of MAP-21 during the development of this MTP update. This legislation has influenced how the existing transportation system is assessed, how needs are identified, which approaches are used to address those needs, which methods are chosen to estimate future travel demands, and the approaches taken to equip the future system to more effectively and efficiently meet travel needs across multiple modes. The requirements of 23 CFR 450 have been met through the efforts to produce the FMATS 2040 MTP.

The legislation also influences the actions that FMATS will take at the policy and program levels. These actions are related to security and freight planning, environmental issues, and public involvement. The following is a description of these actions.

Security

Potential ways to increase the incorporation of security considerations into the transportation planning process are discussed in Chapter 4. In order to further achieve the goals of MAP-21 and this Plan, and to plan for a more secure transportation system in the Fairbanks region, FMATS will:

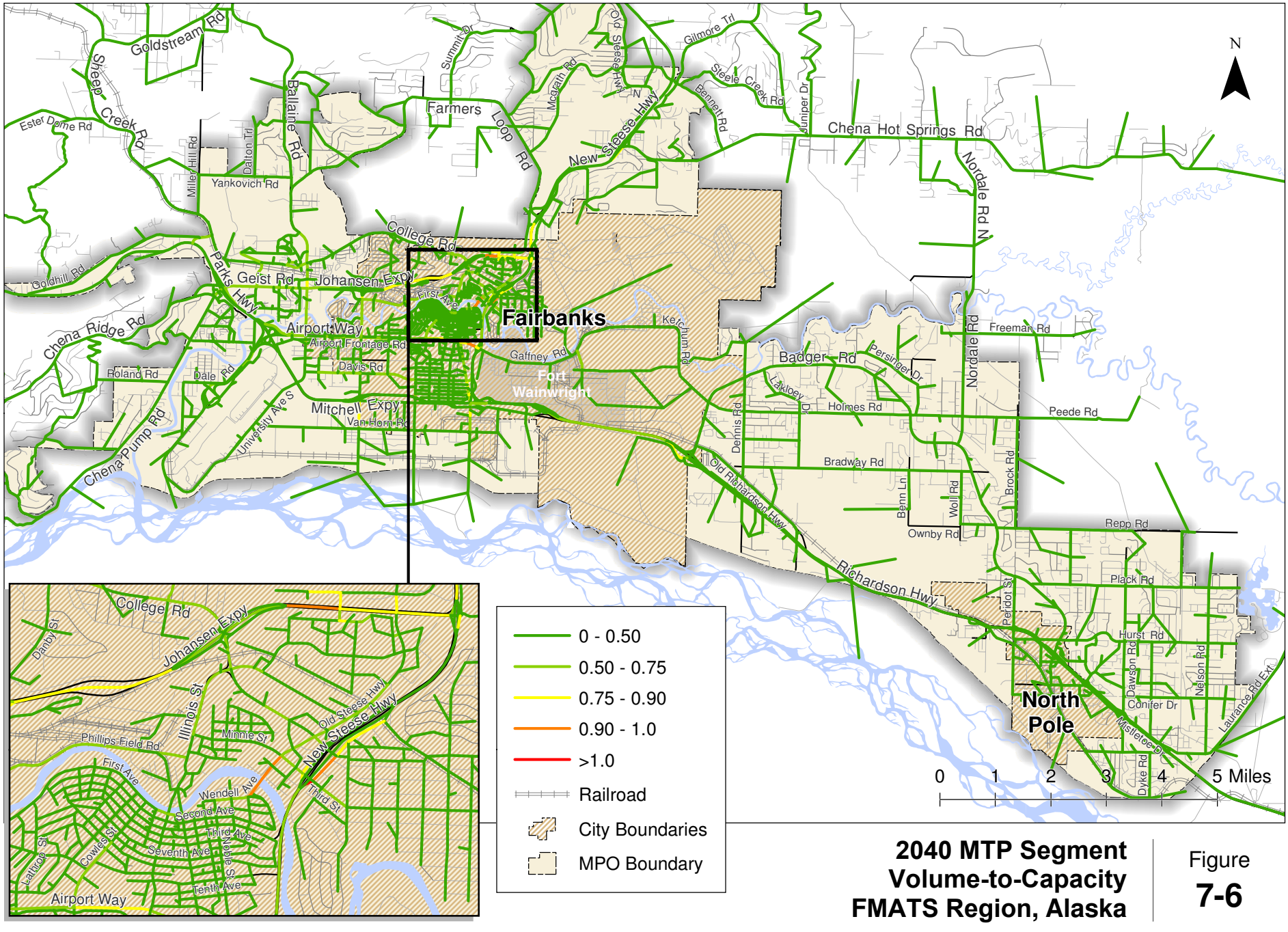
- Involve identified security stakeholders throughout the transportation planning process, as resources allow and
- Consider its project evaluation criteria in light of the goals contained in Chapter 2.

Freight

FMATS intends to continually improve the way it incorporates freight into the planning process. Ongoing activities that may be conducted by FMATS are discussed in Chapter 6 and include ensuring the freight community is represented on the Technical Committee and by undertaking a regional freight plan.

Environmental

As stated in Goal #3 in Chapter 2 of this plan, protecting the environment is an important component of FMATS' planning efforts. Generally, environmental impacts are considered at the project level. Impacts and appropriate mitigation strategies are determined in coordination with the appropriate local, state, Federal, and tribal agencies.



2040 MTP Segment Volume-to-Capacity FMATS Region, Alaska

Figure **7-6**

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KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

Coordinate System: NAD 1983 StatePlane Alaska 3 FIPS 5003 Feet

Climate change is a concern for the Fairbanks area. The cold arctic climate provides for certain wildlife and plant species that are not present in warmer areas. FMATS staff monitors the latest science regarding climate change and greenhouse gases (GHG) but has not put forth any efforts to quantify or reduce GHG emissions in the Fairbanks area.

Public Involvement

Community support is critical to the success of any transportation planning program. FMATS is guided in its public involvement efforts by its Public Participation Plan (PPP). The PPP has been recently updated and is included in the Technical Appendix of this Plan.

FMATS also recognizes the importance of involving historically underrepresented groups in the planning process. The PPP contains strategies to ensure that environmental justice concerns are addressed in the project planning and development processes. Any and all impacts are addressed as part of the NEPA process on individual projects. In addition, the location of the Open House for this project is in a low-income neighborhood and has been chosen to ensure convenient access to the planning process for those groups.

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Chapter 8 – Financial Plan

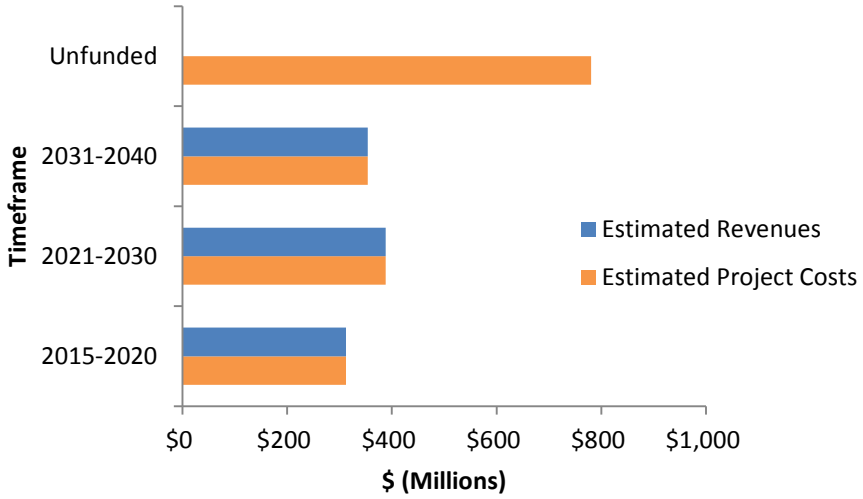
CHAPTER 8 – FINANCIAL PLAN

This section contains the funding plan that supports the fiscally constrained portion of the 2040 MTP. Included in this section are cost estimates for each project described in Chapter 7. These estimates were prepared by ADOT&PF. To more discretely demonstrate cost feasibility, expected revenue levels are estimated for each timeframe through the horizon year. These revenue forecasts were provided by FMATS and ADOT&PF.

SUMMARY

Figure 8-1 summarizes the project cost and revenue estimates for each timeframe.

Figure 8-1 Summary of Cost Estimates and Revenues by Timeframe



The implementation plan described in Chapter 7 is fiscally constrained through 2040. Project cost estimates and revenues range from about $312 million to approximately $388 million in each timeframe. There is about $780 million in identified unfunded projects, with over half (approximately $400 million) being associated with the ARRC's Fairbanks Area Rail Relocation project. Much of the rest of the unfunded projects are new interchanges, which tend to be more expensive than other projects identified in the fiscally constrained timeframes.

Estimated costs by project and revenues by source are provided in the subsequent sections.

SPENDING PLAN

Tables 8-1 through 8-4 show the estimated cost for each project by timeframe.

Table 8-1 Short Range Projects (2015-2020)

Project ID	Project	Spending Plan ($ Million)			
		2015-2020	2021-2030	2031-2040	Unfunded
FMATS Projects					
SR-1	Old Steese Highway - Wendell Bridge to Trainor Gate Road	$3.0			
SR-2	College Road Pavement Rehabilitation	$8.1			
SR-3	Noble Street Upgrade: Fairbanks	$9.0			
SR-4	FMATS: Safety and Efficiency Improvements	$0.6			
SR-5	FMATS Sidewalk Improvement Project	$6.0			
SR-6	FMATS Improvement Program	$7.1			
SR-7	FMATS Intersection Improvements	$2.6			
SR-8	Barnette Street Improvements	$6.0			
SR-9	Gillam Way Upgrade: Airport Way - 17th Avenue	$7.0			
SR-10	Goldhill Bicycle and Pedestrian Facility	$3.2			
SR-11	McGrath Road Upgrade	$6.8			
SR-12	Cowles St Reconstruction (East Cowles - 1st Ave)	$6.9			
SR-13	Cushman Street Road Reconstruction	$4.7			
SR-14	FMATS Sign Replacement - Stage III	$2.0			
SR-15	Plack Road Bike/Pedestrian Facility: FNSB	$3.5			
SR-16	Fairbanks Bicycle Route Signage and Pavement Markings	$0.3			
SR-17	Yankovich Road/Miller Hill Road Multi-Use Path	$4.7			
SR-18	Steese Expressway to Front Street Bicycle/Pedestrian Path	$0.9			
SR-19	Birch Hill Bicycle and Pedestrian Facility: FNSB	$2.6			
SR-20	Cowles Street E: 23rd Ave - 29th Ave	$0.4			
SR-21	Lathrop Street: Eagan Ave - 16th Ave	$0.1			
SR-22	Loftus Road Sidewalk	$0.1			
SR-23	Wembley Avenue: Aurora Dr - Danby St	$0.4			
SR-24	FMATS Freight Mobility Plan	$0.1			
SR-25	Loftus Road: Wood River Dr -Birch Ln	$0.1			
SR-26	Peger Road Undercrossing	$0.1			
SR-27	Chena River Walk Stage III	$3.4			
SR-28	FMATS Pedestrian Improvements - Stage I	$1.3			
SR-29	Farmers Loop Road/Army Road	$0.1			
SR-30	Airport Way Beautification	$0.3			
SR-31	Badger Road Corridor Study	$0.1			
SR-32	FMATS Sidewalk Improvements Study	$0.1			
SR-33	College Road Bus Pullouts	$1.2			
SR-34	Transportation Demand Management (TDM) Strategies	$0.2			
SR-35	North Pole Intersection Improvements	1.5			
SR-36	North Pole Streetlight Standardization and Improvement Project	0.5			
SR-37	Lathrop Street Extension	$4.9			
FMATS Subtotal		*$99.9*			
Non-FMATS Projects					
SR-38	Airport Way West Improvements	$9.3			
SR-39	Richardson Highway: MP 353-357, Safety/Access Improvements	$17.5			
SR-40	Steese Highway and 3rd Street Widening	$13.4			
SR-41	Chena Hot Springs Road Interchange Improvements	$3.0			
SR-42	Richardson Highway MP 359 Railroad Overpass	$13.5			
SR-43	Old Steese Highway Upgrade	$12.0			
SR-44	NHS Pavement Management/Preventive Maintenance	$45.0			
SR-45	Danby Street/Wembley Roundabout (HSIP)	$1.6			
SR-46	University Ave Widening, Stage I - Thomas St - Chena River Recreation Site	$23.9			
SR-47	FNSB Air Quality Programs (CMAQ)	$1.3			
SR-48	FNSB Statewide Implementation Plan (SIP)	$0.9			
SR-49	PM2.5 VMT and Classification Study	$0.2			
SR-50	Northern Region Signal Interconnect	$10.8			
SR-51	City of Fairbanks Pedestrian Facilities Upgrade	$2.4			
SR-52	FNSB Air Quality Educational Outreach	$2.5			
SR-53	TIP/LRTP Conformity Analysis	$1.0			
SR-54	Wendell Avenue Bridge: Fairbanks	$18.2			

Project ID	Project	Spending Plan ($ Million)			
		2015-2020	2021-2030	2031-2040	Unfunded
SR-55	Airport Way Study Update	$0.1			
SR-56	MP 356-362 Bicycle/Pedestrian Path (Richardson Hwy)	$2.6			
SR-57	Geist Road: University Ave – Loftus Rd	$0.1			
SR-58	Cowles St/Airport Frontage Rd	$0.0			
SR-59	Parks Hwy/Chena Pump Rd-Geist Rd	$0.5			
SR-60	Increase Red/Blue Headways	$4.3			
SR-61	Bus Stop Shelters	$1.0			
SR-62	Fred Meyer West Transit Center	$0.1			
SR-63	Transit Maintenance Center Expansion	$20.0			
SR-64	Transit Center Security	$0.3			
SR-65	Sunday Service	$0.2			
SR-66	Six New Buses	$2.5			
SR-67	New E-350 Cutaway Van	$0.4			
SR-68	Heavy Duty Diesel Anti-idling	$1.0			
SR-69	Carlson Center Motor Vehicle Plug-in Infrastructure	$1.1			
SR-70	Plug-in Infrastructure, Big Dipper, North Pole Library and Fairbanks Library	$0.9			
SR-71	FNSB Air Quality Hot Spot Guidance Program	$1.1			
Non-FMATS Subtotal		*$212.7*			
Short Range Projects Total		**$312.6**			

Table 8-2 Medium Range Projects (2021-2030)

Project ID	Project	Spending Plan ($ Million)			
		2015-2020	2021-2030	2031-2040	Unfunded
FMATS Projects					
MR-1	Fairbanks Cushman Street Bridge Replacement		$11.1		
MR-2	Minnie Street Reconstruction		$6.4		
MR-3	Dyke Rd. Improvements		$2.0		
MR-4	Dawson Road Extension (Hurst Road - Plack Road)		$4.0		
MR-5	North Tanana Dr Extension (UAF)		$3.7		
MR-6	Tanana Loop Reconstruction (UAF)		$1.9		
MR-7	Bradway Road Reconstruction		$10.0		
MR-8	Peridot Street Reconstruction: FNSB		$1.5		
MR-9	Tanana Loop and Alumni Drive Intersection Improvements		$3.6		
MR-10	FMATS Intersection Improvements		$5.6		
MR-11	FMATS Safety and Efficiency Improvements		$5.0		
MR-12	FMATS Improvement Program		$13.3		
MR-13	College Road Reconstruction Stage II		$2.0		
MR-14	Noyes Slough Bridge (Aurora Drive)		$4.0		
MR-15	7th Avenue (Fbks): Cowles St – Steese Hwy		$0.1		
MR-16	FMATS Bicycle Facility Improvement Program		$0.1		
MR-17	Peger Road: Chena River – Airport Way		$0.3		
MR-18	5th Avenue (NP): Santa Claus Ln – Therron St		$0.7		
MR-19	8th Avenue (NP): St Nicholas Dr – Blanket Blvd		$0.3		
MR-20	Dartmouth Drive: Chena Pump Road – Stanford Dr		$0.7		
MR-21	Fairbanks Street: Birch Ln – Teal Ave		$0.1		
MR-22	Boat Street Path - Chena River Bridge		$0.5		
MR-23	College Road Pedestrian Crossings		$0.5		
MR-24	Egan Ave. Pedestrian Improvements		$1.0		
MR-25	Phillips Field Road - Realign Pioneer Road to meet Driveway Street		$2.0		
MR-26	Lacey Street Reconstruction		$6.0		
MR-27	Richardson Highway Corridor Study: Badger Road to Eielson		$0.3		
FMATS Subtotal			*$86.7*		
Non-FMATS Projects					
MR-28	Airport Way/Cushman Street Intersection Reconstruction		$10.6		
MR-29	NHS Pavement Management/Preventive Maintenance		$75.0		
MR-30	Johansen Expressway Ramps/College Road/Illinois Street Improvements		$15.0		
MR-31	Johansen Expressway Widening		$13.0		
MR-32	Johansen Expressway Interchange (at Steese Expressway)		$25.0		
MR-33	College Road and 3rd Street Improvements		$68.0		
MR-34	Airport Way Interchange and 10th Avenue Frontage Road		$36.0		
MR-35	Chena Pump Road Roundabout Interchange		$4.0		
MR-36	University Avenue Widening, Stage II: Chena River Recreation Site - Swenson Ave		$9.3		
MR-37	University Avenue Widening, Stage III: Swenson Ave - Parks Highway		$5.8		
MR-38	FNSB Air Quality Programs (CMAQ)		$33.0		
MR-39	Danby Street Interchange Study		$0.1		
MR-40	Airport Way: Steese Hwy – Parks Hwy		$1.5		
MR-41	Farmers Loop - Chena Hot Springs Road Trail Connections: FNSB		$3.7		
MR-42	Richardson Highway (NP) Alternate Route: Peridot St – Laurance Rd		$0.6		
MR-43	Geist Road: Parks Hwy – Fairbanks St		$0.7		
MR-44	Steese Hwy/Johansen Expwy		$0.0		
Non-FMATS Subtotal			*$301.3*		
Medium Range Projects Total			**$388.0**		

Table 8-3 Long Range Projects (2031-2040)

Project ID	Project	Spending Plan ($ Million)			
		2015-2020	2021-2030	2031-2040	Unfunded
FMATS Projects					
LR-1	Dennis Road Extension: North Pole			$11.0	
LR-2	Holmes Road Reconstruction			$10.0	
LR-3	Lyle Ave Extension (Newby Road - Nelson Road)			$2.7	
LR-4	FMATS Safety and Efficiency Improvements			$5.0	
LR-5	FMATS Sidewalk Improvement Project			$8.9	
LR-6	FMATS Improvement Program			$10.0	
LR-7	S Cushman Street: Mitchell Expwy – Van Horn Rd			$0.4	
LR-8	Van Horn Rd – University Ave – Peger Rd			$1.7	
LR-9	Geist Road Access Management			$0.1	
LR-10	Davis Road: University Ave – Peger Rd			$0.1	
LR-11	2nd Avenue (Fbks): Hall St – Clay St			$0.1	
LR-12	7th Avenue (Fbks): End of sidewalk – 3rd Ave			$0.2	
LR-13	Old Airport Way: Mitchell Expwy – Airport Way			$0.4	
LR-14	5th Ave-Mission Road/Richardson Highway			$0.0	
LR-15	Old Steese Hwy/Farmers Loop Rd			$0.0	
LR-16	FMATS Sidewalk Improvements			$0.1	
LR-17	Yankovich Road/Miller Hill Road Upgrade			$8.0	
LR-18	Lathrop Street: 19th Avenue – Davis Road			$0.2	
FMATS Subtotal				*$58.9*	
Non-FMATS Projects					
LR-19	Airport Way Corridor Improvements, Stage I			$20.0	
LR-20	Johansen Expressway/Danby Street Interchange			$30.0	
LR-21	Mitchell Expressway Interchange, Stage I			$30.0	
LR-22	Richardson Highway: Access/Safety Improvements (Rozak Road – Peridot Street)			$6.1	
LR-23	NHS Pavement Management/Preventive Maintenance			$75.0	
LR-24	University Ave Widening, Stage V			$5.8	
LR-25	University Ave Widening, Stage VI			$7.2	
LR-26	University Ave Widening, Stage IV - Railroad Crossing			$25.0	
LR-27	FNSB Air Quality Programs (CMAQ)			$10.0	
LR-28	Farmers Loop Road Interchange (at Steese Expressway)			$31.5	
LR-29	Old Richardson Highway Interchange			$25.0	
LR-30	Johansen Path Bridge to Charles Street			$10.0	
LR-31	Old Steese Hwy/Johansen Expwy			$0.0	
LR-32	Parks Hwy/Airport Way			$0.0	
LR-33	Trainor Gate Road Intersection Improvements			$19.5	
Non-FMATS Subtotal				*$295.1*	
Long-Range Projects Total				**$354.0**	

Table 8-4 Very Long Range Projects (Beyond 2040)

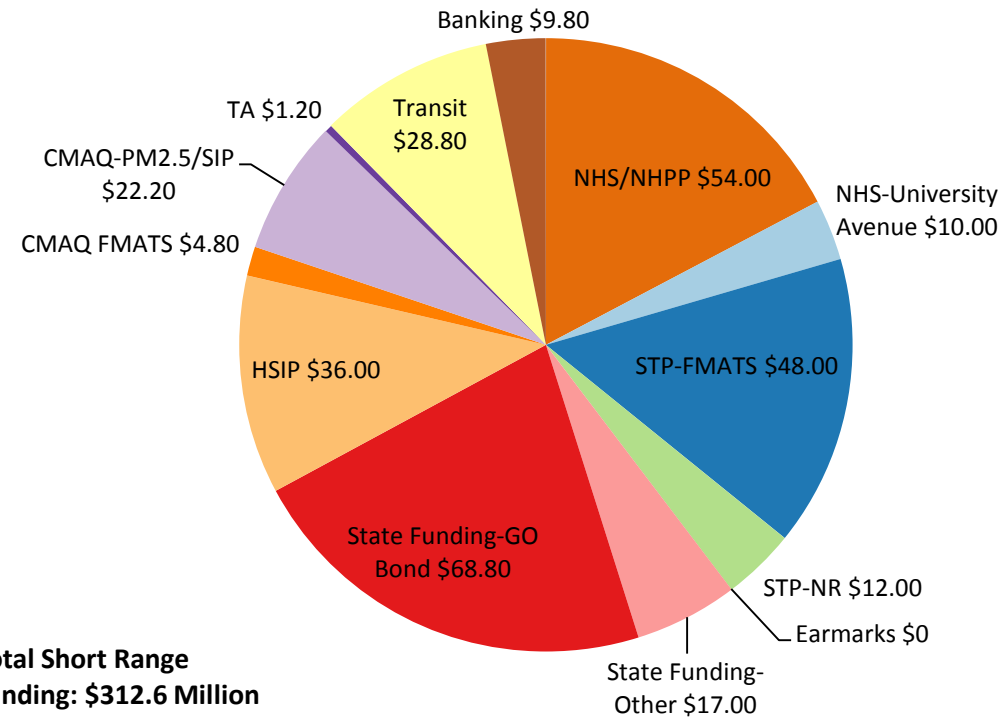
Project ID	Project	Spending Plan ($ Million)			
		2015-2020	2021-2030	2031-2040	Unfunded
FMATS Projects					
VLR-1	Steamship Nenana Renovation: Fairbanks				$0.8
VLR-2	Wendell Street Bridge Intersection Improvements: Fairbanks				$2.0
VLR-3	Dennis Road/Lazelle Road Corridor: Steese Expressway/Johansen Expressway-Badger Road				*
VLR-4	Goldizen Road Local Connections				*
VLR-5	Phillips Field Road Improvements				$20.0
VLR-6	University Avenue/Goldizen Signal (Phillips Field Road-Birch Lane)				$2.5
VLR-7	FMATS Intersection Improvements				$5.0
VLR-8	FMATS Improvement Program				$20.0
VLR-9	Fairbanks Area Street Improvements				$17.0
VLR-10	3rd Avenue (Fbks): Hall St – Steese Hwy				$0.2
VLR-11	FMATS Sidewalk Improvements				*
VLR-12	Barnette Street Crossing Study				*
VLR-13	Phillips Field Road: Peger Rd – Illinois St				$1.2
VLR-14	Chena Pump Road Connection				$8.0
VLR-15	Phillips Field Road/Minnie Street Realignment				$8.0
FMATS Subtotal					*$84.7*
Non-FMATS Projects					
VLR-16	Airport Way Corridor Improvements, Stage II				$21.0
VLR-17	Geist Road Improvements				$20.5
VLR-18	Johansen Expressway Interchanges				$30.0
VLR-19	Mitchell Expressway Interchange, Stages II and III				$60.0
VLR-20	Richardson Highway: 3-Mile/Old Richardson Interchange				$30.0
VLR-21	Richardson Highway: North Pole Area Interchange Phase II				$30.0
VLR-22	Richardson Highway: North Pole Area Interchange Phase III				$30.0
VLR-23	Richardson Highway Area Roadway Improvements (Local Roads)				*
VLR-24	Ballaine Road Bicycle Corridor: Yankovich Road-Goldstream Road				*
VLR-25	North Pole, Alaska, Road/Rail Crossing Reduction Project				$68.9
VLR-26	Old Steese Highway: Farmers Loop Rd – Chena Hot Springs Rd				$0.5
VLR-27	Airport Way/Parks Highway Undercrossing				*
VLR-28	Fairbanks Rail Realignment				$400.0
VLR-29	Rail Extension from Pioneer Park to the Morris Thompson Cultural and Visitors Center				*
Non-FMATS Subtotal					*$690.9*
Very Long Range Projects Total					**$780.6**

*Requires further study

REVENUE ESTIMATES

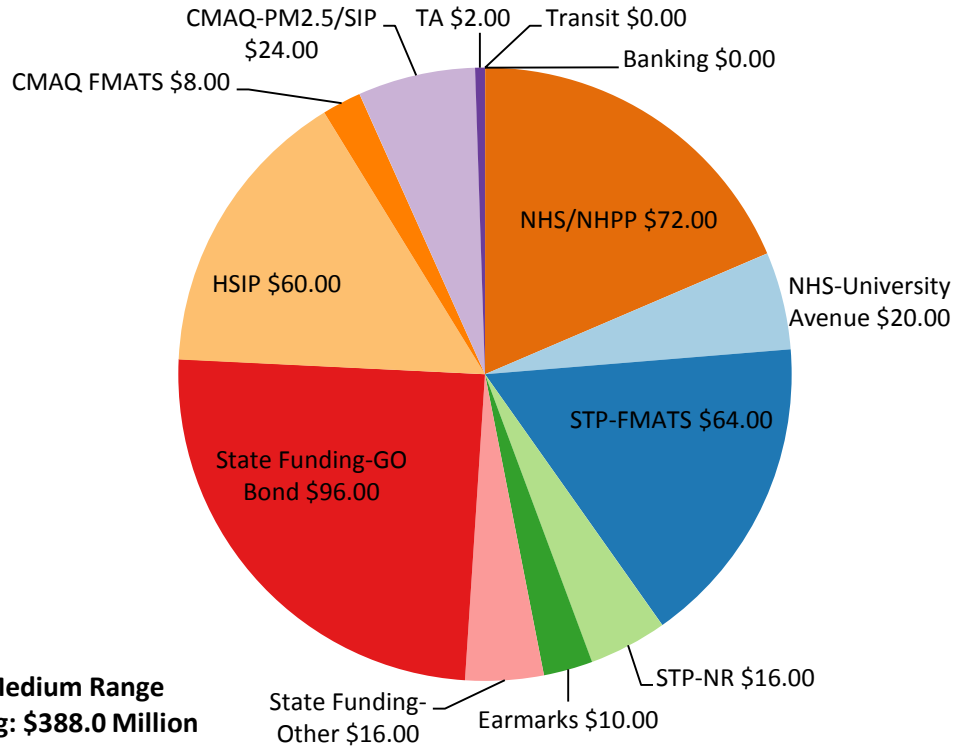
Figures 8-2 through 8-4 summarize the revenue estimates by timeframe that are anticipated to be available for non-FMATS projects in the FMATS area, as well as FMATS projects. Anticipated levels of Pavement Management, General Obligation (GO), and Congestion Management and Air Quality (CMAQ) are shown for each timeframe. The State/Other Funding estimates include anticipated levels of recurring funds from the State and Federal government, as well as state general funds and earmarks. The primary sources of revenue are State GO Bonds and Federal funds administered through the NHS, HSIP, and STP programs. Total revenue estimates are $312.6 million, $388 million, and $354 million for short range, medium range, and long range, respectively.

Figure 8-2 Revenue Estimates ($ Millions) – Short Range (2015-2020)



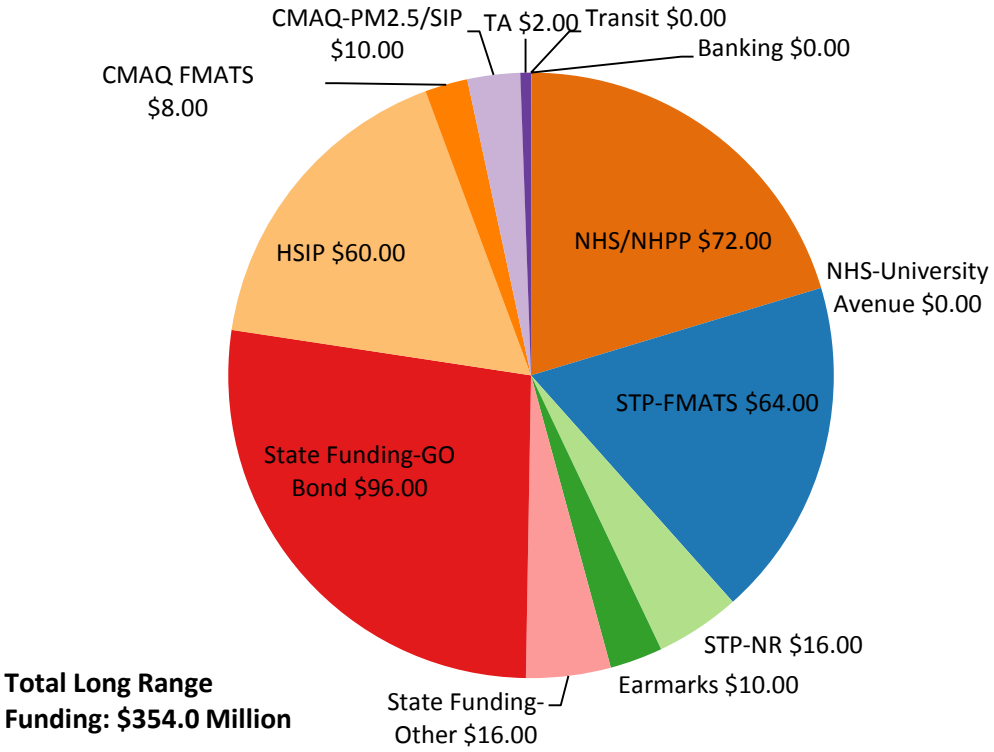
Total Short Range Funding: $312.6 Million

Figure 8-3 Revenue Estimates ($ Millions) – Medium Range (2021-2030)



Total Medium Range Funding: $388.0 Million

Figure 8-4 Revenue Estimates ($ Millions) – Long Range (2031-2040)



ARRC PROJECT ESTIMATES

As was noted in Chapter 6, the ARRC has two major projects in the FMATS region. The cost estimates for these projects, VLR-26 and VLR-29, are contained in Table 8-4. Funding sources for these projects will be identified as they progress through the planning and environmental phases

References

REFERENCES

References

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