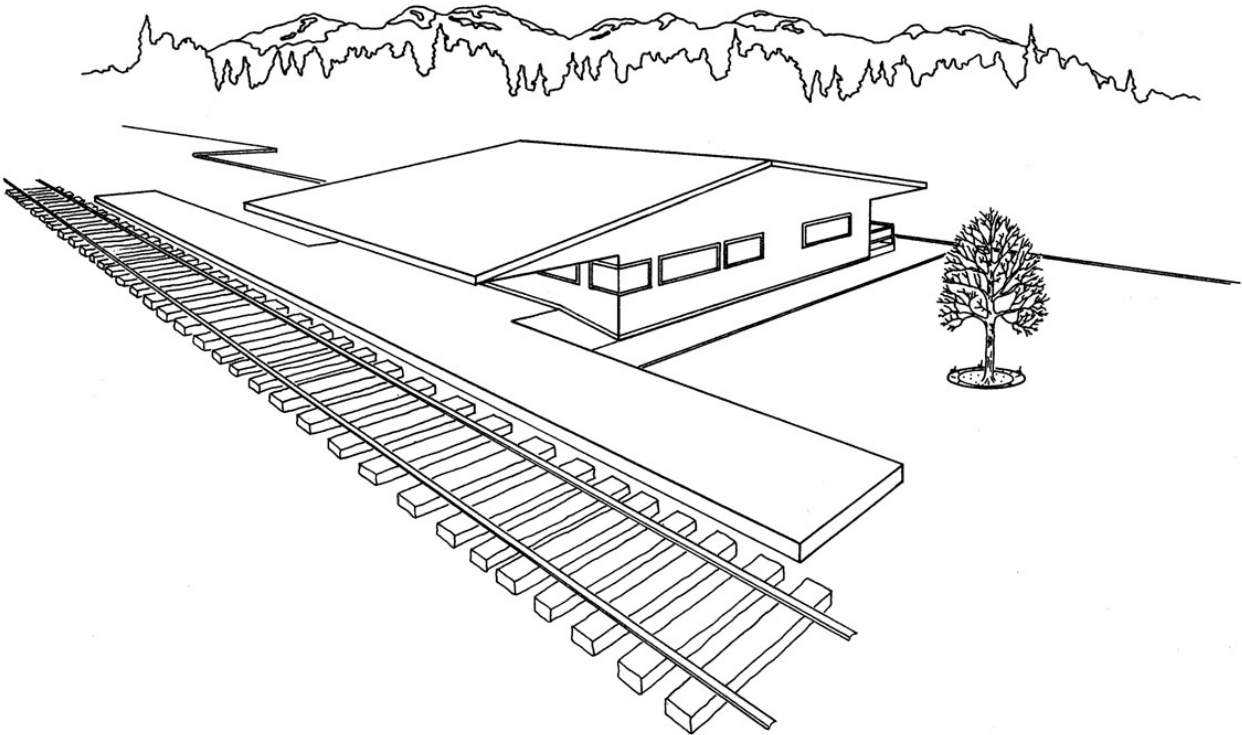


Wasilla Intermodal Facilities: Alternatives Analysis



Prepared for:
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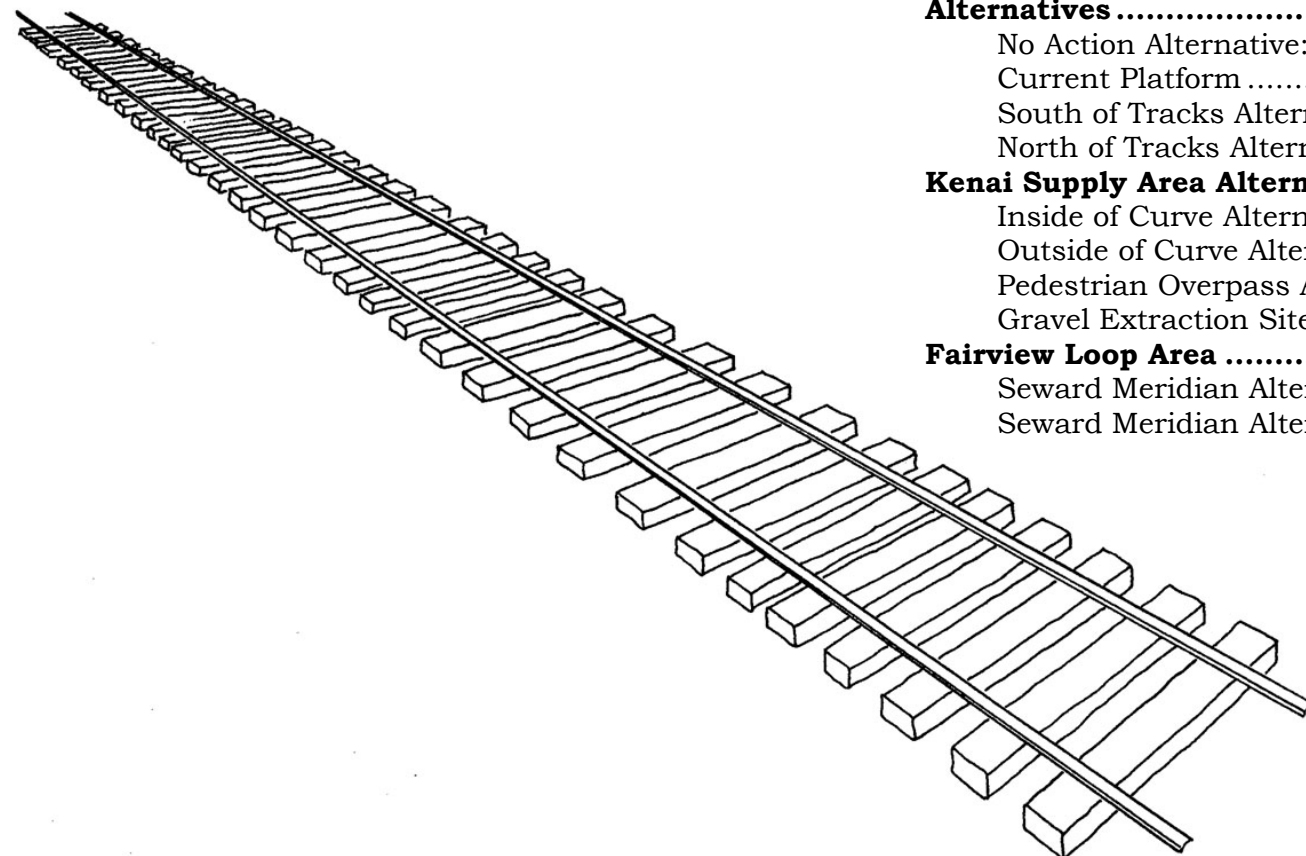
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Chapter 1: Introduction

Purpose and Need

The Alaska Railroad is proposing to construct one or more intermodal facilities in the greater Wasilla, Alaska, area. An enclosed waiting room, platform and station siding, parking area, transit drop-off area, and some pedestrian amenities are key features of this facility. The facility would serve commuters traveling to and from their homes in Willow, Houston, Big Lake, and Wasilla and their places of work in Anchorage on a planned commuter rail line. Figure 1.1 locates the railroad within a regional context.

The primary purpose of these facilities would be to facilitate connections from one transportation mode to another (rail, bus, public transit, vehicle, and pedestrian), making possible an efficient and complete home-work-home trip on the planned commuter rail line, as well as allowing the Alaska Railroad to optimize use of the track for both freight and passenger travel. Commuter rail also has potential to serve other trips, including recreational, airport related, or others.

An intermodal facility in the greater Wasilla area is a crucial component of the planned development of commuter rail, a transportation alternative that would help accommodate existing and forecast travel demand in the area. Such a facility would also address a number of operational and safety needs associated with the anticipated commuter rail service. These operational, safety, and travel demand requirements include the need to:

- Reduce automobile traffic and help relieve congestion on the Glenn Highway (the only travel corridor into Anchorage from the north) and on the Parks Highway, particularly the segment that runs through and provides access to downtown Wasilla. Between 1990 and 2000, the Matanuska-Susitna Borough population grew 49%. Experts predict this trend will likely continue given the availability of land in the Mat-Su Borough and the lack of developable land in Anchorage. As the Borough's population continues to grow, so will the number of

What exactly is commuter rail?

Commuter rail is a term used to describe an urban passenger system that uses trains and tracks to carry riders to and from work. Operated on main line railroad track, commuter rail routes typically make use of existing infrastructure (existing and active rail lines) and existing rights-of-way. Commuter rail systems typically link areas 10 to 50 miles away, a central city and adjacent suburbs, for example, or nearby cities. Typical service occurs once every 30 minutes, either with service throughout the day or only during rush hours.

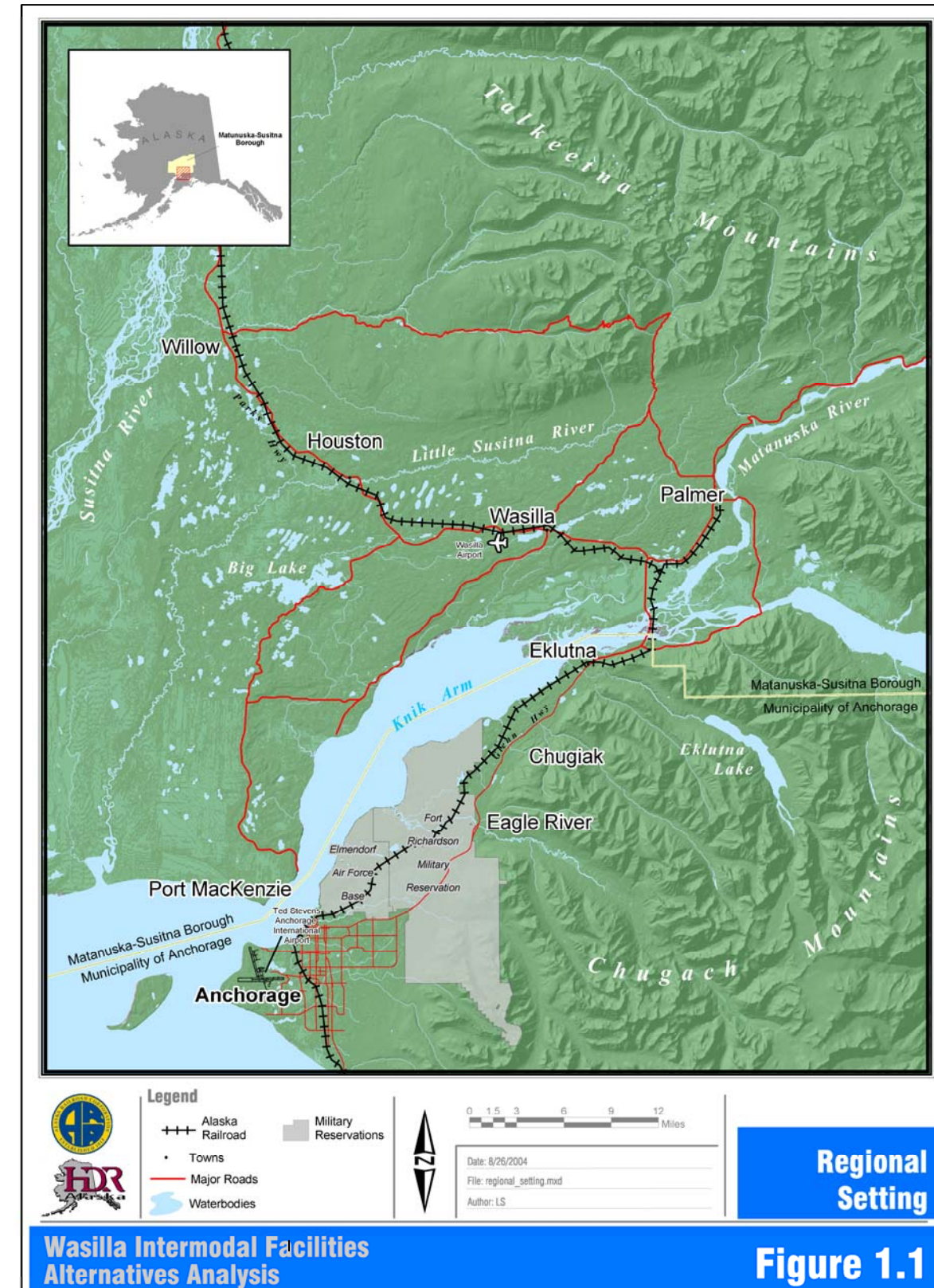
people traveling between Wasilla and Anchorage on the Glenn and Parks Highways.

- Accommodate commuter rail demand.
- Provide convenient intermodal connections with well-defined and adequately sized arrival and departure areas that serve rail, pedestrians, buses, and private vehicles.
- Provide safe connections, reducing the risk of injuries and incidents for the anticipated number of passengers transferring between travel modes, and for passengers waiting for or boarding the train.
- Provide parking to serve commuter rail users.
- Support existing and future travel patterns, land use, and transit-supportive development to help commuter rail reach its ridership potential while supporting local community goals.

A Good Idea With a Long History

Commuter rail has long been on the minds of Southcentral Alaska residents. For the past 20 years, reports have studied the potential for ridership between Anchorage and surrounding communities. This has been particularly true for residents of the Mat-Su Borough, its largest city (Wasilla), and other communities along the Parks Highway (the Borough's main road corridor).

Most of the Mat-Su Borough's population lives within 50 miles of the state's largest city, Anchorage. The development of the Parks Highway in the early 1970s enabled Anchorage workers and their families to live in the Wasilla area and commute each day to Anchorage for employment. Today, support and service industries in Wasilla have expanded to meet the needs of Borough residents, but Anchorage is still the primary regional employment hub.





This Anchorage-Wasilla commute pattern, however, threatens to overburden the local road network. Today, increasing cross traffic (cars and pedestrians) of the Parks Highway and Alaska Railroad rail line in Wasilla, coupled with increasing through-traffic, causes congestion, travel delay, and safety concerns at existing at-grade rail and road crossings (HDR 2003). Future growth will increase these problems as the population and the number of travelers grow. Forecasts indicate that by 2025 Wasilla's population will likely be about 12,000 (compared to roughly 6,300 people today), and the Borough's population will likely reach 127,000 (up from about 65,000 today). Commuter rail would offer relief to congestion and related problems on these highways now and in the future.

Commuter rail would also make the commute easier. The 50-minute drive between Wasilla and Anchorage is scenic, but during much of the year the natural environment can make the trip long and challenging due to high

winds, fog, ice and snow, poor visibility, and moose encounters. Moreover, what is a 50-minute drive today will likely increase as highway congestion worsens. To many residents and commuters alike, rail offers an important travel alternative. Commuter rail offers a more stress-free and leisurely way to travel. Passengers can drink a cup of coffee, read the morning paper, or start the workday earlier via a laptop computer.

Commuter rail has also been in the long-term development plans of the Alaska Railroad. The Alaska Railroad is a self-sustaining, full-service railroad serving ports and communities from the Gulf of Alaska to Fairbanks. Owned by the State of Alaska since 1985, the railroad stretches from Seward to Anchorage, and then through Fairbanks to North Pole and Eielson (see Figure 1.2). Approximately 6 miles of its track passes through Wasilla (mileposts 156.6 to 162.7).

and bicycle) on both ends of the journey. The Alaska Railroad is working to improve transit and pedestrian connections at the Anchorage end. Design is beginning (2004) for an intermodal transportation center and associated improvements (pedestrian amenities, transit, parking, rail track changes) in the Ship Creek depot area of downtown Anchorage (Federal Transit Administration [FTA] and Alaska Railroad 2003).

Such a facility is also needed at the Wasilla end of the trip. As is planned in Anchorage, this facility would ideally be the hub for many modes of travel (rail, bus, taxi, private vehicle, and pedestrian), located where the highest population density occurs or where it is conveniently accessible to commuting travelers. Matanuska-Susitna Community Transit (MASCOT), the sole and relatively new transit provider in the area, is still building the foundation of its service. In the long-term, MASCOT will play an important role in a commuter rail system, providing feeder bus service to an intermodal facility. Other standard support infrastructure, such as park-and-ride lots and connections to existing pedestrian facilities, has also been recommended.

Other key recommendations are for a station siding (tracks dedicated to commuter-train passenger loading and loading) and a passing siding to allow trains (either two trains traveling in opposite directions, or a commuter train and a freight train traveling in the same direction) to pass each other (HDR 2003). An important goal of the Alaska Railroad is to have a 6,000-foot passing siding every 20 miles and eventually every 10 miles, throughout its length of track. This additional segment of track would also be needed to help the Alaska Railroad achieve speed and capacity goals as commuter service comes on-line.

And lastly, development of a rail maintenance facility is also recommended (HDR 2003; WSA2002). This facility is needed for daily cleaning, light repairs, and overnight storage of the commuter rail passenger cars.

An Important Partner: The Federal Transit Administration

The Federal Transit Administration (FTA) is an important partner and a potential funding source for projects like this one. The FTA's discretionary New Starts program is the federal government's primary financial resource for supporting capital investments for fixed guideway systems. This term refers to transit that is operated on a fixed route such as heavy and light rail, commuter rail, and bus rapid transit. By funding these types of projects, the FTA works to achieve its national mission of promoting and helping to ensure:

"Safe, technologically advanced public transportation which enhances all citizens' mobility and accessibility, improves America's communities and natural environment, and strengthens the national economy."

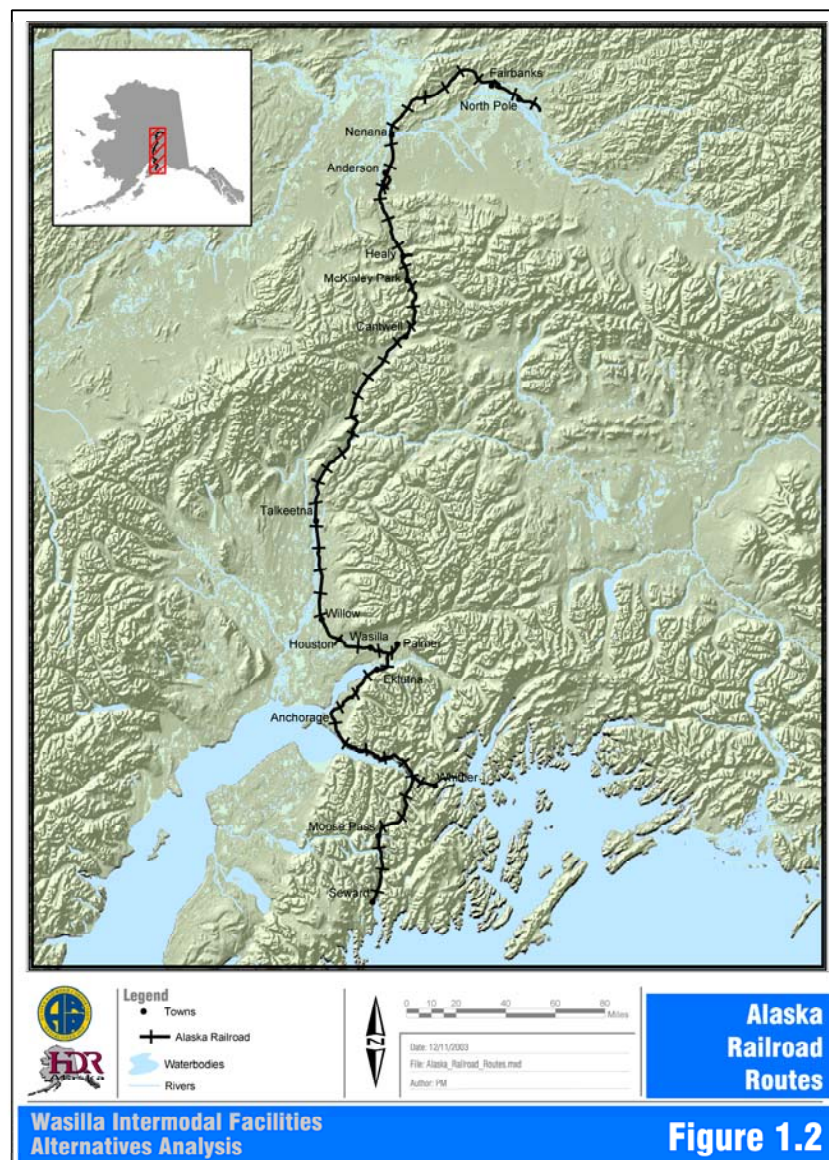
—FTA mission statement

To help serve the growing travel demand between Anchorage and the Wasilla area and to help alleviate traffic congestion and other concerns along the Parks and Glenn Highways, the Alaska Railroad has been pursuing rail improvements that, when complete, will be capable of supporting commuter rail and enhanced passenger services throughout the rail corridor.

Making Commuter Rail Work

What will it take to make the planned commuter rail service between these two population centers a reality? Many recommendations (Northern Economics March 2000; Wilbur Smith Associates [WSA] 2002) note the importance of projects that reduce travel time—either by increasing travel speed or better coordinating trains on the line. Projects that allow trains to travel at higher speeds include track straightening work (to eliminate sharp curves) and upgrades to rail structure (welded rail and concrete ties). Operational improvements include upgrades to centralized traffic control (CTC) technology to more efficiently manage more trains on the line. Reports suggest that these kinds of improvements would translate to higher capacity and speeds on the route – speeds that could provide for a commuter rail service between Wasilla and downtown Anchorage in under an hour (down from the current track time of 1.5 hours), a time comparable to a single-occupant vehicle trip. The Alaska Railroad has been making track improvements along the rail corridor and has more such projects planned (see Figure 1.3).

Other recommendations focus on the need for new facilities to create an efficient and complete home-work-home trip. This type of support infrastructure would help travelers make connections from one transportation mode to another (rail, bus, taxi, private vehicle, pedestrian,





New Starts Project Criteria

The New Starts program considers projects in terms of the following criteria:

- Mobility
- Environmental benefits
- Operating efficiencies
- Cost-effectiveness
- Existing and future land use policies and patterns
- Other factors, like technical feasibility

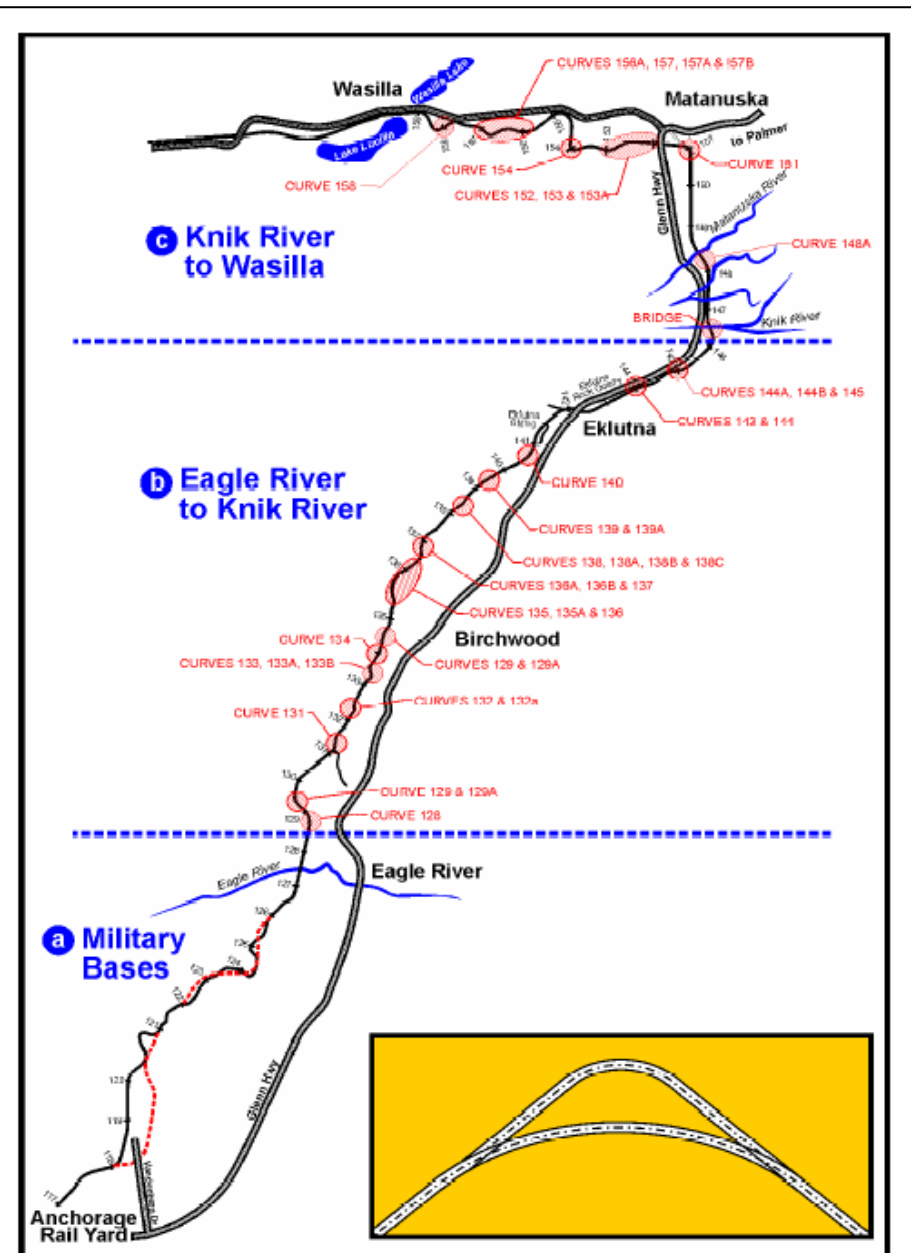


Figure 1.3: Rail Corridor Project Areas and Projects. The Alaska Railroad’s current work to straighten curves on its tracks helps make commuter rail a reality.

The FTA requires these criteria be used to describe the proposed transit system as well as to analyze alternatives. Whether or not this source of funding is ultimately pursued, the use of these criteria is a valuable tool for evaluating and articulating a transit project’s strengths and weaknesses. After all, these criteria reflect the nation’s goals for transit and therefore help ensure that each new project moves transit in the direction expressed in FTA’s mission. These criteria are used in this study to evaluate intermodal facility alternatives, as well as to describe benefits of the planned commuter rail system. The following list uses the New Starts criteria to demonstrate how the concept of commuter rail between Wasilla and Anchorage supports the FTA’s goals for transportation systems that enhance mobility and accessibility, improve communities, protect the natural environment, and strengthen the economy.

New Starts Criteria	How Will the Alaska Railroad Commuter Rail Help Achieve These Goals?
Mobility Improvements	<ul style="list-style-type: none"> • More people, including those who don’t have or can’t afford cars, will have a new option for travel. • For many, the commute will be easier, safer, and more relaxing. • Travel on the Glenn and Parks Highways will improve as commuter rail draws travelers off the roads and into the train. Mobility on the Parks Highway in downtown Wasilla will also improve.
Environmental Benefits	<ul style="list-style-type: none"> • Commuter rail helps reduce pollution and helps improve air quality. • Using existing rail infrastructure for transportation improvements helps preserve the environment.
Operating Efficiencies	<ul style="list-style-type: none"> • Commuter rail can adjust easily and quickly to match ridership increases. Adding trains is easier than adding road lanes.
Cost-Effectiveness	<ul style="list-style-type: none"> • Commuter rail runs on existing railroad tracks, making it extremely cost efficient to get up and running.
Existing and Future Land Use Policies and Patterns	<ul style="list-style-type: none"> • Commuter rail helps control development sprawl by spurring residential and economic growth near stations.
Technical Feasibility	<ul style="list-style-type: none"> • Given the existing Alaska Railroad infrastructure and current ridership potential, experts say the system could be operational with only a few additional capital investments (like intermodal facilities).

About this Report

With the Alaska Railroad’s efforts today to straighten the track between Wasilla and Anchorage, tomorrow’s commuter rail system between the two cities is becoming feasible. As the body of literature on the subject notes, however, intermodal facilities in the greater Wasilla area are key to the success of this system.

This report represents Phase 2 in the process to develop intermodal facilities in the Wasilla area. Phase 1 occurred as part of the “Wasilla Area Intermodal Plan” (HDR 2002), a coordinated, multi-agency planning effort to develop a transportation improvement program. That plan identified four potential locations for such a facility. It also established the goal for Phase 2: further analysis of those alternatives.

The focus of this report is to present the results of the alternatives analysis. It articulates the specifics of intermodal facilities recommended in the “South Central Rail Network: Commuter Study and Operations Plan” (WSA 2002), and makes recommendations on location, size, and needed features. This study also aids the planning process by introducing residents and federal, state, and local officials to the project, as well as by providing information that can be used in subsequent phases of project development (such as environmental documentation required by the National Environmental Policy Act). The remaining chapters contain the following information:

Chapter 2: Wasilla’s Community Profile describes the study area, including its land use and zoning, socioeconomics and demographics, traffic volumes, and so on. An understanding of the local environment is key to effectively locating intermodal facilities.

Chapter 3: Commuter Rail Background and Overview provides a summary of the planned commuter rail service (service frequency, rate schedule), as well as a general description of the infrastructure recommended for an intermodal facility.

Chapter 4: Alternatives Analysis describes the process through which alternatives were developed, introduces the alternatives, and then evaluates the alternatives using the FTA’s New Starts Criteria.

Chapter 5: Recommendations presents study findings and recommendations.



Chapter 2: Wasilla's Community Profile

The Natural and Human-Made Environment

Surrounded by both the Talkeetna and Chugach Ranges, Wasilla's most spectacular feature is its natural setting, offering residents views in almost every direction of 5,000-foot-tall, snow-capped mountains. Within the city itself, the natural landscape also shapes the community. Wasilla sits between two river valleys carved by prehistoric glaciers.

"Residents have easy access to major cities, other small towns, suburban areas, farmlands, and isolated cabins. Proximity to Anchorage and the magnificent coastal areas of the Southcentral region provides residents with additional economic, educational, cultural, and recreational opportunities."
(City of Wasilla 2002).

Many creeks and streams traverse the Wasilla area, and two large lakes, Lucille and Wasilla, form the boundaries of the city's center.

The most significant features of Wasilla's human-made landscape are the Alaska Railroad tracks and the Parks Highway. Wasilla's history as a community dates back to 1917 when the federal government sold town lots prior to constructing the Alaska Railroad. The Railroad officially opened service from Anchorage to Fairbanks (and through the community) in 1923 and provided the only direct link between the Matanuska-Susitna Valley and Anchorage until road access was developed in the 1970s. Direct road access to and from Anchorage through Wasilla came with the construction of the Parks Highway in the early 1970s. This development enabled Anchorage workers and their families to live in the Wasilla area and commute each day to the city for employment. Support and service industries began to expand to meet the needs of new residents. Figure 2.1 depicts key features of the natural and human environment.

Development within Wasilla has been largely shaped by the early construction of the rail and highway corridor. (A city government was not organized in Wasilla until 1974, after development and land use

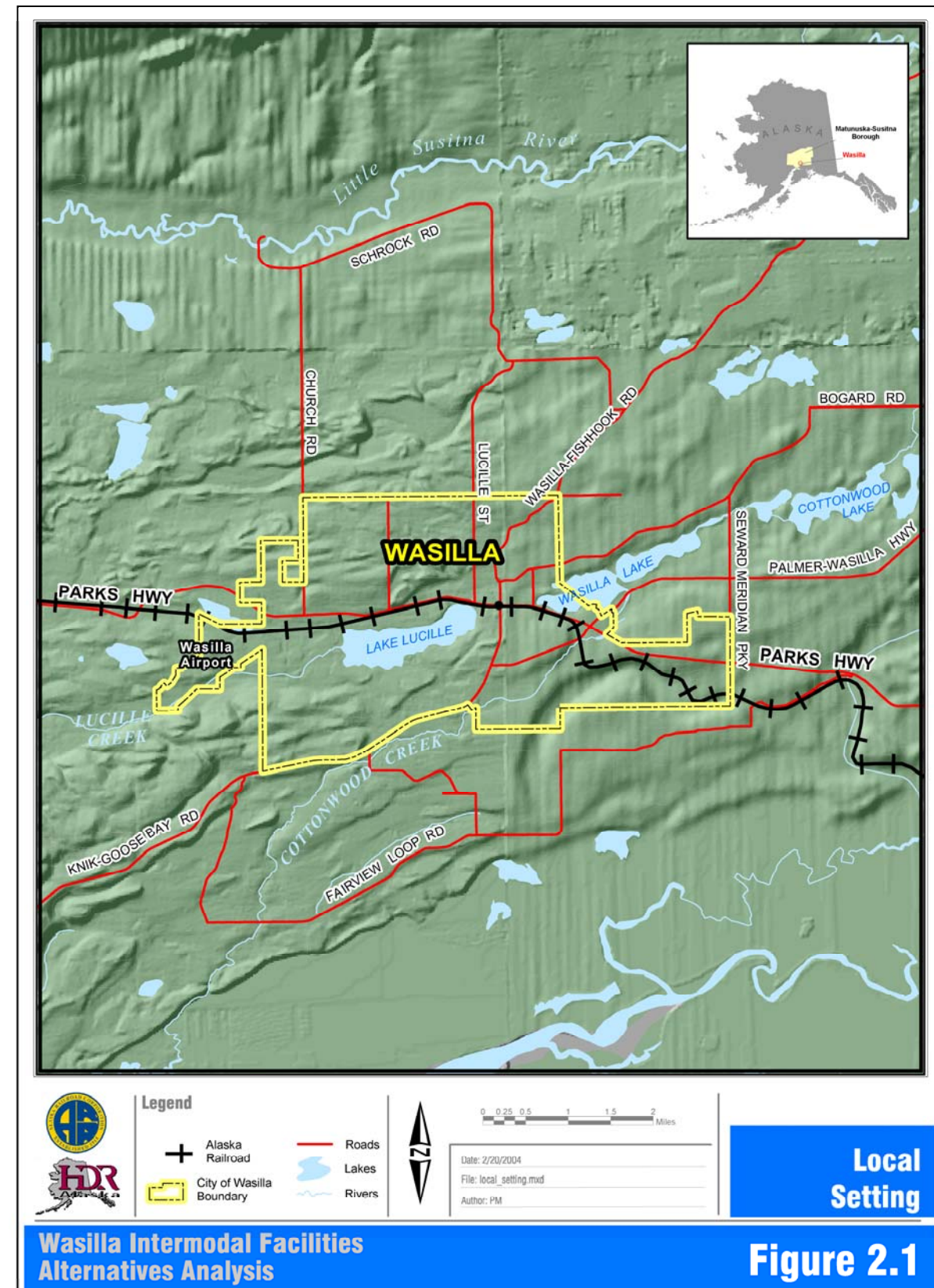
patterns were already established.) As Wasilla grew, it grew linearly along the rail/highway corridor. The Alaska Railroad tracks closely parallel the Parks Highway on the south.

Development Today

Taking a careful look at land use (a term used by planners to describe the kinds of activities that occur on individual pieces of land in an area) is one way of understanding a community's human-made environment. Figure 2.2 depicts land use in the Wasilla area.

As the colors on the figure depict, land is used for largely commercial and residential purposes, with industrial and park (as well as government, education, and church) land uses scattered within and outside city limits. The concentrations of commercial uses occur generally along main transportation corridors, like the Parks Highway. In fact, the city's commercial district roughly spans the length of this corridor. Important nodes for commercial land uses along this stretch occur between the two lakes (near the junction of the Parks Highway with Knik-Goose Bay Road and Wasilla-Fishhook Road), as well as a mile further east, at the junction of the Palmer-Wasilla and Parks Highways. Focused commercial development also occurs along other major roadways such as Main Street and Wasilla-Fishhook Road, Bogard Road, Crusey Street, the Palmer-Wasilla Highway, and Seward Meridian Parkway.

"Over the past twenty years, Wasilla has evolved from a 'wide spot in the highway' to a complex suburban community with a mixture of low density residential subdivisions, a long commercial strip facing the Parks Highway and scattered public recreational and institutional lands."
— City of Wasilla Comprehensive Plan (B&B Environmental 1992, p. 4-4)





PLACEHOLDER PAGE
Insert Figure 2.2
Existing Land Use



At a Glance:

Wasilla Comprehensive Plan Land Use Findings

- Residential: the City has an over-supply of subdivided residential property. As market conditions permit, the City should encourage the full development of these neighborhoods, before encouraging additional large tract subdivision activity. . .
- The preservation of residential areas, especially single family, from intrusion by high-density multifamily, commercial and industrial uses is a high priority.
- Commercial development. Wasilla does not need additional commercial development outside established areas. The City should encourage the infilling of developed tracts and the reuse of vacant properties . . .
- New airport. . . . The City should continue to aggressively market the airport, providing services and amenities which will help establish the airfield as the dominant regional community airport.
- Parks and recreation. Although operational funding is limited, the City should work closely with the Borough to take advantage of opportunities to expand and upgrade existing parkland. . .
- Industrial. Wasilla's developed land use pattern is almost exclusively residential or commercial. The area has a large population and workforce which could provide employment for manufacturing and light industrial activities. . . .

—Excerpted from “City of Wasilla Comprehensive Plan”
 (B&B Environmental, 1992, pp. 1-3 to 1-4)

While residences are located throughout the area, the majority of this type of land use occurs north of the Parks Highway and the Alaska Railroad tracks. Also, existing residences are concentrated around transportation routes – not the major routes like the Parks Highway, but the minor ones that make up Wasilla's road grid.

Figure 2.2 also relates another important piece of information regarding Wasilla's human landscape—parcel vacancy. As the pale yellow color notes, many parcels within the greater Wasilla area remain vacant or undeveloped. For the purposes of this study, vacant parcels are defined as those listed in the tax assessor's database with no appraised building value (meaning no building has been constructed). The table below presents this information in terms of number of vacant, developable parcels and acres of vacant, developable land on either side of the Parks Highway.

Developable Land				
Within Wasilla City Limits	Parcels		Acres	
	Total	% Vacant	Total Acres	% Vacant
North of Parks Hwy	2,170	34%	3,400	60%
South of Parks Hwy	1,373	49%	4,840	70%
Map Extent (All areas noted on Land Use Figure 2.2; includes parcels and acres within Wasilla City Limits)	Parcels		Acres	
	Total Parcels	% Vacant	Total Acres	% Vacant
North of Parks Hwy	6,078	34%	14,421	50%
South of Parks Hwy	3,397	45%	15,940	61%

As the table depicts, a greater percentage of the total number of parcels and acreage is vacant south of the Parks Highway than north of the highway. Both within Wasilla city limits and the area depicted on the figure, only about a third of the parcels remain vacant north of the highway while almost half of the parcels are vacant south of the highway.

The Picture Tomorrow

Information about vacant, developable land and zoning regulations in Wasilla today paints the land use picture of Wasilla tomorrow. The vacant land shown in Figure 2.2 and discussed above depicts the possibility, or more accurately the probability, of more people, more cars, and more development, in the future. Just where will that development likely occur? Within the city limits, zoning will guide development. (Land outside city boundaries has no zoning). Local governments make zoning codes to establish rules and regulations to control or enforce the use of land. The City of Wasilla's zoning (see Figure 2.3) will encourage the expansion and concentration of commercial development along the Parks Highway and at the highway's crossroads with Knik-Goose Bay Road and Wasilla-Fishhook Road, as well as the Palmer-Wasilla Highway.

Residential areas within the city will be concentrated in locations just off the commercial strip. The City's zoning establishes a future with the majority of parcels zoned for larger-lot, single-family homes (rural residential), but it also includes some higher-density, single- and multi-family residential areas.

As vacant land is developed in platted areas south of the Parks Highway (such as near Fairview Loop Road, Knik-Goose Bay Road, and Mack Drive) as well as north of the highway, population density will increase. Recent trends suggest a more-rapid growth of development south of the Parks Highway, for example in the area of Knik-Goose Bay Road. As the vacant land becomes developed south of the highway, the number of developed parcels in this area could someday equal, or surpass, the number of developed parcels north of the highway.

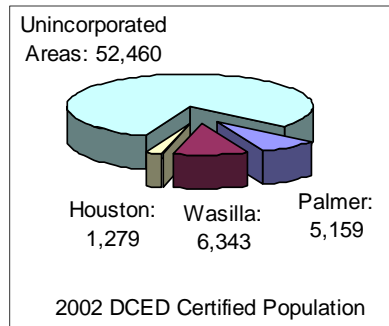


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Insert Figure 2.3 Existing Zoning



Population

Wasilla's community profile (both existing and anticipated) is also characterized by its population growth. U.S. Census Bureau statistics indicate that Wasilla and the Mat-Su Borough are the fastest growing areas in the state. In fact, the populations of Wasilla and the Borough increased by 35.7% and 49%, respectively, between 1990 and 2000. Wasilla's 35.7% increase is more than double Alaska's statewide increase of 14% (Northern Economics 2003; City of Wasilla 2002). The population growth in the Borough is partly attributable to the lack of affordable housing and developable land for new residential land tracts in Anchorage.



Where do most of these people live? The majority of Mat-Su Borough residents live in unincorporated areas. Wasilla and Palmer, what's known as the "Core Area," have current populations of 6,343 and 5,159 respectively. The "Numbers at a Glance" box depicts historic and forecast population trends for both Wasilla and the Mat-Su Borough. Figure 2.4 graphically depicts population information in the Wasilla area by showing population density (the darker the color the more people per acre), as well as total population per census block. What becomes clear is that the largest concentrations of people currently live north of the Parks Highway, as well as within a few miles of the main roads that feed into the Parks Highway. The table below provides a summary of census block information.

Within Wasilla City Limits	Total Population in this Area: 17,190	
	Population	What % of area population lives north of the highway?
North of Parks Hwy	11,770	68%
South of Parks Hwy	5,420	
Map Extent (all areas noted on Figure 2.4)	Total Population in this Area: 22,910	
	Population	What % of area population lives north of the highway?
North of Parks Hwy	15,950	70%
South of Parks Hwy	6,960	
Greater Wasilla Area*	Total Population in this area: 31,940	
	Total	What % of area population lives north of the highway?
North of Parks Hwy	22,030	69%
South of Parks Hwy	9,910	

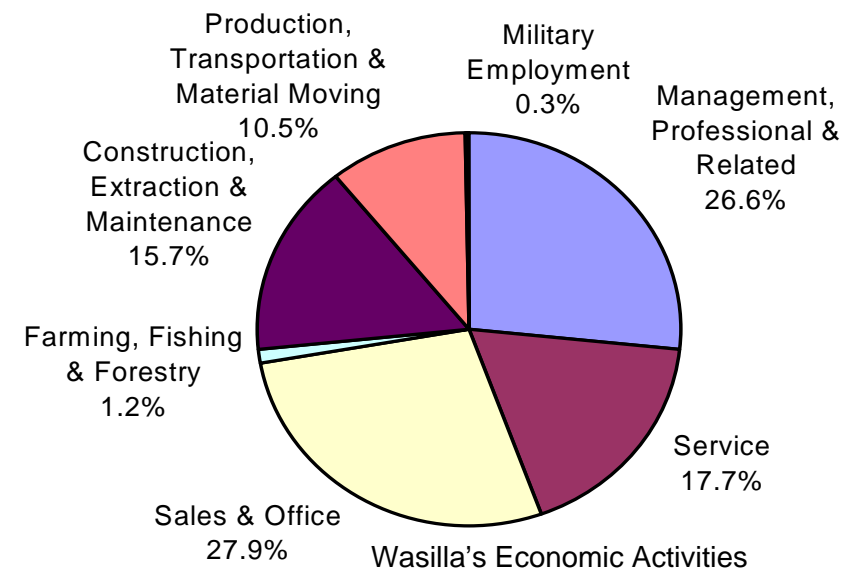
*In the area bounded by the Little Susitna River on the north, Point Mackenzie/Knik Arm on the south, Willow on the west, and Trunk Road on the east.

Again, the numbers show that about 70% of the population currently lives north of the Parks Highway. Given the percentage of available, developable land south of the highway, the percentage of people who live south of the highway will likely increase.

The City of Wasilla reports that compared to state and national averages, Wasilla's population is young: 34% of Wasilla's population is younger than 18 (in Alaska as a whole this number is 30% and nationwide this number is 26%.) The median age is 29.7 years for Wasilla residents, compared to 32.4 years for all Alaskans (City of Wasilla 2002).

Economy

What's Wasilla's chief export? According to the City of Wasilla (2002), it's labor. Wasilla residents and most of the Mat-Su Borough's population live within 50 miles of the state's largest city, Anchorage, and approximately 38% of the Mat-Su workforce commutes. In fact, Wasilla has long been considered a bedroom community for Anchorage. According to the Alaska Department of Labor and Workforce Development, 8,000 Borough residents (or roughly 13% of the Borough population) worked in Anchorage in 1999 (WSA 2002). It is estimated that out of a workforce of 2,400 people, 697 of those Wasilla residents (or roughly 13% of the City population) worked outside the Mat-Su Borough in 2000. These percentages are expected to increase as more people move to the Mat-Su Borough.



Wasilla's economy offers a wide range of employment and business development opportunities, particularly in the retail and service industries. The city has developed as the retail and commercial hub of the central Mat-Su Borough, in part due to its location at a crossroads of two major highways (the Parks and the Glenn), which allows it to serve nearby rural communities.

Top retail employers include Fred Meyer, Wal-Mart, and Sears, all located along the Parks Highway; service-related industries include several statewide banks, as well as utility, real estate, insurance, and medical organizations. A number of automobile dealerships are also located within city limits. These serve Mat-Su and Anchorage residents.

The Wasilla economy also relies on industrial activities including steel fabrication, agriculture, manufacturing of concrete products and wood products, and distribution of building materials. The construction industry also contributes to job growth.

Given Wasilla's spectacular natural setting, recreation and tourism are also important sources of income and revenue in the area. Two examples of major recreational events in the city include the high-profile Iditarod Trail Sled Dog Race and the Tesoro Iron-Dog 2000, the world's longest snowmobile race. The availability of fishing, swimming, boating, hiking, and biking, as well as the nearby Independence Mine Historical Park and the local historic district, round out this industry, making the area a year-round recreation and tourist destination. Commuter rail also has potential to serve trips from Anchorage for these recreational purposes.

Numbers at a Glance

How many commute to work?

- About 8,000 Mat-Su Borough residents work in Anchorage.
- About 700 Wasilla residents work outside the Mat-Su Borough.

Historic Population

Wasilla Census Population History						
Year	1960	1970	1980	1990	2000	2002
Population	112	300	1,559	4,028	5,469	6,343

Mat-Su Borough Population History						
Year	1960	1970	1980	1990	2000	2002
Population	5,188	6,509	17,816	39,683	59,322	65,241

Source: ACED 2000

Predicted Population

Forecast of Mat-Su Borough Population						
Year	2005	2010	2015	2020	2025	2030
Population	72,500	81,200	92,600	108,200	126,600	141,400

Forecast of Wasilla Population						
Year	2005	2010	2015	2020	2025	2030
Population	6,859	7,682	8,761	10,236	11,977	13,377

Source: ISER 2003, Base Case Scenario. Note: These population forecasts were calculated assuming that Wasilla continues to make up 9.46% of the Mat-Su Borough population. Wasilla comprised (on average) 9.46% of the Mat-Su Borough population in 1980, 1990, 2000, and 2002.



PLACEHOLDER PAGE

insert figure 2.4 Population



Transportation

Transportation is a major shaper of community identity, and no community profile is complete without an overview of the systems people use to move around. This section describes Wasilla's transportation system in three categories: existing, planned (meaning projects identified in state or municipal documents and slated to occur within the next 5 to 20 years), and transportation "visions" (large-scale ideas voiced over the years but not directly pursued at this time). Figure 2.5 locates key existing and planned transportation facilities.

Aviation. A City airport, with a paved 3,700-foot runway, provides scheduled commuter and air taxi services. (Commercial jet flights are operated out of Ted Stevens Anchorage International Airport.) Future plans for the airport include expanding the airport for general aviation purposes (lengthening the runway to 5,000 feet, expanding the apron), developing a business park, and constructing a new airport access road from Mack Drive (LCMF 2002). Private airstrips in the vicinity also provide air travel. Floatplanes land at Wasilla Lake, Jacobsen Lake, and Lake Lucille (ADCED 2000).

The key transportation "vision" for aviation is the development of an intermodal facility that could serve the airport, other transportation systems in the area (the Parks Highway, the Alaska Railroad, recreational trails (including those used for two high-profile sporting events, the Iditarod Sled Dog Race and the Iron Dog Classic Snow Machine Race), and the newly constructed Wasilla Multi-Use Sports Complex.

Train. Approximately 6 miles (mileposts 156.6 to 162.7) of Alaska Railroad tracks pass through the city limits, all on the south side of the Parks Highway. At-grade road/rail intersections within city limits total five. A historic rail depot is located at the intersection of the Park Highway and Knik-Goose Bay Road. The depot is no longer Alaska Railroad property, and instead houses the Greater Wasilla Chamber of Commerce. The train, however, does stop briefly at the existing platform on two runs (Anchorage-Fairbanks-Anchorage, and Anchorage-Hurricane Gulch-Anchorage), if needed to allow locals to load and unload. A small parking lot (for about 12 cars) is located adjacent to the depot. Other railroad facilities in the area include two sidings near the existing depot, and Alaska Railroad equipment storage buildings east of the existing depot on the Parks Highway.

The Alaska Railroad plans to straighten track curves and reduce the number of at-grade rail/road intersections in the segment of track between the Palmer-Wasilla Highway and Hyer Road. Alternatives are under study and an environmental assessment is in progress. (See Appendix A for more detail.) The Alaska Railroad is also planning commuter rail service between Anchorage and Wasilla. The plans include development of intermodal facilities.

Over the years, the City of Wasilla and others have expressed an interest in relocating the railroad to the southern boundary of city limits. No projects

related to this idea are imminent and much study is needed to determine the location and feasibility of such an alignment, but the Alaska Railroad is interested in studying this transportation vision as part of its efforts to articulate its goals for a time period beyond the typical 20-year planning horizon. See Appendix A to learn more about this idea.

Marine. Port MacKenzie, located approximately 45 miles southwest of Wasilla on the north side of Knik Arm, includes a barge dock facility, dock access road, and adjacent uplands available for commercial lease. Development of a deep-water dock at Port Mackenzie and a ferry across Knik Arm to Anchorage are under study and development. Marine transportation within city limits includes many forms of recreational boating on Wasilla Lake, Jacobsen Lake, and Lake Lucille.

Transit. Matanuska-Susitna Community Transit, more commonly known as MASCOT, operates a year-round schedule. Current commuter service exists between Wasilla and Palmer, Wasilla/Big Lake/Houston, and Anchorage via an Eagle River Transit Station. MASCOT offers two trips daily southbound from the Wasilla Senior Center (located at the intersection of the Palmer-Wasilla Highway and Knik-Goose Bay Road) to the Eagle River Transit Station in addition to two flag stop services. Two northbound trips from the Eagle River Transit Station to the Wasilla Senior Center are offered daily as well as two flag stop trips beginning in Eagle River (HDR 2003). MASCOT currently has neither a transit station nor a headquarters/dispatch center; however, new development on city property on East Centaur Avenue will provide the City with its needed maintenance facility and office space for MASCOT.

Trails and Sidewalks. Numerous recreational trails are located near the western edge of the city. Two of these trails are used for the high-profile Iditarod Sled Dog Race and the Iron Dog Classic Snowmachine Race. Sidewalks are located within the downtown area, extending north a number of blocks, from roughly Crusey Street to Lucas Road. More pedestrian improvements are planned along the Parks Highway as part of that road's improvements. Along the Palmer-Wasilla Highway, a separated bike trail runs from about the Fred Meyer complex to Palmer.

Roads. Roads in Wasilla are classified as major arterials, minor arterials, collectors, or local streets. The Parks Highway is the system's one major arterial, and as such carries most of the trips entering and exiting the community, as well as the downtown area. This road has been upgraded to four lanes (two in each direction) with interchanges between the Glenn Highway and Seward Meridian Parkway. Minor arterials (such as the Palmer-Wasilla Highway, Knik-Goose Bay Road, Bogard Road, and Wasilla-Fishhook Road) place more emphasis on land access, distributing traffic from the Parks Highway. Collectors (such as the downtown street grid, Crusey Street, and Church Road) funnel traffic between neighborhoods and arterials. Local streets, provide access to adjacent

properties. Figure 2.6 depicts average daily traffic counts on the major and minor arterials.

According to the DOT&PF's Statewide Transportation Improvement Program (STIP), road improvements are planned as follows:

- Parks Highway, Seward Meridian Parkway to Crusey Street. Upgrade road to four travel lanes with access limited to interchanges. Pedestrian facilities included.
- Parks Highway, Seward Meridian Parkway Interchange. Construct an interchange (Parks Highway to go over the Seward Meridian Parkway, with northbound and southbound off-ramps).
- Parks Highway, Crusey Street to Lucas Road. Rehabilitate existing five-lane facility: eliminate railroad crossing (see Appendix A: Kink-Goose Bay Road Grade Separation Project), consolidate driveways, add landscaping and pedestrian facilities.
- Parks Highway, Lucas Road to Big Lake Cutoff. Widen to four lanes, with traffic and safety improvements.
- Crusey Street, Parks Highway to Bogard Street. Reconstruct to accommodate four lanes and center turn lane.
- Lucas Road, Parks Highway to Spruce Road. Upgrade as a two-lane facility with shoulders, turning lanes, pedestrian facilities, drainage, and landscaping.
- Knik-Goose Bay/Main Street/Wasilla-Fishhook improvements. Capacity improvements under study include widening in the current alignment or constructing a couplet (either two way or one way). Also includes grade separating rail/road crossing.
- Extension of Seward Meridian Parkway north to Seldon Road.

Other planned road projects include:

- Extension of Seward Meridian Parkway south to Old Matanuska Road.
- Realignment of Old Matanuska Road as part of the Alaska Railroad's South Wasilla track straightening project.
- Upgrades to Mack Drive. Grade separate road-rail crossing and surface road to Wasilla Sports Complex.
- Connection of Mack Drive to Knik-Goose Bay Road.



PLACEHOLDER PAGE
Insert Figure 2.5
Existing and planned transportation



Travel Patterns

This section describes how people travel via Wasilla’s network of roads to highlight the dominant travel patterns and travel corridors, and to identify the areas that see the most traffic. This information will also be used to evaluate intermodal facility locations. Considering the characteristics outlined in this community profile (Wasilla’s relatively low population density; largely rural residential zoning and land use; high percentage of available, developable land; and a population base that values a rural lifestyle), it makes sense that driving is the most common way to travel within and through Wasilla.

The major travel pattern that takes place on Wasilla’s roadways is the one that brings drivers to and from the Parks Highway. The Parks Highway, the city’s biggest road (classified as a major arterial), has many transportation roles to fill: it provides access to through-traffic (travelers going through the area to communities north and south of Wasilla), to and from businesses in the downtown area, and to and from other main roadways. For most people, travel on the Parks Highway is a component of most trips. In general, people who live north of the Parks Highway begin their journeys by traveling south to the highway, and people who live south of the highway begin the trip by first traveling north to the highway (and vice-versa on the return trip). The average daily traffic counts (called ADT) included on Figure 2.6 show that the Parks Highway indeed carries the greatest number of trips.

The traffic counts also demonstrate another traffic pattern: toward the center of the city. Traffic counts are highest in the segment between Lucille Street and the Palmer-Wasilla Highway as an increasing number of roads feed into the system. These traffic counts include travel in both directions and include both the commuter’s trip into Anchorage, as well as trips households take as part of daily life (to shops, schools, or appointments).

Did you know . . .

That the Alaska Department of Transportation and Public Facilities publishes average daily traffic (ADT) counts for roads across the state? The Department collects information from permanent and temporary traffic counters (devices built into or placed over the road that record the number of vehicles that pass), and then uses this information to compile averages for the entire system.

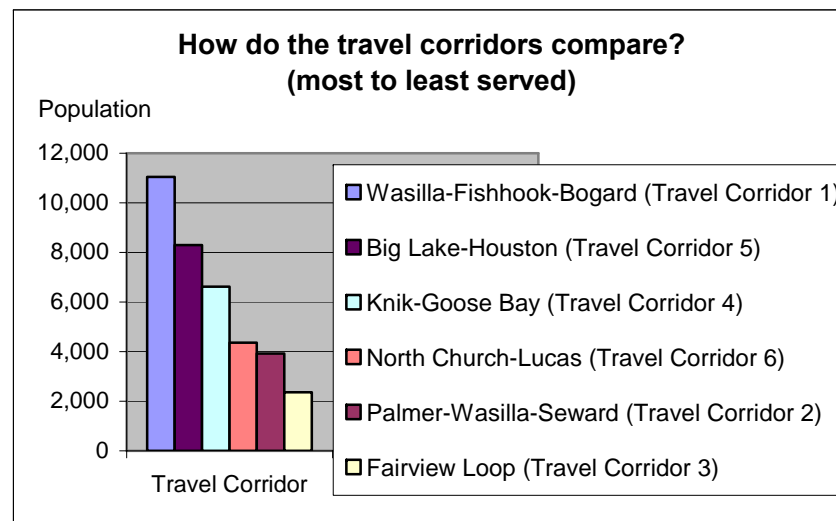
Another characteristic of travel in Wasilla is the heavy use of the following eight roads for travel:

- Wasilla-Fishhook Road
- Bogard Road
- Palmer-Wasilla Highway
- Seward Meridian Parkway
- Fairview Loop
- Knik-Goose Bay Road
- North Church Road
- Lucas Road

In fact, the use of these roads is a defining characteristic of travel in each of the six travel corridors noted on Figure 2.6. (See the “At a Glance” box for more discussion on how travel corridor borders were drawn.) These roads, noted on the map as Major Travel Route, directly serve the populations of

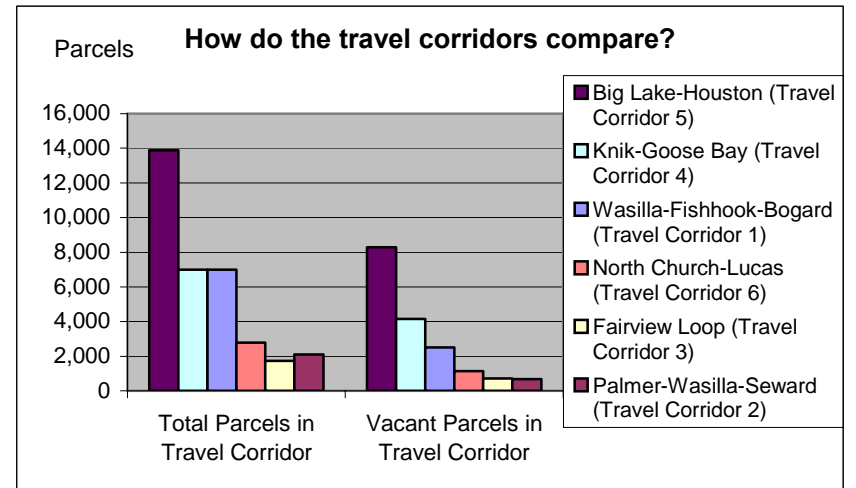
their travel corridor by linking homes, businesses, and other land uses to the Parks Highway, the main route into, out of, and through town.

This study established these travel corridors to compare and contrast traffic movement in different areas of the greater Wasilla area. Information on population and number of households in each travel corridor (instead of city-wide, as reported in other sections of this community profile) indicates which areas serve the most people, and therefore likely see the most traffic today. Information on vacant land within each travel corridor provides a glimpse into the future – suggesting the areas that could see the most growth and therefore the largest increase in traffic volumes. The table on Figure 2.6 provides a summary of this information. The chart below provides an easy comparison of population within each travel corridor.



As chart depicts, the area that serves the most people (about 11,000) is the Wasilla-Fishhook Bogard Travel Corridor. The Big Lake-Houston Travel Corridor and the Knik-Goose Bay Road Travel Corridor also serve large population bases, about 8,000 and 6,500, respectively. From these numbers it appears that the majority of greater Wasilla area residents travel through a single point on the Parks Highway—where the highway intersects with the Palmer-Wasilla Highway.

The number of vacant parcels in each of the travel corridors provides a way to predict the extent to which transportation corridor use could increase as vacant land becomes developed and population grows. The areas with the greatest number of vacant parcels are the same areas that currently serve the greatest populations: the areas of Big Lake-Houston (about 60% of the parcels are vacant), Knik-Goose Bay (also with more than half of the parcels vacant), and Wasilla-Fishhook-Bogard (with about a third of the parcels not yet developed). These numbers suggest that travel patterns will remain similar in the future, but average daily traffic counts from these areas will increase as vacant land is absorbed.



Until the Mat-Su Borough completes its transportation model updates, this study’s travel corridor analysis provides the best way to analyze where the most trips occur — and, by extension, where stations could be located to provide convenient, on-route access for the majority of the population. Chapter 4 applies this general information to specific intermodal facility locations.

At a Glance: The Drawing of Travel Corridors

This study established these travel corridors to better estimate the number of people traveling to and from areas within and outside the city. It is important to note that the areas defined by the boundaries are approximate. The lines on the map were drawn to represent natural or human-made features that affect people’s decisions to use one road or another. The boundaries extend past the area depicted on Figure 2.6—north to Little Susitna River, south to Port Mackenzie/Knik Arm, west to Willow, and east to Trunk Road (halfway between the Seward Meridian Parkway and Glenn-Parks Highway interchange). This study refers to this area as the greater Wasilla area. The following list highlights the corridors’ key topographical or human-made considerations.

- The Parks Highway is the boundary of most of the corridors to reflect the main travel pattern: to and from the Parks Highway.
- Wasilla Lake acts as a barrier to travel and is therefore a travel corridor boundary.
- Lucille Street is not a physical boundary like a lake: residents do use and cross this street. However, it acts as a general demarcation line regarding convenient access to the Parks Highway. For people who can easily reach Wasilla-Fishhook or Main Street, Lucille Street is a second choice because it has no traffic signal to make entering the Parks Highway easier.
- A steep chasm generally bisects the area between Fairview Loop and Knik-Goose Bay Road. The border between these two travel corridors follows this natural feature.
- The borders of Travel Corridor 5 are designed to include communities, subdivisions, or individual parcels to the west for which the Parks Highway serves the majority of the population.



Insert 2.6 Travel Patterns



Chapter 3: Commuter Rail Background and Overview

It is this community context that informs all efforts to develop commuter rail. The idea to run commuter rail between Wasilla and Anchorage has been around for two decades, and now recent work on a commuter rail "blueprint" has put this idea in motion. The "South Central Rail Network: Commuter Study and Operation Plan" (WSA 2002) outlines a viable service that could provide a meaningful transportation alternative for Wasilla and Mat-Su Borough residents in the near future. This chapter draws from that document to answer important questions (the who, what, where, when, and how) about the commuter rail system envisioned in the "South Central Rail Network: Commuter Study and Operation Plan."

Who are potential commuter rail riders?

Potential commuter rail riders are people who commute to Anchorage from the Mat-Su Borough each day. According to the Alaska Department of Labor and Workforce Development, 8,000 people commuted between the Mat-Su Borough and Anchorage in 1999. In 2005, this number is estimated to be 9,500 people (WSA 2002). This population makes up the pool of commuter rail users.

How many people will ride the train?

Not all of these 9,500 commuters, however, will ride a commuter train. Experts say that nationwide similar systems capture 3% to 10% of the total commuting public. Given Alaska's dispersed employment centers, relatively inexpensive and available parking, and ongoing highway improvements, transit planners place commuter rail's capture rate between 3% and 7% of Mat-Su

Commuter Rail Blueprint: Some Key Assumptions Used to Predict Numbers of Riders

- Two service levels: (1) during peak commute periods only, and (2) peak commute periods plus off-peak and weekend service. The additional service in the latter scenario would be offered after the system becomes established.
- Commuter rail travel time would be just over an hour between Wasilla and Anchorage.
- Station stops will include Wasilla, at the Glenn / Parks Highway interchange, Eagle River, Elmendorf, Anchorage.
- Potential riders will take shuttle buses or transit or walk to their work places.
- Fare levels will be typical of other commuter rail operations: about \$180 per month for discounted commute tickets (\$4 one-way).
- More dangerous driving conditions in winter will increase ridership by about 20 %.
- For planning purposes, start-up is 2005. —Wilbur Smith Assoc. 2002

Example Schedule		Commuter Rail Blueprint: When can riders catch the train?		Example Schedule	
Opening Year Service Schedule		Expanded Service Schedule (2012)		More-Expanded Service (2022)	
Depart Wasilla	Arrive Anchorage	Depart Wasilla	Arrive Anchorage	Depart Wasilla	Arrive Anchorage
6:00 am	7:06 am	6:00 am	7:06 am	5:36 am	6:42 am
6:45 am	7:51 am	6:45 am	7:51 am	5:44 am	6:50 am
Depart Anchorage	Arrive Wasilla	9:30 am	10:36 am	6:14 am	7:20 am
5:00 pm	6:06 pm	3:00 pm	4:06 pm	6:44 am	7:50 pm
5:45 pm	6:51 pm	Depart Anchorage	Arrive Wasilla	7:14 am	8:20 am
		8:00 am	9:06 am	10:44 am	11:50 am
		1:30 pm	2:36 pm	3:44 pm	4:50 pm
		5:00 pm	6:06 pm	Depart Anchorage	Arrive Wasilla
		5:45 pm	6:51 pm	8:33 am	9:39 am
				1:33 pm	2:39 pm
				4:30 pm	5:36 pm
				5:15 pm	6:21 pm
				6:00 pm	7:06 pm
				6:45 pm	7:51 pm
				10:00 pm	11:06 pm

Source: FTA & ARRC 2003; WSA 2002

commuters (WSA 2002). This calculates to about 250 commuters each day in the summer and 300 commuters each day in the winter (WSA, Appendix A, 2002). As the system becomes established, service would expand (to include weekend and off-peak times, in addition to only peak times) and ridership would likely increase (WSA 2002).

When can commuters catch the train?

In the beginning, riders would have two choices of travel time, as two round trips between Wasilla and Anchorage would occur each weekday (no Saturday, Sunday, or holiday service would initially be offered). The Wasilla trains would depart at 6:00 a.m. and 6:45 a.m., arriving in Anchorage at 7:06 a.m. and 7:51 a.m. Returning in the afternoon, the trains would leave Anchorage at 5:00 p.m. and 5:45 p.m.

As the route and ridership becomes more established, the service would expand to provide more comprehensive service (not just at peak commute times, but offered throughout the day and on weekends, too). The "Commuter Rail Blueprint" information box above shows how the schedule is envisioned to expand over time.

Where will people catch the train?

The roughly 1-hour commuter rail trip between the Mat-Su Borough and Anchorage is described with five stations and five stops: Wasilla, near the

Glenn-Parks Highway interchange, Eagle River, Elmendorf, and Anchorage (the planned Ship Creek Intermodal Center). The exact location of intermodal facilities in Wasilla is the focus of this report. At these facilities riders would likely find a parking area, transit drop-off areas, pedestrian connections, a 300-foot-long platform, and an enclosed waiting room with seating and vending machines. Facilities would not be attended, meaning tickets would be sold through automatic ticket-vending machines. The schedule in the information box below depicts the times the train would pull into each of these facilities on a typical run.

Commuter Rail Blueprint: Where do riders catch the train?

Origin and Destination	Time	Station Stops
Depart Wasilla area*	6:00 am	
	6:18 am	← Glenn-Parks Interchange area
	6:46 am	← Eagle River
	6:58 am	← Elmendorf
Arrive Anchorage	7:06 am	

* The exact location or locations of this station is this study's focus.



What will an intermodal facility look like?

Intermodal facilities are hubs of transportation activity, the place where many modes of travel come together so that people can individually design a more convenient, affordable, or environmentally friendly home-work-home trip. To serve the needs of people who travel by bus, the facility incorporates bus drop-off areas. For people who travel by car, the facility connects to the road system and provides parking. Pedestrian facilities accommodate those who bike or walk to the station.

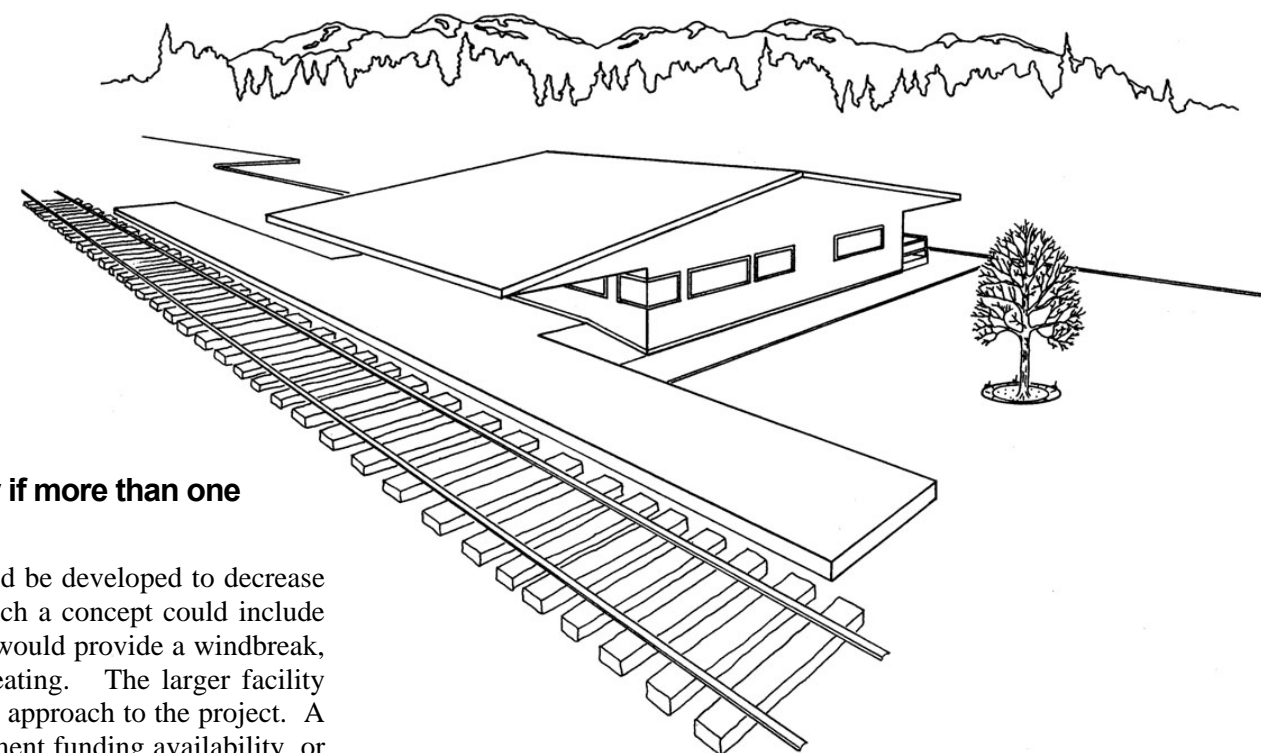
The accompanying drawing depicts three important components of the intermodal facility: the building, the platform, and the tracks. As articulated in the “South Central Rail Network: Commuter Study and Operation Plan (WSA 2002), the building would hold 150 people and would be enclosed and heated. Interior amenities would include places to sit, as well as vending machines. The building is not designed to be attended, meaning tickets would be sold through automatic ticket-vending machines. Many people would choose to wait for the train on the 300-foot-long platform. As the drawing shows, much of this platform is covered by an awning to keep people sheltered from any inclement weather. And, as is the standard, the platform is placed parallel to the railroad tracks.

The box below presents other important features of the facility, including bus drop-off areas, parking lots, and road and pedestrian connections.

Commuter Rail Blueprint: Intermodal Facility Features	
Features	Wasilla Station
Facility Capacity	150 people
Parking Capacity	300 vehicles
Platform	300 feet by 10 feet
Waiting Area	Enclosed and Heated (66 feet by 33 feet)
Intermodal Connections	<ul style="list-style-type: none"> • Bus drop off area—to allow MASCOT to deliver riders right to the curb. • Road system connectivity—to allow connections between the parking area and the road network. • Pedestrian facilities—to allow connection of the facility to bike and pedestrian network.

Source: WSA 2002

Depiction of Building, Platform, and Tracks



Is a smaller concept possible, especially if more than one facility is needed?

A secondary, smaller concept for a facility could be developed to decrease the initial cost and footprint of the facility. Such a concept could include reduced parking and a simple open shelter that would provide a windbreak, overhead protection, and on-demand radiant heating. The larger facility described above could be developed in a phased approach to the project. A phased approach could be warranted to complement funding availability, or to match growth and demand. A smaller concept could also be applied to one or more additional locations.

How important are intermodal facilities?

Travel mode integration—ensuring that travelers can get to and from commuter rail quickly and easily—is important to the success of the overall system. After all, people with a driver’s license have a choice of whether or not to use an alternative mode of travel. Their decision to choose to travel by commuter rail instead of by their own car depends upon the overall quality and convenience of the entire commuter trip. Intermodal facilities play a key role in helping riders transfer easily and conveniently from one form of travel to another.

Important functions of intermodal facilities are to:

- Help integrate travel modes, so people can design a convenient, affordable, and efficient home-work-home trip.

- Provide sheltered, convenient and safe passenger boarding and waiting areas, with well-defined and adequately sized arrival and departure areas that serve rail, pedestrian, transit buses (MASCOT), and other vehicles.
- Provide adequate public parking to serve users.
- Enhance pedestrian facilities to serve users, keep pedestrians safely separated from road vehicles and trains, and connect to the existing pedestrian/trail network.
- Provide adequate track and platform capacity for current and future passenger demand.



Chapter 4: Alternatives Analysis

The Alaska Railroad's "blueprint" for commuter rail service articulates the need for intermodal facilities in Wasilla. But what is the best location or locations? This chapter begins to address that question by describing the alternative development process, identifying alternatives, and analyzing each alternative's advantages and disadvantages in terms of the Federal Transit Administration's New Starts criteria below:

- Technical Feasibility
- Operating Efficiencies
- Mobility Improvements
- Cost-Effectiveness
- Land Use Policies and Patterns
- Environmental Benefits

Determining Locations

State and local Wasilla-area transportation providers (the Alaska Department of Transportation and Public Facilities, Alaska Railroad Corporation, City of Wasilla, Matanuska-Susitna Community Transit, and

Matanuska-Susitna Borough) spent 2003 working together to identify potential transportation improvement projects in the Wasilla area. The "Wasilla Area Intermodal Plan" (HDR 2003) documents this effort. As part of this work, this group, termed the "Wasilla Area Intermodal Steering Committee," identified four potential locations for an intermodal facility:

- Wasilla Airport Area
- Current Alaska Railroad Platform (Historic Depot)
- Kenai Supply Company Building Area
- Fairview Loop Area

These locations are depicted on Figure 4.1 and in the accompanying photographs. One of the outcomes of the Steering Committee coordination was group agreement that the Alaska Railroad should continue to evaluate the strengths, weaknesses, and overall feasibility of these locations. This study, "Wasilla Intermodal Facilities: Alternatives Analysis," begins this process. The goals of this phase of the process are to (1) better articulate the specifics of these facilities, and to make recommendations on their location, size, and needed features; (2) introduce residents

and federal, state, and local officials to the project; and (3) provide a list of reasonable alternatives to be carried forward in subsequent phases of project development (such as the environmental documentation process required by the National Environmental Policy Act, or NEPA).

Developing Alternatives

From the general starting point established by the Wasilla Area Intermodal Steering Committee (the collaborative identification of potential locations), this study developed a range of site-specific alternatives to consider. This list of alternatives was developed by applying general railroad and commuter-rail-specific design criteria to each location. The Alaska Railroad's "blueprint" for commuter rail service (the "South Central Rail Network: Commuter Study and Operations Plan") guided this process. The "At a Glance: Design Criteria" box highlights the basic criteria used to develop alternatives at each location. The following sections describe the range of alternatives at each location, and then evaluate each alternative according to FTA's New Starts Criteria.

From top to bottom: Construction of Mack Drive to the Wasilla Airport; Historic Depot and Current Platform; Kenai Supply Co. Building Area; Fairview Loop turnoff from Parks Highway.



At A Glance: Design Criteria

Feature	Design Criteria	Explanation
Station Capacity	150 people	As outlined in the Commuter Study and Operations Plan (WSA 2002).
Waiting Area	Enclosed, Heated (66 by 33 feet)	As outlined in the Commuter Study and Operations Plan (WSA 2002).
Parking Capacity	300 vehicles (334 by 471 feet)	As outlined in the Commuter Study and Operations Plan (WSA 2002).
Platform	300 by 10 feet	As outlined in the Commuter Study and Operations Plan (WSA 2002).
Station Siding	500 feet	A track parallel to the platform to allow loading and unloading of commuter rail passengers, to allow trains to pass on the mainline while commuter rail operations occur, to accommodate a five-car commuter rail train set.
Passing Siding	6,000 feet	A track parallel to the mainline from the northernmost railroad station is a future Alaska Railroad goal. However, development of 6,000-foot passing sidings is a more near-term goal to allow trains approaching from different directions to pass on the mainline. A passing siding is not a required component of an intermodal facility, and therefore is associated with the alternatives only to study the potential to co-locate a passing siding with intermodal facilities in any given area.
Station Siding and Mainline Track Separation Distance	30 feet	Station sidings are offset 30 feet from mainline track to accommodate future double tracking. (The station siding would form a third parallel track.) This assumes the station and the new, second mainline track are on the same side of the first mainline track.
Location of Station Siding and Platform	Place on a Tangent Section of Track (Not a Curve)	To keep the gap between the train car and the platform at a constant, narrow distance that passengers will plan for and expect when stepping on and off the train.
Maintenance Facility	250-by-500-foot building	Termed "the Wasilla Car Shop" in the "Commuter Study and Operations Plan" (WSA 2002), this facility includes a building and set of tracks used for cleaning, inspecting, making repairs, and storing commuter rail passenger cars overnight. For operating efficiencies, this facility should be located at the farthest end of the commuter rail line, near the first rail station. An overnight shed is described in the plan as a 30-by-300-foot shed.



Insert Figure 4.1



Airport Area Alternatives

The Wasilla Airport is located on the western edge of the city limits, south of the railroad tracks. This area is characterized by two main features—the newly constructed Wasilla Sports Complex, and the proximity of many transportation modes (rail, roads, recreation trails, and an airport). See Figure 4.2 and the “Airport Area Profile” information boxes that accompany this section.

The area is also on the direct commute path for people living in the Big Lake-Houston Travel Corridor. For this population, a facility in this area represents a convenient stop along the main direction of travel. The airport area is also within a mile of the population living in the North Church Road-Lucas Road Travel Corridor, which means a facility in this location could be relatively convenient for commuters from this area, as well. The information box below provides a location-specific analysis of travel corridor information

Airport Area Profile: Travel Pattern Analysis*	
Is the Location On Route To Commute Destination?	For the 8,000 people who live in the Big Lake-Houston Travel Corridor (that’s 23% of the population of all six travel corridors), this location represents a convenient stop along the main direction of travel. If Mack Drive is extended south, commuters traveling between the Parks Highway and Knik-Goose Bay Road would also drive by the intermodal facility.
Is Some Back-Tracking Required?	Just over 4,000 people (12%) live in the North Church Road-Lucas Road Travel Corridor. Use of an airport area facility would involve a minor deviation from this population’s main direction of travel.
Is Significant Back-Tracking Required?	An airport area facility would be out of the way for about 65% of the greater Wasilla population.

*A location-specific analysis of travel patterns and travel corridors discussed in Chapter 2 and presented on Figure 2.6.

presented in Chapter 2.

Site-Specific Design Challenges

The list of possible alternatives at this site was influenced by the need to avoid conflicts with airport activities and Federal Aviation Administration (FAA) regulations. The airport’s approach category of B defines the size of different protection zones and airspace surrounding the airport. Buildings and structures not related to the airport should not be built or placed within the trapezoidal runway protection zone (RPZ) or penetrate airspace (see the accompanying “At a Glance: Airport Area Design Considerations” box). That means the facility can be no closer to the runway centerline than 390 feet, the nearest vehicle can be no closer than 520 feet from the end of the runway, and the train can be no closer than 660 feet from the end of the runway.

Given these site-specific design constraints, conceptual-level engineering identified two alternatives at the airport, the *Sports Complex Alternative* and the *Airport Master Plan Alternative*, as noted on Figure 4.2.

Sports Complex Alternative

General Concept: The “Wasilla Airport Master Plan” (LCMF 2002) provided the starting point for the development of this alternative. That document identifies a “proposed rail spur” between the sports complex and the airport. The Sports Complex Alternative (Figure 4.2, alternative noted in pink) sites an intermodal facility on that rail spur. Figure 4.2 depicts the facility adjacent to the sports complex, but this facility could be located farther north on the rail spur, closer to the main line, if desired.

Key Features: This alternative includes the facility (building, platform, parking area, with transit and pedestrian connections), as well as a 250-by-500-foot maintenance building (the recommended size). It also includes an approximately 500-foot-long station siding. It does not include a 6,000-foot passing siding because the track spur is not parallel to the mainline, and therefore its use would be problematic for longer freight trains. This site also requires a short access road and a separated grade crossing at the railroad-Mack Drive intersection.

Airport Master Plan Alternative

General Concept: This alternative (shown in yellow on Figure 4.2) also draws from the Wasilla Airport Master Plan (LCMF 2002) by applying the area identified as “commuter rail station reserve,” located south of Jacobsen Lake. This alternative is influenced by the airport runway protection zone and the transportation museum, which define the eastern and western limits for placing the intermodal facility.

Key Features: This alternative includes the station and its associated facilities (building, station siding, platform, parking area, and transit and pedestrian connections). To allow siting the facility and platform on a curve, the station siding is designed as a tangent section of track outside the curve. The area does accommodate a 6,000-foot passing siding. The existing Alaska Railroad right-of-way does not offer enough room for a 250-by-500-foot maintenance facility, but there is room for a 30-by-300-foot shed that would provide a place to store the trains overnight. Another key feature of this alternative is an access road connecting Beacon Street and Mack Drive, as recommended in the airport master plan.

At a Glance:

Airport Area Design Considerations

- To avoid conflicts with airport activities or federal regulations, commuter rail alternatives must avoid placing buildings and structures in the:
 - Runway Protection Zone (see Figure 4.2).
 - FAA Part 77 primary surface (roughly a 4,100-by-500-foot area surrounding the runway), imaginary transition surface (7:1 slope parallel to the runway), or approach surface (20:1 slope off runway ends).
- Heights used to determine penetrations to airspace are as follows: Commuter station 20 feet high; vehicles 16 feet high; trains 23 feet high.

Airport Area Profile: Existing and Planned Transportation Facilities	
Rail	Existing: Tracks only Planned: Alaska Railroad has expressed interest in developing a rail maintenance facility in this location (HDR 2003).
Transit	Existing: None Planned: MASCOT has expressed interest in a future bus storage facility at or near the airport (HDR 2003).
Aviation	Existing: Wasilla Airport: 3,700-foot-long runway, seven buildings (three are hangars), and no passenger terminal. Planned: Expansion of the airport for general aviation purposes (lengthen runway, expand apron) and development of business park east of Jacobsen Lake, between the highway and the railroad.
Road	Existing: W. Neuser Drive: 1-mile-long access road to airport and Alaska Transportation Museum through a residential subdivision, from the Parks Highway. Planned: Mack Drive (currently gravel surface) provides access to the sport complex. Potential exists to connect Mack Drive south to Knik-Goose Bay Road. Airport master plan recommends an alternative access route to the airport from Mack Drive.
Trail	Existing: Many recreation trails in the area, including for the Iditarod Sled Dog Race and Iron Dog Snowmachine Race.

Airport Area Profile: Existing and Planned Development	
Industrial	Existing and Planned: See description of Wasilla Airport above.
Commercial	Existing: Wasilla Multi-Use Sports Complex, 100,000 sq ft building; stadium; sports fields; trailhead facility; conference center. Planned: Aviation related business park, development of non-aviation revenue areas as a business/commerce park with adjoining sports complex, to include restaurants, office buildings, etc. (LMF 2002).
Residential	Existing: Buena Vista Subdivision, western end of Lake Lucile. No road currently to subdivision from sports complex. Scattered residential development along Mack Drive to the south. Mack Drive currently does not connect Knik-Goose Bay Road and the Parks Highway. Planned: More residential development is anticipated along Mack Drive, particularly if Mack Drive is connected to Knik-Goose Bay Road.
Other	Existing: Alaska Transportation Museum: private, non-profit.



How Do the Airport Area Alternatives Compare?

Evaluation Criteria	Sports Complex Alternative	Airport Master Plan Alternative
Technical Feasibility	<ul style="list-style-type: none"> Accommodates the station building, station siding, platform, parking area, and maintenance facility (250 by 500 feet, as recommended). A passing siding does not fit in this area. 	<ul style="list-style-type: none"> Fits the station building, station siding, platform, and parking area, as well as a 6,000-foot-siding. Does not fit the maintenance facility (250 by 500 feet), but does fit a smaller, 30-by-300-foot shed that could be used to store the trains overnight.
Mobility	<ul style="list-style-type: none"> Improves transportation links and travel options by locating the station at a destination—the Wasilla Sports Complex—as well as at a multimodal crossroad, providing the potential to link rail, recreational trails, roads, aviation, and transit. (See the “Airport Area Profile” boxes for more information.) Provides a convenient (meaning on-route) transportation option for the population of the Big Lake-Houston Travel Corridor (see the “Travel Pattern Analysis” box above). With a future south extension of Mack Drive, an intermodal facility in this location could also conveniently serve a segment of the Knik-Goose Bay Road Travel Corridor. Reduces traffic volumes east of the station and therefore improves mobility for the remainder of the population. 	<ul style="list-style-type: none"> More directly connects an airport-area station to the airport given this alternative’s proximity to the airport and the airport access road. Offers less convenient access to the station than the Sports Complex Alternative. The Airport Master Plan Alternative would require the population of the Big Lake-Houston Travel Corridor (8,000, or 23% of the total greater Wasilla area population) to backtrack along the airport access road to reach the station from the east or travel over 1 mile on W. Neuser Drive to access the station from the west. Travel would not be as convenient for those traveling on a Mack Road extension from the Knik-Goose Bay Road either.
Land Use Policies and Patterns	<ul style="list-style-type: none"> Poses no conflict with airport activities or Federal Aviation Administration regulations. Supports and is consistent with existing and future land use and zoning in the area. Allows for the possibility of extending the track for industrial development, which is also consistent with land use as noted in the Airport Master Plan (LCMF 2002). 	<ul style="list-style-type: none"> Supports existing and future land use, but also better supports the recommendations of the Wasilla Airport Master Plan. Requires crossing the runway protection zone with an airport access road.
Operating Efficiencies	<ul style="list-style-type: none"> Co-locates the maintenance facility and the station, which allows the Alaska Railroad to streamline its commuter rail operations. Activities associated with beginning and ending the run, as well as cleaning, maintaining, and storing the trains all occur in the same location. 	<ul style="list-style-type: none"> Existing Alaska Railroad right of way does not accommodate the recommended 250-by-500 foot maintenance facility, but it does fit a smaller, 30-by-300-foot building that could be used to store the trains overnight. Railroad officials have expressed concern about siting a building in this location.
Environmental	<ul style="list-style-type: none"> Improves safety and minimizes noise impacts for commuter rail users by placing the station on a track spur, which completely separates passenger loading and unloading from fast moving trains on the main line. Likely involves wetlands. 	<ul style="list-style-type: none"> Likely involves wetlands in portions of the eastern end of the access road.
Cost Effectiveness	<ul style="list-style-type: none"> Represents a prudent capital investment by locating the station where it can serve not only the commute trip, but also other trips to adjacent destinations such as the Wasilla Sports Complex, Iditarod Sled Dog Race restart area, and, to some extent, the Wasilla Airport. (Would require the development of an airport access road to adequately link the station to the airport.) Capital improvements in this location, therefore, support the City of Wasilla’s goals for both economic development and transportation. Locates all facilities on City of Wasilla (including Wasilla Airport) property, suggesting the potential for governmental partnerships and reduced land acquisition costs. Minimizes access road requirements by using the existing Mack Drive. 	<ul style="list-style-type: none"> Sites the facility where it could also serve other purposes, as noted to the left. Would offer less direct rail access to the sports complex, however. Like the other airport alternative, locates all facilities on City of Wasilla (including Wasilla Airport) property.
Conceptual-Level Cost (See Appendix B for details.)	<p>Low Estimated Cost: \$17,600, 000; this total includes \$6 million for maintenance facility (250 by 500 feet). High Estimated Cost: \$18,800,000; this total includes \$6 million for maintenance facility (250 by 500 feet). <i>(High and low estimates reflect differences in right-of-way costs; see Appendix B for details.)</i></p>	<p>Low Estimated Cost: \$10,000, 000; total includes \$0.6 million for overnight shed (30 by 300 feet). High Estimated Cost: \$11,200,000; total includes \$0.6 million for overnight shed (30 by 300 feet). <i>(High and low estimates reflect differences in right-of-way costs; see Appendix B for details.)</i></p>

Reasonable Wasilla Airport Area Alternatives

Both alternatives are considered reasonable, and therefore should be carried forward for further evaluation in subsequent phases of project development. Both alternatives are technically feasible, consistent with land use policies, and associated with improved commuter mobility and railroad operations. Of the two airport area alternatives, the Sports Complex Alternative offers greater improvements related to commuter mobility and railroad operations. The 6,000-foot passing siding associated with the Airport Master Plan Alternative could be constructed if a siding is needed in the airport area.



Placeholder page
Insert Figure 4.2 airport Area Alternatives



Current Alaska Railroad Platform (Historic Depot) Alternatives

The current Alaska Railroad platform is located in the heart of the city, just east of the intersection of the Knik-Goose Bay Road and the Parks Highway. Features of the area are noted on Figure 4.3 and in the “Existing Platform Area Profile” information boxes that accompany this section.

This area is at the junction of four main roads and travel corridors, and therefore has the potential to directly serve the populations of four out of the six travel corridors studied in the greater Wasilla area. As the “Travel Pattern Analysis” information box shows, this area is on a main route to and from work for 84% of the population studied. Some living in the Knik-Goose Bay Travel Corridor may not choose to travel by the facility, however, given that they have an alternative—the Palmer-Wasilla Highway extension to the Parks Highway. Populations in the other two travel corridors (16% of the total studied) would need to travel out of direction to reach the location.

Site Specific Design Challenges

The range of alternatives developed at or in the area of the current Alaska Railroad platform was influenced by a set of overarching, site-specific design considerations, including the need to:

- Avoid or minimize impacts to developed property in the area by primarily using existing rail or road rights of way.
- Fit the station and its facilities on this unique piece of property, which is long and thin, as well as sloped (about a 25% or 14 degree slope).
- Protect passenger safety by locating both the station and the parking lot on the same side of the tracks.

Conceptual-level engineering identified the following alternatives at this location (see Figure 4.3): *No Action Alternative; South of Tracks Alternative; and North of Tracks Alternative.*

None of these alternatives includes a maintenance facility. The land in this area is limited, so locating a maintenance facility (a 250-by-500-foot building) or an overnight shed (30 by 300 feet) here would take away from the area available for parking. Because parking is a needed feature of the intermodal facility and a maintenance building is not, co-location of the maintenance facility in this area is not considered feasible.

Current Platform Area Profile: Travel Pattern Analysis*

This area is at the junction of four main roads and therefore has the potential to directly serve the populations of four out of six travel corridors.

Travel Corridor	Population	This area is on the
Wasilla-Fishhook-Bogard	11,045	main route to and
Big Lake-Houston	8,303	from work for
Knik-Goose Bay	6,614	84% of the
North Church-Lucas	4,365	population studied.

*A location-specific analysis of travel patterns and travel corridors discussed in Chapter 2 and presented on Figure 2.6.

Existing Platform Area Profile:

Existing and Planned Development

Commercial	<i>Existing:</i> This area is a center of commercial activity, with businesses such as Carrs Quality Center (multipurpose grocery), restaurants, and gas stations. Commercial development occurs on both sides of the highway, but is more pronounced on the north. <i>Planned:</i> The comprehensive plan calls for further development/infilling of commercial areas north and south of the highway in this area.
Residential	<i>Existing:</i> Scattered residential development is within walking distance. <i>Planned:</i> Future use of this area is planned as largely commercial.
Government	<i>Existing:</i> Main Street is home to many public or semi-public buildings such City Hall, the fire station, the post office, and library. It is also the location of the Visitors Center, Wasilla Museum, and Historic Block, and is therefore a tourist destination. <i>Planned:</i> Expansion of Historic Block.
Other	<i>Existing:</i> The historic depot was added to the National Register of Historic Places in 1977. It houses the Chamber of Commerce. A Senior Campus, an assisted and non-assisted living complex for seniors, is approximately 1 mile south of the depot intersection.

Existing and Planned Transportation Facilities

Rail	<i>Existing:</i> Tracks, two sidings, rail platform*, small parking lot. <i>Planned:</i> Road-rail grade separation at Parks Highway-Knik Goose Bay Road intersection. See Appendix A. When the train passes through the area, the train set blocks travel on Knik-Goose Bay Road.
Transit	<i>Existing:</i> None. MASCOT offers two trips daily to Eagle River from the Wasilla Senior Campus (Knik-Goose Bay Road/Palmer-Wasilla Highway intersection, 1 mile away). <i>Planned:</i> A shared City/MASCOT bus storage and maintenance facility is in development south of the platform, on East Centaur Avenue.
Road	<i>Existing:</i> Major roads as noted on Figure 4.3. <i>Planned:</i> Parks Highway improvements; road/rail grade separation at Knik-Goose Bay Road intersection; capacity improvements along Knik-Goose Bay /Main Street/Wasilla-Fishhook (widening in the current alignment or constructing a couplet). See Appendix A.
Trail	<i>Existing:</i> Sidewalks in downtown area. <i>Planned:</i> Pedestrian facilities planned along Parks Highway.

*The Alaska Railroad stops briefly at the platform, on two runs, as noted in Chapter 2.

No Action Alternative : Existing Parking Area and Current Platform

Existing Conditions: The Alaska Railroad platform is located at the corner of the Knik-Goose Bay Road and the Parks Highway, one of the busiest intersections in Wasilla. When passengers are unloading and loading, the train blocks the crossing on the Knik-Goose Bay Road. The depot has a very small platform that creates a safety hazard for waiting passengers. While people are waiting for the train, oftentimes they are waiting too close to the tracks. The railroad crossing interferes with the functionality and efficiency of the intersection and causes railroad safety concerns.

A project to grade separate the crossing is underway. (See Appendix A.) Improvements that result from this project would likely require the area on which the platform now sits.

General Concept: This alternative does not accommodate commuter-rail design standards, but it is included in this report to allow a comparison between build and no-build alternatives.

Key Features: Key features of the existing facility are listed below and compared to recommendations.

Feature	Recommended Design Criteria	Existing Facility
Station Capacity	150 people	104 people *
Parking Capacity	300 vehicles (334 by 471 feet)	12 vehicles (80 by 55 feet)
Platform	300 by 10 feet	220 by 10 feet
Waiting Area	Enclosed, Heated 66 by 33 feet	50 by 30 feet*
Passing Siding	6,000 feet	1 mile
Station Siding	500 feet	No siding

* The building currently houses the Greater Wasilla Chamber of Commerce, and is not available for commuters.

South of Tracks Alternative

General Concept. This alternative, depicted in yellow on Figure 4.3, tests the feasibility of placing the building, platform, and station siding (a passing siding already exists in this area) on the south side of the tracks. The narrow strip of land on which the existing platform/historic depot sits does not provide enough room for the new siding and station. If the station is located to the east, however, as noted on Figure 4.3, both station and siding can fit.

Key Features: This alternative includes the building, station siding, platform, parking (for the recommended 300 cars), and transit and pedestrian connections. Pedestrians could connect to the facility via the Parks Highway pedestrian underpass currently under construction.

North of Tracks Alternative

General Concept. This alternative (in pink on Figure 4.3) tests the feasibility of placing the facility including station, platform, station siding, and parking area on the north side of the tracks. Locating a facility in the narrow strip of land north of the tracks and south of the Parks Highway is even more difficult than siting the facility on the south side because the land’s developable area is further narrowed by a railroad requirement for a 25-foot separation distance between buildings or fences and the centerline of the mainline track. Planned Parks Highway improvements will further constrain the land available for siting a station north of the tracks.

Key Features: This alternative includes the building, station siding, platform, parking, and transit and pedestrian connections. The station is slightly altered from the recommended rectangular structure (66 by 33 feet) to an unusually long and narrow structure (16 by 136 feet) so it fits the site. Also, the parking area is half the recommended size, only accommodating about 150 vehicles. Pedestrians could connect to the facility via the Parks Highway pedestrian underpass currently under construction.



Placeholder page for figure 4.3 Current
Alaska Railroad Platform Alternatives



How Do Alternatives at the Existing Platform (Historic Depot) Compare?

Evaluation Criteria	Shared Characteristics Across all Existing Platform (Historic Depot) Alternatives		
Support of Existing Land use Policies and Patterns	For all three alternatives: locates the station near support services, allowing users to easily combine other trip purposes (like shopping) with the commute trip. Also locates the station in a highly visible area of the city, which maximizes exposure and could encourage use.		
Mobility Improvements	For all three alternatives: <ul style="list-style-type: none"> • Locates the station in the direction of the commute trip for 84% of the greater Wasilla area population studied. (See Chapter 2, "Travel Patterns," and Figure 2.6 for details.) • Does not alleviate (and in fact could add to) the area's traffic congestion, because some who avoid this intersection would be required to travel to it to catch the train. (Traffic east of the station, however, would be reduced.) Traffic congestion in this area could have a negative impact on people's decision to travel to this station now or in the future. 		
	North of Tracks Alternative	South of Tracks Alternative	No Action Alternative
Support of Existing Land Use	<ul style="list-style-type: none"> • Uses only existing railroad rights-of-way, and therefore is consistent with existing and future land use. 	<ul style="list-style-type: none"> • Requires use of three residential parcels. 	<ul style="list-style-type: none"> • No change in land use.
Technical Feasibility	<ul style="list-style-type: none"> • Accommodates design criteria for the station building, station siding, and platform, but not the recommended parking lot. Given site constraints, the parking lot would: <ul style="list-style-type: none"> ○ Fit only half the recommended number of cars. ○ Have a long and narrow design, resulting in a long walk (approximately 1,000 feet) for those who park in the spaces farthest from the station and higher than typical construction costs. 	<ul style="list-style-type: none"> • Fits the station building, station siding, platform, and parking area. The building would be longer and narrower than is typical, given site constraints. • Requires excavation and earthwork due to elevation difference between tracks and road. 	<ul style="list-style-type: none"> • The existing facility would not accommodate the number of people or vehicles anticipated to use commuter rail. This alternative would not adequately support commuter rail riders, and therefore would not meet the goals of this project.
Mobility Improvements	<ul style="list-style-type: none"> • Requires users to access the station via the Parks Highway. Access would be restricted to only right turns into and out of the parking area because of the one-way, southbound lanes of the Parks Highway. This requirement would likely deter use by commuters coming from the east. The internal traffic system would be designed to accommodate passenger drop off by transit or private vehicles. 	<ul style="list-style-type: none"> • Requires users to access the station via Knik-Goose Bay Road and East Railroad Avenue. The internal traffic system would be designed to accommodate passenger drop off by transit or private vehicles. 	<ul style="list-style-type: none"> • On a southbound trip, would not address the existing problem of trains at the platform blocking vehicle traffic on Knik-Goose Bay Road. On a northbound trip, the commuter train would not block the road, but half the train would not be adjacent to the platform. In this scenario, the crossing flasher and gate sensor would need to be redesigned to open again when the train is stopped at the station.
Environmental Consequences	<ul style="list-style-type: none"> • Likely requires fencing the station so that people cannot cross the tracks to access the station. This fence could have a negative impact on the area's aesthetics. 	<ul style="list-style-type: none"> • Also likely requires a fence around the station. • Requires grading and/or excavating into the knoll (a 25% or 14 degree slope) east of the existing station. 	<ul style="list-style-type: none"> • No new impacts.
Cost-Effectiveness	<ul style="list-style-type: none"> • Significantly complicated by a concurrent Alaska Railroad project to eliminate the at-grade crossing of Knik-Goose Bay Road and the railroad tracks. To eliminate this existing crossing, as well as other new road-rail crossings that could result from improvements to Main Street, the Alaska Railroad is studying options to run the tracks over the road or the road over the tracks. The footprint of several alternatives overlap with this alternative's footprint (see Appendix A). 	<ul style="list-style-type: none"> • Also significantly complicated by the grade separation project mentioned to the left and in Appendix A. By shifting the station to the east, this alternative somewhat reduces the impact of potential road/rail improvements at the Knik-Goose Bay Road intersection. 	<ul style="list-style-type: none"> • The footprint needed to eliminate the at-grade crossing of Knik-Goose Bay Road and the railroad tracks (see Appendix A) would likely require the area on which the historic depot/current platform currently sits.
Conceptual-Level Cost (See Appendix B for details.)	Estimated Cost: \$6,600,000	Estimated Cost: \$6,900,000 <i>(Does not include costs for excavation or earthwork.)</i>	Not Applicable

Reasonable Current Alaska Railroad Platform (Historic Depot) Alternatives

The North of Tracks Alternative is dropped from further consideration because its parking lot would be too problematic—it cannot accommodate the recommended parking lot size, and its configuration is flawed in that it requires the lot boundaries to be located too far from the station. Moreover, access to a station north of the tracks would be restricted to right turns only to and from the Parks Highway. The South of Tracks Alternative, however, is considered reasonable (technically feasible, generally consistent with land-use policies, associated with improved commuter mobility and railroad operations), and therefore should be carried forward for further evaluation in subsequent phases of project development. The No-Action Alternative should be carried forward to allow a comparison between build and no-build alternatives as required by the National Environmental Policy Act.



Kenai Supply Area Alternatives

Formerly owned by the Kenai Supply Company, the area located near the intersection of the Palmer-Wasilla Highway and Parks Highway is now owned by the DOT&PF, who uses the site as a project construction office and base of operations for work in the area. The site sits between a small, undeveloped knoll and commercial properties on the south side of the Parks Highway. Key features of the area are noted on Figures 4.4 and 4.5 and in the “Kenai Supply Area Profile” information boxes that accompany this section.

Who might use this intermodal facility? According to this study’s analysis of population areas and travel corridors, between 84% and 94% of the greater Wasilla area population could find a facility at this location convenient. The populations of the Wasilla-Fishhook-Bogard, North Church-Lucas, Big-Lake Houston, and Knik-Goose Bay Road Travel Corridors could drive by the facility on route to their commute destination. Some out-of-direction travel would be required for a portion of the nearly 4,000 people (see the information box below) who live in the Palmer-Wasilla-Seward Meridian Travel Corridor. For those who would normally access the Parks Highway via Seward Meridian Parkway, a facility in this area would not be as conveniently located as one located farther east.

Kenai Supply Area Profile: Travel Pattern Analysis*	
Is the Location On Route to Commute Destination?	The travel corridor populations with the potential to drive by this location on route to their destinations are listed below. These population totals would fall somewhere between 84% and 94% of the greater Wasilla area population, and in part indicate the potential for use of this facility. The percentage noted above accounts for the fact that a portion of the Palmer Wasilla-Seward Meridian Travel Corridor population lives east of the Seward Meridian Parkway and would therefore need to backtrack to reach an intermodal facility at this location.
Travel Corridor	Population
Wasilla-Fishhook-Bogard	11,045
Big Lake-Houston	8,303
Knik-Goose Bay	6,614
North Church-Lucas	4,365
Palmer Wasilla-Seward Meridian	3,924

*A location-specific analysis of the travel patterns and travel corridors discussed in Chapter 2 and presented on Figure 2.6.



A major commercial hub, including (A) the Fred Meyer Complex and (B) the Cottonwood Creek Mall, is located at the intersection of the Palmer-Wasilla Highway and the Parks Highway. This intersection sees a lot of traffic too—this segment of the Parks Highway has the highest average daily traffic count.

Site-specific Design Challenges

The range of preliminary alternatives on the former Kenai Supply Company property was influenced by the following overarching design considerations:

- The need to maximize the use of DOT&PF property to minimize impacts to private development.
- The need to support the Alaska Railroad policy to avoid or eliminate at-grade rail and road crossings.
- The need for any design to accommodate the steep knoll that abuts the property.

Given these site-specific design constraints, conceptual-level engineering identified four potential alternatives, listed below and depicted on Figures 4.4 and 4.5:

- Outside of Curve Alternative
- Inside of Curve Alternative
- Pedestrian Overpass Alternative
- Gravel Extraction Alternative

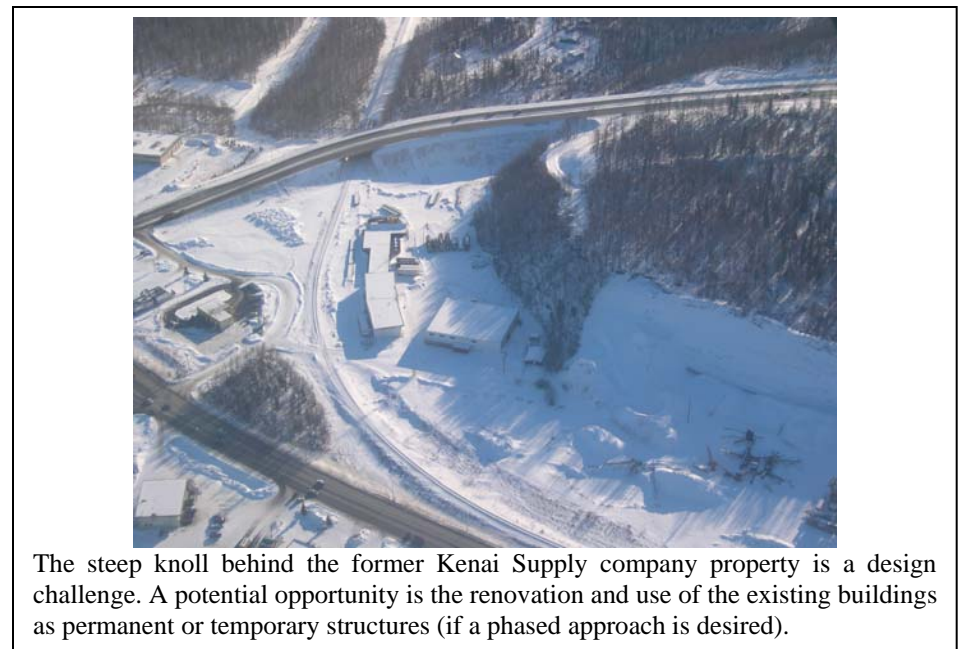
Siting a 6,000-foot passing siding in this area is possible under any of the alternatives. The abutments that support the Palmer-Wasilla Highway bridge are wide enough for two parallel tracks, and the area north of the bridge abutments is wide enough to accommodate the main line, passing siding, and station siding. Any of these alternatives also could include a maintenance facility but the industrial nature of this building would not be visually appealing to residents or travelers.

Site-Specific Opportunities

There is some potential to renovate and use the existing buildings on the property for an overnight storage shed, the building, or Maintenance of Way activities (currently located in small buildings to the west). Or, if a phased approach to the project is desired, renovation could allow for temporary structures until the project is fully on-line. More study is needed

to determine the costs associated with renovating the existing buildings to comply with structural, mechanical, electrical, or other building codes. This evaluation is needed because significant renovation oftentimes can rival the cost of constructing a new building. The photograph below shows the existing buildings. The existing rectangular building’s size would likely accommodate an overnight shed or the station itself (with additional room for other activities). The square building’s size would likely accommodate the station and provide some extra space for some other purpose. Further study is needed to determine if either building could be adequately renovated for these purposes.

This location also offers opportunities for connection to the pedestrian tube currently under construction under the Parks Highway near Crusey Street.



The steep knoll behind the former Kenai Supply company property is a design challenge. A potential opportunity is the renovation and use of the existing buildings as permanent or temporary structures (if a phased approach is desired).

Kenai Supply Building Area Profile: Existing and Planned Transportation Facilities	
Rail	Existing: Tracks that run along the property’s eastern and northern boundaries. Planned: No projects planned for this area.
Transit	Existing: No transit facilities are currently located in this area. Planned: No transit facilities are currently planned in this area.
Road	Existing: The site is located at the junction of two main traffic corridors: the Parks Highway and the Palmer-Wasilla Highway. This area is one of the most traveled points within the city limits. Planned: The Parks Highway will be upgraded to four travel lanes (two in each direction).
Trail	Existing: A separated, paved bike trail runs along the Palmer-Wasilla Highway from the Fred Meyer complex to Palmer. Planned: Pedestrian improvements are planned along the Parks Highway.



**Kenai Supply Building Area Profile:
Existing and Planned Development**

Commercial

Existing: This area is a node for commercial development, including the Cottonwood Creek Mall (a mix of retail, service, and restaurant businesses) and Fred Meyer (grocery, home improvement, gifts).

Planned: The comprehensive plan calls for further development/infilling of commercial areas north and south of the highway in this area.

Residential

Existing: The area north of the highway has scattered residential development. The area west of the knoll, south of the highway, is not developed currently but is zoned residential.

Planned: The comprehensive plan calls for infilling this area with largely commercial development.

Inside of Curve Alternative

General Concept: The focus of this alternative is to maximize the use of the former Kenai Supply Company property (now owned by DOT&PF), as well as the existing buildings. To do this, the station siding has been designed as a tangent section of track inside the curve.

Key Features:

This alternative includes the station, platform, station and passing siding, parking area, and transit and pedestrian connections. It is noted in yellow on Figure 4.4. This alternative also involves closing the property's at-grade road crossing with the railroad tracks to prohibit car and passenger movement across the tracks. Closing the road is necessary for safety and because the commuter train stopped at the facility could block access across the road. With the property's road crossing closed, two new access roads would need to be constructed: from the west through the gravel pit and from the south down the hill. Access from the west would extend from East Susitna Avenue and cross the gravel pit. Access from the south would occur by descending a steep 80-foot-high hill. A 6% road would require a length of 1,300 feet to descend this hill.

Outside of Curve Alternative

General Concept: This alternative (depicted in pink on Figure 4.4) was developed to explore possibilities for siting an intermodal facility in a way that would better tie the facility to adjacent support services and existing roads. The Outside of Curve Alternative explores locating the facility on the outside of the curve to make use of the existing street network for access. The Alaska Railroad would need to acquire the two triangular parcels outside of the track curve for parking. (These parking areas, however, come up short by approximately 30,000 square feet or 50 to 60 parking spaces when compared to recommended design standards.)

Key Features: To fit the recommended building size and parking area at this location, two parking areas and two buildings on either end of a station siding would need to be constructed. The commuter train would make one stop, and passengers would walk on the covered platform to board the train. Both triangular shaped parking lots, however, do not accommodate the recommended number of cars (instead of holding 300 cars, together they

would hold 240-250). One common platform is important so the train only makes one stop and each parking area provides convenient access to the facility. This alternative also involves closing the property's at-grade road crossing with the railroad tracks to prohibit car and passenger movement across the tracks. Financial Drive would provide access to the facility.

Pedestrian Overpass Alternative

General Concept: This alternative (depicted in pink on Figure 4.5) was developed as a combination of the other two alternatives. It places the facility on the inside of the curve on the former Kenai Supply Company property, locates some parking (and, in general, direct access to the facility) on the outside of the curve, and provides a pedestrian overpass to bridge the tracks and connect the parking to the station. To accommodate the recommended parking area size, and to provide access to users who cannot negotiate the stairs associated with a typical pedestrian overpass, this alternative also includes a parking area on the inside of the curve, near the station. The west (and potentially south) access roads discussed above under the Inside of Curve Alternative are therefore a component of this alternative, as well.

Key Features: The unique feature of this alternative is the pedestrian overpass, which provides access to the station access over the tracks. This overpass is envisioned as a bridge with stairs on either side. Access to the station for people with disabilities would be provided by the south and west

access roads. ADA approved parking would be a component of the parking area located nearest the station, on the inside of the curve. Another option at this site could be to abandon the inside of curve parking area and access roads, acquire more property on the outside of the curve to expand the parking area, and construct an ADA accessible pedestrian overpass. A split-level building, for example, could allow the overpass to connect to the building on the second floor. Elevators would be needed on both sides of the overpass to make the facility ADA accessible.

Gravel Extraction Alternative

General Concept: This alternative (depicted in yellow on Figure 4.5) was developed to further explore possibilities for siting a facility in the general area. The Gravel Extraction Alternative locates the intermodal facility west of the former Kenai Supply Company in the private gravel pit adjacent to the Parks Highway.

Key Features: This alternative includes the building, platform, station and passing siding, and parking area. The facility would be located on the south side of the tracks, so access to and from the facility would also occur south of the tracks. The West Access Road would be a short connection to East Susitna Avenue, which eventually connects to Knik-Goose Bay Road. The South Access Road would use the alignment proposed under the Inside the Curve Alternative, and then continue west across the former Kenai Supply Company property to the commuter rail site.

How are the Kenai Supply Area Alternatives similar?

Evaluation Criteria	Shared Characteristics Across all Alternatives
<i>Technical Feasibility</i>	<ul style="list-style-type: none"> At any of these locations, the station building, platform, and station and passing sidings would fit. The Outside of Curve alternative includes a smaller-than-recommended parking area (smaller by about 30,000 square feet or 50-60 vehicles). The Inside the Curve and Gravel Extraction Alternatives accommodate the parking area as recommended. The Pedestrian Overpass Alternative provides the opportunity for more parking than recommended (recommended size parking area inside the curve plus the two triangular parking areas outside the curve).
<i>Existing Land use Policies and Patterns</i>	<ul style="list-style-type: none"> At any of these locations, the station would be near support services and in a highly visible area of the city, which could promote commuter rail use. All would impact private residential or commercial property.
<i>Mobility</i>	<ul style="list-style-type: none"> This area of the city is in the direction of the commute trip (no backtracking) for the populations living in five of the six travel corridors. This population total represents 84-94% of total travel corridor population used in this study (see Figure 2.6 and Chapter 2, "Travel Patterns"). The following page discusses dissimilarities associated with each alternative's access road. These alternatives do not alleviate traffic congestion at the Palmer-Wasilla Highway intersection or in the western section of the city (including the downtown area), because people would continue to travel on these roadways to access the facility.
<i>Operations</i>	<ul style="list-style-type: none"> Any of these locations would eliminate the property's at-grade intersection with the railroad tracks, which supports one of the Alaska Railroad's system-wide goals. Any of the alternatives could technically accommodate a 30-by-300-foot overnight shed, but the industrial nature of the building would not enhance the natural surroundings. A new 250-by-500 foot maintenance facility could be constructed between the tracks and the knoll if part of the knoll were excavated, but the tracks to the facility would cross the west access road. A 6,000-foot passing siding would fit for any of the alternatives.



PLACEHOLDER PAGE FOR FIGURE 4.5 INSIDE AND OUTSIDE OF CURVE ALTERNATIVES



How do the Kenai Supply Area Alternatives differ?

Evaluation Criteria	Inside of Curve Alternative	Outside of Curve Alternative	Pedestrian Overpass Alternative	Gravel Extraction Alternative
Support of Land Use	<ul style="list-style-type: none"> Impacts six private commercial or residential parcels for the access road. Impacts no private parcels for the station. 	<ul style="list-style-type: none"> Impacts two residential or commercial parcels for the parking area. No impacts to private parcels for the access road. 	<ul style="list-style-type: none"> Impacts two residential or commercial parcels for parking area outside of the curve. Impacts six private commercial or residential parcels for the access road (access road is needed to provide ADA access to the facility and to connect to the additional parking area on the inside of curve). 	<ul style="list-style-type: none"> Impacts two commercial parcels for the parking area. Impacts four private commercial or residential parcels for the access road
Support of Travel Patterns	<ul style="list-style-type: none"> Does not conveniently support travel patterns. Requires commuters who would normally pass by the property to travel an added distance on the west and south access roads. The required travel time on an access road would take commuters out of direction and through the congested Knik-Goose Bay Road and Palmer-Wasilla Highway intersections. 	<ul style="list-style-type: none"> Supports existing and future travel patterns by allowing users to access the station from their normal travel route. Does not require commuters to travel out of direction or any extra distance to reach the intermodal facility. 	<ul style="list-style-type: none"> Supports existing and future travel patterns by allowing travelers to access the station from two locations on the Palmer-Wasilla Highway, one location on the Parks Highway, and one location on Knik-Goose Bay Road. 	<ul style="list-style-type: none"> Does not conveniently support travel patterns, as noted under the Inside of Curve Alternative.
Mobility Improvements	<ul style="list-style-type: none"> Limits direct access to the intermodal facility from adjacent roads and commercial hub. Travelers on the Parks Highway would need to access the station via the Palmer-Wasilla Highway extension or Knik-Goose Bay Road. Prohibits easy pedestrian access by placing the station on the south side of the tracks. 	<ul style="list-style-type: none"> Allows easy vehicle access from the Parks Highway and the Palmer-Wasilla Highway. Allows easy connections for commuting pedestrians and bicyclists, as well as to and from the commercial establishments in the area. Accommodates fewer users in the parking area. 	<ul style="list-style-type: none"> Allows easy vehicle and pedestrian access, as noted under Outside of Curve Alternative. 	<ul style="list-style-type: none"> Could serve nearby residential areas (possibly with pedestrian connections), if the area west of the knoll and south of the highway is developed with residences, as current zoning allows. Limits direct access to the station from adjacent roads and commercial hub.
Environmental	<ul style="list-style-type: none"> Requires approximately 4,000 feet of new access roads (south and west). The south access road would descend a steep, 80-foot-high hill, and would be 1,300 feet long to achieve a 6% grade. 	<ul style="list-style-type: none"> Has a smaller total footprint (no access road required). 	<ul style="list-style-type: none"> Requires approximately 4,000 feet of new access roads (south and west) to provide ADA access to the station. The south access road would descend a steep, 80-foot high hill, and would be 1,300 feet long to achieve a 6% grade. 	<ul style="list-style-type: none"> Same impacts associated with south and west access roads.
Conceptual-Level Cost (See Appendix B for details.)	<p>Low Estimated Cost: \$8,300,000; total includes the access roads. High Estimated Cost: \$9,100,000; total includes the access roads. <i>High and low estimates reflect difference between partial or full purchase of parcel(s). See Appendix B.</i></p>	<p>Estimated Cost: \$7,200,000 <i>High and low estimates do not apply because full parcel required. See Appendix B.</i></p>	<p>Low Estimated Cost: \$9,500,000; total includes the access roads and ped. overpass. High Estimated Cost: \$9,800,000; total includes the access roads and ped. overpass. <i>High and low estimates reflect difference between partial or full purchase of parcel(s). See Appendix B.</i></p>	<p>Low Estimated Cost: \$8,300,000; total includes the access roads. High Estimated Cost: \$9,000,000; total includes the access roads. <i>High and low estimates reflect difference between partial or full purchase of parcel(s). See Appendix B.</i></p>

Reasonable Kenai Supply Area Alternatives

All of these alternatives are considered reasonable. All are technically feasible (even though the Outside of Curve Alternative does not meet parking area size recommendations), generally consistent with land use policies, and associated with improved commuter mobility and railroad operations. Each alternative, therefore, should be carried forward for further evaluation in other phases of project development. Also, the potential to renovate the existing buildings should be explored further. From this level of analysis, the Pedestrian Overpass Alternative is the recommended alternative at this location because it would provide more direct access to and from the Parks Highway and the nearby commercial hub, as well as accommodate the recommended size for the parking area. The Pedestrian Overpass Alternative also offers opportunities for developing the project in phases, especially if use of the existing buildings is possible. Phase 1 could lay the station siding, build the platform, renovate or construct the station, and develop some parking near the station on the inside of the track. The property's at-grade crossing of the track could be maintained temporarily to provide access to the station and parking area. Phase 2 could construct more parking, the pedestrian overpass, and the south and west access roads. The property's at-grade intersection with the tracks would be eliminated at that time.



PLACEHOLDER PAGE
FOR Figure 4.5 Gravel Extraction



Fairview Loop Area

This area was proposed to test locating an intermodal facility on the eastern edge of the city, where it could conveniently serve population areas north and south of the Parks Highway. Of particular interest in locating the facility in this area was the ability to attract commuters who use Fairview Loop Road as the main travel corridor. The Wasilla Intermodal Steering Committee indicated that the area's population and development has recently increased, and will likely continue to do so, given the supply of available, developable land. (In fact, the land use analysis completed for this study indicates that 41% of the parcels in the Fairview Loop Travel Corridor are vacant.) The area south of the Seward Meridian Parkway near Wal-Mart was chosen as the best location to attract the populations on either side of the Parks Highway. Key features of the area are noted on Figures 4.6 and in the "Fairview Loop Area Profile" information boxes that accompany this section.

According to this study's analysis of population areas and travel corridors, the population of the Fairview Loop Travel Corridor is 2,000, or roughly 6% of the population studied. Commuters from this population group would need to travel somewhat out of direction to access the facility, but only by a few miles. However, when the Parks Highway/Seward Meridian Parkway interchange, Seward Meridian extension, and Old Matanuska Road improvements are complete, this direction of travel will likely be the main travel route to the Parks Highway anyway. This location, on the main route of travel for the other Travel Corridors, would offer the most people the fewest number of additional miles traveled out of direction to reach the facility.

Site-Specific Design Challenges

The range of alternatives in the Fairview Loop Area was influenced by the following overarching design considerations:

- The need to locate the facility where it would be served by adequate existing rail or road infrastructure.
- The need to site the facility in a location with direct road connection to the Parks Highway (to better capture travelers on the highway).
- The need for any design to maximize the use of the area's limited flat terrain.
- The need to locate the facility so that passengers or vehicles need not cross the tracks.



The location for an intermodal facility in the Fairview Loop area is southwest of (A) Sears, (B) a commercial plaza, and (C) Wal-Mart.

Given these design considerations, conceptual-level engineering identified one alternative, the Seward Meridian Alternative, with two variations:

- Seward Meridian Alternative—Existing Track
- Seward Meridian Alternative—Realigned Track

**Fairview Loop Area Profile:
Travel Pattern Analysis***

- The population of the Fairview Loop Travel Corridor is just over 2,000, or roughly 6% of the total population studied.
- An intermodal facility in this area would offer the most people the fewest number of additional miles traveled out of direction to reach the station.

*A location-specific analysis of travel patterns and travel corridors discussed in Chapter 2 and presented on Figure 2.6.

Figure 4.6 depicts an alternative on the existing alignment. Figure 4.7 (as well as figures included in Appendix A) depicts the facility in relation to a new, straighter track alignment under consideration in the South Wasilla area. See Appendix A for details on the South Wasilla Track Realignment Project. This is a concurrent Alaska Railroad project to straighten the curves along the mainline track between mileposts (MP) 154 and 158.

Seward Meridian Alternative – Existing Tracks

General Concept: This alternative is located on a parcel of land south of Wal-Mart and east of the City's sewage treatment plant (see adjacent photo and Figure 4.6). It is sited on this undeveloped parcel partly because the Alaska Railroad is examining this property as part of South Wasilla Track Realignment Project, and partly because this area will be well-connected to the road network, providing good access to and from the Parks Highway, Old Matanuska Road, and Seward Meridian Parkway. (By the time a facility is constructed, the road extension of Seward Meridian Parkway south will be complete.) This area is also connected to Fairview Loop Road via Old Matanuska Road. This alternative places the facility on the existing tracks in this area.

Key Features: This location accommodates the requirements for the station building, station siding, platform, parking area, and transit and pedestrian connections. Locating the maintenance facility and passing siding in this area is possible, but given the topography, likely expensive. Making a facility work in this area, however, requires Old Matanuska Road to be realigned (to allow room for the building and parking lot between the road and the tracks), as well as upgraded to handle the additional traffic. See Figure 4.6. The Seward Meridian Parkway extension to Old Matanuska Road is a key component of this alternative. This extension has been designed and will be built during the next phase of Parks Highway improvements.

Seward Meridian Alternative – Realigned Tracks

General Concept: This alternative applies the facility discussed above to two, new alignments under study as part of the South Wasilla Track Realignment Project. Figure 4.7 depicts an option for siting the facility on the north side of one alignment. Another figure in Appendix A depicts a scenario for siting the facility on the south side of the tracks, as well as on a slightly different alignment.

Key Features: The realignment of Old Matanuska Road is a component of the South Wasilla Track Realignment Project and is depicted on Figure 4.7, as well as in the other options included in Appendix A.



PLACEHOLDER INSERT FIGURE 4.6 SEWARD EXISTING



Fairview Area Profile:

Existing and Planned Transportation Facilities

Rail *Existing:* Alaska Railroad tracks in this area do not directly parallel the Parks Highway; constructed before 1920, the tracks follow existing geographical contour lines, resulting in significant curvature in the alignment, as well as a number of at-grade crossings with the local street network.
Planned: The Alaska Railroad is currently preparing an environmental assessment to present and analyze environmental consequences of straightening the track in this area. (See Appendix A.)

Transit *Existing:* No transit facilities are currently located in this area.
Planned: No transit facilities are currently planned in this area.

Road *Existing:* The area's road network consists of the Parks Highway, recently improved with additional lanes and on and off ramps to Fairview Loop and Hyer Roads, as well as the Seward Meridian Parkway, which is a major access point to properties north of the Parks Highway. The Seward Meridian Parkway terminates just south of the Parks Highway at the entrance to Wal-Mart.
Planned: Future construction will include an interchange at the Parks Highway-Seward Meridian intersection and an extension of the Seward Meridian Parkway to Old Matanuska Road.

Fairview Area Profile:

Existing and Planned Development

Commercial *Existing:* A center of commercial development, including Wal-Mart, Sears, and a small mall containing an assortment of retail and service-oriented businesses, is located at the intersection of the Parks Highway and Seward Meridian Parkway.
Planned: Zoning indicates that with a Seward Meridian extension south, commercial development would infill the area.

Residential *Existing:* Little residential development occurs within walking distance of the Seward Meridian-Parks Highway intersection. Residential properties are located along Old Matanuska Road (between the railroad and the highway), as well as along Fairview Loop Road.
Planned: Residential development in this area is anticipated to increase south of the Parks Highway.

How Does the Seward Meridian Alternative Measure against the Criteria?

Evaluation Criteria	Seward Meridian Alternative
Technical Feasibility	<ul style="list-style-type: none"> Fits the station building, platform, station siding, and parking area. The parking area associated with Option 1 on a realigned track (Figure 4.7), however, places the parking area at the toe of an embankment. Without excavation and retaining walls, this parking area falls short of the recommended size (by about 30,000 square feet or 50 to 60 cars). Requires atypical construction of the station to accommodate the area's topography. Siting the tracks and the parking area at the same elevation is problematic in this area, possibly requiring a two-level station. Travelers would enter the second floor of the station from the adjacent parking area and use an elevator to reach the platform on the station's ground floor.
Mobility	<ul style="list-style-type: none"> Locates the station in the direction of the commute trip (no backtracking) for the majority of populations living in the six travel corridors.
Land Use Policies and Patterns	<ul style="list-style-type: none"> Sites the station in a location that offers convenient access to commercial hubs (upon completion of the Seward Meridian Parkway extension). The opportunity to easily stop at the grocery store as part of the commute trip is considered an important way to attract riders. Places the station in an area not visible from the highway and the normal travel pattern. This limited exposure could limit ridership.
Environmental	<ul style="list-style-type: none"> Requires realigning Old Matanuska Road.
Cost Effectiveness	<ul style="list-style-type: none"> Sites the station completely on property that the Alaska Railroad is examining as part of the South Wasilla Track Realignment Project.
Conceptual-Level Cost (See Appendix B for details.)	<p>On Existing Track Estimated Cost: \$7,600,000 (low) or \$7,700,000 (high). On Realigned Track Estimated Cost: \$6,500,000 (low) or \$6,600,000 (high).</p>

Reasonable Fairview Area Alternatives

Further consideration is recommended for one or more Seward Meridian alternative. What is considered reasonable at this location depends on the outcome of the South Wasilla Track Realignment Project. The alternatives on the existing or realigned tracks are all technically feasible, generally consistent with land use policies, and associated with improved commuter mobility and railroad operations.



PLACEHOLDER FOR FIGURE 4.7 SWTR SEWARD
MERIDIAN

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Chapter 5: Recommendations

Introduction

The focus of this report has been to discuss the need for and location of intermodal transportation facilities in the context of the planned commuter rail service, as well as Wasilla's human, built, and natural environment. The study's goals have been to:

- Examine the four locations identified by the Wasilla Area Intermodal Steering Committee.
- Develop alternatives at each of those locations.
- Evaluate the alternatives.
- Identify the alternatives that should be dropped from consideration and those that should advance to the next stage in the project development process.
- Make recommendations related to commuter rail operations, particularly related to the location of a commuter rail maintenance facility

The study's recommendations relating to these topics are presented below.

Recommended "Reasonable Alternatives"

The following presents the list of "reasonable" alternatives. These alternatives should advance to the next stage of project development and evaluation. Where clear distinctions exist among alternatives at a given location, those distinctions are noted.

Airport Area Alternatives To Advance

- Sports Complex Site
- Airport Master Plan Site
- The Sports Complex Site represents the better option at this site from the standpoint of commuter mobility and railroad operations. Access to the facility would be shorter and more direct, and therefore more likely to attract riders. Also, the Sports Complex Site is the only location that would accommodate a 250-by-500-foot maintenance building.

Current Alaska Railroad Platform Alternatives to Advance

- South of Tracks Alternative
- The No-Action Alternative (existing platform) is not a reasonable alternative. It should be carried forward for analysis only because a no-build alternative is required by the National Environmental Policy Act.

Kenai Supply Area Alternatives to Advance

- Outside of Curve Alternative
- Inside of Curve Alternative
- Pedestrian Overpass Alternative
- Gravel Extraction Alternative

- The Pedestrian Overpass Alternative represents the better option at this site because it combines the best features of other alternatives. It allows pedestrians and vehicles an opportunity to access the site directly from main road corridors without traveling out-of-direction on a long access road, yet it also maximizes the use of the DOT&PF property in the area.
- In association with these alternatives, the potential to renovate the property's existing buildings should be explored further.

Fairview Loop Alternatives to Advance

- Seward Meridian Alternative—North and South Side of the Tracks
- Options for placing the facility north and south of the track should be explored further in context with the preferred track alignment that results from the South Wasilla Track Realignment Project.

Recommended Maintenance Building and Passing Siding

As the table below summarizes, the Sports Complex Site offers the best location for a maintenance facility. The industrial and undeveloped nature of the area is compatible with this use. The available, undeveloped land; flat topography; and City ownership makes it possible to more easily and cost-effectively accommodate the building's recommended size (250 by 500 feet). Siting the maintenance facility near the intermodal facility would realize more cost and operations efficiencies, as noted in the following "Recommended Commuter Rail Operations" section.

Opportunities for constructing a 6,000-foot passing siding could occur along the mainline track near the airport, and in the area of the Kenai Supply Building properties. The exact siding length should be determined during design.

Alternative	Does the Site Accommodate a Maintenance Facility?	Does the Site Fit a 6,000-Foot Siding?
Airport Area: Sports Complex Site	Yes	No
Airport Area: Airport Master Plan Site	No	Yes; this length may not be necessary, given the existing siding at Pitman, 3 miles north.
Existing Platform Area Alternatives	No	A siding is already located in this area.
Kenai Supply Alternatives	Possible—topographical and operational challenges.	Yes
Seward Meridian Alternatives	Possible—topographical challenges.	Possible—topographical challenges.

Recommended Commuter Rail Operations

The Alaska Railroad's "blueprint" for commuter rail service, the "South Central Rail Network: Commuter Study and Operations Plan" (WSA 2002), recommends one intermodal facility in the Wasilla area, another at the Glenn-Parks interchange, another at Eagle River, and another at Elmendorf. An important outcome of this study's analysis of locations is the need for **two** intermodal facilities in the Wasilla area. Another commuter rail stop would impact the overall travel time between Wasilla and Anchorage, but this study recommends two intermodal facility in Wasilla, one at the airport and another between the airport and the Glenn-Parks Interchange.

Why does this study recommend an airport area intermodal facility? As the "Recommended Maintenance Building" section notes, the airport area offers the best location for the maintenance facility in terms of compatible land use, available area, topography, and land acquisition issues. Co-locating the maintenance facility and an intermodal facility in this area would also make commuter rail operations more cost-effective and efficient for the Alaska Railroad. Railroad personnel and equipment needed to maintain and operate the commuter trains could be located in the same place, and the train would not need to travel between the overnight storage area and the intermodal facility.

An airport area intermodal facility would also draw traffic away from the Parks Highway, including its busy intersections with Knik-Goose Bay Road and the Palmer-Wasilla Highway. None of the other alternatives would reduce the traffic volumes at both of these intersections. In fact, without a facility in this area, commuter rail's opportunity to capture commuters from the north or west is reduced. After all, the slowest, most-congested part of the commute is in the downtown area. If commuters are required to travel through this area to reach a station, they may be much more likely to continue their trip in their vehicles.

Development of an intermodal facility near the airport and the Wasilla Sports Complex also is compatible with the City of Wasilla's plans for this area. Opportunities for project development partnerships and cost sharing would exist at this location, given that the City of Wasilla is the area's major land owner. And lastly, an airport area facility could be used now, tying into the existing mainline that runs parallel to the Parks Highway, or it could be modified to connect to a new alignment south of the city, if the future makes a bypass project a reality (see Appendix A).

The next question to address is this: Why isn't an airport area intermodal facility enough? This question is particularly relevant given the recommendations in the "South Central Rail Network: Commuter Study and Operations Plan" for one Wasilla area station. The answer again relates to commuter mobility and travel patterns. While an airport area facility could effectively capture commuters from the Big-Lake Houston Travel Corridor, it would require the rest of the greater Wasilla population group studied (approximately 77%) to travel out of direction down the congested Parks Highway corridor to reach the facility. This inconvenience, coupled



with the lack of support services in the area (to allow combined trip purposes), would likely have a limiting affect on ridership. A location that requires reverse travel would also increase traffic in the downtown area, further worsening an existing problem. Therefore it is this study's recommendation that another facility between the airport and the Glenn-Parks Interchange is needed to capture adequate ridership and ensure commuter rail's viability.

Recommended Project Development Approach

Both locations would not need to be designed to accommodate facility sizes recommended in the "South Central Rail Network: Commuter Study and Operations Plan." Instead, one location could be designed as a secondary, smaller facility. This facility could feature a small park-and-ride lot and a simple open shelter that would provide a windbreak, overhead protection, and on-demand radiant heating. The larger facility described in "South Central Rail Network: Commuter Study and Operations Plan" could be developed at the other location. A phased approach to the development of large facility could be warranted to complement funding availability, or to match growth and demand.

Recommended Intermodal Connections

Transit integration on both ends of the trip is also needed to ensure that commuter rail is an attractive option for travelers. Transit integration can include schedule coordination, use of common fare structures or collection systems, or bus route coordination. Further coordination with the two area transit providers at each end of the service, MASCOT and People Mover, is a key element in the success of a commuter rail system. Transit integration could also occur through the development of a regional transportation authority, established to coordinate operations and maintenance needs across the two jurisdictions and the multiple agencies that would be involved in commuter rail travel.

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Appendix A: Concurrent Alaska Railroad projects in Wasilla

Wasilla Realignment Alternative Analysis (Bypass Route)

Over the years, the City of Wasilla and others have expressed an interest in relocating the railroad south, out of downtown Wasilla. The City's comprehensive plan, for instance, recommends that the "City and Borough work with the Alaska Railroad to facilitate the eventual realignment of the tracks south of the city." The document notes that such a relocation would "remove barriers to commercial development in the downtown area south of the tracks, and open up greater options for highway and parking improvements" (B&B 1992, p. 6-16). Another idea related to a new rail corridor is the development of a new transportation corridor—one that would accommodate a joint road and rail route around the city.

No projects related to such a transportation corridor (rail or joint road and rail) are in adopted plans at this time, and much study is needed to determine such a corridor's feasibility or location. The Alaska Railroad, however, has begun to study the idea of a rail bypass as part of its efforts to articulate its future goals. It has undertaken a project called "Wasilla Realignment Alternative Analysis" to solicit public input; develop design criteria; analyze geotechnical, constructability, and environmental issues; and develop a long and short list of potential alignments. The study area is represented by Figure A.1.

Because more study, coordination, and partnering (between the Alaska Railroad, City of Wasilla, Matanuska-Susitna Borough, and Alaska Department of Transportation and Public Facilities) is needed, it is not yet time to decide whether a new transportation corridor should be developed to bypass the city. This process could take place over the next 25 years or so. It is time, however, to move forward with the development of intermodal facilities if the area is to realize the benefits of a commuter-rail system in the near future. For that reason, the alternatives discussed in this study are on the existing track through the city. Options for adapting to a possible bypass route in the future include:

- Selecting locations now that could serve both the existing and a potential bypass route. The alternatives located at the airport could be designed to accommodate both scenarios.
- Moving intermodal facilities on the existing track to new locations along a bypass route (or abandoning and building new facilities). The rail bypass would likely move the track away from most of the main roads commuters use to travel, with the exception of Knik-Goose Bay Road and roads near the airport. Therefore, potential facility locations to serve a bypass rail route would likely be at the new track's crossing of Knik-Goose Bay Road or at the airport. If the bypass route is developed as a rail-road corridor, an intermodal facility could be located anywhere along the road corridor.
- Running commuter rail on the existing tracks and running freight and passenger trains on the new bypass route.

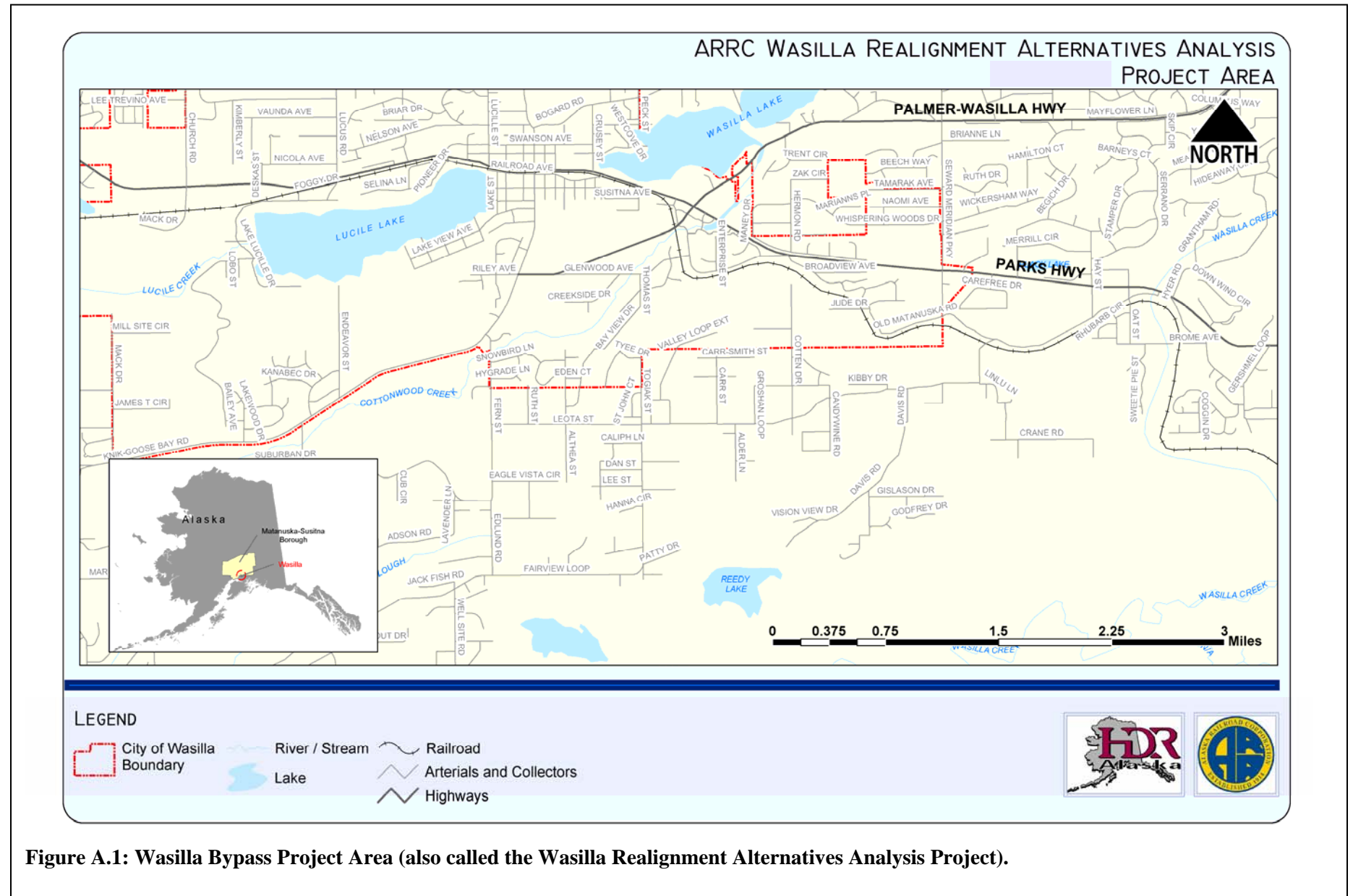


Figure A.1: Wasilla Bypass Project Area (also called the Wasilla Realignment Alternatives Analysis Project).



South Wasilla Track Realignment Project

The Alaska Railroad, in cooperation with the Federal Transit Administration, is planning to straighten curves in its track alignment in South Wasilla, between Mileposts 154 and 158. Figure A.2 shows the project area.

This work is part of a larger Alaska Railroad effort between Anchorage and Wasilla to reduce track curvature and improve safety features along the mainline track. The purpose of the project is to construct a straighter railroad track alignment and to eliminate at-grade (same elevation) roadway intersections to improve safety and operational efficiencies in the corridor. The project will bring the rail line up to a modern track design with curvatures at or below a sharpness of two to three degrees and achieve between a 50-60 mph design speed (depending upon the curvature) to accommodate current and future passenger and freight trains through the corridor. Objectives are to provide safety improvements, reduce train travel time, improve operating efficiencies, and reduce operations and maintenance costs.

This project will address a number of safety problems and operational needs caused by the sharp track curvature and at-grade rail and road crossings. These are:

- The sharp curvature increases the risk of train derailment.
- At-grade road and rail crossings are a safety concern due to the increased risk of vehicle-train accidents.
- At-grade road and rail crossings necessitate sounding the train horn, a major cause of train noise.
- The sharp curvature necessitates slow travel speeds, which adds considerably to travel time and results in inconvenience to passengers. Shortening travel time in the corridor is a key goal for successful future commuter rail service in the corridor.
- The additional travel time adds operational cost (labor and fuel) to trips in the corridor.
- The sharp curvature causes increased train resistance, which in turn increases wear on the rail and train wheels; this increases maintenance costs and reduces serviceable life on both the rail and train wheels.

Alternatives are under study and an environmental assessment (with a preferred alignment identified) is scheduled to be completed by the end of 2004. Two different alignments are being considered. Figures A.3, A.4, and A.5, as well as Figure 4.7 depict an intermodal facility on these two alignments. Figure 4.7 and Figure A.3 depict one of these alignments. Figure 4.7 shows the facility north of the new track, while Figure A.3 places an intermodal facility south of the new track. Figures A.4 and A.5 depict another track alignment.

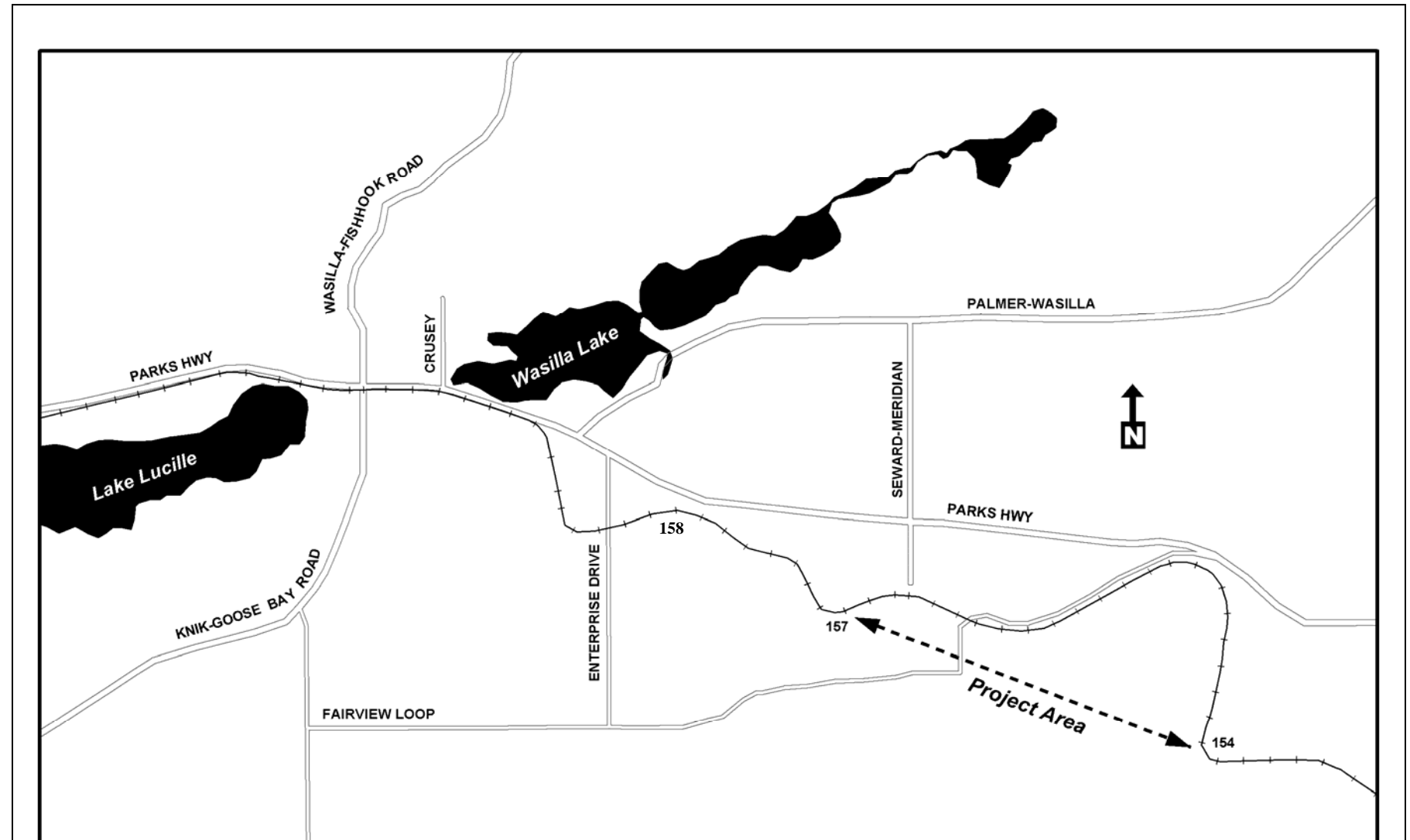


Figure A.2: South Wasilla Track Realignment Project Area.

Figure A.4 places an intermodal facility south of this alignment, and Figure 4.5 places an intermodal facility north of this alignment. All of these alternatives are considered feasible.



Kink-Goose Bay Road Grade Separation Project

The purpose of the Knik-Goose Bay (KGB) Road Grade Separation Alternatives Analysis is to present and analyze alternatives that eliminate the at-grade railroad crossing at the KGB Road/Main Street intersection.

The proposed grade-separated crossing of the rail line at the KGB Road intersection would improve a number of safety problems and operational deficiencies at the intersection. By reducing the safety conflicts related to an at-grade railroad crossing, the intersection capacity would also be improved. The grade-separation will address a number of problems and operational needs caused by congestion, vehicle backup at the intersection, and traffic demand capacity. The project goals are to:

- Improve travel times (by reducing congestion in Wasilla's core area).
- Improve traffic safety (by eliminating vehicles currently stopping on the railroad tracks) and other safety concerns with this busy at-grade rail crossing.
- Improve capacity/circulation (by reducing congestion in Wasilla's core area).
- Maintain local access and through traffic.
- Improve pedestrian access and safety.
- Meet Alaska Railroad requirements for grade.

Many alternatives have been studied in the past by the Alaska Department of Transportation and Public Facilities (DOT&PF). In this project, eight alternatives have been conceptualized to separate the KGB Road intersection. See the list below and Figure A.6. These include a no-action alternative, six action alignment alternatives with the concept of "road over rail" (Alternatives 2-7), and an eighth alternative with the concept of "rail over road."

- Alternative 2: Three-lane Main Street Grade-Separation
- Alternative 3: Five-lane Main Street Grade-Separation
- Alternative 4: Main Street and Yenlo/Talkeetna One-Way Couplet
- Alternative 5: Main Street and Knik Street Couplet
- Alternative 6: Crusey Street Grade-Separation
- Alternative 7: Knik Street Grade-Separation

All of these alternatives have the potential to impact access to an intermodal facility placed south of the tracks in the area between the Parks Highway and East Railroad Avenue. If this location is selected for an intermodal facility, provisions will need to be made to allow access to East Railroad Avenue from the roadway's access ramps. Alternative 6 (which places the tracks on an embankment) would require the facility to be redesigned as a two-level structure whereby travelers would access the facility on the first floor and then take an elevator to the second floor to reach the tracks and platform.

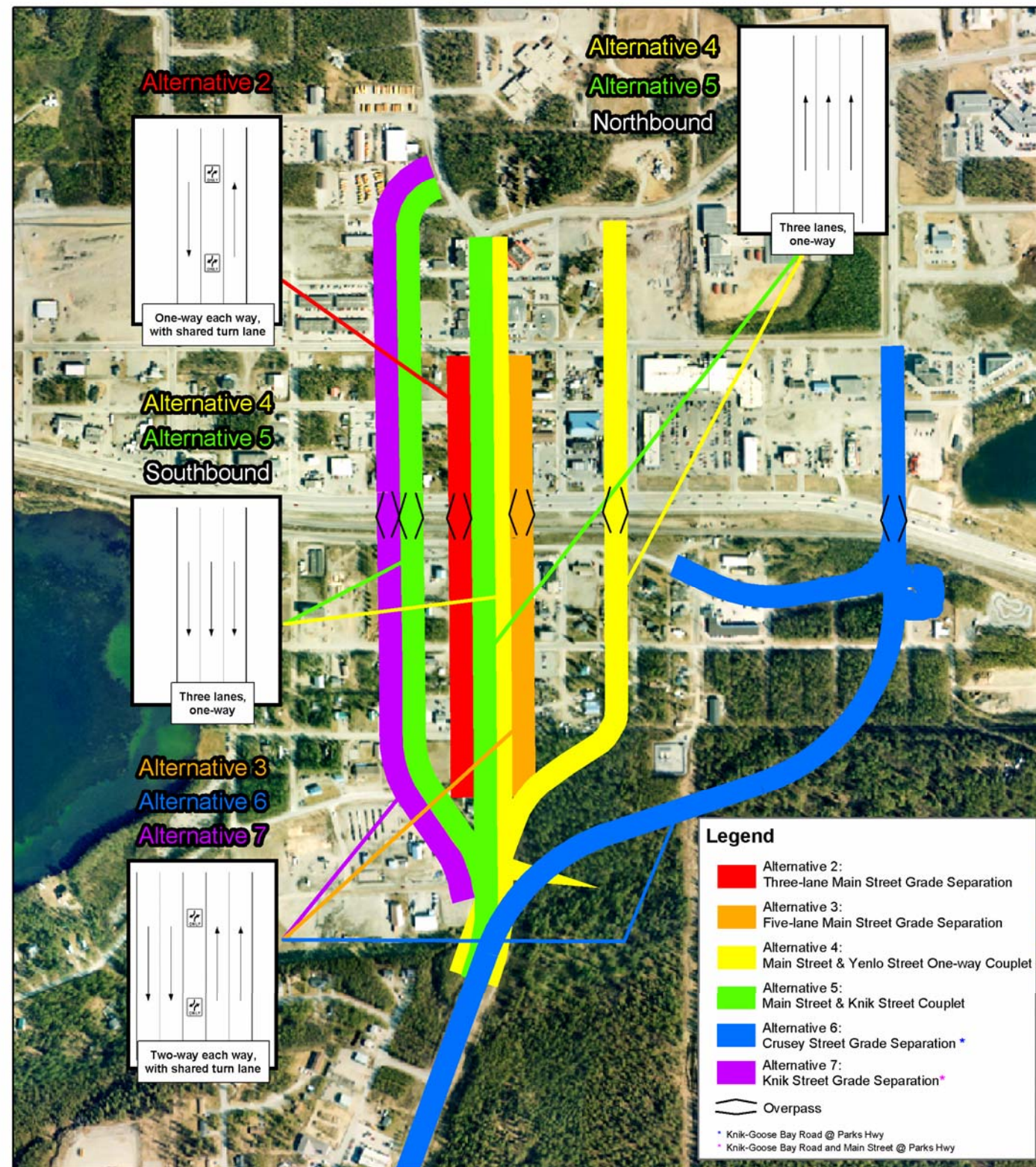


Figure A.6: Knik-Goose Bay Road Project Alternatives.



Appendix B: Conceptual-Level Cost Estimates

Cost Estimate Summary

LOCATION	Figure Number	Estimated Cost (low)	Estimated Cost (high)
Airport Master Plan Alternative	4.2	\$10,000,000 *	\$11,200,000
Airport East (Sports Complex Alternative)	4.2	\$17,600,000 **	\$18,800,000
Existing Platform (North of Tracks Alternative)	4.3	\$6,600,000	\$6,600,000
Existing Platform (South of Tracks Alternative)	4.3	\$6,900,000	\$6,900,000
Inside the Curve Alternative at Kenai Supply	4.4	\$8,400,000 ***	\$9,200,000
Outside the Curve Alternative at Kenai Supply	4.4	\$7,200,000	\$7,200,000
Gravel Extraction Alternative near Kenai Supply	4.5	\$8,400,000 ***	\$9,000,000
Pedestrian Overpass Alternative at Kenai Supply	4.5	\$9,500,000 ***	\$9,800,000
Seward Meridian Alternative on Existing Track	4.6	\$7,700,000	\$7,800,000
Seward Meridian Alternative Realigned Track: Option 1	4.7	\$6,500,000	\$6,500,000
Seward Meridian Alternative Realigned Track: Option 2	A.3	\$6,600,000	\$6,600,000
Seward Meridian Alternative Realigned Track: Option 3	A.4	\$6,600,000	\$6,600,000
Seward Meridian Alternative Realigned Track: Option 4	A.5	\$6,600,000	\$6,600,000
Notes:			
The costs used in this project are based on the costs provided in the "South Central Rail Network: Commuter Study and Operation Plan" (WSA 2002). The WSA costs were adjusted using a 3% inflation rate.			
Costs are conceptual and generalized. They do not reflect individual site conditions.			
Estimated cost (low) = Purchase just the minimum land needed for the project plus any section of parcel rendered unusable by the project.			
Estimated cost (high) = Purchase entire parcel crossed by project.			
The two powered turnouts for the commuter siding account for \$1.8 million of the total cost.			
* Includes \$0.6 million overnight shed (30 x 300 feet) and 6,000 feet of access road.			
** Includes \$6 million dollar maintenance facility (250 x 500 feet as recommended by WSA 2002) and 3,800 feet of spur track.			
*** Includes 4,000-foot access road.			
Seward-Meridian Alternatives 1 to 4 assume that road work will be completed as part of the South Wasilla Track Realignment Project. In all cases, needed grade separations will be road over rail.			