

AMATS 2035 Metropolitan Transportation Plan (MTP) Update

*House Finance Infrastructure Committee Briefing
November 4, 2011*



KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING



2035 METROPOLITAN TRANSPORTATION PLAN



ANCHORAGE BOWL • CHUGIAK-EAGLE RIVER



Public Review Draft
October 1, 2011



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Anchorage Metro Area Transportation Solutions

2035 MTP Overview

- › Transportation System Plan Check-up
- › Major Assumptions and Guidance for Plan
 - *Plan to horizon year 2035*
 - *Combining Anchorage Bowl & Chugiak-Eagle River LRTPs*
 - *Include guiding principles and confirm Goals & Objectives*
 - *Compliance with federal transportation legislation (SAFETEA-LU)*
 - *Conduct Public Participation activities*
 - *Financially constrain the recommendations*
 - *Use AMATS travel demand model*

AMATS 2035 Metropolitan Transportation Plan

- › Chapter 1 - Introduction
- › Chapter 2 – Public Involvement
- › Chapter 3 – Plans, Goals and Objectives
- › Chapter 4 – AMATS Transportation System Today
- › Chapter 5 – Metropolitan Area Transportation in 2035
- › Chapter 6 – Financial Plan
- › Chapter 7 – Recommendations
- › Chapter 8 – Implementation

Chapter 1 - Introduction

- › Community Vision and Planning Continuum
 - *Anchorage 2020 & Chugiak-Eagle River comprehensive plans*
 - *Chugiak-Eagle River & Anchorage Bowl 2027 LRTPs*
 - *Subarea land use and transportation plans*
- › Meeting the Regulatory Requirements
- › Coordination
- › AMATS Policy Committee Guidance & Assumptions

Chapter 2 – Public Involvement

- › Provide community awareness of the planning process
- › Identify stakeholders
- › Gather community issues
- › Raise awareness of the plan review and approval process

Chapter 3 – Goals and Objectives

- › Balanced network, provides choices, and **supports land use plans**
- › **Safe and secure** movement of people and goods
- › **Cost effective, attractive network** that fits the community values
- › Supports thriving, **sustainable, broad-based economy**
- › Provide community **connectivity with year round, multi-modal system**
- › Improve **access and mobility** for people and goods
- › Provide **viable choices**
- › Respect integrity of **community's natural and built environment**



Chapter 4 – AMATS Today

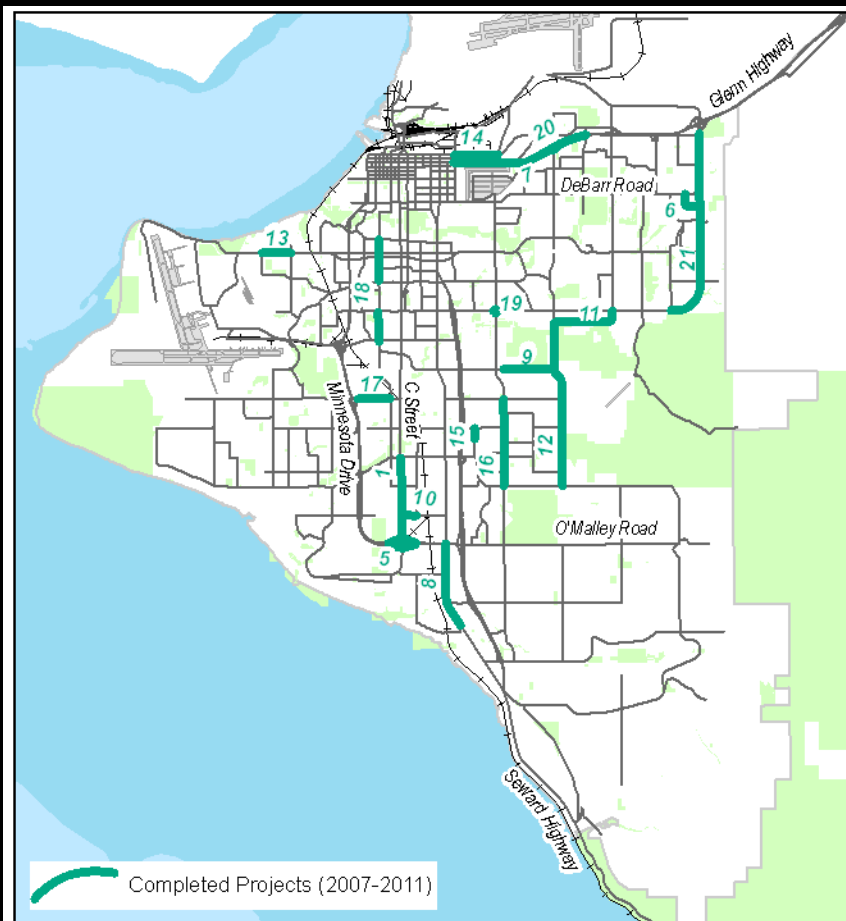
› Accomplishments since 2007

- *14 major road projects completed*
- *8 miles of pathway/trails, 35 miles new sidewalks & 31 miles new bicycle facilities*
- *\$103 M expended → 8,446 Jobs created or maintained*

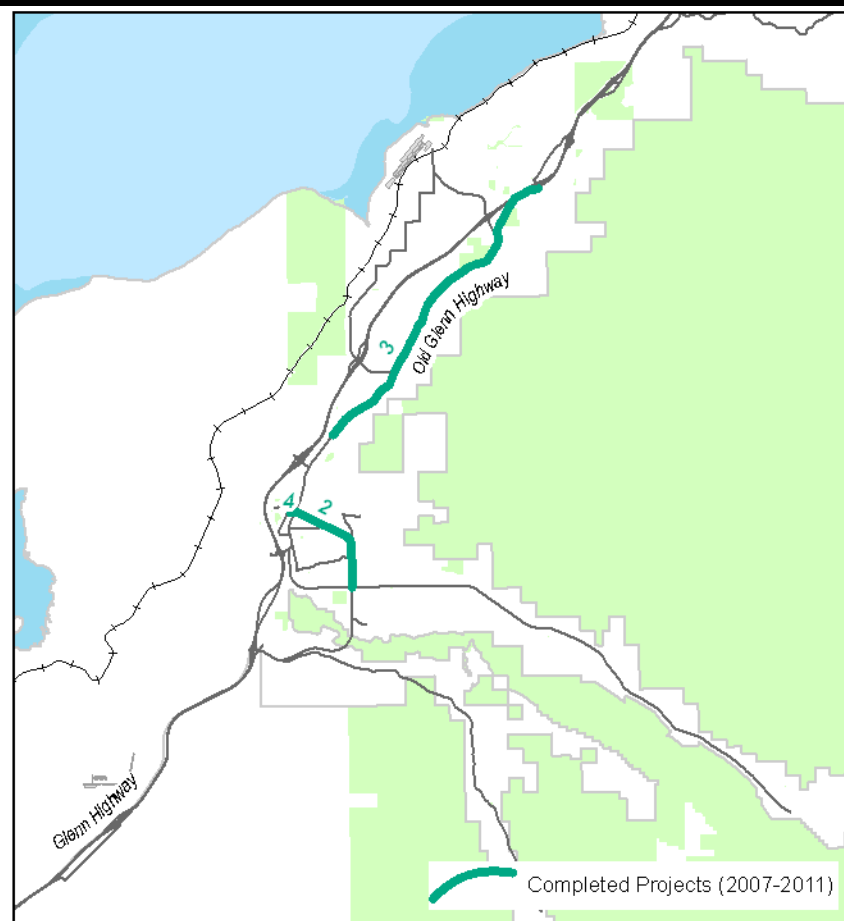
› Status of the System Report

- *Corridor travel times similar or better between 2007 and 2010*
- *Bus ridership increase since 2007 – over 4 million annual*
- *Increased vanpool riders – 162% increase since 2005*

Completed Projects (2007-2011)



Source: MOA



Source: MOA

Chapter 5 – AMATS in 2035

› Population, Housing, and Employment

| Demographics | 2007 | 2035 Forecast | Numeric Change |
|--------------------------------------------|----------------|----------------|----------------|
| Population | | | |
| Anchorage Bowl | 243,080 | 280,720 | 37,640 |
| Chugiak-Eagle River | 37,460 | 65,020 | 27,560 |
| Mat-Su Borough | 72,700 | 159,050 | 86,350 |
| Total | 353,240 | 504,790 | 151,550 |
| Households | | | |
| Anchorage Bowl | 90,800 | 111,880 | 21,080 |
| Chugiak-Eagle River | 11,710 | 22,350 | 10,640 |
| Mat-Su Borough | 27,610 | 59,170 | 31,560 |
| Total | 130,120 | 193,400 | 63,280 |
| Employment (includes self-employed) | | | |
| Anchorage Bowl | 159,000 | 198,040 | 39,040 |
| Chugiak-Eagle River | 4,700 | 10,160 | 5,460 |
| Mat-Su Borough | 29,000 | 63,720 | 34,720 |
| Total | 192,700 | 271,920 | 79,220 |

43% ↑

49% ↑

41% ↑



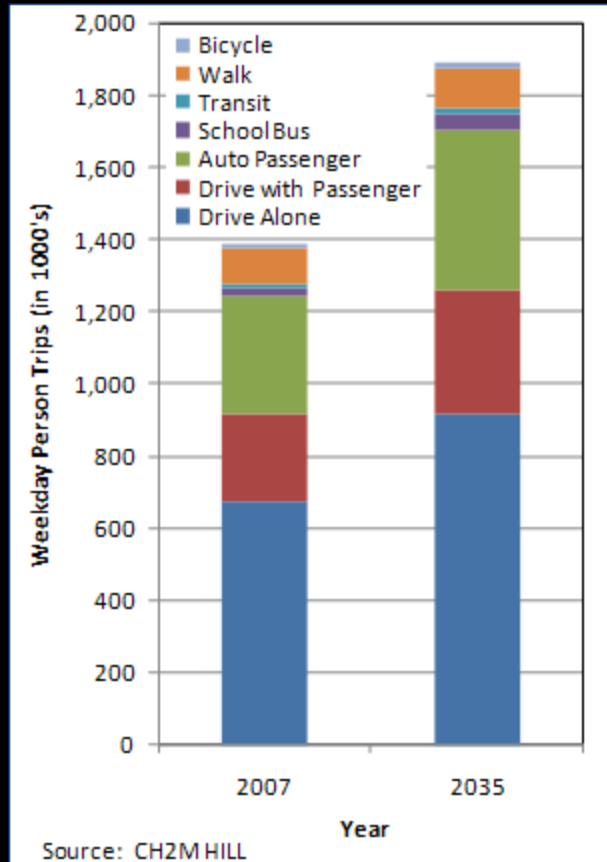
The MOA is the sum of the Anchorage Bowl and Chugiak-Eagle River.
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Source: 2007 Census and Demographic Projections for Alaska and Greater Anchorage 2010-2035, December



Chapter 5 – AMATS in 2035

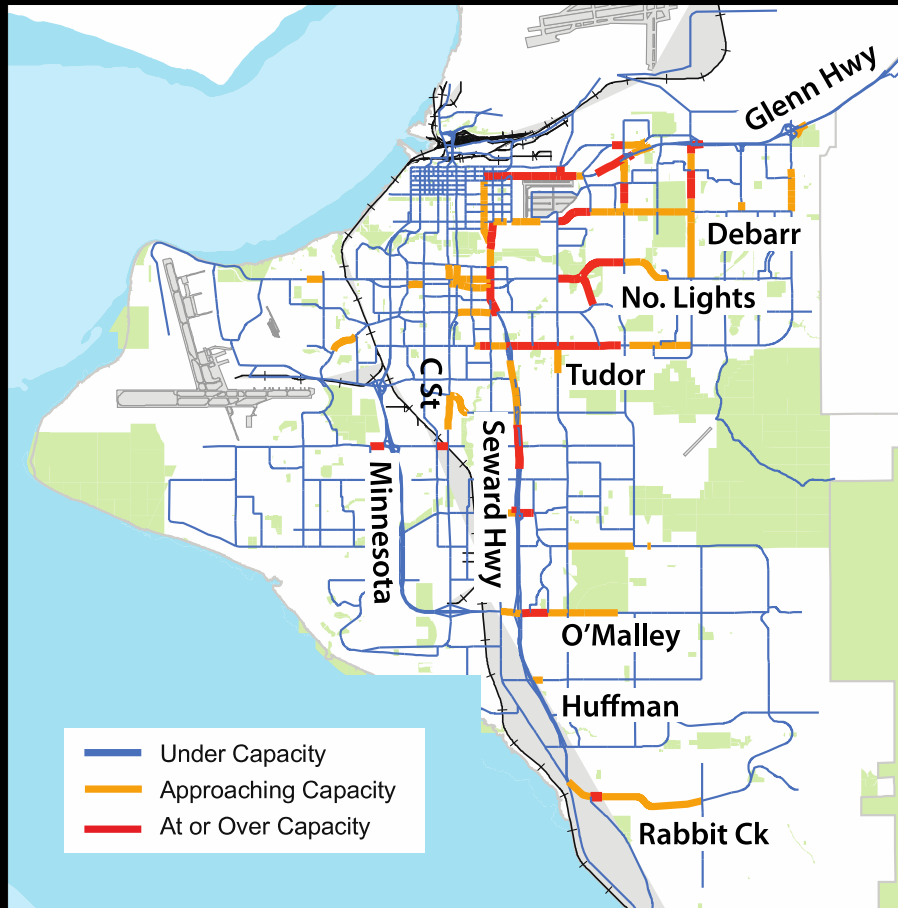
Weekday Person Trips
(2007 and 2035)



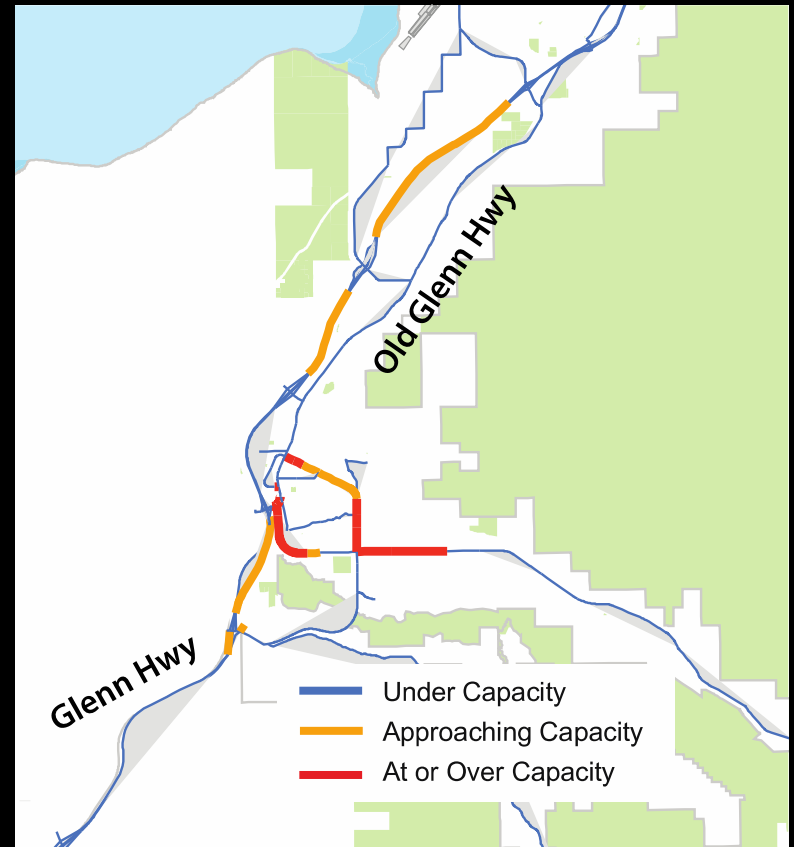
560,000 more
daily trips in 2035
and more
congestion

Chapter 5 – AMATS in 2035

2035 No Build Conditions
Anchorage Bowl



2035 No Build Conditions
Chugiak-Eagle River



Chapter 5 – AMATS in 2035

› Multi-modal System Approach

- *Roads*
- *Non-motorized*
- *Freight Distribution*
- *Public Transportation*
- *Congestion Management*
- *Regional Connections*

› 2035 Network Scenarios Modeled

- *2035 Base (projects from 2027 LRTPs)*
- *2035 Base Plus (projects from adopted studies since 2007)*
- *2035 Public Transportation Enhancements*

Chapter 5 – AMATS in 2035

› 2035 Transportation System Needs

- Roads – 80 projects \$ 2,877 M
- Public Transportation – 25 projects \$ 198 M
- Non-motorized – 115 projects \$ 126 M
- Total \$3,201 M

*Project costs are in 2010 dollars



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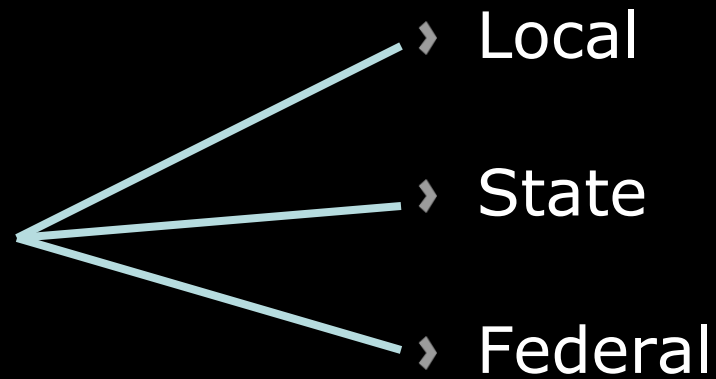
Chapter 6 – Financial Analysis

- › Fiscal Constraint Requirement
- › Funding Sources and Levels
- › Capital and Operations & Maintenance Costs
- › Knik Arm Crossing

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Revenue Assumptions



Revenue Assumptions - Federal

- › FTA Funds to MOA and ARRC
- › FHWA Funds for NHS Projects
- › FHWA Funds for Non-NHS Projects (AMATS Allocation)
- › HSIP Funds
- › Federal Highway Other Discretionary Funds
- › 40% of the projected revenue is from Federal sources

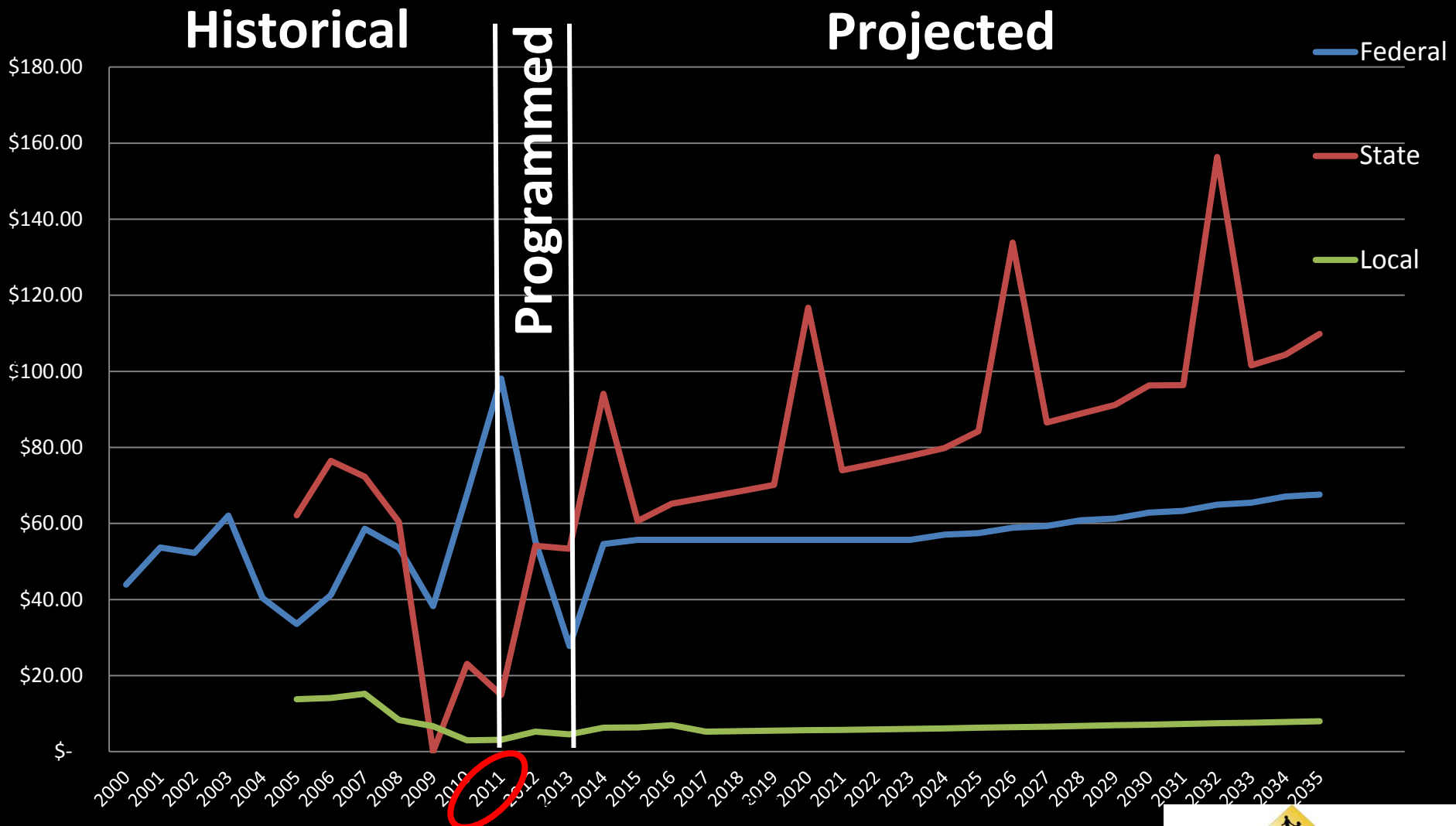
Revenue Assumptions - State

- › 5 yr. Average of Legislative appropriations to MTP projects
- › Alaska Transportation Fund Established in 2016
- › State GO Bond every 6 years
- › AK Mental Health Trust Funding for Transit
- › State Match for 90% of all Non-NHS Funds
- › 56% of the projected revenue is from State sources

Revenue Assumptions - Local

- › 2011 – 2016 CIP Average for MOA Bonds
- › 20% Match to Transit FTA Funds
- › 50% Local Match for Transportation Enhancements
a CMAQ funds to MOA
- › 4% of the projected revenue is from local sources

Historical, Programmed and Projected Revenue

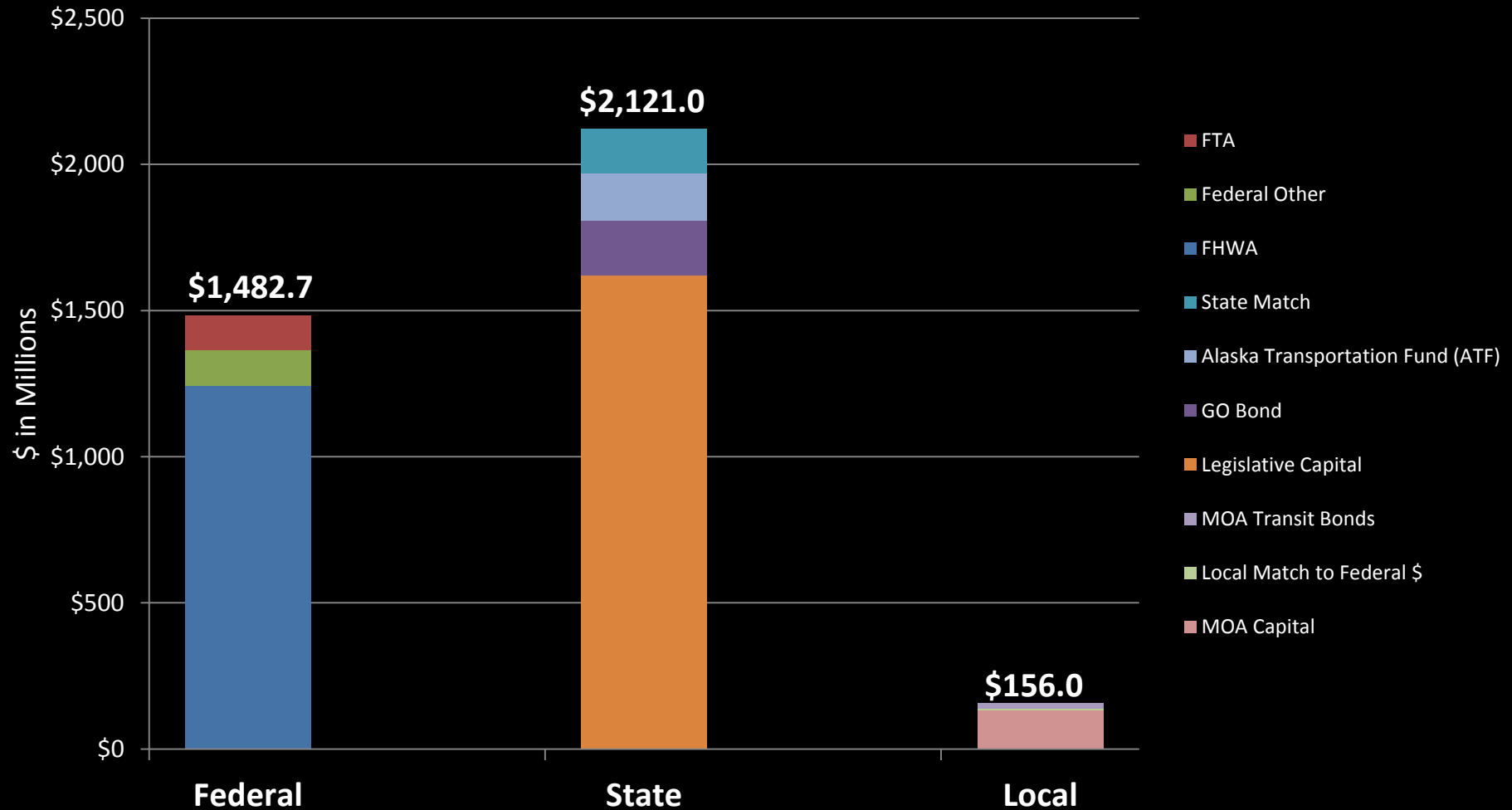


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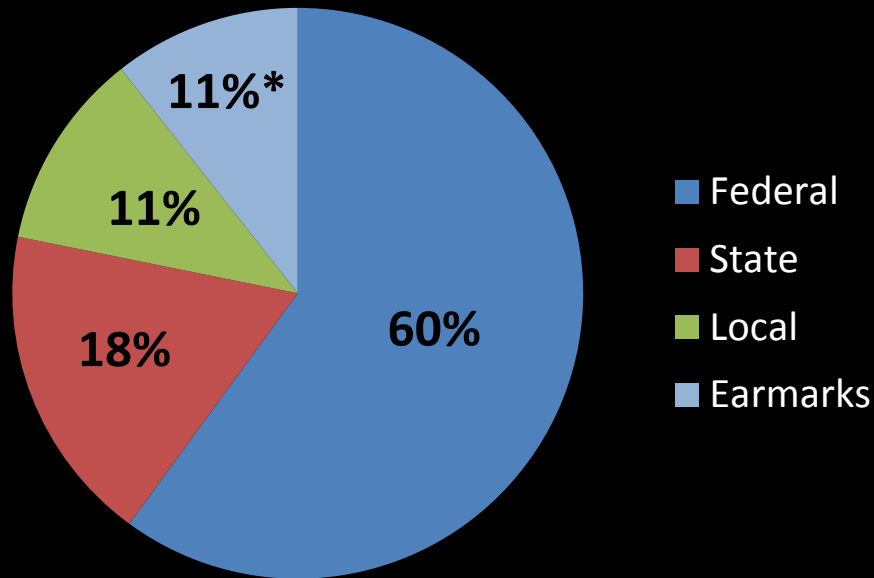
Local/State/Federal Revenues through 2035

(Excluding Knik Arm Crossing)

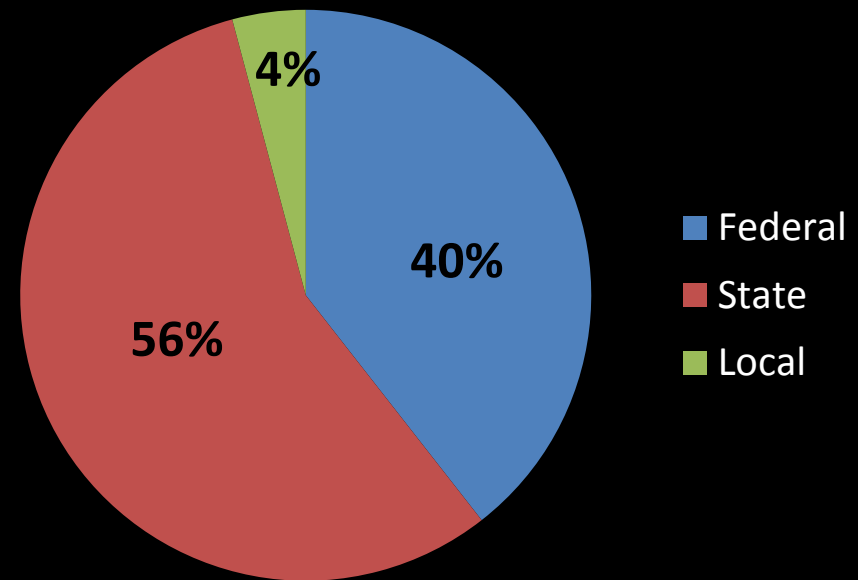


Projected Revenue Sources

2027 LRTPs (Anchorage & Eagle River)



MTP 2035



*These include Legislative Transportation Earmarks (\$160M) and Railroad Grade Separation Earmarks (\$130M)

Knik Arm Crossing Funding

(Source: KABATA)

› Funding Sources

| | |
|----------------------------------------|-----------------|
| – Private Activity Bonds | \$ 285 M |
| – TIFIA* Loan | \$ 306 M |
| – Private Equity | \$ 76 M |
| – Federal and State Funds | \$ 35 M |
| – Project Reserve Fund | \$ 150 M |
| – Toll Revenue & Toll backed financing | <u>\$ 230 M</u> |
| Total | \$ 1,082 M |

› Fund Uses

| | |
|---------------------------|-----------------|
| – Phase I DBOM ** | \$ 702 M |
| – Phase II Design & Build | \$ 230 M |
| – Project Reserve Fund | <u>\$ 150 M</u> |
| Total | \$ 1,082 M |

* Transportation Infrastructure Finance & Innovation Act

** Design, build, operate, and maintain

AMATS 2035 MTP Assumptions for Knik Arm Crossing

- › The “firewall” for KABATA receiving additional State funds for construction has been removed.
- › AMATS and KABATA reliance on State funds are independent of one another.
- › The MTP accepts KABATA’s assumed traffic projections on when Phase II would be required.

Chapter 7 – Recommendations

› Project Screening

- *Table 7-1 Roads*
- *Table 7-4 Public Transportation*
- *Table 7-7 Pedestrian, Bicycle, and Trails*

› Project Recommendations

- *Short Term (2011-2023)*
- *Long Term (2024-2035)*
- *Illustrative (beyond 2035 timeframe)*

MTP Project Summary

| | |
|---------------------------------------|-----------------------|
| › Roads - 56 Projects | \$2,106 million |
| › Public Transportation - 24 Projects | \$175.6 million |
| › Non-motorized - 109 Projects | <u>\$83.8 million</u> |
| Total | \$2,265.4 million |

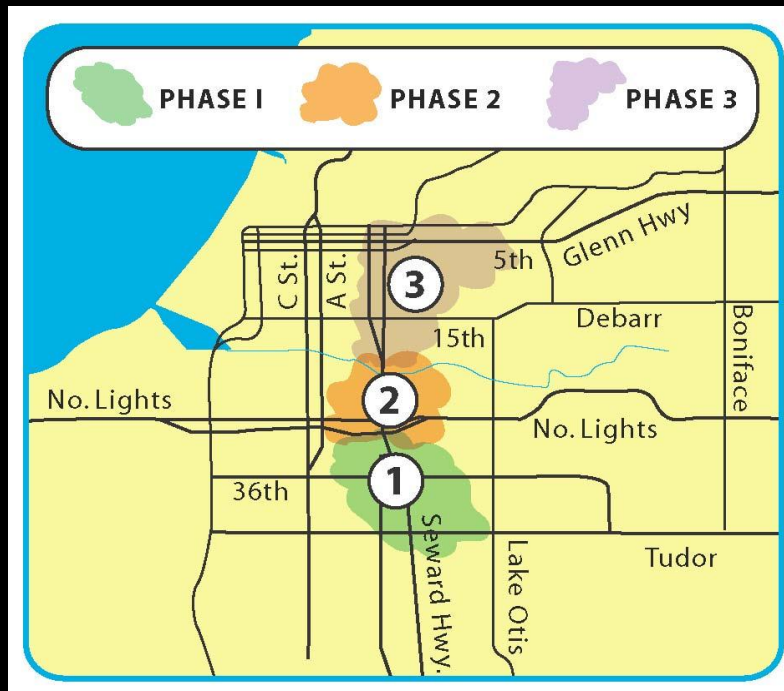
– *Illustrative Projects*

- 24 Road projects - \$771 million
- 1 Public Transportation project - \$22 million
- 6 Non-motorized projects, \$42.1 million

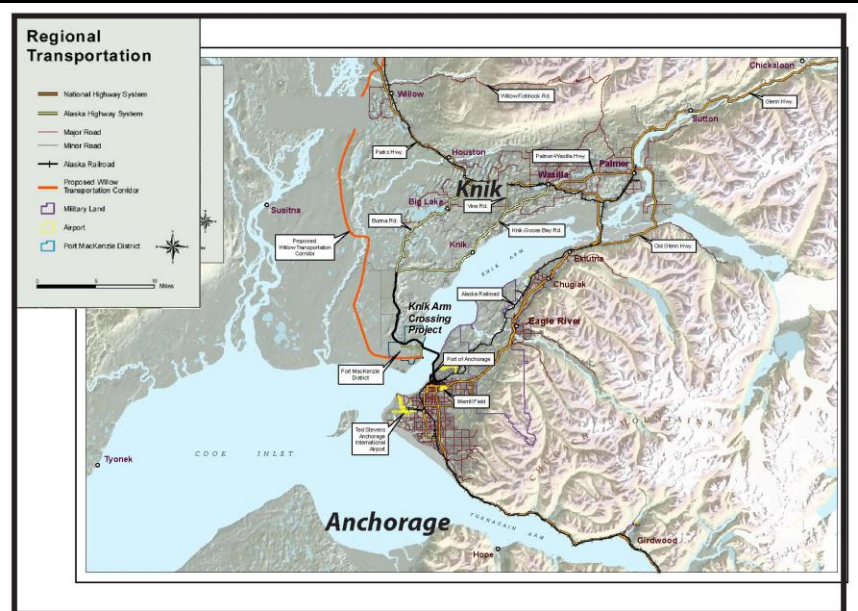
*Project costs are in 2010 dollars

Project Updates

Seward Highway to Glenn Highway Connection

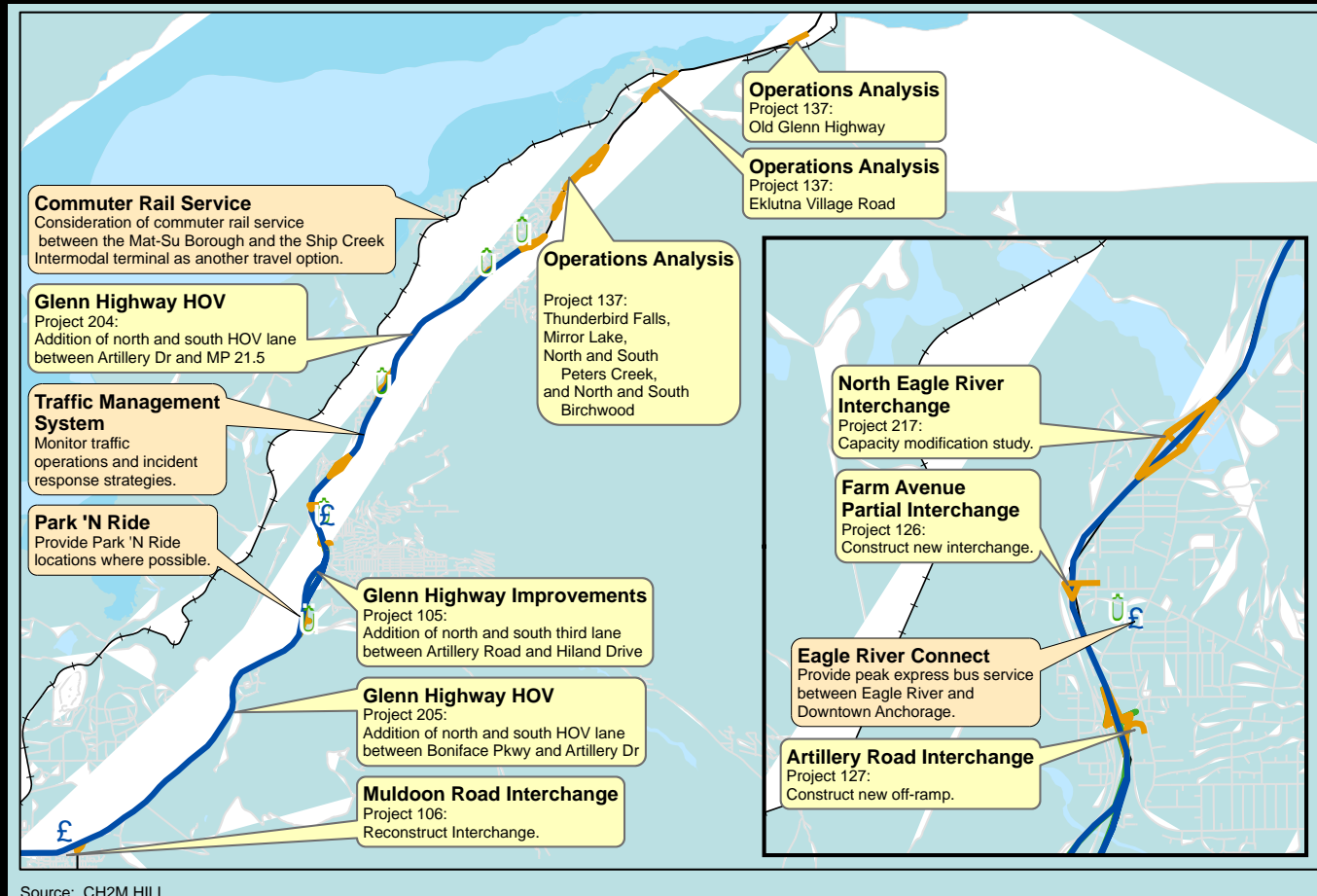


Knik Arm Crossing



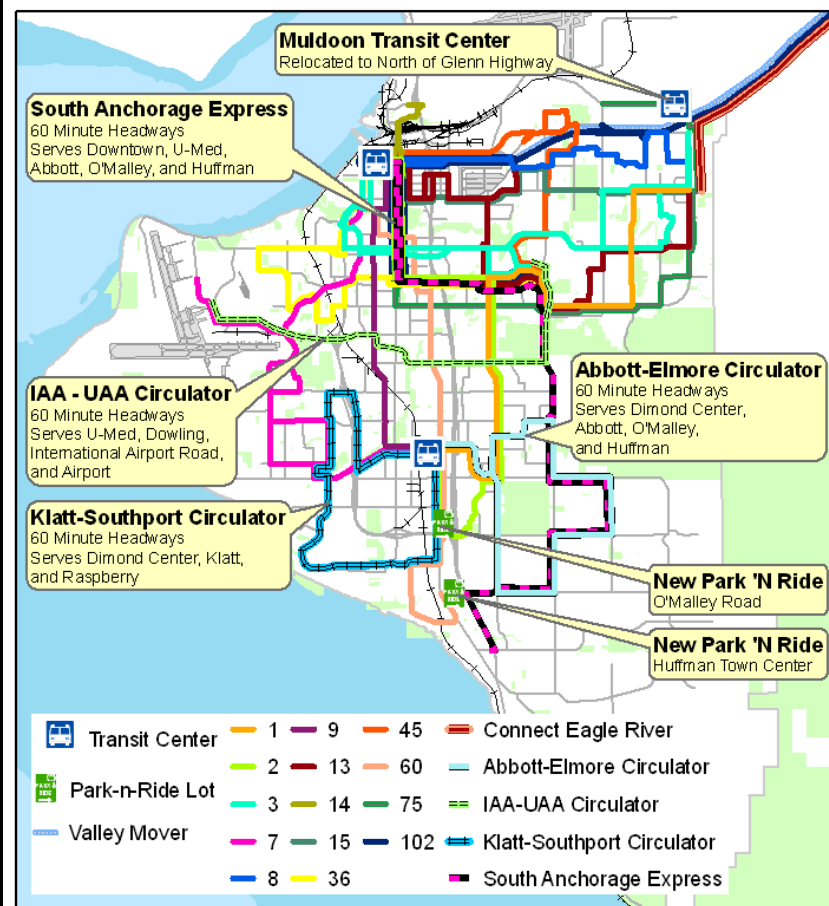
Project Updates

Glenn Highway Improvements



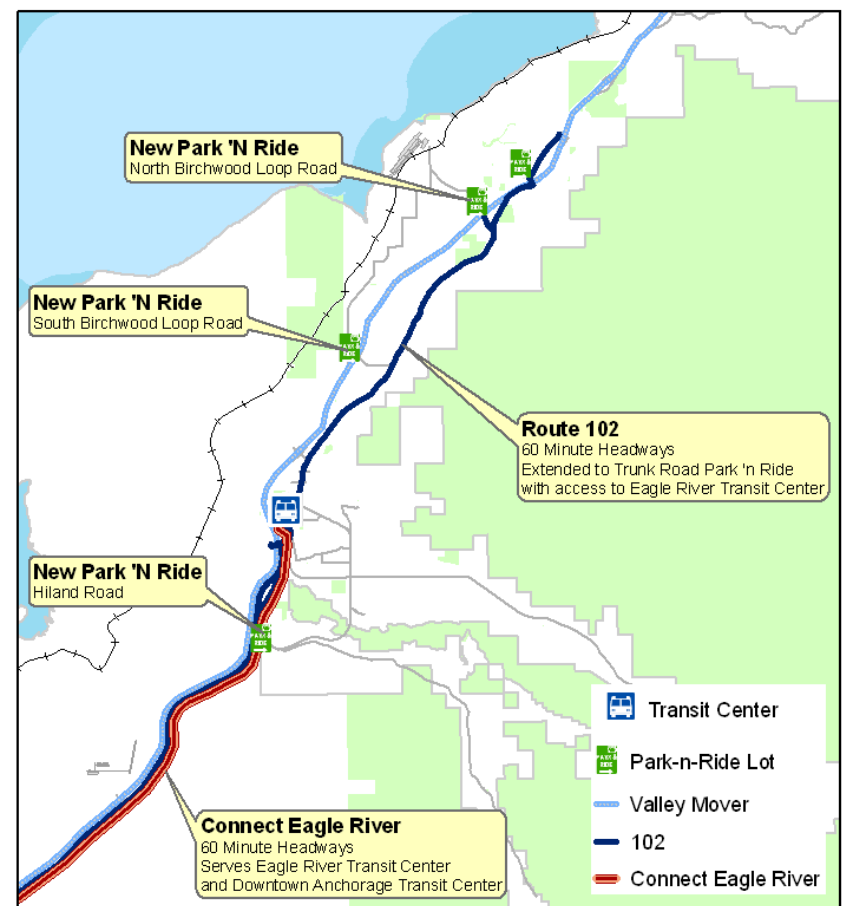
Recommended Public Transportation Routes and Projects

Anchorage Bowl



Source: AMATS, People Mover, Valley Mover

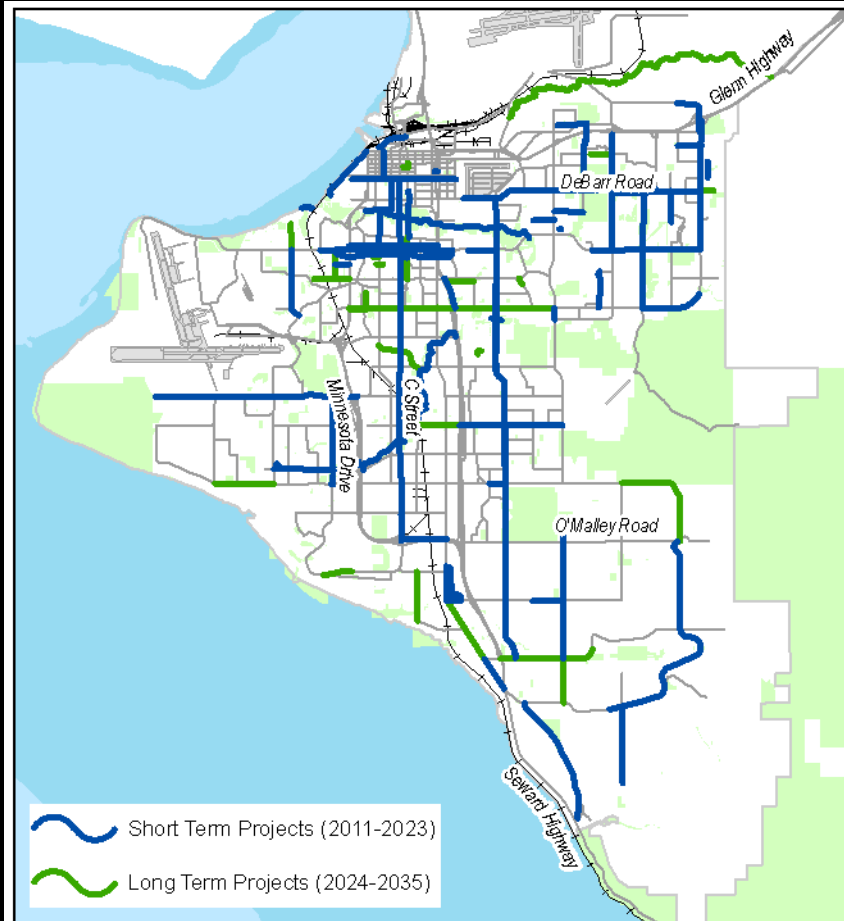
Chugiak-Eagle River



Source: AMATS, People Mover, Valley Mover

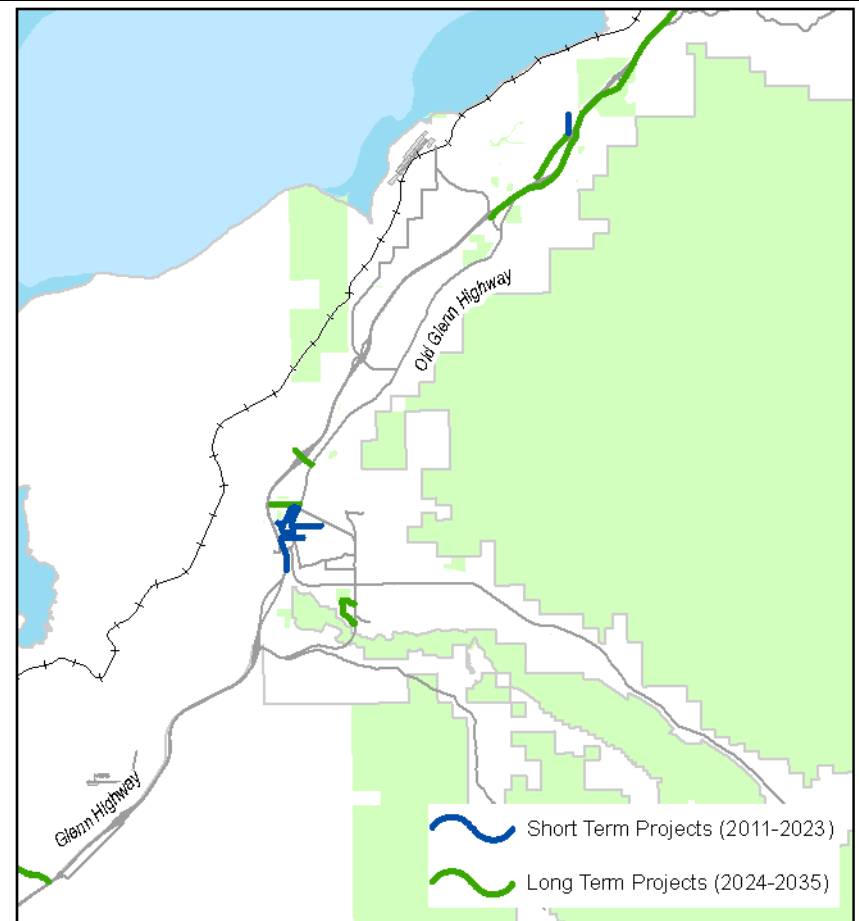
Recommended Non-motorized Projects

Anchorage Bowl



Source: AMATS Non-Motorized Transportation Plans

Chugiak-Eagle River



Source: AMATS Non-Motorized Transportation Plans



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Anchorage Metro Area Transportation Solutions

Chapter 8 – Implementation

› Policy and Action Items Recommendations

- *Comprehensive plans*
- *Public Involvement*
- *Roads*
- *Non-motorized system*
- *Regional Connections*
- *Coordination of Local Plans*
- *Maintenance and Operations*
- *Environmental Concerns, Air Quality, and Public Health*
- *Financial Issues*
- *Transportation System*
- *Public Transportation*
- *Freight*
- *Congestion Management*

› Process – From MTP to Project Implementation

Action Items Recommendations

Action Item Recommendations – Transportation System

| Action | Responsible Entity | Timeframe | Partnership Connections | Applicable Goal(s) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------|----------------------------------------------------------------------------------------------------|--------------------|
| TS-A Develop multimodal LOS standards within the Anchorage metropolitan area in accordance with 2010 <i>Highway Capacity Manual</i> procedures | AMATS | 0-2 years | MOA Traffic MOA Project Management and Engineering (PME) MOA Public Transportation DOT&PF | 1, 6 |
| TS-B Reevaluate the existing set of transportation system performance measures and the need for additional data-collection efforts. | AMATS | 0-2 years | MOA Traffic MOA PME MOA Public Transportation DOT&PF | 1, 2, 6 |
| TS-C Conduct periodic (4-year cycle) systemwide review of traffic conditions and system performance using updated data (Status of the System Report). | AMATS | 2014 2018 2022, etc. | MOA Traffic MOA PME MOA Public Transportation DOT&PF | 1, 2 |
| TS-D Collect new traffic data, including volume and travel time before and after a roadway construction is completed and new traffic patterns are established. | AMATS | Ongoing | MOA Traffic DOT&PF | 1 |
| TS-E Investigate modifications to the roadway LOS standards within the Anchorage metropolitan area. | AMATS | 0-2 years | DOT&PF | 1 |

Review and Approval Schedule

› October 2011

- *Public Review Draft Available for 30-day comment period*
- *Planning & Zoning Work Session (October 10)*
- *Public Meetings (October 24 (ANC) and October 25 (C-ER))*
- *Briefings to community groups (various dates)*

› November 2011

- *Team prepares Public Hearing Draft*

› December 2011

- *Public Hearing Draft released by Policy Committee*
- *Planning & Zoning Commission Work Session (December 12)*

› January – April 2012

- *Planning & Zoning Commission Public Hearing*
- *Anchorage Assembly Hearings*
- *AMATS TAC & PC adoption*
- *Submittal to FHWA/FTA*

Questions



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Initial Screening Criteria - Roadway

| Criterion | 0 | 1 | 3 | 5 |
|----------------------------------|-----------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Project readiness | <i>No work started</i> | <i>Some preliminary design and/or environmental work complete</i> | <i>Final engineering completed or nearing completion</i> | <i>ROW purchased/ ready to construct</i> |
| Timing of need | <i>Can wait until beyond 2035</i> | <i>Long term need (2023-2035)</i> | <i>Needed in short term – helps to complete grid system or improves facility to current standards</i> | <i>Needed in short term (2011-2023)– addresses major safety/ capacity needs</i> |
| Logical sequencing | <i>N/A</i> | <i>New project</i> | <i>N/A</i> | <i>Next logical or final phase of project</i> |
| Functional classification | <i>Local</i> | <i>Collector</i> | <i>Arterial/ Expressway</i> | <i>Freeway</i> |
| Number of modes | <i>Single</i> | <i>Two</i> | <i>Three</i> | <i>Four or more</i> |
| Cost/Length/AADT | <i>4th quartile</i> | <i>3rd quartile</i> | <i>2nd quartile</i> | <i>1st quartile (highest score)</i> |

Initial Screening Criteria – Public Transportation

| Criterion | Points |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Timing of need | <i>Short term - 10 points Middle term - 5 points Long term - 0 points</i> |
| Inclusion in plans | <i>Blueprint, MTP, & CMP – 2 points each ADA Paratransit & State Air Quality - 4 points each 10 points maximum</i> |
| Project effectiveness | <i>Greater than 50 benefiting passengers – 10 points 25 to 50 benefiting passengers – 5 points Less than 25 benefiting passengers – 0 points</i> |
| Reliability of service | <i>Decreased service interruptions – 10 points No change in service interruptions – 5 points Increased service interruptions – 0 points</i> |
| Efficiency of service | <i>Increase – 20 points No change – 10 points Decrease – 0 points</i> |
| Safety considerations | <i>10 points maximum</i> |

Initial Screening Criteria – Non-motorized

| Criterion | 0 | 1 | 3 | 5 |
|-----------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------|-------------------------------------------------|--------------------------------------------------------|
| Project readiness | <i>Negative public comments</i> | <i>No known issues</i> | <i>Positive public support</i> | <i>Design work initiated</i> |
| Project need | <i>Upgrade of an existing facility versus no existing facility</i> | <i>Lower demand and non-safety related project</i> | <i>Medium demand and safety related project</i> | <i>Addresses major safety issue and/or high demand</i> |
| Inclusion in plans | <i>Not in an existing plan</i> | <i>In one plan</i> | <i>In two plans</i> | <i>In three plans</i> |
| Primary purpose of project | <i>Does not serve utilitarian users</i> | <i>Completes a gap in existing recreational trail network</i> | <i>Low to moderate utilitarian use</i> | <i>High utilitarian use</i> |