The Girdwood-Iditarod Trail Route Study

A Cooperative Planning Effort

between

Municipality of Anchorage
Girdwood Board of Supervisors
Girdwood Trails Committee
Community Planning and Development
Cultural and Recreational Services
Heritage Land Bank

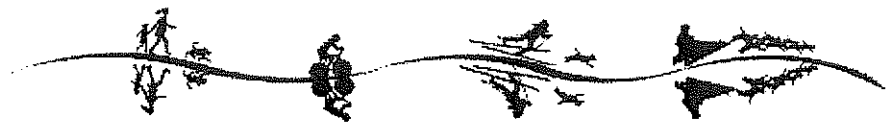
Alaska Department of Natural Resources
Division of Lands
Division of Parks and Outdoor Recreation - Chugach State Park

Bureau of Land Management
Anchorage District Office

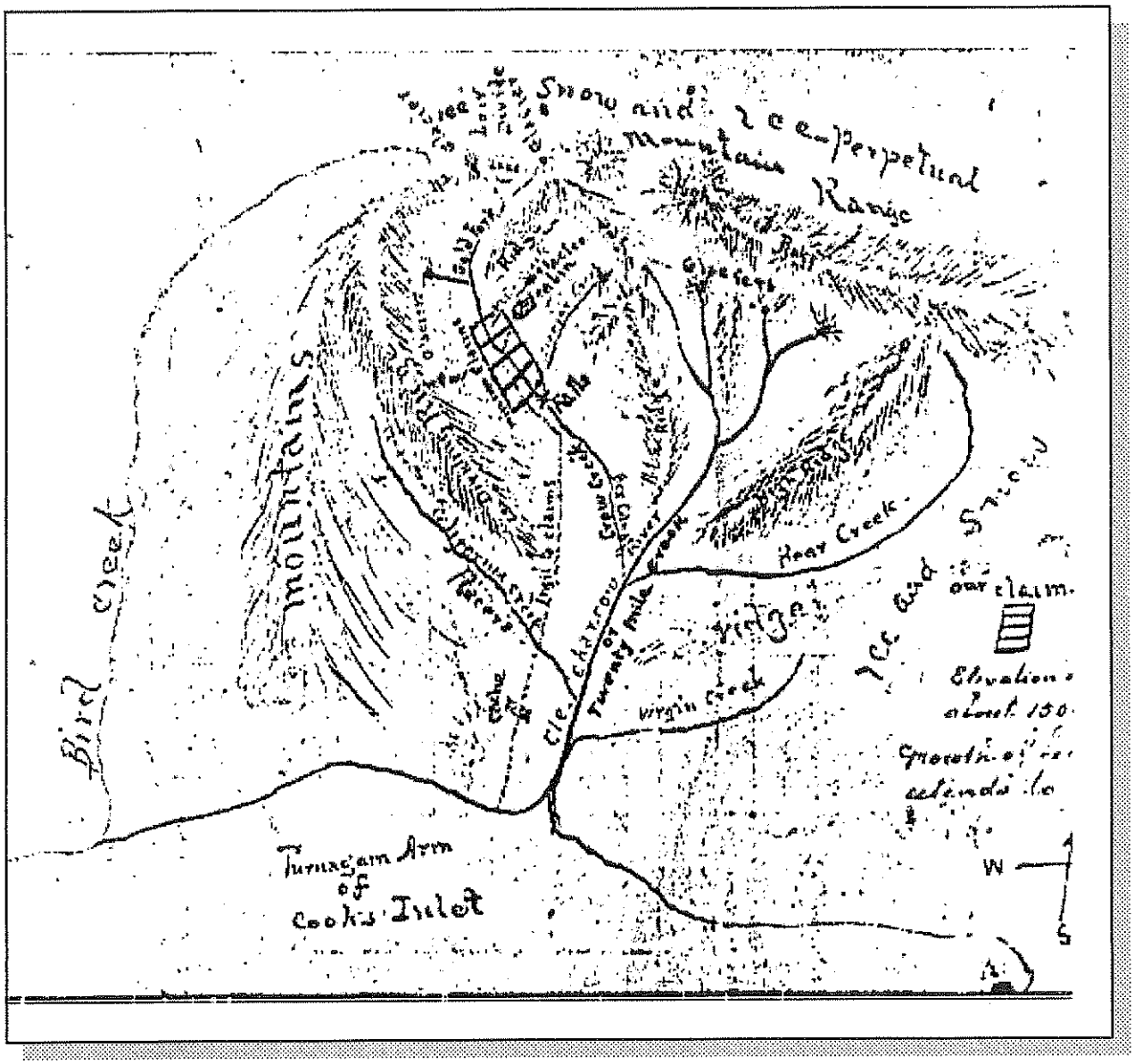
USDA Forest Service
Chugach National Forest

National Park Service
Rivers, Trails and Conservation Assistance Program

Adopted by the Anchorage Municipal Assembly
(AR 97-84)
May 20, 1997



Girdwood Valley, ca. 1896



One of the earliest known maps of the Girdwood valley, by Colonel James Girdwood. At the time he labelled the present day Glacier Creek as the "Clecharrow River or Twentymile Creek", and Winner Creek as "Bear Creek". Also note "trail to claims" at base of mountains on the west side of the valley.

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Adopted by the Anchorage Municipal Assembly
(AR 97-84)
May 20, 1997

Submitted by: Chair of the Assembly at the Request of the Mayor
Prepared by: Community Planning and Development
For reading April 29, 1997

CLERK'S OFFICE
APPROVED
Date: 5/20/97

Anchorage, Alaska
AR 97-84

A RESOLUTION OF THE ANCHORAGE MUNICIPAL ASSEMBLY APPROVING THE GIRDWOOD - IDITAROD TRAIL ROUTE STUDY AS A GUIDE TO THE SITING, DESIGN AND CONSTRUCTION OF THE IDITAROD COMMEMORATIVE TRAIL IN GIRDWOOD VALLEY.

THE ANCHORAGE ASSEMBLY RESOLVES:

Section 1. The ***Girdwood - Iditarod Trail Route Study Public Review Draft***, dated August, 1996, with the attached recommended revisions dated December, 1996, is approved as a guide to the siting, design and construction of the Iditarod Commemorative Trail through Girdwood valley.

Section 2. This resolution shall become effective immediately upon passage and approval by the Anchorage Assembly.

PASSED AND APPROVED by the Anchorage Assembly this 20th day of May, 1997.

Chair

ATTEST:

Municipal Clerk

(97-012)

Executive Summary
The Girdwood-Iditarod Trail Route Study

Background: *The goal of the Girdwood-Iditarod Trail Route Study is to determine a feasible route for a commemorative Iditarod Trail linking Turnagain Arm and Girdwood to the Crow Pass-Iditarod Trailhead.* The project was initiated by the Girdwood Trails Committee and the Girdwood Board of Supervisors after the discovery of a four mile-long abandoned and overgrown historic trail paralleling the present day Crow Creek Road. While further research is necessary to confirm the origins of the historic route, it appears the alder-choked trail may be a long-lost segment of the Iditarod Trail.

Trails Committee members realized that if the historic trail was restored and linked to a trail in the lower valley, a "backbone" trail could be created to enhance pedestrian opportunities in the valley. Recognizing the potential, the Girdwood Board of Supervisors applied for and received Challenge Cost Share funding from the National Park Service for a feasibility study. The Board of Supervisors also enlisted eight local, state and federal public agencies to participate in the project, known as the Girdwood-Iditarod Trail Route Study.

Route Study Work: Project tasks included field study of nine miles of various routes, two sets of community meetings to select a preferred trail route, and conceptual design and cost estimating work. Project work was facilitated by the National Park Service - Rivers, Trails and Conservation Assistance Program, which encourages and coordinates community-guided conservation projects.

Recommended Route: *In the lower valley the recommended route is along the west side of Glacier Creek valley, mostly on an existing trail.* This route is preferred because it provides a continuous auto-free connection between the old townsite and the planned Turnagain Arm bike trail to the new townsite and the Girdwood school. The west side route would cost substantially less than an east side alignment, have less environmental impacts, and is preferred by the community.

The recommended route for the Iditarod Trail in the upper valley would continue along the west side of Glacier Creek, heading north from the school, and then climb above Crow Creek Road to be located on the historic trail. The trail would continue to north of Crow Creek Mine, where a segment would be located on Crow Creek Road to the Crow Pass trailhead. Most trail use of the historic trail is anticipated to be south of Crow Creek Mine. Above Crow Creek Mine, most of the historic trail has probably been covered by the current routing of the road. Due to high construction costs, terrain constraints, and projected low use, it is recommended that this 2.0 mile segment be established on the road.

Recommended Improvements, Design Standards, and Cost Estimates: In the lower valley between the old townsite and the Girdwood school, *the recommended design for the 2.4 mile Iditarod Trail is an eight-foot wide, improved surface, easily accessible trail. Recommended facilities include shared trailhead parking at the old townsite with the planned Turnagain Arm Trail, a connection between the two trails, and two Alyeska Highway underpasses.* The first underpass would be located next to the Alaska Railroad in the lower valley, and the second would be located on the west side of Glacier Creek at the new townsite. The trail would be incorporated into the design of the proposed golf course. It is recommended that the golf course provide for shared use of a bridge to reach the neighborhoods on the east side of the valley. Total construction costs are estimated at $1.3 million dollars.

In the upper valley, *the 1.25 mile segment from the school to the historic trail at Crow Creek Road is recommended as a three-foot wide hiking trail,* and is already being upgraded by the Girdwood Trails

Committee and the Municipality of Anchorage. *The 2.3 mile segment of the historic trail is recommended for "re-development" as a six foot wide granular stone trail on the existing historic roadbed.* The low grades originally designed for horse teams are suitable for non-motorized users of all abilities, providing easy universal access. Three parking pullouts are also recommended along the route. A short spur trail is recommended to connect to Crow Creek Mine. Trail direction and road warning signs are recommended for the segment on Crow Creek Road. Total construction costs are estimated at $700,000 dollars. *It is recommended that the lower and upper valley segments of the Girdwood-Iditarod Trail be funded as one project.*

Projected Trail Use and Economic Impacts: By year three of operation, it is forecast that the Iditarod Trail could be used approximately 46,000 times annually. By year six, as the trail becomes more popular and well-known, it could experience use rates similar to the Tony Knowles Coastal Trail in Anchorage. Estimated per annum use by year six is approximately 123,000 visits.

Additional revenue generated in the Girdwood area by trail users (not including overnight lodging) by year three is estimated to be between $138,000 dollars and $230,000 dollars. By year six, between $370,000 dollars and $616,000 dollars might be pumped into the local economy from day-use.

The Girdwood-Iditarod Trail would be joining two other planned trails in eastern Turnagain Arm that will be drawing increased trail use and potentially extended overnight visits to Girdwood area in the future. (The other trails are the Turnagain Arm Trail and the Blue Ice Trail in Portage Valley.) While further research is necessary, total trail related expenditures, including overnight lodging, could approach one million dollars per year.

Funding Options and Implementation: In order for the Girdwood-Iditarod Trail to qualify for funding under the State Trails and Recreation Access Program for Alaska (TRAAK), the Route Study has been adopted by the Municipality of Anchorage Assembly under Resolution AR97-84 dated May 20, 1997. Maintenance duties will be assumed by the Municipal Division of Parks and Recreation, funded by the Girdwood Valley Service Area. The Route Study was also reviewed by, and recommended for Assembly approval by the Girdwood Board of Supervisors, the Municipal Heritage Land Bank Advisory Commission, and the Municipal Planning and Zoning Commission.

The likelihood of the project being selected for construction funding is also greatly increased by the provision of matching money by the local community, the provision of a public trail ROW, and the assumption of trail maintenance. The following are recommended to initiate development of the trail and increase the likelihood of funding:

- *the establishment of an Iditarod Trail corridor easement or ROW on Municipal and USDA Forest Service lands;*
- *the evaluation and establishment of sources of matching funding, including public revenue initiatives, and/or private construction of segments of the trail on Municipal lands disposed for development;*

With the availability of funding, it may be possible to celebrate an opening of a segment of the Girdwood-Iditarod Trail on the 1999 centennial of the discovery of gold on the Nome beaches, thus bringing the trail into the statewide spotlight for the Gold Rush Centennial Celebration.

PLANNING TEAM

Girdwood Board of Supervisors
Rusty Kendall (Nov. 1994 - April 1995)
Mary Jo Thiel (April 1995 - April 1996)
Dave Wilson (April 1996 - present)

Girdwood Trails Committee
Larry Holmes (Nov. 1994 - April 1995)
Anne Herschleb (April 1995 - present)

Municipality of Anchorage
Department of Community Planning and Development
Tom Nelson
Department of Cultural and Recreation Services
Carolyn Bloom
Jonathan Schilk
Heritage Land Bank
Joe Yarzebinski

Alaska Department of Natural Resources
Division of Lands
Ed Fogels
Division of Parks and Outdoor Recreation - Chugach State Parks
Al Meiners

Bureau of Land Management
Anchorage District Office
Mike Zaidlicz
Donna Redding

USDA Forest Service
Chugach National Forest
Elaine Gross

National Park Service
Rivers, Trails and Conservation Assistance Program
Kevin Keeler (project manager, principal author)

Photo Credits and Acknowledgments

All historic photos courtesy of the Anchorage Museum of History and Art, Diane Bremner; all other photos by Kevin Keeler or the National Park Service Rivers, Trails and Conservation Assistance Program. Thanks to John Trautner for his research into the early maps of the Girdwood valley and for the use of Colonel Girdwood's map, and thanks to Joe Kurtak, Bureau of Mines, for use of an original 1915 copy of USGS Bulletin 587, and Jill Schneider, USGS for searching for the same bulletin. Also thanks to Ken Morton, Alaska State Parks, and Phil Manke and Fred Carpenter, Municipality of Anchorage, for mapping support. Logo and graphic work by Kathy Sarns, Chugach Design Group, USDA Forest Service. Also thanks to Alyeska Resort, especially Jill Veatch and Chris von Imoff, for providing meeting rooms for public workshops and for the Route Study Cooperative Agreement signing ceremony. And thanks to the dozens of others who have consistently supported this project in actions small and large.

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TABLES

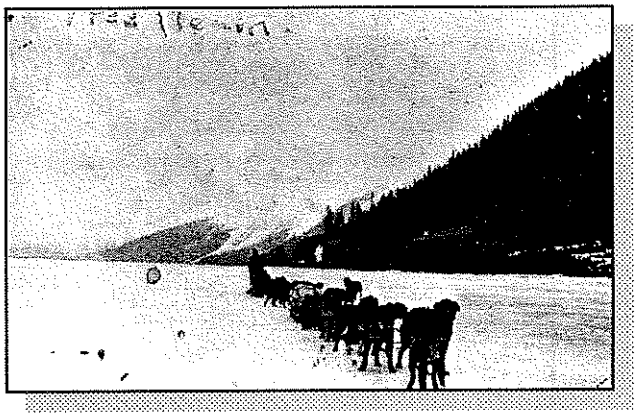
Chapter 1. Introduction

A. Discovery of the Historic Trail

In 1993, at the request of the Girdwood Board of Supervisors, the Municipality of Anchorage enlisted the assistance of a National Park Service Rivers, Trails and Conservation Assistance (NPS-RTCA) program to map the trails of the Girdwood for the Anchorage Trails Plan. The mapping effort was carried out using hand-held Global Positioning System (GPS) hardware, which can provide accurate trail location data for previously unsurveyed areas.

During the mapping effort, Girdwood residents identified an overgrown trail paralleling the present day Crow Creek Road. Initial field work by the NPS, Girdwood Trails Committee, and Bureau of Land Management historians located an overgrown trail or narrow road paralleling the west side of Crow Creek Road for approximately 4 miles. Evidence includes well-developed trail grades and shoulders, corduroy surfacing, and overgrown bridges. The route is continuous, and is filled with large alder and devils club bushes, in contrast to the old growth spruce and hemlock of the area. The low grades, bridges and corduroying suggest the use of horse and mule teams, and the advanced age of the vegetation suggests that the trail was cleared many decades ago.

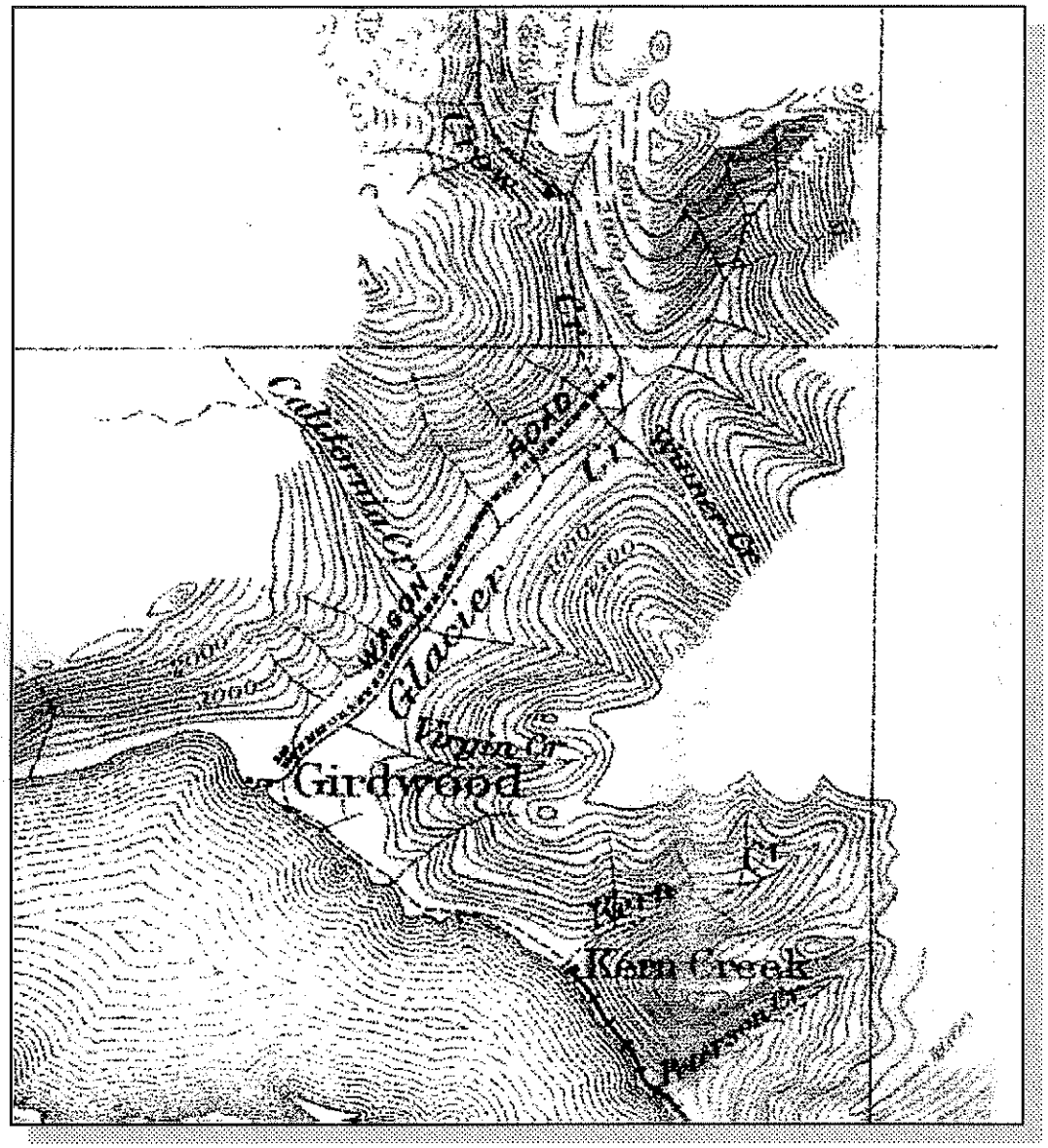
The Iditarod Trail through Girdwood was developed at the turn of the 20th century as a part of the Alaska Gold Rush. (See the back inside cover of this study for a chronological history of the Iditarod Trail). The Iditarod Trail was the primary route linking the ice-free port of Seward to the Alaskan Interior. Travelers, freight and mail would move up the trail from Seward and cross Turnagain Arm by boat from Sunrise to Girdwood. From Girdwood they would travel by foot, horse, or dogteam over Crow Pass to the mouth of Eagle River, and cross Knik Arm by boat. Once across Knik Arm the long journey to the Interior would continue.



US Mail dog team traveling east of Girdwood on the ice of Turnagain Arm, 1917.

Winter travel across Crow Pass was and continues to be very perilous, as the route is directly exposed to steep avalanche slopes. Recognizing the danger, an alternate Iditarod Trail was surveyed and developed over Indian Pass to Ship Creek in 1908. Yet, the Crow Pass-Iditarod route continued to have its proponents. From Patterns of the Past - An Inventory of Anchorage's Historic Resources:

"...W.L. Goodwin, the [Alaska] Road Commission's Superintendent, oversaw the construction of a new, rerouted trail through Crow Pass during the summer of 1911...the trail was designed to carry four horse teams...even with the completion of [the] project, the Indian Creek route came to be more frequently used because of high winds and snowslide danger..." (Carberry and Lane, 1986)



Map 1.1 Wagon road in Girdwood valley, ca. 1914. Note that the Alaska Railroad ends at Kern Creek. From USGS Bulletin 587, 1915.

With the completion of the Alaska Railroad along Turnagain Arm in 1918, the need for the Crow Pass-Iditarod route greatly decreased. Use of the improved Iditarod Trail in Girdwood between Turnagain Arm and the thriving Crow Creek Mine continued from 1911 to 1922, probably as

both a winter route and a summer wagon road (see Map 1.1).

In 1922 a wide new alignment of the trail was built between Crow Creek Road and Turnagain Arm and named "Crow Creek Road". The new Crow Creek Road alignment was the first major road in the Anchorage area and is still in use today. It is believed that the historic route was abandoned at that time, and has lain untouched for the past 74 years. While further research is necessary to confirm the origins of the historic route, it appears the overgrown trail may be a long-lost segment of the Iditarod Trail. With this discovery has come the idea to rebuild the trail as the backbone of the Girdwood trail system.

B. Why Re-Develop the Iditarod Trail in Girdwood?

Girdwood residents have long expressed a desire for trails that would intertwine their valley community, providing permanent legal access for residents and visitors to nearby forests, waterways, neighborhoods and businesses. The interest seen in the trails of Girdwood parallels a nation-wide discovery of the benefits of trails and greenways.

Community leaders are recognizing that close-to-home trails and greenways are an important ingredient for thriving cities, towns and rural areas. Around the United States, diverse partnerships have transformed over 8,000 miles of abandoned railways and canal towpaths into multi-use trails for recreation and transportation (see photo to the right). Industrialized waterways are being restored and connecting town centers to natural areas with linear parks known as "greenways". And by-passed regions are assembling into economically viable "heritage areas" by linking historic attractions with trails and scenic by-ways.

Biking on a restored canal towpath trail.

The effort to map Girdwood trails showed that many other contemporary trails in the valley have limited connections to each other. Most major waterways in the valley have adjacent trails, and other locally popular routes are found at the base of the mountains that line each side of the valley. Yet there is not a main off-road trail that forms the backbone of Girdwood trails, allowing the user to travel the length of the valley without crossing roads or using road shoulders to get the next segment of a trail.

Girdwood Trails Committee members realized that if the recently discovered historic trail were restored and linked to an upgraded main trail in the lower valley, it could become the backbone

for Girdwood trails. Developing the Iditarod Trail might greatly enhance the small town atmosphere of Girdwood by providing new walking, biking, and winter-use routes and linkages. A restored trail could be one of the only easily accessed and historically authentic sections of the Iditarod Trail in Alaska. It could become a living monument to the history of mining, railroad building, and Alaskan frontier settlement, and be designated as a segment of the Iditarod National Historic Trail. And it could provide access to one of the northernmost rainforests in North America, along with rich fish and wildlife viewing opportunities.

A Girdwood-Iditarod Trail would be an important segment in an approximately 125 mile trail loop system that is being shaped around the perimeter of the Municipality of Anchorage. The segments of this large loop already in place are the Eagle River to Anchorage bikepath and the Tony Knowles Coastal Trail from Anchorage to Kincaid Park. Route studies and preliminiary engineering are planned or currently underway for the following segments of this large loop:

- *an Eagle River Greenbelt Trail,* connecting the north end of the Crow Pass-Iditarod Trail to the Glenn Highway at Eagle River;

- *a northern extension of the Coastal Trail* that would connect the Coastal Trail to the Eagle River bikepath;

- *a southern extension of the Coastal Trail* connecting Kincaid Park to Potter Marsh. Funding has been established for the preliminary design and engineering for the southern extension of the Coastal Trail from Kincaid Park.

- *the Turnagain Arm trail between Indian and Girdwood (see Chapter 4).* This segment would make up half of the proposed Turnagain Arm Trail, which would link Anchorage (from Potter Marsh) to Girdwood.

The Girdwood-Iditarod Trail would provide a key link in this large loop, connecting the Turnagain Arm Trail at the old Girdwood townsite to the Crow Pass-Iditarod Trail.

C. Forming the Route Study Partnership

Recognizing the potential benefits of trail development, the Trails Committee encouraged the Girdwood Board of Supervisors to seek Challenge Cost Share funding from the National Park Service for a feasibility study. Challenge Cost Share funds are designed to encourage the public and private sectors to match funds, staff time, or materials for National Historic Trail development projects that might otherwise go unfunded. Currently the Iditarod Trail is the only designated National Historic Trail in Alaska.

In order to be eligible for Challenge Cost Share funding, the Girdwood Board of Supervisors enlisted eight local, state and federal public agencies and one local business to provide matching contributions to the project, primarily in the form of staff time, to undertake a Girdwood-Iditarod Trail Route Study.

Route Study Partners

Municipality of Anchorage
- Girdwood Board of Supervisors
- Girdwood Trails Committee
- Department of Community Planning and Development
- Department of Cultural and Recreational Services
- Heritage Land Bank

Alaska Department of Natural Resources
- Division of Lands
- Division of Parks and Outdoor Recreation, Chugach State Park

Bureau of Land Management
- Anchorage District Office

USDA Forest Service
- Chugach National Forest

National Park Service
- Rivers, Trails and Conservation Assistance

Alyeska Resort

Route Study Purposes: The purposes and tasks for the Route Study were outlined in a Cooperative Agreement signed by representatives of the nine participating organizations in October 1995. Project work was led by the Rivers, Trails and Conservation Assistance (RTCA) program, with the continuous support and involvement of the other partners. Agencies represented on the Route Study planning team include all parties listed previously with the exception of Alyeska Resort.

The purposes of the Girdwood-Iditarod Trail Route Study are to:

- identify a feasible, preferred route for a continuous tidewater to Crow Pass-Iditarod Trail corridor, connector trails, and associated facilities in the Girdwood area;

- produce information and guidelines that can be used for the design and construction of the project;

- provide community planning information to local and state government;

- improve selected segments of the trail for public use and enjoyment.

The time frame for implementing the recommendations of the Route Study is twenty years. The recommendations in the Route Study are mostly conceptual, and reflect the opinions of involved community members and the planning team. It is intended that the Route Study be adopted by the appropriate public agencies so as to make the project eligible for design and construction funding.

D. The Route Study Area

The Route Study area is roughly bounded on the east and west by the base of the mountain slopes in the Girdwood area, in the south by the Seward Highway, and in the north by the USDA Forest Service Crow Pass-Iditarod Trailhead.

The Route Study area is further broken into an "lower" and "upper" Route Study area. The lower Route Study area encompasses the area from the Seward Highway north to the elementary school. The upper Route Study area includes the area north from the elementary school to the Crow Pass-Iditarod trailhead.

Land Status: The majority of the land within the Route Study area is held within public ownership. In the lower Glacier Creek valley the primary landowner is the Municipality of Anchorage Heritage Land Bank. In the upper Route Study area (along Crow Creek Road) the majority of land is owned by the US Forest Service, with one private subdivision bisected by Crow Creek Road. All US Forest Service lands on the west side of Crow Creek Road have been "selected" to be conveyed in the future to State ownership.

Current Land Use Plans: Within the past two years, the Municipality of Anchorage and the State of Alaska have adopted land use plans for their respective lands in the Girdwood area (see Map 2.1 next chapter for designated land uses). Both land use plans highlight public trails as an important feature deserving permanent easements and adequate buffering from adjacent uses.[1]

Most of the lands within the valley are currently publicly owned, but many acres will be disposed to private ownership for community expansion in the future. When public lands are transferred to private ownership, the land patents often require stream setbacks and public access easements to be maintained. Given these factors, there is the opportunity to locate the Girdwood-Iditarod Trail entirely on public lands. The avoidance of private lands for the routing of a primary community trail is an opportunity that few other places enjoy. Such an opportunity makes this an important time to consider questions such as the location of a commemorative Girdwood-Iditarod Trail.

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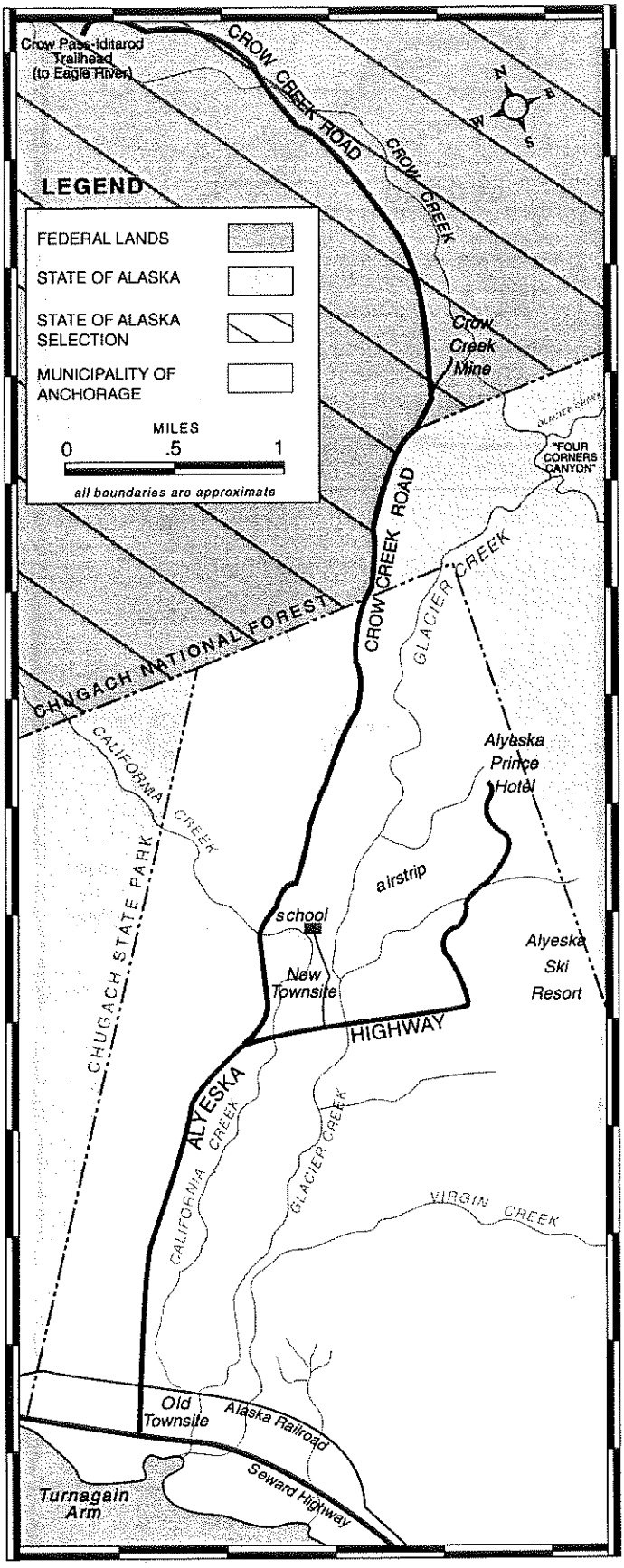
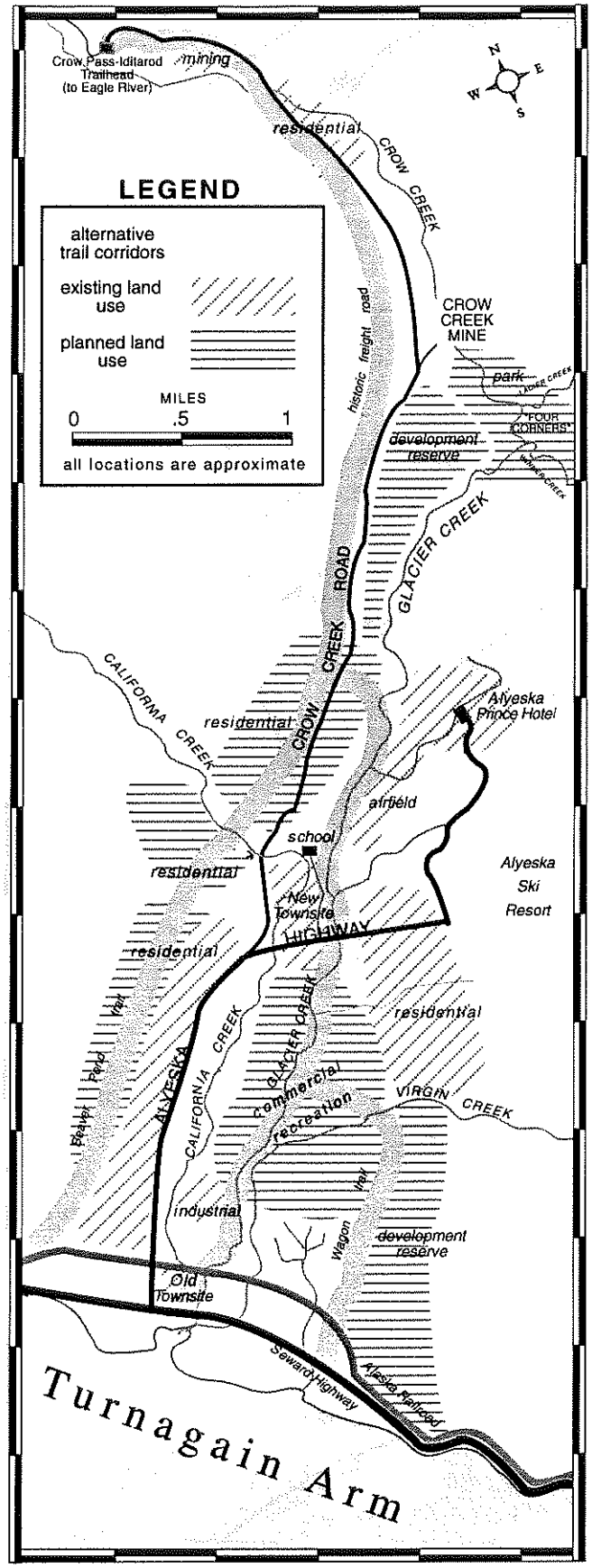
[1] Page 72, Girdwood Area Plan, Municipality of Anchorage, 1995; Page 2-36, Turnagain Arm Management Plan, Alaska Department of Natural Resources, 1994.



Map 1.2 Route Study Area and public land status in the Girdwood valley. (Private lands are shown on Map 2.1, next page.)



Map 2.1 Alternative Trail Corridor reviewed by the public in Route Scoping Workshops. The Glacier Creek corridor was selected as the preferred corridor for investigation for the routing of the Girdwood-Iditarod Trail.

Chapter 2. Trail Route Selection and Public Involvement

The following steps were used to select the recommended route for the Girdwood-Iditarod Trail. The recommendations given in the Route Study largely reflect the input of the involved public. The role of the planning team was to facilitate a public dialogue, make technical evaluations, and provide the resulting information to the public and decision makers.

Step 1. Identify Alternative Trail Corridors

A trail corridor is defined as a broad swath of land within which a number of potential trail alignments exist. Three alternative trail corridors were identified by the planning team from GPS mapping information and Girdwood Trails Committee input (see Map 2.1). In the lower valley the alternative corridors were the Wagon Trail corridor, the Glacier Creek corridor, and the Beaver Pond trail corridor. In the upper valley, the alternative corridors were the historic trail next to Crow Creek Road, Crow Creek Road, and a Glacier Creek corridor.

Step 2. Select a Preferred Trail Corridor For Further Study

In a public Route Scoping workshop (August 1995), participants selected the Glacier Creek corridor in the lower valley and the historic trail in the upper valley as deserving further detailed evaluation. Advantages identified for the Glacier Creek corridor included its central location, connection to community facilities, and public easements.

One suggested disadvantage is that the Glacier Creek corridor may not be the original route of the historical trail (although Map 1.1 shows a wagon road on the west side of Glacier Creek). It was recognized by participants that to provide for contemporary needs such as connecting the community, it may not be possible or advantageous to locate the commemorative Iditarod Trail on the actual historic route in the lower valley.

At the Route Scoping workshop, participants also identified their priorities for the Iditarod Trail (see Table 2.1). The priorities exercise purposely did not address potential uses of the trail, including the issue of non-motorized and motorized uses. The question of trail use on the Girdwood-Iditarod Trail is intrinsically linked to the large and complex issue of trail use throughout the Girdwood valley, and

Mail team at old Girdwood townsite, ca. 1915.

cannot be adequately addressed in the Route Study. This valley-wide issue requires further examination and public dialogue in the future.

Table 2.1

Priorities for the Girdwood-Iditarod Trail

(from 48 possible priorities identified and selected by Route Scoping workshop participants)

	Lower Valley	Upper Valley
High Priorities *(most frequently selected by workshop participants)*	• Central location • Integration w/ other trails • Muscle powered • Trailhead near old townsite	• Non-motorized
Medium Priorities *(next most frequently selected after high priorities)*	• Transportation • Non-motorized • History	• Muscle-powered • Natural-looking • Scenic • Sports • No signs

The goals and criteria in Table 2.2 were developed from the above priorities. The goals and criteria were used by the planning team in the evaluation of various alignments along the Glacier Creek corridor and the historic trail corridor. The goals and criteria can also be used to evaluate future design and construction phases of the project.

Lunch along the trail, date unknown.

Table 2.2

Girdwood-Iditarod Trail Goals and Routing Criteria

Goals	*Routing Criteria*
Create a central trail route from the old Girdwood townsite to the Crow Pass-Iditarod trailhead that connects the community to local open spaces and other trails in the area.	• The route is located approximately in the middle of the Glacier Creek valley within a 15 minute walk from the majority of the population in the area. • The route highlights diverse natural habitats and scenic views. • The route incorporates and connects to existing community trail networks and regional trail systems.
Establish a multi-use trail route that links Girdwood neighborhoods to work, school, play, and shopping.	• The route provides a pedestrian connection between the old Girdwood townsite and the new Girdwood townsite. • The route has convenient access points and trailheads at the beginning, middle, and end for all Girdwood area residents and visitors. • The route incorporates compatible multiple-use activities along a single alignment. • The route has access to potential trailhead and trail side facilities including parking, trash disposal, phone, water, and restrooms. • The route is not located on a public road. • The route follows trail standards for personal safety, incorporating multi-use considerations. • The route can be separated and buffered from existing and future incompatible land-uses.
Commemorate the history of the Iditarod Trail in Girdwood and the role the trail played in the settlement of the area.	• The alignment is located on the historic Iditarod Trail or other historic trails. • The alignment highlights historic settlement features in the Girdwood area.
Develop a model public-private partnership to create and maintain the Girdwood-Iditarod Trail.	• The route can be managed and maintained on a collaborative basis. • The alignment can be developed and operated in a cost-efficient manner. • In the case that future community expansion is determined necessary on an already developed trail segment, the original route provides nearby options for realignment without loss to the values and features of the trail. • The route has equivalent alternative alignments to accommodate the development of a golf course in the lower valley.

Table 2.2 (continued)

Promote land stewardship in the development and use of the trail corridor in a way that cultivates appreciation and protection of Girdwood area natural and cultural resources.	• The route can be constructed and maintained with full consideration for safe and sanitary use, erosion control, water quality protection, protection of historic resources, and protection of fish, wildlife, and habitat areas. • The route provides numerous and diverse opportunities for the interpretation of natural and historical features.
Realize the trail corridor and its public use as expediently and cost-effectively as possible.	• The alignment requires a minimum amount of engineering to avoid natural and man-made features, such as waterways, roadways, and railways, and to provide facilities such as trailheads. • The alignment provides opportunities for near-term use with minimum permitting and improvements. • The alignment can accommodate future increases in use with the phased expansion of trail facilities. • The alignment is protected to the extent possible from destruction by natural phenomenon such as flooding and avalanche. • The alignment is eligible for funding under the ISTEA and TRAAK programs.

Step 3. Selecting the Preferred Trail Route

In a series of public Route Selection workshops (December 1995), participants identified their preferred route and designs for the lower valley, and reviewed conceptual proposals for the upper valley. At those workshops the planning team presented information on the advantages and disadvantages, costs, and conceptual designs for alignments on both sides of the lower valley corridor. This information is summarized in Table 2.3 on the following page.

In the lower Girdwood valley, two routes were evaluated along Glacier Creek--one on the east side of the creek, and one on the west side of the creek. In the upper valley, the historic route was evaluated to determine if it could meet the goals and criteria listed above. Site conditions such as views from trail routes, adjacent vegetation, slope, grade, soils, and waterways were examined in field surveys. Mapped information was reviewed for natural features such as wetlands, flood plains, and avalanche areas. The following is a brief description of the two routes analyzed in the lower valley.

East Side Glacier Creek Alignment: The potential route on east side of lower Glacier Creek generally follows a narrow footpath that starts at east of the Alaska Railroad bridge and runs

northeast along the creek for approximately 11,300 linear feet to the Alyeska Highway. About halfway between the railroad and the Alyeska Highway the footpath meets the Virgin Creek trail, and then a very narrow footpath known locally as the "Joe Danich" trail. The route continues northeast on the Danich trail before intersecting a sewer easement, at which point it would generally follow the easement to Alyeska Highway. At the Alyeska Highway the trail would cross the road to the bikepath and travel to the west side of Glacier Creek. (Both the east and the west side alternatives would connect to a route on the west side of Glacier Creek and travel north to the school bikepath.)

West Side Glacier Creek Alignment: The potential route analyzed on the west side is a wide dirt trail starting north of the Alaska Railroad and old townsite near the Alyeska Highway railroad overpass. The route parallels lower California Creek before crossing that creek on a timber bridge and heading north along Glacier Creek. The route is approximately six to eight feet wide, and is used in the summer by walkers, mountain bikers and equestrians, and in the winter by cross-country skiers and snowmachiners. The existing route continues northward past the Girdwood Industrial Park to a monitoring well near the south end of the Glacier Creek Road. The proposed route would continue along the west side of Glacier Creek to an underpass at the Alyeska Highway bridge at the new townsite. From this point it would continue north along the creek bank to the school bikepath. (A detailed description of this route is in Chapter 4).

Upper Valley Alignment: In the upper valley, the route evaluated by the planning team and presented to the public in the Route Selection Workshops is along the west side of Glacier Creek starting at the Girdwood School. The potential route would continue north along Glacier Creek to the "Cross Trail", and then climb out of the valley to cross Crow Creek Road and connect to the historic trail. (A detailed description of this route is in Chapter 5).

Planning Assumptions: Throughout the planning process it has been assumed that the trail route and the southern trailhead for the Girdwood-Iditarod Trail should be located on the same side of Glacier Creek. This assumption is based on the high cost of providing a bridge crossing on the flood-prone lower Glacier Creek, and the unsuitability of co-locating a pedestrian bridge on existing Alaska Railroad bridge.

Both alignments in the lower valley meet a number of trail routing goal and criteria identified in Table 2.2. Table 2.3 identifies the significant differences between the two alignments on which the recommendation for the route is based. Included in Table 2.3 is the assumption that the recommended trail route and a trailhead would be on the same side of Glacier Creek.

Table 2.3

Alternative Routes Analysis - Lower Glacier Creek Valley
Girdwood-Iditarod Trail Route Study

Site Factors	*East Side Glacier Ck.*	*West Side Glacier Ck.*
Connection between old town-site and new townsite	None; would require use of Seward Highway for access	Via connection to Bird Pt. bikepath upramp to Alyeska Highway bikepath
Connection between new townsite and Bird Pt. bikepath	None; would require use of Seward Highway for access	Via feasible Alyeska Hwy. underpass adjacent to Alaska Railroad
Existing uses; suitability for near-term improvement with minor investment and modification	Narrow footpath; would require major investment and modification for other uses beyond walking	8 foot wide cleared dirt trail currently used for walking, mt. biking, xc skiing, and snow-machining. Suitable for near-term improvement with minor investment and modification.
Proximity to existing 200 foot stream setbacks (public access easements)	Upper half of most feasible route would have to be located far outside of setback	All of trail could be located within or immediately adjacent to setback
Flood plain vulnerability	Lower third of route located within 100 year Flood plain; also scoured by recent 25 year flood	Nearly the entire route located within 100 year Flood plain; short segment scoured by recent 25 year flood
Screening from adjacent incompatible uses	Well screened from industrial park; screening from golf course unknown	1,500 linear feet of trail would pass along eastern edge of cleared industrial park. Route would also pass adjacent to areas designated for commercial development.
Habitat diversity; wildlife viewing potential	Passes through three distinct habitat types; good wildlife viewing potential	Passes through one habitat type; fair wildlife viewing potential
Construction requirements: - RR crossing	Yes; RR overpass needed, including 300 foot approach ramps	No
- Vegetation clearing	Extensive (for slope modifications)	Minimal to moderate, due to use of existing route

Table 2.3 (continued)

- Grade changes; slope cut and fill requirements	Numerous major grades, many slope cuts and fill necessary to provide appropriate accessibility	Route is generally level; short segment of fill necessary north of industrial park
- Water crossings	Approximately six small bridges (10 to 20 feet) plus many culverts	Approx. two small bridges plus some culverts
- Road crossings	At north end of route, Alyeska Hwy. underpass (feasible) or tunnel (not feasible and/or expensive)	Alyeska Hwy. underpasses at south and north end of of route, both feasible
- Design and construction cost comparison	Roughly 30% to 50% higher than west side route due to RR overpass, numerous water crosssings and extensive slope cuts and fill	----------
Total Environmental Impacts	High due to numerous cuts and fill; route clearing	Low due to use of existing trail
Community Preference	Maintain existing east side footpath as minimally improved footpath	Strongly supported in Route Selection Workshops for further development as commemorative Iditarod Trail

Trail Routing Recommendation: *It is recommended that the commemorative Iditarod Trail be routed along the west side of lower Glacier Creek.* As compared to an east side routing, the west side alignment is advantageous because it provides important community connections, could cost substantially less than the east side route, have less environmental impacts, and is preferred by the community. The west side alignment was also strongly supported in community workshops; it was recommended by participants that the east side route be reserved for a nature footpath.

For the upper valley, the west side of Glacier Creek / historic trail alignment meets the trail routing goals and criteria and is feasible for further development. Over two-thirds of this alignment would be on existing or historic trails. This alignment was also supported by participants in the Route Selection workshops.

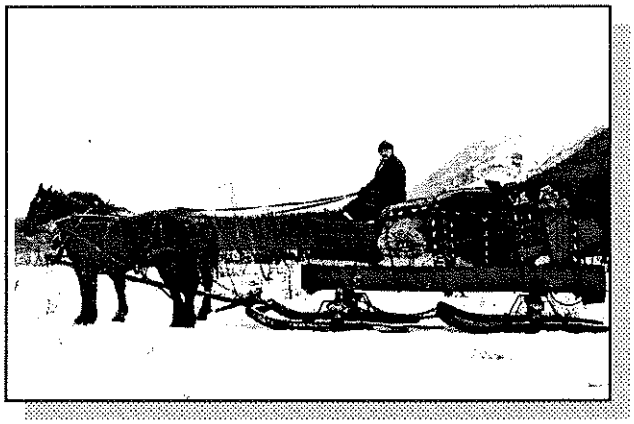
Creation of Loop Trail Systems: The recommended route for the Girdwood-Iditarod Trail could help create two systems of loop trails in the Girdwood area (see Map 2.2). Loop trail systems are

especially attractive because the trail user gets to see new scenery and places throughout their journey rather than retracing their route.

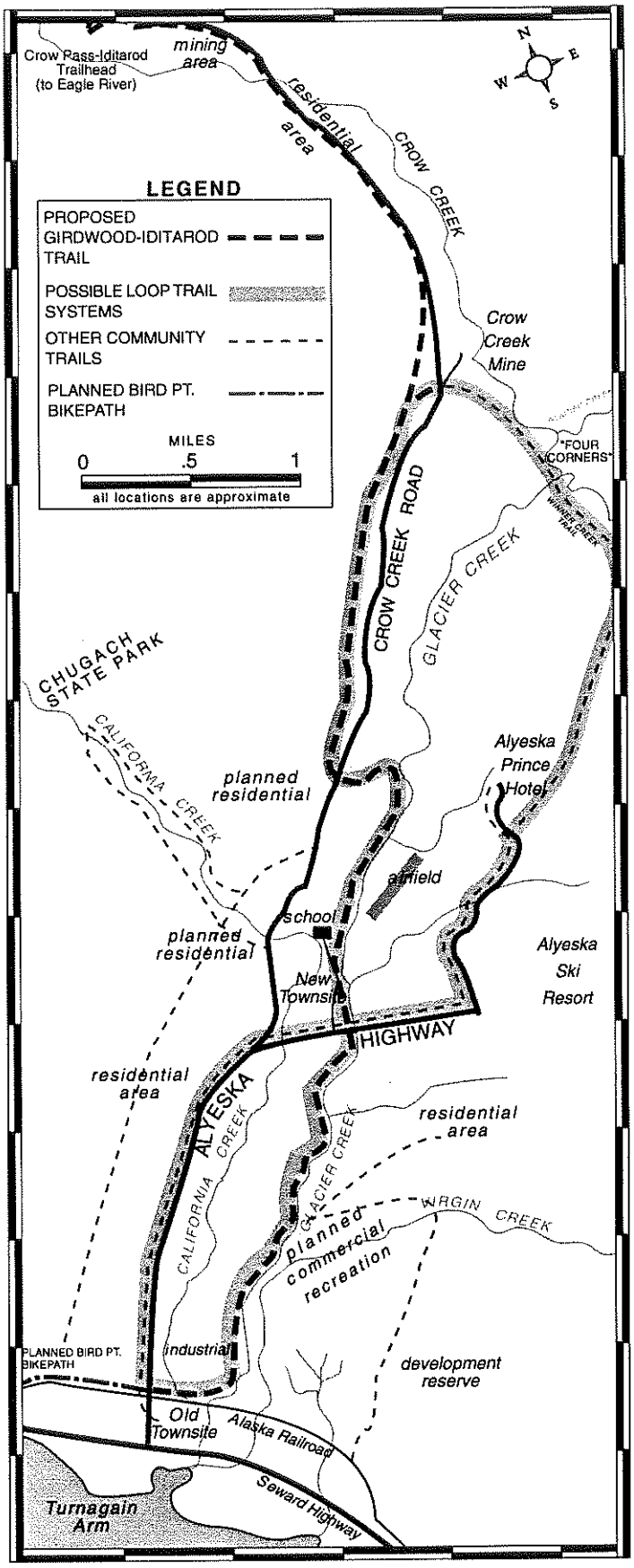
The loops would resemble a "figure-eight" with the two loops joining at a hub at the new townsite. One possible location for the hub is at the Townsquare Park. The lower Girdwood loop would be a four and a half mile combination of the Iditarod Trail and the Alyeska Highway bikepath. A trail user might start at the Iditarod Trailhead at the old townsite, head north on the Iditarod Trail, stop for some food and shopping at the new townsite, and then head south on the highway bikepath to the old townsite trailhead. Given the easy accessibility of this loop system, this trail would be suited to bikers, walkers, and skiers all ages and abilities.

The upper Girdwood loop would be approximately an eight mile trail system formed by the upper Iditarod Trail, the Winner Creek Trail, and the Alyeska Highway bikepath. The upper loop trail would provide a variety of different segments attractive to a wide range of people. Beginning at the new townsite, the Iditarod Trail connect trail users to Crow Creek Mine and the Winner Creek Trail. From Crow Creek Mine, trail users could hike directly to the Alyeska Prince Hotel, crossing the scenic Four Corners Canyon. From the hotel, a person could walk or bike back to new townsite trail hub.

Intermodal Transportation Opportunities:
In the long term future, the provision of a shuttle bus service throughout the valley could significantly enhance the use of the Girdwood loop trails. A system of shuttle buses could provide a convenient "backup" for trail users who may tire of their journey or want to get out of the frequent rains experienced in the valley. Using the main valley roads on regular intervals, the shuttle buses could be easily accessed from more than half of the Girdwood loop trail systems. Together a complementary system of shuttle buses and the loop trails could minimize the need for visitors and residents to use their autos while traveling to valley services or attractions. The effect could be to perpetuate the small town pedestrian character found in Girdwood.



Transportation in Alaska at the turn of the twentieth century relied heavily on horse and mule driven sleds and wagons.



Map 2.2 Recommended route for the Girdwood-Iditarod Trail (thick dashed line) and loop trail systems completed with the development of the route.

Chapter 3. Trail Design Concepts

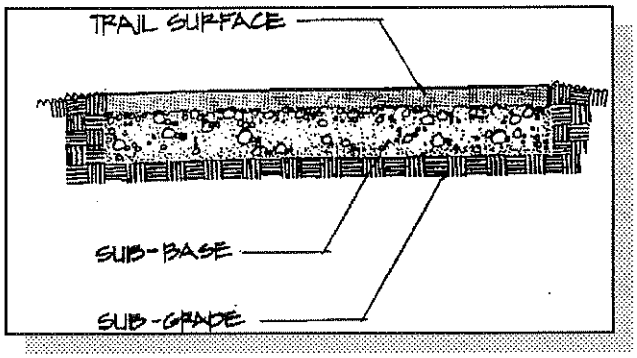
Trail design concepts and alternatives evaluated in the Route Study include trail surfacing, materials and width, vegetation clearing, trailhead parking and facilities, trail signs, trail amenities, and the use of recycled materials.

The development of the following design concepts included consideration for universal access. Universal access design attempts to accommodate the broadest possible spectrum of people and physical abilities. Facilities are designed to accommodate a wide range of trail users abilities, rather than providing facilities for use only by small groups of the general population[1]. Designs for universally accessible recreation trails are categorized as easy, moderate, or difficult, with associated specifications for width, grades, side-slope, and surfacing. It is recommended that future construction design phases of this project include universal access parameters.

The following recommendations are made to be consistent with the trail design standards outlined in the Anchorage Areawide Trails Plan and the Girdwood Area Plan. In situations where a recommendation deviates from a suggested standard, a rationale for the difference is described. Ultimately such differences should be reconciled at the time when construction design for the trail occurs.

A. Trail Materials, Surfacing, and Width

The durability of a trail largely depends on the materials beneath the trail surface. The basic components for a trail include the subgrade, the subbase, and the trail surface. *The following are recommended for installation in the Girdwood-Iditarod Trail in order to prolong the life of the trail:*



Side elevation view of a typical improved surface trail.

- **a cleared subgrade** with good drainage, either on firm dry soil, or with drainage improvements such as culverting.

- **a built-up subbase** to transfer and distribute the weight from the trail surface to the subgrade, and promote drainage from the trail. The subbase should be built to handle the load weights from trail service vehicles and other utility vehicles that frequently use trails

[1] Universal Access to Outdoor Recreation: A Design Guide, PLAE, Inc., 1993

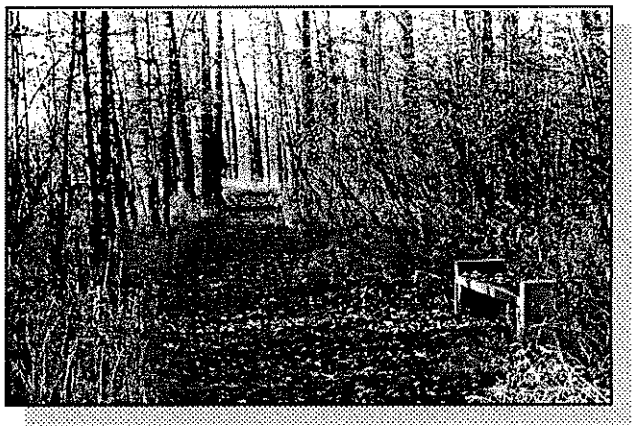
to access job sites. Typical subbase material includes fill or gravel; silty fill should be avoided as it may promote frost heaving.

- **a geotextile mat** spread over the subbase to prevent the trail surfacing materials from sinking into the subbase, prevent roots and weeds from growing up through the trail, and spread the load of service vehicles evenly across the subbase.

Asphalt vs. Packed Granular Stone Surfacing: Options for surfacing the Girdwood-Iditarod Trail are asphalt or a mechanically-packed fine granular stone. Both surface types can meet the needs of universal access, and both have distinct advantages and disadvantages that make each potentially suitable.

Asphalt in a thickness of one and half inches or more is laid on a fine surface known as "leveling course", which sits atop the trail subbase. The advantages of asphalt are that it provides a durable and universally accessible surface if adequately maintained, and is a familiar construction material for urban trail project managers and contractors. The disadvantages are that asphalt can be subject to cracking from frost heaving and root damage and require expensive repair by trained crews. Prevention of asphalt cracking from roots may require the removal of large trees, such as cottonwoods, within 20 to 50 feet of either side of the trail. Such clearing may greatly diminish the natural character of a trail. (See further discussion in the "trail vegetation clearing" section next page.)

Fine granular stone such as ⅜- (minus) gravel (individual stones smaller than ⅜ inch in diameter) provide a hard surface when 4 inches or more is sprayed with water and mechanically packed with a motor grader[2]. Non-toxic binders can also be used to harden the surface, such as pine resin binders. Such surfaces are suitable for walking, biking and universal access needs. Granular stone trails are not as vulnerable to cracking from frost heaving, and do not require the removal of nearby trees. In the case that surface patching is necessary, volunteer crews can be used. Granular stone trails have also proven to be resistant to fast moving flood waters. In terms of construction costs, granular stone trails are in the same range as asphalt



Packed granular stone trail developed by the USDA Forest Service and Ducks Unlimited at Moose Flats in the Portage Valley.

[2] Larger gravel such as rounded "D1" gravel is not suitable because it does not compact well or provide a solid surface.

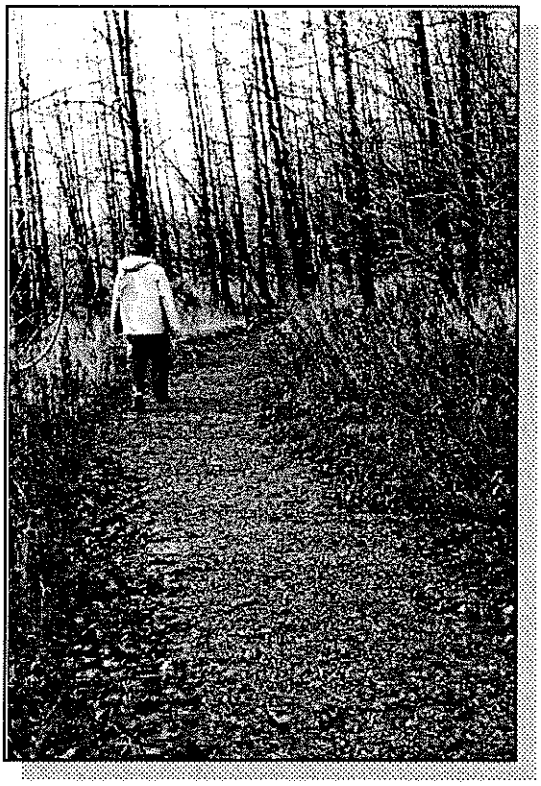
trails, if not less expensive.

The disadvantages of granular stone trails is that edging is may be necessary to hold the improved surface within a particular alignment, and that the trail surface is subject to some seed growth. Seed growth can be discouraged by heavy trail use. Another disadvantage is that this type of construction has not been widely proven among urban trail project managers and contractors and therefore is unfamiliar.

A good example of a granular stone trail is at Moose Flats in the Portage Valley. Constructed by the USDA Forest Service and Ducks Unlimited volunteers in 1995, portions of the trail was covered with two to three feet of fast moving flood waters in September 1995. With some minor exceptions the trail withstood the flooding. In the coming years, the Forest Service intends to build a similar six-foot wide packed granular stone trail that runs the length of Portage Valley.

To date the sentiment in Girdwood has been strongly in favor of granular stone trails both in the lower valley and the upper valley. Public input has recognized that in some high traffic areas, and in areas needing to meet universal accessibility needs, some asphalt segments may be necessary. Otherwise, participants felt that a granular stone trail more closely reflected the small-town character of the community, and that a paved trail through natural areas was out of place.

Trail Surfacing Recommendation: Given that questions exist about the durability of granular stone trails, this Route Study will not make a recommendation for a preferred surface in the lower valley. *It is recommended that the durability of granular stone trails, especially in the Portage Valley, be investigated at the time of construction design for this project. At that time a final decision should be made for the surfacing* of the Iditarod Trail in the lower valley. *For segments of the Iditarod Trail north of the Girdwood School, it is recommended that granular stone trails be installed.*



Six foot wide trail at Moose Flats in Portage Valley. The trail is designed primarily for foot traffic.

Trail Width Recommendations: Trail width is a key factor in the prevention of collisions between trail users, especially between those using different modes such as walkers and bikers. Trail width standards are based on the number of users on a trail in a day. The threshold number of trail users for a ten foot wide trail is more than 1,000 users per day. For the Girdwood-Iditarod Trail, it is anticipated that this level of use will not be reached for at least the first

five years of operation of the trail. *It is recommended that the width of the Iditarod Trail in the lower valley between the old townsite and the Girdwood school be eight feet wide with a cleared shoulder of two feet on either side.*

The recommended width of the trail in the upper valley depends on the particular segment. Generally, *it is recommended that the historic trail be restored to its original width of six to eight feet wide, with two foot cleared shoulders on either side.* Further segment by segment descriptions of recommended widths in the upper valley are seen in Chapter 5.

Trail Vegetation Clearing: The clearing of vegetation in and along a trail alignment is a major determinant in the quality of the users experience, and also the durability and maintenance of a trail. Indiscrete and/or extensive removal of vegetation and trees can destroy the natural feeling of a trail, while inadequate clearing can result in problems with trail durability, and also threaten the day-to-day safety of trail users by blocking sight lines.

Much of the recommended trail alignment in the lower valley passes through forests of some of the largest cottonwoods in Southcentral Alaska. Unlike the smaller trees found in much of Alaska, Girdwood valley cottonwoods along the recommended route dwarf the viewer with massive eight foot diameter trunks towering up to 100 feet. The discrete placement of a winding trails through these huge cottonwoods has the potential to be one of the great trails of the world--truly a world class experience.

Concurrently, the roots from cottonwood trees pose significant threat to the durability of a trail. In a recent study of the cause of asphalt cracking on the Anchorage Coastal Trail, cottonwood roots have been identified as a major culprit. The proposed remedy is removal of large trees within 20 to 50 feet of either side of the trail.

Participants in the Iditarod Trail Route Study workshops repeatedly expressed the importance of maintaining the natural values of trails, including vegetation. Therefore, the removal of a wide corridor of large trees for trail development is not appropriate. Rather, *it is recommended that construction design for the Iditarod Trail make protection of vegetation, especially large trees, a critical parameter for the selection of the trail route and surfacing.* The final route selected should avoid large trees as much as possible, winding through the lower valley forest rather than cutting straight through the area. The trail subbase and surfacing selected should minimize the necessity of removing large

Cottonwood trees adjacent to the Moose Flats Trail, Portage Valley.

trees along the corridor. Perhaps some root cracking of the trail can be accepted as part of maintaining the important natural values of the area.

B. Trailhead Parking

A significant number of potential Iditarod Trail users are from outside the Girdwood area and may begin their use of the trail at the lower end of the valley near the old townsite. For those who drive from outside of Girdwood to access the trail, legal auto parking will be necessary. Auto parking at the southern end of the trail could help reduce otherwise illegal parking at the old townsite, and possibly reduce auto traffic into the valley. At public workshops, community members strongly supported the establishment of trailhead parking at the lower end of the valley.

Other potential trail parking locations that have been suggested during the Route Study are in the vicinity of the new townsite. Possible locations include at the proposed community center, or other visitor parking around the new townsite. (The latter is under consideration in the Girdwood Transportation Study). The trailhead parking size and configuration recommended below is for the lower valley trailhead. Trail parking needs at the new townsite should be considered in the design process for those projects.

Trailhead Parking Size and Configuration: *The recommended number of trailhead parking spaces for the lower valley Iditarod Trailhead is for fifteen to twenty autos and five recreational vehicles (RV's).* The number of vehicle spaces may be limited by the space available at the preferred trailhead site; therefore the number is subject to some variation.

It is recommended that the trailhead parking be configured as a one-way loop with parking off the loop, rather than as a two-way dead-end layout. Dead-end parking layouts create congestion and are difficult for RV's to maneuver in and out of.

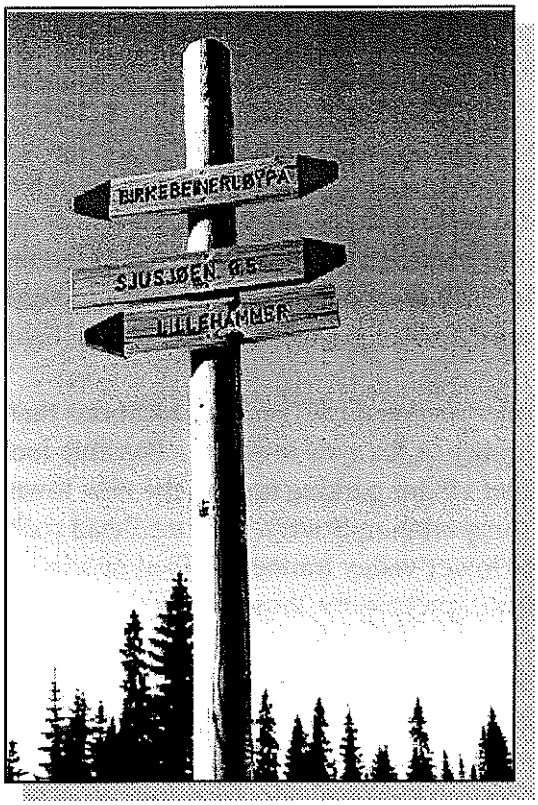
Trailhead Amenities: *It is recommended that information kiosks, directional signs, and restrooms be provided at the trailhead. Information kiosks and directional signs should be provided if and when any parking areas are developed at the new townsite.* These improvements help enhance the experience of the visitor by providing for basic needs. The provision of restrooms and trash barrels should be further evaluated at the time of construction design. Restroom and trash barrels can help to prevent human waste problems and littering in the area. The disadvantage is the cost of maintaining restrooms and disposing of trash.

C. Trail Amenities

Amenities recommended for the length of the trail are signing, a comprehensive color scheme, the incorporation of artistic design and construction in trail facilities, and the use of recycled materials for trail construction.

Trail Signs: The provision of signs are critical for encouraging fun and safe use of a trail while educating the user about their surroundings. Trail signs can be categorized as directional, informational, or interpretive.

Direction signs should be placed at the intersections between the Iditarod Trail and other trails, on nearby roads, and in the town centers so trail users can easily find their way to the trail, and once on it determine where they are in relation to their destination.



Trail direction signs outside of Lillehammer, Norway.

Information signs include large trail maps, route descriptions, safety warning signs, trail mileposts, and the names of intersecting trails and roads, all in a manner that meet universal access guidelines. Maps of the route should be placed at all major trailheads, hubs and intersections. Trail signs with universal design symbols (similar to the green, blue and black diamond symbols used at ski areas) should be posted at the beginning of every distinct segment of the trail. At a minimum the signs should describe the type of trail, length, elevation changes, average and maximum slope, width, surfacing, and obstacles such as ruts, boulders, and roots. When possible, a grade profile should be provided.

Information signs at trailheads and hubs could be consolidated under covered kiosks that allow users to get out of the weather. *Kiosks should be located at the old townsite trailhead and at a central location in the new townsite,* such as the Townsquare Park (see Chapter 4 for details on the park). A portion of the kiosks at the townsites should be provide sign space for local businesses. The space allocated for businesses should be designed to be consistent with trail information. The cost of these kiosks might be borne in part by a fee for local merchants to have the right to advertize at these locations.

Safety warning signs should be placed at regular intervals along the trail to inform users of positive behavior. Trail mileposts should be installed for trail users to determine their progress on a segment of the trail, distance from origin and distance to destination. Direction and information signs should be designed to reflect the natural and historic features of the trail. Where possible, wood or wood trimmed signs should be used.

The Girdwood-Iditarod Trail offers a rich palate of natural, scenic, and historic values that could greatly be enhanced with the provision of interpretive signs. For many trail users,

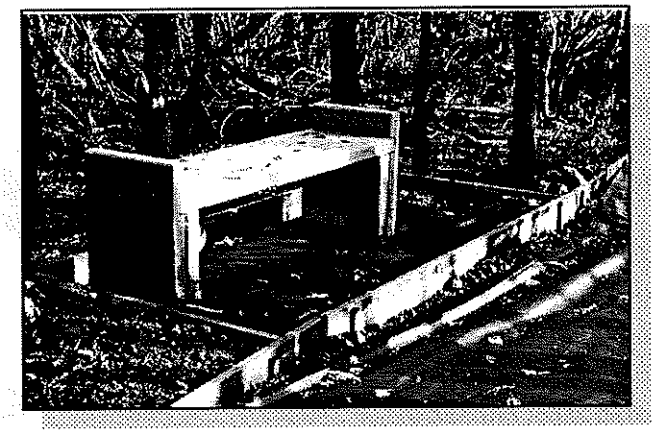
interpretive signs are the "icing on the cake" of a trail. Interpretive signs help the trail user discover and learn about the places and sights they directly encounter along the trail. This process of discovery makes the trail use experience valuable for first time users, and a reason for frequent users to lookout for changes on their return trips.

Natural features that should be interpreted by signs, photos, and graphics on the Iditarod Trail include local geology, northern rainforest ecology, and wildlife. Cultural features that should be interpreted include gold mining, historic use of the trail, the settlement of Girdwood, and the construction of the Alaska Railroad. As shown in this document, a wide variety of historic photos are available that clearly convey what it was like to live and travel through the Girdwood valley during the early twentieth century.

All interpretive panels should be designed for universal access, and for durability against vandalism. Recent improvements in durable printing make it possible to replace interpretive panels from a sign at relatively cheap cost, rather than replacing the entire fixture.

Construction design for the Iditarod Trail should include a comprehensive sign plan. The plan should include the location, prototypes, and cost estimates for directional, informational, and interpretive signs throughout the trail.

Covered Benches: *It is recommended that benches be provided along the Iditarod Trail, primarily on the lower segment*, for trail users to rest and enjoy their surroundings. A good example is the surplus ski chairlifts that have been retrofitted and placed along the Alyeska bikepath at good view points. The benches along the Iditarod Trail should be located in a similar manner at scenic viewpoints. *It is also recommended that small covered rain-shelters be considered for some benches.* These rain-shelters would allow the trail user to get a break from the frequent wet weather of Girdwood.



Installation of bench made from recycled materials. Note geotextile material and wooden edging for trail in foreground.

Color Scheme: Comprehensive color schemes are frequently used on trails facilities to complement the area surroundings and create a sense of continuity between facilities along a route. Painting is necessary on facilities such as fences, retaining walls, and railings to prevent

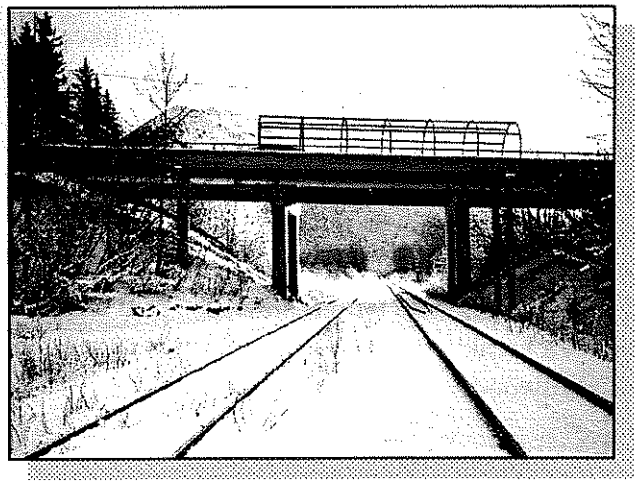
rust and prolong the life of the improvement.

One example is the Tony Knowles Coastal Trail, which is trimmed with blue and grey to complement the waters and mud flats of Cook Inlet. Another extensive example is in the Portage Valley. There the USDA Forest Service developed custom "glacier blue" and "aspen green" paints to reflect the valley glaciers and forests, and to replace the otherwise standard colors used at recreation facilities. These colors are used throughout the Portage Valley on everything from signs to outhouses. For the Iditarod Trail, it is recommended that a comprehensive color scheme be developed as part of the design of the trail.

One innovative application of the coloring theme for the Iditarod Trail could be on the bridges the trail passes under. Two underpasses are recommended for the trail, one connecting to the Bird Point bikepath, and the other to link the lower trail to the upper trail at the new townsite. Both underpasses create a strong sense of entry into a new area of the valley for the trail user. Both of these steel and concrete bridges are painted for rust prevention in a tone of grey, although rust prevention paint comes in many colors. Perhaps the best example of a dramatically painted bridge is the Golden Gate Bridge, which is not painted to disappear in the sky, but is colored to highlight the dramatic features of the man-made span and the mouth of San Francisco Bay.

In a similar manner the City of Baltimore, working with artist Stan Edmister, has created bold color schemes for 16 bridges over Interstate 83. The coloring of the bridges of Baltimore uses existing colors and contracting procedures and add no cost to bridge maintenance. To highlight a bridge's design, colors are matched to specific structural components, based on community input. Similar color schemes have been proposed or are underway in Boston, New York, Tucson, and Louisville.

For the Iditarod Trail it is recommended that the feasibility of coloring the Alyeska Highway bridges / trail underpasses be further investigated. Rather than a typical drab steel and concrete overpass, the painted bridges would further the sense of entry into the unique Girdwood valley.



The addition of colored trim to the recommended underpass route for the Iditarod Trail could create a sense of entry into the Girdwood valley. The trail would pass on the slope to the left of the bridge column on the left, and be separated from the railroad with fencing.

Incorporating Art into Facility Design: Another seemingly foreign idea worth considering for the Iditarod Trail is the incorporation of functional art into trail facilities. The idea is literally foreign in origin--the Sustrans Rail/Trail system in Great Britain is home to the widespread

installation of a number of fantastic, whimsical, and entertaining pieces that blur the distinction between a trail structure and a piece of art. Sculptures are created to span waterways. Scrap metal is welded into life size cows or other sculptures, providing unique mile markers through dairy farm country. Roman legions made convincingly of acetylene gas bottles and other junk metal descend upon the trail, reminding the user of the long ago occupation of their land. Pools of brick fish and other wild creatures provide drinking water to admiring children (and adults) every five miles. The half mile long Lampton Worm, a modern day mound, undulates its way along the trail, forty feet wide and twenty feet high, providing a buffer for the trail. And benches for the weary look like they belong in a museum of wood sculpture, rather than on the ground.

These particular pieces would be out of place in Girdwood just as much as a sculpted dog team would be out of place in England. These fantastic structures are effective because they reflect the unique qualities of the region, provide a place to bring out the best of the community, and make the trail full of delightful surprises. In a similar manner, the Iditarod Trail could provide a venue for finely crafted or innovative structures. Trail structures could surprise, captivate or move the trail user to reflect on the dynamic natural forces of the valley, or the people who have gone and come to live in this place.

Trail structures that deserve innovative and creative attention include benches, milepost, signs, bridges, and rainshelters. The blending of Alaskan inspired art and form could create a truly world class trail remembered by all those who travel the Girdwood-Iditarod Trail. Therefore, it is recommended that during the design process, creative ideas from the community and larger region be solicited and applied to the development of innovative trail structures.

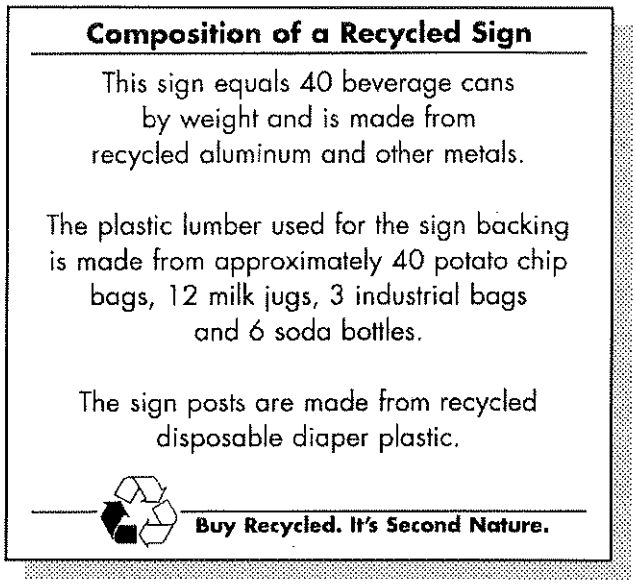
Timber frame bridge at Forsythe Park (near O'Malley School) in Anchorage. Note carved salmon on base of bridge.

Recycled Construction Materials: Recycled construction materials should be evaluated for use on the Iditarod Trail. The use of recycled materials, plus accompanying interpretive information to educate trail users, help to show how the recycling loop can be closed. A nationwide model of this concept is the Swift Creek Recycled Greenway Trail in Cary, North Carolina. The entire 0.8 mile Swift Creek trail, including a paved trail, four bridges and eight culverts, signs, and other amenities are made of recycled materials. Recycled materials used in the trail include geotextile fabric made from recycled plastic, plastic lumber made from milk jugs, and recycled asphalt made from rubber tires and asphalt shingles.

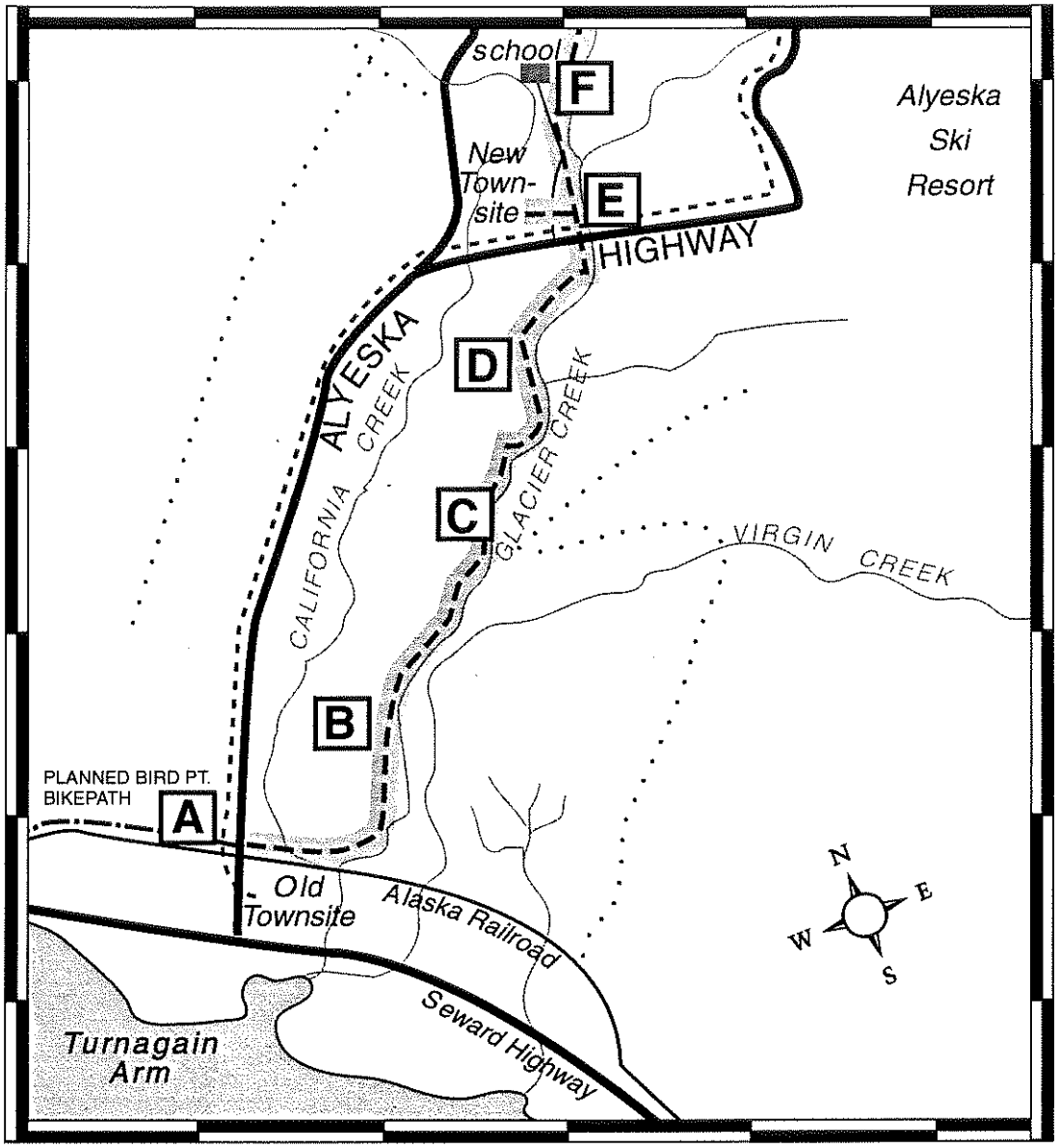
In some cases recycled materials are cheaper than virgin materials, and/or provide superior performance. For instance, plastic lumber is available that is more durable then concrete. And in

the wet environment of Girdwood, plastic lumber may provide a longer lasting, more cost-effective choice than treated lumber.

It is recommended that during the design process for the Iditarod Trail, the use of recycled materials be evaluated, and where cost effective or appropriate, be selected and installed. The use of recycled materials should be accompanied by interpretive signs explaining the recycled content of the materials.



Trail sign from the Swift Creek Recycled Greenway in Cary, North Carolina.



LEGEND

PROPOSED GIRDWOOD–IDITAROD TRAIL

EXISTING BIKEPATHS

OTHER COMMUNITY TRAILS

PLANNED BIRD PT. BIKEPATH

TRAIL FEATURE
SEE TEXT FOR DETAILS A

all locations are approximate

MILES
0 .5 1

Map 4.1 Proposed Iditarod Trail Route and Features:
Lower Girdwood Valley

Chapter 4. Recommended Trail Route and Improvements - Lower Valley

Overview: The recommended route for the commemorative Girdwood-Iditarod Trail in the lower Glacier Creek valley is on the west side of the creek (see Map 4.1). The 2.4 mile trail would connect the Turnagain Arm Trail at the old Girdwood townsite to the new Girdwood townsite and the Girdwood School.

The Iditarod Trail would start at the east end of the planned Turnagain Arm Trail (Bird Point bikepath) with a "seamless" connection between the two trails. The connection would allow the Iditarod Trail user to travel without crossing a road or railroad to connect to the Turnagain Arm Trail, the Alyeska Highway bikepath, and the old townsite.

Girdwood in 1906. View is looking north from Turnagain Arm.

It is recommended that the Iditarod Trail share a trailhead parking area with the Turnagain Arm Trail in the vicinity of the Alaska Department of Transportation and Public Facilities (ADOTPF) service facility.

A new underpass beneath the Alyeska Highway railroad bridge is recommended to link the trail to the Glacier Creek valley. The Iditarod Trail in the lower valley would be built to easy access standards, with an improved surface trail eight feet wide with two foot cleared shoulders. The lower valley trail would run north along Glacier Creek to the new townsite, then passing under the Alyeska Highway to intersect with the school bikepath. The trail would be designed for non-motorized multiple uses.

The recommended route follows a trail corridor previously adopted in the Anchorage Trails Plan. The entire segment would be on Municipality of Anchorage or other public lands, and the majority of the route would be within 200 foot public easements along California and Glacier Creeks.

A. Turnagain Arm Trail Connection / Shared Trailhead

Background: In 1997 and 1998 the current mountainside alignment of the Seward Highway between Girdwood and Bird Point will be realigned to a sea level route. After realignment part of the road will be removed and the remainder will be converted into a multiple use trail

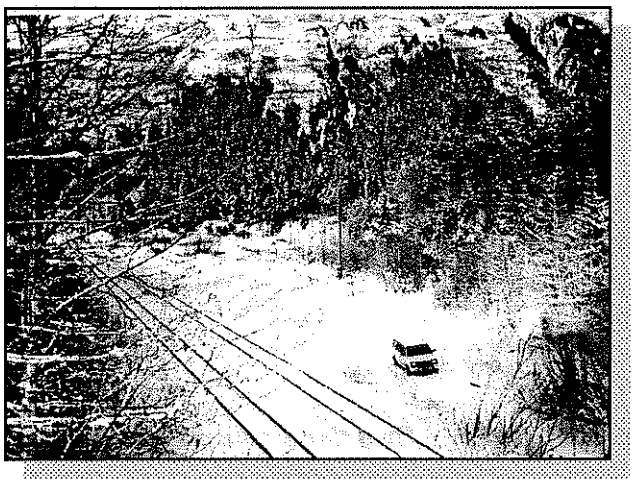
managed by Alaska State Parks. The converted road would become a segment of the Turnagain Arm Trail, which is a envisioned by the State of Alaska to connect Anchorage and Girdwood (the trail project is often called the Bird Point bikepath, including Map 4.1).

In order to reach Girdwood with the Turnagain Arm Trail, the current Seward Highway crossing of the Alaska Railroad would be abandoned. The ADOTPF intends to construct the Turnagain Arm Trail along the north side of the railroad to the vicinity of their road service yard in Girdwood (see Figure 4.2). Preliminary plans have the Turnagain Arm Trail then climbing a long ramp to connect with the Alyeska Highway bikepath where it crosses over the railroad. The state may install Turnagain Arm Trailhead parking for approximately 20 cars between just south of the highway maintenance yard (listed as Site C in Figure 4.2).

On the west end of the Seward Highway / Turnagain Arm Trail conversion project, a separated paved trail will be built between Bird Point and the Bird-to-Indian community trail. And at Bird Point, Alaska State Parks is planning to develop visitor facilities and interpretive displays. Given the availability of construction funds a 13 mile paved multi-use trail will link Girdwood to Bird Point and the communities of Bird and Indian by the year 2000.

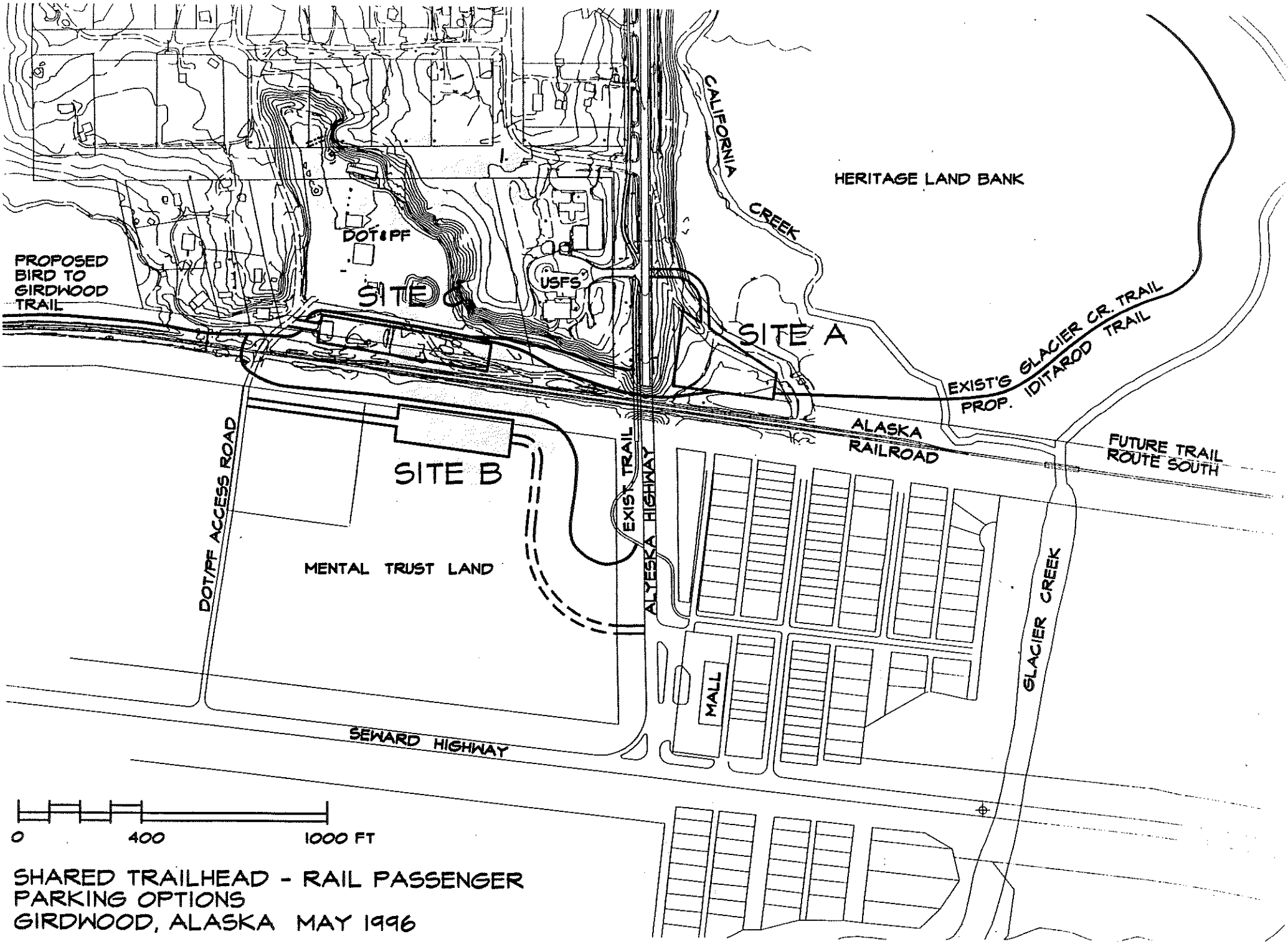
Recommended Iditarod Trail / Turnagain Arm Trail Connection: *In order to connect the Iditarod Trail to the Turnagain Arm Trail, a trail underpass is recommended for installation next to the railroad underpass beneath the Alyeska Highway.* An underpass is critical for providing a continuous "road-crossing free" link between the Turnagain Arm Trail and the Iditarod Trail. Considered to be technically feasible, the underpass would be located on the north side of the Alaska Railroad. The underpass would involve routing the trail between the bridge supports and the slope of the bridge and building retaining walls and fencing to separate the trail from the tracks.

Recommended Iditarod Trailhead Location: For the short and mid-term future, *it is recommended that the Iditarod Trail develop and/or share trailhead parking with the Turnagain Arm Trail at Site C on Map 4.2.* Shared trailhead parking could enhance the trail users experience with options to use the Turnagain Arm Trail, Iditarod Trail, or Alyeska Highway bikepath. It would also eliminate the need for redundant sites and minimize the amount of land disturbed for parking. Access to the trailhead would be on an ADOTPF service road to the facility.



Recommended site for shared Turnagain Arm Trail and Girdwood-Iditarod Trail parking area. The parking area would be separated by a fence from the railroad. View is west from Alyeska Highway overpass at the old townsite.

In the long term, it may be advantageous to expand parking for the shared trailhead, and



SHARED TRAILHEAD - RAIL PASSENGER PARKING OPTIONS
GIRDWOOD, ALASKA MAY 1996

Map 4.2

accommodate parking and facilities for a rail passenger platform. In the future, rail passenger service may be provided to Girdwood. As part of the Girdwood-Iditarod Route Study, a preliminary assessment was made of the various trailhead sites and their advantages and disadvantages. The site locations are shown on Map 4.2, and a "trailhead site analysis summary" can be seen in Appendix A.

Each of the three possible sites identified could be suitable for a shared trailhead / rail passenger facility. If and when rail passenger service is planned for Girdwood, *it is recommended that the combination of a trailhead / passenger facility be further considered.*

B. Lower Valley Underpass to Industrial Park

The following description of the trail alignment assumes travel on the trail from the south to the north. The recommended standard for the entire segment between the Turnagain Arm Trail and the Girdwood School is an eight-foot wide improved surface trail with two foot cleared shoulders.

Recommended Route - Underpass to Lower California Creek: This approximately 1,200 linear foot section would start at the east side of the Alyeska Highway underpass connection to the Turnagain Arm Trail and travel northeast to California Creek. In general, the recommended route follows an existing eight-foot wide unimproved trail that parallels and then crosses California Creek on a timber and plank bridge. The California Creek segment is entirely on lands designated as Open Space in the Girdwood Area Plan.

The California Creek segment could provide a short walk for trail users not interested in using the entire trail yet interested in getting a "taste of the Iditarod". Interpretive signing could be installed in this section of the trail to convey information about salmon spawning in the stream or the Glacier Valley ecosystems. A short loop trail could be developed using part of the Iditarod Trail.

Bridge across California Creek.

At the point the trail crosses a recently cleared sewer line, barriers will have to be installed to prevent unauthorized motor vehicles from using the trail or the underpass. In order to cross California Creek, an approximately 20 foot bridge will have to be installed. It is also recommended that in places where the existing footpath is directly adjacent the creek, the trail is rerouted away from the stream and the footpath revegetated to provide a streamside buffer. It may also be appropriate to install a salmon-viewing deck in this area.

This segment of the proposed trail and the following segment to the industrial park are the only two segments of the entire trail traversing areas designated as wetlands. Construction designs will have to be reviewed and permitted by the appropriate wetlands authorities for trail development in this area.

Recommended Route - Lower California Creek to Industrial Park *The recommended route follows the existing trail north from the California Creek bridge through a stand of large and tall cottonwood forest for approximately 2,000 linear feet.* In the winter, the forest canopy is open to receive snowfall on the trail, and provides good views of adjacent mountains. In the summer, the route is more closed in as forest-floor vegetation blooms. To the maximum extent possible, the existing route should be used as the alignment of the Iditarod Trail.

This segment is located entirely within Municipal lands designated as Open Space in the Girdwood Area Plan. The recommended route is also generally located on the west edge of the Secondary Study Area for the proposed Girdwood Golf Course. The golf course, proposed by the Municipality of Anchorage, would consist of up to 330 acres of Municipal lands in the lower Glacier Creek valley leased for the development of the golf facilities, commercial areas, and residences. (For further information, see the Municipal Heritage Land Bank Request For Proposal 96-01 "Development of Public Resort Golf Course / Nordic Ski Course and Related Recreational, Commercial and Residential Areas".)

Recommended Route - Through Girdwood Industrial Park*: The recommended route is generally along the eastern edge of the industrial park (which is also the edge of the proposed Girdwood Golf Course Secondary Study Area).* The majority of the land in the industrial park is currently unused; the primary tenants are the local sewage treatment plant and solid waste transfer facility at the north end of the park.

The existing route exits the cottonwood forest onto the southeast edge of the 30 acre cleared and filled area. In this area, an undisturbed strip of cottonwood forest continues northwest to the corner of the abandoned percolation pond for the treatment plant. In order to buffer the trail from future industrial uses, it is recommended that this forested strip be further evaluated as a possible alignment for the Iditarod Trail. If the forested strip is not suitable, an alternative alignment would be to route the trail immediately along the east edge of the cleared area on the existing trail.

The recommended route would continue north along the top of the dike of the abandoned percolation pond. The river area east of this dike was extensively scoured by the 25 year flood event of September 1995; therefore there is no flood proof alignment east of the dike. In order to reach the elevation of the southern end of the dike, it may be necessary to install a short bridge or fill the abandoned drainage channel. Further consultation will be necessary within the Municipality regarding the specific location of the trail at the time the trail design and engineering is undertaken.

The recommend route would continue north, skirting the east side of the Anchorage Water and Wastewater Utility sewage treatment plant on an existing "two-track" trail. Currently the treatment plant is separated from the two-track trail by a high chain link fence and some low vegetation. The recommended route would be located on this trail, as the areas to the east are either wetlands or subject to flooding.

It is recommended that where possible, vegetation screening be provided between the trail and the Industrial Park. In some cases it may not be possible to provide vegetation screening due to site terrain or the need for access for treatment plant maintenance vehicles. A further determination on the appropriate amount of vegetation screening should be made at the time the construction design is done for the trail.

Recommended Route - Industrial Park to Golf Course Bridge: *From the treatment plant, the recommended route is along an existing "two-track" trail that runs northeast along Glacier Creek.*

Immediately north of the treatment plant the recommended route runs on top of a low streambank that separates Glacier Creek to the east from the wetlands of California Creek to the west. During the flood event of September 1995, flood waters flowed across this streambank. It is anticipated that this approximately 300 foot stretch of the trail would be vulnerable to further large flood events, and therefore would require a combination of fill, armoring, culverts, board walking, or bridging. An exact determination of an appropriate trail supporting structure should be made at the time of construction design.

It should be noted that this segment of the trail would be very close to the Ruane Rd. to Glacier Creek Connector Road proposed in the Girdwood Area Plan. Due to the fill or bridging that will be required to support the roadbed, it may be advantageous to route the trail along that short section of road. If this is appropriate, it is recommended that this segment of the trail be separated according to Municipal trail standards.

The recommended trail would then continue northward, away from the planned road on an existing eight foot wide "two-track" trail. Good views of the Glacier Creek and the hanging mountain valley of Virgin Creek are available in this vicinity; a trail pullout with benches should be developed at this location. The existing trail continues north to a monitoring well, and then turns east to connect with the Glacier Creek Road. The recommended route would stay near Glacier Creek, winding through the cottonwood / spruce forest to the vicinity of a golf course bridge.

The segment of the recommended route north of the treatment plant is within Municipal lands designated as Open Space, along with the Secondary Study Area for the proposed Girdwood Golf Course.

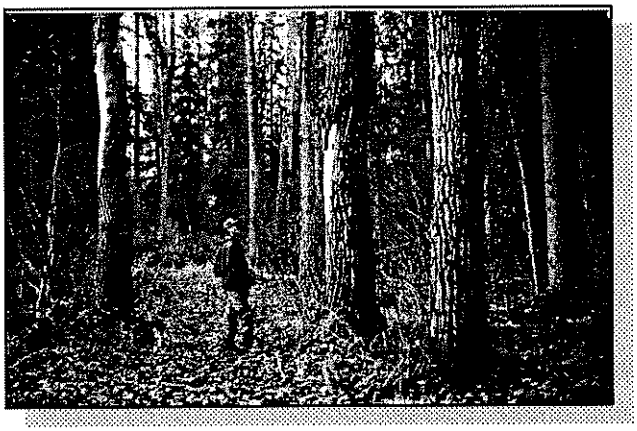
C. Golf Course Bridge

It is anticipated that a bridge will be built by developers to carry golfers across Glacier Creek to fairways on the east side of the creek. The site for the bridge has not been established but is expected to be somewhere north of the treatment plant and the California Creek wetlands in the vicinity of the previously mentioned monitoring well (see letter C, Map 5.1).

It is recommended that the golf course bridge be designed for shared use by golfers and trail users. The bridge would enable public access to the Virgin Creek Trail and the residential neighborhoods of the Alyeska Basin subdivision. As a result a large portion of the population of the valley would gain easy access to the Iditarod Trail.

D. Golf Course Bridge to Alyeska Highway

Recommended Route - Golf Course Bridge to Alyeska Highway: *From the golf course bridge site the recommended route would generally parallel the west side of Glacier Creek within the public easement* (segment C to the Alyeska Highway, Map 5.1). Currently the area is undisturbed forest with large cottonwoods, spruce, alder and devils club. It is recommended that the trail be routed through the cottonwood forest at a varying distance from the creek to provide a natural buffer to the riparian areas. A winding route would also give the trail user a chance to experience some of the largest cottonwood trees in Southcentral Alaska.



Cottonwood forest in the lower Girdwood valley.

Occasionally a side spur of the trail should be routed to a view from the creekbank, with rest benches provided. Near the north end of this segment, the trail would travel between the new Lions Club picnic area and the west bank of Glacier Creek before passing under the Alyeska Highway. It is recommended that a spur trail be developed to the picnic area.

Land Status: This segment of the recommended route would bisect the Primary Study Area of the Girdwood Golf Course RFP. From the south to the north, the land use designations in this area are for Commercial Recreation, Commercial, and Public Lands and Institutions. All of these areas are slated for future development, either for the golf course, or a proposed Girdwood Community Center.

Recommended Trail Design Standards in the Golf Course Area: The RFP for the Girdwood

Golf Course requires that the developer of the site to construct the primary public trails within the leasehold. It is therefore recognized that the location of the of this segment of the Iditarod Trail will be subject to the golf course master planning. The following recommendations are offered to help guide that planning effort.

Trail design and construction should follow the standards recommended in this Route Study in order to provide a relatively "seamless" trail experience for the user. At a minimum, the trail within the golf course area should be the same width as the remainder of the trail in the lower valley. The trail should also be designed to minimize conflicts between trail users and golfers. It is recognized that it may be necessary to provide a shared trail in order to provide access for golf carts. In these areas, it may be necessary to provide a wider trail.

Generally the Iditarod Trail should be located within a vegetated buffer along the west side of Glacier Creek, separated from incompatible adjacent uses in some cases, and where appropriate, linked by spur trails. To the maximum extent possible, natural vegetation should be maintained between the trail and private development. In the case that a golf fairway is developed immediately adjacent to the trail, a minimum 50 foot buffer should be maintained, preferably with natural vegetation.

To the extent possible, all natural vegetation, especially mature trees and the understory of alder, should be maintained between the creek and the trail. Disturbance of riparian vegetation should be avoided or minimized. An alignment away from the creek in the mature forest will provide protection to the trail from flood waters (the area was not flooded in the September 1995 event).

Public access trails and directional signs should be provided at convenient intervals for pedestrians reaching the trail off Glacier Creek Drive.

Trail Parking at the Proposed Community Center: Currently a new community center is proposed for the area in the vicinity of the Girdwood Fire Station. If and when the community center is developed, public parking should be made available for trail users, along with directional signs and a well-marked route to the proposed Iditarod Trail.

E. New Girdwood Townsite

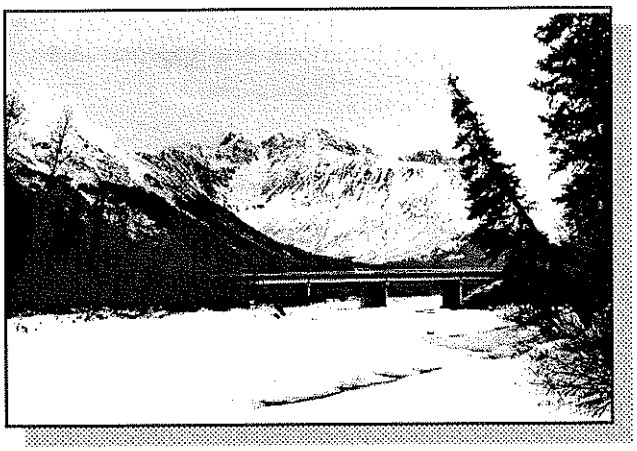
Recommended Route - Alyeska Highway to Girdwood School: This segment of the recommended route would skirt the new townsite on the west bank of Glacier Creek. An underpass beneath the the highway would link the trail south of the road to the school via an eight foot wide improved surface trail.

Underpass at the New Townsite: *In order to reduce traffic hazards to pedestrians and schoolchildren, an Alyeska Highway underpass and Glacier Creek route to the elementary school is recommended (see Map 4.3, page 4.10).* A route under the Alyeska Highway and

behind the town would provide an auto-free route under the busy highway and past the town center to the school.

Preliminary field work indicates there is adequate space under the Alyeska Highway bridge to develop the Iditarod Trail. It would be necessary to install retaining walls and perhaps armored trail approaches to the underpass to prevent further flood damage. The west side of Glacier Creek just north of the bridge, along with the bridge piers, were heavily scoured by the 1995 flood. Development of the underpass will have to include designs to withstand damage from future flooding.

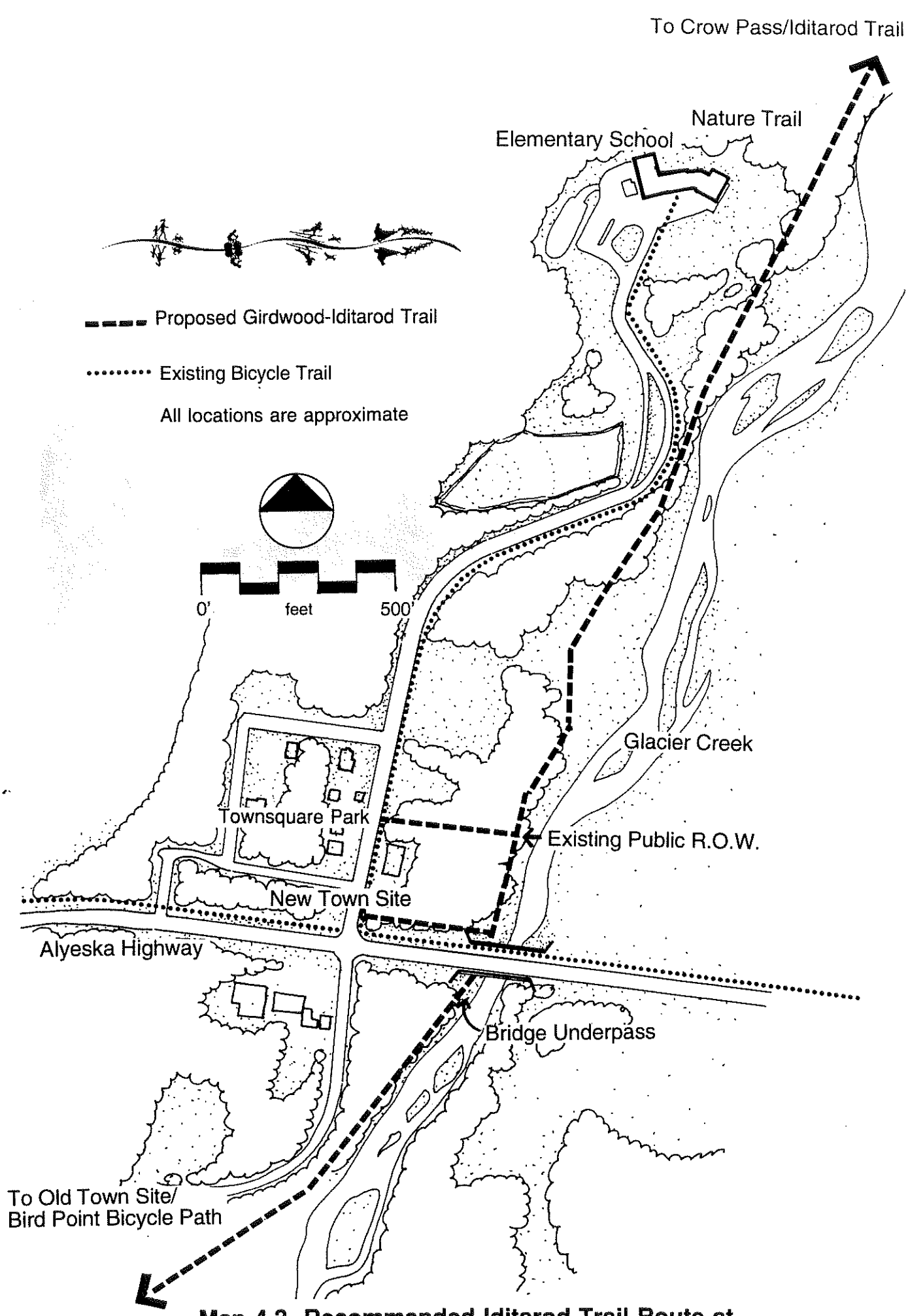
Short connector trails should be installed on either side of the west approach to the Alyeska Highway bridge. Currently, unimproved paths link the underpass area to the intersection of Glacier Creek Road and Hightower Avenue to the Alyeska Highway. The connector trails would provide an important connection to the playgrounds on the south side of the highway, and to the Alyeska Bikepath and the town center on the north side of the highway.



View north from Glacier Creek toward the new townsite. The recommended route for the Iditarod Trail would follow the creekbank on the left and then pass under the Alyeska Highway bridge and head towards the Girdwood School.

Recommended Route - New Townsite Underpass to School Bikepath: *From the proposed underpass, the Iditarod Trail would lead north approximately 1,600 feet along the west side of Glacier Creek to connect with the school bikepath near the point the path is closest to creek.* The trail would generally follow a dike wall along the west bank, passing near an inactive AWWU well house. These lands have been mostly cleared of native vegetation, and are littered with an occasional junked car. In order to buffer the trail from the cleared areas, it may be appropriate to provide some revegetation or landscaping along this segment of the trail. The Iditarod Trail would connect with the school bikepath near the point the bike path curves closest to Glacier Creek.

The southern half of this segment of the trail would be located on Alyeska Highway ROW and Municipal lands designated as Open Space; the northern half located on the southeast corner of a parcel owned by the ADOTPF for the Girdwood Airport. The airport parcel is also designated as Open Space in the Girdwood Area Plan. In order to acquire locate the Iditarod Trail on the airport parcel, it would be necessary to get an easement from ADOTPF.
This segment of the trail should be connected to the new townsite using an existing public walkway that connects the Municipal parcel on which the Iditarod Trail would be located to Hightower Avenue and Townsquare Park.



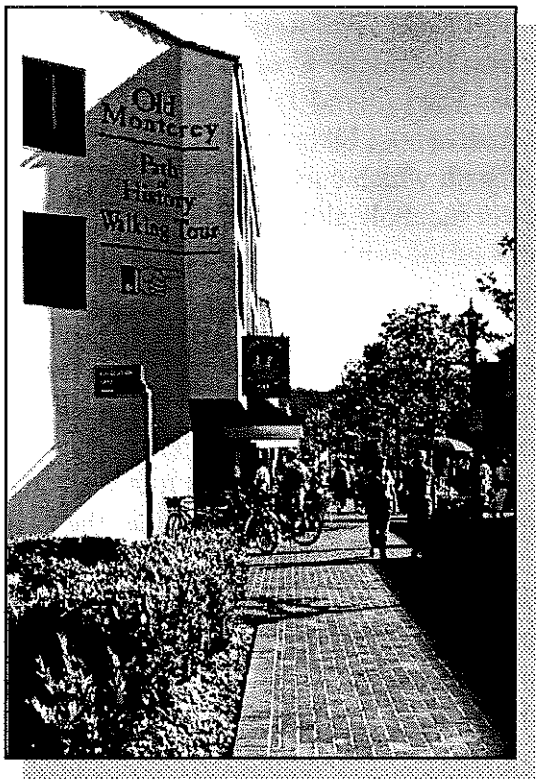
Map 4.3 Recommended Iditarod Trail Route at New Girdwood Townsite

Connecting the Iditarod Trail to the Girdwood Townsquare Park: The recommended route for a commemorative Iditarod Trail would skirt the "heart" of the new townsite to the east along Glacier Creek. If community members felt it was appropriate to strengthen the connection between the town center and the trail, the Townsquare Park at the center of the new townsite could provide an opportunity to commemorate the Iditarod Trail.

The Townsquare Park in the heart of Girdwood is surrounded by a number of commercial lots that face out to surrounding streets. Platted public walkways lead to the Park from each of the four surrounding streets. The Park is minimally developed with a few picnic tables; otherwise natural vegetation including large cottonwood trees dominate the site.

This Route Study recommends that further consideration be given to commemorating the Iditarod Trail and the history of Girdwood in the Townsquare Park. The commemoration could be achieved with a combination of art and interpretive information. The Park might be designed in a manner similar to historic town squares found in other parts of the country, perhaps with an statue commemorating the Iditarod Trail in the middle of the park. Other features found in town square parks might be considered such as winding promenades and park benches. Also, local businesses could be encouraged to orient their operations into the Town square Park, providing easy access for park visitors to their services.

A commemorative development in the Town square Park could help strengthen the role of the new townsite as the central core of Girdwood and enhance the small-town character of the community. With a redeveloped Town square Park, a trail hub would be created for Iditarod Trail users starting their journey at the south end of the valley, or for Girdwood visitors who might start at the Alyeska Prince Hotel or other local accommodation.



In Monterey, California, a pedestrian mall in the center of town is the hub for historic walking tours, the Monterey Bay Coastal Trail, and a rail-trail leading to the Monterey Aquarium.

New Townsite Parking: Recently the Municipality adopted a Supplemental Parking Plan for the new townsite. The parking plan designates the existing roads encircling the new townsite area for supplemental angle parking.

Public parking at the new townsite is also currently the subject of the Girdwood Transportation Study. It is likely that the Transportation Study will recommend short-term "intercept" parking

lots for Girdwood visitors in the vicinity of the new townsite. These parking lots would become the primary parking area for most Girdwood area visitors, including skiers.

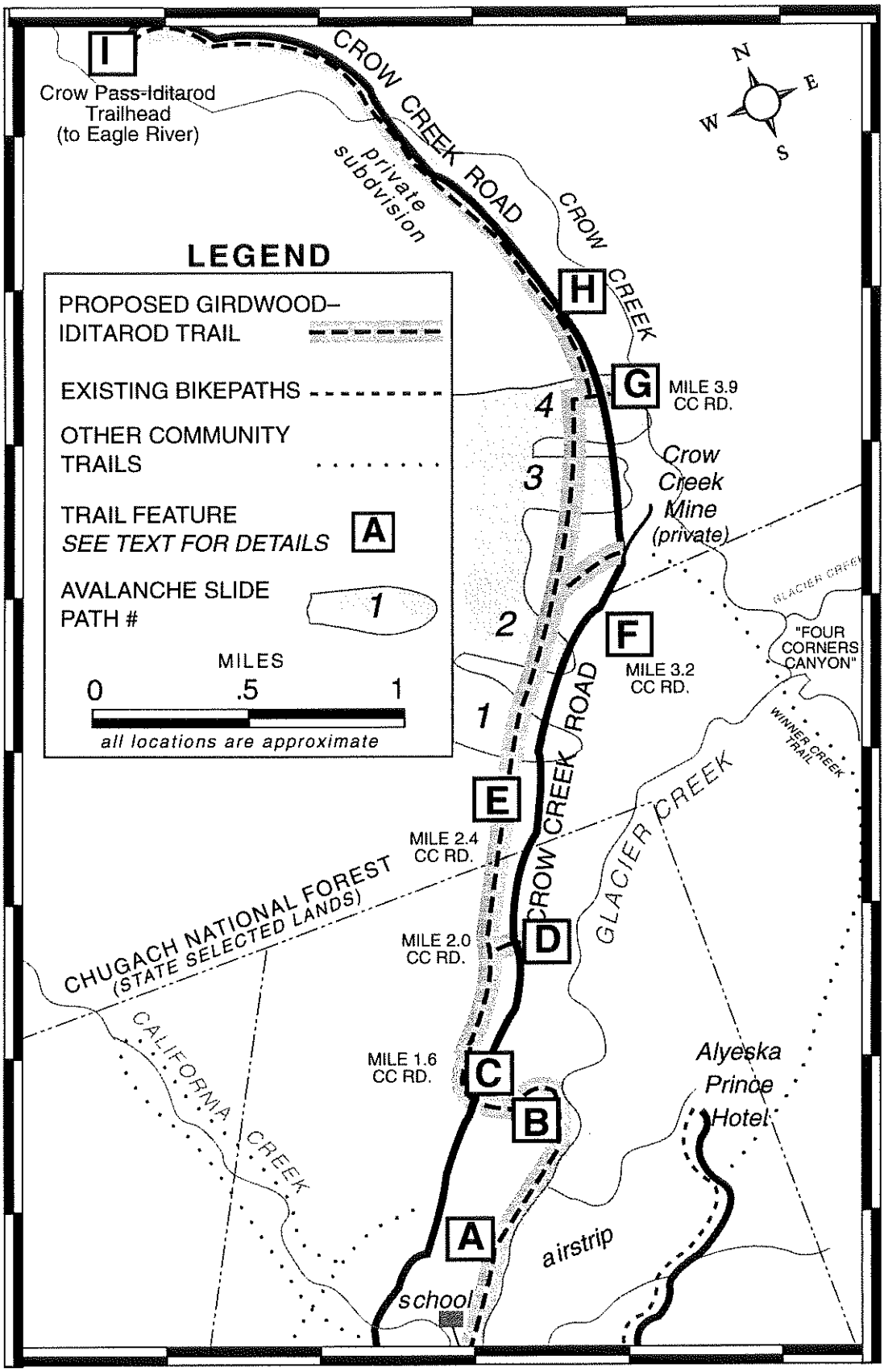
In the case that these parking areas are developed, *it is recommended that directional signage and information kiosks be provided for the Girdwood-Iditarod Trail.* It may also be appropriate to designate a portion of one of these lots near the trail as parking specifically for the Iditarod Trail.

F. Girdwood School

The Iditarod Trail would connect with the school bikepath near the point the bikepath curves closest to Glacier Creek. This would be the northern terminus of the eight foot improved surface trail. The Iditarod Trail would be co-located for a short segment (approx. 300 feet) on the asphalt school bikepath (see Map 4.3). The trail would then be routed north (away from the bikepath which curves northwest to the school) on an existing dirt service road that accesses a sewer manhole along Glacier Creek. The recommended alignment would parallel the eastern edge of the school soccer field on an existing cleared trail and lead to the Upper Glacier Creek segment of the trail.

Minor improvements such as signage and brush clearing are recommended for the segment between the asphalt trail and the Upper Glacier Creek segment. This design standard is recommended in order to be consistent with the Upper Glacier Creek segment of the trail, which is recommended to be a four foot wide gravel hiking trail. (A detailed description of the Upper Glacier Creek segment is found in the next chapter.)

The total length of the segment from the school bikepath to the Upper Glacier Creek segment is approximately 500 feet. This segment of the trail would be located on lands owned by the Anchorage School District. In order to reserve this route for public access and development, it will be necessary to gain an easement from the school district.

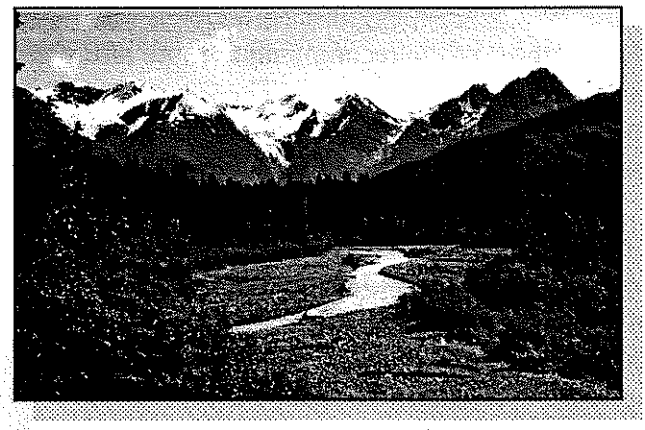


Map 5.1 Proposed Iditarod Trail Route and Features:
Upper Girdwood Valley

Chapter 5. Recommended Trail Route and Improvements - Upper Valley

Overview: The recommended route for the commemorative Girdwood-Iditarod Trail in the upper Glacier Creek valley follows the west side of Glacier Creek and then parallels Crow Creek Road (see Map 5.1). The length of the upper trail would be approximately 5.5 miles and connect the new Girdwood townsite to the Crow Pass-Iditarod Trailhead. The recommended standard of development for the trail depends on site factors for each segment.

For the short- and mid-term future, it is recommended that the Upper Glacier Creek segment (from the school to letter "B" on Map 5.1) would be built as three foot wide hiking trail. Under universal access standards, the level of access would be moderate to difficult. In the case that the adjacent areas are developed, it is recommended that a six foot wide improved surface trail be installed. The Cross Trail segment (B to C) is recommended to be cleared to a six foot wide trail and provided with drainage and surfacing improvements. It would also be rated as moderate to difficult.



View of Upper Glacier Creek from recommended Iditarod Trail route north of the Girdwood School.

The historic trail (C to G) is recommended for development as an easy or moderate trail, with a six foot wide packed gravel surface on the existing historic roadbed. The low grades originally designed for horse teams are suitable for non-motorized users of all abilities. Parking pullouts would be provided along the historic trail at Mile 1.6, Mile 2.0, and Mile 3.9 of Crow Creek Road (C, D, and G). From the Mile 3.9 pullout to the Crow Pass-Iditarod Trailhead the route would be located on the Crow Creek Road.

Trail improvement recommendations are detailed in the following description of each trail segment. The description of the trail alignment assumes travel from the south to the north.

A. Girdwood School to Cross Trail (Upper Glacier Creek Segment)

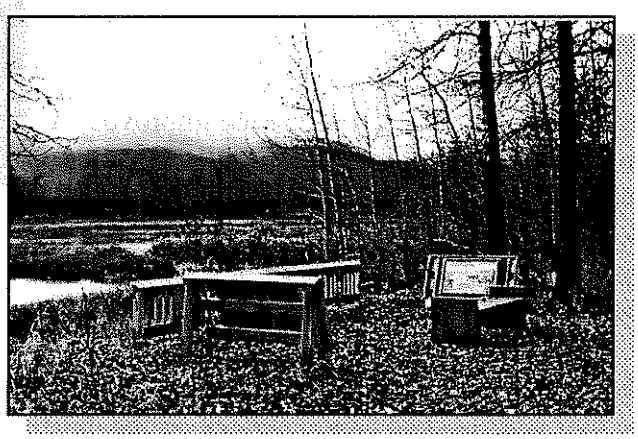
Recommended Route: From the northeast corner of the school soccer field, the Iditarod Trail would continue north along Glacier Creek to the Cross Trail (the segment from the school to letter B, Map 5.1). Starting from the northwest corner of the school soccer field, a short portion of the Upper Glacier Creek segment would be co-located with the school nature trail. The Iditarod Trail would then continue approximately 5,000 linear feet north on a generally level

route to an existing trail known as the "Cross Trail." The majority of this segment of the trail is located on Municipal lands managed by the Heritage Land Bank (HLB), with the exception of the first 300 feet, which are on Anchorage School District lands.

The route would be generally located at the top of a 20 to 40 foot forested slope above Glacier Creek. This segment of the trail, along with the other upper valley segments of the trail, passes through distinctly different forests than the lower valley trail. While the lower valley trail traverses a flood plain with large cottonwood trees, the upper valley trail traverses mature upland Sitka spruce and western hemlock forests.

This segment of the recommended route also passes near two wet meadows known as "open patterned ground peat bogs". These bogs are nutrient poor and contain mainly wet sedges and grasses. The open bogs provide a dramatic contrast to the forested canopy of the route, offering good views of the surrounding mountains, and very different vegetation from the forest.

It is recommended that short spur trails with interpretive panels and benches be provided at each of the bogs. In order to discourage trail users from trampling the fragile plants of the bogs, low fencing should be installed. At the southernmost bog, a short boardwalk leading to a viewing deck with signs and benches should be installed. This would provide a good destination for recreationists using only a short segment of the trail, and help satisfy other trail users who would want to enjoy views from the middle of the bog.



Interpretive signs and viewing area along the Moose Flats Trail, Portage Valley.

The upper Glacier Creek segment provides some of the most dramatic views along the entire Iditarod Trail. Views of the icefields and hanging glaciers of the upper Glacier Creek valley are visible from a 50 foot high streamside cliff in the general vicinity of the northernmost bog. *A trail pullout / viewing area with interpretive panels and a bench should be installed at the location offering the best views.* The viewing area should be located far back enough from the cliff to prevent loss of the site to erosion. It may also be necessary to provide signs warning trail users to stay back from the cliff.

***Recommended Improvements**: It is recommended that in the near and mid-term future, the upper Glacier Creek segment of the trail be developed as a three to four foot wide summer footpath.* The level of accessibility for the trail would be rated "difficult", consistent with the primitive, non-roaded nature of the area. The total width of the clearing for the trail would be approximately six feet (a one foot clearing on either side of a three to four foot treadway). Most mature trees within the clearing would remain, while brush and shrubs would be cut back within

the six foot clearing.

The surfacing of the trail (or treadway) should be approximately three feet wide to four feet wide. Within the trail treadway, ground vegetation should be removed to native soils and a subbase and geotextile mat be installed. The cutting of tree roots is discouraged; rather the mossy vegetation should be removed and the trail subbase built up around the roots. The trail treadway should then be finished with gravel where necessary to provide a stable treadway, and access for gravel hauling is feasible.

This segment of the Iditarod Trail may be appealing to local mountain bikers. Because hand construction will be necessary on this section of the trail due to a lack of motorized access, it will not be possible to "harden" the trail to prevent damage from mountain biking and subsequent trail erosion. Therefore, it is recommended that trail treadway structures such as steps, waterbars and stiles be installed to discourage mountain bike use.

If and when the areas adjacent to the upper Glacier Creek segment are developed for residential use (as designated in the Girdwood Area Plan), the trail should be widened and surfaced as is recommended in the lower valley. At this time the trail would be developed as a "biker-friendly" trail. This would include realigning the trail to provide for easy accessibility. Grades would be minimized, and a eight foot wide packed gravel surface should be installed.

Current Development: The improvement of the upper Glacier Creek segment of the Iditarod Trail is already underway. In two public Route Selection workshops held in Girdwood in 1995, there was almost unanimous support for the development of this segment of the trail in the summer of 1996. After further public hearing by the Girdwood Board of Supervisors, Resolution 96-3 was passed recommending improvement of this segment of the route.

In the summer of 1996, the Student Conservation Association, funded by the Girdwood Board of Supervisors, the Municipality of Anchorage and the National Park Service began work on the Upper Glacier Creek segment of the trail. The project was coordinated by the Girdwood Trails Committee. Improvements included clearing the 5,000 foot alignment for this segment up to the Cross Trail, and graveling approximately 700 linear feet of the trail. Further improvements are scheduled for summer 1997.

Student Conservation Association crewmember installing geotextile material on Upper Glacier Creek segment of proposed Iditarod Trail.

B. The Cross Trail Segment (Upper Glacier Creek to Historic Trail)

The Cross Trail is an important linkage between the Glacier Creek route of the Iditarod Trail and the upper historic route along Crow Creek Road (segment B to C, Map 5.1). The name Cross Trail may have originated because it allows users to "cross" from Crow Creek Road to Glacier Creek. All lands under this segment of the trail are Municipal.

The Cross Trail follows a route probably bulldozed within the past two decades; the route is now overgrown and shows minimal signs of disturbance. Coincidentally, the Cross Trail meets Crow Creek Road at the point at which the historic route also meets the road from up valley. It is not known if the Cross Trail is located on the historic route found on the west side of Crow Creek Road, or if its origins are more recent. It is recommended that further historic investigation be made into this unresolved question.

Recommended Route: *The Cross Trail is recommended for improvement and designation as the Girdwood-Iditarod Trail.* The route winds through the forest with three sections of medium grades to climb out of the Glacier Creek valley. The segment recommended as a portion of the Iditarod Trail is approximately 1,500 linear feet.

Recommended Improvements*: In the short and mid-term, the Cross Trail should be developed as a wide footpath with a appropriate drainage.* The level of accessibility would be rated as difficult or very difficult, reflecting the primitive, non-roaded surroundings. The route should be cleared to its original width of approximately six feet. This clearing would allow for a winter link between the Glacier Creek, which is a frequently used skiing, mushing and snowmobiling route, and the proposed upper Iditarod Trail on the other side of Crow Creek Road.

Graveling and subbase improvements will be needed on some short stretches of this trail. Some portions of the segment presently act as a drainage channel for the surrounding forest and are subject to erosion. Culverts, ditching, waterbars, and/or other drainage structures should be installed in these areas.

The Girdwood Area Plan has proposed the Crow Creek Road - Arlberg Road Connector to be developed in the general vicinity of the Cross Trail. If and when such a development were to occur, the Cross Trail segment of the Iditarod Trail should be upgraded to complement the connector road.

Current Development: In summer 1996 the Cross Trail was brushed out to a six to eight foot width by the Girdwood Trails Committee.

C. - D. Crow Creek Road Trail Pullouts - Mile 1.6 and Mile 2.0

Two pullouts are recommended along Crow Creek Road near the south end of the historic trail

and the Cross Trail. The pullouts would allow easy access to the upper Iditarod Trail and help diminish the need for one large trailhead along Crow Creek Road. The pullouts would be built on existing pullouts or abandoned gravel pits.

Recommended Locations - Road Pullouts: Mile 1.6 Crow Creek Road is the site of an existing small pullout on the east side of road. It is also the point at which the Cross Trail on the east side of Crow Creek Road meets with the historic trail on the west side of the road. Trail users would have to cross the road to access the historic trail to the west.

Mile 2.0 is the site of another existing larger pullout on the east side of Crow Creek Road, located adjacent to a large bog meadow through which the historic trail passes. Trail users would have to cross the road to access the trail from this parking area.

Recommended Improvements: Recommended improvements for both sites include:

- grading and graveling each pullout to provide level parking. At mile 1.6, parking for three cars would be provided. At mile 2.0, parking for approximately 6 cars would be provided. Also provide tire stops, fencing, and bollards to define the limits of the parking area.

- installing trailhead kiosks with trail route and interpretive information.

- installing trail crossing warning signs along Crow Creek Road north and south of each crossing.

- installing pullout signs (combined with the above warning signs). A total of two sign posts with two signs each would be installed on each side of the pullouts.

At the Mile 2.0 pullout, it will be necessary to develop a short spur trail leading from the parking area to the historic trail. Due to the wet conditions in this area, it may be necessary to build boardwalks on portions of the spur trail.

Given that Girdwood area will be an increasingly popular visitor destination, it is possible that shuttle bus service could be established between major valley destinations such as the Girdwood-Iditarod Trailhead, the Alyeska Prince Hotel and the Crow Creek Mine in the life of this plan (the next 20 years). The pullouts along the Iditarod Trail lend themselves to development as shuttle bus stops if and when bus service is established on Crow Creek Road. If shuttle bus stops are established at the Iditarod Trail pullouts, it is recommended that attractive shelters be built to protect people from the frequent rains of the area.

E. Historic Trail From Crow Creek Road Mile 1.6 to Mile 3.9

Background: Between Mile 1.6 and Mile 3.9 of Crow Creek Road (letter C to G, Map 5.1), the distinct remains of a continuous historic trail have been discovered paralleling the road. Field work has identified an overgrown road or trail with distinct road shoulders, overgrown bridges constructed of dimensional timber, and corduroy surfacing in boggy areas. Although the historic route passes through primarily mature Sitka spruce and western hemlock forest, the actual path is clogged with huge alder up to eight inches in diameter. The historic trail is approximately six feet wide, and it appears in places that the trail was built up with gravel.

The overgrown historic trail paralleling Crow Creek Road is distinguished by road shoulders (on right) and a 2.3 mile corridor of alder and devils club growing in old growth spruce forest.

Crow Creek Road is a winding one-and-a-half lane dirt and gravel route. The road is maintained by local residents above California Creek, as it provides access to a small subdivision at Mile 4.5 and a mining operation at Mile 5.0. The road is receiving increasing traffic from visitors to Crow Creek Mine and the Crow Pass-Iditarod Trailhead. The road is also frequently used by large gravel trucks hauling materials from the mine.

Crow Creek Road is also a very popular route for pedestrians, as it is the only road in Girdwood that leads deep into the valley's forests. The road is often used by mountain bikers and runners in the summer. In past winters, when the road was not plowed, it was also used for snowmachining, cross-country skiing, and dogsledding. More recently, the road has been plowed by local residents during the winter, preventing winter pedestrian use.

The increasing use of Crow Creek Road by both auto traffic and pedestrian traffic has resulted in increased risks of injury and possibly death to pedestrians. The reconstruction of the historic route would help reduce that risk by providing pedestrians a safe alternative to the road. And rebuilding the trail on the actual historic roadbed could enable trail users to relive the Gold Rush experience of using the Iditarod Trail to get to the Crow Creek Mine.

The reconstruction of the historic trail could also enable easy road access to one of the northern latitude rainforests in North America. The Girdwood area is located at perhaps the northernmost point of the Pacific coastal rainforest zone stretching from Puget Sound to Kodiak. Today when an Alaskan visitor wants to experience the northern rainforest, they typically have to make a significant expenditure to travel to coastal areas by boat or plane. With the development of the Iditarod Trail, visitors could visit these northern rainforests with just an hour of travel from

Anchorage.

Recommended Improvements - Mile 1.6 Pullout to Mile 3.9 Pullout: *The Route Study recommends the reconstruction of this historic route in a manner to reflect the conditions encountered by freight and mail teams at the time, while providing for a durable, universally accessible trail.* At the time of original construction, this 2.3 mile section of the trail had only one short segment (less than 500 feet) of more than a five percent grade. The rest of the trail is of less than five percent grades. Therefore, the existing alignment can be restored to provide easy to moderate universal access to visitors of all ages and abilities.

The surfacing of the trail should be a combination of dirt (where well drained and stable) or packed granular stone. The width of the trail should generally follow the width of the original trail (approximately six feet). In many places the shoulders of the trail from original construction are very evident rising above the ground level. As much as possible, the disturbance to these shoulders should be minimized.

Easement Recommendation: *It is recommended that a continuous public easement be established on the historic alignment between the Mile 1.6 Crow Creek Road pullout and the Mile 3.9 Crow Creek Road pullout. In order to protect the scenic values of the trail, this easement should extend eastward to include all lands between the historic Iditarod Trail and Crow Creek Road. It is also recommended that the easement include all lands 200 feet west of the historic route.*

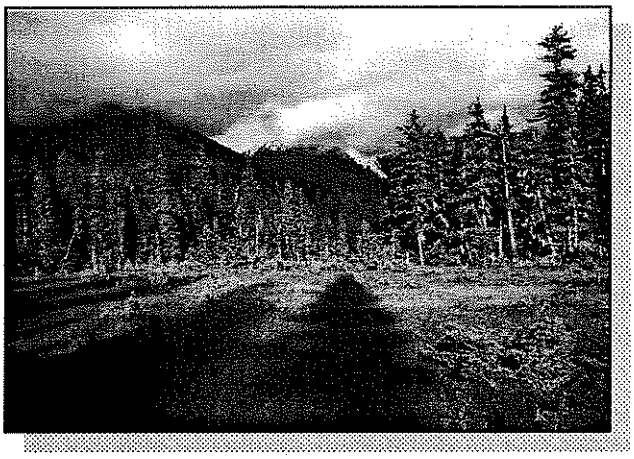
Within Municipal boundaries there is already 100 foot greenbelt easements established on either side of Crow Creek Road. In some places the historic trail is within that distance. Where the trail is outside of the existing easement, or in Chugach National Forest where the Crow Creek Road greenbelt easement has not been established, it is recommended that the easement be extended to include all lands between the trail and the road. Such a recommendation is consistent with the already establishment of a Crow Creek Greenbelt Trail, which was first recommended in the 1984 Anchorage Trails Plan, and is currently recommended in the Anchorage Areawide Trails Plan.

The following is a description of the segments of the historic trail recommended for reconstruction. The mileage numbers seen in the Route Study are for road miles, not trail miles. Road mileages provide a convenient approximation of location on the recommended Iditarod Trail, as the two routes parallel each other throughout this area.

Truck traffic along Crow Creek Road.

Recommended Route - Crow Creek Road Mile 1.6 Pullout to Avalanche Path One: From the Crow Creek Road Mile 1.6 pullout the historic trail begins paralleling the road, heading up a low grade to a wet meadow. This portion of the trail is elevated above Crow Creek Road and potentially provides good views eastward across the valley. The area at the top of the grade should be further investigated as a possible location for a trail pullout / viewing area.

At the top of the grade, the historic trail enters and bisects a large bog meadow. In this area, it may be necessary to locate the route around the edge of the bog to prevent damaging the bog and to minimize construction costs. Because a portion of the bog drains downhill, intersecting Crow Creek Road at approximately the Mile 2.0 pullout, it may be necessary to route a short portion of the trail over the bog. At the time of trail design, the use of boardwalks or other means of crossing wetlands should be further evaluated.



Bog meadow found adjacent to the proposed Mile 2.0 Crow Creek trail pullout. The trail would be routed along the far edge of the meadow.

From the north side of the bog, the recommended route heads north on the historic trail through mature Sitka spruce and western hemlock forest. Although the route is only 200 to 300 feet west of Crow Creek Road, it is effectively buffered from the sights and sounds of the road by the mature forest. It is recommended that the natural vegetation in the corridor between the current road and the historic trail be maintained to provide for continued buffering.

The recommended route on the historic trail then crosses a number of small brooks. At some of these sites, small overgrown bridges (less than 10 feet in length) made of dimensional timbers still exist. These bridges are virtually indistinguishable from the forest floor, as large alder and other vegetation are growing out of the built-up organic matter on the bridges.

At one of these sites, *it is recommended that the rebuilt trail be routed around the historic bridge, with a new bridge being installed immediately next to the old one so trail users can see the effect of the past decades on the trail.* It is also recommended that interpretive panels be installed at these and other locations to explain the uses of the route, historic construction techniques, period conditions, and forest succession.

At a location parallel to Mile 2.4 of Crow Creek Road, the recommended route on the historic trail passes from Municipal lands designated for Open Space into the Chugach National Forest. The remainder of the recommended route from this point to Mile 3.9 of Crow Creek Road is located within the National Forest. All of these lands have been selected by the State of Alaska to be conveyed to the State; conveyance may occur sometime within the next decade. In the

meantime, the USDA Forest Service is the manager of these lands.

The section of the recommended route immediately north of the National Forest boundary is thickly vegetated with alders and has a number of drainages running down the historic trail. In these sections it may be necessary to build up the trail subbase with imported fill, and provide a number of culverts to prevent erosion.

Recommended Route - Avalanche Slide Path 1 to Crow Creek Mine: Approximately 100 yards south of the first snow avalanche path that crosses Crow Creek Road, the historic trail crosses to the east side of Crow Creek Road. The historic alignment avoids the next two avalanche slide paths (which Crow Creek Road crosses). The historic route then crosses back to the west side of Crow Creek Road at approximately mile 3.1, just south of entrance of Crow Creek Mine.

The planning team considered the risk of routing the trail on a new alignment through the two avalanche paths versus creating two road crossings. It was determined that trail users would be at a higher risk of injury from being struck by a car rather than being hit by an avalanche. Therefore, *it is recommended that a new trail alignment be developed on the west side of the road to provide a connection between the historic segment which otherwise crosses the road.* For the purposes of the Route Study, these slide paths are labeled as Slide Path 1 and 2.

It may be necessary to close the recommended route in the winter to minimize the risk to trail users from avalanche hazard. This decision would be up to the land manager for this area, which is currently the USDA Forest Service. In any case, permanent warning signs should be placed on either side of the slide paths. Interpretive panels might also be placed at the edge of the mature forests explaining the effect of snow avalanches on vegetation.

Field surveying the historic trail.

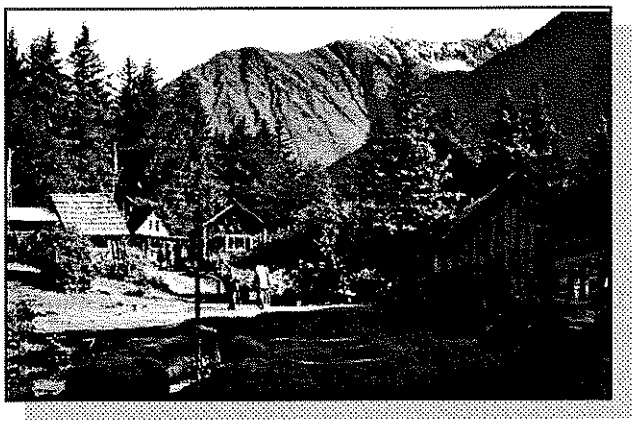
The vegetation found along the recommended alignment consists of large alder in the slide paths, with mature spruce / hemlock forest on either side of the slides. It is recommended that the historic route on the east side of Crow Creek Road be signed and marked so that adventurous trail users could explore an intact segment of the overgrown route and enjoy some of Alaska's finest bushwacking. Trail markings might consist of dayglo-orange blazes or small reflective signs placed on trees. Warning signs should also be placed explaining the rough and unimproved nature of the trail, along with the location of Crow Creek Road on the uphill side of the

bushwacker.

F. Crow Creek Mine to Mile 3.9 Pullout

Recommended Spur Trail to Crow Creek Mine: *It is recommended that a short spur trail be developed from the Iditarod Trail at approximately road mile 3.2 to connect with the Crow Creek Mine.* A spur connection is important because it would provide direct Iditarod Trail access to the Crow Creek Mine, which is a privately owned National Historic Site.

The Crow Creek Mine is the one of the most extensive remaining placer mines in Southcentral Alaska. For many Iditarod Trail users the Crow Creek Mine would be an important destination or turnaround point for their use of the trail. For backpackers hiking to Eagle River the private camping facilities at the mine might be their first overnight destination from their start in Girdwood.



Crow Creek Mine.

Immediately south of Crow Creek Mine, the Alaska Department of Natural Resources (ADNR) - Division of Lands has proposed developing a trailhead and improving the popular recreational gold mining trail to the Four Corners Canyon and to the Winner Creek Trail. There is currently a need for legal parking at this location, as recreational miners sometimes illegally park and/or block the road into Crow Creek Mine. Resolution of this issue is outside of the scope of this Route Study.

The ADNR Winner Creek project is being proposed separately from the Iditarod Trail. Because funding for this proposal is uncertain, the Girdwood Trails Committee is also pursuing the development of an interim crossing to the Winner Creek Trails.

The Winner Creek Trail is separated from the west side of Glacier Creek by the Four Corners Canyon. The Four Corners Canyon are a series of deeply incised gorges of made up of the confluences of Crow Creek, Glacier Creek, and Winner Creek. The gorges are well known throughout the community as an area of outstanding scenic beauty, and are frequently the destination of day hikes or skiing on the Winner Creek Trail. This beauty and use has led to the designation of the Four Corners Area as parkland in the Girdwood Area Plan.

The Iditarod Trail combined with a Four Corner crossing could make up part of a new eight mile loop trail system from Crow Creek Mine to the Alyeska Prince Hotel to the new Girdwood townsite and back to the mine. From Crow Creek Mine, a trail user would be able to hike directly to the Alyeska Prince Hotel. At the hotel, a person could travel to the new townsite, get

on the Iditarod Trail, and take it north to the Crow Creek Mine, completing the loop.

Recommended Route - Crow Creek Mine Spur (Mile 3.2) to Road Mile 3.9 Pullout: *From the spur to Crow Creek Mine, the recommended route would continue along the historic trail northward to a pullout at road mile 3.9.* At Crow Creek Road Mile 3.5, the trail would onto the third major avalanche slide path along the route. Distinct remains of the historic trail have been found crossing this slide path. Currently this area is heavily vegetated with large alder. This area is rated as moderately hazardous avalanche terrain.

It is recommended that the Iditarod Trail be built across Slide Path 3 on the original historic alignment. In this section it may be necessary to provide extensive fill and drainage for the trail, as this slide path has numerous small drainages. Avalanche hazard warning signs and/or winter closure signs should be placed at either side of the slide path.

The route then passes into a forest of primarily small hemlock trees, reflecting the increasing elevation of the route. Throughout this area the route skirts the edge of avalanche runout zones by passing through forested areas. At approximately mile 3.8, the route passes out of the forest into a grassy meadow, which marks the beginning of Slide Path 4. At mile 3.8, the route turns to intersect with Crow Creek Road and the Mile 3.9 Pullout. From this point northward, the route (and the entire Crow Creek valley including Crow Creek Road) is located within avalanche areas of high or moderate hazards.

Mile 3.9 of Crow Creek Road marks the end of the segment of the Iditarod Trail separated from Crow Creek Road. Due to the boggy terrain and private property found to the north of the pullout, it is recommended that the route north of this point be established on Crow Creek Road.

G. Crow Creek Road Mile 3.9 Pullout

A large abandoned gravel pit is found on the east side of Crow Creek Road at mile 3.9. This gravel pit is recommended for conversion to an approximately twelve car parking area for the Iditarod Trail. It is also recommended as a possible shuttle bus stop in the long term future. This pullout would become the northern end of the section of the rebuilt Iditarod Trail separated from Crow Creek Road. Trail users would have to cross Crow Creek Road to reach this pullout.

Recommended improvements for the Mile 3.9 pullout include:

- grading, graveling, tire stops, fencing, and bollards to define the limits of the parking area.
- revegetating the perimeter of the parking area with local plant species.
- installing a trailhead kiosk with trail route and interpretive information.

- installing trail crossing warning signs along Crow Creek Road north and south of the crossing to the trailhead.

- installing pullout signs (combined with the above warning signs). A total of two sign posts with two signs each would be installed on each side of the pullouts.

The Mile 3.9 Pullout has been identified as an area of high avalanche hazard area. Whether or not the this pullout will be open in the winter depends on future winter management of the trail and Crow Creek Road. If the road is open, it may be necessary to close the parking area in the winter due to avalanche hazards. Closing the lot could be easily accomplished by not plowing the area.

H. Link Between Mile 3.9 Crow Creek Road and Crow Pass-Iditarod Trailhead

Recommended Route: *From the mile 3.9 pullout to the Crow Pass-Iditarod Trailhead, it is recommended that the Iditarod Trail be located on the Crow Creek Road.* In this segment the historic trail either has not be located or is in an impractical location for contemporary use. Steep terrain, high trail construction costs, projected low use, and the goal of providing a continuous route from the lower valley to the Crow Pass-Iditarod Trailhead make an on-road route the most suitable option.

Recommended Improvements - Road Mile 3.9 to Crow Pass-Iditarod Trailhead: The provision of an on-road route would involve installing hiker warning signs / Iditarod Trail route signs at regular intervals on both sides of Crow Creek Road. The signs would advise hikers to walk facing traffic and advise drivers of potential pedestrian traffic.

The recommended route for the Iditarod Trail north of the Crow Creek Bridge to the Crow Pass-Iditarod Trailhead would continue along a one mile section of Crow Creek Road maintained by the USDA Forest Service. Warning signs would also be placed along this segment of the road. Public ownership of this segment of the Crow Creek Road is currently contested by private landowners. For the purpose of this Route Study it is assumed that whatever the outcome of the dispute, public access will be provided to the Crow Pass-Iditarod Trailhead. The establishment of an on-road segment of the Iditarod Trail would require the granting of appropriate permits from the ADOTPF and/or the USDA Forest Service.

Route Options - Mile 3.9 Pullout to the Crow Creek Bridge: For the section between the Crow Creek Road Mile 3.9 Pullout and the Crow Creek Bridge, two options were considered. Both were based on the assumption that the primary use of the Mile 3.9 to Crow Pass-Iditarod Trailhead segment would be as a connector for overnight backpackers hiking between Girdwood and Eagle River.

It is expected that most bikers and hikers would be attracted to the restored historic segment of

the Iditarod Trail to the south. Also, day hikers using the above treeline segment of the Crow Pass-Iditarod Trail most likely would drive directly to the Crow Pass trailhead, skipping this segment of the Iditarod Trail. Therefore, it is expected that use of the Iditarod Trail north of the Mile 3.9 Pullout would be significantly lower than the recommended rebuilt historic trail to the south.

One option considered is to build a separated trail on the west side of Crow Creek Road from the Mile 3.9 Pullout through the Ravenwood Mountain Subdivision to the Crow Creek Bridge. In the subdivision the trail would be built within the existing road ROW and not on the historic alignment, as the historic trail is outside of the ROW. The new trail would have a width and surface similar to the separated trail south of the Mile 3.9 Pullout.

The separated trail would rejoin and be routed on Crow Creek Road from Mile 4.75 to the Crow Creek Bridge. This is because the provision of a separated alignment north of Mile 4.75 would mean the excavation of approximately a quarter of a mile of a steep bedrock slope. This excavation would greatly increase the cost of this alignment, as compared to other sections of the trail located in less steep areas.

The advantages of developing a separated trail from Mile 3.9 to the Crow Creek Bridge include pedestrian safety and a consistent trail experience with lower segments of the Iditarod Trail. The primary disadvantage is a high construction cost for projected low trail use. Therefore a separated Iditarod Trail is not recommended north of the Mile 3.9 Pullout for Crow Creek Road.

Background: Location of Historic Trail: From Crow Creek Road Mile 3.9 to Mile 4.4 the historic trail has not been located, even after repeated field investigation. The area immediately west and uphill of Crow Creek Road is primarily boggy meadows with some small stands of hemlock forest. All of the area is moderate avalanche terrain. It is not known if the route is located on the east side of Crow Creek Road in this area. Initial field work shows that it is likely that the current alignment of the Crow Creek Road was developed directly on top of the historic route.

At Crow Creek Road Mile 4.4 the historic route becomes evident again on the west side of the road. At this point the historic trail reappears with the characteristic alder corridor heading north through a hemlock forest. Distinct road shoulders are evident. At Mile 4.5, the historic trail passes over a small creek and into the Ravenwood Subdivision. The first parcel in the subdivision on the west side of Crow Creek Road has been developed for a small home. It appears that the historic trail passes through the improved front yard of that landowner before being engulfed by the alder thickets found on the unimproved lots to the north.

The historic route continues to parallel Crow Creek Road to approximately Mile 4.75 (Crow Creek Road). The separation between the trail varies between 100 and 200 feet. Almost all of this segment of the historic trail is cloaked in heavy alders. At Mile 4.75, evidence of the historic route ends with a steep bedrock bank that leads down to the road. From Mile 4.75 to just south

of the Crow Creek bridge there is no evidence of the historic trail. Given the steep bedrock cliffs above and below this segment of the road it is very likely that the present day route overlays the historic route.

Within sight of the Crow Creek Bridge (Mile 5.0 Crow Creek Road), the historic route becomes evident again on the uphill side of the road. The route leads into a large gravel pit at the south side of the Crow Creek Bridge. According to local legend a large mining camp had been located in this area. The remnants of the camp were obliterated by an avalanche within the past two or three decades.

Further historic trail reconnaissance north of the Crow Creek Bridge have not been attempted.

I. Crow Pass-Iditarod Trailhead

Background: The Crow Pass-Iditarod Trailhead is the northern boundary of this Route Study. The trailhead is currently maintained by the USDA Forest Service. These lands have also been selected by the State, and after conveyance the site will be maintained by Alaska State Parks.

This trailhead is very important to the section of the Iditarod Trail stretching from Turnagain Arm to Eagle River. The Crow Pass-Iditarod Trail is one of Alaska's most popular trails, with over 10,000 hikers using it annually. Currently the Crow Pass Trail stretches 23 miles from this trailhead to the Eagle River Nature Center. With the completion of the Girdwood-Iditarod Trail, it would be possible for the long-distance hiker to travel 30 miles from Turnagain Arm to the Eagle River Valley.

Recommended Improvements: Minimal improvements for the Girdwood-Iditarod Trail are recommended at the Crow Pass Trailhead. *It is recommended that directional signs and information be provided explaining the route, distances and facilities along the Girdwood-Iditarod Trail to hikers starting in Eagle River and hiking to Girdwood.*

Chapter 6. Economic Impacts of Trail Development

Economic benefits will accrue from the development of the Iditarod Trail in Girdwood, but not without costs. Estimation of positive impacts are often difficult because the economic activity in question happens secondarily to the use of the trail. This Route Study used visitor use data for nearby trails and destinations to make a rough forecast of the amount of use that can be expected for the Iditarod Trail. From the trail use forecasts, the approximations are made for visitor expenditures.

Along with forecasts of visitor use and expenditures, this chapter estimates the negative economic impacts of trail development. For the Route Study, it is assumed that the primary negative impacts of trail development are in the form of capital cost for construction and maintenance and operations costs.

A. Use Forecasts

Use forecasts are based partly on visitor numbers to similar attractions in Anchorage and Girdwood, and partly on assumptions about the origin of users for the Iditarod Trail.

Table 6.1

Visitor Use of Anchorage Area Trail-Related Destinations

Destination	Number of Visits Per Year
Eagle River Visitor Center (Chugach State Park)	80,000
Tony Knowles Coastal Trail	150,000 (April thru Sept. data)
Potter Marsh Boardwalk	70,000
Portage Valley (Chugach National Forest)	600,000
Begich-Boggs Visitor Center (Portage Valley, Chugach National Forest)	480,000 (open summer only)

The destinations listed in Table 6.1 provide a range of experiences similar to those that would be available on the proposed Iditarod Trail. All but the Tony Knowles Coastal Trail provide interpretation as a major part of the experience. All of the above destinations provide walking or trail facilities for experiencing the surrounding natural setting and viewing wildlife, as would the

Iditarod Trail.

Use of the Potter Marsh Boardwalk and Portage Valley is largely by out-of-state residents[1]. To a large degree, the majority of visits to the Eagle River Visitor Center are from out-of-state residents, although it is a significant year-round destination for Municipal residents[2]. The Tony Knowles Coastal Trail is used almost entirely by Municipal residents, as it is located near neighborhoods and is only marginally promoted to visitors. The summer visitation rate to the Coastal Trail is speculated to be four or five times that of winter visitation[3].

Table 6.2

Visitor Use of Girdwood Destinations

Destinations	Number of Visits - May to October
Mt. Alyeska Tramway	68,300
Crow Creek Mine	35,000

It is assumed that at least initially, the majority of use of the Iditarod Trail will be in the summer. Therefore, current summer use of Girdwood destinations provides some insight into the potential numbers that might be attracted to the Iditarod Trail (Table 6.2).

Girdwood is a popular summer destination for visitors to Anchorage. Alyeska Resort and the Crow Creek Mine are annually within the top ten most visited attractions in the Anchorage area. Visits in the summer to Girdwood are usually as a day trip combined with a visit to Portage Glacier. Overnight summer lodging is increasing in Girdwood due to the recent opening of the Alyeska Prince Hotel, which by itself is a very attractive destination for a number of visitors. Yet it is speculated that the vast majority of visitors during summer months stop only for part of the day before traveling on.

Summer visitation to Girdwood is balanced throughout the week, as compared to winter visitation, which is primarily during the weekend[4]. For the Iditarod Trail use forecast (Table 6.3) it is assumed that the majority of visitation would be from Girdwood or Anchorage residents in

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[1] Anchorage Economic Development Corporation, 1995.

[2] Pers. comm., Alaska State Parks, Eagle River Nature Center, 1996.

[3] Pers. comm., Municipality of Anchorage Parks and Recreation, 1996.

[4] Municipality of Anchorage "Girdwood Community Impact Study", 1993.

the initial three years.[5] Girdwood residents are expected to make up the bulk of weekday users of the trail, while on summer weekends, visitors from Anchorage are assumed to make up the majority of users.

Significant numbers of Anchorage residents may make Girdwood a new summer destination because of the user-friendly loop trail system set in an attractive small town. It is not unreasonable to expect that a proportion of those who use the Coastal Trail would be attracted to make an overnight trip to use the Iditarod Trail and other trails at least once a year. Yet the primary use of the Iditarod Trail by Anchorage residents is forecast as day trips.

Table 6.3

Girdwood-Iditarod Trail Use Forecasts

Season	Year 3 of Operation	Year 6 of Operation
Summer (May - Sept.)	36,000: 200 / weekday 800 / weekend day	98,000: 500 / weekday 1,200 / weekend day
Winter (Sept. - April)	10,000: 40 / weekday 80 / weekend day	25,200: 100 / weekday 200 / weekend day
Annual Total Use	***46,000 visits***	***123,200 visits***

During the first three years, the proportion of visits to Iditarod Trail made by out-of-state residents will be much smaller than users originating in Girdwood or Anchorage, unless a strong trail promotion effort is begun at the same time the trail is opened. It is assumed that the out-of-state visitors could visit the Iditarod Trail as part of their already planned trip to Crow Creek Mine or Alyeska Resort. For those on package tours, this would not result in any extension to their planned stay. In contrast, the independent traveler may be compelled to arrange lodging for additional days to explore the Iditarod Trail, the Turnagain Arm Trail, and the planned Portage Valley bikepath. (The Portage Valley bikepath, under construction design by the USDA Forest Service, is an approximately 8 mile trail linking the Seward Highway to the Begich-Boggs Visitor Center. The entire route, named the "Blue Ice Trail", will be completed by 2000.)

Total summer use after six years is forecast to almost triple. Local and regional popularity of the trail would continue to increase, perhaps enhanced by the completion of other recreational facilities in the valley. Out-of-state visitor use would more than double weekday use, as both the

[5] Table 6.3 forecasts are based on the present number of recreation attractions in Girdwood. The forecast does not include potential use associated with the development of a Girdwood golf course or other recreation attractions with the exception of the Turnagain Arm Trail. Daily use forecasts are based on the number of individual trips a person makes on any part of the trail anytime within a 24 hour period. A trip to a store on the trail, and then a trip back home would be counted as two uses.

package tours and the independent travelers discovered the trail. With the discovery of the three new trails in the eastern Turnagain Arm region, the demand for a variety of overnight lodging would most likely increase.

Current winter visitation to Girdwood is heavily skewed to the weekends, when people travel to ski at Alyeska Resort. The majority of skiers at Alyeska Resort on weekends are Anchorage residents. Winter use in the first three years of Iditarod trail operation is expected to be one-third of summer use. (This forecast assumes that the route would not be packed and groomed for cross-country skiing, nor would the trail be lit. If grooming and lighting were provided, winter use of the trail would be significantly increased.) It is assumed that few additional winter visitors to Girdwood would be attracted by the Iditarod Trail alone. Most would use the trail in combination with their already planned alpine skiing excursions.

If the Iditarod Trail in the lower valley was packed and groomed for cross-country skiing, it is possible that use could increase to around 15,000 per year. (Packing and grooming would include a wide middle lane for skate skiing, walking, running, or biking, with diagonal stride ski tracks set on either edge). By the sixth year of operation, it is forecast that winter trail use would more than double. This forecast is based on the assumption that packing and grooming is provided on the trail, and lighting is provided on the lower section of the trail between the old townsite and the school.

Girdwood elementary students head out for an afternoon of skiing along the proposed route of the Iditarod Trail.

B. Positive Economic Impacts

Positive economic effects from trail development include direct expenditures by trail users for food, lodging, and trail related services. Other direct positive effects may include increased retail sales of trail-related equipment, and licensed use of the trail by concessionaires, special events such as races, and filming and advertising. Indirect positive effects include potentially increased property values and an attractive community for relocation.

This Route Study will provide not provide scenarios for any of the above effects except for direct expenditures for food and trail related services. The aim of this scenario is to provide a conservative estimate of the economic impacts from visitor use of the Iditarod Trail.

Various economic studies by state and federal agencies have identified average daily

expenditures at a number of trails around the country[6]. Most of these studies show that trail users spend around ten dollars per day for food, transportation to the trail site, and other small items. For this Route Study it is assumed that trail visitors would the same amount.

Because a significant number of visitors to the trail would already be traveling to Girdwood for other recreational purposes and would have already been spending money for food, their daily expenditure are not included. Therefore, the scenarios on Table 6.4 estimates expenditures for 30% and 50% of trail users spending ten dollars a day.

Table 6.4

Annual Visitor Expenditure Scenarios for the Girdwood-Iditarod Trail
(does not include lodging)

% Of Visitors Spending $ 10 Per Day	Year 3: 46,000 Visitors	Year 6: 123,200 Visitors
30%	*$138,000*	*$369,000*
50%	*$230,000*	*$616,000*

Rough estimates can be made for the economic impact of overnight lodging associated with trail use. Speculating that the above food expenses are only one-seventh of the total overnight bill, if 30% of trail users overnighted in Girdwood, trail generated expenditures could approach or surpass a million dollars per year. Surveys of total expenditures in trail communities has shown similar results; three trails studied in Iowa, Florida, and California have pumped an average of $1.5 million into the economies of these areas each year[7].

C. Construction Cost Estimates

The primary potential negative economic impact from the development of the Girdwood-Iditarod Trail is for capital and operations costs. Construction cost estimates are based on materials installed per unit cost from Municipal Parks and Recreation and the USDA Forest Service; labor costs are factored into these figures.

Unit costs estimates were made for site surveying, site clearing, excavating, grading, fill, course

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[6] The Impact of Rail-Trails: A Study of the Users and Property Owners from Three Trails, National Park Service, 1992. Also see Minnesota Department of Natural Resources 1989 report, and the USDA Forest Service report, 1989, referenced in the above NPS study.

[7] Ibid.

leveling and surfacing materials, and revegetating. Final unit costs are dependent on site variables such as grade, drainage, vegetation, soil conditions, etc. (Site variables for each segment of the trail are discussed in Chapter 4 and 5.) *The cost estimates given in the following tables are subject to variation.* Further preliminary engineering is necessary to increase the reliability of construction cost estimates.

Project design, engineering, and construction administration costs are assumed to be 35% of the total construction cost[8]. These costs are also subject to variation and further "fine-tuning" at the time of project implementation.

Table 6.5

Construction Cost Estimates for the Iditarod Trail:
Lower Girdwood Valley
(connecting the old townsite / Bird Point bikepath to the Girdwood School)

(cost in thousands of dollars)

Improvement	Phase I (0 - 10 years)	Phase II (10-20 years)
Improvements at shared traihead with Turnagain Arm Trail	$35.0 K	----
Lower Alyeska Highway underpass connection to Bird Pt. bikepath	$125.0 K	----
12,900' x 8' wide packed, fine-gravel trail between lower underpass and school	$560.0 K	----
Upper Alyeska Highway underpass at new townsite	$150.0 K	----
Project mgt., project design and engineering, construction admin.	$468.0K	
Total	***$ 1,338.0 K***	----

For the upper valley, improvements to the Upper Glacier Creek and Cross Trail segments of the Iditarod Trail are underway based on funding provided by the National Park Service Challenge

[8] Municipality of Anchorage Division of Parks and Recreation.

Cost Share Program (which also partially funded this Route Study), the Girdwood Board of Supervisors, the Municipality of Anchorage, and Alyeska Resort.

Table 6.6

Construction Cost Estimates for the Iditarod Trail:
Upper Girdwood Valley
(connecting the Girdwood School to the Crow Pass-Iditarod Trailhead)

(cost in thousands of dollars;)

Improvement	Funds Currently Obligated	Phase I (0-10 years)	Phase II (10-20 years)
6,500' x 4' wide footpath connecting school to Crow Ck. Rd.(Phase I)	$ 43.5 K	----	----
6,500' x 8' wide bikepath connecting school to Crow Ck. Rd. (Phase II)	----	----	S228.0 K
11,700' x 6' wide packed, fine-gravel bikepath connecting CC Rd. Mile 1.6 to Mile 3.9 pullout (includes pullouts)	----	$442.0 K	----
Signing for on-road route from Mile 3.9 to Crow Pass trailhead	----	$10.0 K	----
Project mgt., project design & engineering, construction admin.	----	$243.0K	$122.0K
Total	***$ 43.5 K***	***$ 695.0 K***	***$ 350.0 K***

Phase II development in the Upper Glacier Creek / Cross Trail vicinity of the Iditarod Trail is contingent on future residential and/or road development . If those areas are developed, it is expected that increased demand for pedestrian facilities will necessitate the expansion of the Iditarod Trail. If development does not occur or demand does not increase, it may not be

necessary to develop those segments of the trail beyond Phase I improvements.

Table 6.7

Total Development Cost Estimate for the Girdwood-Iditarod Trail
(connecting old townsite / Bird Pt. bikepath to the Crow Pass-Iditarod Trail

(cost in thousands of dollars; does not include design and engineering)

Area	Phase I (0 - 10 years)	Phase II (10 - 20 years)
Lower Valley	$ 1,338.0 K	-----
Upper Valley	$695.0 K	$ 350.0 K
Total	***$2,003.0 K***	***$350.0 K[9]***

Table 6.7 gives a "ballpark" estimate of the amount of funds necessary to construct the Iditarod Trail in two phases. *It is recommended that funding be sought only for Phase I design, engineering, and construction at the current time.*

D. Annual Maintenance Needs, Costs, and Options

Annual maintenance costs for trails varies widely depending on the resources and priorities of a community. The per mile annual cost for an eight foot asphalt trail ranges from $600 in Peachtree, Georgia to $1,000 in Anchorage to $8,000 in Boulder, Colorado[10].

Trail maintenance costs can be broken into two categories: basic maintenance and repairs. Basic maintenance includes brushing along trails so that sight distances are maintained, keeping trail surfaces free of debris and litter, sign inspection and replacement, and minor surface repairs. Around the country, the use of "Adopt-a-Trail" crews for basic maintenance has been instrumental in cost savings.

The majority of annual costs for trail maintenance are for the repair of trail surfaces, followed by preparation of the surface, such as grooming snow or sweeping. Asphalt trails usually require

[9] Phase II contingent on residential and/or road development in vicinity of Upper Glacier Creek / Cross Trail Segment of the Iditarod Trail.

[10] National Park Service: Rivers, Trails and Conservation Assistance Program - unpublished report, 1995.

more expensive repairs than granular stone trails because of the relatively specialized materials, equipment, and personnel involved. In contrast, granular stone trails can be repaired with readily available materials, regular equipment, and untrained personnel.

Municipal estimates for asphalt trail maintenance in Anchorage at $1,000 per mile include:

- sweeping trails once annually in the spring with a small motorized sweeper;
- patching repairs from cracks and frost-heaves;
- grooming and packing trails for skiing and/or walking;
- clearing snow in spring.

Trail maintenance in Girdwood is done on an intermittent basis, and therefore cost estimates are not available. Maintenance of the Alyeska Highway bikepath is done as a part of the road service contract, mostly in the form of snow removal by a heavy equipment operator. The Girdwood Trails Committee provides an occasional summer work party on some of the off-road trails that cross-cross the valley. Other Trails Committee efforts include grooming of cross-country ski routes in the winter.

Maintenance Options: The estimation of trail maintenance costs depends mainly on how the service is provided and what level of service is provided. Provision of trail maintenance for the Iditarod Trail in Girdwood is potentially challenging and precedent setting at the same time.

Usually the maintenance of a proposed trail would be assumed by the local land manager, which in the case of the Girdwood-Iditarod Trail would be the Municipality in the lower valley and the USDA Forest Service in the upper valley. Currently, recreation maintenance within Municipal boundaries is the responsibility of the Municipal Division of Parks and Recreation. Presently, Parks and Recreation does not have any staff in Girdwood. In the case of the Forest Service, trail maintenance in the Girdwood valley has been and is expected to be infrequent, partly because most of the lands will be conveyed to the state in the near future.

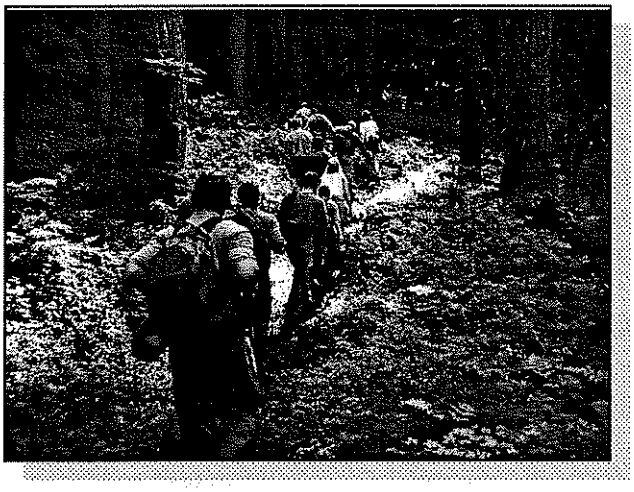
One option for maintenance within the Municipality might be the traditional approach of hiring park staff to undertake projects. Municipal Parks and Recreation has suggested that soon the demand for on-site management of other recreation facilities will require staff in Girdwood.

Non-Profit Maintenance: Another option could involve the Girdwood Trails Committee, which is increasingly involved in the provision of trail improvements. The committee, which is advisory to the Girdwood Board of Supervisors, is beginning to feel the need for increase capacities to provide trail services. This is not unlike many trail groups around the state and country. As trail projects grow, so does the need for the capacity to administer projects on the ground.

A step that some groups take to enhance their trail maintenance abilities is to become a non-profit. The charters and by-laws of these organizations guide the mission of the group, usually with the benefit of the community as a primary goal. With non-profit status, these public benefit corporations can often administer trail projects more flexibly and effectively than often-rigid bureaucracies. And the non-profit can be contracted by government "partners" to provide project administration or maintenance services for a trail.

An outstanding example of a public-benefit recreational non-profit is the Nordic Skiing Association of Anchorage, Inc., commonly known as the Nordic Ski Club. Starting in 1983, this organization has grown to provide grooming on over 115 kilometers of trails in Anchorage, has an annual membership of over 1,000 people, and an annual operating budget of a quarter million dollars--based mostly on donations and memberships.

Rather than hiring park staff to maintain the Iditarod Trail, the Girdwood Trails Committee might consider developing its capacity to become the managing entity for the trail. Along with developing organizational capacity, this could involve developing a contractual relationship with the Municipality for the lower trail, and the Forest Service for the upper trail. This is especially advantageous because Municipal funding for recreational maintenance is limited to within the boundaries of the Municipality, while the proposed trail would extend approximately three miles outside of Municipal boundaries. Therefore the Trails Committee could seek funding for maintenance outside of Municipal boundaries from other sources.



Hiking through the forests of the Girdwood valley.

An example of a public agency / trail non-profit relationship is in the Matanuska-Susitna Borough, where the Borough has been conveyed an easement for the Pioneer Peak and Matanuska Peak trails (from the Bureau of Land Management, or BLM) contingent on the provision of maintenance. The Borough in turn has established an agreement with the Mat-Su Trails Council to maintain the trails, satisfying the BLM requirements, and gaining the public easement.

Contract Maintenance: A third option for trail maintenance might be hiring a for-profit company for the operation and upkeep of the trail. Contract maintenance of recreation facilities is increasingly used in Alaska, usually for facilities that have revenue generating potential, such as campgrounds.

Contract maintenance of public trails has not been attempted in Alaska and is rare around the country. Yet revenue generating potential for trails does exist, although it would have to be strictly guided so as to not allow commercialism to overrun the experience. The most obvious option for revenue generation, and perhaps the least attractive, is use fees. Other potential options include granting licensing revenues for special events, or selling the rights to provide business information at trailhead kiosks.

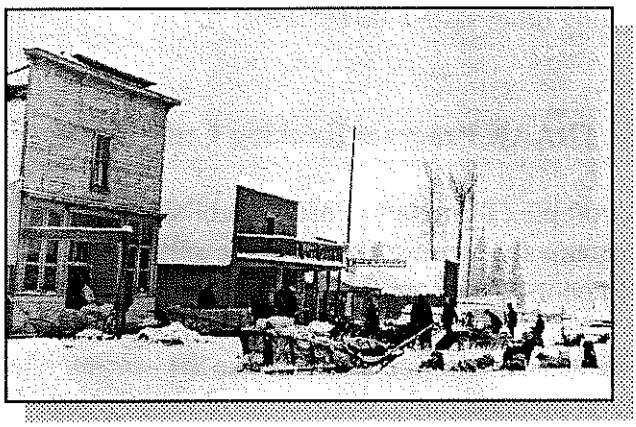
Maintenance Cost Estimates: Given the wide variability in the cost of trail maintenance, Municipal figures for asphalt trails will be used as the basis of estimates for the Iditarod Trail. For the lower valley trail, it is assumed that annual maintenance of this 2.4 mile segment will be $1,000 per mile per year. For the 3.4 mile upper valley trail, annual maintenance is estimated to be $500 per mile per year. Therefore, total annual maintenance is estimated to be approximately $4,000 per year. Approximately $3,400 of the total amount would be necessary for trail maintenance within Municipal boundaries.

It is recommended that if the Municipality assumes maintenance of the Girdwood-Iditarod Trail, adequate maintenance funding be provided for the trail within Municipal boundaries.

Chapter 7. Funding Options for Trail Development

A. Federal and State Funding Sources

Public funding opportunities for trails and transportation development in Alaska are currently outstanding. Approximately $11.5 million dollars annually are currently available to the State of Alaska from the federal government from Transportation Enhancement (TE) Program of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991. Eligible TE projects include (among others):



Hauling $650,000 of gold from the Interior of Alaska through Girdwood. Adjusted for inflation, that load of gold today would be nearly sufficient to fund reconstruction of the Girdwood-Iditarod Trail.

- bicycle and pedestrian trails;
- acquisition of scenic easements or scenic or historic sites;
- historic preservation, rehabilitation and operation of historic transportation buildings;
- and conversion of abandoned railroad corridors for bike and pedestrian trails, to name a few.

It is mandated that TE funds be spent on the above type of projects. In Alaska, TE funding is administered by the Alaska Department of Transportation and Public Facilities (ADOTPF). Transportation funds are divided annually in a planning document known as the Statewide Transportation Improvement Program (STIP).

Funding for Alaskan trails is established by the STIP in one of two categories: the Community Transportation and Economic Development Program, and the Trails and Recreation Access for Alaska (TRAAK) program. The Girdwood-Iditarod Trail proposal falls under the TRAAK program, which annually prioritizes Transportation Enhancement funding for eligible trails projects.[1]. Recently the Governor appointed a 13 member citizens advisory board to provide for increased public involvement in the ranking of TRAAK projects.

The best potential source for the funding of the Girdwood-Iditarod Trail is through the TRAAK

[1] Further information on the TRAAK program can be seen on the World Wide Web at http://www.dot.state.ak.us/, or by calling the TRAAK program coordinator in Juneau at (907)465-3900.

program. When the idea of the Girdwood-Iditarod Trail was originally conceived, the Girdwood Board of Supervisors suggested the project to the ADOTPF during a statewide solicitation for TE project. The initial concept scored well enough (with a score of 68.0) to be ranked for design and construction starting in 1999. This Route Study provides greatly expanded information to the ADOTPF, and if adopted by the involved agencies, a critical measure of community support. Such support and information is aimed increasing the ranking of the Girdwood-Iditarod Trail among other statewide projects.

B. TRAAK Program Ranking Criteria

A complex formula has been established to rank TRAAK projects statewide. Appendix C contains the scoring criteria and a summary of information from the Girdwood-Iditarod Trail that can be used to score this project.

The critical criterion that enhance the scoring of a project include local contributions to partially cover construction costs, and local assumption of maintenance responsibilities.

Local Construction Contribution: The category of local construction contributions includes providing state matching money (currently 10% of the total cost of a project), design, rights-of-way, and/or building materials. *It is not necessary to provide any of these for a project to be eligible, yet the more that are provided, the higher a project will score.* If two of these contributions are provided, the project sub-score is increased by a factor of three; if all of the above are provided, it is increased by a factor of five.

It is recommended that local contributions be further investigated as the "state match" for the project. There are three potential local sources for matching money or contributions. The first is development exaction from private development, the second is joint ventures, and the third is from local public revenue sources.

The state match for the Girdwood-Iditarod Trail, at 10% of the estimated $2.0 million, would be approximately $200,000. Rights-of-way acquisition costs could cost little, because the entire route is located on public lands. It would be necessary to plat map a legal description of the corridor on existing property maps, which would entail some public agency cost.

It is recommended that a public right-of-way be dedicated as part of the local contribution for the project. The right-of-way would be designed to meet the funding requirements of ADOTPF while not excluding the location of further development within the alignment.

Development Exaction: Development exaction refers to compensating a community for the right to do business in exchange for the permission to develop private commercial ventures, whether on private lands or public lands. Numerous examples are found in the U.S. and Canada of communities requiring developers to provide public trail, parks, open space, and other

community facilities[2]. In some cases the facilities are constructed directly by the developer; in other cases, they are constructed based on public revenues derived from a private venture.

In the case of the recent Girdwood Golf Course Request for Proposals, the Municipality has required the developer design and construct the primary public trails in the golf course study area. This Route Study recommends the development of the Iditarod Trail through the area identified for golf course development. This would make up approximately one-third of the entire lower Iditarod Trail route. Assuming that this section was developed privately using the same materials installed construction estimates, a contribution of approximately $190,000 would be provided by the private developer.

ADOTPF has indicated that construction of a segment of the Girdwood-Iditarod Trail by a golf course developer could be eligible to cover the state match. In order to document this contribution as eligible, it would be necessary for the Municipality and the golf course developer to contractually agree to the construction of that segment of the Iditarod Trail.

Joint Ventures: Similar to development exaction, joint ventures refers to requiring compensation from a private company for the use of the trail corridor, typically for tele-communications or utility transmission lines. Compensation may be in the form of trail construction, a use-fee that may be earmarked for construction or maintenance, or other innovative arrangement. For example, the 48 mile Glacial Drumlin Railtrail in Wisconsin was paved by U.S. Telecom in exchange for a perpetual 10 foot wide easement on the trail for the installation of a fiber-optic cable.[3]

Public Revenue Sources: In the case that golf course development did not occur, or no agreement could be established with the developer for trail construction, the alternative would be public revenue sources. State grants have been a favorite source in the past two decades but are greatly diminishing; for 1996, the total state grant for the Municipality was $4.5 million. Therefore state grants are probably not a feasible source of matching funds.

Girdwood residents currently live in a separate recreation Service District within the Municipality and have the ability to tax themselves to raise revenues for public projects. The two primary revenue generation options are a sales tax or a recreation service bond. Either initiative would have to compete with a long list of other desired community facilities. Yet the potential benefits and minimal costs involved with developing the Iditarod Trail might make an attractive proposition.

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[2] Unpublished paper by the Rivers, Trails and Conservation Assistance Program, National Park Service, 1996.

[3] Trails for the Twenty-First Century: Planning, Design and Management Manual for Multi-Use Trails, Rails to Trails Conservancy, 1993.

Revenue from a sales tax would most likely be split among a number of other projects already envisioned in Girdwood. On a relative basis, the Iditarod Trail might not be able to generate enough additional sales tax revenue to initially "pay for its way" and provide matching funds. Using the visitor expenditure scenarios for the Iditarod Trail (Chapter 6, Table 6.4), a five percent sales tax on $138,000 to $230,000 would gather only a miniscule amount of funds for the match. On the other hand, if overnight lodging increased due to the trail, it could possibly pay for its own way. Further analysis is needed in order to make reliable estimations of the advantages and disadvantages of a sales tax strategy.

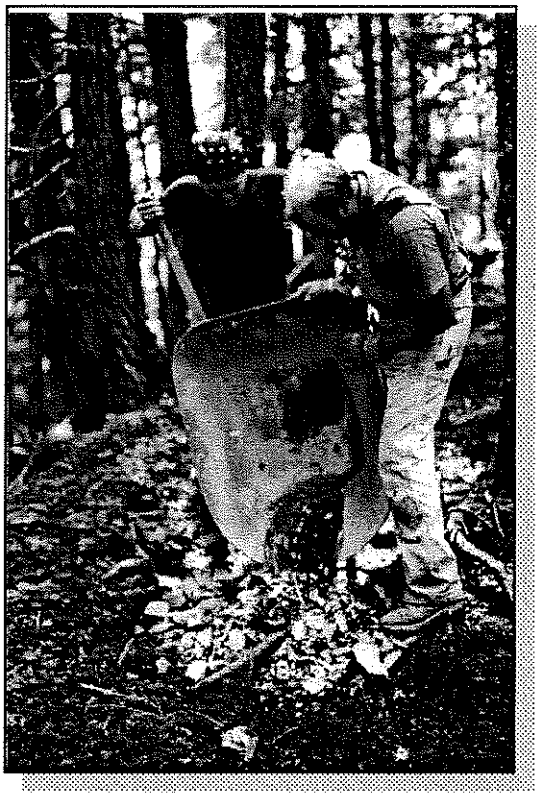
The other potential revenue generation source is a recreation bond initiative for the trail. A twenty year bond for the $200,000 local contribution would cost the average homeowner approximately $9.60 per $100,000 assessed property value (the actual amount may be less if the amount spent on this Route Study and initial trail improvements--$82,5000--as eligible for the state match). The advantage of pursuing a bond option is that if proposed for exclusively the Iditarod Trail or with a few other recreation projects, the taxpayer would directly enjoy the outcome of their contribution.

In either case, for every dollar contributed through a sales tax or a local recreation bond, the federal government through the TRAAK program could contribute up to nine matching dollars for the construction of the Girdwood-Iditarod Trail.

It is recommended that trails advocates in Girdwood further investigate the feasibility of a local public revenue source to provide local matching money for the construction of the Iditarod Trail.

Chapter 8. Implementation

The implementation steps outlined here for the Girdwood-Iditarod Trail are designed to meet the requirements of the State TRAAK program and development of the trail in general. The steps necessary to gain TRAAK funding include the adoption of this Route Study by local, state and federal government, public agency agreement to establish and dedicate an Iditarod Trail right-of-way , and the assumption of management and maintenance responsibilities for the trail. Other implementation steps are the assumption of environmental documentation requirements, the development of a source of state matching funds, and local trail construction.



Rebuilding the Iditarod Trail one wheelbarrow load at a time.

A. Adoption of this Route Study

In order to be eligible for state funding under the TRAAK, this Route Study has to be adopted by the Municipality of Anchorage and the USDA Forest Service. Because the land on which the recommended upper route resides is to be conveyed to the State, it is also recommended that this Route Study be adopted by the Alaska Department of Natural Resources. Finally, the Bureau of Land Management has management authority for the Iditarod National Historic Trail, so the Study should also be adopted by that agency.

It is recommended that the Route Study be adopted by the above listed agencies in order to be eligible for funding under the TRAAK program.

The public, municipal and agency review schedule for Route Study adoption is detailed in Table 8.1. For Municipal adoption, it is recommended that the Study be adopted as both a "stand-alone" plan, and as an element of the Anchorage Areawide Trails Plan.

Table 8.1

Implementation Schedule
Girdwood-Iditarod Trail

Action	Timeframe
Public, Municipal and Agency Review and Adoption	
• GBOS Public Hearings, Review, and Adoption	Sept.-Oct. 1996
• USFS / ADNR review	Sept.- Nov. 1996
• Heritage Land Bank Advisory Commission review	Nov. 1996
• Municipal Planning and Zoning Review and Adoption	Nov. 1996
• Municipal Assembly Review and Hearings	Jan. 1997
• Municipal Adoption	**Jan. 1997**
• USFS / ADNR Adoption	**Late 1996**
Establish Intent to Dedicate Trail Right-of-Way	Late 1996- early 1997
• , MOA-HLB, USFS, ADNR via adoption of Route Study	
• dedicate Girdwood segment as segment of the Iditarod National Historic Trail	after trail development
Trail maintenance agreements between MOA Parks and Rec. and Girdwood Trails Committee, USFS and GTC	1997 -1998
Assumption of environmental and historic documentation	by fall 1997
Evaluate local revenue generation options	by fall 1997
• if feasible, hold community vote on sales tax or bond initiative	
Local volunteer trail construction	ongoing
Design, engineering, and construction (subject to completion of above tasks and availability of funding)	***Start 1998 (at earliest)***

B. Dedication of Trail Right-of-Way

A popular rumor is that for a segment of a trail to be designated as the Iditarod National Historic Trail, a 400 foot wide right-of-way (ROW) or easement must be dedicated. In reality, the width of the Iditarod National Historic Trail ROW or easement is at the discretion of the appropriate

public land manager or private land owner, and can vary according to their needs.

In order for transportation funding to be made available for trail development under the TRAAK program, ADOTPF requires the establishment of a public ROW or easement for the life of the improvement (20 years minimum). This requirement can be met by establishment of the intent of the appropriate public land agencies to provide for a continuous Girdwood-Iditarod Trail corridor consistent with the recommendations of this Route Study. (The managing agencies for the public lands over which the proposed Girdwood-Iditarod Trail would cross include the Municipality of Anchorage - Heritage Land Bank, USDA Forest Service, and Alaska Department of Natural Resources. These agencies would not necessarily be responsible for the management and maintenance of the trail; see Section C this chapter.) When trail improvements begin, the party responsible for designing the trail would apply to the appropriate public land managers for authorization to design and construct the trail in a particular location. Once the trail is constructed, the final trail alignment would be dedicated as a public ROW .

By adopting this Route Study, the Municipality of Anchorage - Heritage Land Bank, USDA Forest Service, and Alaska Department of Natural Resources establish their intent to provide a continuous Girdwood-Iditarod Trail corridor located consistent with the recommendations of this Route Study.

Once the Iditarod Trail corridor is developed in Girdwood, it would be eligible for designation as a segment of the Iditarod National Historic Trail. Designation as part of the Iditarod Trail is administered by the BLM. *It is recommended that the Girdwood Trails Committee pursue National Historic Trail designation at the appropriate time.*

C. Assumption of Trail Management and Maintenance

It is recommended that the Girdwood Valley Service Area (GVSA) agree to assume management for the proposed Girdwood-Iditarod Trail within Municipal boundaries, and delegate administration and operation of maintenance to the Municipal Department of Cultural and Recreational Service, Division of Parks and Recreation. Within the Chugach National Forest, it is recommended that the USDA Forest Service agree to manage the proposed Girdwood-Iditarod Trail. It is also recommended that the Alaska Department of Natural Resources agree to manage the trail at the time Chugach National Forest lands are conveyed to the State.

It is recommended that the Girdwood Trails Committee assess, and if appropriate, develop their capacity to assume maintenance duties for the entire Girdwood-Iditarod Trail. Maintenance responsibilities could be established under separate agreements with the Municipality and the USDA Forest Service for the lower valley and upper valley segments of the trail.

D. Environmental and Historical Documentation

If federal funds are used to develop the Girdwood-Iditarod Trail, environmental documentation will need to be completed. Environmental documentation would require either an Environmental Assessment (EA) or a Categorical Exclusion (CE) under the National Environmental Policy Act (NEPA). *It is recommended that the public agency responsible for construction design of the project undertake necessary NEPA documentation.* Most likely that agency would be the Municipality of Anchorage - Department of Cultural and Recreational Services, Divisions of Parks and Recreation.

Historic documentation may be required on the historic segments of the upper trail only, under the provisions of the National Historic Preservation Act (NHPA). *It is recommended that the Bureau of Land Management undertake a project to meet the requirements of the NHPA for the development of the Iditarod Trail as identified in this Route Study.*

E. Develop A Source of State Matching Funds

It is recommended that local trail advocates evaluate the need and support for a community initiative to provide matching money for the construction of the Iditarod Trail.

F. Local Trail Construction

Regardless of the availability of state or federal funding, *it is recommended that local construction efforts continue on the Girdwood-Iditarod Trail.* Much of the recommended route can be improved for use in the immediate future with brushing, drainage, and signage.

The Girdwood Board of Supervisors, the Municipality of Anchorage, and the National Park Service recently secured additional Challenge Cost Share funding for the improvement of the trail. Such improvements will demonstrate the use and need for improvements to the trail.

G. Trail Design, Engineering, and Construction

It is recommended that during the construction design phase, a local project advisory committee be established. This committee would track the phases of the project, and act as an intermediary between the community and project managers. *It is also recommended that extensive public involvement processes be used in the design and engineering phases so as to reflect the wishes of the community and the needs of trail users.*

If the Iditarod Trail were to receive a favorable ranking in the 1997 STIP, it may be possible that project design could begin in 1998, with construction following the next year. Construction of the Iditarod Trail would probably take two construction seasons. If construction were begun in

1999, it may be possible to celebrate the opening of a segment of the commemorative Girdwood-Iditarod Trail on the centennial of the discovery of gold in Nome!

Appendices:

A. Site Analysis Summary - Shared Railroad Passenger / Bird Pt. bikepath - Iditarod Trail Parking Facility

B. TRAAK Project Scoring Information (from this Route Study) and TRAAK Project Scoring Criteria (from Alaska Department of Transportation and Public Facilities)

Appendix A:

Site Analysis Summary

Shared Girdwood Rail Passenger /

Bird Pt. Bikepath - Iditarod Trail Parking Facility

The Girdwood-Iditarod Trail Route Study

The following chart compares the suitability of three sites for a combined trailhead and rail passenger facility in Girdwood (see attached map for area overview). It is assumed the combined facility would provide parking for Bird Point Bikepath and Girdwood-Iditarod Trail users, and parking for the level of rail passenger service and rider ship identified in the "Girdwood Rail Feasibility Study, 1994".

The preliminary facility design includes a forty car looped parking area with a drop off area for buses, parking for 5 recreational vehicles, a 20'x30' roofed pavilion, two seat outhouse, information kiosk, and access roads.

The merits of each facility site are compared as if a combined trailhead / passenger facility were built on that site alone. The results of the analysis would change if the trailhead and RR passenger facilities were built at separate sites. The facilities and cost estimates listed below are preliminary and therefore subject to variation.

(Note: Alyeska Highway = AH, Alyeska Bikepath = ABP, Bird Pt. Bikepath = BP, Girdwood-Iditarod Trail = GW-ID)

Site Factors	**Site A:** ***N. of old town***	**Site B:** ***Mental Health lands***	**Site C:** ***DOT yard***
Size:			
- *Parcel Size*	1.5 acres not incl. RR and ADOT ROWs;	93 acres total	10.17 acres not incl. RR ROW
- *Facility Size*	200' x 245' (1.12 acres)	94' x 355' (0.77 acre)	64' x 635' (0.93 acre)
Connectivity To Trails: - *Alyeska Bikepath*	Requires either an at-grade AH crossing or u'pass to BP upramp	Good; near ABP tunnel to old townsite	Good via upramp to ABP
- *Bird Pt. Bikepath*	Requires AH underpass to reach BP	Requires RR grade crossing	No at-grade crossings; requires u'pass to GW-ID

Site Factors	Site A: *N. of old town*	Site B: *Mental Health lands*	Site C: *DOT yard*
Connectivity To Trails (cont.): - *Girdwood-Iditarod Trail*	Good access to Glacier Creek Iditarod corridor	Requires bike/ped at-grade RR crossing	Good via AH underpass
Passenger Platform Suitable?	Yes	Yes	Yes
Connectivity to Old Townsite	Marginal; long route on bikepath vs. direct and illegal RR crossing	Very good via existing bikepath tunnel	Medium; via up ramp to existing bikepath and tunnel
Compatibility w/ Adjacent Uses	Some intrusion on some old townsite landowners	No adjacent uses	Adjacent heavy equipment use (fence separate)
Visual Compatibility	Surrounded by forest; bordered by AK RR/ old townsite	Site faces DOT maint. yard; some views of T. Arm	Site adjoins DOT maint. yard
Ownership	MOA - HLB	State Mental Health Trust	ADOTPF via ILMAfrom ADNR
Acquisition Cost	None; could be transferred for public purposes	Fair market value unless determined in best interest of Trust to sell at lower value	None; may be transferred for public purposes
Availability	Yes	Possibly	Possibly
Land Use Designation	Open Space	Commercial	Public Lands & Institutions
Wetlands	Some Class A (w/in RR ROW)	Class A	No
Flood plain	Yes / 100 Year	Yes / 100 Year	No
Habitat / Vegetation	Alder-Willow; DOT ROW Cleared	Birch and spruce NE corner only; wet meadow	Primarily cleared; some clumps of aspen
Stream Setback in Vicinity	200' from California Creek	No	No

Site Factors	Site A: *N. of old town*	Site B: *Mental Health lands*	Site C: *DOT yard*
Previously Filled / Disturbed	Yes (DOT ROW by AWWU, 1995)	No	Yes
Other Environmental Factors	Expansion of site constrained by wetlands/setback	Const. cost increased by wetlands; possible mitigation costs	Possible fuel spills at adjacent ADOTPF yard
Parking Area Construction Costs	$100K [1]	$166K [2]	$122K [3]
Vehicle Accessibility: - *Highway Access Options*	From AH	From ADOTPF service road or AH	From ADOTPF service road
- *Turn Safety*	Turning hazards from / to AH, esp. for large vehicles	For AH access, possible conflict w/ mall and Seward Hwy.	Possible conflict with RR crossing (see below)
- *Access Road Length*	500' x 24' wide	600' x 24' [4]	200' x 24' [5]
- *Fill Requirements*	30,000 cy	3,000 cy	500 cy
- *Access Road Cost*	$246.0 K	$88.0K	$15K
Railroad Considerations: - *At-grade Crossing?*	No	For trail users	Yes
- *Sight Distances*	Not applicable	Good	Good

1. Estimates based on $3.00 / sf installed cost for 2 foot fill, leveling course, asphalt, striping and parking bumpers (Alaska State Parks).

2. Estimates based on $6.00 / sf installed cost for 5 foot fill, leveling course, asphalt, striping, and parking bumpers.

3. Based on $3.00 / sf installed estimate.

4. Does not include cost to upgrade to existing ADOTPF service road.

5. Does not include cost to upgrade existing ADOTPF service road.

Site Factors	Site A: *N. of old town*	Site B: *Mental Health lands*	Site C: *DOT yard*
Railroad Considerations (cont.): - *Safety*	Attractive nuisance: trail users crossing to old town site	Trail users need crossing to BP and GW-ID trails on n. side of RR	At-grade road crossing to access site
- *ROW Use OK?*	Probable	Probable	Probable
- *Other*	May require pedestrian fencing / barrier	May require RR crossing-warning signals	Would require RR crossing warning signals
Passenger Pavilion/Restroom/ Information Kiosk	$80K [6]	$80K	$80K
Other Considerations	Underpass to BP: $100K [7]	Underpass to GW-ID: $100K	Underpass to GW-ID: $100K
Total Cost	***$526K***	***$434K*** [8]	***$317K*** [9]

6. Estimates based on 20' x 30' sf roofed pavilion @ $0.75 / sf installed; two seat outhouse @ $25K; kiosk @ $5K. (Alaska State Parks).

7. ADOTPF estimate.

8. Does not include cost to upgrade existing ADOTPF service road.

9. Cost does not include installation of RR crossing warning devices (in range of $100K), or upgrading existing ADOTPF service road.

Appendix B:

TRAAK Project Scoring Information (from this Route Study)
and
TRAAK Project Scoring Criteria (from ADOTPF)

Introduction

The following information is taken from the Route Study and applied to Project Scoring Criteria (following section) used by ADOTPF for ranking of TRAAK projects for funding. The final determination and ranking of the Girdwood-Iditarod Trail project under TRAAK is the responsibility of ADOTPF. This information is offered as a starting point for the scoring process.

Standard 1: Health and quality of life

Recommended Score: 3 ("This project provides a moderate contribution to improved health or quality of life...").

Justification: The Girdwood-Iditarod Trail would provide a community connection between the old Girdwood townsite and new Girdwood townsite, and access to the existing unimproved Glacier Creek public easement, which is slated for private development. The project would also provide a direct connection between the Girdwood school at the new townsite to the Turnagain Arm Trail, and ultimately the communities of Bird and Indian (see page 4.1).

Standard 2: Safety

Recommended Score: 5 ("Addresses demonstrated safety problem of significance").

Justification: At the new townsite, the Girdwood-Iditarod Trail would provide an auto-free alternative to the school bikepath, which runs next to Hightower Avenue. (See page 4.8). The present school bikepath is not physically separated from Hightower Avenue, and is often crossed by cars accessing parking areas or using the bikepath as a parking area. This exposure to auto traffic makes the school bikepath less desirable to schoolchildren and pedestrians.

The Iditarod Trail would also provide a grade-separated crossing of the Alyeska Highway at the new townsite, which is projected to experience increased traffic. Pedestrians and schoolchildren would be able to travel on foot or bike from the school and new townsite to the current playground, pre-school facility, and the planned community center south of the Alyeska Highway.

Along Crow Creek Road, the Iditarod Trail would provide an safe pedestrian alternative to Crow Creek Road (see page 5.6). Crow Creek Road is a winding one-and-a-half lane dirt and gravel route. The road is maintained by local residents above California Creek, as it provides access to a small subdivision at Mile 4.5 and a mining operation at Mile 5.0. The road is receiving

increasing traffic from visitors to Crow Creek Mine and the Crow Pass-Iditarod Trailhead. The road is also frequently used by large gravel trucks hauling materials from the mine.

Crow Creek Road is also a very popular route for pedestrians, as it is the only road in Girdwood that leads deep into the valley's forests. The road is often used by mountain bikers and runners in the summer. In past winters, when the road was not plowed, it was used for snowmachining, cross-country skiing, and dogsledding. More recently, the road has been plowed by local residents during the winter, preventing winter pedestrian use.

The increasing use of Crow Creek Road by both auto traffic and pedestrian traffic has resulted in increased risks of injury and possibly death to pedestrians. The reconstruction of the historic route would help reduce that risk by providing pedestrians a safe alternative to the road.

Standard 3: Improves intermodal transportation or lessens redundant facilities
Recommended Score: 5 ("Greatly improves the connection between modes and enhances coordination and integration of passenger systems...")
Justification: In the lower valley, the Iditarod Trail would share trailhead parking with the Turnagain Arm Trail, lessening the need for development of separate trailhead parking areas for two trails (see Chapter 4.A). The shared trailhead is also suitable for future conversion to a railroad passenger platform. In the case that railroad passenger service is established in Girdwood, the shared trailhead would provide a connection between the rail and trail modes.

Currently the Girdwood area is subject of a transportation study that will make recommendations to minimize auto use in Girdwood (contact the Municipality of Anchorage). The project will recommend an alternative, non-auto modes for visitors to enter and travel through the valley, leaving their car at the shared trailhead at the south end of the valley or intercept parking lots at the new townsite, and using the loop trail systems that would be created with the development of the Iditarod Trail (see page 2.8 and Map 2.2).

Currently, shuttle bus service is provided by Alyeska Resort for guests. In the future, if service is expanded, the development of the Iditarod Trail would provide a complementary pedestrian system that could access the shuttle bus system at a number of points (see page 2.8).

Standard 4: Local, other agency or user contribution to fund construction costs
Recommended Score: 3 ("Contributions covers two of the following: state-match, design, right-of-way and materials.")
Justification: The Girdwood-Iditarod Trail Route Study, a conceptual design project, was accomplished under cooperative agreement between eight local, state, and federal agencies, with a total expenditure of $82,500 dollars (see NPS Cooperative Agreement CA 9700-5-9044, and Amendment One, 1996, for the same cooperative agreement). Of that amount, $43,500 dollars has been obligated for local construction of the Iditarod Trail (see page 6.7).

With adoption of the Route Study, the project partners agree to provide a right-of-way easement corridor (see page 8.3). The Girdwood Golf Course RFP requires that the developer build the Iditarod Trail within the lease area; this could be one source of the "state match" (see page 7.3). Another option which local trail advocates may pursue is whether their is community support for a public revenue initiative, such as a sales tax or recreation bond (page 7.4).

Standard 5: Local, other agency contribution to fund operations and maintenance
Recommended Score: 5 ("Contributions equal 100% and assumption of ownership")
Justification: The Municipality of Anchorage and the USDA Forest Service would assume management of the trail, with maintenance work being undertaken by agreement between these parties and the Girdwood Trails Committee (see page 8.3).

Standard 6: Public Support for Project
Recommended Score: 5 ("Preponderance of public record including a resolution from the local elected body shows support for the project and fully supported in official state/local plans.)
Justification: Municipal adoption of this Route Study as an element of the Anchorage Areawide Trails Plan, which is an element of the Girdwood Area Plan, will document local support. Adoption by the State of Alaska Department of Natural Resources, the USDA Forest Service and the Bureau of Land Management will document adoption State and Federal support of this project.

Standard 7: Environmental Considerations
Recommended Score: 3 ("Environmental approval likely...")
Justification: If an environmental assessment (EA) is necessary, project would likely result in Finding of No Significant Impact (FONSI). National Historic Preservation Act documentation would be undertaken by Bureau of Land Management.

Standard 8: Project bridges gaps...between existing trail systems
Recommended Score: 5 ("Project provides an important connection at modest cost.")
Justification: The Girdwood-Iditarod Trail would provide a continuous link eight mile link between the planned Turnagain Arm Trail and the existing Crow Pass-Iditarod Trail. The trail would also be an important link in a 125 mile loop trail that is being shaped around the perimeter of Anchorage (see page 1.4). The development of the Iditarod Trail would also form a system of two major loops within the Girdwood valley, with a hub at the new townsite (see page 2.8).

Standard 9: Project is tied to a recreational, educational, or tourism event
Recommended Score: 5 ("Event is of statewide significance and well known...")
Justification: A redeveloped Iditarod Trail, designated as a segment of Iditarod National

Historic Trail, could be an important visitor attraction associated with the statewide Centennial Goldrush Celebration (sponsored by the Alaska Department of Tourism).

Locally, the trail could support a number of existing sports and running events, including the annual Glacier Dash sponsored by Challenge Alaska, and the annual Crow Pass marathon.

Standard 10: Any of six intrinsic qualities...
Recommended Score: 5 ("One point for each")
Justification: The proposed Girdwood-Iditarod Trail provides the following unique intrinsic qualities:

- scenic - good viewscapes from the creekside trail to the mountains and glaciers of the Girdwood valley;
- historic - proposed trail would be located on the actual historic route of the Iditarod Trail. Also would provides a historic trail link to Crow Creek Mine, a registered National Historic Site;
- cultural - sited adjacent to the Girdwood School, provides opportunities for students to learn natural and cultural history of valley. Proposed interpretation on trail also provides opportunity for local, regional and out-of-state visitors to learn about history of settlement of the area;
- natural - provides access to one of the northernmost road-accessible rainforests in North America. Route would traverse five different ecosystems: lowland riparian cottonwood, old growth spruce forest, bog meadows, avalanche path shrub species, and mountain hemlock forests.
- recreational - would provide new opportunities for walking, biking, cross-country skiing, and other muscle powered pursuits. Also for bird watching, wildlife viewing, nature photography, and other trail based past-times.

Standard 11: Anticipated annual visitor volume
Recommended Score: 5 ("Greater than 2,000")
Justification: By year three of operation, the trail is expected to have over 46,000 visits annually; by year six, 123,000 visits (see page 6.3).

Standard 12: Other factors not specified
Recommended Score: 5 ("Project exhibits significant innovation, creativity or unique benefits not otherwise rated.")
Justification: To date, the project has exhibited a high degree of public and interagency cooperation and shared responsibility. For two years in a row, the Girdwood Board of Supervisors / Municipality of Anchorage has qualified for National Park Service Challenge Cost Share funding, based on Municipal cost sharing for initial improvements to the route. The cost sharing approach has also attracted the significant involvement of a private partner, Alyeska

Resort, which donated meeting rooms for public meetings, a restaurant for a public ceremony "kicking-off" the project, and staff and equipment for trail pullout construction.

Clearing of one mile of the trail and installation of geotextile and gravel over 700 linear feet has been accomplished by the Municipality contracting a Student Conservation Association (SCA) High School Work Crew. This contract was the first use of a SCA crew by the Municipality of Anchorage and is a model for trail improvement in other Municipal and statewide projects.

This Route Study recommends innovative designs and materials such as painted bridge overpasses, the incorporation of art into trail structures, covered resting benches to get people out of the rain, and the use and interpretation of recycled materials.

Along with the planned Turnagain Arm Trail and the Portage Valley bikepath, the Girdwood-Iditarod Trail has the potential to significantly provide for increased tourism in the eastern Turnagain Arm region. Each of these trails would require about a day to explore by foot or bike. Therefore, a visitor might take lodging in Girdwood in order to use another trail facility the following day, or return on another day. Together the three trail attractions could change the current type of visitation to this region, which is primarily day-use, to extended stays at Girdwood area lodging.

Stand-Alone TRAAK Projects
Evaluation Process Standards and Scoring Criteria

Standards	Scoring Criteria				
	(5)	(3)	(0)	(-3)	(-5)
1. Health and Quality of Life (Air and water quality, neighborhood continuity, access to basic necessities) Weighting: 1	This project provides a significant contribution to improved health or quality of life through reduction or removal of existing negative factor.	This project provides a moderate contribution to improved health or quality of life through reduction or removal of existing negative factor.	Project will have no affect either positive or negative on quality of life issues.	This project provides a moderate degradation to health or quality of life.	This project provides a significant degradation to health or quality of life.
2. Safety. Weighting: 4	Addresses demonstrated safety problem of significance.	Addresses demonstrated safety problem of moderate nature or there is a record of public concern.	Project does not have a safety component.	Project will have a minor adverse affect on safety.	Project will have a major adverse effect on safety.
3. Improves intermodal transportation or lessens redundant facilities. Weighting: 2	Greatly improves the connection between modes and coordination and integration of passenger systems and services and/or would clearly reduce the need for significant capital investment in another mode.	Moderately improves the connection between modes and enhances coordination and integration of passenger systems and/or would clearly reduce the need for moderate capital investment in another mode.	Minimal or no affect on transportation system connectivity, or coordination and integration of passenger systems and services and does not change the requirement for investment in other modes.	Moderately decreases the connection between modes or decreases coordination and integration of passenger systems and/or would clearly require the need for moderate capital investment in another mode.	Greatly decreases the connection between modes or decreases coordination and integration of passenger systems and/or would clearly require the need for significant capital investment in another mode.
4. Local, other agency or user contribution to fund construction costs. Weighting: 2	Contributions covers all of the following: state match, design, right-of-way and materials.	Contributions covers two of the following: state match, design, right-of-way and materials.	No contribution.		

Appendix

Stand-Alone TRAAK
Evaluation Process Standards and Scoring Criteria

Standards	Scoring Criteria (5)	(3)	(0)	(-3)	(-5)
5. (Use for non-DOT&PF facilities or facilities DOT&PF is unsuited to long-term ownership). Local, other agency or user contribution to fund operations and maintenance (O&M) costs. Weighting: 3	Contributions = 100% and assumption of ownership. (Assumption of like facility OK.)	Contributions cover __% of O&M costs. One point for each 25%.	Contributions cover 25% to >10% of O&M costs.	Contributions cover <10% to > 1% of O&M cost.	Contributions cover <1% of O&M cost.
or 5 A. (Use for facilities which only DOT&PF is logical owner). Departmental M&O priority Weighting: 3	Very high M&O priority.	Moderate M&O priority.	Not an M&O priority.	Not an M&O priority; would increase M&O costs moderately.	Not and M&O priority; would increase M&O costs significantly.
6. Public Support for the Project? Weighting: 3	Preponderance of public record including a resolution from the local elected body shows support for project and fully supported in official state/local plans.	Majority of public record shows support for project; and nominally supported in official state/local plans.	Public record is divided or undocumented toward project	Majority of public record shows opposition to project; and not supported in official state/local plans.	Preponderance of public record shows opposition to project including a resolution from the local elected body and contravenes official state/local plans.
7. Environmental Considerations Weighting: 1	Environmental approval likely with Categorical Exclusion or already complete.	Environmental approval likely with Environmental Assessment or draft document circulated.	Environmental approval likely with Environmental Impact Statement.	Environmental approval extremely difficult 50/50 chance.	Environmental approval unlikely.
8. Project bridges gap or removes barrier between existing trail systems or provides interpretive center or rest area continuity. Weighting: 3	Project provides an important connection at modest cost.	Project provides a modest connection or has high cost.	No gaps bridged or barriers removed but does connect to existing networks.	Project is isolated from existing networks.	

Appendix

Stand-Alone TRAAK
Evaluation Process Standards and Scoring Criteria

Standards	Scoring Criteria (5)	(3)	(0)	(-3)	(-5)
9. Project is tied to a recreational, educational or tourism event? This project would strongly support/sustain this event? Weighting: 2	Event is of statewide significance and well known/long standing. Yes to both (5), yes to one (4).	Event is regional/local and well known/long standing. Yes to both (3) or yes to one (2). Event is new but growing in importance (1).	Event is local and not growing.		
10. Any of the six intrinsic qualities: scenic, historic, cultural, natural, archaeological, recreational. Weighting: 3	One point for each one; maximum 5.	(See to left.)	None.		
11. Anticipated Annual Visitor Volume Weighting: 2	>2,000	>1,000	>500	>200	<200
12. Other factors not specified. Weighting: 2	Project exhibits significant innovation, creativity or unique benefits not otherwise rated.	Project exhibits moderate innovation, creativity or unique benefits not otherwise rated.	Project exhibits no innovation, creativity or unique benefits not otherwise rated.		

Appendix

A Brief History of the Iditarod Trail in the Girdwood Area

1896 Gold prospectors settle along Glacier Creek on Turnagain Arm, and begin exploring up the valley for gold. Settlement was later named "Girdwood" for local miner Col. James Girdwood.

1897 Chris Spellum begins mining along Crow Creek; later to become Crow Creek Mine.

1898 Walter Mendenhall, geologist, and Luther Kelly, guide, make the first traverse across Crow Pass to the Yukla (now Eagle) River. The explorers then cross by native boat to the settlement of Knik, and continue north to the Tanana River on a surveying expedition.

1899 Gold mining begins on the beaches of Nome.

1900's Girdwood-Crow Pass Iditarod trail used as a winter route and mail trail connecting Seward and Sunrise to Knik and the Interior goldfields. Anchorage did not exist at this time.

1908 Indian Pass branch of Iditarod Trail completed; became favored over Crow Pass route, which had high avalanche danger.

1909 Alaska Northern RR completed to Kern Creek, just four miles south of Girdwood on Turnagain Arm. Large sawmills established in Girdwood to cut railroad ties. Tree cutters probably established the contemporary "Wagon trail" in Girdwood at this time.

1911 Alaska Road Commission rebuilds Crow Pass-Iditarod Trail to be used by four-horse teams. Indian Creek route continues to be more popular.

1915 Alaska Railroad tent city established at the mouth of Ship Creek, just north of modern day Anchorage.

1923 Present day Crow Creek Road alignment completed between Crow Creek Mine and Turnagain Arm. Trail alignment paralleling the current road may have been abandoned at this time.

1930's Crow Pass-Iditarod Trail falls into disuse.

1970's Crow Pass-Iditarod Trail rebuilt by Susitna Girl Scout Council.

1978 The Iditarod Trail is designated as a National Historic Trail and named as part of the new National Trail System.

1995 The community of Girdwood and government agencies join together to look at possibility of establishing a commemorative Iditarod Trail linking Turnagain Arm and Girdwood to the Crow Pass-Iditarod Trail.

1998 2.3 miles of Iditarod Trail between school and Crow Creek Road cleared and improved.