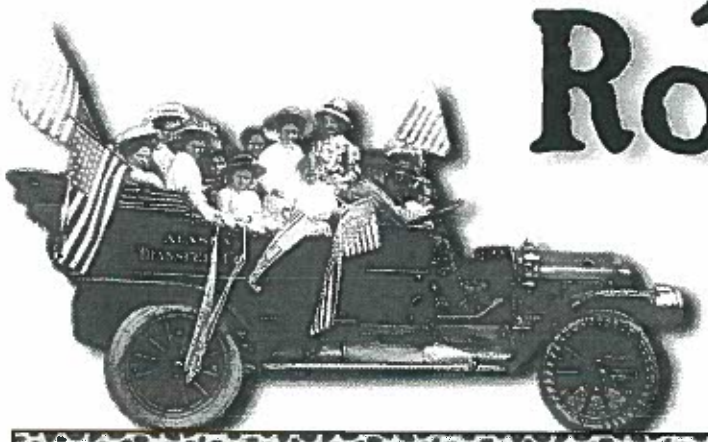
McCarthy Road



Scenic Corridor Plan

Interagency Planning Team

National Park Service

Alaska Department of Natural Resources

Alaska Department of Transportation & Public Facilities

November 1997

Interagency Planning Team

This report was cooperatively prepared for the State of Alaska, Department of Transportation and Public Facilities, Northern Region by an Interagency Planning Team composed of the following individuals:

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Cover photograph is courtesy of the Alaska State Library; Photographers in Alaska Collection; photo #PCA 341–Kennedy–1.

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Introduction

The State of Alaska, Department of Transportation and Public Facilities (ADOT&PF) proposes to upgrade the McCarthy Road between Chitina and McCarthy to improve public safety. In 1995 an agreement between the National Park Service (NPS); the Alaska Department of Natural Resources (DNR), Division of Parks and Outdoor Recreation (Alaska State Parks); and the Alaska Department of Transportation and Public Facilities was signed, directing the National Park Service to lead an interdisciplinary planning team to prepare a plan for road-related visitor facilities along the road corridor, including public sanitation facilities and preservation and interpretation of scenic, historic, cultural, and natural resources along the road.

On June 6, 1995, Governor Knowles announced a new $2 billion, ten-year transportation initiative for Alaska. The program, among other priorities, includes a Trails and Recreational Access for Alaska Program, referred to as the TRAAK Program. Based upon this initiative, the Interagency Planning Team (IPT) incorporated preliminary trail planning as a part of the scenic corridor study for the McCarthy Road.

The scope of the project is to consider the upgrade of the existing road alignment, including paving options; planning for visitor waysides and basic improvements to better accommodate visitors and residents; protection of scenic qualities along the road right-of-way, and preliminary planning for a trail paralleling the road corridor. Planning outside the road corridor is not a focus of this study.

The road is used by visitors and rural residents alike.

Native vegetation has encroached onto roadway shoulders in many areas, creating a tunnel effect that obscures views of the surrounding terrain.

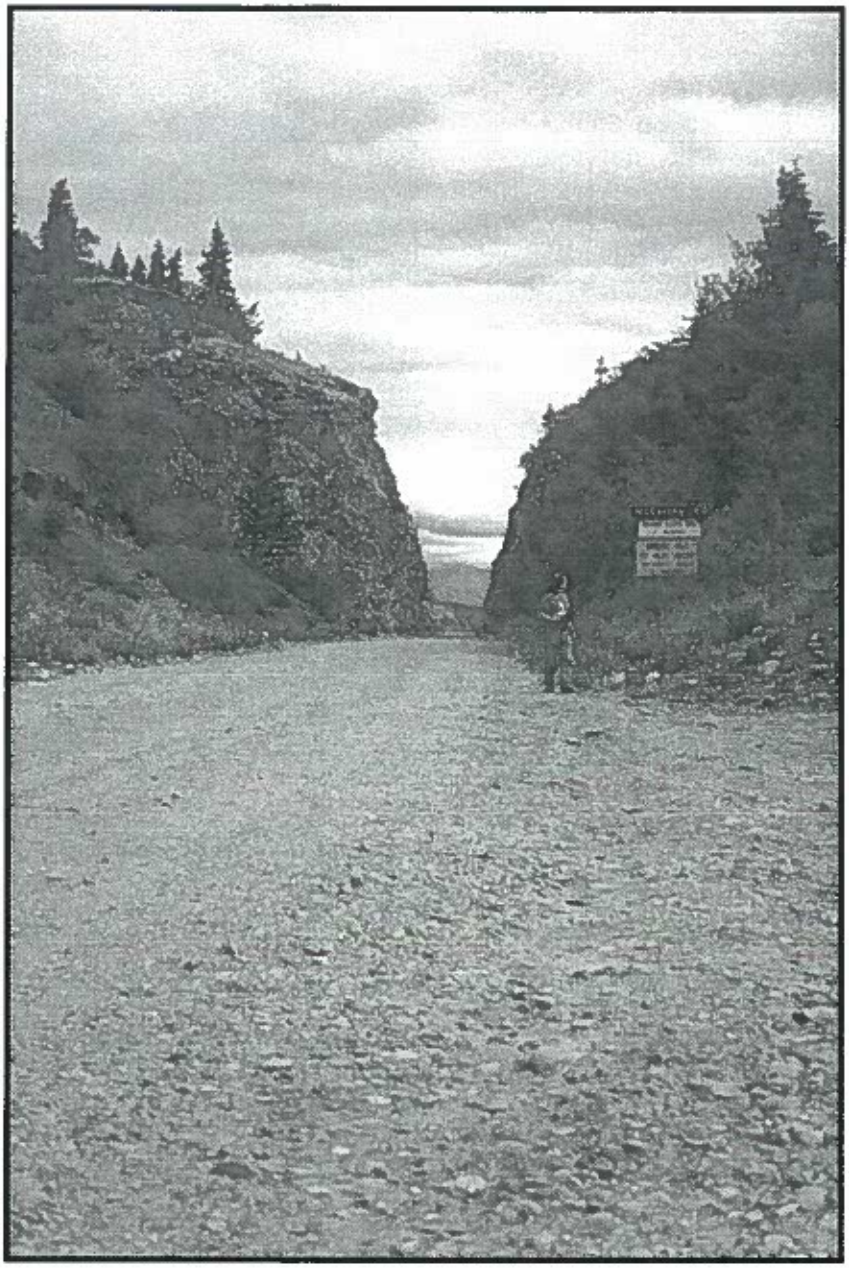
With increasing traffic and visitation to the Wrangell-St.Elias National Park & Preserve and the Copper Basin region, existing road conditions expose greater numbers of travelers to risk and possible injury.

Summary Recommendations

The McCarthy Road is one of two roads that provide access into the Wrangell-St. Elias National Park and Preserve. The McCarthy Road serves as a 'gateway' to the historic communities of McCarthy and Kennecott and to the Wrangell-St. Elias National Park and Preserve as well as other state and private lands through which the road passes.

The recommendations include road improvement standards and a series of public waysides and campgrounds, as well as cooperative agreements between agencies for maintenance of road and wayside facilities.

Expansive view from the road where vegetation has not encroached. Note the narrow width and limited sight distance around the curve.



Directly east of downtown Chitina is the remnant of the Copper River and Northwestern Railway's only tunnel between Chitina and Kennecott. Although the cut averages only 16 feet from wall to wall and can accommodate only one-way travel, the project team recommends that it be retained as an important reminder of the road's railroad origins.

Waysides are envisioned to provide basic visitor accommodations, including toilets at selected locations, trash collection, and greater opportunities for resource interpretation, scenic protection, and trail access into surrounding national park/preserve areas.

Private Campgrounds and related visitor services have been identified to encourage private sector commercial development. Public campgrounds where private sector interests are low, are suggested to meet the growing needs of visitors.

Roadway alignment, widening, and vegetative management recommendations are also made with an eye to maintaining visual qualities and the natural character of the road. Long term management of road surfaces, waysides, and roadside vegetation have been identified and recommendations made for federal/state, and local participation.

In addition, recommendations are made for scenic easements, acquisition, setbacks, and/or buffers on state lands to further protect roadway scenery and prevent undesirable encroachment along portions of the roadway.

Project Description

In March 1995 an Interagency Planning Team (IPT) was formed to conduct a study of the road corridor between Chitina and McCarthy. The IPT was composed of representatives from the NPS, the State of Alaska ADOT&PF, and DNR, Alaska Division of Parks.

Field investigations along the road corridor to identify existing natural, scenic, historic, cultural, and recreational resources were conducted during the summers of 1995 and 1996. The team met with residents, land owners, and others interested in the road and surrounding environment, and facilitated informal meetings to discuss and identify issues of importance along the road and corridor.

In the fall of 1996, alternative scenic corridor plans and trail scenarios were prepared. Plan alternatives range from No Build to roadside development featuring Maximum Development of wayside improvements. Informal reviews and discussions were held with public and governmental agencies having jurisdictional interest in the area.

The IPT recommends basic public improvements within a series of waysides, road and corridor design standards, and suggests road and wayside maintenance and operational guidelines to perpetuate the quality of the road corridor in the future. Recommendations for appropriate commercial and other private enterprises along the corridor have been identified. In addition, the team has identified a feasible trail corridor alternative for locating a parallel, multi-purpose trail extending from Chitina to McCarthy.

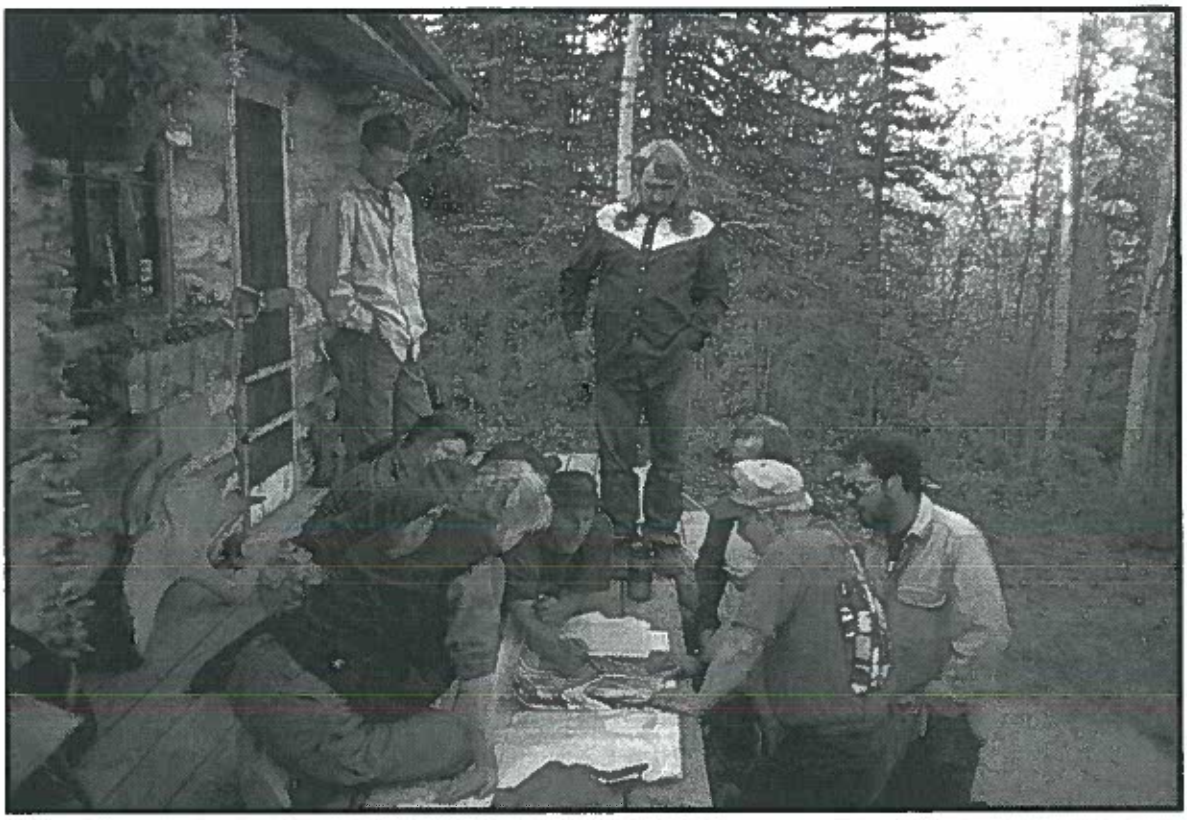
History

The Kennecott Mine, at one time the world's richest copper deposit, is located near the Kennicott Glacier about 196 miles northeast of Cordova. Construction of the Copper River and North Western Railroad (CR&NWR) from Cordova to Kennecott was completed in 1911. Copper was mined and hauled by train for more than 20 years. In 1932, the Kennecott Mine closed and the railroad made its final run to Cordova.

In 1963, a contractor removed the rails. In the late 1960's, ADOT&PF began construction of the McCarthy Road over the rail bed, connecting Chitina to McCarthy. The road ends at the Kennicott River.

The Wrangell-St.Elias National Park and Preserve was established in 1980. The McCarthy Road passes through state, Native, and private lands.

Visitors, now in greater numbers than miners, seek the historic, scenic, recreational, and natural resources of the area.



The project team conducted several public meetings in the local area to gather information and ask for comments.

Planning Objectives

The planning goals for this project reflect both federal and state agencies having jurisdiction and interest in the McCarthy Road corridor: the Wrangell-St.Elias National Park & Preserve, ADOT&PF, DNR, and Alaska Division of Parks; as well as the residents and other interested individuals and Native organizations within the Copper Basin region.

In addition, recommendations for corridor improvements should enhance the driving experience for residents and visitors alike by focusing attention on the resources of the region through which they pass, rather than the condition of the road surface.

To carry out these goals, the following objectives and actions were identified early in the planning process and were used to focus the work of the Interagency Planning Team (IPT).

Objectives & Actions:

Plan a safe, park-like road:

- Enhance the driving experience for visitors and residents alike by planning a safe, and natural appearing road that protects and conserves cultural, scenic, and natural qualities and resources in the area.
- Consider both ADOT&PF and NPS road design standards.
- Establish road design standards which reflect National Park standards, low design speeds, and visitor enhancements which add to the visitors driving experience.
- Promote visitor safety within the roadway corridor.
- Consider and plan for a public trail which parallels the road and links waysides between Chitina and McCarthy.

Visitor Accommodations:

- Consider wayside design standards and details that promote use of indigenous materials and incorporate historic details.
- Provide restrooms and trash receptacles for travelers along the road corridor.
- Provide interpretive exhibits reflecting historic, cultural, scenic, and natural resources accessible and visible from the road corridor.
- Minimize vehicular / human impacts on existing wildlife, habitat, cultural, and natural resources.
- Create opportunities for non-motorized access to public lands adjacent to the roadway corridor.
- Encourage non-motorized activities such as walking for pleasure, jogging, hiking, biking, horseback riding, skiing, mushing, camping, fishing, and so on.

Commercial Opportunities:

- Promote and encourage private development that complements cultural, scenic, and natural resources in the area and provides visitor facilities and services.
- Accommodate future private / public use(s) which are in balance with the resources along the corridor.

Long-Term Maintenance and Operation:

- Consider maintenance, interagency, or other forms of binding agreements for road and wayside care which share responsibility for annual and cyclic maintenance between State, Federal, and local communities benefiting from their use.
- Consider vegetative maintenance agreements at waysides and the road that focus on annual or biennial maintenance.

Existing Conditions

Introduction

The McCarthy Road Corridor begins at Chitina, Alaska, and follows the historic route of the Copper River and North Western Railroad to the Kennicott River, approximately 60 miles. The dirt and gravel road, a state right-of-way, passes through state, private lands and the central part of Wrangell-St. Elias National Park and Preserve, and also serves rural residents along the road corridor, as well as visitors to McCarthy and the historic Kennecott Mine area.

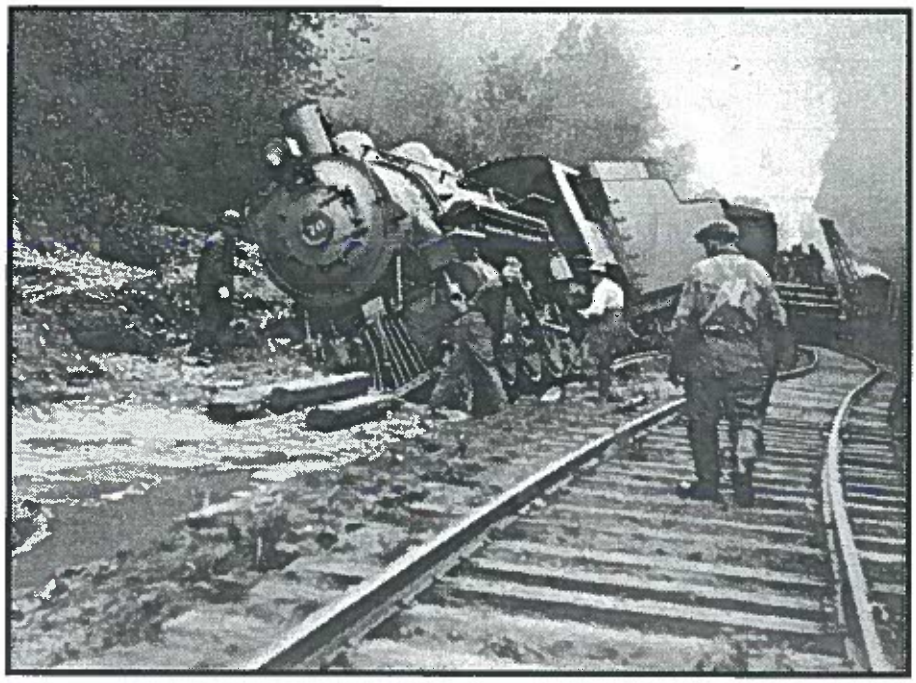
Visitor services and facilities are limited at both ends of the road and along the corridor. A few local businesses provide overnight lodging and offer very limited food service. Gasoline is available in Chitina only, and two businesses offer tire repair services along the road. Otherwise, car repair or emergency services are not available.

The road is narrow and in many places overgrown with willow and alder. Off-road scenic views are frequently limited by encroaching roadside vegetation. In addition, roadside vegetation creates sight distance problems for vehicles approaching curves along the road.

The road follows the original railroad alignment except where stream crossings or drainages were crossed by trestles (Gilahina and Swift Creeks are examples) and re-alignments have been constructed. The narrow road together with encroaching vegetation creates many alignment and sight distance problems which reduce sight distances to well below safe levels. Near the confluence of the Kotsina River at the Copper River the existing road is located on the exposed Kotsina bluff which is subject to continued erosion and sloughing from unstable soils and poor drainage. These conditions create serious maintenance problems along the road and will be corrected through reconstruction of the roadway in this area following a new alignment.

The existing road surface is composed of gravel which overlays the original railroad ties. Railroad spikes are brought to the surface each time road graders maintain the road, creating a new 'batch' of road hazards.

There is a lack of public toilets, trash receptacles, and visitor information along the road. In addition, cultural and natural resources along the road are overlooked from a lack of information and interpretive signs. Two notable historic sites include the Kuskulana Bridge and the Gilahina Trestle, both outstanding examples of the railroad originally passing through this area.



Engine 70 derailment. Photo courtesy of Anchorage Museum of Sistory and Art (#B82–135–10

Many studies have been undertaken regarding the resources of the corridor and region and have been used as a point of beginning for the work conducted by the Interagency Planning Team, refer to the appendix for a list.

Land Status

The McCarthy Road ROW (200') between Chitina and McCarthy crosses both private as well as public lands[1]. Although the road penetrates into national park and preserve lands, a variety of jurisdictions and private owners border the ROW on both the north and south sides of the road. The attached Land Status map indicates general land status of the road corridor.

Existing land status adjacent to the road ROW between Chitina and the Kennicott River has the following mix of public and private land ownership:

McCarthy Road Land Status (adjacent to road ROW)		
	approx. Km / mi	percent
Landownership—Private		
Chitina Village Corporation	7.9 / 4.9	8
Ahtna Native Corporation	12.1 / 7.6	12
Private Tracts	17.7 / 11.0	18
Private Ownership Subtotals	37.5 / 23.5	38
Landownership—Public		
Ahtna-selected lands [2]	32.5 / 20.2	33
Alaska Department of Natural Resources	16.0 / 9.9	16
University of Alaska	5.0 / 3.1	5
National Park Service	8.2 / 5.1	8
Public Ownership Subtotals	61.7 / 38.3	62
Totals	99.5 / 61.8	100

[1] There is a difference of interpretation as to what the right of way (ROW) width is along the McCarthy Road. Since statehood, the state has maintained, and still maintains, that the width is 200 feet. The federal government claimed that the width is 100 feet in one recent finding.

[2] Land identified and selected by Native Corporations for possible future conveyance to Native Corporations, as allowed under the Alaska Native Claims Settlement Act (ANCSA). Land not conveyed reverts to original federal management, i.e., the Wrangell– St Elias National Park and Preserve.

road experience must offer opportunities to meet the needs of all types of visitors. Driving for pleasure, sightseeing, and hiking are popular recreational activities that depend largely on perceptions of the visual environment. Many of the benefits that recreationists receive from engaging in these and similar outdoor activities are directly related to how the environment is viewed, managed, and presented to the visitors (Hammit 1980).

People are primarily "visual" processors of environmental information. Sight is crucially important and probably influences human response to environments more directly and with greater salience than the other senses (Campell 1974). Based on this theory, all waysides and portions of the McCarthy Road itself must be created and managed to enhance the visitor's visual experience. One of the principal means of providing scenic opportunity and enjoyment will be accomplished through vegetation management.

Recommendations / Common to Scenic Corridor

General Conditions and Recommendations

The recommendations proposed for the McCarthy Road will both change and create new character within the corridor and roadway. New access to park lands, interpretation of scenic, cultural, historic, and natural resources along the road, camping and other recreation opportunities for travelers, and management of roadside vegetation along the road will help to create and maintain a park-like road along this historic route.

Recommendations which support the preservation of a quality environment, improve user safety, and enhance the enjoyment for visitors include:

- Design, location, and management of road widening, & clearing limits
- Planned roadside improvements, including trails and trail heads
- Management of roadside vegetation, and
- Land use policies appropriate for continued protection of scenic and corridor resources.

In addition, improved access to national park lands, and protection of scenic, habitat, and wildlife resources along the corridor will enhance resident and visitor uses.

Specific recommendations address:

- Gateway Communities
- Roadway Design Standards and Typical Sections
- Bridges
- Waysides
- Trails
- Design Guidelines

Paving Options:

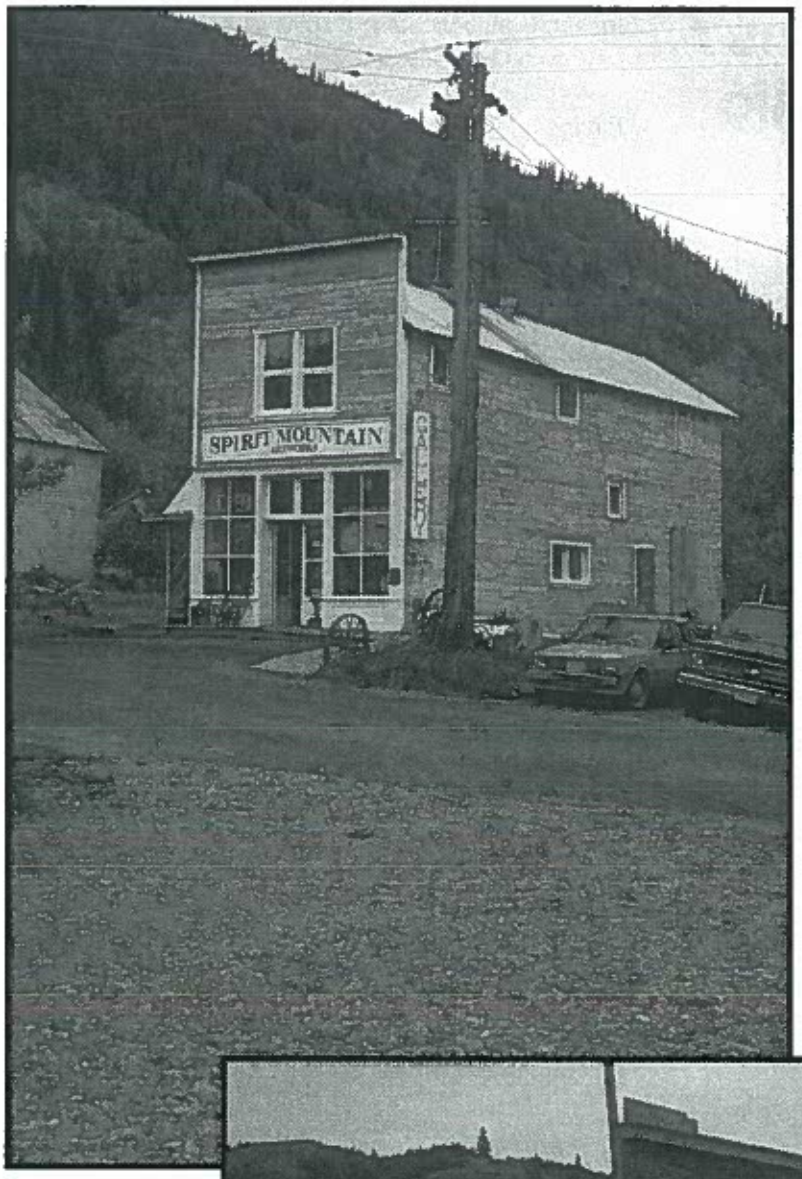
Whether to pave or not to pave the McCarthy Road, has been discussed and debated in public meetings and during the IPTs work over the past two years and longer. Both benefits and costs associated with either option can be discussed with equal fervor.

Paving may appear to reduce annual maintenance costs but could encourage greater visitation to the area by those reluctant to drive a gravel road. Gravel may require less costly technology to maintain driving surfaces, but requires more frequent maintenance. Gravel creates dust, paving does not. A paved roadway has visible "edges" and may appear narrower to a driver, where gravel tends to blend into the shoulders of the roadway creating a "wider" road. Paving is smooth, gravel is rough.

These benefits when viewed from the perspective of local residents, Alaska visitors and tourists are difficult to come into agreement on. So too, the McCarthy Road corridor has a tradition of accessibility limited by natural barriers and remoteness, steeped in history within the park.

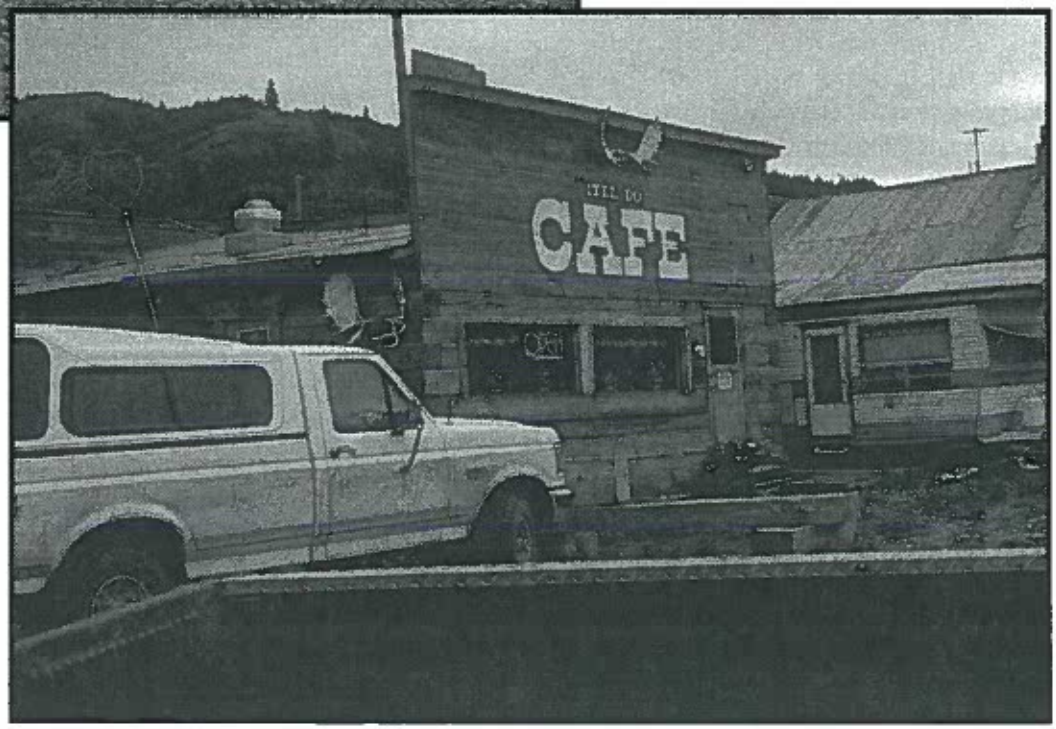
The intent of the Scenic Corridor Plan is to prepare recommendations which "bridge" either option. The recommendations for roadway safety, widening and waysides will enhance the corridor and maintain much of the character which has come to be associated with the area. Whether the roadway is paved now or sometime in the future should not materially affect the recommentations made in this report.

NOTE: Refer to fold-out map on page 51 showing recommended wayside locations.



Local scene, Chitina, 1996.

Local scene, Chitina, 1996.



Gateway Communities

The communities at the beginning and end of the road are important places for obtaining information and introducing the traveler to significant resources along the corridor. Both public and private improvements are recommended and would include the following at each location:

Chitina

(Gateway to McCarthy, Kennecott, and the Wrangell-St. Elias National Park and Preserve)

PUBLIC IMPROVEMENTS

A wayside is planned for construction in 1998 and will provide public information, interpretation, and visitor services at the beginning of the McCarthy Road.

The Chitina Wayside will provide:

- Off-road parking for cars and large vehicles, restrooms, and trash recepticles
- Pedestrian access to the National Park Service Ranger Station and future connecting pathways to town
- An interpretive pavilion located near the original Copper River and Northwestern Railway depot site, with local information and interpretive panels.

RECOMMENDED COMMUNITY INFRASTRUCTURE IMPROVEMENTS

- Public potable water system
- Solid waste system
- Liquid waste disposal
- Trails and public walkways

PRIVATE / COMMERCIAL IMPROVEMENTS

As visitor use increases over time, visitor commerce can be expected to increase. The community of Chitina will have an opportunity to welcome travelers and provide essential services and commerce in some of the following areas:

- Restaurants
- Lodging, B&Bs
- Groceries
- Campgrounds / showers
- Fuel / supplies
- Fishing permits
- Visitor commerce

Kennicott River

end-of-the-road

(access to McCarthy and the historic Kennecott Mine)

PUBLIC IMPROVEMENTS

A wayside is planned to provide public information, interpretation, visitor services, and parking at the end of the McCarthy Road. A wayside at this location should provide parking for 300 to 500 vehicles for both short- and long-term users, appropriate areas for loading / unloading supplies and materials at the footbridge crossing the Kennicott River,

and access and trails for residents and visitors crossing the river, as well as directional and interpretive visitor information. Public restrooms, trash receptacles, and pedestrian gathering areas should also be provided at this location.

Since the current state ROW (right of way) provides insufficient area for the optimal siting of needed public facilities, the acquisition of 5–7 acres of lands to accommodate parking, vehicle/pedestrian access to the new footbridge, and related visitor facilities is recommended. Turn to page 49 for an illustration of the Kennicott Wayside.

Protection and preservation of river views and dispersal of parking areas to avoid a "sea of cars" image are critical considerations to the final siting and design of facilities.

As visitor use increases over time, visitor commerce is expected to increase as well. The end-of-the-road land owners and the community of McCarthy will have an opportunity to welcome travelers and provide essential services and commerce in some of the following areas:

RECOMMENDED COMMUNITY INFRASTRUCTURE IMPROVEMENTS

- Public potable water
- Solid waste systems
- Liquid waste disposal
- Trails and public walkways
- Safe fuel handling systems

PRIVATE / COMMERCIAL IMPROVEMENTS

With expanding visitor use, and future roadway improvements, commerce can be expected to increase in the area. Both small scale and commercial tourism enterprises are likely to support some expansion of visitor services and commerce. Private enterprise can address many of these needs by providing services which could include:

- Lodging, B&Bs
- Camping
- Food services, restaurants
- Additional secured parking
- Adventure sport and visitor accommodation packages
- Groceries, supplies
- Other related visitor services

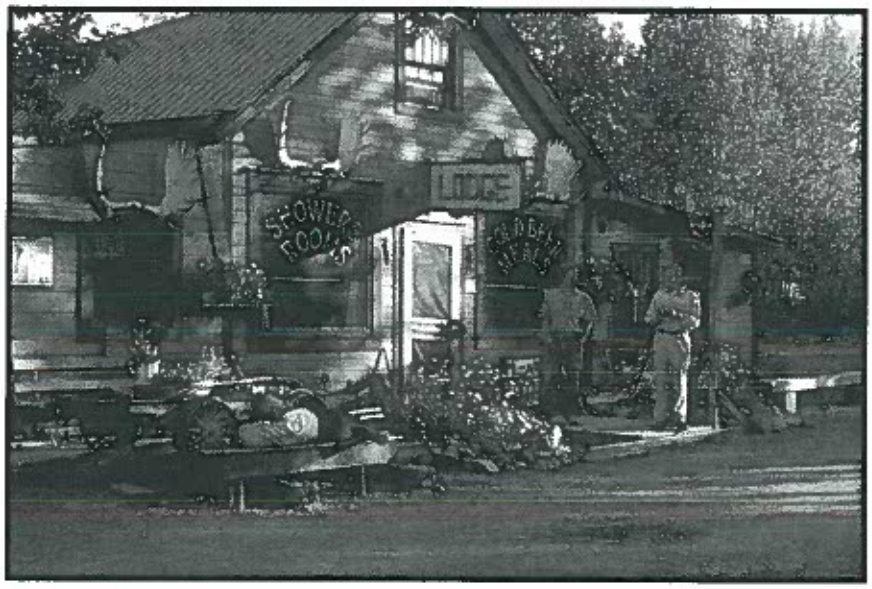
McCarthy

Across the Kennicott River

PUBLIC IMPROVEMENTS

- ADA (American's with Disabilities Act) accessible trail from the Kennicott River bridge(s) to the intersection of the road to McCarthy and the Kennecott Mine
- Toilet facilities
- Visitor information and interpretation

RECOMMENDED COMMUNITY INFRASTRUCTURE IMPROVEMENTS	• Potable water supplies • Solid waste systems • Liquid waste disposal • Utility systems
PRIVATE / COMMERCIAL IMPROVEMENTS ENCOURAGED IN THE FOLLOWING AREAS	• Lodging, B&Bs • Tent camping • Food services, restaurants • Groceries, supplies • Recreational / visitor services and concessions • Local transportation systems



Local scene, McCarthy, 1996.

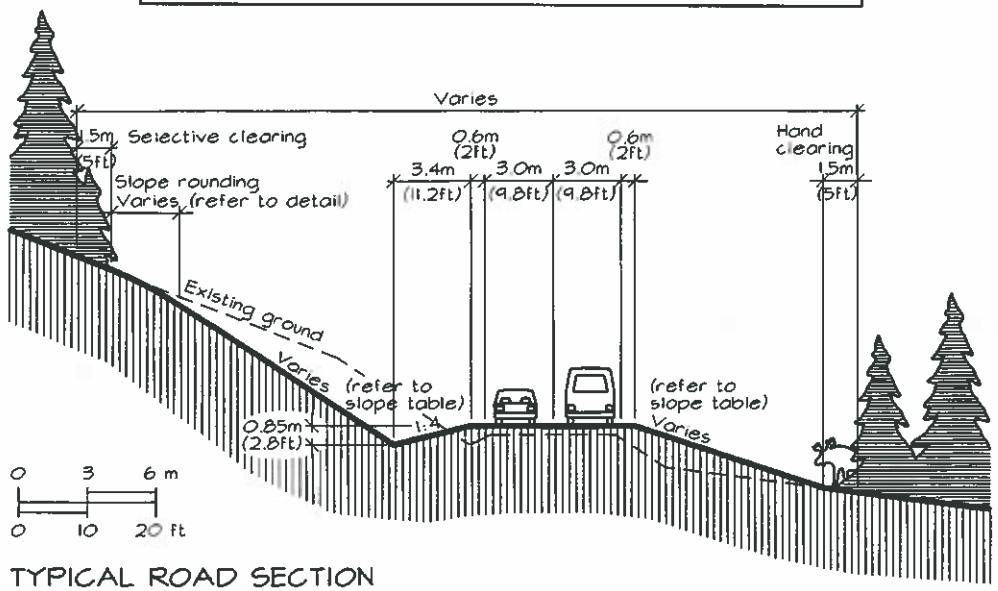
Roadway Design Standards & Typical Sections

Recommendations for road widening and clearing limits will have substantial effect on the aesthetic qualities of the roadway. Without sacrificing roadway safety, scenic corridor standards have been developed to optimize both safety and scenic corridor qualities.

The following proposed project design criteria are consistent with the National Park Service 1984 Park Road Standards and ADOT&PF Standards:

Project Design Criteria Class I Principal Park Road (NPS), Rural Major Collector (ADOT & PF)	
Design Year	2020
Present ADT (1996)	125 (seasonal)
Design Year ADT	400 *
Design Vehicle	Bus, WB15 (WB50)
Design Speed	60 km/h (37.3 mph)
Min. Stopping Distance	75m (250ft)
Min. Passing Sight Distance	407m (1335ft)
Maximum Allowable Grade	8% (rolling terrain)
Minimum Radius of Curve	135m (443ft)
Width of Traveled Way	6m (20ft), two 3m (10ft) lanes
Width of Shoulders	0.6m (2ft)

* ***The McCarthy Corridor Visitor Use and Traffic Volume Study*** by Reed Hansen & Associates projected a seasonal (summer) average daily traffic (ADT) of 560 for the year 2020. The ADOT&PF typically uses an annual ADT for design purposes. An annual ADT for this road would be approximately one half of the seasonal ADT. In this particular case, the ADT basically only affects the width of the roadway. For the given design speed and ADTs up to 400, the recommended total width of roadway is as shown above. For an ADT over 400, the recommended total width of roadway would be 9.1m (30ft) or wider. For the design of this project, a design year ADT of 400 or less should be used.



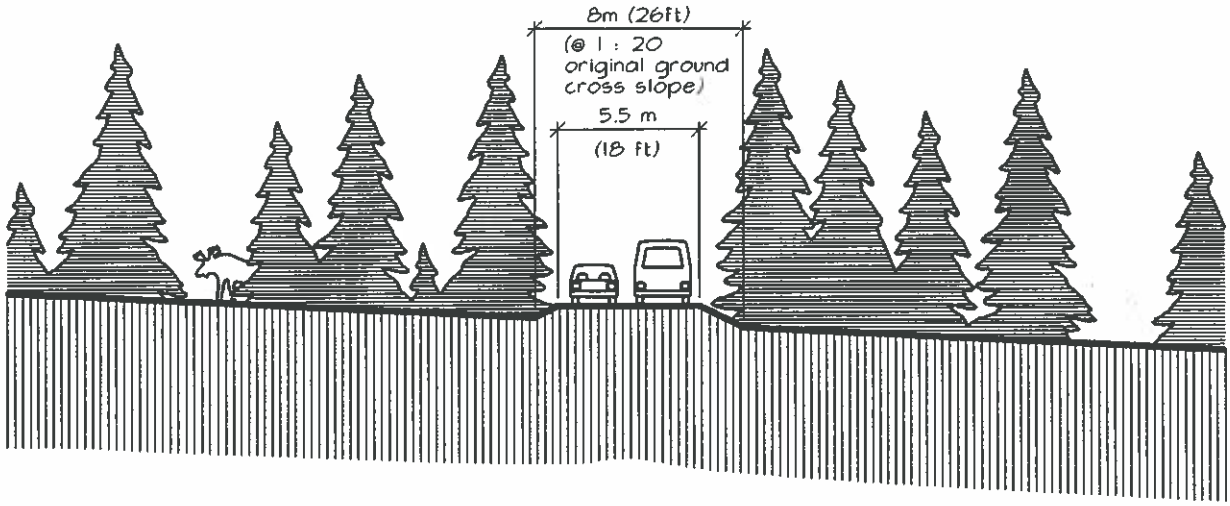
TYPICAL ROAD SECTION

The typical sections will apply to most locations along the McCarthy Road. However, it is understood that there will be some areas with special geotechnical problems, such as areas with warm unstable permafrost, areas with poorly drained soils, icing areas, and special drainage problem areas, that will affect how the road is constructed. In those areas, a reasonable effort should be made to make the final roadway appearance the same as the rest of the road.

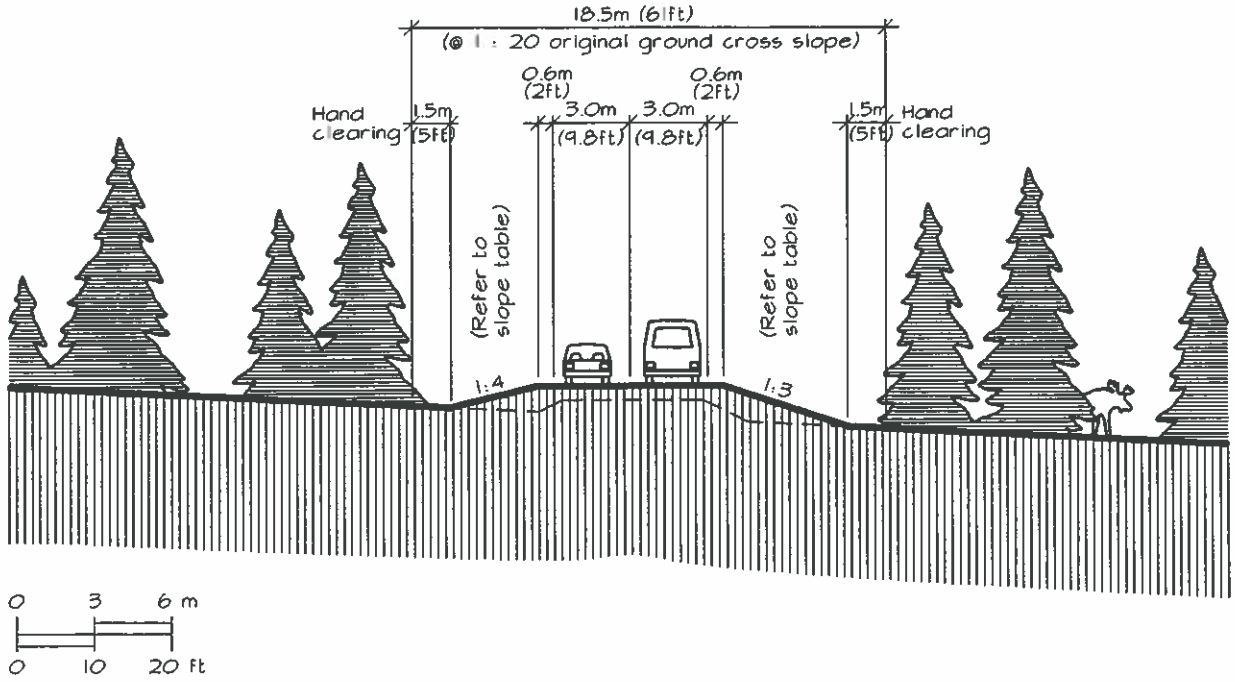
Example Roadway Sections

The roadway sections on the following pages represent examples of ***existing*** and ***proposed*** changes to the roadway clearing and roadbed construction based on the following selected situations:

EXISTING ROAD SECTION



PROPOSED ROAD SECTION



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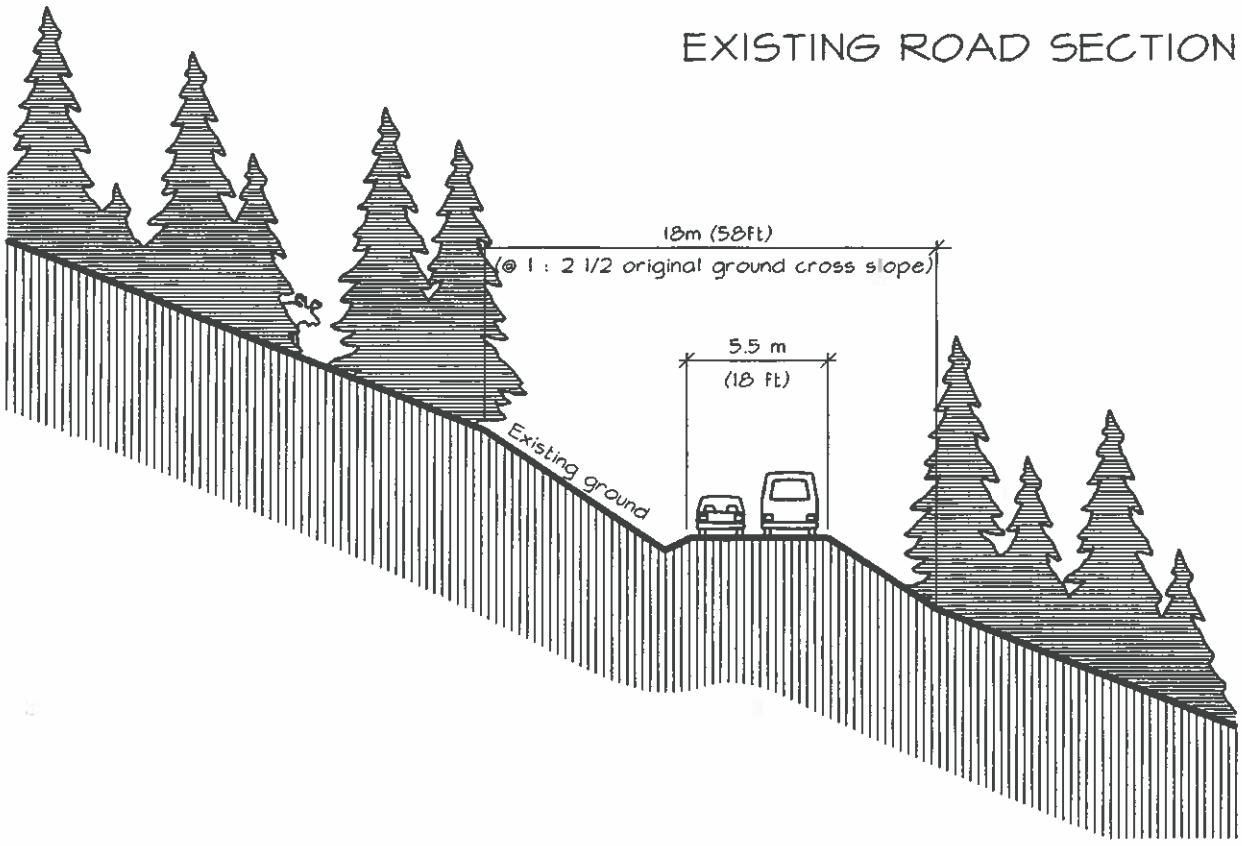
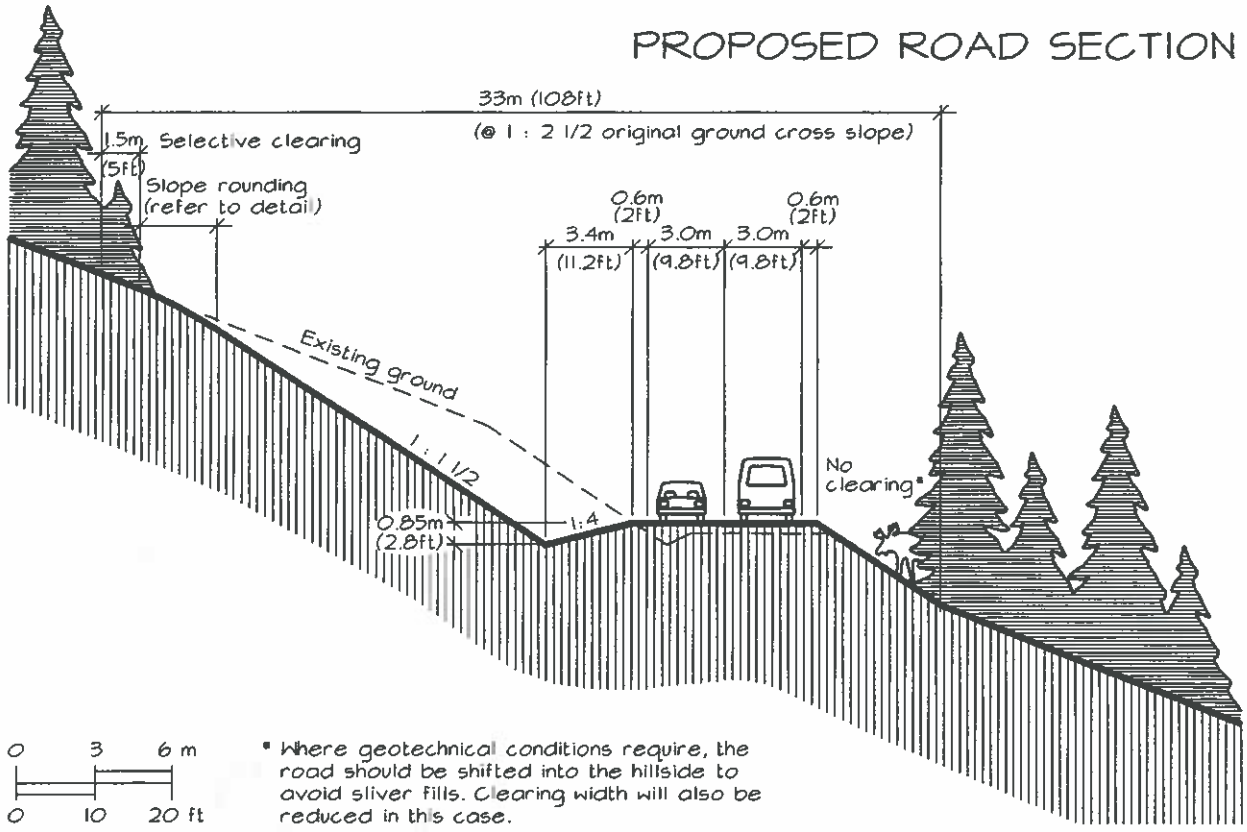


PROPOSED ROAD SECTION



0 3 6 m

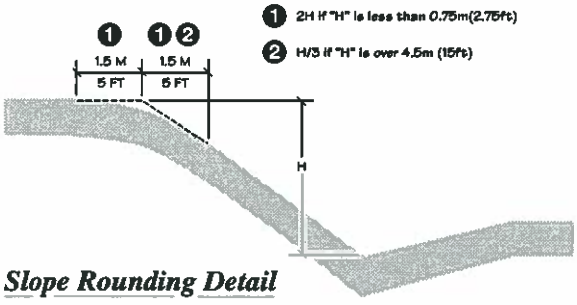
0 10 20 ft

* Where geotechnical conditions require, the road should be shifted into the hillside to avoid sliver fills. Clearing width will also be reduced in this case.

For safety, fill slopes next to the roadway should be 1:4 for fill heights less than 1.5m (5ft), but be steeper as fill heights, and thus costs, increase (refer to slope table). For safety reasons, a 1:4 slope is also recommended where a ditch is constructed next to the roadway for safety reasons. Ditches should typically be .85m (2.8ft) deep to provide adequate drainage of the roadway. This .85m (2.8ft) is also significant in that it is the minimum depth at which driveways, with the required culverts, can be constructed across the ditch. The 1:4 slope combined with the .85m (2.8ft) ditch depth will also locate the cut backslope a safe distance, 3.4m (11.2ft), from the edge of the roadway. The ditch depth will be deeper in areas where a special ditch profile is required or to provide enough clearance to place a culvert under the roadway. To minimize the width of clearing the backslopes should be constructed according to the following Slope Table:

Slope Table		
Ht. of Slope	Fill (v/h)	Cut (v/h)
0– 1.5m (0-5ft)	1:4	1:2
>1.5-3m (5-10ft)	1:3	1:2
>3.0-4.5m (10-15ft)	1:2	1.5:1
>4.5m (15ft)	1.5:1	1.5:1

Slope rounding is recommended at the top of backslopes as shown in the detail.



Slope Rounding Detail

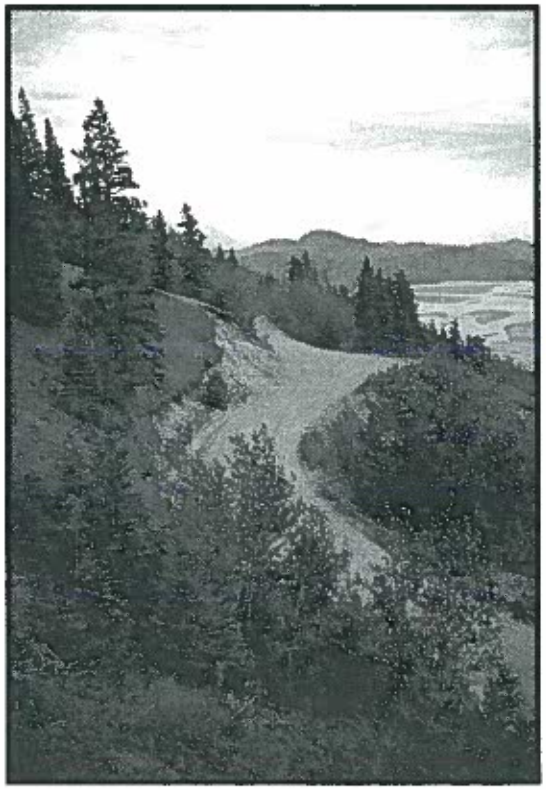
At the top of cut slopes the clearing should extend 1.5m (5ft) beyond the slope rounding. Rather than clearing all trees in this area, only trees larger than 10mm (4in)d.b.h. should be selectively hand cleared. The slope rounding and selective hand clearing will help to prevent trees from falling down over the cut slopes. At the toe of fill slopes, the clearing should extend 1.5m (5ft) beyond the slope limit. In this area all trees should be hand cleared to provide a buffer so that trees don't eventually die because fill material has been placed on the root system or they have been damaged. Also this area will provide some leeway so that slopes can be dressed properly without fill material being piled among the trees and shrubs. In most cases the clearing as described above will also provide the required minimum sight distance for safety.

The objectives of vegetative clearing are to:

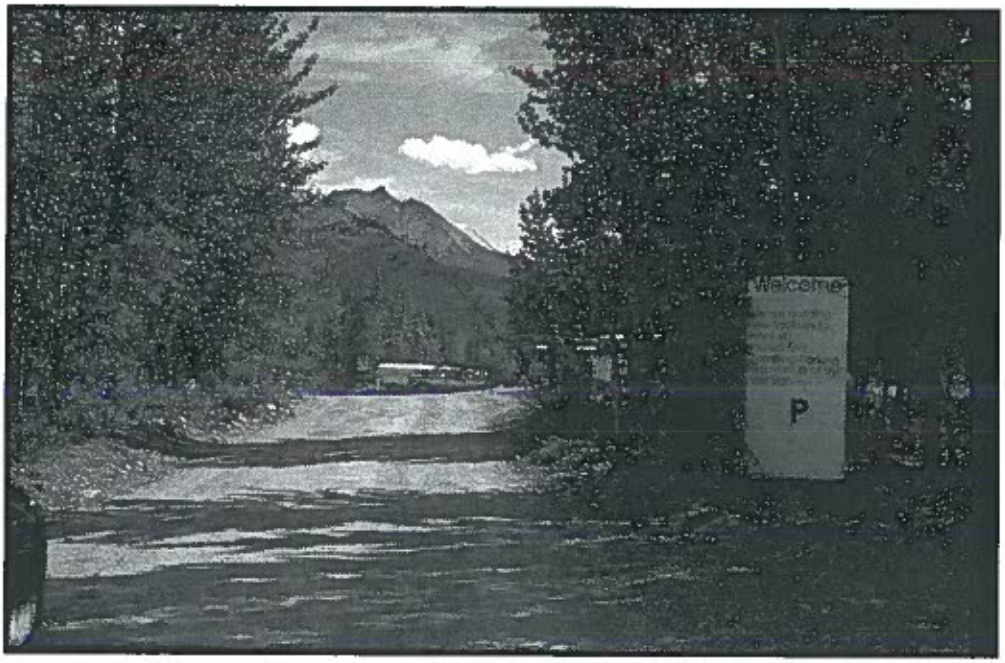
- Provide for safety by providing line of sight visibility and early warning of possible car/ wildlife conflicts;
- Selectively and/or hand clear vegetation at selected locations for improved views from the road and waysides.

During the design phase of this project an effort should be made to leave the existing vegetated high cut slopes undisturbed. Also an emphasis should be put on keeping the new profile grade as close to the existing surface as possible.

The winding road along this steep cross slope will be widened to eliminate blind corners and revegetated to stabilize new road cuts.



The narrow road will require widening to provide space for two vehicles to pass.



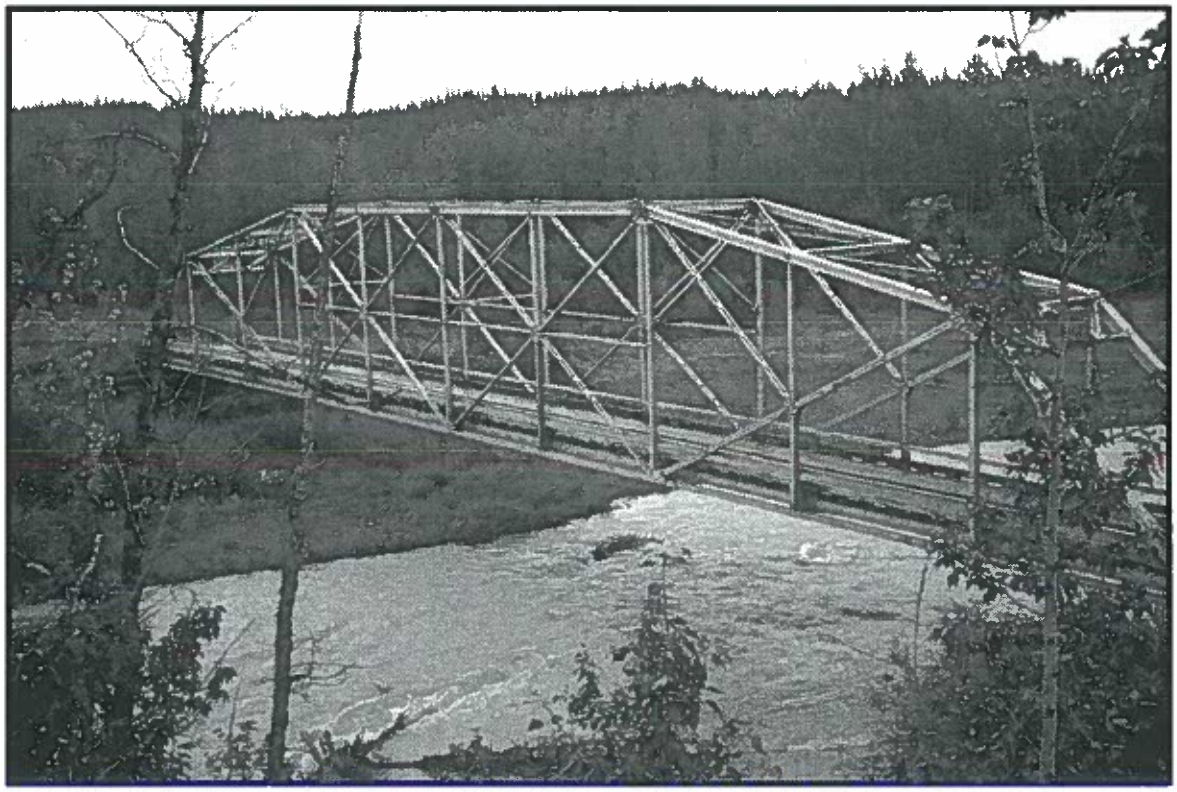
The road has become overgrown with native vegetation over the years and will be cleared back slightly to open views.

Bridges / Single Lane Structures

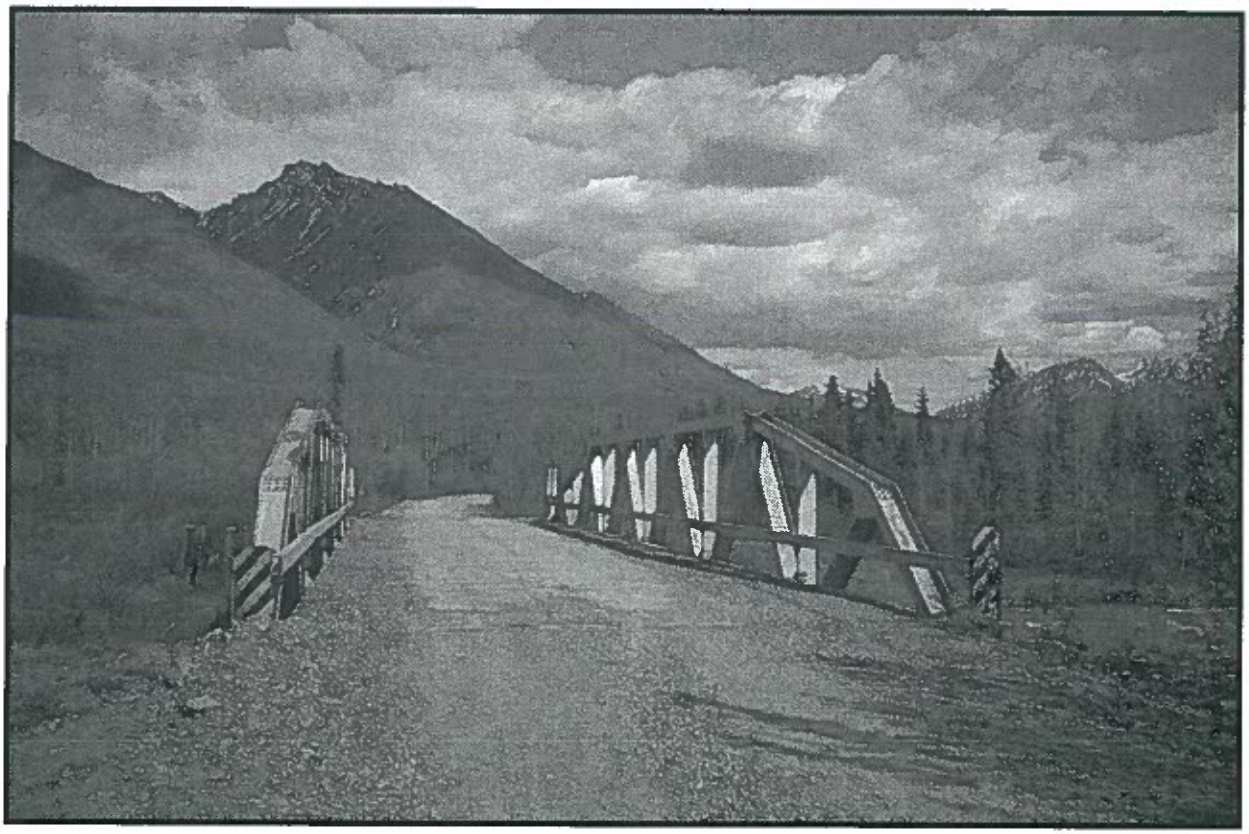
The Copper River and the Chokosna River Bridges are the only two-lane bridges along the McCarthy Road. The other three river/stream crossings are one-lane bridges. In addition, the railroad tunnel (road cut) at Chitina is a 16 foot wide, one-lane wide section of road.

In the interest of maintaining low road speeds and focusing attention on early railroad history, it is recommended that the Kuskulana and Lakina River bridges be kept in service as long as structural and functional safety can be retained. The benefit of keeping these bridges is the historical significance of the structures themselves, as well as bringing greater attention to the rivers, (by reduction of roadway travel speed), which presented heroic challenges for early railroad builders.

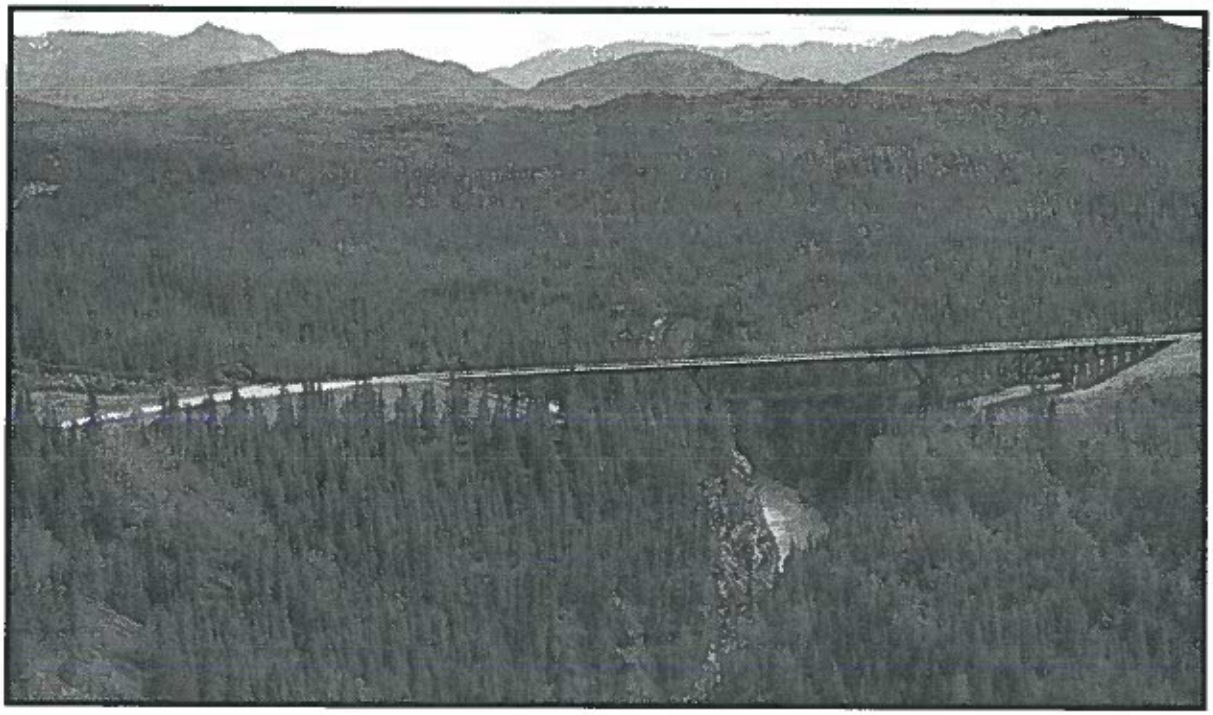
As 'old' bridges are replaced, two-way widths consistent with the road should be considered. However, the style and appearance of new bridges should be designed to reflect the history of the (rail)road and area.



The one-lane Lakina River bridge was originally erected over either the Tonsina or Klutina Rivers, and relocated to its present location at Milepost 44 in 1981.



The Chokosna River Bridge, a "pony truss" design, was originally erected over the Tazlina River in 1943.



The one-lane Kuskulana River bridge towers 238 feet above the water's surface. The bridge serves as an important landmark along the McCarthy Road, drawing people out of their cars for better viewing.

Waysides

From Chitina to McCarthy a total of 18 waysides are proposed. These waysides include trailheads, campgrounds, historic/scenic sites, and watchable wildlife viewing areas. Listed from west to east, the wayside features and management recommendations are both summarized and described in greater detail on the individual wayside descriptions following this summary.

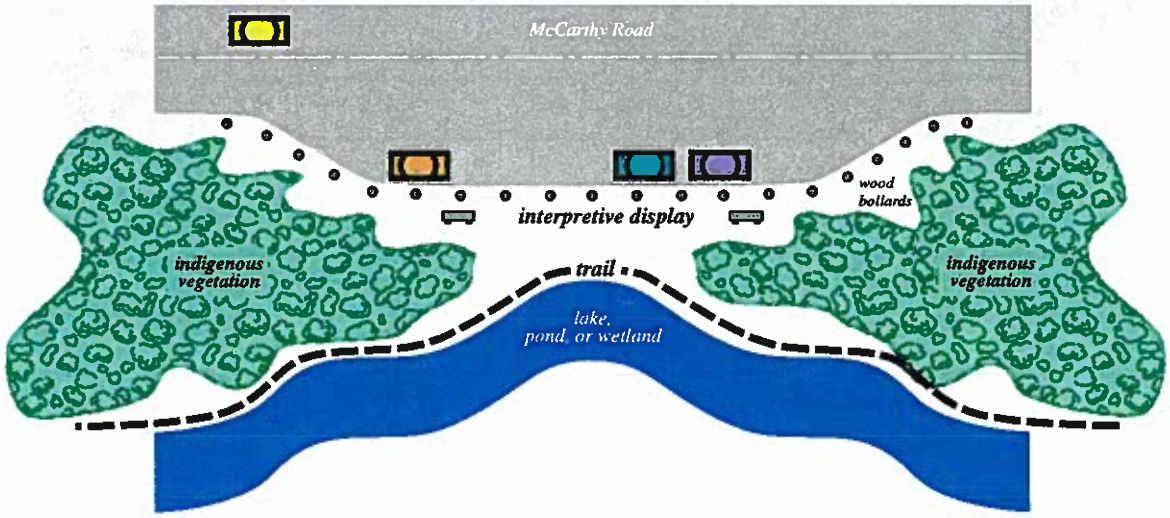
Summary of Wayside Recommendations

Mile Post	Wayside	Parking	Toilets	Picnic	Camping	Wayside Type
0.0	Chitina Wayside	12-24	•	•		II
1.5	Copper River Access	15-20	•		•	III
5.5	Chitina River Overlook	6-8				I
10.4	Strelna Lake Trail	4-6				I
11.1	Silver Lake Access	6-8				I
12.5	Kotsina Mining District Wayside	4-6				I
14.8	Mugget Creek / Dixie Pass Trail Access	4-6				I
17.4	Kuskulana Bridge Wayside *	16-20	•	•	•	II
20.6	Grass Meadows Wayside	4-6				II
24.7	Chokosna Lake Wayside	4-6				I
28.9	Gilahina Trestle Wayside	10-12	•	•		II
35.2	Crystalline Hills / Moose Lake Wayside	4-6		•		II
41.2	Crystal Lake Campground / Trailhead Parking	20-50 / 6-8	•	•	•	III
46.5	Long Lake Wayside	6-8				I
56.9	McCarthy Overlook	4-6				I
57.9	NPS Campground / Parking	20-50 / 6	•	•	•	III
58.6	Kennicott River Wayside	400±	•			III
N.A.	McCarthy Wayside	0	•			N.A.

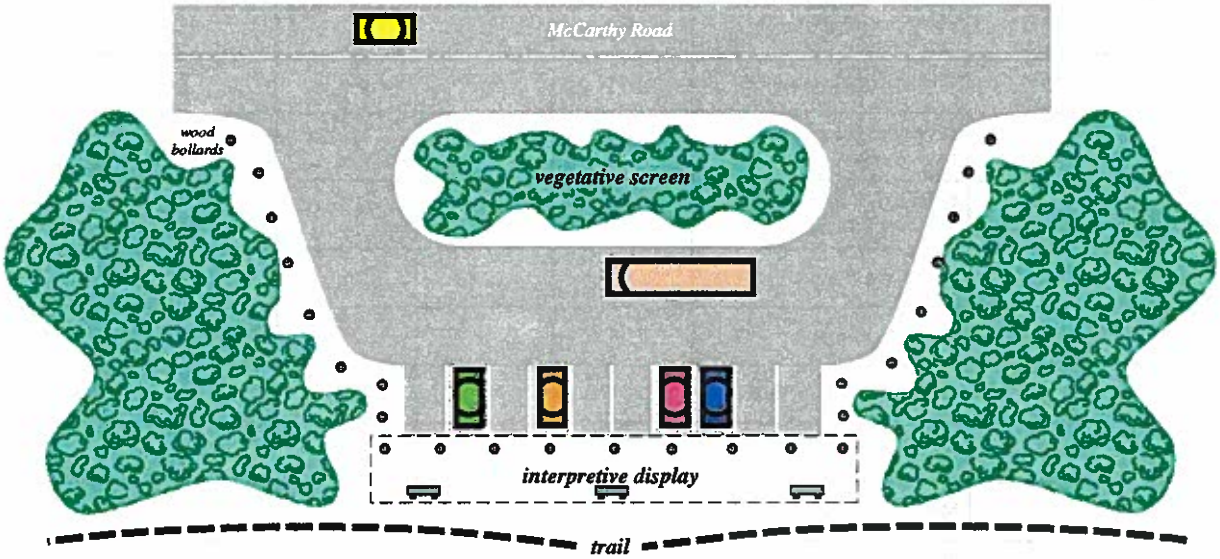
* Waysides on both sides of Kuskulana Bridge.

Typical Waysides

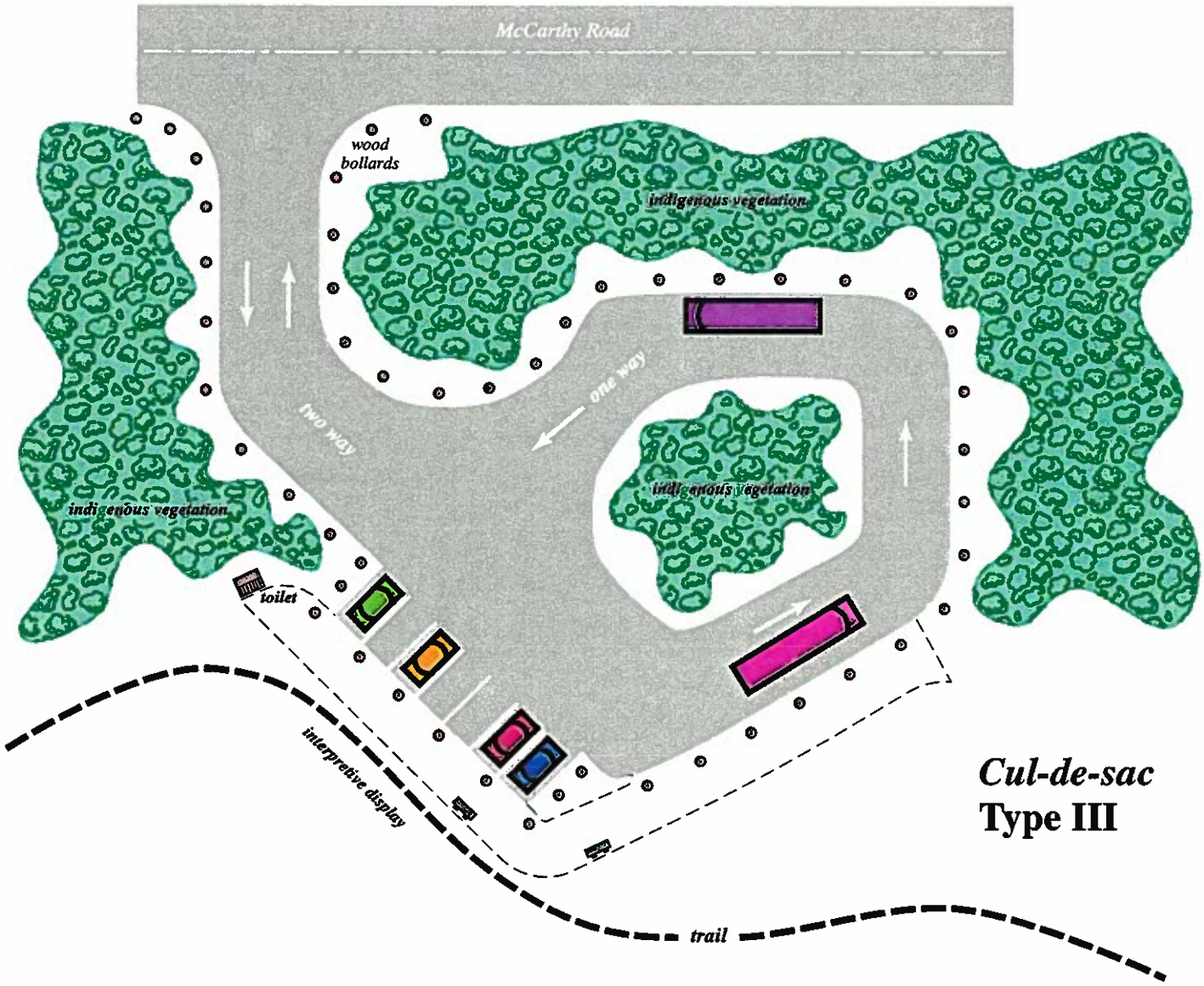
Each wayside will need to be individually planned and designed to meet the recommendations of this study. While more detail site design will eventually be required, it is recommended that three basic typical wayside types will satisfy the needs for most sites. Exceptions to these typicals would include waysides at Chitina, Kennicott, McCarthy, and campgrounds at Crystal Lake and near the Kennicott River.



Pull-off
Type I



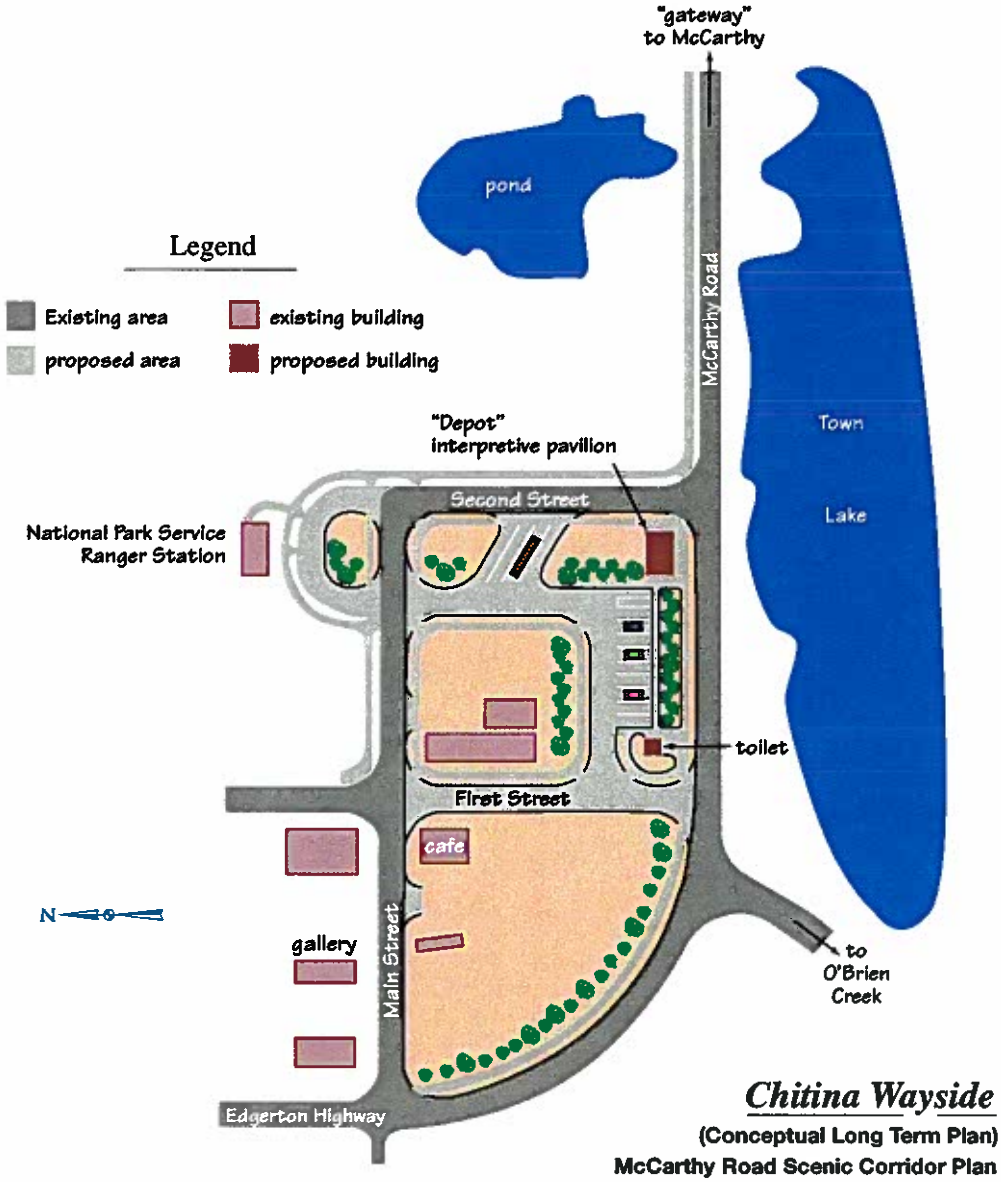
Separated
Type II



Cul-de-sac
Type III

Chitina Wayside
(mi.0.0)

PURPOSE	to provide visitor information and interpretation of cultural and natural resources of Chitina, the National Park and Preserve, and points of interest along the McCarthy Road; serves as the Gateway to the McCarthy Road.
DESCRIPTION	in-town site on the road right-of-way.
IMPROVEMENTS	parking for recreational vehicles (2), buses (2), and cars (10-20); restrooms, trash collection, interpretive displays, and construction of pavilion on site of original railroad depot. Future improvements to include pathways connecting NPS Ranger Station, outdoor interpretive displays, picnic sites along Town Lake; and pedestrian access to local business establishments.



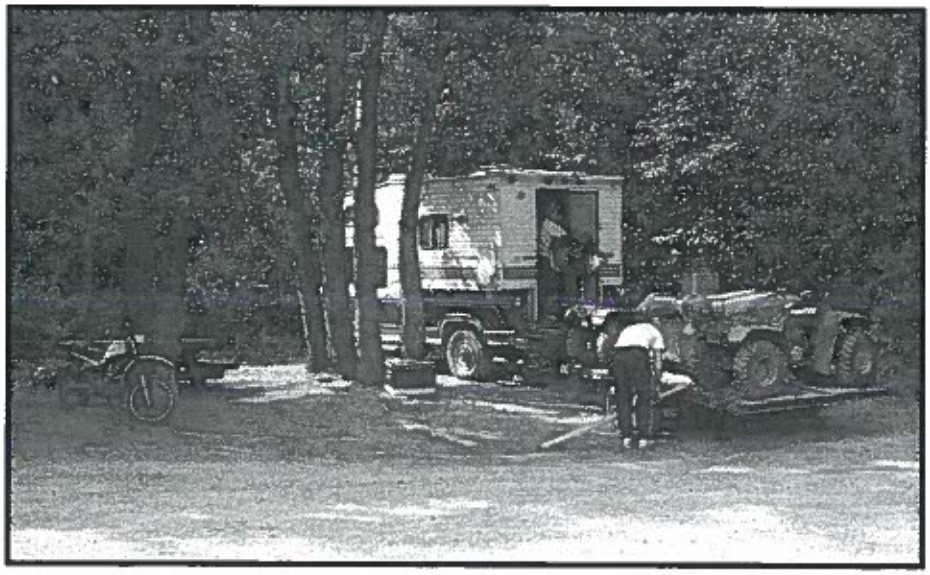
Chitina Wayside
(Conceptual Long Term Plan)
McCarthy Road Scenic Corridor Plan

MANAGEMENT OBJECTIVES	to create a wayside for vehicle and pedestrian access to NPS Ranger Station, interpretive displays, and local businesses, and to cooperatively design the wayside with ADOT&PF, NPS, and the Alaska Division of Parks, and to create a gateway to the McCarthy Road.
VEGETATION MANAGEMENT	preserve and/or replace indigenous vegetation in vicinity of site, manage for visual access of wayside from roadway, and views of the lake, and to prepare and implement a landscape restoration plan for the wayside.
LAND MANAGEMENT	ADOT&PF to manage wayside properties if acquired by other agencies, and to develop a cooperative agreement between ADOT&PF, NPS, and the Chitina Village Corporation for the on-going maintenance and operation of the wayside.
VISUAL MANAGEMENT	wayside to be fully visible from roadway, with easy access, with attractive, well planned vehicular and pedestrian facilities and amenities.

Copper River Wayside

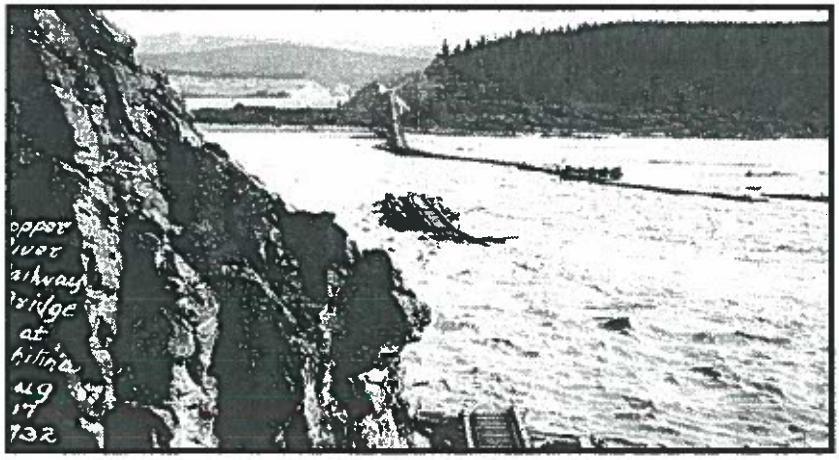
(mi. 1.5)

PURPOSE	to provide access onto Copper/Kotsina River flood plain for fishing, recreation, and interpretive displays.
DESCRIPTION	a large, open area north of the road at east end of the Copper River Bridge near confluence of the Kotsina River; exact site to be determined after new road alignment along Kotsina bluff is known.



The existing campground provides space for a variety of recreational pursuits, and is an important campground for fishing access to the Copper River.

IMPROVEMENTS	provide off-road access and parking for a minimum of 15 cars and 2 buses; provide trash receptacles and interpretive panels; recommend continued operation of the existing "campground" in the area.
VEGETATION MANAGEMENT	no specific recommendations beyond vegetative stabilization of roadway structures created as the result of wayside.
LAND MANAGEMENT	State of Alaska jurisdiction within right-of-way and flood plain.
VISUAL MANAGEMENT	wayside to be sited to achieve functional access and stability within the flood plain regime.

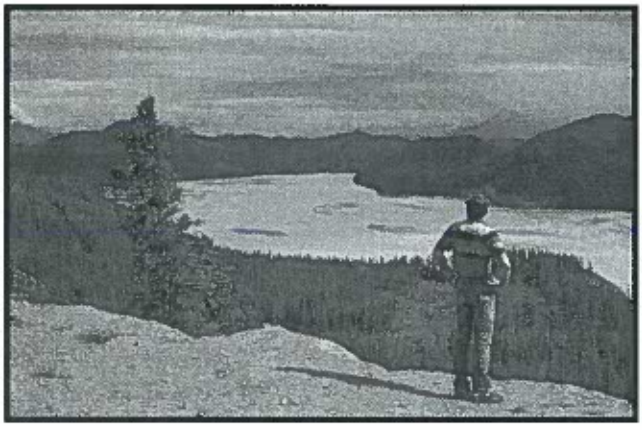


Copper River Railway Bridge—1932. Photo courtesy of Anchorage Museum of History and Art #B71–X–5–15

Chitina River Overlook

(mi. 5.5)

PURPOSE	to provide a scenic overlook and interpretation of the river environment and the Chitina River valley as pre-historic and historic travel corridor for peoples using river as route to copper and gold deposits found at Kennecott and other mining areas.
DESCRIPTION	existing roadside pull-outs on south side of the road curves, offer excellent views of the Chitina River and to steep slopes of 2:1 or greater exist from pull-out to river below.



An upstream view of the Chitina River at Milepost 5.5, site of the proposed wayside.

IMPROVEMENTS	short term parking for 5 cars and 2 buses/RVs with interpretive displays focusing on history, river dynamics, and hydrology.
VEGETATION MANAGEMENT	maintain vegetation along the south side of the road to preserve views of the river, by selective removal of trees and tall shrubs that obscure panoramic views; revegetation of all new cut slopes to regain stabilization and reestablishment of native plant species; transplant native vegetation within the road right of way to buffer views of adjacent clear-cut logging operations within viewshed areas approaching and leaving the wayside.
LAND MANAGEMENT	planned wayside improvements may require additional land acquisition where existing ROW is insufficient; recommend additional acquisition of a 200-foot buffer extending beyond the north side of road ROW, and starting / ending $^1/_4$-mile each side of the wayside; to be managed as a natural vegetative buffer.
VISUAL MANAGEMENT	preserve and/or manage views of river valley on south side of the road.

Strelna Lake Trail

(mi. 10.4)

PURPOSE	to provide road access for trail access to Strelna Lake.
DESCRIPTION	existing pull-out and trail head, north side of road provides access to Strelna Lake; flat terrain; open, mixed forest.
IMPROVEMENTS	trailhead parking for 5 cars, with trail and fishing information.
MANAGEMENT OBJECTIVES	public access to lake.
VEGETATION MANAGEMENT	maintain vegetation adjacent to parking pad to keep views of trail and approaches to wayside clearly visible.
LAND MANAGEMENT	wayside may be within state ROW; recommend an additional 100-foot natural buffer extending $^1/_4$-mile each side of the wayside be acquired on each side of the existing road ROW; to be maintained as a natural vegetative buffer.
VISUAL MANAGEMENT	maintain vegetation for natural appearance along the road ROW approaching the wayside.

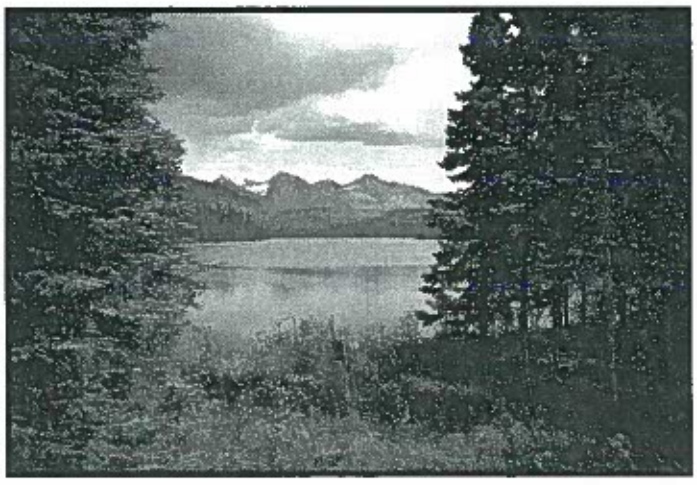
A section of the existing trail leading to Strelna Lake.

Silver Lake Access

(mi. 11.1)

PURPOSE	to provide roadside parking and trail access to Silver Lake.
DESCRIPTION	this is a straight section of road through both open and mixed forest; terrain is generally flat, sloping slightly to south (Silver Lake).
IMPROVEMENTS	off-road parking for 6 cars, informational signs, canoe portage and trail to lake.
MANAGEMENT OBJECTIVES	public access to lake.
VEGETATION MANAGEMENT	maintain for natural appearance.
LAND MANAGEMENT	wayside within state ROW; manage for public access and provide signs and fencing / screening as needed to protect adjacent private properties from trespass.
VISUAL MANAGEMENT	maintain for natural appearance.

A walk-in trail will provide fishing and canoe access to Silver Lake.



Beautiful Silver Lake reflects the mountains in the distance.

Kotsina Mining District Wayside

(mi. 12.5)

PURPOSE	to interpret mining in this area and describe the relationship to railroad stop at Strelna.
DESCRIPTION	this is a straight section of road over relatively level ground; best views of Iron Mountain and peaks of the Kotsina Mining District visible from the wayside.
IMPROVEMENTS	parking for 4–6 cars and 2 buses; interpretive panels.
MANAGEMENT OBJECTIVES	views and interpretation of the mountains of the historic Kotsina Mining District.
VEGETATION MANAGEMENT	Control brushy vegetation directly adjacent to the wayside and selectively clear trees and vegetation at the wayside to maintain distant views of the mountains.
LAND MANAGEMENT	wayside may be within state ROW; recommend an additional 100-foot natural buffer extending $\frac{1}{4}$-mile each side of the wayside be acquired by ADOT&PF on each side of the existing road ROW.
VISUAL MANAGEMENT	maintain for natural appearance.

Nugget Creek / Dixie Pass Trail Junction

(mi. 14.8)

PURPOSE	to provide public information about major trails in area; and significance of, interpretation of, and warning about the nearby roadside airstrip.
DESCRIPTION	site is at northwest corner of the intersection of the McCarthy Road and the Nugget Creek Trail access road and is located directly across from the Strelna airstrip; McCarthy Road alignment is on straight and relatively flat terrain.
IMPROVEMENTS	roadside signs, map of trails, interpretive displays, and parking for 5 cars.

The intersection of the Nugget Creek / Dixie Pass Road is near the west end of the grass airstrip at Strelna.

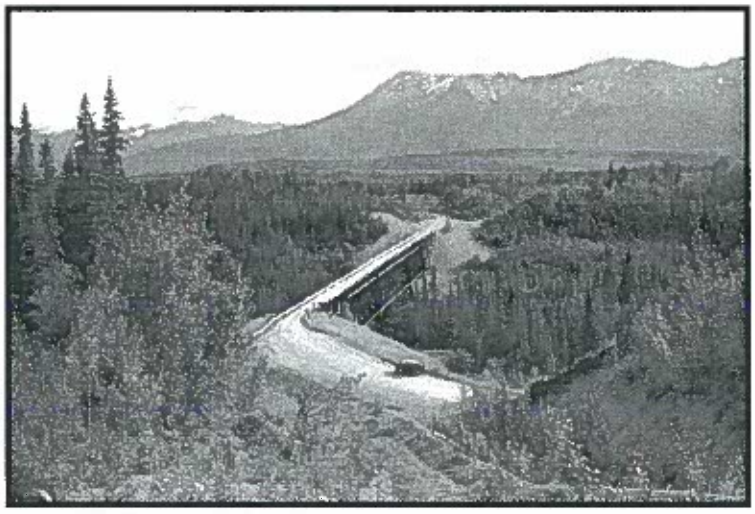
VEGETATION MANAGEMENT	maintain roadside vegetation for safe sight distances at intersection; strategically locate roadside signs for vehicles traveling the road; control brushy growth that obscures views of the wayside.
LAND MANAGEMENT	wayside is within state ROW.
VISUAL MANAGEMENT	maintain for natural appearance.

Information and maps of the area can be found at the trailhead.

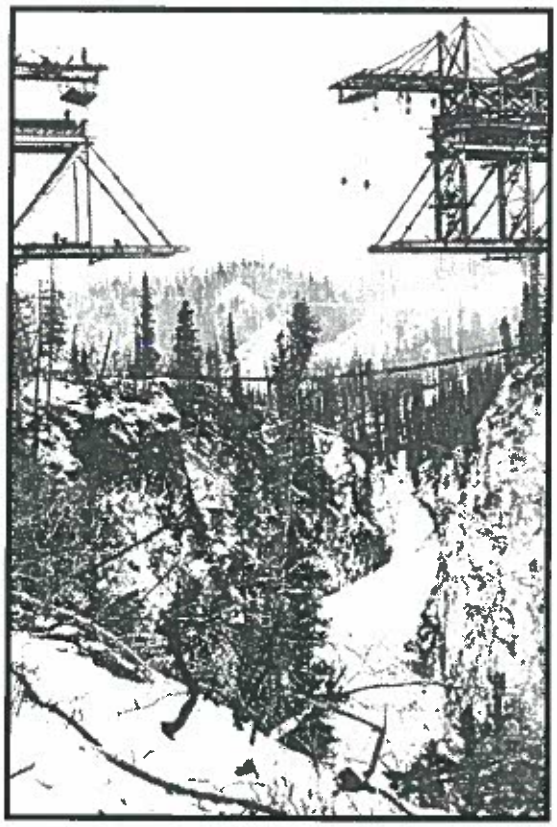
Kuskulana River Wayside(s)

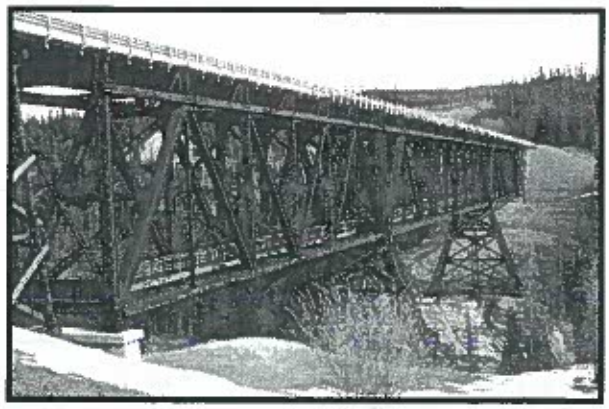
(mi. 17.4)

PURPOSE:	to provide views and interpretation of the historic bridge; provide day-use and picnic opportunities for short duration stops by visitors; possible site for future RV campground (in old material site, on south side of road; may require management agreement or land acquisition).
IMPROVEMENTS	parking for 15+ cars, and 2 buses / RVs, trash receptacles, vault toilets, picnic sites, observation decks, and interpretive panels; development of wayside may occur on sites located on either side of the bridge.



The one-lane Kuskulana Bridge as seen from higher ground.





The massive structure of the Kuskulana Bridge can be seen with a brief walk from the road.

Kuskulana Bridge construction. Photo courtesy of Anchorage Museum of History and Art #B83–159–49.

LAND MANAGEMENT	wayside is within state ROW; recommend protection and preservation of existing natural landscape character of viewshed from vicinity of bridge both upstream and downstream through land acquisition or by cooperative land protection agreements with appropriate land management agencies.
VISUAL MANAGEMENT	by selective clearing, remove vegetation along south side of roadway to create "windows" or framed views of the bridge; stabilize and vegetate cut banks for reestablishment of native vegetation.

Grass Meadows Wayside

(mi. 20.6)

PURPOSE	to preserve and interpret the habitat and ecological evolution of a wetland and provide opportunities for enjoyment of the scenic mountain views from this site.
DESCRIPTION	a curving section of the McCarthy Road passes through extensive wetlands with outstanding panoramic views of rolling hills and mountains to the north and east.
IMPROVEMENTS	parking for 5 cars and 1 bus, a nature walk / board walk for wildlife viewing and interpretation of wetland habitat.

LAND MANAGEMENT — wayside may be within the state ROW; viewshed is within Native-selected lands; recommend protection of viewshed through cooperative agreements with appropriate land managers.

VISUAL MANAGEMENT — control invasion plant species growing along the road side which would limit scenic views.

Still water and wetland grassland provide habitat for abundant wildlife in the area.

Chokosna Lake Wayside

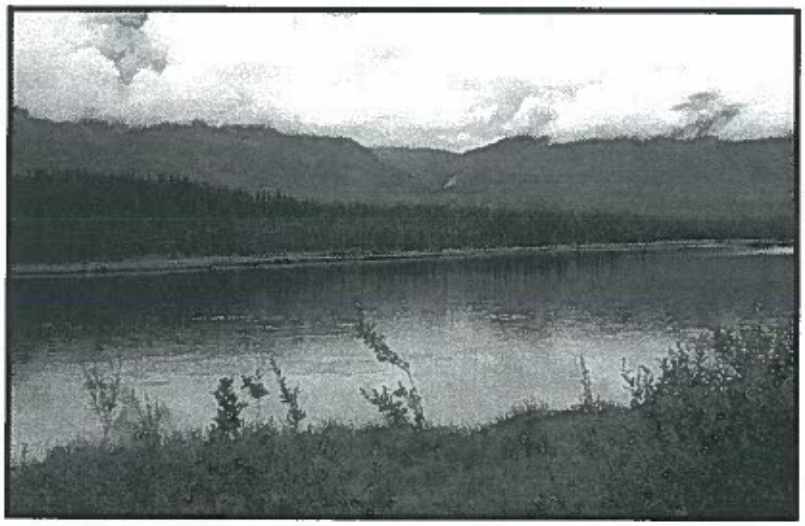
(mi. 24.7)

PURPOSE: — to provide facilities for watchable wildlife viewing, views of Mt. Blackburn, and protection of lakeside habitat.

DESCRIPTION — the McCarthy Road is within 100 feet of the lake shore and is elevated approximately 10 feet above the lake; views of the lake partially screened by existing vegetation; black spruce forest exists on the south side of road.

IMPROVEMENTS — parking for 5 cars and 1 bus / RV, plus a nature trail/board walk for wildlife viewing, interpretive panels, and trash receptacles; development of wayside improvements to maintain existing lakeside vegetation to minimize intrusion from visitors and protection of wildlife habitat.

Chokosna Lake



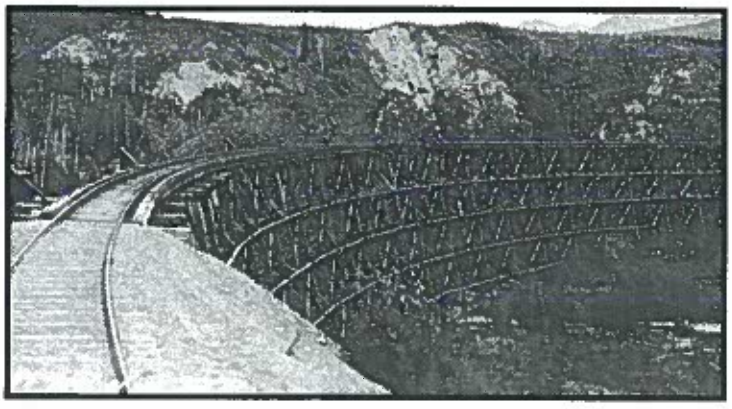
Wildlife viewing is a highlight when stopping at Chokosna Lake where views of Mt. Blackburn can be seen when the clouds lift.

VEGETATION MANAGEMENT	to maintain screening between roadway and lake to minimize disturbance to wildlife and to selectively clear vegetation for wildlife viewing opportunities along developed trails and/or boardwalks.
LAND MANAGEMENT	wayside may be within the state ROW; viewshed is within Native-selected lands; recommend protection of viewshed through cooperative agreements with appropriate land managers.
VISUAL MANAGEMENT	manage vegetation along roadway and at wayside for protection of wildlife, habitat, and viewing of wildlife from specific "window" locations at the wayside.

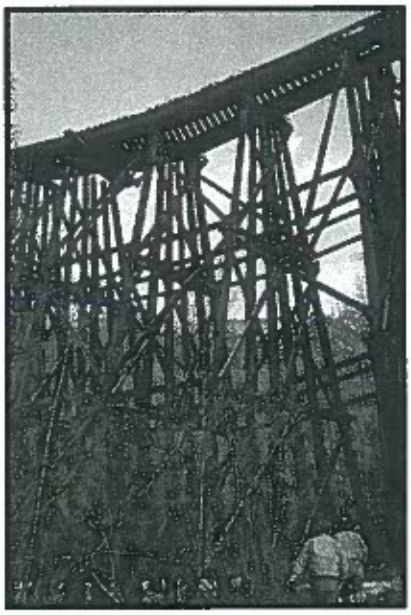
Gilahina Trestle Wayside

(mi. 28.9)

PURPOSE:	to view and interpret historic trestle site, and provide day-use, trail access, and picnic opportunities.



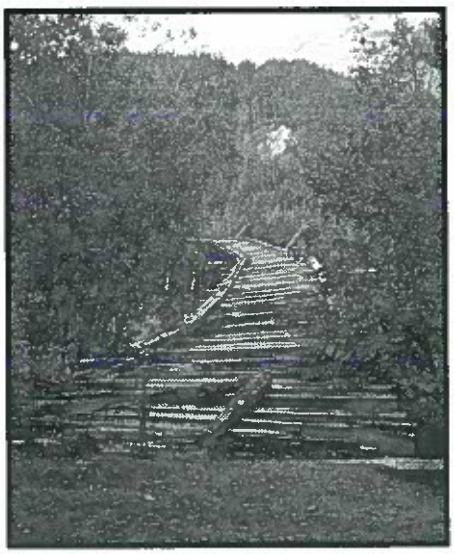
Gilahina Trestle. Photo courtesy of Anchorage Museum of History and Art #B87–56–247.



Gilahina Trestle, 1996. Vegetation is encroaching under the structure, obscuring views and posing a fire hazard.

Gilahina Trestle. Photo courtesy of Anchorage Museum of History and Art #B82–188–1.

DESCRIPTION	the McCarthy Road passes the relic of the historic wood timber trestle used by the CR&NW railway; road and trestle span the Gilahina River.
IMPROVEMENTS	parking for 10 cars and 2 bus / RV, picnic sites, trash receptacles, vault toilets, and interpretive displays.
MANAGEMENT OBJECTIVES	to provide appropriate measures for public safety, protection to public from aging structures; also consider possible management agreements or acquisition of historic trestle ruins for continued management and stabilization of structure.
VEGETATION MANAGEMENT	maintain views of the trestle from roadway approaches; clear vegetation from under the trestle as required to minimize fire danger to the structure; and manage streamside vegetation in its natural condition.
LAND MANAGEMENT	the wayside is partially within the state ROW; the historic trestle should be in public ownership for continued management and protection.
VISUAL MANAGEMENT	open views of the structure from the roadway, and remove vegetation under the structure for protection from loss by fire or other perils.



Timbers are suffering from severe deterioration, and have been vandalized in recent years.

Crystalline Hills / Moose Lake Wayside

(mi. 35.2)

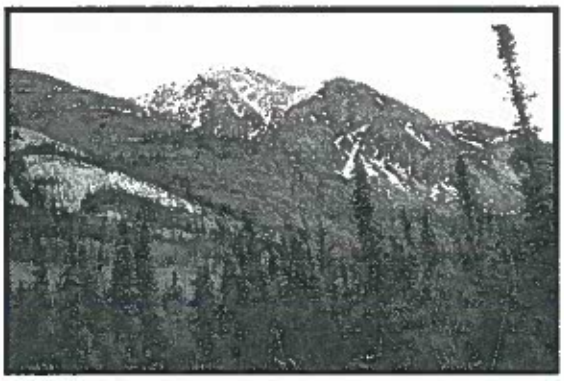
PURPOSE	to enhance visual and physical access into the Crystalline Hills for wildlife viewing and recreational hiking opportunities and to provide visual access of Moose Lake for wildlife viewing and interpretation.
DESCRIPTION	the existing road pull-out provides visual access to Moose Lake on south side of the roadway; terrain is relatively flat with mixed black spruce forest on the north side of the road; excellent views of the Crystalline Hills where Dall sheep can frequently be seen.

Waterfowl are often seen on Moose Lake

Changing weather and clouds give an ever-changing scene into the Crystalline Hills.

IMPROVEMENTS	parking for 5 cars and 1 bus/RV; interpretive and trail maps and displays.
MANAGEMENT OBJECTIVES	provide location for watchable wildlife, both at lake and into the Crystalline Hills.
VEGETATION MANAGEMENT	manage roadside vegetation to remove and/or prune invader species from blocking views of Crystalline Hills.
LAND MANAGEMENT	this wayside may be within the road ROW. However, a small private tract exists on the north side of the road. Recommend trail easement be acquired or alternate routes be explored for trail access onto national park lands to the north of the road.

VISUAL MANAGEMENT	manage for views into the Crystalline Hills and safe egress into wayside.

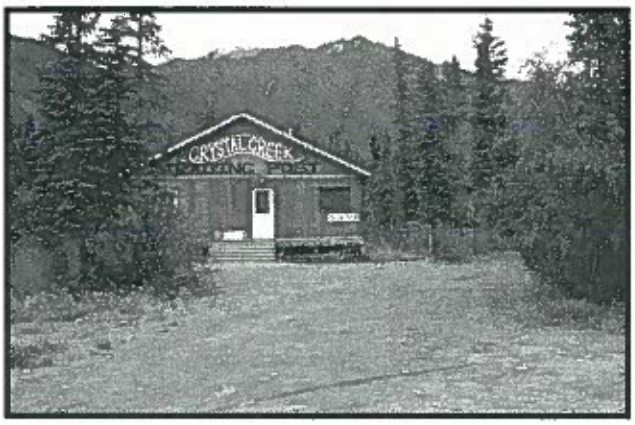


Sheep can often be seen on the rocky slopes in the Crystalline Hills

Crystal Lake Campground

(mi. 41.2)

PURPOSE	to provide vehicle camping and access to hiking opportunities into the Crystalline Hills.
DESCRIPTION	the McCarthy Road is in an area of rolling terrain with mixed spruce/ birch/willow vegetation, with occasional views of the Crystalline Hills to the northwest.
IMPROVEMENTS	a 50± unit campground, trail parking for 5 cars and 1 bus/RV, trash receptacles, vault toilets, water supply, trail and interpretive displays; residence or caretaker cabin.
MANAGEMENT OBJECTIVES	to encourage private camping facilities be developed along eastern $\frac{1}{3}$ of the road and to further diversify recreational opportunities along the road and into national park lands in the vicinity of the Crystalline Hills; to encourage private development of related visitor facilities in this area; upon request, the NPS could provide technical expertise and assistance to private enterprise for campground design.
VEGETATION MANAGEMENT	manage vegetation for preservation of natural qualities and character consistent with existing conditions; reduce or remove invader species along the road ROW to maintain the surrounding vegetative character; and maintain views along Crystal Lake.



The Crystal Creek Trading Post is the location of a new private campground being built along the shores of Crystal Lake.

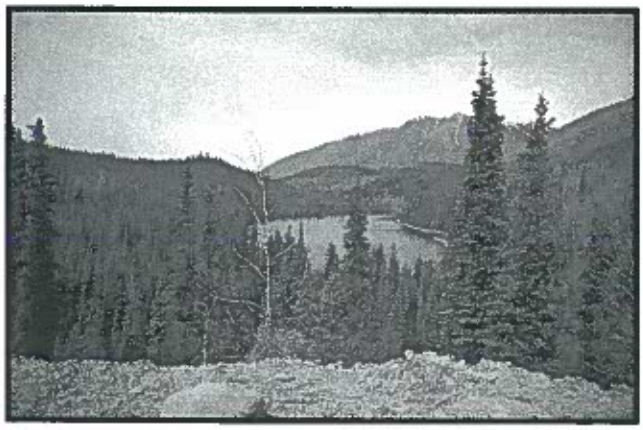
LAND MANAGEMENT	campground could be located on national park lands or within adjacent private tracts; encourage development and operation through private development.
VISUAL MANAGEMENT	campground to be sited on north side of road with preservation and protection of natural landscape character a guiding factor in campground layout and development.

Long Lake Wayside

(mi. 46.5)

PURPOSE	to provide habitat protection and views of wildlife associated with Long Lake.
DESCRIPTION	the McCarthy Road parallels the south shore of Long Lake and passes through a dense screen of mixed vegetation; unstable soils on this section of road continue to create difficult road maintenance problems and are associated with frequent land slides and erosion; intermittent views of lake can be seen along this section of road.
IMPROVEMENTS	parking for 5 cars and 1 bus; observation walk/deck, and interpretive displays designed within existing vegetative screens present along the lake.

Pastoral view at west end of Long Lake provides ideal sites for cabins.



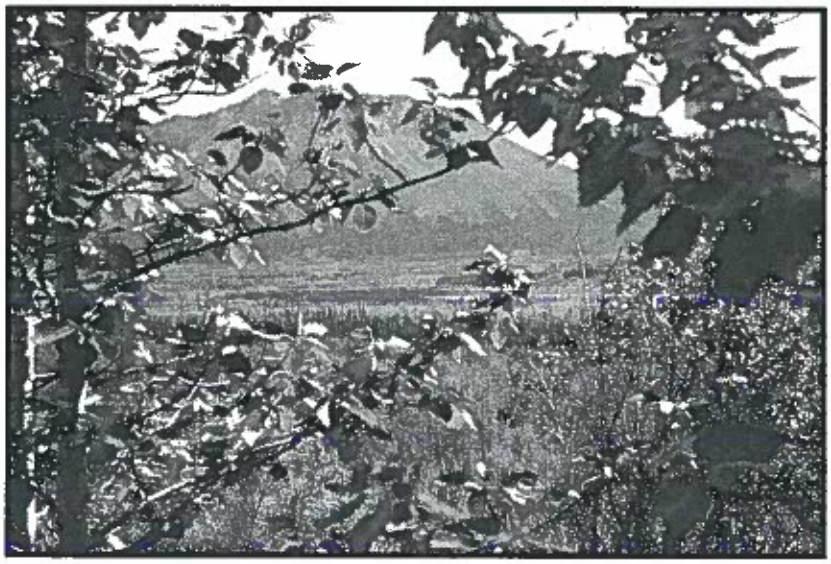
A tempting view of Long Lake can be enjoyed from numerous locations along the road.

VEGETATION MANAGEMENT	to selectively thin or prune existing lakeside vegetation to "frame" views to lake while minimizing disturbance to wildlife habitat.
LAND MANAGEMENT	wayside may be within road ROW.
VISUAL MANAGEMENT	to thin only absolutely essential vegetation at the wayside to create "windows" for wildlife viewing; maintain existing vegetative screen between the road and lake edge, in order to protect vulnerable soils from further erosion or slumping; preserve natural vegetation as a "blind" to minimize disturbance to wildlife on the lake.

McCarthy Overlook

(mi. 56.9)

PURPOSE	to provide views of McCarthy area.
DESCRIPTION	the McCarthy Road begins a series of "S" curves that descend gradually into the McCarthy area; existing pull-off gives visitors a first, scenic view of the McCarthy area.
IMPROVEMENTS:	parking for 5 cars and 1 bus; interpretive panels.
VEGETATION MANAGEMENT	to remove or thin vegetation on the south side of the road to open views of the McCarthy area.
LAND MANAGEMENT	wayside may be within the road ROW.
VISUAL MANAGEMENT	open views to the McCarthy area.

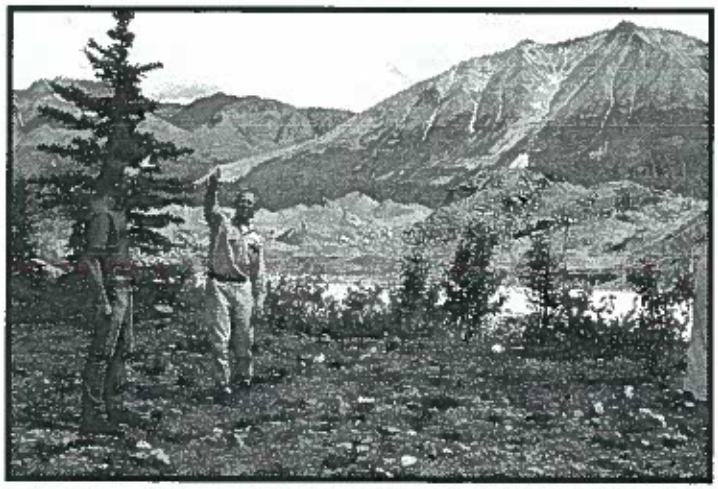


The first glimpse of McCarthy can be seen from this future wayside location. Selective clearing of trees and vegetation will improve the view and provide the visitor their first look at the town.

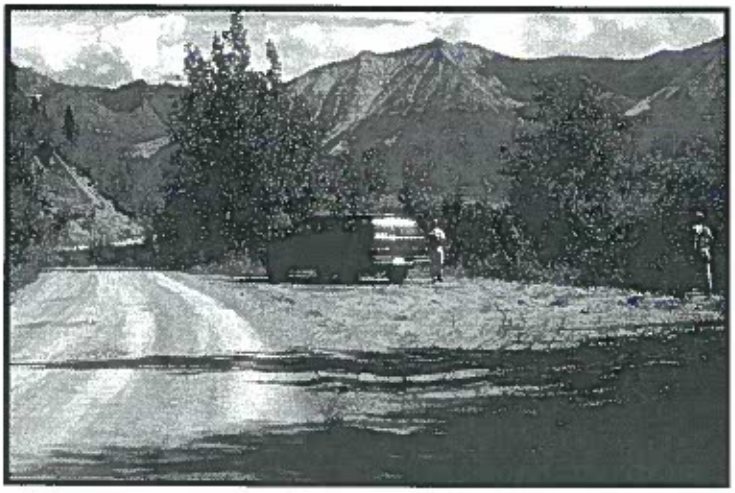
National Park Service Campground

(mi. 57.9)

PURPOSE	to provide camping near the end of the McCarthy Road and Kennicott River.
IMPROVEMENTS	to provide vehicle and walk-in camp sites with tables, fire pits, toilets, and potable water.
MANAGEMENT OBJECTIVES	to provide basic camping accommodations near the end of the road; operated by the NPS or through a concessions permit.
VEGETATIVE MANAGEMENT	to design and construct improvements with minimum disturbance to existing vegetation.
LAND MANAGEMENT	campground is on NPS lands.
VISUAL MANAGEMENT	to provide directional information at road intersection; locate campsites for solar benefits; 50-foot separation from adjacent sites, and views of Kennicott Glacier and river and/or natural resources on-site.



Camping near the Kennicott River provides excellent views of the glacier and mountains behind the Kennecott Mine.



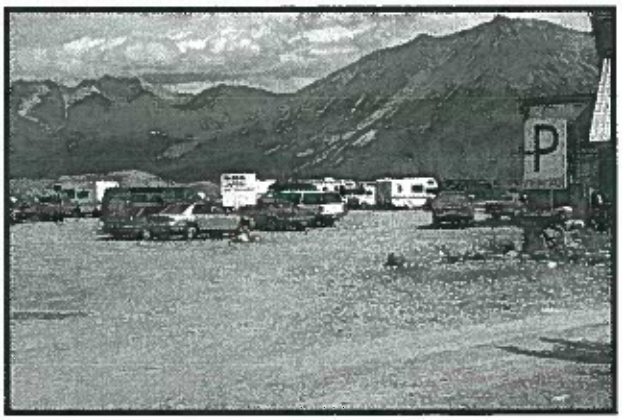
Impromtu camping occurs along this gravel road and will be the beginning for a new campground near the end of the road.

Kennicott River Wayside

(mi. 58.6)

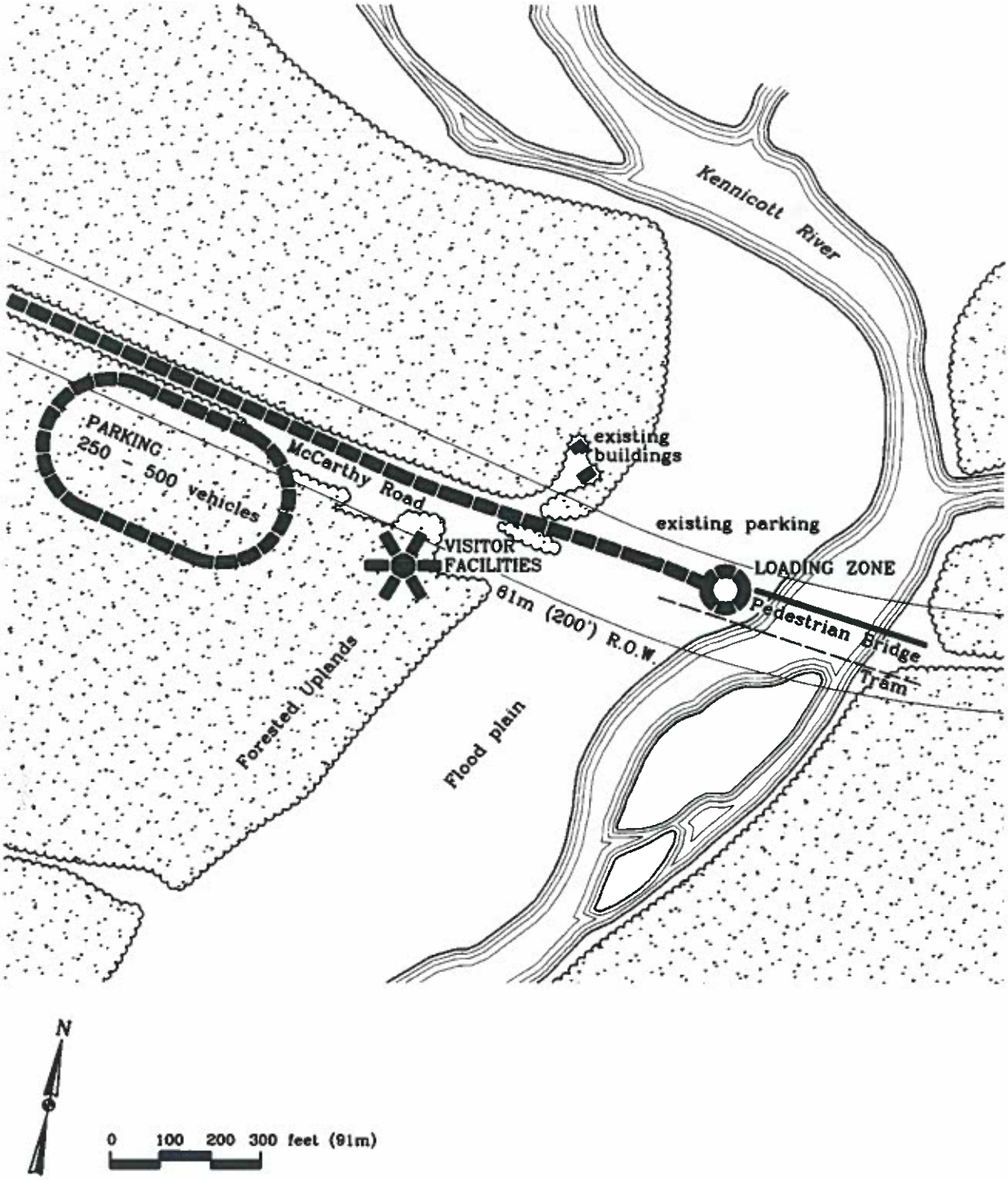
PURPOSE	to provide basic parking, access, interpretation, and public services at the end of the road.
DESCRIPTION	the existing road ROW is inadequate to support needed public access and parking improvements; all adjacent lands outside the ROW are in private ownership.
IMPROVEMENTS	public acquisition of 5-6 acres for access and parking; public parking for cars and buses & RVs; vehicle turnaround capability; pedestrian access to the footbridge approach; bus access and drop-off at the footbridge; loading and freight holding areas at the footbridge; vault toilets and trash receptacles; interpretive displays and visitor information and orientation; private additional parking; campground, and camper services; commercial visitor services, reservations, and activities; lodging; food services, other visitor services and information.

Impromptu signs and roadside information present the visitor with a confusing and bewildering array of signs.



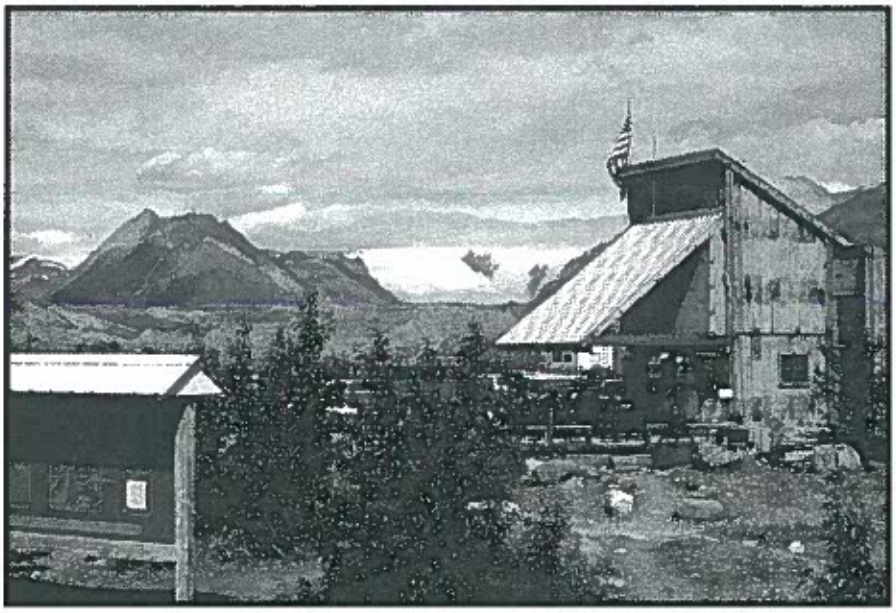
Parking of cars at the end-of-the-road is currently managed by privte land owners.

MANAGEMENT OBJECTIVES	to create a partnership of public and private owners for visitor services and facilities to ensure continued access to historic, natural, and recreational resources; * to stimulate opportunities for private enterprise to supply additional visitor services and facilities in keeping with national park objectives and in the best interest of historic, natural, and recreational interests within the communities of McCarthy and Kennecott.
VEGETATION MANAGEMENT	to plan, design, and develop the area, respecting the natural character of the area.
LAND MANAGEMENT	the wayside is partially within the road ROW; recommend that acquisition by ADOT&PF of additional lands to provide public parking and access to the pedestrian bridge be initiated.
VISUAL MANAGEMENT	all developed areas to be managed and guided by existing vegetative communities and hydrologic and geologic processes present within the immediate area.



Kennicott River Wayside (conceptual)

McCarthy Road Scenic Corridor Plan



The privately owned and operated Copper Point Tram Station provides visitor information and reservation services for visitors arriving at the end-of-the-road.

McCarthy Wayside

PURPOSE	to provide visitor orientation/information and public toilets.
IMPROVEMENTS	vault toilets, interpretive and informational signs.
VEGETATION MANAGEMENT	to develop facilities in character with the site with minimal disturbance to the natural landscape.
LAND MANAGEMENT	the wayside is within the existing road ROW.
VISUAL MANAGEMENT	all developed areas to be managed and guided by the natural vegetative character of the area.

Waysides and road improvements may be funded through future appropriations to the ISTEA program. When funding and priority for these waysides have been identified, it is recommended that both the roadway improvements and waysides be designed and constructed jointly by the State of Alaska Department of Transportation and Public Facilities, the National Park Service, and the State of Alaska Division of Parks and Outdoor Recreation, and cooperatively maintained by the state of Alaska, the National Park Service, and the communities at each end of the road.

Trails

Introduction

Based upon the TRAAK initiative, the IPT incorporated preliminary trail planning as a part of the scenic road corridor study for the McCarthy Road. The primary emphasis is to plan for a potential trail which parallels the road; beginning at Chitina and extending to McCarthy and Kennecott.

Preliminary trail planning and conceptual routing has been completed for this project. The primary emphasis has been to determine who would use a trail between Chitina and McCarthy; what type and trail standards would be most appropriate; which trail alignments provide the best option for trail users and roadway travelers; what other trail opportunities might be worth considering; how could a trail route be compatible with roadway safety and in keeping with the goals and objectives for the scenic corridor; what are the construction phasing options worth considering for trails between Chitina and McCarthy, and who would maintain the parallel trail.

Users

Users of a trail system along the McCarthy Road will come from two distinct user groups; (1) local residents and (2) out-of-area users related to tourism and recreation. The greatest potential number of users of a parallel trail adjacent to the road are expected to be users related to tourism and recreation. However, local residents have clearly expressed need for winter trail access along the corridor now.

User surveys and discussions with local residents indicate a separated trail along the McCarthy Road would be beneficial to local users. First, such a trail system would extend access during spring periods when road plowing eliminates access over snow; and second, local trail access by rural residents near ends-of-the-road at McCarthy and Chitina are desired to meet their transportation needs.

Although snowmachines are likely to be used by local residents in the winter, there is concern that "Public use for out-of-area snowmachines" is viewed negatively by many residents. As long as the ADOT&PF defers winter plowing, it is likely that the road will remain the preferred route by snowmachines in the winter.

With future road improvements and widening, it is reasonable to assume that touring bikes will likely continue to use the road. However, off-road bike users, hikers, joggers, equestrians, skiers, ski-jorers, dog mushers, and snowmachine users will be much more likely to use a separated trail. User surveys suggest that a variety of trail users would best be served by a multi-purpose trail. Trails that can accommodate a variety of users, are separated from the road by buffers of natural vegetation, and link the trail to the road at each of the proposed waysides, will create trail access at each of the 18 waysides.

Potential Trail Facilities

A separated, multi-purpose 8 foot wide trail with 1 foot shoulders constructed of a compacted gravel surface is suggested as the most appropriate trail surface. In some locations, due to wetlands or severe topographic conditions, it may be necessary to construct the trail next to the road or with only minimal separation. However, it is intended that the trail be separated from the road wherever feasible. Where trails connect to waysides consideration for paving trails approaching and leaving each wayside (1/4 mile each direction) would provide additional access for disadvantaged visitors using the waysides. Where poor soils or wet conditions are present, boardwalks, wood planking, bridging, or other appropriate construction methods should be considered.

Trail clearing widths vary from 5.4m (20 ft.) to 10.8m (40 ft) depending on local topography. In general, a trail ROW of approximately 15m (50 ft.) is recommended to provide basic trail accommodation, and provide adequate natural screening from adjacent land uses.

Locating both the road and trail within the existing 200 foot road ROW would be extremely difficult when considering the goals and objectives for the scenic corridor. In addition, trail separation from the road is essential to provide both noise and dust separation, factors associated with the existing road condition. Preserving and maintaining a minimum buffer of native vegetation between the road and trail was evaluated in the field. Based upon field surveys and visual assessments, a natural vegetative buffer of 21m (70 ft) minimum is recommended.

Roadway Shoulder Option

Widening of the roadway shoulders to accommodate bicyclists and pedestrians is an option that was considered. Typically the minimum shoulder width recommended for a facility designed to accommodate bicycle travel is 1.2m (4ft). However, experienced bicyclists will benefit from shoulder widths as narrow as 0.3m or 0.6m (1 or 2ft). The proposed typical road section has 3m (9.8ft) lanes and 0.6m (2ft) shoulders for a total width of 7.2m (23.6ft).

Widening the shoulders of the roadway is not recommended, even if the separated trail is not built, for the following reasons:

- The number of vehicles, bicycles and pedestraians will be low, so that the proposed 7.2m (23.6ft)-wide roadway will accommodate these users.
- Any added shoulder width will add clearing width beyond what has been recommended for the roadway corridor.
- The 7.2m (23.6ft) width conforms to the design standards for the design speed and traffic volume. A wider roadway section might encourage higher driving speeds than are desireable on this roadway.

It depends on how McCarthy Road is surfaced as to how usable the 0.6m (2ft) shoulders will be for bicyclists. If the 3m (9.8ft) lanes are paved, it would be beneficial to bicyclists if the proposed 0.6m (2ft) shoulders were paved also.

Land Ownership and ROW

The current 200 foot road right of way crosses lands in many different ownership's (Refer to Land Status map). Since a trail separated from the road will require additional right-of-way acquisition, it is critical to assess the extent of private lands bordering the road. Approximately 23.5 miles of lands bordering the road ROW are currently in private ownership. Assuming a trail ROW of 50 feet is required, approximately 142 acres of additional land would need to be acquired for the trail.

Lands in federal and state ownership are assumed to be sympathetic to providing lands for a trail ROW. However, it must also be assumed that approvals will be required from all 'donor' agencies in advance of more detail trail planning and layout.

Cost

Trail Construction is but one of several significant costs associated with building a trail network and associated trail improvements between Chitina and McCarthy. Planning, design and construction associated with building a parallel trail between Chitina to McCarthy must consider at least the following cost elements:

- Design, engineering, surveying, geotechnical investigations, and construction documents preparation
- Right-of-way acquisition
- Environmental compliance and permits
- Trail construction
- Construction administration

In addition, following construction of the trail, state maintenance will be an on-going cost over the life of the trail.

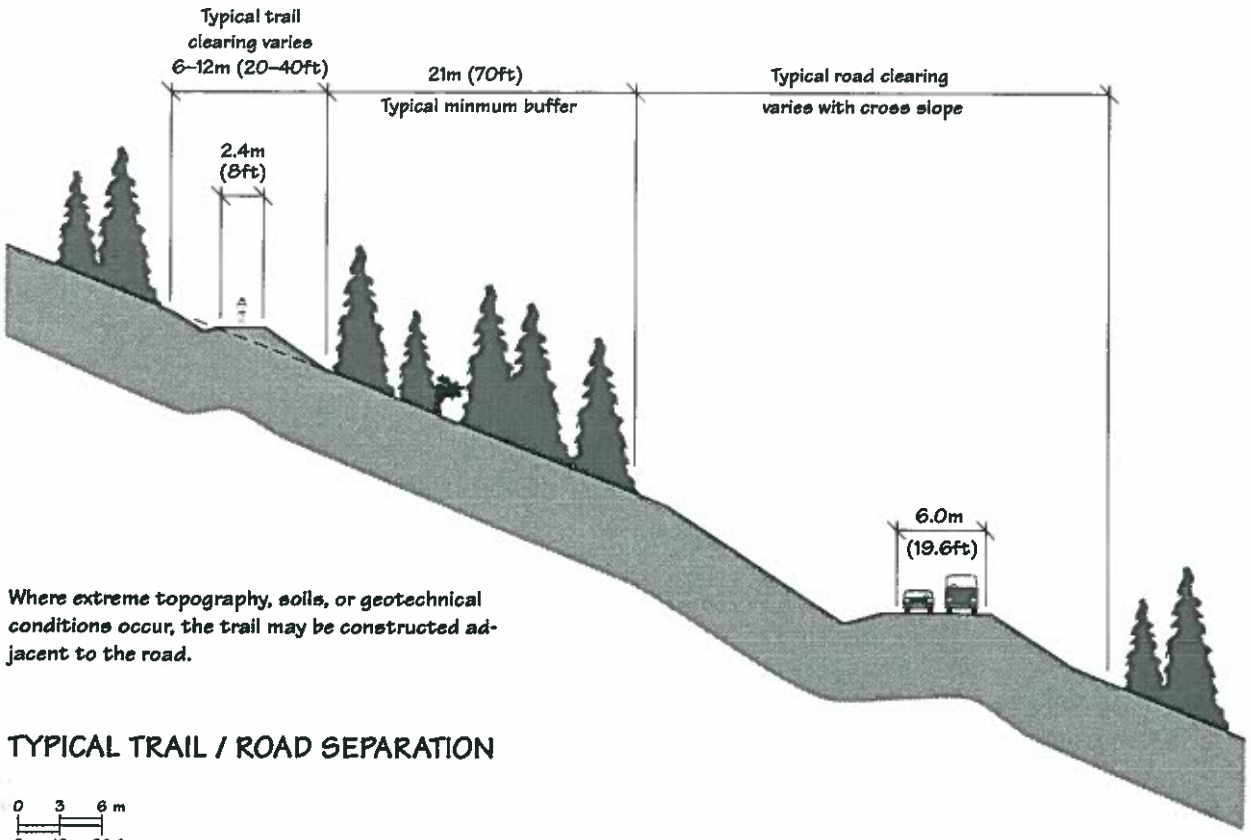
Future Trails

The potential to expand the McCarthy Road corridor trail and connect it to a future trail following the Copper River from Cordova greatly enhances this 'historic trail route.' Such a proposal would elevate this larger trail system to national or even international status, and represents a historic resource of great significance to future visitors. This trail would follow the historic CR&NWR route from Cordova to the Kennecott Mine, a total distance of approximately 196 miles.

Connecting trails

Local McCarthy residents and private landowners at the east end of the road have expressed interest in connecting trails that would provide better access to the road and the Kennicott River, and would provide alternative access during break-up and freeze-up periods.

Recreationally, there are opportunities for addtional trails to access public lands along the road. Existing trails to Dixie Pass and the Nugget Creek areas, as well as segments of other historic trails and routes could be accessed from the road corridor. Some of the possibilities for additional recreational trails on state and National Park Service lands include the Crystalline Hills area, Fireweed Mountain, and



Where extreme topography, soils, or geotechnical conditions occur, the trail may be constructed adjacent to the road.

TYPICAL TRAIL / ROAD SEPARATION

0 3 6 m
0 10 20 ft

access corridors along the Chitina, Kuskulana, Gilahina, Lakina, Nizina, and Kennicott Rivers.

Trail Construction Phasing Options

As public visitation continues to grow along the corridor, it is reasonable to expect trail use to also increase. However, some local trail use is clearly needed now. Trail construction priority options for determining which sections of the trail system would best serve current and/or future use are described as follows (not listed in ranking order):

Option 1: Development of short ($^1/_4$-mile each direction) interpretive trails from each proposed wayside, to be incorporated into trail system in later phases of construction.

Option 2: Development of short interpretive trails at "selected" waysides.

Option 3: Development of a separated trail between Chitina and Strelna.

Option 4: Development of a separated trail between Long Lake and McCarthy, parallel to the road.

Option 5: Development of an optional trail route beginning near the Tractor Creek area, following a route to the Nizina River and along the west side of the Kennicott River, to the McCarthy bridge crossing.

Option 6: Development of a trail from the Kennicott River pedestrian bridge to the McCarthy wayside.

Option 7: Development of a trail from the Chitina Wayside to the Copper River.

Option 8: Development of entire trail from Chitina to McCarthy.

Corridor Design Guidelines

The experience that future visitors would have traveling the road and corridor is directly linked to the details and materials used in the construction of road and wayside improvements. Contributing to the sense of quality would be the introduction of materials and details which provide continuity throughout the corridor. Continuity can be achieved by use of carefully selected colors, forms, shapes, and textures used consistently in the design of constructed improvements.

The materials "theme" recommended for this project should include heavy timber, steel, and concrete in combination with naturally occurring materials available in the area, i.e., rock, rough timber, and gravel.

Design goals and guidelines as related to:

Waysides

- to provide site details which convey the railroad and mining history of the area
- to design site improvements using NPS standards where possible
- design waysides to easily accommodate all vehicles; ie., turning radii, aisle widths, parking, and smooth circulation and traffic flow
- to design pedestrian related improvements to be environmentally in character with the site, aesthetically pleasing, functional, durable and require relatively low maintenance

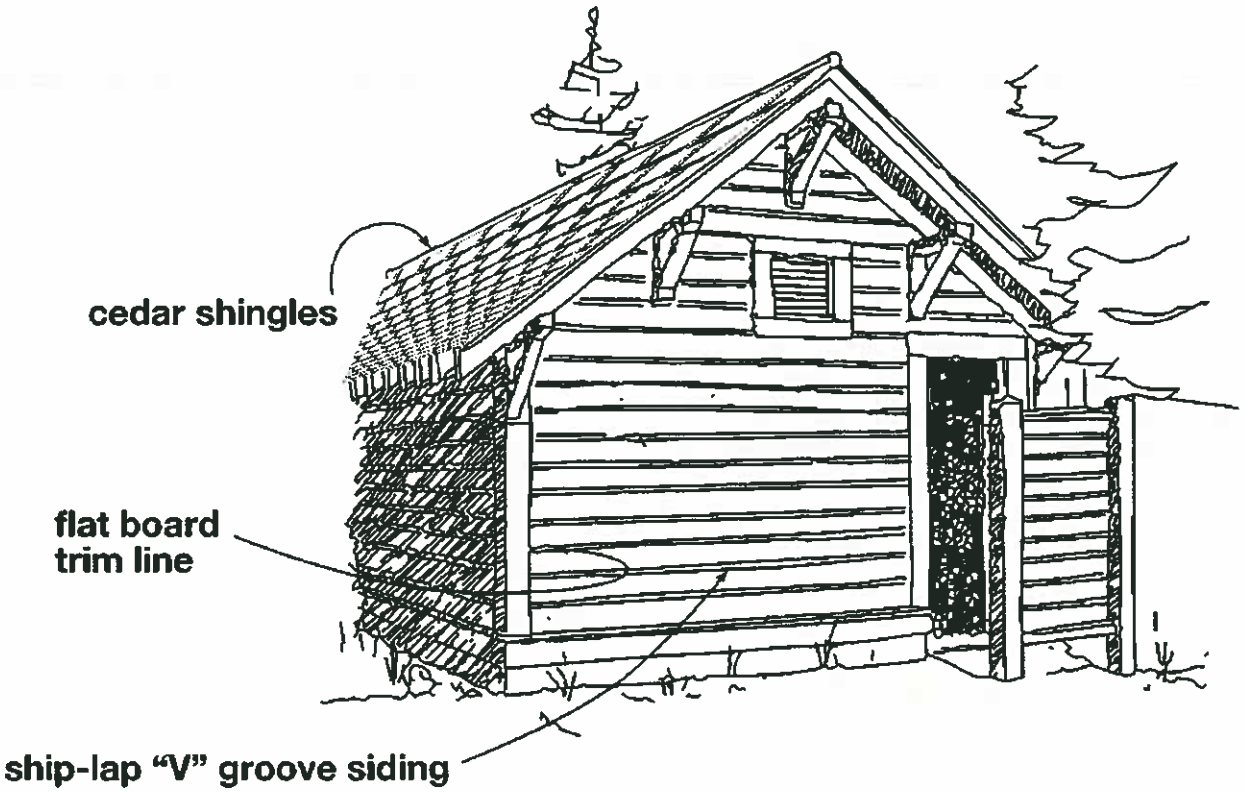
Structures

To incorporate architectural detailing from railroad and mining structures from the area.

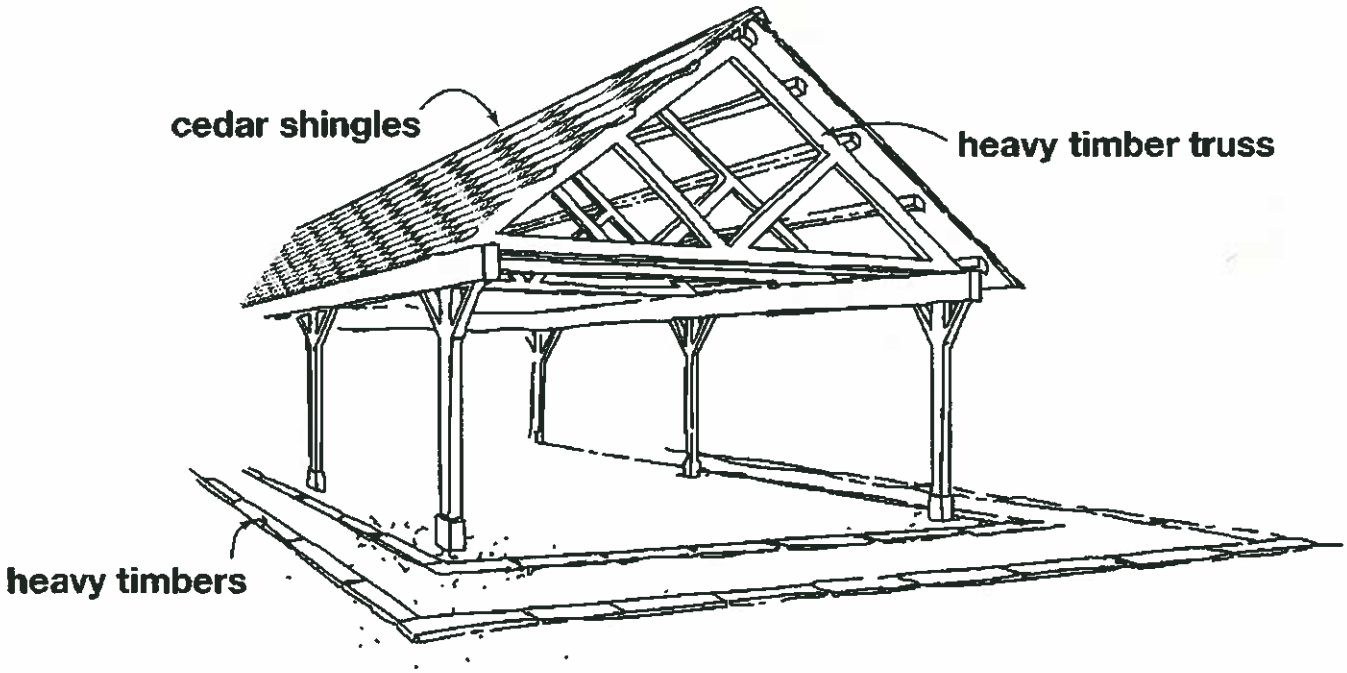
- Signs: Only essential, informational, interpretive signs should be considered within the road corridor. Strict attention to sign standards which promote an image of a National Park road quality and detail should be considered. No billboards or other form of commercial advertising signs should be permitted within the ROW.
- Use NPS sign design standards.
- Provide only essential roadway signage, whether regulatory or informational.
- Use sign materials and mounting systems which are in character with use of natural materials.
- Informational / directional signs to be constructed using durable materials in keeping with NPS design standards.

The following graphic examples are a few suggestions to be further considered in the design phase of the project. Rather than absolute recommendations, the intent is to provide a materials design palette.

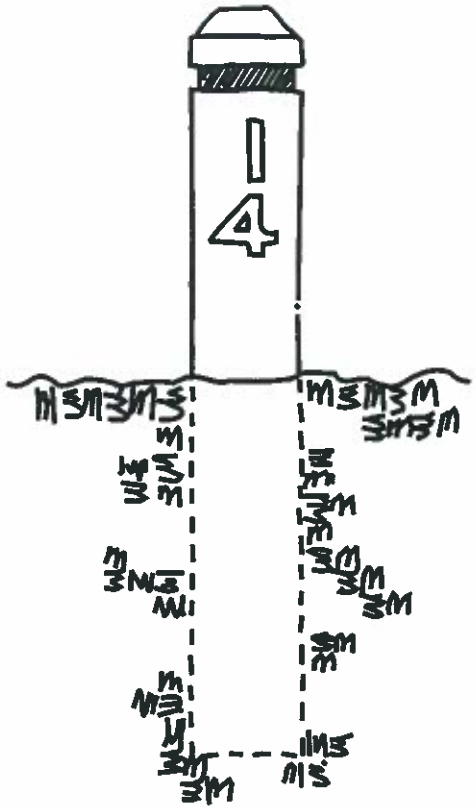
Small Restroom



Pavilion / Interpretive Shelter

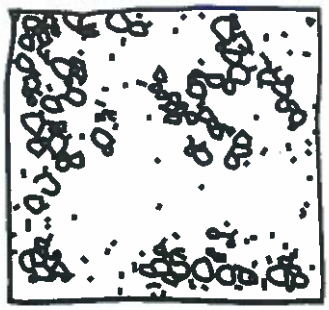


Mile Post / Bollard

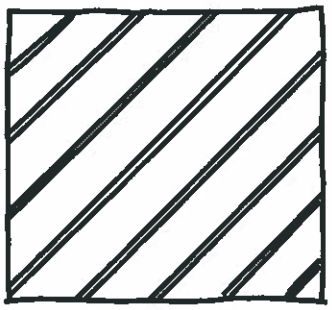


Walking Surfaces

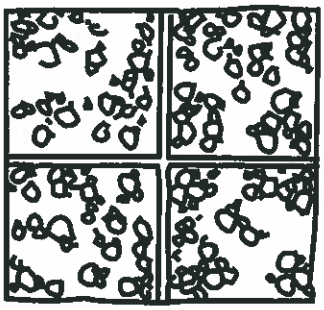
crushed gravel



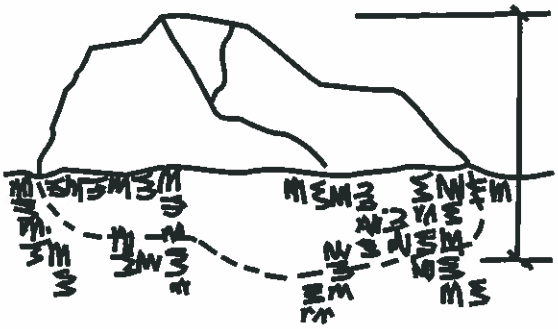
timber boardwalk



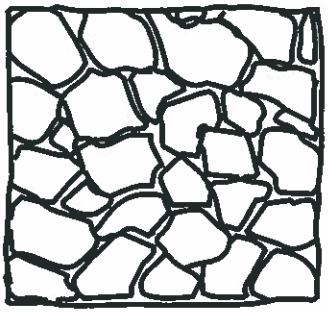
textured concrete



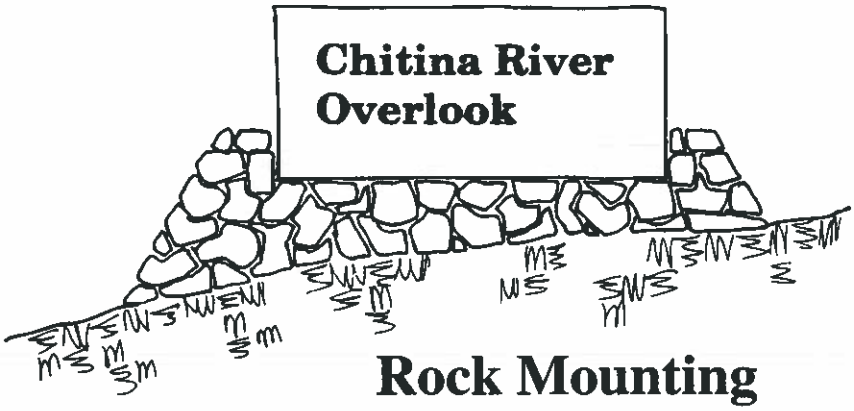
Rock "Bollard"



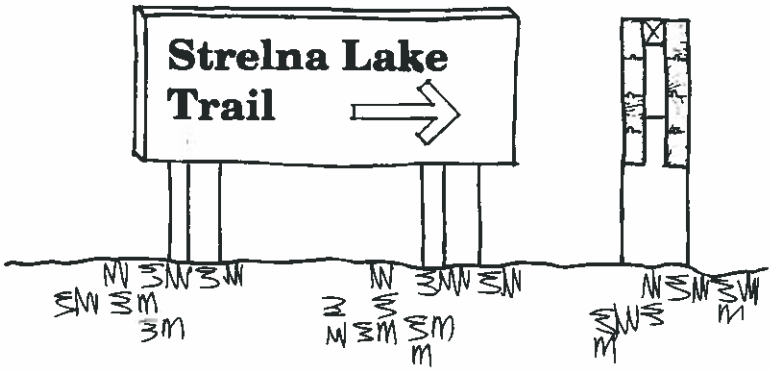
rock paving



Wayside Signs

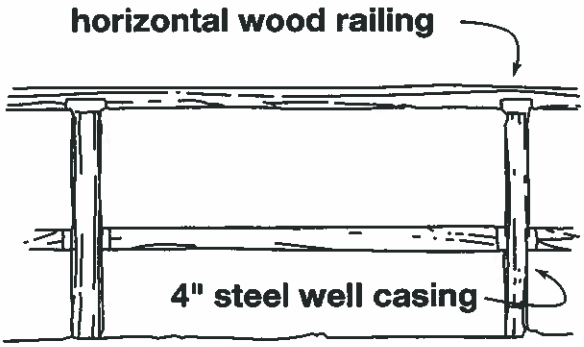


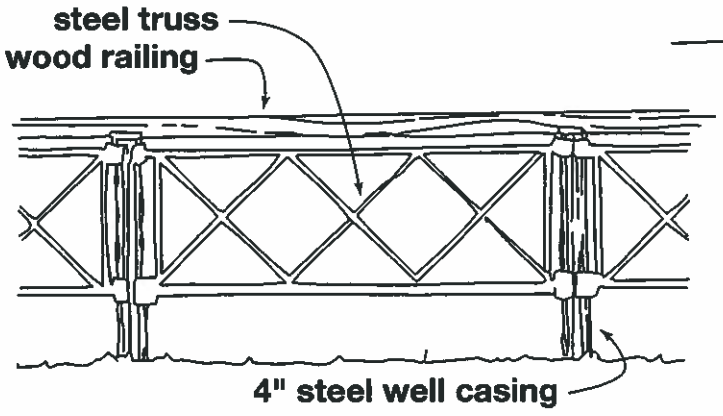
Rock Mounting



Heavy Timber Mounting

Horizontal Wood Railing





Wood and Steel Truss Handrail

Corridor Management and Maintenance

Design and Reconstruction of Roadway Corridor

In addition to roadway widening and resurfacing, the development of pull-outs, waysides, and construction of facilities (e.g., restrooms, picnic tables, curbs, and barriers), and design and placement of wayside exhibits and signs will occur during reconstruction and up-grade of the McCarthy Road.

The Alaska Department of Transportation and Public Facilities will take the lead in the design and construction of all improvements. In addition, ADOT&PF will continue to provide leadership in the management and maintenance within road and/or trail right-of-way.

It is recommended that before engineering and design of corridor improvements, ADOT&PF, Northern Region, initiate interagency agreements between the National Park Service and State of Alaska Division of Parks and Outdoor Recreation for the establishment of an interagency interdisciplinary design team. The value of a 'team' approach will be to continue the collaboration of knowledgeable technical staff available from these agencies in furtherance of meeting the goals and objectives recommended for this project.

Maintenance of Corridor

As lead agency, ADOT&PF will manage, seek funding for, and provide planning, engineering, and construction oversight of all planned improvements. In addition, ADOT&PF should assume primary responsibility for maintenance operations related to:

- all roadway and wayside driving surfaces
- roadside drainage
- triennial vegetative maintenance along the roadway (mechanical)
- major repairs of wayside improvements
- reconstruction as funding is available

The Wrangell-St. Elias National Park & Preserve will be asked to assume responsibility for maintenance operations at selected waysides including:

- vault pumping of toilets (seasonal)
- interpretive signs
- selective vegetative clearing at selected waysides
- minor repairs of wayside improvements

To successfully maintain facilities along the McCarthy Road, including trash collection, all partners and participating groups must commit labor, supplies, or other resources on an annual basis, including trash collection. Therefore, it is recommended that ADOT&PF initiate agreements with the communities (or appropriate entities) at Chitina and McCarthy/Kennecott for their cooperation and responsibility of assuming maintenance of waysides and toilets near their communities, and more specifically related to:

- trash collection
- toilet cleaning and stocking of supplies
- minor repairs
- pedestrian improvements

Roadway

One of the primary goals during the reconstruction of the McCarthy Road should be to provide the visitor with a sense of the natural environment. Current road conditions, such as artificial berming and disruption of natural drainage have resulted in the proliferation of native pioneer species, such as willow and alder along the roadside. Large sections of the McCarthy Road are lined with a screen of vegetation, thus giving the visitor a false perception of the environs through which they are traveling. These screens of willows and alders block vistas and scenic opportunities and in some locations create dangerous driving conditions.

During the reconstruction process, roadside vegetation should be removed and disposed outside the ROW. Natural drainage and wetlands must be protected and restored where necessary.

On-going maintenance to control the re-establishment of willow, alder and other pioneer species which adversely affect road safety and views of scenic/historic resources should be completed.

Maintenance can be performed using hand tools in some cases and mechanical equipment (i.e., hydro-axe) in others. Maintenance should be a regularly scheduled event, each year or on a regular basis.

Waysides

A significant component of the reconstruction of the McCarthy Road will be the development of waysides. Vegetation management studies have found that visitors prefer and appreciate well maintained pull-outs. Waysides and associated wayside exhibits have a set purpose (e.g., interpretation, information dissemination), and vegetation management can greatly enhance the interpretive messages by providing the visitor with the opportunity to experience an enhanced setting for these activities.

Recommendation:

1. Selective clearing and maintenance of vegetation to preserve views at waysides should be maintained.
2. Cutting or removal of wayside vegetation is not recommended unless there is potential for creating substantial benefits for enhancing views of scenic/interpretive resources.

Material/Disposal Sites

Material/disposal sites are essential to the reconstruction and maintenance of the roadway and waysides. Their selection and location must be carefully considered in view of the goal of this project to be a scenic corridor with special concerns for scenic quality, protection of cultural and historic resources, and as a public corridor providing access to state, private, and national park lands. Material sites should be located and sited out-of-view from the roadway whenever possible. The purpose of these sites must be restricted to just that, material and disposal sites, and not become de-facto alternative campsites or parking areas, as is the case in other state roadway corridors.

Access roads should be planned to eliminate direct views into these sites by planning horizontal and vertical alignments that prohibit direct views into the sites. In addition, the use of vegetative screening is recommended to further screen views of these sites from the road. Maintenance access into material / disposal sites should be secured and gated.

All closed material and disposal sites should have a restoration/reclamation plan prepared, approved by State authorities, in advance of their restoration and/ or closure.

Revegetation

Eroding slopes and embankments are not acceptable from either environmental, visual, or maintenance standpoints. Saving existing vegetation is by far the most effective method to ease these concerns, and have been addressed in the recommendations for clearing limits for the road. Vegetation along the road provides visual continuity by framing views of off-road scenery and provides a natural setting as close to undisturbed as possible.

The purpose of revegetation for this project is two-fold:

1. to stabilize and prevent erosion of embankments and slopes exposed during widening and construction of corridor improvements and;
2. to encourage the establishment of native plant communities indigenous to the corridor for visual, environmental, and habitat benefits.

The following list of revegetation techniques are intended to be used selectively along the route. Select areas will include locations with high scenic value such as at waysides or at locations where soil stabilization is required, such as at steep cut slopes. The typical roadway foreslope will simply be seeded with native grasses. Specific restoration recommendations will be made during the project's design phase.

Plant Salvage

Small indigenous trees (2-3m/6.5-10ft) located within designated clearing areas should be carefully hand collected, moved to an acceptable storage site, heeled in, and maintained until re-planting operations can be accomplished. Salvage operations should be completed in advance of contract clearing and road improvement construction contracts. This work can either be completed as a separate project or as a part of the general construction contract but in advance of general clearing operations.

The benefits of using native collected trees will

assure plant stock which is acclimatized and indigenous to the area.

Stockpiling of surface "soils"

Before roadway reconstruction, surface soils and organic layers (0.3m/1 ft. depth) should be carefully removed and stockpiled, maintained, and replaced in areas to be revegetated. First, these soils contain the organic remnants of native plants and seeds present in the area, and second, are the best growing medium to support native vegetation. Only when stockpiled soils are not available should 'topsoil' be imported for revegetation purposes.

Topsoil (0.15m / 4" depth) should be used on all disturbed surfaces on slopes of 1:3 or flatter. Topsoil on slopes greater than 1:3 should be considered on a case by case basis, and may be used in combination with erosion control materials or devises.

Seedlings and Seed

The use of seedlings is another appropriate method to achieve revegetation objectives for the project. The use of 2-3 year old bareroot or containerized seedlings can be produced from collected native plant sources along the McCarthy road corridor, and should be collected at least 2 years in advance of construction contracts being let for the project.

Seed can also be collected and used within the project area. Identification of appropriate seed sources, collection, and storage until needed for revegetation should be completed in advance of construction activity. Use of native seed collected from the area for re-use assures seed which is genetically appropriate for the area.

Contract Growing

Native seed collection, handling, and storing should be started at least 2 years in advance of construction contracts for road and corridor improvements. Propagation of bareroot (preferred), or containerized seedlings should also be done in advance of project construction. Adequate lead time to produce 2–3 year old seedlings should be built into the project design and construction schedule. The State Division of Forestry and the Plant Materials Center in Palmer are possible future resources for obtaining plant materials for this project.

Cuttings

Cuttings from suitable indigenous species present along the road corridor are another option for providing soil stabilization on riparian sites. Cuttings should be collected, bundled, or 'planted' individually in areas too wet for seed or seedling materials.

Slope and Embankment Revegetation

On slopes and embankments flatter than 1:3, all surfaces shall be plowed or scarified to a depth of 0.1m / 4in, parallel to the road, overlaid with stockpiled organic rich soils (to 0.1m / 4in depth), or imported topsoil, lightly compacted, and seeded with an approved native seed mixture in combination with other existing or new plantings.

All slopes and embankments within 3.0m / 10ft. of the roadway shall be treated as described and seeded with the intent of promoting low growth vegetation.

On slopes steeper than 1:3, revegetation will require careful planning and execution. Based upon the nature of the slope and embankment material (geotechnical characteristics) and stability of cut banks and fill slopes, revegetation to improve surface stability and erosion control should consider the following conditions:

1. Highly erodable slopes should be protected from surface drainage by use of collector or diversion ditches, contour grading, roughening surfaces, drainage structures, and use of erosion control matting in combination with seeding and revegetation. The objective should be to create a stabilized surface, which is environmentally and aesthetically pleasing, and achieves stability over time.
2. Stabilized slopes and embankments shall be further protected through plantings and revegetation to reduce construction scars, improve the aesthetics of the embankments, and provide viable opportunities for natural regeneration of native plants.

Interagency Cooperation

The long term success of the proposed McCarthy Road Scenic Corridor improvements will be directly related to the level of maintenance directed to their upkeep. The need to provide annual and cyclic maintenance to roadway surfaces, drainage, vegetative clearing / maintenance, waysides and related improvements is necessary to meet the goals and objectives set forth in this plan.

As a road, trail, and scenic corridor system serving the public, it is essential that a partnership of federal, state, and local jurisdictions work cooperatively to maintain all proposed improvements. Toward that end, agreements between the supporting governmental agencies, the community of Chitina and the communities of McCarthy/Kennecott should be initiated ***before*** funds are expended for upgrades to the road and corridor.

Before the construction of road and corridor improvements begin, the ADOT&PF, as the agency having jurisdiction of the road and corridor, should initiate discussions leading to legally binding agreements between all cooperators identified for this project.

OTHER ALTERNATIVES CONSIDERED

Alternative # 1—No Action

Under this alternative, no roadway widening, safety upgrades or wayside improvements would be made. The road and corridor would remain unchanged with the continuation of current maintenance.

Alternative # 2—Maximum Development

Under this alternative, eleven (11) waysides would be added to the eighteen (18) recommended under the proposed alternative; for a total of twenty-nine (29) waysides. All other recommendations made for the proposed alternative would be included in this alternative.

APPENDIX

Glossary

Acknowledgments

Related Studies and References

Glossary

ADA	Americans with Disabilities Act, Public Law 101-336 of 1992
ADF&G	Alaska Department of Fish and Game
ADT	Average Daily Traffic
ADOT&PF	Alaska Department of Transportation & Public Facilities
AKSO	National Park Service, Alaska Support Office
ANCSA	Alaska Native Claims Settlement Act
ANILCA	Alaska National Interest Lands Conservation Act
AVA	Alaska Visitors Association
CRBAP	Copper River Basin Area Plan
CR&NWR	Copper River & Northwestern Railway
d.b.h.	Diameter base height
DGC	State of Alaska, Division of Governmental Coordination
DNR	Department of Natural Resources (State of Alaska)
DPOR	Division of Parks and Outdoor Recreation (Alaska State Parks)
FHWA	Federal Highways Administration
ISTEA	Intermodal Surface Transportation Efficiency Act
IPT	Interagency Planning Team
NPCA	National Parks Conservation Association
NPS	National Park Service
ROW	Right-of-Way
RV	Recreational Vehicle
UA	University of Alaska
WRST	Wrangell-St.Elias National Park & Preserve

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