East Anchorage
STUDY OF TRANSPORTATION

Final

Study Plan

Prepared for:

**Department of Transportation
& Public Facilities**

Prepared By

HDR Alaska, Inc.

**2525 C Street, Suite 305
Anchorage, Alaska 99503**

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1.0 Introduction

The time is upon us to make some decisions about our transportation system. The last major transportation system study encompassing East Anchorage was conducted nearly 20 years ago and interest in updating that study has been on the minds of residents and government officials for many years. As a result, state and local officials have commissioned the East Anchorage Study of Transportation (EAST) to examine transportation improvements for East Anchorage. The study will look at current problems and needs and forecast future needs out to the year 2023.

Whether you live in this area or travel through it, you will recognize its importance to Anchorage's overall transportation network. Since the last area-wide study, Anchorage has grown. Job centers have expanded and shifted, and population demographics and economics have evolved. In addition to these local changes, advances in information and transportation technologies have created and shaped potential solutions that did not exist the last time transportation needs in East Anchorage were significantly studied. With our newly adopted comprehensive plan in place, now is an excellent time to reexamine transportation needs in East Anchorage, and the EAST project will do just that.

Contained in this document is a proposed plan for conducting the East Anchorage Study of Transportation. The purpose of the study plan is to lay out the process, approach, objectives, schedule, and major tasks that will be used to conduct the study, gather public input on those study details, and present the study plan the Anchorage Metropolitan Area Transportation Study (AMATS) Technical Advisory Committee, the AMATS Policy Committee, and the Alaska Department of Transportation and Public Facilities (DOT&PF) for approval. The consultant team, working with AMATS and DOT&PF, has prepared a detailed plan showing the proposed methodology for public involvement, problem identification, transportation mobility data gathering and analysis, alternative development, and alternative screening. Within this document are details on the study's:

- Purpose
- Objectives
- Boundaries
- Process
- Schedule
- Public Involvement Plan
- Major Tasks
- Approach and Methods

1.1 Purpose

According to the request for proposals, the East Anchorage Study of Transportation shall consider alternatives that would improve accessibility, mobility and public safety throughout the study area, in particular to existing and public schools, and relieve congestion at major eastside intersections. The study shall examine alternatives that maintain and improve livability.   These alternatives shall include improvements to the existing road network, new road and interchange construction, transportation demand management techniques, improved Municipal transit system, pedestrian and bicycle improvements, other public transportation modes, and land use alternatives. The time period the study will cover is through 2023.

The study team shall provide transportation planning, analysis, preliminary engineering, and public involvement in the form of meetings, hearings, and other informational methods specified by the

DOT&PF. The consultant shall prepare a Facilities Concept Report (FCR) that describes the problems to be solved, identifies and analyzes alternative solutions based on community values, and provides benefit/cost comparisons. The FCR shall recommend feasible alternative solutions, either separately or in combination. The FCR will have a large public involvement component. "Anchorage 2020," the new update of the municipal comprehensive plan, shall be used as a starting point to affect the range of solutions.

1.2   Study Team Objectives

The primary objective of the study plan is to set out a process that is acceptable to the public and decision-makers. To be credible, we know that the study will need to be based on good quality data and analysis, completed in an open and thoughtful process, and involve and educate the public in meaningful ways. We have identified the following as key objectives to successfully completing the East Anchorage Study of Transportation:

♦ Develop and conduct a credible study process.
♦ Develop the study to be consistent with, and as a means of implementing Anchorage 2020.
♦ Coordinate with other key transportation and land use planning studies including the Glenn Highway and Seward Highway projects, the update of the long range transportation plan, the Ship Creek Access project, neighborhood plans, and town center plans.
♦ Involve the public in meaningful ways that bring good ideas to the forefront and lend credibility to, and acceptance of, the study results.
♦ Collect meaningful data on existing and future conditions (through 2023) that will help identify transportation needs and support study conclusions.
♦ Identify transportation problems and needs that should be resolved to improve accessibility, mobility, safety, and livability, and deal with congestion in East Anchorage.
♦ Develop screening criteria and performance measures to identify concepts that are the most cost effective, technically feasible, environmentally sound, and politically acceptable.
♦ Develop a full-range of concepts for meeting East Anchorage's transportation needs that consider all modal and demand management strategies, including land use analysis.
♦ Conduct sound transportation and land use analysis in identifying problems and evaluating potential solutions.
♦ Make recommendations that will fulfill long-range transportation and mobility needs.

1.3   Study Boundary

The study's boundaries are the Glenn Highway on the north, Rabbit Creek Road on the south, the Old Seward Highway on the west, and the Fort Richardson Military Reserve and Chugach State Park on the east. The following figure shows the area within the study boundary.

EAST Study Area
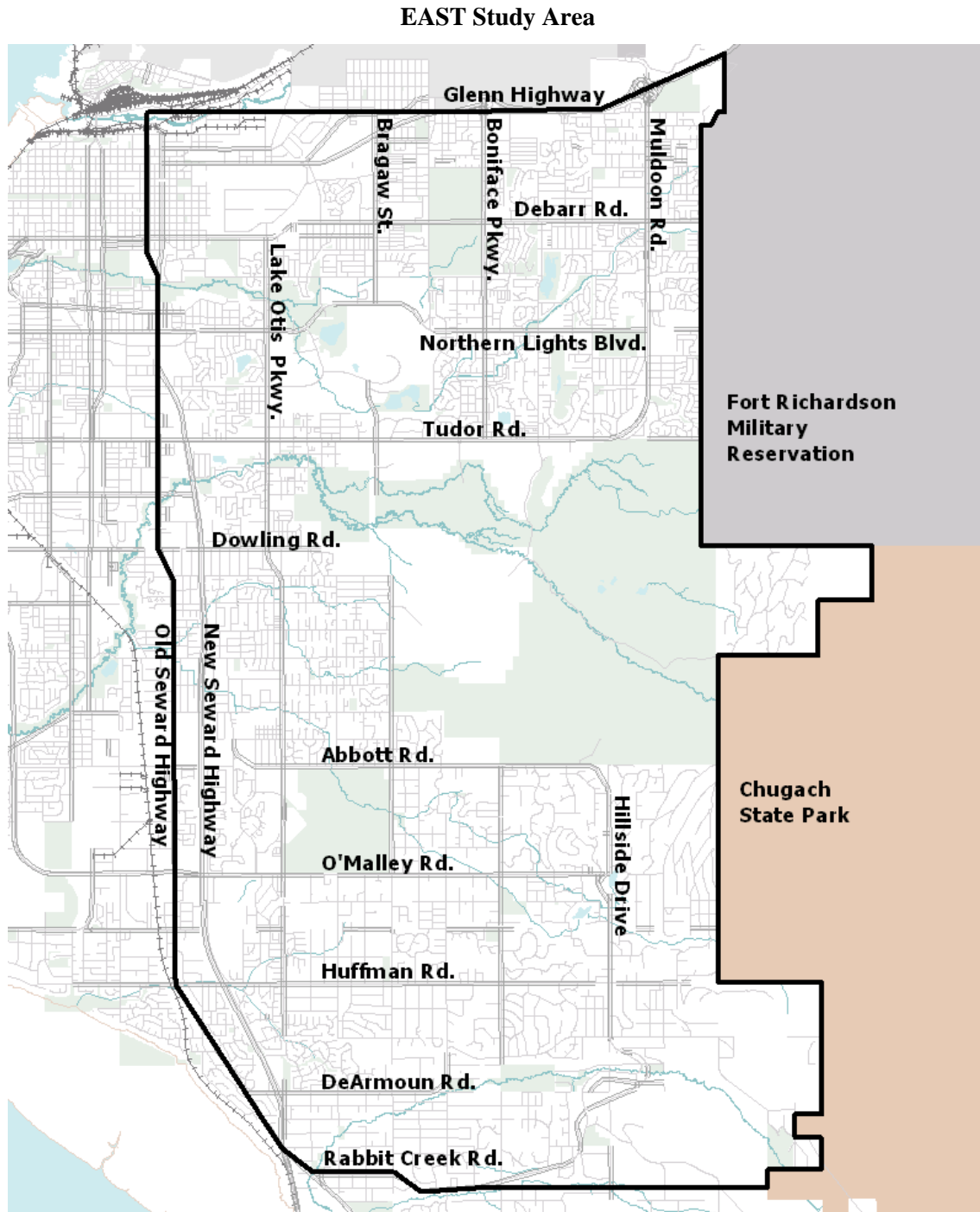
1.4   Study Team

DOT&PF understands how important this transportation study is for Anchorage. Improving access in a growing city requires a well-balanced team that offers:

♦ Sound planning to take a "big picture" approach to find solutions that work best for the entire community.
♦ First-hand knowledge of local issues, politics, and players involved in the study.
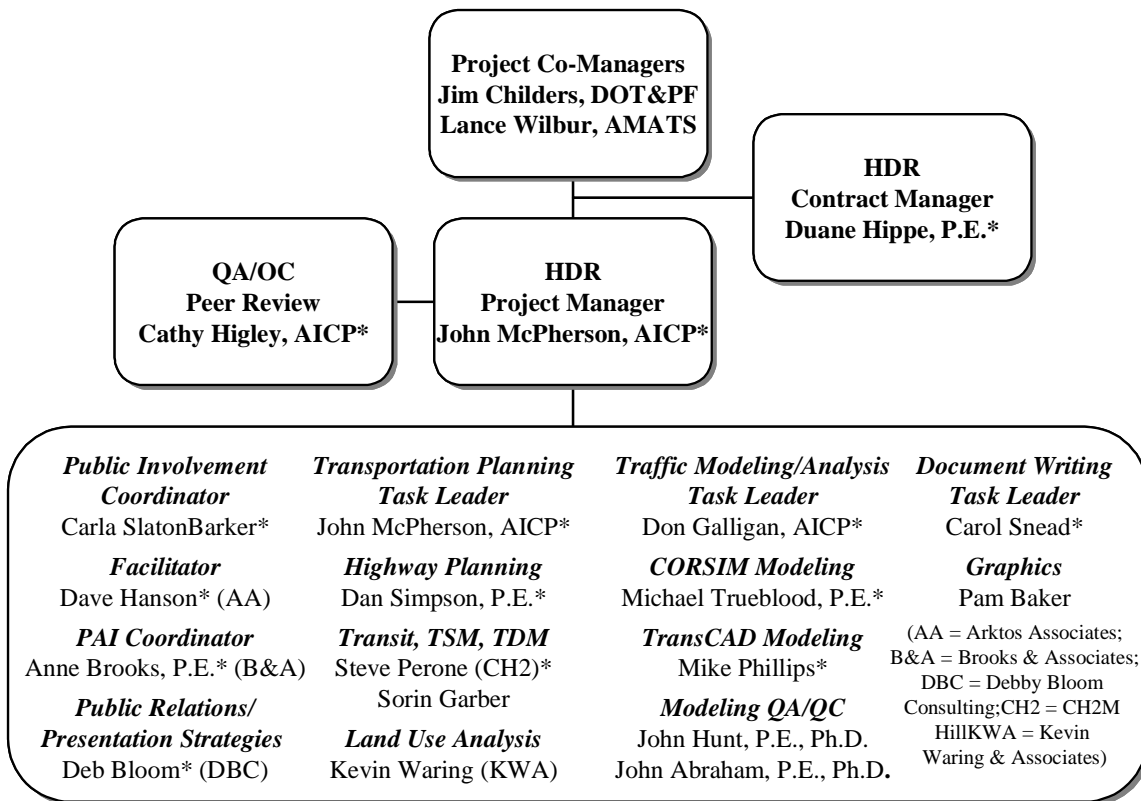♦ Communication ability to listen to and communicate with diverse interest groups.
♦ Technical experience with transportation methodologies that have improved mobility in cities nationwide with problems similar to Anchorage.

DOT&PF hired HDR Alaska to conduct this study. The professionals on HDR's team include trained transportation planners with local and national corridor planning experience; experienced public process leaders who have worked closely with Anchorage residents on many projects; and technical transportation and land use professionals who can bring to light innovative, workable access solutions.

In the chart below, you'll find an overview of HDR's team members and their assignment for this project.

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                    ┌─────────────────────────┐
                    │   Project Co-Managers   │
                    │  Jim Childers, DOT&PF   │────────┐
                    │  Lance Wilbur, AMATS    │        │
                    └─────────────────────────┘   ┌─────────────────────┐
                                                  │        HDR          │
                                                  │  Contract Manager   │
              ┌──────────────────┐  ┌──────────┐  │ Duane Hippe, P.E.*  │
              │     QA/OC        │  │   HDR    │  └─────────────────────┘
              │  Peer Review     │  │ Project  │
              │ Cathy Higley,    │  │ Manager  │
              │    AICP*         │  │  John    │
              └──────────────────┘  │McPherson,│
                                    │  AICP*   │
                                    └──────────┘
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Public Involvement Coordinator	*Transportation Planning Task Leader*	*Traffic Modeling/Analysis Task Leader*	*Document Writing Task Leader*
Carla SlatonBarker*	John McPherson, AICP*	Don Galligan, AICP*	Carol Snead*
Facilitator	*Highway Planning*	*CORSIM Modeling*	*Graphics*
Dave Hanson* (AA)	Dan Simpson, P.E.*	Michael Trueblood, P.E.*	Pam Baker
PAI Coordinator	*Transit, TSM, TDM*	*TransCAD Modeling*	(AA = Arktos Associates; B&A = Brooks & Associates; DBC = Debby Bloom Consulting;CH2 = CH2M HillKWA = Kevin Waring & Associates)
Anne Brooks, P.E.* (B&A)	Steve Perone (CH2)* Sorin Garber	Mike Phillips*	
Public Relations/ Presentation Strategies	*Land Use Analysis*	*Modeling QA/QC*	
Deb Bloom* (DBC)	Kevin Waring (KWA)	John Hunt, P.E., Ph.D. John Abraham, P.E., Ph.D.	

John McPherson, AICP, a senior planner with HDR, will serve as **project manager and lead transportation planning.** With more than 11 years experience, he brings to this project a well-rounded blend of planning expertise that will guide this transportation study to its successful conclusion. By leading planning and NEPA analysis for the current Glenn Highway Reconstruction Project, John has gained a thorough understanding of issues relevant to the East Anchorage Transportation Study. As an environmental planner for projects like the Gravina Access Project and Whittier Access Project EIS, he understands the importance that up-front planning ultimately has on project development. Through managing other transportation planning projects, such as DOT&PF airport master plans and regional transportation plans, John has become familiar with DOT&PF policies and procedures and has developed

close working relationships with state and federal agency staff. John's work on Anchorage planning projects, such as the Anchorage Bowl Commercial-Industrial Land Use Study and Girdwood Transportation Studies, has given him keen insight into the growth and land use issues surrounding this project.

Duane Hippe, P.E., a senior transportation engineer with HDR, will serve as **contract manager**. He has more than 22 years transportation experience in Alaska, with tenure as a DOT&PF employee. Duane serves as HDR's contract manager for all DOT&PF projects, and thoroughly understands DOT&PF policies, procedures and statures. He resides in Alaska and is registered as a professional engineer in the state, CE-6774.

Cathy Higley, a senior HDR transportation planner, will provide **QA and QC peer review**. Cathy has over 22 years experience in transportation planning across the country dealing with large multi-modal studies.

1.4.1 Public Involvement Team

Carla SlatonBarker, a planner and public involvement coordinator with HDR, will **coordinate public involvement**. She has 10 years of experience in technical communication and has worked as a public involvement coordinator on many DOT&PF projects, such as the Glenn Highway Reconstruction Project, the Alaska State Rail Plan, the Whittier Tunnel project, and DOT&PF airport master plans. Her tasks on these projects range from developing programs to meet project needs to making presentations at community council meetings, facilitating concerns among affected interests, and preparing informational materials. Carla resides in Alaska.

Dave Hanson, principal of Arktos Associates, will serve as **facilitator**. A trained facilitator and public policy mediator, he has more than 20 years of Alaska experience performing facilitation for similar transportation corridor projects. By facilitating the first two public meetings on the East Anchorage Transportation Study, Dave has an understanding of the project, is familiar to parties involved with this study, and can provide continuity to public process for this project. Facilitating other local projects, such as the Whittier Access, Dowling Road CE, and Anchorage Coastal Trail projects, he has developed strong relationships with businesses, government agencies, and the public. He resides in Alaska.

Anne Brooks, P.E., head of Brooks & Associates, will provide coordination of project interaction with the potentially affected interests and document the public outreach for the project. Her relevant experience in public outreach includes working with DOT&PF on the second public meeting for developing the SOQ for this project, and serving as public participation coordinator for O'Malley Road, Glenn Highway, and the Providence University Area Transportation Study (PUTS)—all projects within the study area. She is an Alaska resident, and is licensed as a professional engineer in the state, CE-8692.

Debby Bloom, head of her own firm, will assist with **public relations and presentation strategies.** She has spent the last 20 years providing public relations for transportation projects like the Anchorage Coastal Trail Project and the Whittier Access EIS. On these projects, Deb has helped explain the benefits and impacts of these projects to Anchorage residents and businesses. She is an Alaska resident.

1.4.2 Transportation Planning Team

Dan Simpson, P.E. with HDR, will conduct **highway planning**. He has more than 16 years of transportation experience on DOT&PF projects in Anchorage and around the state. His relevant project

experience includes managing the Glenn Highway Reconstruction Project, which will directly tie into the East Anchorage Transportation Study. A lifelong Anchorage resident, he has designed transportation projects around town and knows the issues and public associated with this project. He resides in Alaska and is registered as a professional engineer in the state, CE-8216.

Steve Perone, a transportation planner with CH2M Hill, will lead **transit planning** and evaluate **TSM and TDM strategies**. He has more than a decade of experience conducting transit, TDM, and TSM tasks for transportation projects throughout the Pacific Northwest and Alaska. Steve's relevant experience includes performing resource transportation analysis for CH2M Hill's New Seward Highway—Rabbit Creek Road to 36th Avenue—Project and the Northwest Alaska Regional Transportation Plan. He resides in Oregon.

Sorin Garber, a transportation planner with HDR, will assist with **transit planning** and evaluate **TSM and TDM strategies**. He has more than 20 years of experience analyzing surface transit and circulation systems across the country. His relevant experience includes working on the Glenn Highway Reconstruction Project, a commuter rail study for the Mat-Su Borough, and the MOA Commercial and Industrial Land Use Study. Sorin resides in Oregon.

Kevin Waring, owner and principal of Kevin Waring Associates, will conduct **land use analysis**. He has over 30 years experience, including more than 20 years conducting planning in Anchorage. His relevant project experience includes the Anchorage Bowl Commercial and Industrial Land Use Study, Anchorage 2020—The Anchorage Bowl Comprehensive Plan (which he managed for the MOA), and the Universities-Medical District Master Plan (which he managed for the MOA). Kevin resides in Anchorage.

1.4.3 *Traffic Modeling/Analysis Team*

Don Galligan, AICP, a senior transportation planner with HDR, will lead **the traffic modeling/analysis team.** With over 11 years of transportation corridor planning experience, he has led tasks like land use analysis and traffic forecasting and modeling. For the Glenn Highway Reconstruction Project, he is forecasting mode split for alternative transportation modes, helping to determine traffic impacts from proposed reconstruction alternatives, and conducting land use research. He is performing similar tasks on the Sterling Highway EIS and the Northwest and Arctic Transportation Plans. Don resides in Anchorage.

Michael Trueblood, P.E., an HDR transportation engineer, will perform **CORSIM modeling**. With a background in traffic operations and transportation planning, he has used traffic simulation (CORSIM) to analyze transportation alternatives, and is involved in beta testing the new 5.0 version. For the Glenn Highway Reconstruction Project, he is using CORSIM/FRESIM to analyze existing and future traffic operations. Mike resides in Nebraska, where he is registered as a professional engineer.

Michael Phillips, a transportation planner with HDR, will conduct **TransCAD modeling**. He is using forecast models developed in the TransCAD software package for the Glenn Highway Reconstruction Project, the Pocatello (ID) regional transportation plan update, and for the Cheyenne Corridor Project. Michael resides in California.
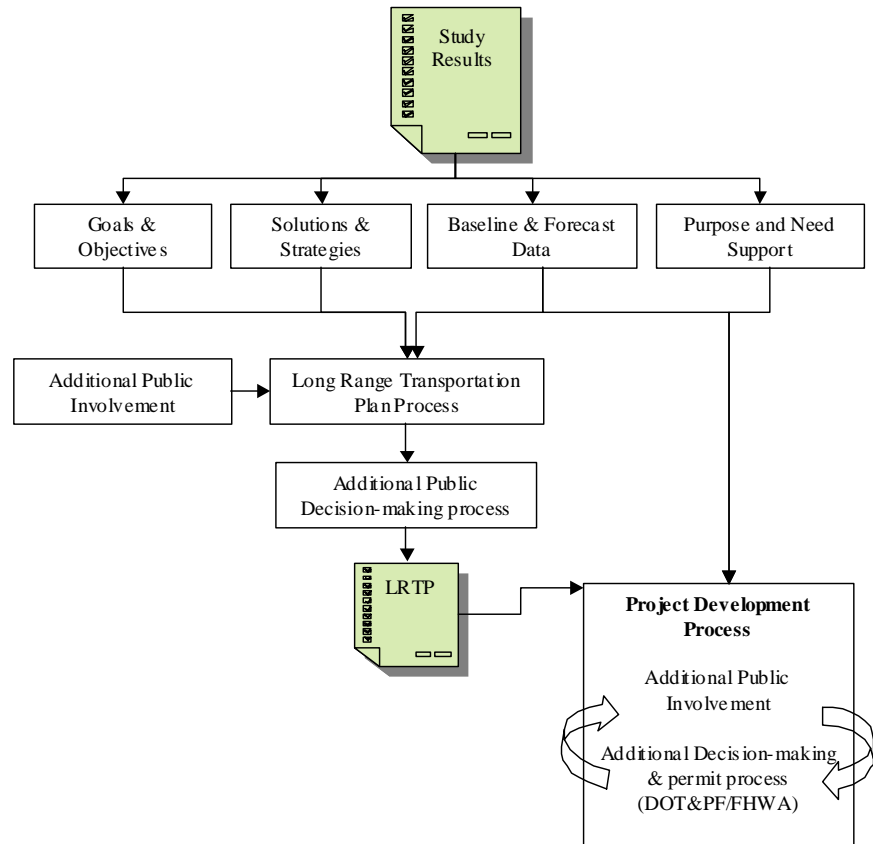
1.4.4 Other Team Members

Carol Snead, a planner with HDR, will serve as **document writer**. She has 13 years experience in preparing impact evaluations in accordance with NEPA for transportation corridor projects. She is helping prepare the EIS documentation for the Gravina Access Project and Sterling Highway Project, has written key parts of the Conrail Acquisition EIS, and has served as environmental planner for the National Harbor EIS. Carol resides in Oregon.

Technical resource staff. HDR's team includes a wealth of professional staff. They include: **Pam Baker** of HDR for **graphics**; and **John Hunt, P.E., Ph.D.**, a professor of transportation engineering at the University of Calgary and **John Abraham, P.E., Ph.D.**, President of TJ Modeling, to provide **quality assurance and quality control for modeling**.

1.5   How will this study be used?

This study is a part of a much larger process that began with the Anchorage 2020 Comprehensive Plan. The comprehensive plan provides the framework, in the form of goals, objectives, policies and maps that will guide future development in Anchorage. With this framework in place, now is an ideal time to begin talking about how that future vision of the city will be served by our transportation system. This study will provide a base of data for making decisions about that future. The East Anchorage Study of Transportation, however, will not make those decisions. This study will help to refine the comprehensive plan goals and objectives for transportation in East Anchorage, it will explore a number of transportation solutions and strategies for getting people where they need to go by auto, foot, bicycle or bus, it will provide a baseline of data and analysis for helping to make those decisions in the future.
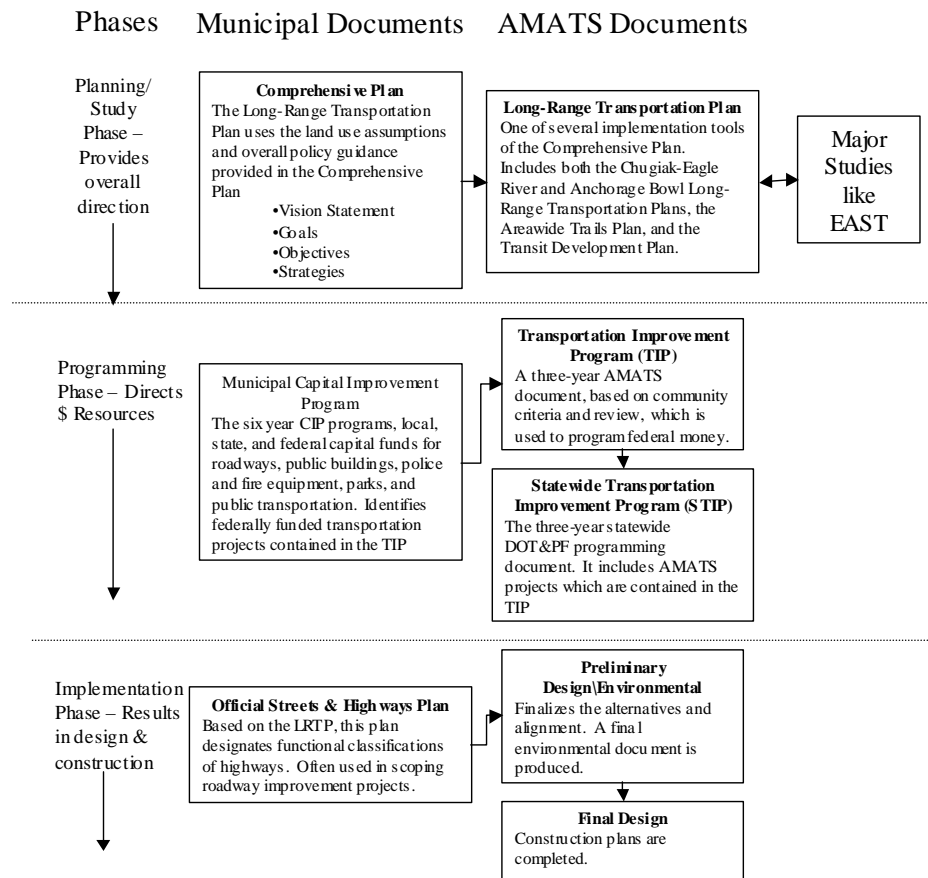
The study will produce an evaluation and analysis that municipal and DOT&PF planners can use in established processes (Anchorage Assembly, Planning and Zoning Commission, AMATS, etc.) for making transportation decisions. The results of the study will be carried forward into the Long Range Transportation Plan and programming process used by AMATS to make decisions. These processes

entail additional public involvement before the decisions result in projects being constructed. This study phase is a critical time for you to be involved.

1.6   Transportation Planning and Implementation Process

The following graphic, adapted from the Long Range Transportation Plan (LRTP), illustrates how the East Anchorage study fits into the transportation planning and implementation process. According to the LRTP, "the long-range transportation planning effort in the Anchorage Bowl and Chugiak-Eagle River is conducted under the auspices of the Anchorage Metropolitan Area Transportation Study (AMATS). AMATS is a cooperative process in which the State of Alaska and the Municipality of Anchorage jointly plan the improvement of local roadway, transit, and trail systems.

The AMATS planning process consists of two principal parts; the Long Range Transportation Plan and the Transportation Improvement Program. Long-range transportation plans are the key planning documents used by AMATS and others to plan the development and implementation of transportation system improvements 20 years into the future. The Transportation Improve-ments Program (TIP) is a short-range plan used by AMATS to program federal funding for transportation improvements. The TIP

Phases	Municipal Documents	AMATS Documents
Planning/ Study Phase – Provides overall direction	**Comprehensive Plan** The Long-Range Transportation Plan uses the land use assumptions and overall policy guidance provided in the Comprehensive Plan •Vision Statement •Goals •Objectives •Strategies	**Long-Range Transportation Plan** One of several implementation tools of the Comprehensive Plan. Includes both the Chugiak-Eagle River and Anchorage Bowl Long-Range Transportation Plans, the Areawide Trails Plan, and the Transit Development Plan. → Major Studies like EAST
Programming Phase – Directs $ Resources	Municipal Capital Improvement Program The six year CIP programs, local, state, and federal capital funds for roadways, public buildings, police and fire equipment, parks, and public transportation. Identifies federally funded transportation projects contained in the TIP	**Transportation Improvement Program (TIP)** A three-year AMATS document, based on community criteria and review, which is used to program federal money. **Statewide Transportation Improvement Program (STIP)** The three-year statewide DOT&PF programming document. It includes AMATS projects which are contained in the TIP
Implementation Phase – Results in design & construction	**Official Streets & Highways Plan** Based on the LRTP, this plan designates functional classifications of highways. Often used in scoping roadway improvement projects.	**Preliminary Design\Environmental** Finalizes the alternatives and alignment. A final environmental document is produced. **Final Design** Construction plans are completed.

programs the recommendations contained in the 20-year LRTP into a short-term timeframe" (LRTP, 1999). The LRTP and TIP are implementing tools for the comprehensive plan. As such, the Comprehensive plan provides the overarching policy guidance for developing the plans. The East Anchorage Study of Transportation is identified as a task in the LRTP. The study will, in turn, provide technical analysis that will be fed back into the LRTP.

1.7   Study Process

As indicated above, a key to the successful study will be to develop and conduct a meaningful study process. This section presents an overview of the process and a brief description of each of the major phases involved. Details on the subtasks, assumptions, and methods to be used

A key study objective: Develop and conduct a credible study process.

during each phase follow in the remainder of the study plan.

1.7.1   Transportation & Mobility Data Gathering and Analysis Phase

The primary objectives of this phase of study will be to develop an understanding of existing conditions affecting and relating to the transportation system in East Anchorage and to use that information to predict future conditions and to serve as a base of information throughout the study. There are four primary tasks in this phase of work, namely (1) collecting background information on existing conditions in the study area, (2) analyzing that information (3) building a forecast of future conditions, and (4) analyzing the information generated about future conditions. This task will begin immediately upon completion of the study plan.

1.7.2   Problem and Study Objectives Identification Phase

Running concurrently with the background inventory phase will be the problem and study objective identification phase. During this effort, the team will refine the objectives of the study, review the transportation planning history and existing policy guidance in the area, develop a vision for transportation in the area, and identify goals and objectives to guide future transportation and land use decision-making. Information from past studies, comparing community goals and vision for the area against the existing conditions, and public input will be used to identify and understand transportation problems and needs and to put those problems and needs into the context of historical planning efforts and future transportation-land use desires. The key tasks in this phase entail formulating study objectives, identifying needs and problems, culminating in an articulation of transportation goals and objectives to resolving those problems and needs.

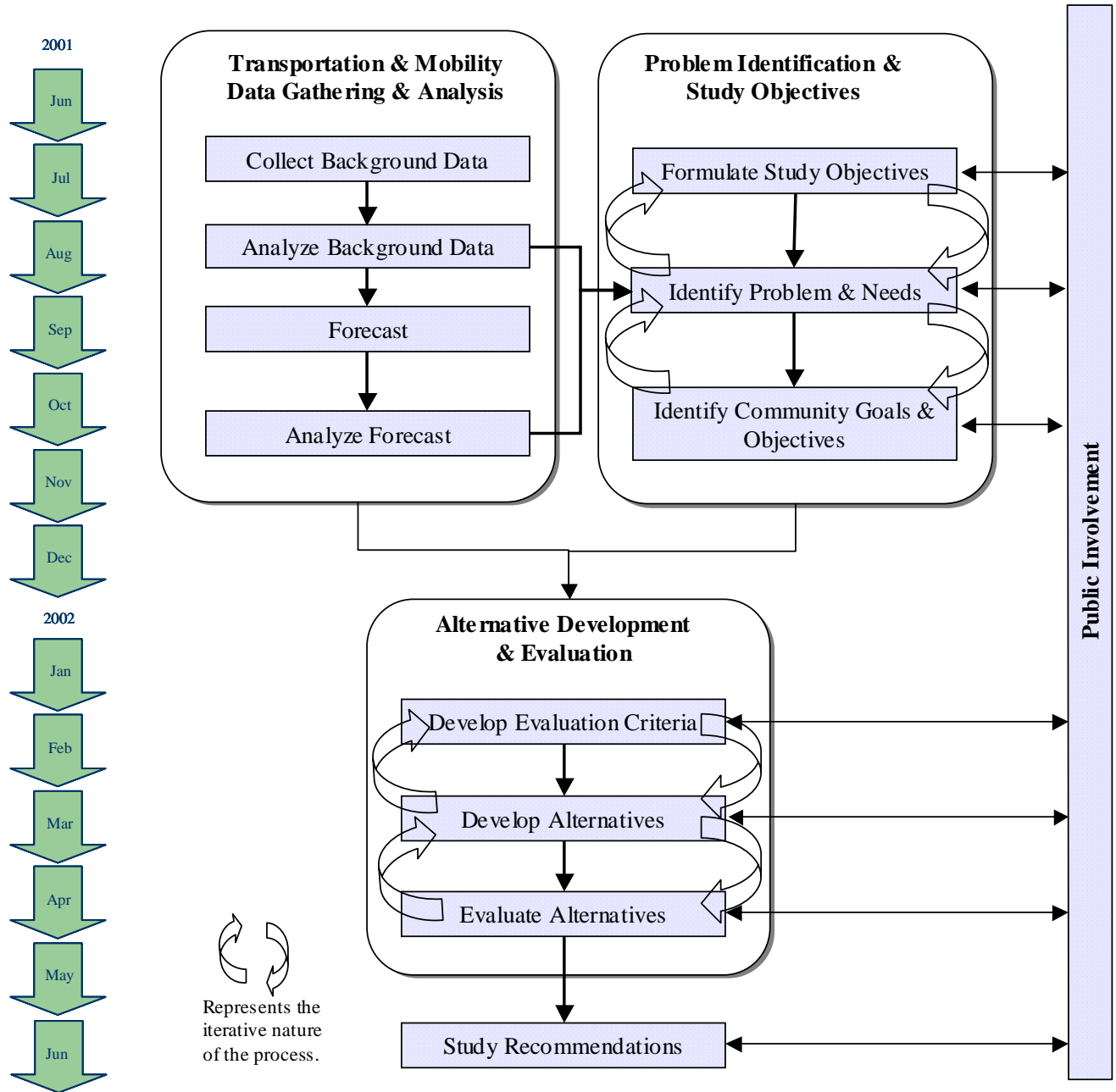### 1.7.3   Alternative Development and Evaluation Phase

Developing and evaluating solutions to meeting East Anchorage's transportation needs will be the heart of the study. The approach on EAST will be to incorporate a full range of modal options, demand management, and land use ideas. The key steps in the process include developing evaluation criteria, developing alternatives, and evaluating alternatives.

1.7.4   Study Recommendations

During this task the team will work to ensure that information on all alternatives is presented to the community and that a dialogue takes place on future transportation improvements and strategies between state and municipal transportation staff, decision-makers, and the public. The team will report the results of this dialogue to decision-makers and document recommendations in a final study report.

1.7.5   Public Involvement

Public participation will be incorporated into each phase of the study to bring good ideas to the forefront and lend credibility to and acceptance of the study results. The following figure depicts the tasks in which input will be solicited. Details of our public involvement approach are included in the following chapter.

2001

Jun

Jul

Aug

Sep

Oct

Nov

Dec

2002

Jan

Feb

Mar

Apr

May

Jun

Represents the
iterative nature
of the process.

**Transportation & Mobility
Data Gathering & Analysis**

Collect Background Data

Analyze Background Data

Forecast

Analyze Forecast

**Problem Identification &
Study Objectives**

Formulate Study Objectives

Identify Problem & Needs

Identify Community Goals &
Objectives

**Alternative Development
& Evaluation**

Develop Evaluation Criteria

Develop Alternatives

Evaluate Alternatives

Study Recommendations

Public Involvement

1.8 Deliverables

As the study progresses a number of deliverables will be prepared. Each deliverable will provide documentation on what the team has discovered during that phase of the work. The following graphic illustrates the deliverables we anticipate preparing.
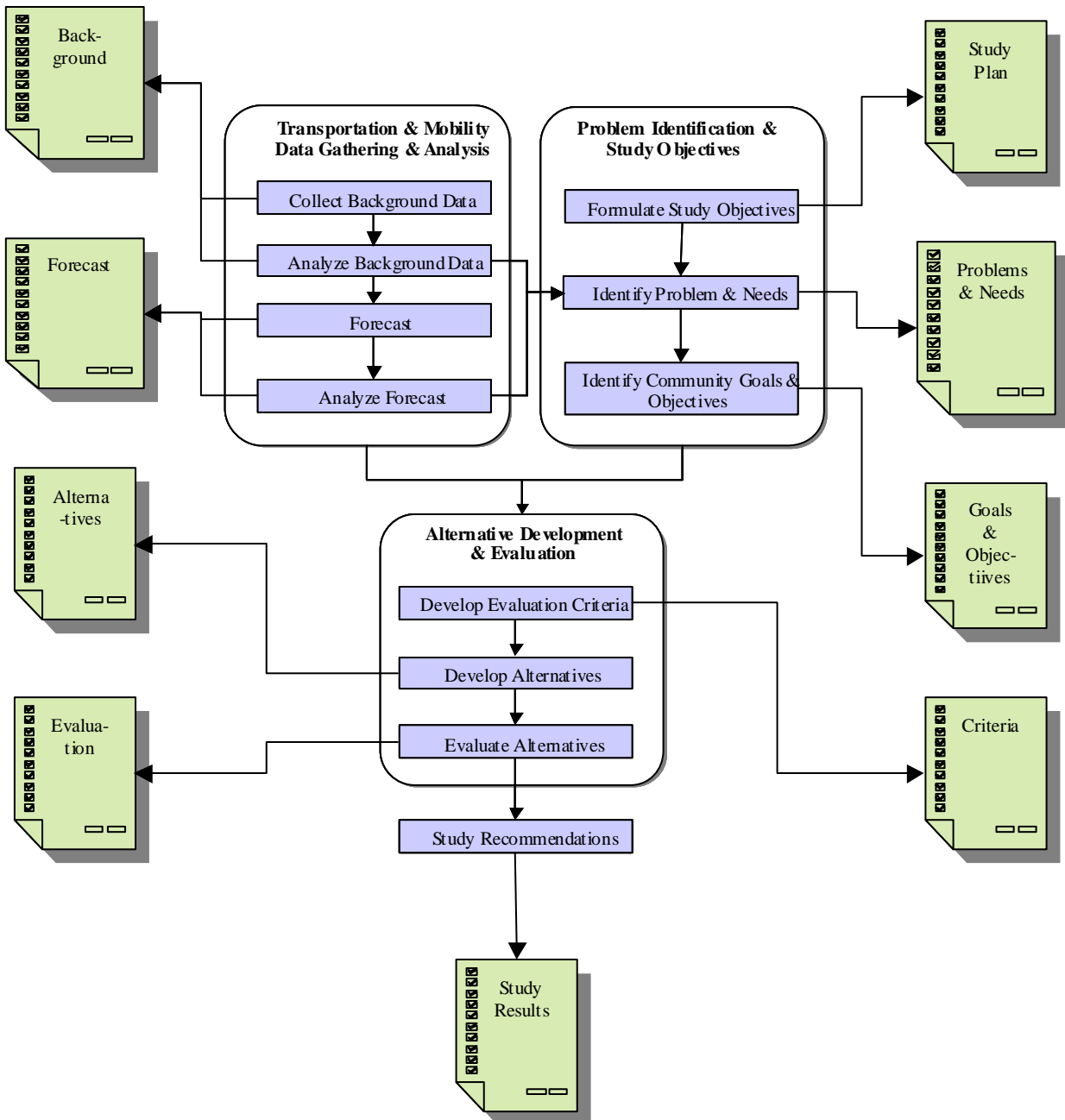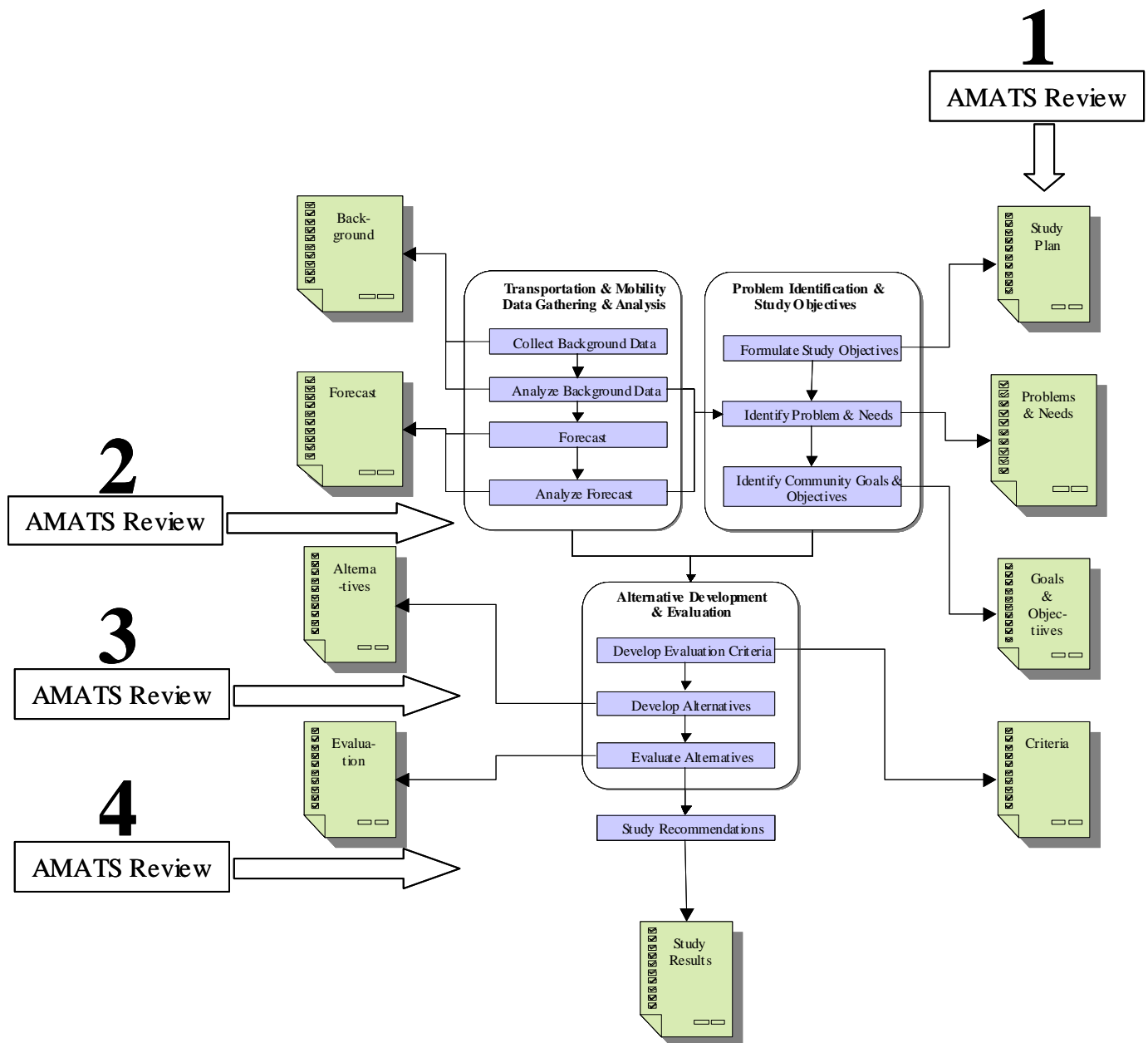
1.9 Report Review

We see our role in this study as providing technical input into the study of how people move within and through East Anchorage, and helping to shape potential solutions as to how they would like to travel in the future, then combining that technical input with good public involvement and capturing that information (both technical and public sentiment), and presenting it to decision makers clearly and articulately. The following graphic illustrates the review process proposed for each of the reports in the study. The decision-makers for transportation projects in the study area are those members of the AMATS Policy Committee (AMATS is short for Anchorage Metropolitan Area Transportation Study).
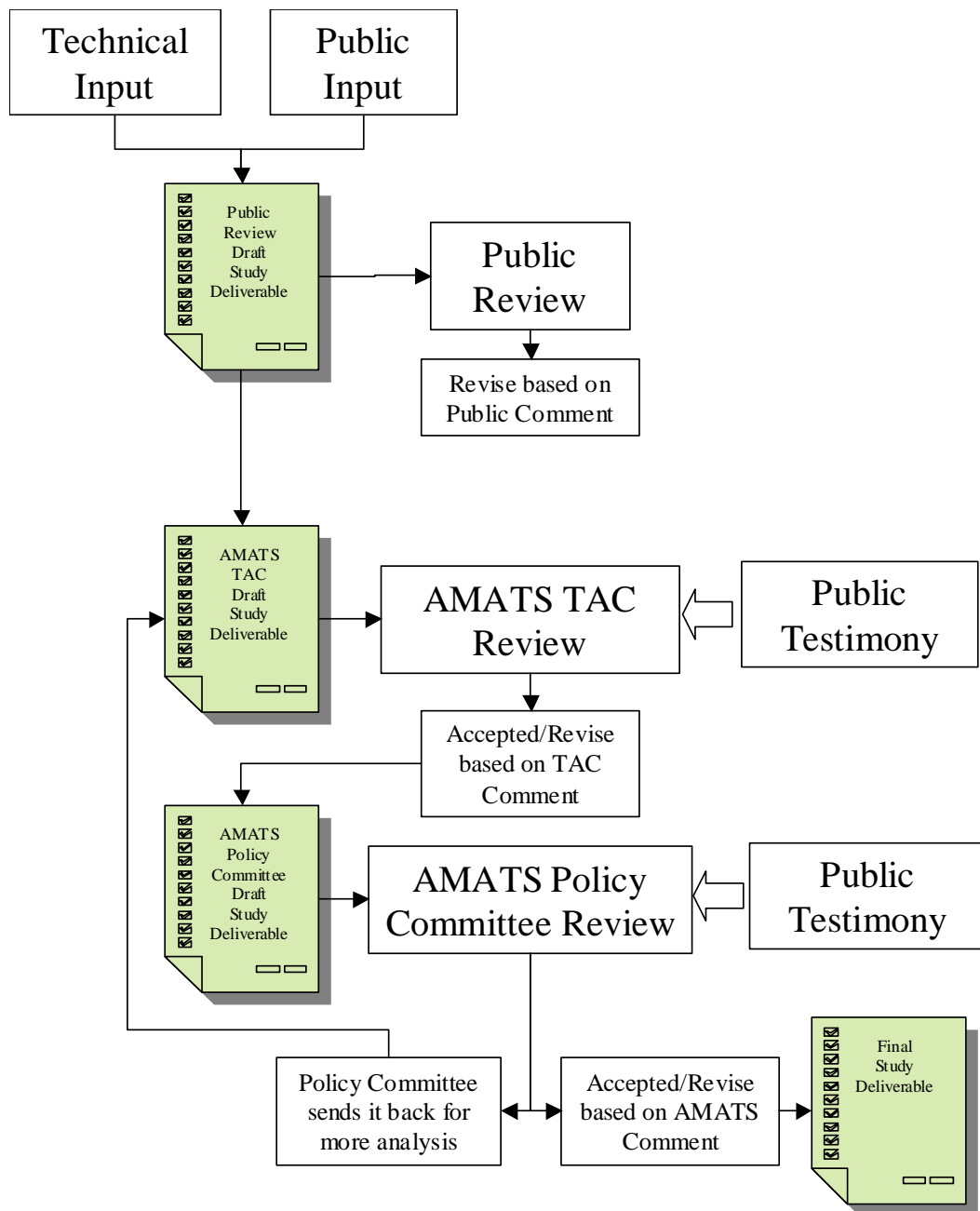
There are four points during the process when concurrence will be requested from the AMATS Policy Committee. Before beginning the study, the team will request concurrence on the study plan (contained in this document). The second concurrence point will be after the team has identified problems and needs and refined goals and objectives. At this second concurrence point the team will ask for direction from the Policy Committee on the range of alternatives they would like examined. The third concurrence point will be to review the screening criteria and draft alternatives. At the fourth concurrence point the team will present the results of the alternatives evaluation and get direction on study recommendations.

1

AMATS Review

Back-ground	

Transportation & Mobility Data Gathering & Analysis

Collect Background Data

Analyze Background Data

Forecast

Analyze Forecast

Problem Identification & Study Objectives

Formulate Study Objectives

Identify Problem & Needs

Identify Community Goals & Objectives

Study Plan

Forecast

Problems & Needs

2

AMATS Review

3

AMATS Review

Alterna-tives

Alternative Development & Evaluation

Develop Evaluation Criteria

Develop Alternatives

Evaluate Alternatives

Goals & Objec-tiives

4

AMATS Review

Evalua-tion

Study Recommendations

Criteria

Study Results

2.0 Public Involvement/Public Participation

2.1 Introduction

This study's success will depend as much on *process* as it does on technical content. Public involvement conducted through a fair and open process results in an outcome where the public is more likely to support study decisions.   The East Anchorage Transportation Study will bring a range of competing interests and values to the public forum.   Benefits of a sound public-participation process are many:

> *Key Goal: Involve the public in meaningful ways that bring good ideas to the forefront and lend credibility to, and acceptance of, the study results.*

- Improved planning—a study process more tailored and responsive to community needs.
- Facilitated decision- making—citizen participation contributes to well-informed decisions.
- Enhanced legitimacy—a process that does not plan *for* but instead plans *with* its constituents is a process that stays on track.
- Increased support for outcome—If the public perceives the decision-making process to be fair, it is more willing to live the overall study outcome.

2.2 Objectives

The key objectives of our public involvement/participation process include:

- involve the public in meaningful ways,
- strive to bring all voices to the discussion,
- listen to comments and suggestions and infuse the input into the study,
- demonstrate how that input was used (or, if necessary, explain why it could not be used),
- provide new information for the public to consider, and
- summarize the public input, pro and con, for decision-makers.

No matter the phase of the study, we will follow that protocol. Our commitment to those objectives will demonstrate that participation in this study really matters, thereby encouraging more and more involvement as the study progresses and ensuring the study's success.

2.3 Approach and Methodology

Getting meaningful involvement from the public during the study phase of transportation development is critical but often challenging. We propose three primary approaches to ensuring a fair process leading to meaningful participation.

1. Identify and engage all who are "interested, impacted, or care the most" and to gauge broader public opinion.
2. Meeting facilitation to ensure that study members and members of the public effectively exchange information.
3. Public relations to ensure visual and written communication tools promote interest and communicate ideas effectively.

Table 1 presents an overview of the public involvement toolbox we anticipate using through this study. For the timing of the use of these tools see the discussion of public involvement in each of the project phases, detailed in the remaining chapters of this study plan.

Table 1. Public Participation Toolbox

Tool	Description	Use
Potentially Affected Interest Coordination		
Interviews	Interviews of user groups, affected neighborhood groups, etc.	To identify issues and problems early in the process. Attempt to reach everyone including the "silent majority" that do not show up at meetings. Seek answers to particularly perplexing issues. Solicit public input. Provide background and use to identify roadway, transit, trail, and pedestrian deficiencies within the study area.
Surveys	Statistically valid telephone survey, periodic internet survey, newsletter questionnaire	To identify issues and problems early in the process. Attempt to reach everyone including the "silent majority" that do not show up at meetings. Seek answers to particularly perplexing issues. Provide background and use to identify roadway, trail, and pedestrian deficiencies within the study area.
Citizen Working Group	Up to 50 citizens will be selected to be a member of this group. Citizens will submit applications, and the team will select a group that represents a wide geographic and interest range. Also included will be a member from each community council in the East Anchorage area, as well a members from community groups such as Rotary, Anchorage Chamber of Commerce, etc.	To ensure that as issues arise, they can be addressed early and effectively. Group will serve as an advisory body from which the project team will solicit input during all phases of the project. A key to the success of this body will be consistency and continuity.
Technical Working Groups	Specific technical groups such as Emergency Response, Land Use or Environmental to name a few that may be used.	These groups will provide input to the project team as data is collected, during identification of solutions and to screen various alternatives.
Federation of Community Councils	The team will make presentations to the Federations of Community Councils (FCC). FCC members will disseminate this information to their individual community councils.	To ensure consistent and timely exchange of information relative to the project.
Group Presentations	The team will make presentations to individual groups upon request.	Specific groups have specific interests in the project. This tool will allow the project team to have a focused exchange of information.
Picnic Presentation	A challenge of public participation includes communication with diverse groups. Neighborhood groups reached in an informal picnic setting will expand our outreach.	To solicit input from a particular group not reached by other methods.

Tool	Description	Use
Bus Tour	A bus tour will expose the team and citizen's groups to the study area's diversity and competing interests and assist in raising an understanding of various problems and solutions.	To provide background information on the study area and solicit information on key issues and problem areas (for citizen working group).
Study Team Spokespersons	This group would consist of core team members tasked with being spokespeople for the project. Members of this group would be available to make presentations at various community groups generally outside of public transportation processes, as needed.	To ensure a consistent message. To provide project wide exposure.
Professional public opinion poll	A statistically valid method of weighing public acceptance of a problem description, an alternative or an approach to a solution.	This method provides a statistically valid result. Questions would be developed with public input to be unbiased and thorough.
Meeting Facilitation		
Facilitated Public Meetings	Meetings will include open-houses, workshops, and public meetings. The goal of the meeting is to provide information and to gather input. Meetings will be held at various locations throughout the study area during the project.	To ensure that dialogue not politics will be the norm.
Facilitated Agency and Focus Group Study Meetings	These meetings will be largely workshop-oriented. The goal is to provide information and solicit input. Includes public, agency and technical groups.	To ensure that dialogue not politics will be the norm.
Public Involvement Focus Group Meetings	The purpose of these meetings will to periodically evaluate the project's public outreach. Is it effective? Is it broad enough to be reaching all interests in the project area. The goal is to receive feedback on the effectiveness of the public involvement process and seek ways to improve it.	To ensure a quality process throughout the study. Will also provide assurance to decision makers that the project is open, fair and balanced.
Public Relations		
Responsiveness Summary	A project spreadsheet will record each comment, the date of receipt, the type of comment, the team's response, the action required, and the team member responsible for seeing the action item through to completion. This document updated regularly and made available to the public.	To track public participation in a quantifiable way. Documentation of outreach activities, including our responses to public comments, ensures that public process is comprehensive, fair, and inclusive by allowing us to evaluate our effectiveness as the study moves forward.
Project Hotline	Callers will hear a project message and record their comment. Comments will be transcribed and become part of the project record.	To promote input and to provide an easy mechanism to provide comment.
Website	The project web site, www.eastanchorage.net, will be used to provide project updates, record comment, and to distribute documents for review.	To receive public input and provide study information. Specific uses include publishing questionnaires, newsletters, meeting notices, study updates, reports.
Study Print Materials	Materials will include newsletters (posted on website and mailed to those who are not connected to the Internet), Anchorage Daily News Inserts, and meeting handouts.	A concise, consistent print materials published in a cost-effective format will be used at critical milestones. Other outreach materials will have the same look and feel.

Tool	Description	Use
Informational video	A short, 5 minute video produced by a local vendor to provide an overview of the study—area encompassed, study team, study objectives, challenges, and why the public should become involved.	To introduce people to the study. For use on public stations—KAKM, ASD and Assembly broadcasts and at meetings.
Press Coordination.	Press releases, newspaper ads, radio announcements.	To have a proactive approach to the distribution of information
Public Relations Experience	See more detail in the "Public Relations" section below.	To ensure that the message content is consistent and sensitive to local political interests.
Public service announcements	These brief items will be distributed to radio and TV stations	To notify the public about meetings and project milestones.
Informal Signs	These signs will be place at locations within the project area and contain website, hotline and contact information	To get the word out about the study.
Displays at libraries and shopping malls	Project kiosk containing general project and contact information, manned or unmanned depending on location, dates, etc.	A means of sharing information and receive public input.
Flyers on buses, in libraries, and in other public places (Gas Stations).	Flyers would announce meeting dates, recently released documents, and the website.	Informational pieces to describe upcoming meetings, availability of reports, and so on.
Channel 42 (Municipal)	This technique envisions using the downtime during Assembly breaks to broadcast project information.	Rebroadcast of public information, notice of meetings, and informational video
Anchorage Daily News website and community calendar	Public information calendar of local events.	Use community calendar to provide notice of public meeting opportunities
General Techniques to Get the Word Out		
List Maintenance Mailing Email Group	The base mailing list will consists of people attending the project meetings. It will be expanded upon receipt of a request to be included and after each public meeting when the team will update all lists. E-mail addresses will be accumulated from meeting, correspondence, etc. Groups may forward project information upon request.	Receive public input and provide study information. Specific uses include distributing newsletters, study postcard updates, and meeting dates. Targeted neighborhood mailers for specific data collection needs.
E-mail trees	An effective method of cutting project costs. All project correspondence will be sent via e-mail as well as other methods.	To encourage people to log onto website for the latest study information and encourage communication by this convenient method.
Other Public Outreach Tools Not Initiated or Controlled by Project Team		
Assembly Meeting Notices	Assembly meetings may be focal point for decision-making.	Public notices required
AMATS Technical Advisory Committee	AMATS Technical Advisory Committee will be a focal point for decision-making.	Public notices required
AMATS Policy Committee	AMATS Technical Advisory Committee will be a focal point for decision-making.	Public notices required

Tool	Description	Use
Transit Advisory Board	Transit Advisory Board would review transit alternatives and provide input to AMATS and Municipal Assembly	Public notices required
MOA Planning and Zoning Commission	MOA Planning and Zoning Commission may review land use alternatives and provide input to AMATS Technical Advisory Committee and AMATS Policy Committee	Public notices required

More detail on the focus points and the public involvement tools is provided in the following sections.

2.4 Public Involvement/Public Participation Integration into Study Process

2.4.1 Objective

This study's success will depend as much on *process* as it does on technical content. If public involvement is conducted through a fair process, the various interests who make up the public will be more willing to participate in and ultimately support study decisions. This point is particularly true on a study like the East Anchorage Transportation Study, a complex and controversial study that brings a range of competing interests and values to the public forum. For this reason, we will pay particular attention to potentially affected interest (PAI) coordination.

Our objective for PAI coordination is to open a channel of communication with the various interests that make up the public. By identifying and then learning the range of motives and perceptions of those who are "interested, impacted, or care the most," concerns and problems can be brought to surface early in the process when they can be resolved, and the study process becomes more tailored and responsive to community needs. Our toolbox contains many tools to seek public dialog in the study process. Many of the tools are more effective than other, many cost more than others. In this section we will identify what tools will be used when in completing the EAST project based on our experience.

2.4.2 Approach

Table 2 outlines the methods we will employ to achieve an open, fair public process. This table also identifies the timing for the use of the tool within the project study. All these tools will be used in some form during the study and the table attempts to identify the timing and use of the tool.

Table 2. Public Involvement Tools: Timing and Phase

Tool	Description (same as in Table 1. Toolbox)	Project Phase	Timing
Interviews	Interviews of user groups, affected neighborhood groups, etc.	• Transportation and Mobility Data Gathering • Problem Identification • Community Goals & Objectives • Alternatives Evaluation	
Surveys	Statistically valid telephone survey, periodic internet survey, or newsletter questionnaire	• Transportation and Mobility Data Gathering	

Tool	Description (same as in Table 1. Toolbox)	Project Phase	Timing
		• Problem Identification	
Citizen Working Group	Up to 50 citizens will be selected to be a member of this group. Citizens will submit applications, and the team will select a group that represents a wide geographic and interest range. Also included will be a member from each community council in the East Anchorage area, as well a members from community groups such as Rotary, Anchorage Chamber of Commerce, etc.	All Phases	Meetings 6 to 8 weeks apart
Technical Working Groups	Specific technical groups such as Emergency Response, Land Use or Environmental to name a few that may be used.	All Phases	As needed (anticipate up to 10 meetings total)
Federation of Community Councils	The team will make presentations to the Federations of Community Councils (FCC). FCC members will disseminate this information to their individual community councils.	All Phases	Every other month typically, more often as needed (up to 6 meetings)
Group Presentations	The team will make presentations to individual groups upon request.	All Phases	As requested (will budget for up to 2 per month during life of study)
Picnic Presentation	A challenge of public participation includes communication with diverse groups. Neighborhood groups reached in an informal picnic setting will expand our outreach.	Transportation and Mobility Data Gathering	At project kickoff—June/July 2001
Bus Tour	A bus tour will expose the team and citizen's groups to the study area's diversity and competing interests and assist in raising an understanding of various problems and solutions.	• Transportation and Mobility Data Gathering • Problem Identification • Community Goals & Objectives • Alternatives Evaluation	At project kickoff—June/July 2001 and/or during alternatives evaluation.
Study Team Spokespersons	This group would consist of core team members tasked with being spokespeople for the project. Members of this group would be available to make presentations at various community groups generally outside of public transportation processes, as needed.	All Phases	As requested (will budget for up to 2 per month during life of study)
Professional public opinion poll	A statistically valid method of weighing public acceptance of a problem description, an alternative or an approach to a solution.	Evaluate Alternatives	One statistically valid survey.
Facilitated Public Meetings	Meetings will include open-houses, workshops, and public meetings. The goal of the meeting is to provide	All Phases	Minimum of one per phase

Tool	Description (same as in Table 1. Toolbox)	Project Phase	Timing
	information and to gather input. Meetings will be held at various locations throughout the study area during the project.		
Facilitated Agency and Focus Group Study Meetings	These meetings will be largely workshop-oriented. The goal is to provide information and solicit input.	• Transportation and Mobility Data Gathering • Problem Identification • Community Goals & Objectives • Alternatives Evaluation	Up to 4 focus group meetings per phase for a total of 8 meetings
Public Involvement Focus Group Meetings	The purpose of these meetings will to periodically evaluate the project's public outreach. Is it effective? Is it broad enough to be reaching all interests in the project area The goal is to receive feedback on the effectiveness of the public involvement process and seek ways to improve it.	At completion of each phase and before AMATS decision points.	Total of four during project
Responsiveness Summary	A project spreadsheet will record each comment, the date of receipt, the type of comment, the team's response, the action required, and the team member responsible for seeing the action item through to completion. This document updated regularly and made available to the public.	All Phases More common questions to become Frequently Asked Questions for website posting.	Continuous
Project Hotline	Callers will hear a project message and record their comment. Comments will be transcribed and become part of the project record.	All Phases	Continuous
Website	The project web site, www.eastanchorage.net, will be used to provide project updates, record comment, and to distribute documents for review.	All Phases	Continuous
Newsletter	Area specific newsletter.	As needed to solicit feedback from specific group/neighborhood not engaged in process.	As needed.
Newspaper insert	Specially designed document for insertion into the Anchorage Daily News	Project Kickoff Transportation and Mobility Data Gathering Alternative Development and Evaluation	Two planned. May be combined with other area projects
News Articles	News articles covering the project to publication in the Anchorage Daily News, Pulse Publications and Community Group Newsletters	All phases	As needed to keep public informed and engaged in process.

Tool	Description (same as in Table 1. Toolbox)	Project Phase	Timing
Informational video	A short, 5 minute video produced by a local vendor to provide an overview of the study—area encompassed, study team, study objectives, challenges, and why the public should become involved.	Project Kickoff Transportation and Mobility Data Gathering	One video at beginning of project and for use during data collection
Press Coordination.	Press releases, newspaper ads, radio announcements.	All Phases – most important at project kickoff	Continuous
Public Relations Review	Review to ensure consistency of message content.	All Phases	Continuous
Public service announcements	These brief items will be distributed to radio and TV stations	All phases to announce public meetings	Periodic
Informal Signs	These signs will be place at locations within the project area and contain website, hotline and contact information	Prior to public meetings at major milestones	Periodic
Displays at libraries and shopping malls	Project kiosk containing general project and contact information, manned or unmanned depending on location, dates, etc.	• Problem Identification • Community Goals & Objectives • Alternatives Evaluation	Periodic
Flyers on buses, in libraries, and in other public places.	Flyers would announce meeting dates, recently released documents, and the website.	• Problem Identification • Community Goals & Objectives • Alternatives Evaluation	Periodic
Channel 42 (Municipal)	This technique envisions using the downtime during Assembly breaks to broadcast project information.	Could be used at all phases, as determined by project team.	Periodic
Anchorage Daily News website and community calendar	Public information calendar of local events.	Could be used at all phases, as determined by project team	Periodic
List Maintenance Mailing Email Group	The base mailing list will consists of people attending the project meetings. It will be expanded upon receipt of a request to be included and after each public meeting when the team will update all lists. E-mail addresses will be accumulated from meeting, correspondence, etc. Groups may forward project information upon request.	All Phases	Continuous
E-mail trees	An effective method of cutting project costs. All project correspondence will be sent via e-mail as well as other methods.	All Phases	Continuous

2.4.3 Major Subtasks

Major subtasks of the PAI component includes the following:
- Identify stakeholders.
- Compile mailing list and e-mail list.
- Establish Technical Working Group
- Establish Citizen Working Group.
- Select meeting times, dates, and locations.
- Prepare questionnaires/interviews and public opinion polls.
- Coordinate with project team to take advantage of public involvement opportunities
- Evaluate Public Involvement/Participation program
- Refine Public Involvement/Participation program
- Communications (with team, public and decision-makers)

2.4.4 Deliverables

Deliverables associated with PAI work are listed below:
- Website (development and maintenance)
- Lists (mail, email and group)
- Prospectus, Newsletters, Newspaper Inserts
- Video
- Meeting Schedule
- Meeting Summaries
- Issue/Response Summary
- Internet and Newsletter Questionnaire and Results
- Public Opinion Poll Summary and Results
- List of Citizen Advisory Committee Members

2.5 Meeting Facilitation

2.5.1 Objective

Another component of our overall public involvement approach is a focus on meeting facilitation. Meetings play an important role in most projects because they provide an opportunity for people to interact on a person-to-person basis. However, when representatives of different interest groups come face-to-face, many are tempted to make hard demands and ultimatums that further " freeze" them into their already polarized positions. This dynamic leads to unproductive meetings. Our objective is to ensure that study members and PAIs effectively exchange information, and the key to this objective is the use of a neutral facilitator.

2.5.2 Approach

Facilitated meetings are a key component of our approach. By providing a neutral facilitator, dialogue not politics will be the norm. Table 3 presents a summary of the meetings in which we anticipate using a meeting facilitator.

Table 3. Facilitated Meetings*

Meeting Types	Proposed Use	Timing
Project Technical Advisory	Provide study information and	At key study decision points

Meeting Types	Proposed Use	Timing
Committee Meetings	solicit input	
Public Meetings—Workshops, Presentations, Hearings	Provide study background and solicit specific area input in workshop format	At key intervals in study development
Focus Groups	To resolve specific issues identified during the study.	During study plan and study development
Citizen Working Group	To solicit opinion from a representative group of Anchorage residents to a variety of study issues. This would be an advisory group only. Members would apply for a position on this committee.	At key milestones during the study development.

*To be successful, meeting dates will be firm and the team will meet their deliverables schedule. Momentum must be maintained to keep people engaged and participating.

Our approach for these facilitated meetings will follow an established protocol. The following discussion presents our approach before, during, and after each facilitated meeting.

Meeting preparation. This stage of the process will include gathering study team members (up to two or three times) to plan for the meeting. The focus of these meetings will be defining the specific purpose of the meeting; reviewing and finalizing the agenda; agreeing on a meeting methodology (workshop, informational, open house); determining and conceptualizing presentation materials and supporting materials (maps, handouts, and so on); reviewing questions to be answered by the public; and identifying logistical needs. The facilitator will then plan the meeting in detail; review each step of the meeting and how it will specifically happen; and prepare notes for introductions, explanations, presentations, transitions, instructions for tasks, and public involvement in the next step of the process.

The Meeting. Our general approach to each meeting will be to provide a general introduction and overview, present study information, review specific public involvement tasks, facilitate public question and answer period, provide an opportunity for public input, and make concluding remarks. These items are discussed in more detail below:

- <u>Introduction and overview.</u> The facilitator will welcome participants, establish meeting sponsorship and facilitator role of neutrality, review meeting purpose and agenda, introduce appropriate personnel to make welcome statements, provide other appropriate introductions, establish ground rules, review handouts and support information available, and introduce study presenters.

- <u>Presentation of study information.</u> Appropriate study team members will present study information related to the meeting's purpose and agenda. This may include the study status and schedule, specific study information or draft materials, or an overview/explanation of key questions or other public input topics.

- <u>Specific public involvement tasks</u>. The facilitator will take up where the study presenters leave off by describing the public involvement input tasks for the meeting and how they will be accomplished. At this time the facilitator will introduce a team member who will provide the results of the public's previous input and explain how this input is reflected in the study to date. This team member will also provide an overview of how input gained from the current meeting will be used in the study. The objective of this protocol is to establish a meaningful sense of continuing public involvement and impact on the study as it evolves through its phases.

- Public question and answer period. The question and answer period (Q&A) will be handled by the facilitator, and will be limited by use of a specific scope (such as study status or the meeting's goals). The facilitator will set up clear parameters for the session and enforce the Q&A nature, keep it on the appropriate topic, provide suggestion for other ways for the public to get information on off-subject topics, and move the Q&A period to conclusion to allow for time for the public input session of the meeting.

- Public input session. During this period, members of the public complete their work—material review, small group workshop sessions, small group discussions, public testimony, and so on. This section of the meeting will be well planned with appropriate material and support personnel involved (expert question responders for one-on-one small group discussion, small group facilitator, and so on) according to the method used.

- Concluding Remarks. Concluding remarks may take place at the end of the Q&A session or at the end of the meeting depending upon the form of public input. The remarks should cover progress made, importance of input, when the next scheduled study event will take place and the next chance for input, and how they can see the results of their input.

Follow-up Work. To ensure that the meeting format and content continue to improve throughout the study, the team will meet to debrief after a meeting is held. Discussions will cover how the meeting went and how we could improve next time, the types of public feedback and the methods for incorporating that feedback, and actions and responsibilities for following through on suggestions and for setting up the next meeting.

2.5.3 Major Subtasks

Major subtasks of the meeting facilitation component includes the following:
- Identify meeting schedule
- Schedule meeting venue and advertise meetings.
- Prepare meeting materials.
- Prepare record of meeting: meeting materials used, meeting notes, sign-in sheet.

2.5.4 Deliverables

Deliverables associated with the meeting facilitation component are listed below:
- Draft Agenda
- Record of meeting: meeting materials used, meeting notes, sign-in sheet
- Debrief Notes

2.6 Public Relations

2.6.1 Objective

The final focus of our public involvement approach is public relations to ensure visual and written communication tools promote interest and communicate ideas effectively. Just because we think a project handout is eye-catching and engaging does not ensure that it is. Just because we understand what we wrote in a newsletter does not mean that the layperson will. Our team's public relations specialist will provide quality assurance/quality control of all our public materials.

2.6.2 Approach

Table 4 presents components of our approach. The tools associated with this component were listed in Tables 1 and 2 and include all print materials, meeting graphics, video and audio generated for public consumption.

Table 4. Public Relations—Basic Approach

Basic Approach	Specifics	Proposed Use
Write to and for the average citizen	Key questions from this perspective include: • How would I know anything about this study? • What is important to know about the study? • What does the study mean to me and my kids? • How will this impact my life?	• Website • Newsletters • Advertisements • Meeting materials
Develop consistent message	• All team members know and reflect it. • Provide background...why do this? • Be honest	• Interactions with community and general public • Website • Newsletters • Advertisements • Meeting materials
Communicate an understanding of the study	• What it is. • What it is not. • What we hope to accomplish. • What the results will be. • What this study means to you.	• Interactions with community and general public. • Website • Newsletters • Advertisements • Meeting materials
Layer the message	• Develop a "look" for all study materials • Use media, website, visuals, written materials.	• Interactions with community and general public • Website • Newsletters • Advertisements • Meeting materials • Meetings, workshops, focus groups
Demonstrate importance of public participation process Demonstrate how comments have been heard and reflected.	• All input is welcome. • Many avenues for input: meeting opportunities, comments. • Why it is important. • Why your voice can make a difference. • Use Responsiveness Summary	• Interactions with community and general public. • Website • Newsletters • Advertisements • Meeting Materials • Meetings, Workshops, Focus Groups
Coordination	• Who is doing what? Define roles. • Stay on message • Who is a spokesperson? Who is not? • Use each other – defer to most appropriate person • Stay up-to-date- on study milestones and developments • If it is promised, do it. • Keep team in the loop on	Management team meetings

Basic Approach	Specifics	Proposed Use
	volatile/friendly comments.	
	• Talk to each other.	
Assess Efforts	• Review efforts.	Management team meetings
	• What is or is not working.	
	• Change what does not work.	

2.6.2 Major Subtasks

Major subtasks of the public relations component includes the following:
- Review Materials
- Coordinate with the team, and
- Coordinate with press

2.6.3 Deliverables

Deliverables associated with Public Relations work are listed above.

3.0 Transportation and Mobility Data Gathering and Analysis

3.1 Introduction

The study of transportation movement as it currently exists and as it is forecast to become is central in our ability to plan for improvements within the study area over the next 20 years. Transportation and mobility data gathering and analysis will focus on identifying existing conditions, deficiencies and problem areas. We will then work toward developing solutions that will alleviate these deficiencies and problems within the system now and in the future.

3.2 Objectives

The primary objectives of this phase of study will be to develop an understanding of existing conditions affecting and relating to the transportation system in East Anchorage and to use that information to predict future conditions and to serve as a base information throughout the study. There are four primary tasks in this phase of work, namely collecting background information on existing conditions in the study area, analyzing that information for problems and needs. This data and analysis will give planners and the public the information necessary to propose and develop solutions to traffic and growth-related problems within the study area over the next 20 years.

3.3 Approach and Methodology

To gain the level of understanding necessary to propose adequate solutions for large, complex transportation systems like East Anchorage requires a multifaceted data-gathering and analysis approach that includes:
- Use a local traffic modeling and transportation analysis team leader.
- Use National TransCAD expertise in model development, calibration, troubleshooting, and analysis.
- Provide traffic model peer review and quality control.
- Use information and institutional experience collected and in place in our Anchorage office including traffic data, modeling (CORSIM & SimTraffic) capabilities

- Take advantage of an understanding of previous planning studies,
- Use available Anchorage geographic information system (GIS) information.
- Model results and refine results in other traffic analysis and simulations software packages such as Synchro, SimTraffic, CORSIM, ArcInfo, and ArcView for refinement, analysis, and display.
- Use of U.S. Census Bureau 2000 census data analyzed in combination with other GIS and traffic information to validate the forecasts being developed through the TransCAD Travel Demand Forecast Model.
- Collection and analysis of existing information (traffic, transit ridership, population demographics, land use, safety statistics, freight movement, relevant ordinances, past public opinion surveys, right-of-way changes, etc.) to help identify needs and solutions.
- Supplement existing information and modeling with cost-effective original data collection (to include an origin destination survey, public opinion research, travel time surveys, turn movement counts, updated traffic counts at key locations and travel behavior surveys).
- Refined analysis of existing and original information with traffic simulation and GIS software packages (HCM, TransCAD, CORSIM, Synchro, TransSim ArcInfo, and ArcView) to gain a better understanding of congestion, transportation system needs, and feasibility of solution.
- Use regional origin-destination telephone or mail out survey to get information on regional traffic flows, driver behavior and route choice criteria.
- Use sub-regional origin-destination surveys by tracking license plates at strategic locations within study area boundaries to better understand traffic circulation patterns.
- Apply new data factors to regional model to reflect the adopted land use development pattern in Anchorage 2020.

3.4 Major Subtasks

This section describes the major subtasks required to complete the data gathering and analysis phase.

3.4.1 *Background Data Collection*

Having a solid base of information upon which to make decisions and using that data in objective and meaningful ways will be critical. The ability to successfully plan for transportation needs will be directly related to our understanding of the current transportation picture in East Anchorage. Key to this task will be an inventory of conditions and characteristics of existing urban development, travel demand, and

> *A key objective:*
> *Collect meaningful data on existing and future conditions that will help identify transportation needs and support study conclusions.*

transportation services. Information on where land use changes and employment growth are expected and intended to occur in the future (as outlined in Anchorage 2020) and how that growth will affect future system performance will also be important elements developed during this phase. Existing information may be supplemented with original data collection. Among the objectives of this phase will be:

- Acquire necessary baseline information to serve the study throughout the process.
- Inventory information to better understand existing transportation needs.
- Develop the baseline information needed to support demand forecasting.
- Map and document existing condition information.
- Present background information to the public.

While the traffic model will be important, the reliance on past data collection efforts or traffic modeling alone will not be sufficient to successfully complete the East Anchorage Study of Transportation. Based on this understanding, we recognize that some original data collection and other analysis tools will be needed. The data we propose to collect includes:

- ***Socioeconomic and Demographics Data.*** Under this task, the team will collect current demographic and population data for the study area. To the extent it is available, information will include population distribution by age, economic level, income, vehicle ownership, ethnicity and family size. Year 2000 census information will be incorporated into the study as it becomes available. Population forecasts from published sources will be reviewed.

- ***Land Use.*** Land use and transportation are integrally linked. A thorough understanding of existing and future land uses will be needed to understand current transportation problems, forecast future transportation demand, and evaluate the effectiveness of potential solutions. During this task, the team will collect information on current land use and zoning, dwelling units by type, housing densities, and land use plans and zoning for future planned development to determine the characteristics of anticipated growth. Base maps depicting the information will be produced.

- ***Economy.*** Economic information on the kind and level of economic activity in the study area is useful for identifying trip generators and forecasting. Information on employment distribution by type and geographic locale will be collected. To the extent that it is available, economic activity data on retail sales, wholesale sales, industrial output, and soon will be collected.

- ***Transportation System.*** Baseline information on the existing transportation system is critical to identifying problems and solutions. Descriptive characteristics and conditions of the transportation system for major streets, highways, parking areas, pedestrian and bicycle facilities and public transportation will be developed. This will include physical size, peak and off-peak operating speeds and travel times, speed limits, accident data, traffic counts, key intersection turning movements, traffic operations data, commercial vehicle traffic, emergency vehicle traffic, transit ridership, fares, vehicle occupancy, truck routes, truck traffic, and pedestrian amenities.

  - ***Sidewalk Inventory.*** Identify major gaps in the sidewalk system linking households with schools, commercial/retail, bus stops and major employment sites. Then work with the citizens to determine priorities for implementation.

- ***Travel Patterns and Preferences.*** Understanding travel patterns and preferences is important to accurately evaluate the effectiveness of potential transportation solutions. In this task an origin-destination and travel behavior survey will be conducted to identify traffic mobility patterns and to characterize traffic traveling on arterial routes within the study area. The origin-destination information will describe the travel characteristics for trips within, into, and through the study area. Information will include the number of trips made, trip purpose, the origin and destination, the travel mode used, the route taken, and characteristics of activities at the origin and destination of the trips. The origin-destination study we intend to perform is a two-tiered approach that involves using a telephone or mail-out survey as part of the travel behavior survey and supplementing that information with follow-up surveying of license plates at strategic intersections or corridors within the study area boundaries. The origin-destination component of the survey will examine trips region-wide for all modes. The survey area will be broken down into smaller geographic subareas. The survey population of each subarea will be randomly selected and large enough to provide statistical confidence in the results. Subareas boundaries will be selected to coincide with municpal planning districts and to the extent feasible, traffic analysis zone boundaries. By ensuring large enough sample populations by geographic subarea, under counting of trips for any particular mode or trip purpose should not be a concern.

▪ ***Travel Behavior Survey***. The travel behavior survey will collect information about existing behavior and data about what would change those behaviors. One useful aspect of completing a survey to obtain origin-destination data is to ask questions about driver behavior and features or characteristics they consider in making their route selection. To gain better insight to modal choice, behavior information will be collected on community attitudes, preferences (both revealed and stated preference), biases, and expectations regarding urban growth, development, travel, and transportation improvements. Within the survey, questions will be asked on route choice characteristics. Examples include: Do you drive the same route to work every day, if not why? What do you prefer, the most direct route, the route with least traffic, or the most scenic route? How likely would you be to take transit to work if your neighborhood had better: Pedestrian connections? More frequent service? etc..By asking these types of questions and aggregating the features that are important to Anchorage travelers, route improvements can be made that attract or discourage use by travelers within the study area.

▪ ***Video Origin-Destination Technique.***   After general problem areas are identified, we will supplement our origin destination collect through the travel behavior survey with video monitoring of traffic patterns at strategically selected intersections and corridors. Passive observations of vehicle license plate numbers tracked by video are traceable through street networks without disturbing normal traffic flow rates or patterns. During data collection periods, license plate observations are made at many origin or destination sites within the network. License plate numbers are recorded and matched at other locations to track the vehicle's route through network.

Once the data is collected and entered into an electronic database, software specifically developed for license-plate matching reduces the site-time-digit information into travel patterns from site to site. This method of data collection and origin to destination data reduction provides the framework for creating flow charts that represent patterns in increments from anywhere between the peak 15-minutes to a 12-hour count.

Once this data is reduced, the origin-destination information can be used to develop trip tables that can help ensure proper updating of the TransCAD model. By having the origin-destination information, trip production can be input into the model through a trip matrix and a more accurate representation of actual travel patterns can be developed for further analysis.

This information will illustrate how traffic is moving, but it does not replicate the information gathered from the travel behavior questionnaire that will help to explain why people choose to travel the routes that they do.

▪ ***Ordinances, Statutes, and Regulations.*** The Municipality of Anchorage has several ordinances, statutes, and other regulations for transportation and land use that will have a large impact on the development of this study. Pertinent ordinances, statutes, and regulations will be reviewed and assessed for their impact to the analysis of alternatives.

3.4.2 Analysis of Inventory Data

Once data has been collected, it will be analyzed to determine the relationships that affect development, transportation demand, and system use. In part, this analysis will identify transportation problems and put those problems in context, grounded by the data. Primary objectives of this subtask include:

• Analyze collected information to identify transportation problems and needs.
• Analyze data to identify opportunities and constraints to transportation and land use solutions.

- Report the analysis to the public and decision-makers.
- Ensure that the analysis is understandable, based on the best practical, professional standards, and relies on a number and variety of methods.

The development of an existing condition report document requires a base level of analysis to gain an analytical understanding of the transportation network and its deficiencies, as they currently exist. This baseline level of information then allows the development of alternatives to compare against for improvements to the transportation system. The process of analyzing this baseline data is described in the following tasks.

- ***Existing Level of Service Analysis.*** Using Highway Capacity Manual Software (HCM) we will analyze the ten most critical intersections within the study area for level-of-service deficiencies. The output will give level of service by intersection movement, as well as an overall level of service for the intersection. Critical intersections will be identified by the study management team for further data collection and analysis. Level of service analysis will also be performed for roadway corridors to be selected by the management team. The HCM software is capable of modeling an urban corridor given appropriate data inputs, and will calculate a level of service for the corridor. Each corridor will likely be subdivided into segments for the analysis, and an overall level of service will be given for each roadway segment.

- ***Location of Problem Areas.*** Completing the baseline level of service analysis will help to pinpoint traffic problem areas. Once the levels of service problems are identified, a sensitivity analysis will be performed to understand the magnitude of the level of service problem, and to help determine what might be appropriate solutions.

- ***SimTraffic Intersection Simulation.*** Up to five intersections will be modeled using SimTraffic, a traffic simulation software package. This animated representation of the traffic network helps to graphically depict in a public involvement setting the extent of problem areas and the effectiveness of study alternatives. At this stage of the analysis we would be setting the stage for study alternatives by showing how the intersection functions today with existing traffic loadings.

- ***CORSIM Corridor Simulation.*** Much like the SimTraffic analysis this simulation package will show the functions within a corridor. We are proposing to simulate one of the project corridors previously identified for level of service analysis.

- ***Network Deficiency Analysis.*** The study team will conduct an analysis of the existing network to pinpoint deficiencies related to mobility and livability. For instance, there are certain bus stop amenities that are necessary to make the bus travel experience less of a barrier to riders such as more bus schedule information, shelters, lighting, sidewalks, and concrete waiting pad. While not "modelable", choice riders will not use the bus if it is difficult to get to or inconvenient. The network will be compared against standards identified in the LRTP and Anchorage 2020. Such an analysis will identify barriers to bus and pedestrian usage and necessary improvements for pedestrian and transit connections.

- ***Determine Transit Service Levels.*** The team will use the TCRP Web Document 6 "Transit Capacity and Quality of Service Manual" to determine what segments of the transit system have low, moderate, and high transit service today which will be used to determine what the needs may be in the future.

3.4.3 Forecasting

The future development patterns and the demand, supply, and performance of the transportation system will be forecast. The team will take into consideration the recently adopted comprehensive plan as a starting point for looking at future development patterns. The newly completed Anchorage Transportation Model will be used as a primary tool for developing forecasts. In addition to using the model, the data inventory and analysis information will be evaluated and used to provide an additional check to test the forecast. The key objectives of this task include:

- Developing a picture of future transportation and land use conditions in East Anchorage.
- Using "Anchorage 2020" as a basis upon which to build the future scenario.
- Integrate background data and analysis into the forecast.
- Share forecast with the public and decision-makers.

The TransCAD model will be one of several forecasting and assessment tools and techniques the team will use to understand the traffic patterns within this part of the city. The focus of the travel demand forecasting analysis will be to identify effects on the Eastside transportation system due to future growth, land use shifts, investments in alternative modes, changes in employment type, modifications to the travel network, and other variables. Forecasting models have been designed to efficiently repeat the forecasting process given many different scenarios and parameters. This type of sensitivity analysis can measure the impacts to the transportation network due to changes in any one of the primary variables – such as effects of an intensive land use development scenario, or the effect of a significant change in the region's economy. Similarly, analyses can be performed for many different alternative physical system development scenarios to measure impacts throughout the region.

Traffic Forecast. The forecast of traffic is a several-step procedure using the Municipality's TransCAD travel demand forecast model. First, population and employment forecasts are developed for the model area. These totals are then used as controls for the overall sub-area forecast. Each transportation analysis zone (TAZ) represents a geographic area within the municipality, and has data on population, employment, and households stored within it electronically. This data is based upon specific knowledge of the municipality and the boundary of the TAZ. To complete a forecast for these data sets, assumptions will be made on how, when, and where the city will grow. Population, employment, and household information is then apportioned and input into each TAZ within the model for further analysis. For Anchorage, the recent release of census information and the adoption of Anchorage 2020 will provide the data and parameters for these inputs, but that also means work is needed to update the TransCad model before forecasting is conducted.

Similarly, data on trip generation must also be put into each TAZ electronically. Trip generation data are developed based on the forecasts for population, employment, and households, but in addition the forecast also looks at existing land uses within the municipality and their attractiveness for trips. This trip attraction factor is then used in a calculation that considers land use, population, employment, wealth and income, and number of households to determine the amount of trips being generated by each TAZ. This data is also placed within the internal structure of the transportation model to develop a traffic forecast. Anticipated changes to land use, as a result of Anchorage 2020, will affect trip generation that will need to be accounted for in the model before it can accurately model future conditions.

Once the model is updated for these conditions, it must be calibrated. A calibrated model (one that approximates the existing conditions as they exist in a discreet time period, within an acceptable range of error) is used to develop the travel demand forecast. Once the data are placed within the model, the model is told to generate a forecast for traffic. The model considers a vast array of variables to arrive at its final trip assignment within the travel network. Once the model has generated its forecast, its output is checked for plausibility given local knowledge of the area. The forecast is then either accepted as useful

for further analysis, or adjustments are made to the forecast data and the model is rerun to produce a plausible outcome.

To estimate non-motorized travel the study team will rely on the "Guidebook on Methods to Estimate Non-Motorized Travel: Supporting Documentation (PUBLICATION NO. FHWA-RD-98-166 JULY 1999). The non-motorized forecast estimate will be used to help determine whether land use and transportation investments significantly affect non-SOV trips.

3.4.4 Analyze Forecast

This task will entail comparing the forecast results against the existing transportation system conditions. This analysis will focus on identifying future transportation problems anticipated to result as Anchorage grows and develops.   The study team will rely on the analysis capabilities of the Anchorage Transportation Model and supplement that analysis with more refined modeling and analysis of existing and original information (using programs such as CORSIM, Synchro, TransSim, ArcInfo, and ArcView) to gain a better understanding of congestion and transportation system needs. Among the key elements of this task are:

- Conducting a thorough analysis of the forecast conditions
- Using a combination of methods to analyze future conditions.
- Using the analysis to identify anticipated future transportation problems and needs.
- Sharing the analysis of future conditions with the public and decision-makers.

The output generated by the Municipality's TransCAD model is represented by traffic volumes for travel links that represent roadway segments throughout the city. These volumes can then be used as inputs to other analysis tools. A well-calibrated TransCAD model can confidently estimate turning movements at intersections, ambient corridor travel speeds, general V/C ratios, select link analysis, and other useful outputs.

Other software analysis packages that will be used in this project include Synchro and TransSim. In TransSim, the roadway network is graphically depicted and all simulated vehicles are shown progressing throughout the network. A useful feature of TransSim is that it displays the effectiveness of various network scenarios on traffic operations. By graphically displaying the traffic operation results, problem areas can be more easily identified. This simulation is easily interpreted by the public without relying on a complex discussion of traditional traffic engineering parameters.

Future Level of Service. The forecast data developed through the TransCAD model will be used to generate level of service forecasts using HCM. Those areas that produced an unacceptable level of service under the existing conditions analysis will be reassessed to determine the extent of their degradation due to the forecast level of traffic. In addition, the forecast model will need to be reviewed to see if any other areas within the study boundary will be forecast to experience level of service deficiencies.
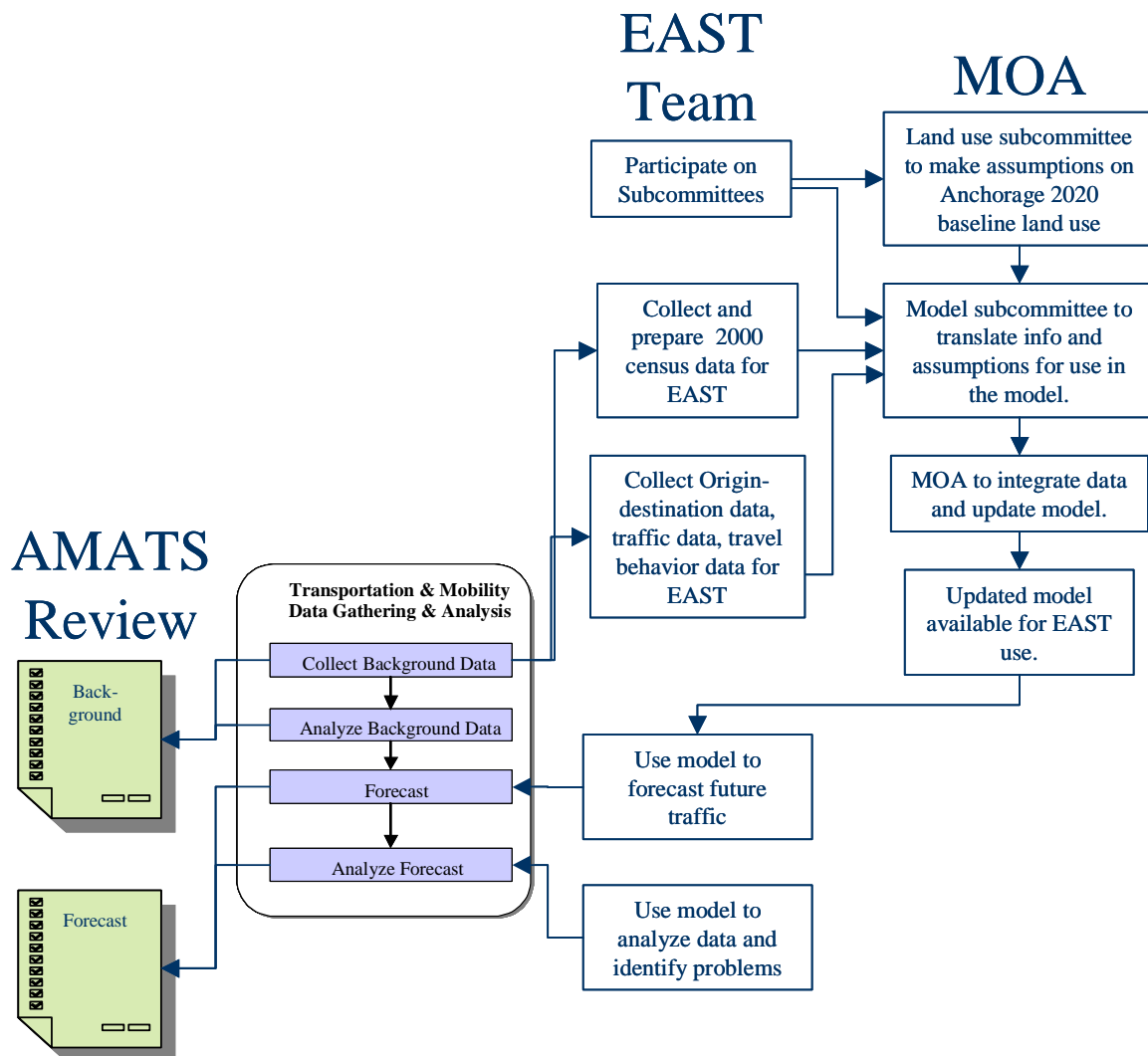
SimTraffic Intersection Simulation. The SimTraffic simulation software will be run for the same five intersections it was built for in the existing conditions analysis using the forecast scenario.

CORSIM Corridor Simulation. Much like the SimTraffic simulation, the CORSIM simulation will also be repeated for the future traffic scenario for the selected corridors.

3.5 Assumptions and Data Needs

Reliance on using the existing Transcad model developed by the AMATS is critical this phase of work. The study team will review the existing Transcad model to determine the validity of that model compared to actual data. This validation will be done to ensure the accuracy of the model and its usability in developing planning forecasts, and analyzing the effects of various land-use alternatives on the surrounding roadway network.

During this process we will coordinate closely with the AMATS and DOT&PF technical staff to ensure that the land use and model input assumptions and the model runs are logical, consistent with the community plan, and consistent with the growth forecasts. A land use subcommittee, working within the parameters established by Anchorage 2020, will develop baseline assumptions for this task. A separate modeling subcommittee will work to translate those assumptions into the Municipality's TransCad model. The consultant team, and DOT&PF will participate as members of these subcommittees, but the Municipality's planning staff will take the lead. The following graphic illustrates the working relationship proposed in updating and using the TransCad model for forecasting and analysis in the study.

EAST Team

Participate on Subcommittees

MOA

Land use subcommittee to make assumptions on Anchorage 2020 baseline land use

Collect and prepare 2000 census data for EAST

Model subcommittee to translate info and assumptions for use in the model.

Collect Origin-destination data, traffic data, travel behavior data for EAST

MOA to integrate data and update model.

Updated model available for EAST use.

AMATS Review

Transportation & Mobility Data Gathering & Analysis

Collect Background Data

Analyze Background Data

Forecast

Analyze Forecast

Background

Forecast

Use model to forecast future traffic

Use model to analyze data and identify problems

The regional model may need to be updated to include models that predict behavior partially on land use development patterns. If requested, the team will incorporate land use information, and GIS-based data such as local road connectivity and degree of mixed-use and density into the travel demand mode choice models. Other information such as origin-destination information, census information, and travel behavior information may also be incorporated into the model.

Information from the activity behavior surveys in the Portland region, for instance, shows how travel behavior changes in areas where it is easy to walk and plenty of places to reach by foot. It also shows that as incomes increase the number of walk trips are still higher in places with better conditions for walking than in those areas with many barriers.

Deliverables
- Background and Existing Conditions Report
- Future Conditions Report

4.0 Problem Identification and Study Objectives

4.1 Introduction

In any study involved with planning for the future, framing the issues through thorough problem identification and realistic goals and objectives is critical. How problems are framed shapes the nature of the solutions and the criteria upon which those solutions will be judged.

> Identify transportation problems and needs that should be resolved to improve accessibility, mobility, safety, livability, and deal with congestion in East Anchorage.

4.2 Objectives

The purposes of this phase are to establish realistic objectives for the study, identify goals and objectives for East Anchorage's future transportation system, and identify problems and needs requiring attention to ensure that the future system will help us achieve our goals rather than becoming obstacles.

4.3 Approach and Methodology

Setting goals and objectives and identifying and agreeing upon problems and needs requires good, meaningful public involvement coupled with reliable, accurate data. Working through this phase of the project will be highly iterative. For example, after having a public discussion on transportation goals and objectives could help to change and clarify the objectives of the study. Technical information can influence goals and objectives etc. The study team acknowledges this. The approach to this phase will be to rely on recent planning efforts such as Anchorage 2020 as a basis for describing the community's preferred future, then refine that vision with additional public discussions. The refined vision will be synthesized in data collection and forecasting efforts conducted as part of this study to identify improvements to the transportation-land use picture in East Anchorage. The methods we propose include:

- Building upon the base of planning knowledge developed during Anchorage 2020.
- Integrate data collected from the background inventory and forecasting tasks into the identification of problems and needs.
- Elicit issues, goals, and objectives from the public using a number of meeting facilitation techniques (e.g., visioning, nominal group technique, etc.)

♦ Using a telephone survey of residents to supplement our understanding of travel patterns and to identify transportation needs and the public's desires for future transportation systems.

4.4   Major Subtasks

The primary subtask to this phase of the study include formulating study objectives, identifying community goals and objectives, and identifying transportation problems and needs.

4.4.1   Formulate Study Objectives

This task entails refining this study plan to articulate the goals and objectives of the study based on public input. The study plan documents major objectives of the study, the study area, the key tasks to be completed, the study methods and approach, and the schedule. The primary objectives of this task are to:

- Work with the DOT&PF, AMATS staff, key stakeholders and the public, to define study goals and objectives i.e. to establish "policy sideboards".
- Refine major objectives of the study plan in an iterative manner.

4.4.2   Identify Problems and Needs

Problem identification is a critical step in the process. The way in which problems are framed can really establish and define the scope of the alternatives and evaluation. As noted in the accompanying graphic, the identification of transportation needs and problems are likely to come from three source (1) the review and analysis of data on existing conditions, (2) the forecast and analysis of future conditions, and (3) from residents, elected officials, and users of the current transportation system. During this step in the proposed process, team members will work to sift through the results of data collection, analysis, and public input to identify those problems and needs within the purview of this study. The key components to this step will include:

- Identifying problems and needs from the background data.
- Reviewing forecast information to identify problems and needs.
- Working with the public to ascertain what they see as problems and needs.
- The extent possible, expressing problems and needs as modal neutral.
- Reporting problems and needs to the public and decision-makers.

4.4.3   Identify Community Goals and Objectives

Community development, transportation, and land use are integrally linked. To develop a transportation system that supports the community's vision for growth, the study team needs to identify and articulate the relationship between development, transportation, and land use goals. This task will entail reviewing previous planning efforts to identify decisions, goals, and objectives from those plans that have gotten us to the place where we are today. A review of current plans will also be undertaken, to identify and articulate the future goals and objectives for community development and transportation covering the study area. Anchorage 2020 will provide the base upon which refined goals and objectives covering the study area will be developed. Essentially this review will be summarized into a list of "policy sideboards" (from land use to transportation to open space) that will guide the team and the public input on performance measures or quality of life indicators, alternative scenarios and conclusions.

The planning team will work through a public process to refine and articulate transportation goals and objectives for the study area that are consistent with Anchorage 2020 but also reflect the unique desires to the area's residents. Among the objectives of this task will be:

- Review past and current plans for goals and objectives covering development, transportation, and land use in East Anchorage.
- Provide a historical narrative on how we came to have the development and transportation patterns that we have in East Anchorage
- Work with the public and decision-makers to refine community development and transportation goals and objectives for the study area.
- Share goals and objectives with residents and decision-makers.

Deliverables
- Problems and Needs Report
- Goals and Objectives Report

5.0 Alternative Development & Evaluation

5.1 Introduction

Developing and evaluating solutions to meeting East Anchorage's transportation needs will be the heart of the study. To be credible and acceptable to the public, alternatives will need to incorporate a full range of modal options, demand and system management, and land use ideas. With this in mind, HDR has developed a team approach that blends local knowledge with national experience and expertise. In fact, it is this phase of the project that will benefit most from HDR's national transportation expertise, allowing outside team members without preconceived notions of past Anchorage plans to apply innovative and fresh ideas that have been successfully implemented in other areas of the country.

5.2 Objectives

The development and evaluation of alternatives is a multifaceted process, and one that is of critical importance. There are three aspects to any proposed alternative that must be considered when developing alternatives for analysis, 1) does the alternative solve the identified problem, 2) does the public support the alternative as viable and necessary, 3) is the alternative sound and supportable from the people and agencies that fund the improvements. Striking the proper balance of all three of these aspects is what will make an alternative successful for implementation. In that endeavor we have laid out a process that has a very rigorous technical process, has a very large and well-planned public involvement approach, and involves area stakeholders, as well as funding agencies and representatives throughout the study process.

5.3 Approach and Methodology

A range of potential improvements and transportation needs was identified with public input during the proposal process. To this list, team members will bring in specialized experience to fully examine road, transit, light rail, land use, and transportation demand and system management options. Some Anchorage residents are keen on having a full evaluation of land use as a solution to East Anchorage's transportation problems. Such analysis requires land use planning expertise and experience dealing with land use in a transportation-planning context.   We will employ the following methods to develop and evaluate conceptual alternatives for the project.

♦ Provide national expertise on transit, light rail, and TDM/TSM coupled with local knowledge and strong public involvement to identify and develop a full range of conceptual alternatives for meeting East Anchorage's transportation needs.

♦ Use the municipal land use database and institutional knowledge of Kevin Waring (who managed the Anchorage 2020 and University Area Master Plan projects), coupled with team experience in Oregon, to evaluate the effectiveness of land use changes in meeting transportation needs.

♦ Use Anchorage's extensive GIS data and TransCAD's GIS capabilities in combination with ArcInfo to analyze alternatives relative to wetlands, parklands, streams, topography and other resource information.

♦ Conduct impact and alternatives analysis in GIS to evaluate the interrelationship between land use and transportation under both existing and future scenarios, including the preferred scenario in Anchorage 2020.

♦ Integrate origin-destination and telephone survey information into the alternatives development and screening process.

♦ Develop screening criteria that are responsive to the public and reflective of local conditions. Cost estimates and technical feasibility will be developed and analyzed by local engineering professionals intimate with local conditions..

♦ Alternatives should be multi-modal in their approach to problem solution, and in their scope of application.

♦ Criteria must be applied in a fair and objective way to give appropriate basis for comparison.

♦ Evaluate alternatives to identify concepts that are the most cost effective, technically feasible, environmentally sound, and politically acceptable.

5.4 Major Subtasks

This section identifies and describes the major steps to completing this phase of work.

5.4.1 Develop Evaluation Criteria

The evaluation criteria provide a basis for assessing and refining alternatives. The study team will work with DOT&PF, AMATS, and the public to translate goals and objectives into evaluation criteria. Essentially, the policy sideboards developed above

> *Develop screening criteria and performance measures to identify concepts that are the most cost effective, technically feasible, environmentally sound, and politically acceptable.*

will help guide decision-makers weigh outcomes as they move through the process. The evaluation criteria will be both quantitative and qualitative. Evaluation criteria will be used to measure the relative effectiveness of the alternatives and will provide decision-makers with data to help in their decision process. The criteria by which alternatives are measured have a direct bearing on the alternative that ultimately is selected. It is important to ensure that each alternative is implementable, safe, and address the identified problem, but it is equally important that alternatives not achieve those goals to the exclusion of community needs and values. As scenarios are developed and information collected on performance, there will be a discussion about whether any of the parameters such as air quality, loss of open space, land development patterns, vehicle miles traveled (out of direction travel), vehicle, freight, bike, and/or pedestrian mobility were violated and whether mitigation measures are an option. Criteria developed to evaluate alternatives need to be meaningful to allow for adequate comparison. There are many things that are measurable, but give us little additional knowledge to make a decision, likewise, there and many meaningful criteria that cannot be measured.

- Developing criteria that translate study objectives and community goals and objectives into meaningful measures.
- Develop criteria that comprehensive.
- Criteria should be measurable.
- Identifying the data needs required of each measures.
- Involving the public and decision-makers in reviewing and articulating appropriate evaluation measures.

5.4.2 Develop Alternatives

During this task the study team will develop a range of potential improvements and strategies to address transportation needs. While it is too early to identify the exact alternatives, the team expects to examine road, transit, land use, and transportation demand and system management options. The team is aware that various affected interests in Anchorage would like to have an evaluation o land use explored as a solution to East Anchorage's transportation problems and is prepared to conduct such an analysis. The key objectives to this task include:

> Develop a full-range of concepts for meeting East Anchorage's transportation needs that consider all modal and demand management strategies, including land use analysis.

- Developing alternatives that are consistent with the goals and objectives identified and as articulated in Anchorage 2020. Anchorage 2020 establishes the parameters for developing solutions.
- Combining solutions into reasonable alternatives that work together to meet overall system needs and illustrate the trade-offs among costs, benefits, and impacts.
- Work with technical advisors and transportation providers in creating solutions and alternatives.
- Ensure that the public's ideas and review are incorporated into the alternatives.

The range of alternatives and options that we anticipate examining include:

- Transit. In order to compete with autos, the bus travel time has to be less onerous. Solutions to efficient transit service lie in the delay experiences at intersections. Queue jump lanes or signal pre-emption are among the solutions that will be analyzed as part of the intersection or segment traffic analysis models on major transit corridors.
- Transportation System Management /HOV Lanes
- Transportation Demand Management. (Ultimate TDM Strategy Analysis) - This study will do a sensitivity analysis by creating a "what if" scenario that describes the ultimate TDM management strategy. This analysis will determine the gap between the existing and "the ultimate" TDM strategy and provide an assessment of the effectiveness of the TDM strategies. The analysis will begin by determining the highest transit share, bike share, and walk share that similar-sized cities with similar characteristics have in the United States. The team will then develop a methodology for applying the potential mode shares to those areas of the city and trip types and lengths to get new auto and transit trip tables that reflect these higher mode splits. We will use the model to re-run the assignment of the remaining vehicle trips and transit trips to the network to see how mobility measures are met for all modes. While some may consider this "running the model backwards," it is a way to test whether the ultimate TDM scenario will improve mobility and accessibility in a less sophisticated transportation model.

    - Parking Cost Analysis. Parking cost analysis is only one of many TDM strategies the team will explore. The control of parking pricing and/or supply of parking can be an effective TDM strategy. Using a similar idea as above, the team will conduct a sensitivity analysis on parking prices and supply. The team will look at the effectiveness of parking pricing and supply controls in other areas of the country comparable to Anchorage. This information will

be applied to those areas of the plan in the future that are to be higher density, mixed-use pedestrian friendly areas. The analysis will evaluate the likely effects if parking availability is limited in downtown, along the transit corridors, and in town center areas identified by Anchorage 2020. The likely SOV demand reduction and shift to transit will be estimated and the results tested in the model to determine the effect of parking pricing and supply controls on mobility and accessibility.

- Traffic Operations/Intelligent Transportation Systems
- Highway/Roadway Improvements
- New and/or Re-designed Interchanges and Grade Separations
- Bike Lanes, Separated Pathways and sidewalks
- Land Use

5.4.3 Evaluate Alternatives

This task will entail evaluating the alternatives to determine (1) whether or not they resolve the identified problems and meet the needs identified in earlier steps and (2) providing information about each alternative relative to the evaluation criteria that have been established. As the evaluation criteria are likely to be both quantitative and qualitative, a variety of

> *Conduct sound transportation and land use analysis in identifying problems and evaluating potential solutions.*

approaches will be employed to develop the information needed to gauge the relative effectiveness of the various alternatives. If the study identifies a considerable number of alternatives the evaluation of those might be accomplished in two phases, with clearly inferior ideas and alternatives being "screened" such that they not undergo the full evaluation. This will depend in large part on the number of alternatives and the nature of solutions. Tradeoffs between alternatives will be clearly identified and thoroughly discussed in the document text, and presented in public involvement activities. Having a complete understanding of alternative tradeoffs will lead to better decision-making. Key objectives during the evaluation task will include:

- Developing accurate and meaning information vis-à-vis the evaluation criteria.
- Clearly display and present information on each alternative.
- Report information to decision-makers and the public.

5.5 Developing and Evaluating Land Use Scenarios

5.5.1 Objectives

The intent of this task is to evaluate whether future land development in the East Anchorage study area can be patterned in a manner that reduces trip generation; and subsequently reduces the demand to that which the roadway system has the capacity to accommodate. This will be an iterative process between land use scenarios and transportation alternatives.

The manner in which we lay out our future development has a direct effect on the transportation behaviors that result from those patterns. In some urban areas, establishment of more heterogeneous land use patterns (e.g., mixing commercial, residential, institutional, recreational, etc.), that are of relatively high density, and which provide unimpeded connections between uses that are in close proximity to each other, can result in lower demand. These patterns and resulting trip behaviors have been demonstrated in both the downtown areas and subdivisions outside the city centers of several U.S. and Canadian metropolitan areas.

As described below, a critical measure of success will be for the team to identify reasonable and practical land use scenarios and configurations that meet the intent of the recently adopted Comprehensive Plan, and can be properly coded and incorporated into the AMATS transportation analysis model.

5.5.2 Approach and Methodology

The key to this task is the credibility of the process to develop land use configurations to advance for evaluation in the AMATS transportation model. Since a critical measurement will likely be the resulting peak hour vehicle demand on study area roadways, which is predominately demand attributable to commute work trips, it's important to understand where the peak hour generators are located as the first step toward allocating future land use and density. In some cases, new peak hour traffic generators can be located within walking/bicycling distance of new residential uses, in order to encourage the use of non-SOV modes.

> **Anchorage Alaska**
> **AR NO. 2000-393(S)**
>
> **WHEREAS**, the Alaska Department of Transportation and Public Facilities will conduct the East Anchorage Transportation Study in cooperation with the Municipality's Planning Department; and
>
> **WHEREAS,** the study will examine land use and transportation alternative to improve mobility, access, livability, and sustainability in Anchorage; and
>
> **WHEREAS,** the study will be conducted in a timely manner with meaningful participation by adjacent neighborhoods and affected citizens; and
>
> **WHEREAS**, the approved Anchorage 2020, Anchorage Bowl Comprehensive Plan will serve as a guide for the Study and describe future land uses in very general terms; and
>
> **WHEREAS,** the Study will need to develop a series of land use scenarios and compare them with transportation scenarios in more detail than the Comprehensive Plan can provide.
>
> **NOW, THEREFORE**, the Anchorage Assembly resolves:
>
> That the Anchorage Assembly requests that the East Anchorage Transportation Study develop a series of land use and transportation alternatives to achieve the goals of the study.
>
> **PASSED AND APPROVED** by the Anchorage Municipal Assembly this *19th* day *of December*, 2000.

The team, working with a land use technical advisory subcommittee, will sketch out a series of sub-area/corridor/district-wide land use refinements that directly link land use based off of the range of employment and residential growth allocated to subareas of the study area by the Anchorage 2020. Working with the subcommittee, the team will establish assumptions about the future distribution of employment, residential growth, other traffic generators and attractors within the parameters established by Anchorage 2020.

The team will try to maximize convenient access to peak hour destinations via non-SOV modes through the allocation of land uses. These refinements will attempt to establish a travel market shed that is linked to new commercial and institutional development proposed by Anchorage 2020. We propose that this effort be guided by a subcommittee of the larger Technical Advisory Committee, and facilitated by Kevin Waring, Sorin Garber, and Steve Perone.

It is likely, however, that the current origin-destination (O-D) patterns, which are directly influenced by the location of today's traffic generators, may still represent the primary attractors in the future. That is, the approach to the land use analysis will be to examine whether future development patterns, within the parameters set by Anchorage 2020, can influence enough non-SOV mode demand, that roadway expansion can be minimized, or even eliminated altogether. This will require working with the land use subcommittee to translate the generalized land use assumptions into more specific strategies that can be tested with modeling software. Essentially, Anchorage 2020 allocates ranges of future residential growth to various sectors of the Bowl. Within ranges put forth by the Comprehensive plan, the team will test the allocation of households and employment by moving the location of households and employment with the framework established policy map and growth ranges to test the impacts on travel demand. Assumptions will be well documented.

Oftentimes, land use configurations that are designed to reduce SOV peak hour travel, incorporate transit services, and integrated bike and pedestrian paths that allow for travel that is competitive (in terms of costs and travel time) with the SOV mode. These transportation services will be integrated into the land use alternatives. For instance the team will identify transit supportive residential densities, low income neighborhoods, and assisted living facilities within the study area and determine where gaps in coverage may be to determine if needs are being met and to determine the effectiveness of land use patterns working in concert with improved transit to relieving reliance on SOV demand.

An examination of the experiences that other communities have had in resolving transportation problems with land use solutions will be undertaken. Other communities have been successful in designing the kind of land use development patterns that reduce SOV trip demand. While it is not acceptable practice to simply borrow the experience of other communities as a surrogate of what could occur in the East Anchorage study area, the lessons of other communities will be used to lay out a strategy to what might be possible, but also to temper the analysis with what is realistic to expect. The experiences of other communities will be integrated into the land use alternative, tempered with the overall direction embodied in the comprehensive plan, and tested using the Anchorage TransCAD model.

Assumptions. Since the Comprehensive Plan does not specifically identify the kind of land uses or the allocation and density of land use by parcel or sub-district, the team will be making multiple assumptions about the intent of the Comprehensive Plan designations. Working with the land use subcommittee, the team will generate agreed upon assumptions regarding land use and density intended by the comprehensive plan. In order to complete the analysis, we will also approach the exercise as if a land use alternative would be achievable, desirable, and within the authority of the governing bodies to implement. Finally, we are making several assumptions about our ability to code and update the model for a land use alternative configuration within a reasonable space of time (as well as within the level of available resources), and its ability to complete multi-modal trip generation, et al.

Land Use Subcommittee. It would benefit the completion of this exercise if a subcommittee of the study's Technical Advisory Committee guided the technical team in developing land use assumptions and scenario building. The makeup of the subcommittee would be comprised of advisors from the consultant team, AMATS Technical Advisory Committee, and Community Planning and Development Department. The subcommittee would help guide the assumptions going into the land use scenarios, advise on modeling parameters, and review the results. This committee would also help to determine the expected land use development based on different transportation scenarios and would help to look into the future to evaluate the potential induced travel (or growth beyond what was expected and the impacts to the transportation system.

These results would be forwarded to the study team to advance into the alternatives analysis. The committee would not have direct authority to implement Anchorage 2020.
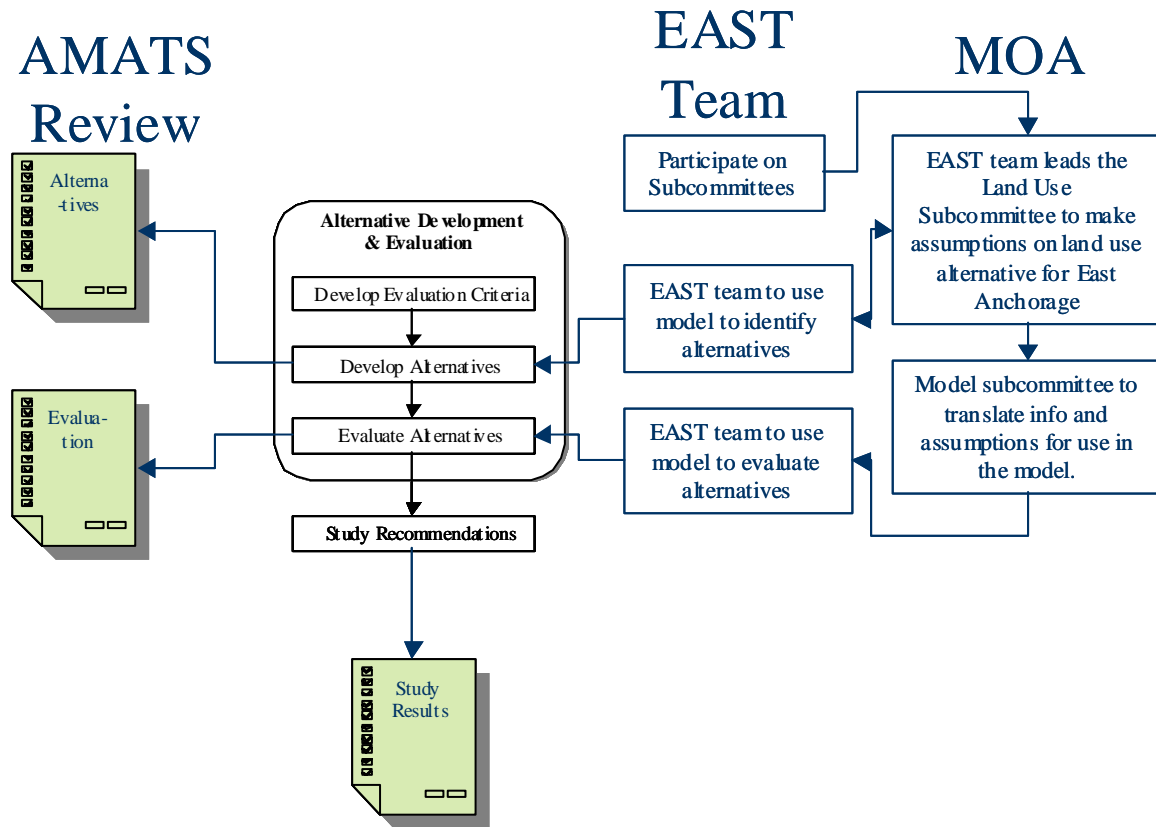
Major Subtasks
- Establish Subcommittee and prepare for and attend meetings
- Review Comprehensive Plan
- Gather GIS mapping and inventory information.
- Identify location, size and type of current traffic generators.
- Determine the amount of development that could occur in the study area over the next 20 years; determine how much could be allocated to special land use districts (that would be used as the land use alternative).
- Determine if there are opportunities throughout the study area to develop land uses that encourage non-SOV travel during peak hours.
- Sketch out multiple iterations of land use allocation/configurations in the study area.
- Propose and refine a land use configuration for alternatives analysis.
- Code parcels/networks, etc., which reflect the land use alternative concept for analysis with the AMATS transportation model.
- Document the subtasks.

Deliverables
- Draft Alternatives Screening Criteria Memorandum
- Final Alternatives Screening Criteria Memorandum
- Draft Alternatives Memorandum

- Final Alternatives Memorandum
- Draft Alternatives Technical Report
- Final Alternatives Technical Report

6.0 Study Recommendations

6.1 Introduction

The final phase of the study will entail reporting the study results to the public and decision-makers. We see this phase, however, as more than just writing a report documenting the process and results of the study. We envision this

> *Make recommendations that will fulfill long-range transportation and mobility needs.*

phase as an opportunity to examine the evaluation of the alternatives through a public discussion and bring decision makers and the public together to: understand what the study results are: to discuss the benefits, impacts, and tradeoffs that would occur with each of the alternatives that were examined, and to provide input in developing the preferred package of improvements and strategies. The intent of such an approach would be to help everyone understand the implications of the decisions that will need to be made so that even if people do not each get everything they want out of the future transportation system, they will at least understand why.

6.2 Objectives

The objectives of this phase are to report the results of the study and develop a community dialogue about what those results mean leading to study recommendations. Among the key objectives are:

- Provide clear information to the public to educate about what the results of the study are.
- Develop a community dialog about the implications of the alternatives examined.
- Take public comment on the alternatives and accurately represent that comment to decision-makers
- Promote community input into the formulation of preferred options and strategies.
- Work with DOT&PF and AMATS staff to identify agency preferred options and recommendations based on the information developed during the study.
- Report recommendations in a final study report.

6.3 Approach and Methodology

The primary approach to this phase of the study will be public involvement. By the time this phase of the study is underway, the team's public involvement plan will be well underway. See Section for a complete description of the public involvement approach.

Deliverables. What outputs or deliverables will be created?
- Draft Facility Concept Report
- Final Facility Concept Report