

ROCKY MOUNTAIN NATIONAL PARK ROADS ~~AND BRIDGES~~
Rocky Mountain National Park
Estes Park vicinity
Larimer County
Colorado

HAER No. CO-31

78

HAER
COLO
35-ESPK,
6-

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
U.S. Department of the Interior
P.O. Box 37127
Washington, D.C. 20013-7127

HISTORIC AMERICAN ENGINEERING RECORD

ROCKY MOUNTAIN NATIONAL PARK ROADS
HAER No. CO-78

HAER
COLO
35-ESPK.V
6-

LOCATION: Rocky Mountain National Park, Estes Park vicinity, Larimer and Grand counties, Colorado

DATES OF CONSTRUCTION: 1860s-1960s

DESIGN: Private parties, Larimer and Grand counties, State of Colorado, National Park Service, Bureau of Public Roads

ENGINEERING: Larimer and Grand counties, State of Colorado, National Park Service, Bureau of Public Roads

CONTRACTORS: Various

STRUCTURE TYPE: Park road system

OWNER: National Park Service, Rocky Mountain National Park

SIGNIFICANCE: The road system of Rocky Mountain National Park contains the highest continuous highway in the United States and the highest elevation roads in the National Park Service system. The roads were constructed by various parties, including early pioneers, state and county road departments, and by the National Park Service and the Bureau of Public Roads.

PROJECT INFORMATION: Documentation of the Rocky Mountain National Park Road system was conducted in 1993 by the Historic American Engineering Record. This is an overview report for the project. HAER No. CO-31, TRAIL RIDGE ROAD, and HAER No. CO-73, FALL RIVER ROAD, contain more specific information on the two principal park roads.

Richard H. Quin, HAER Historian, 1993

The Heart of the Rockies

Rocky Mountain National Park contains some of the most stunning natural scenery of the Colorado Front Range. Soaring mountain peaks, glaciers and snowfields, rivers, lakes and waterfalls, and open parklands characterize this rugged country and are easily accessible from the park roads. No other national park in the Rocky Mountains contains such high terrain. Forty-six named peaks in the park reach an elevation of 11,000'. The highest is Longs Peak, which soars to 14,255' and is one of the most prominent landmarks in Colorado; streets in downtown Denver 70 miles away are oriented toward its summit. Longs Peak is the northernmost "fourteener;" no peak farther north in the Rockies reaches its elevation.

High mountain peaks and ridges occupy most of the 265,197-acre national park. Nearly a third of the area is located above timberline, in this region generally located at about 10,500'-11,000' elevation. The Continental Divide wanders across the park, though it does not necessarily follow the highest ridges as it separates the watersheds of the Atlantic and Pacific oceans. Several different ecosystems are present in the vast reservation, including dense montane forests and open parks, a subalpine belt extending to timberline, and above, the wide-open alpine tundra. Permanent snowfields cap some of the highest points and glaciers extend down the higher valleys on the east side. Lower valleys display the characteristic effects of other glaciers, long since retreated, in their U-shaped forms. East and west sides of the park exhibit differences, a result largely of varying precipitation and solar exposure, but the most important factor determining ecosystem type is elevation.

The mountain scenery and a wide variety of flora and fauna lure nearly 3 million people to the park each year. Most come only for the day, visiting the park for an average of six hours. Only a small percentage take advantage of the park trail network and even fewer stay overnight in the backcountry. Most are drawn just to see the mountain scenery, confining their visits to a trip across one of the magnificent park roads, perhaps incorporating quick stops at visitor centers and interpretive turnouts. Car camping is also popular, and in the summer season campgrounds frequently fill early in the morning. Unlike some other national parks, concessions inside the park are rather limited, though most services are readily available in Estes Park, east of the main park entrance, and in Grand Lake at the park's southwest corner.

The national park preserves the heart of the north Colorado Rockies in a semi-pristine state, though the terrain is not virgin wilderness. Logging, grazing and early settlement changed some aspects of the lower valleys in the nineteenth century, and

massive irrigation projects diverted some park streams in the twentieth. The national park itself treats the landscape as a resource to be managed. Park developments and utilities, fire and wildlife management practices, and backcountry trails and developments have all altered the natural environment. The greatest impact on the landscape has been from the park road system, the focus of this study.

Park roads offer visitors glimpses of all the main park ecosystems. The most dramatic route is the Trail Ridge Road, which takes the motorist from the prairie fringe at around 8,000' elevation to a high point of 12,183'. This is the highest continuous highway in the United States and the highest road in the national park system. The eastern segment of the old Fall River Road offers visitors a more primitive motoring experience; the narrow unpaved segment climbing to Fall River Pass is little changed from the original primitive road completed in 1920. Spur roads lead to Bear Lake and Glacier Basin, and into Wild Basin on the eastern side of the range. Most of the roads are internally connected, though the Longs Peak and Wild Basin roads are accessible only from Colorado Highway 7 east of the park boundary.

Unlike the situation in many other national parks, the road system of Rocky Mountain National Park is not the result of a park master plan, but rather an adaptation of a network of existing state, county roads and private roads. The Fall River Road was constructed by the state and by Larimer and Grand counties as a scenic route across the mountains between Estes Park and Grand Lake for the purpose of encourage tourism to what was being promoted as the "American Switzerland." Other roads in the Bear Lake, Moraine Park, and Wild Basin areas were built as county or private roads to small holdings which predated the establishment of the park in 1915. The Trail Ridge Road, the park's principal highway, was built as a replacement to the Fall River Road and follows a part of the old road's alignment. Only a few spur roads and connectors were planned and built by the park, though all roadways within the park boundaries are now under park maintenance.

This study presents an overview of the development of the park road "system." It establishes an historical context and chronicles the construction of the early pioneer roads into the area and the construction of the first planned county and state roads built before the establishment of the park. It then details the struggle between the newly-created park and Park Service against the state and powerful tourism interests to gain full jurisdiction over the roads inside the park. Following this is the story of the construction of the Fall River Road, the first transmontane road through the area. This road was completed as

automobile tourism became increasingly popular, and for the next two decades the park was the most popular in the country. Increasing pressures on the steep Fall River route prompted the Park Service to call in the Bureau of Public Roads to construct a paved highway with easier grades across the mountains. Following the completion of the Trail Ridge Road, some internal roads were relocated or reconstructed, but otherwise the system had become established. The new "high-gear" Trail Ridge Road proved to be and remains a major attraction in the park, attracting the majority of the nearly three million visitors who come to the park each year. Such popularity comes at a price, and this study concludes with a discussion of the effects of heavy use on the road system and park resources.

In addition to this overview are road reports on the Fall River Road [HAER No. CO-73] and the Trail Ridge Road [HAER No. CO-31]. These reports contain much more specific information on the engineering and construction of the two roads. Also available in this collection are 19 large-format photographs prepared by Arnold Thalmeier for the NPS Rocky Mountain Regional Office and 31 large-format photographs prepared by HAER project photographer Brian C. Grogan.

The Challenge of the Mountains

Early American adventurers once considered the Rocky Mountains impenetrable, but native peoples of the Ute and Arapahoe tribes had long frequented the area, passing back and forth through the mountain chain between their homes on the west side of the range and the prime hunting grounds at what is now Estes Park and farther east on the plains. By the late 1850s, they had apparently vacated the central Rockies, although the Utes raided along the St. Vrain River east of mountains in 1865.¹

In 1914, some elderly Arapahoe were invited back to Estes Park to help identify and name some of the mountains and other features in the area. They identified the park trail over Fall River Pass as their *ethebaw*, or the "Dog Trail," so-called because they used dogs to pull their travois in passing over the path. The Trail Ridge Trail they called *taieonbaa*, or "Where the Children Walked," as the trail was so steep that children had to walk. This latter trail was a favorite crossing for the Utes as well, and they supposedly marked the route with stone cairns. Numerous other Indian trails passed through the area, but these two are noted

¹ Lloyd K. Musselman, Rocky Mountain National Park Administrative History, 1915-1971 (Washington, D.C.: National Park Service, Office of Architecture and History, Eastern Service Center, 1971), 4.

here as the Fall River and Trail Ridge roads would later follow their general routes.²

Colonial powers paid little attention to this harsh landscape. Spain had a claim on what is now Colorado in the eighteenth and part of the nineteenth century, but its explorers and missionaries evidently did not enter the region now encompassed within the park. French voyageurs plied a number of Colorado rivers and streams, but likewise there is no account of their visiting the present park area. Various early trappers ranged through the mountains, but again did not enter the park boundaries.

In 1806, an official expedition under Lt. Zebulon Pike entered the Colorado country and spotted the high peak dominating the north central Rockies. Sixteen years later, another expedition under Major Stephen H. Long approached the base of the mountain along the South Platte River, and the lofty eminence was subsequently named after Long (Longs Peak, 14,255'). Other expeditions under generals Henry Dodge (1835) and John C. Frémont (1842) entered the Rocky Mountain region, and trappers like Andrew Sublette and Louis Vasquez exploited its valleys, but all of these parties seem to have steered away from the high rugged central part of the range. One hunter, Rufus B. Sage, was in the Big Thompson River drainage in 1843 and may have entered Estes Park, though his account is not specific on this point.³

The first white men known with certainty to have entered the area were Joel Estes (1806-1875) and his son, Milton, who followed game trails from Fort Lupton west into a series of broad meadows along the Big Thompson in October 1859. Joel Estes laid claim to the empty mountain park and several years later relocated his family there. The Estes established a cattle ranch, supplementing their income by hunting and selling game and skins in Denver. Within a few years, health seekers, campers and climbers began to seek out the mountains. Joel Estes improved a primitive game trail from Lyons into a rough wagon track by 1866, and the Estes family began catering to early mountain visitors; one of them, William Byers, the editor of the *Rocky Mountain News* and leader of an unsuccessful 1864 attempt on Longs Peak, named the meadow lands "Estes

² Mary Lyons Cairns, *Grand Lake: The Pioneers* (Denver, CO: The World Press, 1946), 71.

³ Diana Ackland and Janie Freeburg, eds., *The Rockies* (Boston: Houghton Mifflin Company, 1993), 149; Ray Allen Billington, *Westward to the Pacific* (St. Louis, MO: Jefferson National Expansion Memorial Association, 1979), 36, 61; C.W. Buchholtz, *Rocky Mountain National Park: A History* (Boulder: Colorado Associated University Press, 1983), 36-40.

Park" on account of the family's hospitality. The winters proved too harsh for the Estes, though, and in 1869 they relocated to New Mexico, never to return.⁴

Griffith J. Evans, a Welsh immigrant, acquired the Estes holdings about 1870 and operated his own cattle ranch. Like Estes, Evans catered to mountain visitors, offering sleeping cabins and providing meals in his household. Another early arrival was one James Nugent, known as "Rocky Mountain Jim," a trapper and alleged desperado. Nugent settled in Muggins Gulch on the solitary approach trail to Estes Park. He occasionally guided tourist parties but was considered a recluse and a potentially dangerous man. Evans and Nugent improved the rough wagon route into Estes Park, cutting away brush and removing stones; however, the route was still described as "a road only by courtesy." Rocks, stream crossings, and steep grades inhibited easy access to the area.⁵

Another important early settler was Abner E. Sprague, who visited Estes Park in 1868 and returned in 1875 with a schoolmate, Clarence Chubbock, laying claim to a tract in the broad meadows of Willow [Moraine] Park, up the Big Thompson from Estes Park. Like Joel Estes and Griff Evans, Sprague soon catered to the increasing numbers of mountain tourists, erecting sleeping cabins and providing board in his home.⁶ Sprague's lodge became one of the most popular retreats in the mountains. More settlers filed claims on other tracts, as property not already patented remained a part of the public domain, and was available for redemption. The settlement surge reflects the rapid growth of the Colorado Territory, which became a state in 1876.

In the early 1870s, Alexander Q. McGregor, a Wisconsin attorney, settled on the north edge of Estes Park and received a grant from the Colorado Territorial Legislature to construct and maintain a toll road into the area. McGregor's road, which opened in 1875, followed the North St. Vrain River up from the present site of

⁴ Musselman, 4; H. E. Rensch, *Historical Background for the Rocky Mountain National Park* (Berkeley, CA: National Park Service, Field Division of Education, 1935), 1; June E. Carothers, *Estes Park, Past and Present* (Denver, CO: The University of Denver Press, 1951), 20-22, 56. Byers was a member of the August 1868 party which was the first to attain the Longs Peak summit.

⁵ Carothers, 57; F. Ross Holland, Jr, *Rocky Mountain National Park: Historical Background Data* (Denver, CO: National Park Service, Office of History and Historic Architecture, Western Service Center, March 1971), 35-36.

⁶ Holland, 19-20, 39.

Lyons, then crossed over the intervening ridge to the Big Thompson River valley for the final approach to Estes Park. McGregor formed two stock companies; the Estes Park Wagon Road Company (1875), which built the road, and the Estes Park Toll Road Company (1879), which collected the tolls. McGregor sold out soon afterwards, and the new owners raised the rates, angering the settlers at Estes Park who depended on the road. Litigation ensued, and by the turn of the century the route became a free road.⁷

In the spring of 1876, the Rev. Elkanah J. Lamb and his son, Carlyle, cut a road from Estes Park to their holdings at the base of Longs Peak. The Lambs boarded visitors and guided parties up Longs Peak. Their road passed Lily Lake on roughly the same route as now followed by Colorado Highway 7. Lamb claimed he had a right to collect tolls, and instituted a particularly noxious method to garner the charges.

The toll gate was at the south end near the house [Lamb's] and the gate was left open so that visitors might go on up to the house. Since this was the end of the road, the visitor had to return the way he came. When he turned to leave, he would find the gate closed and one of the Lambs on duty. He was then asked to pay the toll for both ways.⁸

In 1872, the Right Honorable Windham Thomas Wyndham-Quin, Fourth Earl of Dunraven and Mount Earl, visited Estes Park to take in the fine hunting the area afforded. Impressed by the rugged scenery and abundant game, the Irish nobleman attempted to take over the whole of Estes Park in 1874, stretching provisions of the Homestead Act and the rights of preemption. His intent was to establish a vast private hunting reserve. In 1877, noted landscape painter Albert Bierstadt helped Dunraven select a site for his "English Hotel," the first true tourist development in the area. Although he failed in his attempt to control the entire area, he managed to secure some 15,000 acres.⁹

An influx of new settlers put an end to Lord Dunraven's scheme. Some settled on parcels that the earl had incorrectly patented, others on the fringe of his holdings. Dunraven and his allies, who included Griffith Evans, who had sold the old Estes holdings

⁷ Ibid., 57-58; Musselman, 77.

⁸ Holland, 59. Lamb, a United Brethren missionary, stated "If they would not pay for spiritual guidance, I compelled them to divide for material elevation." [Glen Kaye, *Longs Peak (Estes Park, CO: Rocky Mountain Nature Association, 1982)*, 4.]

⁹ Carothers, 34; Musselman, 5-7.

to the Earl, attempted to protect Dunraven's claims, and were met with defiance and hostility from the settlers who refused to relinquish their property. One of the resisters was Rocky Mountain Jim in Muggins Gulch. In 1874, Jim was shot by Griff Evans and died several months later. Supposedly, the quarrel was rooted in his refusal to sell out to the "English Company," but Evans was subsequently acquitted after pleading he fired in self defense. Abner Sprague was also pressured to sell out but he too refused. Others remained on their own holdings, and new settlers took up occupancy on other tracts, disrupting Dunraven's plans. Litigation over the land patents eventually reduced his holdings to about 8,000 acres.

In the 1880s, Lord Dunraven became disillusioned at the failure of his plans, and leased his reduced holdings to his manager, Theodore Whyte, and then to other parties. Dunraven left the area for good late in the decade, and in 1907 sold his properties to B. D. Sanborn and F. O. Stanley. The earl's "English Hotel" burned in 1911.¹⁰

F. O. Stanley, one of the new owners, had worked with his brother to invent the famous Stanley Steamer automobile, and now focused his attention on Estes Park, using part of his fortune to promote the area as a tourist attraction. He constructed the grand Stanley Hotel in 1907-09, one of a series of palatial mountain resort hotels constructed in Colorado to cater to the increasing numbers of tourists and travelers. Stanley built an electric power plant which served his hotel and Estes Park, and also founded the village's first bank. He also reconstructed the North St. Vrain road from Lyons to Estes Park, largely at his own expense. Over this road he piloted one of his company's steam automobiles, the first motorized conveyance to reach the area. Stanley was instrumental in the organization of the Estes Park Protective and Improvement Association, a land-owners' alliance which aimed to promote and protect the region's rugged mountain scenery. The group helped build the "High Line Drive," a scenic loop road leading into the present park area along the Fall River, then climbing and crossing Deer Ridge before returning to Estes Park along the Big Thompson.¹¹

While Estes Park evolved from a private domain to an embryonic tourist center, the western slope of the mountains attracted less attention. Joseph Wescott settled at Grand Lake, the largest natural lake in Colorado, in 1867. He hunted, fished, and

10

¹¹ Patricia M. Fazio, "Cragged Crusade: The Fight for Rocky Mountain National Park, 1909-15" (MSS thesis, n.d.), 75-78.

prospected in the surrounding mountains for silver and gold. A few tourists began to seek out the area over the next decade. In the late 1870s, settlers took up claims on the west and north sides of the lake, and in 1876, Joe Shipler erected a cabin north of Grand Lake on the North Fork of the Grand River (now the Colorado River). Shipler opened a mine in the flank of what is now known as Shipler Mountain, but it produced little and only scant traces remain of his diggings.¹²

Shipler's enterprise was part of a small mining boom in the North Fork area in the 1870s and 1880s. Miners formed small settlements at Lulu City and Gaskil (Auburn) inside the present park boundaries, opening mine operations at Specimen Mountain and in the Never Summer Range. Grand Lake profited from supplying the various operations with provisions and the first hotels were established. In summer 1880, the primitive Stewart Toll Road was constructed over Thunder Pass from Fort Collins to Lulu City. Twice-weekly mail service began in August. The following month, a stage road was completed from the mining camp down Grand River to Grand Lake. By the end of the summer of 1881, Lulu City had a population of five hundred, a dry goods store, an assay office, two sawmills, the Godsmark and Parker Hotel, and several grocery and liquor stores.¹³

The boom, however, proved short-lived. The mines produced very little ore, and it was generally of low grade. Plans for a "concentrator" or smelter were never realized, and it proved too costly to ship the unrefined ore to smelters farther away. By the fall of 1883, Lulu City was largely abandoned, and mail service ceased in November. The *Colorado Miner* reported in December that bears and mountain lions had driven off most of the remaining residents. Gaskil, several miles south in Bowen Gulch, was similarly abandoned in 1886.¹⁴

Ranching never became a mainstay of the local economy because there was insufficient pasturage in the mountain parks, and the mining boom had petered out. Consequentially, settlers in the area catered increasingly to the growing numbers of tourists attracted to the what publicists were calling the "American Switzerland." These tourists were attracted to the mountains by the scenery, by the fine hunting and fishing the area afforded, and by opportunities for camping or playing cowboy on a "dude

¹² Cairns, 104-105; Glen Kaye, *Lulu City, Colorado River Trail* (Estes Park, CO: Rocky Mountain Nature Association, 1983), 6-7.

¹³ Musselman, 11-14; Kaye, *Lulu City*, 8-10.

¹⁴ Kaye, *Lulu City*, 10-11; Buchholtz, 98.

ranch." Thanks to improved access by railway to Denver, more than 200,000 people a year were visiting Colorado by the late 1870s, and many of these considered a mountain adventure an important part of their trip. By the 1880s, parties were climbing Longs Peak with regularity and campers were thronging the open parks. Many paid local settlers for food and accommodations, and the embryonic villages of Estes Park and Grand Lake gained new importance as recreation centers. Estes Park, which promised "Everything for the Tourist," became more accessible when a new road was constructed up the Big Thompson River canyon in 1904. Grand Lake survived the collapse of the mining boom, served briefly (1880-88) as county seat for Grand County, then became a popular destination for fishermen and vacationers. Robert L. "Squeaky Bob" Wheeler operated the first dude ranch in the area at Phantom Valley; he called it "Camp Wheeler" or the "Hotel de Hardscrabble."¹⁵

In May 1905, the core of the area later encompassed within Rocky Mountain National Park was set aside as a forest reserve when President Theodore Roosevelt extended the boundaries of Wyoming's Medicine Bow Forest Reserve south into the Colorado Rockies. This designation had been urged by agricultural interests around Greeley and Fort Collins, who hoped to protect their mountain water supply, which they had begun utilizing through a system of irrigation ditches, from deterioration by over-harvesting of timber.¹⁶ Although designation helped prevent rampant over-cutting of Rocky Mountain timber, logging was still permitted, and the Forest Service allowed mining and grazing to continue. Wildlife management was an incidental focus under the forest program, and some of the Forest Service's first programs had decidedly mixed results. Millions of trout were released in area streams (many of which were exotic to the area and decimated the native cutthroat), and elk were reintroduced to the region in 1913. The Forest Service began promoting the establishment of an Estes Park "game preserve" to protect the fauna.¹⁷

Tourism was now the most important economic industry in the area, and more concessions were established to provide for the steadily-increasing number of visitors. Abner Sprague's holdings at Moraine Park were bought out by his partner, J. D. Stead, in 1904.

¹⁵ Musselman, 14; Ackland and Freeburg, 175.

¹⁶ The forest reserves had been transferred from Interior Department jurisdiction to the United States Department of Agriculture three years earlier. In 1907, they were renamed "National Forests."

¹⁷ Fazio, 50-50A; Buchholtz, 130.

Sprague opened another lodge on the Bear Lake Road six years later, adding an annex in 1916. The property operated under various hands until the late 1950s. The original Sprague property was subsequently known as Stead's Ranch. Another lodge in Moraine Park, the Brinwood, operated from 1910 until the late 1950s, as did Dr. William J. Workman's Fern Lake Lodge three miles up the Big Thompson. In the late 1950s and early 1960s, the National Park Service acquired all of these inholdings and subsequently removed most traces of the improvements. Some other inns and lodges which once operated in the area now encompassed within the park included the Deer Ridge Chalets, Bear Lake Lodge, Sprague's Hotel in Glacier Basin, the Fall River Lodge resort below Horseshoe Falls, and the Horseshoe Inn, designed by Frank Lloyd Wright in 1907.¹⁸

The National Park Campaign

Soon after the turn of the century, a movement began to set aside the central Rockies as a national park organized along the lines of Yellowstone, Yosemite, and other early parks. Supporters claimed national park designation would protect the area from the ravages of logging, mining and grazing, and attract many additional visitors, benefiting area hotels and businesses.

The cause was championed by Enos Abijah Mills (1870-1922), a Kansas native who relocated to the Longs Peak area in 1884. He climbed Longs Peak in 1885 and became a climbing guide for the Rev. Elkanah Lamb three years later.¹⁹ Over the next decade and a half, Mills worked some winters as a miner in Montana, but generally returned to Estes Park, where he filed a homestead claim adjacent to Lamb and constructed a rustic cabin in the shadow of Longs Peak. Later this became his permanent home.

In 1889, Mills traveled to California and met naturalist John Muir, then in the final stages of the campaign to create Yosemite National Park. Muir urged Mills to take up the cause of conservation and natural history and spoke of the values of national parks. Mills visited the redwoods, Yosemite, Death Valley, and Yellowstone National Park, and convinced himself that his north Colorado mountains should be likewise be set aside as a national park. Mills wanted the central Rockies from Longs Peak south to Pikes Peak protected, lest timber interests, miners and ranchers despoil the area. Mills wrote hundreds of letters on behalf of the proposed park, sent regular articles to a Denver newspaper and the *Saturday Evening Post*, and spoke broadly on the

¹⁸ Holland, 40-45.

¹⁹ Fazio, 9.

merits of preserving the mountain environment. In 1905, he published *The Story of Estes Park and a Guide Book*, the first guide to the area. Mills acquired the Longs Peak Inn from the Lambs in 1902 and devoted his energies to the national park campaign.²⁰

The major opponent of national park designation was H. N. Wheeler, Chief Forester of the Medicine Bow National Forest which then included the mountains around Estes Park. Wheeler favored instead the creation of a game refuge at Estes Park, extending from the Cache la Poudre River east through the foothills to Estes Park. Mills, however, desired more than just a game refuge: he wanted a much larger area, comprising more than a thousand square miles of the central Rockies, protected as the "Estes National Park and Game Preserve."²¹ The Forest Service maintained that a game reserve under its jurisdiction would offer adequate protection, and subsequently tried to block establishment of a national park. In doing so the agency incurred the wrath of Enos A. Mills. Although Mills was to work two years for the Forest Service as a lecturer, he soon came to violently distrust his former employer's motives in opposing the park.

In 1910, Mills convinced J. Horace McFarland, president of the influential American Civic Association, of the need for the "park idea." McFarland agreed to help but cautioned that the park could probably only be realized once a "Bureau of National Parks" had been created.²² At the time, the existing parks were administered as separate units by the departments of the Interior and Agriculture, and the national monuments were divided among several departments. McFarland, one of the great supporters of the national parks, advised Mills throughout the campaign. He personally sought support from Washington officials with whom he had considerable connections and influence, and attempted to restrain Mills from making impolitic attacks on the Forest Service and other park opponents.

The Estes Park Protective and Improvement Association, organized by F. O. Stanley and other local business interests, endorsed the creation of a 600,000-acre (935 square mile) national park, although the group insisted that the rights of property owners, except for hunting, would be preserved. Timber cutting would be restricted to local use, mining could continue, and only local livestock would be permitted. Such an arrangement would have

²⁰ Ibid., 4, 32; Buchholtz, 126.

²¹ Musselman, 18-19.

²² Musselman, 20.

provided the tourism boost that could be expected from a national park while allowing property owners to continue to do as they pleased. A smaller local property owners' association, the "Front Ranger Settlers' League," came out against the park plan, citing economic considerations. Enos Mills maintained the faction, which was largely composed of his neighbors near Longs Peak, was subsidized by the U.S. Forest Service. Mills was by this point almost paranoid concerning the Forest Service, which he considered "the enemy of human liberty" and the chief obstacle to national park designation.²³

In 1911, Mills conducted a nationwide speaking tour on behalf of the park en route to Washington, D.C. There, Mills met with Secretary of the Interior Walter Fisher, Utah Senator Reed Smoot, and President William Howard Taft. However, he received no encouragement for his proposal. Undaunted, he returned to Colorado and garnered state support. Mills gained an important ally the next year when the Colorado Mountain Club was organized. Club president James Grafton Rogers drew up the first proposal for the boundaries of the park and drafted the parks bills submitted before Congress. The Denver attorney advised Mills throughout the final stages of the campaign and deserves much of the credit for the park's enactment. The Denver Chamber of Commerce, the Denver Real Estate Exchange, the Denver chapter of the Daughters of the American Revolution, the Boulder and Greeley commercial clubs, and the Colorado State Federation of Womens' Clubs all endorsed the project.²⁴

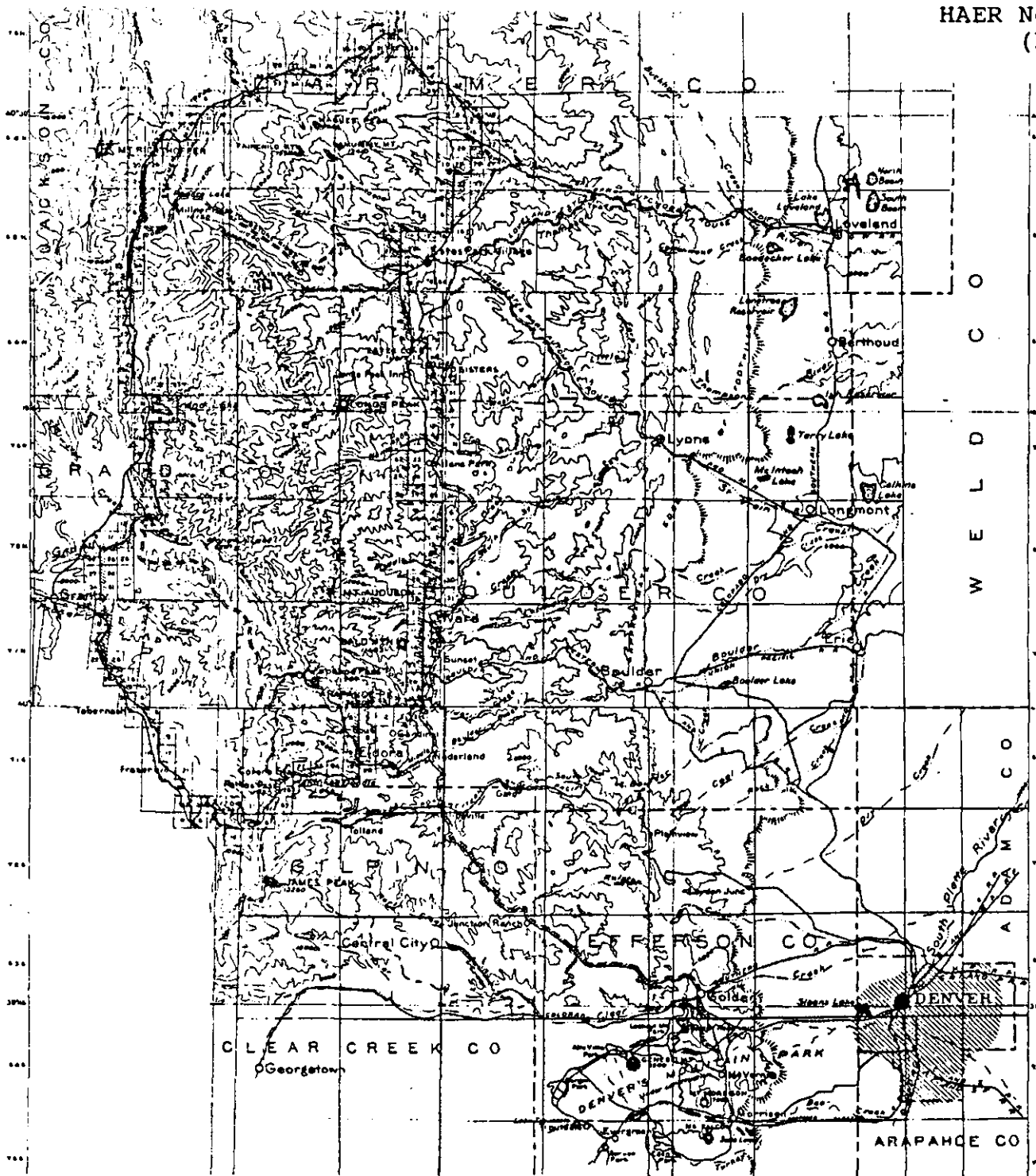
With local support burgeoning, the Colorado state legislature in February 1913 passed a "memorial" to Congress calling for enactment of the park bill. The Colorado congressional delegation in Washington united to work towards passage of an enabling act, and state Democratic Party candidates ran on a platform supporting the park concept in the 1914 elections. Backers pointed out that 56,000 people visited the region in 1914 and that more than 10,000 automobiles travelled the partially completed roads into the mountains each year.²⁵

The proposed boundary, including most of the Front Range from Mount Evans north to the Cache la Poudre, was greatly reduced due to opposition from property owners and local governments on the fringe of the area. Robert B. Marshall of the U.S. Geological Survey, sent to investigate the proposed park, suggested a revised

²³ Ibid., 21; Fazio, 89-90, 115-16.

²⁴ Musselman, 22-23.

²⁵ Ibid., 23-24; Buchholtz, 136.



ROCKY MOUNTAIN NATIONAL PARK PROPOSED BOUNDARIES, 1913

Although Enos Mills and his allies sought a 1,000-square mile national park extending south to Mt. Evans (east of Georgetown) north to the headwaters of the Cache la Poudre River, opposition from property owners and local governments discouraged such a large reservation. In 1913, Robert Marshall of the U.S. Geological Survey proposed this 700-acre boundary extending south to Rollins Pass. Even this proved to be too encompassing, and the final 1915 boundaries were set to include only 358 1/2 square miles.

This map shows the status of early approach roads from Denver. The route of the proposed Fall River Road is interestingly shown as following Tombstone Ridge, the route taken by the later Trail Ridge Road. Estes Park is already connected to Loveland and Lyons by "automobile stage routes." Map: Rocky Mountain National Park Historical Collection.

boundary of about 700 square miles in a 1913 report. Even this proved too encompassing to maintain political support, and the final boundary was set at 358 1/2 square miles, about a third of what Mills and his allies wanted.²⁶

The park bill with the revised boundary passed the House on 12 January 1915. The Senate passed an amended form of the bill the following day, and on 26 January, the act creating Rocky Mountain National Park was signed into law by President Woodrow Wilson.²⁷ On 4 September 1915, several hundred people gathered at Horseshoe Park for a brief dedication ceremony. State and federal officials spoke to the crowd and the national anthem was sung. Significantly, photographs show several automobiles and a couple of motorcycles parked to the side, a harbinger of the importance that park roads would command in the not too distant future.²⁸

The new park was ill prepared for the onslaught of visitors who quickly flocked to the area. Rocky Mountain National Park was the most conveniently located of the great mountain parks, only 60 miles from Denver and much closer to railheads at Lyons and Granby. However, the first visitors found touring the park itself difficult, as the park road "system" consisted of a series of unpaved and unconnected dead-end roads.

The Department of the Interior sent C. R. Trowbridge, a veteran of the Philippine insurrection and recently chief of the secret service of the City of Manilla, to organize the new national park. Trowbridge was given the title "Acting Supervisor" and provided with three rangers and an annual budget of only \$10,000. He was not assigned an automobile and had to hire one at times to make trips into the park; he soon urged the Interior Department to purchase a two-seated vehicle for patrols and inspections.²⁹

Trowbridge found few roads in the new park and most of these were in poor condition. He described them in first annual report to the Secretary of the Interior. Trowbridge reported that the Fall River Road had been constructed for a distance of two miles into the park with convict labor, and work on the next three-mile section was underway under contract by the State of Colorado at a

²⁶ Fazio, 92.

²⁷ Musselman, 26-27; C. R. Trowbridge, Acting Supervisor, Rocky Mountain National Park, Supervisor's Annual Report, 1915. 1. The enabling act was Public Law 238, 63rd Congress.

²⁸ Buchholtz, 104.

²⁹ Musselman, 29; Trowbridge, Supervisor's Annual Report, 1915, 30, 33.

cost of \$18,000, of which \$2,500 had been pledged by the Department of the Interior.³⁰ Completion of the road was a matter of urgency to Trowbridge; until it was completed, administration of the park was very difficult, as a trip between Estes Park and Grand Lake required a long passage around the park to the south over Berthoud Pass, or by rail through the Moffat Tunnel.

Trowbridge also reported on the "Road to Sprague's," the 1 1/2 mile track constructed by Abner Sprague at his own expense. This road ran parallel to Glacier Creek to Sprague's resort in Glacier Basin and was in fair condition, though Trowbridge recommended "an expenditure of \$100 would improve it considerably." A private road led from Sprague's resort two miles west toward Bear Lake, but was in poor condition. At least \$300 would have to be spent to make it passable for automobiles.³¹ These two roads would eventually be reconstructed and become the park's Bear Lake Road.

In the south part of the park, the Arbuckle Supply & Water Company had built a 1 1/2 mile road entering the park at Copeland Lake and running west into the Wild Basin area to serve the company's storage dams. This road was in poor condition and suitable only for horse-drawn conveyances. Another rough track led a half mile into the park to the Mill Creek Ranger Station, but could only be traveled by horse. Trowbridge reported that most of the traffic consisted of locals removing firewood from the "Pole Patch" near the ranger station. Another track led up Beaver Creek from Horseshoe Park area for 1 1/4 miles. This road had been built in 1910 to remove timber and was in no condition for automobiles.³²

On the west side of the park, Grand County road had just completed a new road extending north 1 3/4 miles from Grand Lake. This was an excellent road, at least 16' wide and with a controlling grade of less than 1 percent. The road was planned to connect with the Fall River Road and serve as its west segment.³³ All the roads Trowbridge reported on had been built by private interests, except for the Fall River Road then under construction by the state and by Larimer and Grand counties.

Some work was done on the lesser roads during the 1916 season. The "Road to Sprague's" was acquired and improved with park funds, and the Bear Lake extension was reconstructed as far as the Bierstadt Lake trailhead. Automobiles were already making this

³⁰ Trowbridge, Supervisor's Annual Report, 1915, 3.

³¹ Ibid., 4-5.

³² Ibid., 4-6, 22.

³³ Ibid., 6.

scenic trip. The Copeland Lake Road was improved, but the Mill Creek and Beaver Creek roads remained in poor condition, unsuited to automobile traffic. The park managed to stretch its limited funds for some repairs; a wagon bridge was constructed across Glacier Creek in Bartholdt Park (Glacier Basin) at a cost of \$47.00, and Trowbridge reported that Park Ranger Reed Higby built a wagon bridge on the Wild Basin Road at a cost of only 20 cents!³⁴

Trowbridge's 1916 report refers to a "Sand Beach Lake Road" as running parallel to the Copeland Lake Road, but it was in such condition as to be little more than a trail. Citizens in Allens Park (Allenspark) asked for improvements, but nothing could be done under the existing budget. This road had been also constructed by the Arbuckle Water and Supply Company for access to its storage reservoir at Sandbeach Lake. A 1917 map shows the "road" terminating on the Allenspark-Estes Park road in Meeker Park.³⁵ The present Sandbeach Lake Trail follows part of the old roadway line, though it is difficult to imagine wagons or other vehicles as ever having traveled this steep route.

The year 1916 marked the birth of the National Park Service, which was charged with administration of the various national parks and sundry national monuments. The Park Service, created only seventeen months after the establishment of Rocky Mountain National Park, was able to provide more effective support for the new park. Supervisor Trowbridge, who had roughly organized the park's administration for the Interior Department, was replaced by the first official park superintendent, former Army captain and forest ranger L. C. Way. Way had served briefly as acting chief ranger and was familiar with the challenge.³⁶

Way's 1917 annual report stated that the Beaver Creek Road had fallen into worse condition and was now suitable only for logging access. The "Bear Lake-Sprague Road" was in better condition and was being used extensively by tourist parties; he recommended its extension all the way to Bear Lake. This was the only road in the park under National Park Service jurisdiction. The others were county roads in generally poor condition, and Way urged that they be acquired immediately by the federal government. He also reported several accidents between motor vehicles and equestrians, one of which broke a horse's leg. Much work still had to be done

³⁴ Ibid.; Idem, Supervisor's Monthly Report, August 1916, 2.

³⁵ Idem, Supervisor's Monthly Report, August 1916, 5-6; Map in National Park Service, "Rocky Mountain National Park, Season of 1917, brochure (Washington, D.C.: National Park Service, 1917).

³⁶ Musselman, 29.

to make the park accessible. Whether easily accessible or not, the number of visitors was increasing rapidly. Way estimated that 120,000 people visited the park in 1917, and 20,000 vehicles had motored over its roads.³⁷ Unfortunately, the discontinuous park roads were entirely inadequate to meet the new demands.

Acting Chief Ranger R. A. Kennedy reported on the precarious state of the park's road system in the fall of 1917.

. . . numerous complaints on road conditions have been received in this office. Owing to a lack of funds, however, we were unable to remedy the situation. While none of the roads are dangerously defective at this time, they are rapidly growing worse. With each month's neglect the initial cost of maintenance will greatly increase, and unless funds are soon provided conditions will become so deplorable that pleasurable travel will be impossible.³⁸

The park was severely hampered by the restriction in the park enactment act limiting the annual budget to \$10,000. Furthermore, only five miles of the park road system was under federal jurisdiction, while the other fifty or so miles remained state or county roads. The park was prohibited from expending any funds on non-federal roads, and consequently could not be responsible for the required maintenance. The state and counties performed some road work on their sections. Larimer County allocated \$1,500 in 1918 for its segment, and established a road camp at Moraine Park from which crews did work on the Fall River, Longs Peak, High Drive and Wind River roads.³⁹

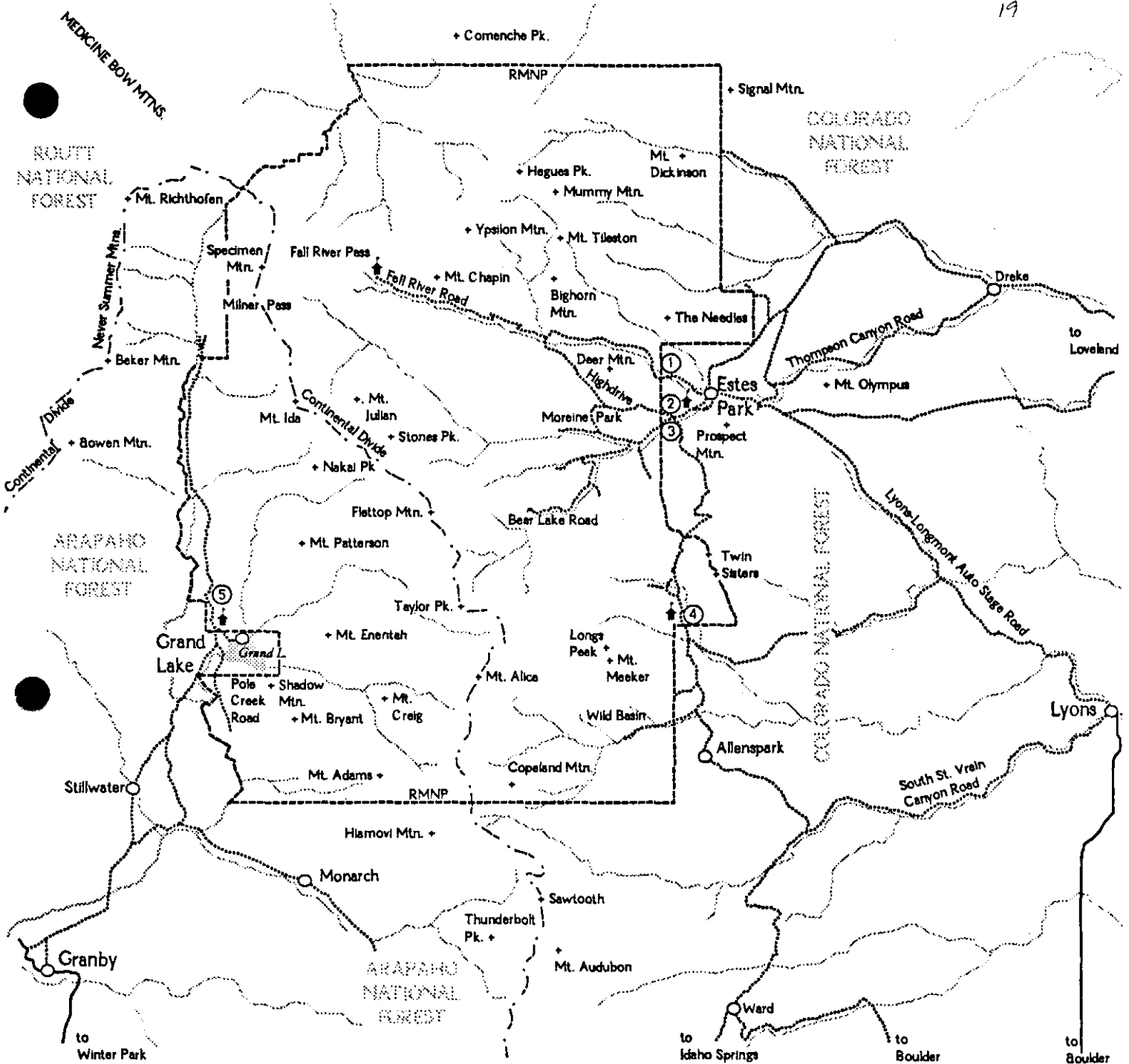
Some limited work was done by the National Park Service, including construction of a spur road into Glacier Basin in 1917 and 1918. Other work was done under contract. The Rocky Mountain Transportation Company funded some construction on the Fall River Road in 1918, and a section of road between the Brinwood Hotel in Moraine Park and "The Pool" (two miles up the Big Thompson River) was financed in part by private parties, as was a one-mile cut-off on the Glacier Basin Road.⁴⁰ It was difficult to plan in terms of a park road system because responsibilities for the various roads were shared by so many parties.

³⁷ L. C. Way, Chief Ranger In Charge, Rocky Mountain National Park, Acting Superintendent's Annual Report, 1917, 3-6.

³⁸ Quoted in Musselman, 80.

³⁹ Ibid., 80-81.

⁴⁰ Ibid., 81.

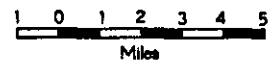


**ROCKY MOUNTAIN NATIONAL PARK
PARK ROADS AND APPROACH ROADS, 1917**

The Fall River Road is completed west to Iceberg Lake. Grand County is reconstructing the county road extending north from Grand Lake. The Highdrive, Moraine Park roads, and the Bear Lake Road ("Road to Sprague's") are in use.

Boundary reflects changes of 14 February 1917.

Map: Richard Quin, HAER Historian, 1993



▲ Campground 🚒 Ranger Station

ENTRANCES

1. Fall River
2. Highdrive
3. Thompson River/Mill Creek
4. Southeast
5. Grand Lake

The National Park Service published "Useful Hints to Motorists" for the Rocky Mountain National Park 1917 season. The pamphlet outlined general regulations for the use of automobiles in the park. No permits were required, but cars could only enter and leave the park between 6:30 AM and 9:30 PM. The speed limit was 12 miles an hour, except on the few straight stretches, where 20 miles per hour was permissible. Horns were to be sounded when approaching curves, vehicles, pedestrians, and saddle animals. Automobiles were required to keep a distance of at least 50 yards from other conveyances except when passing, and had to keep their gears enmeshed except when shifting. Horse teams had the right of way. Motorists were required to carry at least one spare tire. The government disclaimed any responsibility for accidents.⁴¹

Despite the park regulations and "useful hints," some motorists showed little concern for other park users. Frank Lundy Webster wrote an account of his experiences with "road hogs" at Rocky Mountain National Park in an August 1917 article in the *Denver Post*. Webster declared that he was "disgusted with the frequent exhibitions of ill manners shown on the roads." He complained that speeding automobiles nearly ran his horse team off the road, that other horsemen blocked the road with their casual meandering, and that strolling hikers sauntered down the roads oblivious to other traffic.⁴²

Even worse was the car camper, the "first cousin of the road hog." The new park was not able to establish public campgrounds for several years, and campers simply chose sites along roads both inside and outside the park. Webster described the typical car camper as having

no respect for private property rights, no consideration for the beauties of nature he has come, presumably, to admire. "No Camping" and "No Trespassing" signs he is blind to. On the public domain or on private grounds,

⁴¹ National Park Service, "Rocky Mountain National Park: Useful Hints to Motorists," Washington, D.C.: National Park Service, 1917; U.S. Department of the Interior, National Park Service, *General Information Regarding Rocky Mountain National Park, Season of 1917* (Washington, D.C.: Government Printing Office, 1917), 20-22; Glen Kaye, *Trail Ridge* (Estes Park, CO: Rocky Mountain Nature Association, 1982), 2.

⁴² Frank Lundy Webster, "Road Hogs in Machines, On Horseback and Afoot Infest the Mountain Roads: Experiences in Beautiful National Park Show Need of Educating Many to Show Common Courtesies When Beyond Traffic Officers' Rule," *The Denver [CO] Post*, 26 August 1917.

where he elects to pitch his camp, he builds fires under trees and destroys them. When he departs he leaves tin cans, boxes and all sorts of rubbish to disfigure the landscape.⁴³

The first reported fatality on the park road system occurred on 22 August 1918, when a car driven by the Rev. E. F. Kimmelahue, of Monmouth, Illinois, veered off the incomplete Fall River Road, killing his wife, two sons, and another passenger. Twenty-two minor accidents were reported, mostly involving mishaps between automobiles and saddle horses. Superintendent Way admitted that such accidents were "unavoidable" as he could only assign one ranger to deal with the thousands of automobiles now entering the park.⁴⁴

The park was able to make only minimal improvements through this period. The Glacier Basin Road was extended to connect with the Mill Creek Road in 1918. Part of this distance crossed private inholdings, causing the status of the road (as a county road or park road) to be in question for some time.⁴⁵

Unlike a number of the other parks, no entrance stations were operated at Rocky Mountain in the early years, so an accurate count of visitors and vehicles entering the park could not be obtained. The park did utilize checkers on the Estes Park and Longs Peak roads to count automobiles and their occupants from 30 May to 1 October; these were employed by the Tourist and Publicity Bureau of the Denver Civic and Commercial Association but operated under the direction of the park superintendent. In the off season, visitor counts were obtained from hotel registers. The numbers indicated that the new Rocky Mountain National Park was the most popular in the system. In 1919, park visits were estimated at 169,492 persons, more than the total visitation for Yellowstone, Yosemite, Sequoia and Glacier national parks combined.⁴⁶

⁴³ Ibid.

⁴⁴ Way, Superintendent's Annual Report, 1919, 42-43.

⁴⁵ Way to Stephen T. Mather, Director, National Park Service, 28 September 1918. Filed with Way, Superintendent's Annual Report, 1918.

⁴⁶ Ibid., 5-6; "1,000,000 Tourists Come to Colorado During 1919 Season: Denver Makes Rapid Strides in Placing Herself Before the Nation as Tourist Center of Rocky Mountains and Gateway to National Parks," *The Denver [CO] Post*, 1 January 1920.

Superintendent Way complained that road maintenance was a major problem caused largely by the difficult weather conditions of the mountainous region. In his 1919 annual report, he warned that it was becoming impossible to maintain even the limited park road system with his small budget.

Due to the extreme dryness this season, it has been practically impossible to keep roads in good condition, and especially so, since no adequate drainage is possible. Surfacing during the dry spells is readily ground to dust and carried off the right of way by suction and winds, and even light rains would cause ruts and waste tons of material, by depositing in forest growths alongside the roads, or carrying into streams. We have done all we could to overcome this, but the small amount of money available for all work permits only an infinitesimal amount of drainage work, and we must concentrate our efforts on dangerous stretches and on bridges, making them passable and safe for the season. It is impossible, under present allotments, to do any permanent work, for there are so many places to cover.⁴⁷

Merely maintaining the roadway surfaces was a major maintenance concern. None of the roads had a permanent surface, and crews were continually blading and repairing the exposed dirt roads. Due to the rocky nature of the terrain, rocks and boulders were frequently exposed and had to be removed. The crews had to blast larger rocks from the roadbed, then move in with horse-drawn blades to reshape the road. This work was seemingly endless.⁴⁸

The superintendent cautioned that the condition of the park bridges was becoming critical. All were of wood construction, had been in place for a number of years, and were in "dangerous condition." Three gave way under the weight of touring cars over the last season alone. Way urged immediate replacement of all the park bridges, as an examination showed that "not one bridge within the National Park has a sufficient factor of safety for the travel carried."⁴⁹

State Highway Commissioner E. A. Sommers inspected the various roads in the park in May 1919 in the company of Superintendent Way, and expressed indignation at Larimer County for allowing the

⁴⁷ Way, Superintendent's Annual Report, 1919, 15-16.

⁴⁸ Idem, Superintendent's Monthly Report, August 1920, 6-7.

⁴⁹ Idem, Superintendent's Annual Report, 1919, 15-16.

incomplete Fall River Road and the approach roads to the park to fall into deplorable condition. He pledged that the state would spend ten to twenty thousand dollars to place the roads in "first class condition," including the placement of concrete culverts and the construction of concrete bridges.⁵⁰

Congress finally removed the \$10,000 annual budget limitation in awarding a \$60,000 appropriation for Rocky Mountain National Park for fiscal year 1920. The increased appropriation allowed for considerable improvement to the park roads. The state and county improved the short Longs Peak Road. Park crews graded and improved drainage on the Moraine Park Road, and carried out extensive work on the Glacier Basin road. According to Superintendent Way's annual report, by the end of 1920 the roads were in better condition than at any time in the last four years.⁵¹

Fall River Road Completed

In 1913, two years before the establishment of the national park, Larimer and Grand counties and the State of Colorado began construction of the transmontane road connecting Estes Park and Grand Lake. The road would enter the park from Estes Park along the Fall River, climb to Fall River Pass, cross the Continental Divide at Milner Pass, then drop to the Kawuneechee Valley of the Grand (Colorado) river for the final run south to Grand Lake. The state and the counties hoped the road would attract tourists to the mountain region by making possible a scenic circle auto tour through the Rockies from Denver, returning via Berthoud Pass. In June, the commissioners of Larimer County entered into an agreement with the Colorado state highway department to construct the Fall River Road. Grand County agreed to improve the old wagon road leading north from Grand Lake as the western segment of the new transmontane route.⁵²

Construction began in August 1913 using convicts from the Colorado State Penitentiary at Canon City. The convicts were quartered in rough log cabins in upper Horseshoe Park and began work on the eastern segment. Colorado Governor Elias M. Ammons visited the project in June 1914 and predicted that the work would be

⁵⁰ Way, Superintendent's Monthly Report, May 1919, 4.

⁵¹ Idem, Superintendent's Annual Report, 1920, 12-14; Musselman, 81-83.

⁵² Kaye, Trail Ridge, 2; T. Ferrell Atkins, Ranger/Historian, Rocky Mountain National Park, "Fall River Road, Historical Background," Fall River file, RMNPHC.

completed quickly;⁵³ this was not to be the case, however, as it would be another six years before the Fall River Road opened.

The convict work pressed ahead slowly and by the end of 1914 the road had been built only as far as Horseshoe Falls, a distance of about a mile.⁵⁴ Unspecified complaints about the convicts brought about their replacement soon afterwards by contractors employed by Larimer and Grand counties.

Soon after the establishment of Rocky Mountain National Park in 1915, acting park supervisor Trowbridge reported that the road had been completed to just above Chasm Falls, about two miles above Horseshoe Park. He stated that the road was in fair condition but too narrow, being only 8'-10' wide in places. The road climbed above Chasm Falls on a 12 percent grade, and the second switchback was so narrow that cars had to make a "seesaw" movement around the turn. Park crews were widening switchbacks and constructing retaining walls to keep cars from veering off the cliffs but the road was clearly substandard and needed major reconstruction; however, he recommended against further construction until a full survey was made of the remaining work.⁵⁵

This survey was carried out by the U.S. Geological Survey in 1916. The report indicated that 16.13 miles remained to be constructed. Supervisor Trowbridge was instructed to consider the road a state road and was prohibited from expending federal funds on the project or on maintaining the road. However, as the state was not maintaining the completed sections, he asked for authority to hire two men and a horse team to work over the summer season to keep the road in passable condition.⁵⁶

In 1918, the work on the east side was being carried out by a Japanese-American contractor, the Hokasona Construction Company. The firm made meager progress, possibly because the state and counties hoped the National Park Service would take over the project. The Park Service, however, refused to work on a road not under its jurisdiction. Hokasona was replaced in May 1918 by his

⁵³ *Estes Park [CO] Trail*, 16 August 1913; "Gov. Ammons Praises the Fall River Road," *Estes Park [CO] Alikasai*, 25 July 1914, 1.

⁵⁴ *Estes Park [CO] Trail*, 4 July 1914; Holland, 52.

⁵⁵ Trowbridge, *Supervisor's Annual Report*, 1915, 6; *Supervisor's Monthly Report*, September 1916, 1.

⁵⁶ *Idem*, *Supervisor's Annual Report*, 1916, 3-4.

foreman, N. I. Jacobson. Grand County's work on the west side was performed by contractor Richard W. McQueary.⁵⁷

Both Jacobson and McQueary complained of shortages of labor, and the project dragged on. About 110 men were working on the road, but the difficult terrain and severe weather conditions at the higher altitudes hampered operations and discouraged many potential workers. The difficult labor was carried out with hand tools, horse teams, and some explosives. Due to the heavy snowpack, work could be done only in summer and early fall.⁵⁸

The road was still incomplete at the end of the 1919 season, but the contractors reported they thought they could complete the road the following summer. In September 1920, however, state highway engineer James Maloney informed state highway commission chairman Elmer E. Sommers that the project might not be finished before the onset of winter. Outraged at the prospect of further delays, Sommers dispatched additional crews and the road was completed at the end of the month.⁵⁹

On 14 September, Superintendent Way and contractor McQueary piloted their vehicles over the entire length of the road. A week and half later, the road was formally opened to the public. The Park Service held a dedication ceremony to the chagrin of the state and the counties, who had constructed the road, and especially to contractor McQueary, who claimed credit for initially proposing the road's construction.⁶⁰

The road entered the park from the east at the new Fall River Entrance Station, built in 1920 on land at the park boundary donated by Dr. and Mrs. H. E. James. Another benefactor, Frank Woodward, provided the funds for its construction. The entrance

⁵⁷ Marie Mayer, *Forest Canyon Pass, Rocky Mountain National Park, Larimer County, Colorado: A High Altitude Survey* (Denver: Denver Chapter, Colorado Archeology Society, 30 June 1989), 199; Way, Superintendent's Monthly Report, May 1918, 4; Superintendent's Monthly Report, July 1918, 3; "Park Officials Hope to Extend Tourist Season," *The Denver [CO] Times*, 26 June 1918, 12.

⁵⁸ "State to Push Work on Fall River Highway," *The Denver [CO] Post*, 10 June 1919, Way, Superintendent's Monthly Report, June 1919, 3.

⁵⁹ "Sommers Pushes Efforts to Finish Fall River Road," *The Denver [CO] Post*, 4 September 1920.

⁶⁰ Way, Superintendent's Annual Report, 1920, 12-14; Mayer, 199.

station, designed by Park Ranger Babcock, was a rustic structure consisting of two ranger cabins joined by a stickwork gateway portal over the road.⁶¹

From the entrance, the road proceeded west across Horseshoe Park to Endovalley, climbing a steep series of switchbacks to Fall River Pass at 11,797' elevation. The road then crossed the head of Forest Canyon and dropped to cross the Continental Divide at Milner Pass (10,758'). It then descended a second series of switchbacks below Farview Curve to reach the Kawuneechee Valley. For its final stretch, the road ran south down the valley floor to Grand Lake.

Superintendent Way reported the road was generally well-constructed, though the section along the North Fork of the Grand River was in "deplorable" condition on account of numerous mud holes. However, plans had already been made to relocate this troublesome section. He noted that the new road greatly simplified park administration, as it was now possible to drive between the east and west sides without leaving the park.⁶² The distance between Estes Park and Grand Lake was reduced from 105 miles (around the south end of the park over a rough track over Rollins Pass) to 50 miles.

Transportation Controversy

On 13 May 1919, the National Park Service awarded an exclusive contract to the Rocky Mountain Parks Transportation Company to convey visitors to the park from railway terminals and through the park for hire. Park Service administrators wanted to ensure that reliable transportation would be available at reasonable rates, and decided a monopoly concession would be the best way to guarantee regular service. In addition to the transportation from the outlying cities, the concession offered sight-seeing trips through the park at the following rates:

Fall River Drive (incomplete) approx. 20 miles	\$3.00
Fall River Drive and High Drive	3.50
Longs Peak Inn or High Drive	2.00
Fall River Drive, High Drive, and Longs Peak Inn	5.00 ⁶³

⁶¹ Atkins, "Fall River Entrance," Fall River file, RMNPHC.

⁶² Ibid.

⁶³ Way, Superintendent's Annual Report, 1919, 21-22; National Park Service, "General Information..." (1917), 15.

The Park Service was criticized by other area operators because it did not advertise the concession or arrange for competitive bids. A number of independent car-for-hire firms already catering to park visitors were put out of business by the new monopoly. Some of the Estes Park hoteliers and Enos Mills, now an innkeeper himself, immediately attacked this arrangement. Mills and other hoteliers kept cars for hire to carry tourists on scenic drives through the park as a supplement to their businesses.⁶⁴

Mills decided to test the policy by sending a rent-car from his Longs Peak Inn into the park and notified Superintendent Way of his intentions. Way met the car personally at Chasm Falls and ordered it out. He then contacted the National Park Service for further instructions. NPS Assistant Director Arno B. Cammerer instructed Way to continue ejecting violators, but directed him to make no arrests as the Park Service did not desire taking a case to court. Mills continued sending his car into the park, and other jitney drivers followed suit. Way wired back to Cammerer that rangers were continuously ejecting the rent-cars and that the situation had become "acute."⁶⁵

Mills engaged an attorney to try to force a case, but the Park Service wanted to keep the matter out of court, as it was just beginning another legal battle to obtain jurisdiction over the park roads (see page 33). Nevertheless, he filed suit in the United States District Court, seeking to enjoin Superintendent Way from restricting use of public roads. Mills claimed that the National Park Service did not have jurisdiction over the park roads and consequently had no authority to ban any vehicles from using them. The court, however, dismissed the suit, stating that the award of a monopoly was within the rights of the Interior Department.⁶⁶

The question had not been laid to rest, however. In January 1920, commercial clubs and chambers of commerce from outlying communities passed a resolution condemning the monopoly and asking the Colorado congressional delegation to take action to have the Park Service drop the policy. Sparing no words, the Allenspark Commercial Club labeled the concession as

monopolistic, unnecessary, unjustifiable, unlawful,
unjust, unreasonable, undemocratic, un-American,
corrupt, vicious and iniquitous, as autocratic

⁶⁴ Way, Superintendent's Annual Report, 1919, 21-22.

⁶⁵ Musselman, 32-36.

⁶⁶ Ibid., 36-38.

favoritism conceived in secrecy; as the incubator of a dangerous political machine; as an invitation and license to exploitation, extortion and blackmail; as an alliance of bureaucratic politicians and profit-grabbing special interests; and as a betrayal of trust by public servants.⁶⁷

On 17 July, attorneys for one jitney operator, Charles Robbins, brought suit against Superintendent Way and against Park Ranger Dwight S. McDaniel who had ejected him from the park. Robbins claimed that he was entitled to free travel over public roads and complained that he had been insulted by the ranger during the incident. The federal courts ultimately ruled against Robbins' claim that he was being denied lawful use of the road and enjoined him from trying to bring further vehicles into the park. It did, however, convict Ranger McDaniel for excessive use of force and fined him \$50.00. While the case was in court, the situation worsened. Other rent-car drivers continued to enter the park, in some cases attempting to run down rangers who tried to prevent them. Temporary ranger Maye M. Crutcher was charged with assault for allegedly grabbing one jitney driver by the neck. The transportation dispute continued as long as the state and the Park Service remained embroiled in the question over jurisdiction over park roads. Litigation concerning the matter dragged on another six years, hampering the maintenance and extension of the park road system. The controversial transportation concession itself was not particularly successful, as only about 15 percent of park visitors made use of the Rocky Mountain Parks Transportation Company's services.⁶⁸

Increasing Demands on the System

Following the completion of the Fall River Road, park visitation increased significantly. Part of this is attributable to the widespread attention given the new and easily accessible national park, but the magnificent scenery afforded by the new road across the park drew many visitors. The National Park Service began promoting the Fall River Road as the most dramatic segment of the touted mountain loop tour out of Denver. The road was the highest in the national park system and offered motorists a rare glimpse of the alpine world. Rocky Mountain National Park remained the most popular park through this period, largely because of its convenient proximity to Denver. Total park visitation for 1920 soared to an estimated 240,966, double the number recorded in

⁶⁷ Longmont Call, 24 March 1920, quoted in Ibid., 40.

⁶⁸ Musselman, 42-46; Buchholtz, 153.

1917. More than thirty thousand vehicles traveled over the new Fall River Road in its first full season (1921).⁶⁹

Access to the park was further improved when the state completed work on the new Big Thompson Road between Loveland and Estes Park in May 1920. (An older route had followed the valley but was difficult to negotiate, and most traffic then continued up the North Fork for six miles before veering southeast to Estes Park.)⁷⁰ The new state road, constructed at great difficulty through a deep canyon of the Big Thompson River, immediately became one of the principal approach roads to the park.

Only estimates could be made of the total visitation, as the park still had no entrance gates and visitor counts continued to be made by checkers provided by the Denver Civic and Commercial Association. Rangers were assigned to the park entrances at Estes Park and Grand Lake for the first time in 1921. By October 1922, a crude checking station had been established on the Longs Peak Road. No fees were collected at this time. In 1926, entrance stations were located on the High Drive, the Bear Lake Road, and at the Fall River Entrance and Grand Lake. Rangers were only on duty in daylight hours over the three-month summer season when visitation was heaviest.⁷¹

The park carried out maintenance on the Bear Creek Road and the other spur roads under its jurisdiction. In his 1921 annual report, Superintendent Way reported that all of the dangerous narrow places on park roads had been eliminated, and that sidehill sections had been widened to a uniform 18' width. Bridges remained a problem, though, and he called for the replacement of seventeen spans over the next year. Way also wanted work to continue on improving drainage and providing rock surfacing.⁷²

This report was L. C. Way's last action in regard to the park road system. He resigned as superintendent in October 1921 and Roger W. Toll, a civil engineer formerly with the Coastal and Geodetic

⁶⁹ Roger W. Toll, Superintendent, Rocky Mountain National Park, "Rocky Mountain National Park," press release, 1922, attached to Superintendent's Annual Report, 1922; Buchholtz, 154.

⁷⁰ Way, Superintendent's Monthly Report, May 1920, 2. The Big Thompson road is now U.S. Highway 34, and the old North St. Vrain Road from Lyons is U.S. Highway 36.

⁷¹ Idem, Superintendent's Annual Report, 1920, 24; Atkins, "Entrance Stations," n.d., Fall River Entrance file, RMNPHC; Toll, Superintendent's Annual Report, 1926, 4.

⁷² Way, Superintendent's Annual Report, 1921, 5-7, 16.

Survey and the Army ordnance department, was transferred from Mount Rainier National Park to become the new superintendent at Rocky Mountain. By the end of the year, Toll had inspected the various park roads and he recommended a program of road improvements in his first annual report. Toll called for the replacement of the park's decaying timber bridges with new metal spans and the widening of the remaining park roads as a safety consideration. He also suggested construction of a new road leading from the Fall River Road at Fall River Pass over Trail Ridge, connecting with the Moraine Park Road or the High Drive.⁷³ This was the first proposal for what would become the Trail Ridge Road.

In 1923, the park made major improvements to its principal road camp, located off the Fall River Road just above Horseshoe Park. The camp road was widened and provided with better drainage structures, the grounds were cleared of underbrush and debris, and a 600-gallon gasoline tank with pump was installed. The garage and machine shop were rearranged, all buildings were painted, and water was run from a spring to the cook house. To protect road workers at the higher elevations and to offer them some degree of comfort, the park erected a stone cabin, the Timberline Road Camp, east of Fall River Pass in 1925. Another road camp was constructed the following year on the west side at Lake Irene. The existing road camp at Horseshoe Park was divided into two rooms to separate the men's sleeping and eating facilities.⁷⁴

In November 1924, the Bureau of Public Roads (BPR), an agency of the U.S. Department of Agriculture, began conducting surveys for a new road from Raymond's (now Raymond), on the old South St. Vrain Road, north through Allenspark and the Longs Peak area to Estes Park. The new line generally followed the route of the old road as far north as Lily Lake, from which point it passed the Baldpate Inn, Marys Lake, and the Estes Park Chalets to join the Moraine Park Road near Beaver Point. The BPR also surveyed an alternate line on the west side of Lily Mountain.⁷⁵ The first line was subsequently adopted; its northern section is the present Marys Lake Road and the route further south is today's Colorado Highway 7.

⁷³ Toll, Superintendent's Annual Report, 1922, 16.

⁷⁴ Idem, Superintendent's Annual Report, 1925, 13; Superintendent's Annual Report, 1926, 10-11; Superintendent's Monthly Report, May 1923, 5.

⁷⁵ Idem, Superintendent's Monthly Report, November 1924, 6.

The Rocky Mountain Parks Transportation Company announced it would begin regular service to Bear Lake in the summer of 1925; until this time, the company had only provided service to a point 3 or so miles below the lake. Park crews widened the road at Miners Hill so that cars could negotiate the switchback without having to back up and did considerable work on the road itself, including constructing a parking area at Bear Lake.⁷⁶

Through this period the National Park Service continued to promote the park roads and the scenic opportunities they afforded. A 1920s park brochure described the various roads then available to motorists. The "High Drive" was the most popular loop, rising north from Horseshoe Park to the summit of Deer Ridge at an elevation of 9,000'. The road then dropped down the northeast side of the ridge and returned via Beaver Point to Estes Park. Another popular drive left Estes Park along Black Cañon Creek and then veered northeast to drop into Devil's Gulch.⁷⁷

The 40-mile Fall River Road was the most dramatic in the park. Climbing from the sagebrush meadows of Horseshoe Park to the alpine tundra, the road crossed several ecosystems and offered breathtaking views from the top. Due to the heavy snow conditions, often 25' or more, the road was only open from mid-June until late October. The brochure claimed that first cars which passed over the road each year "enjoy[ed] the novel experience of passing between towering walls of snow while the lower slopes of the divide are bathed in the sunshine of summer."⁷⁸

While the circular acknowledged that the park roads offered motorists glimpses of many of the wonders of Rocky Mountain National Park, Superintendent Toll cautioned visitors that seeing the park merely by car was an incomplete experience:

Those who would get the greatest enjoyment from the park should leave their automobiles, after they have driven over the principal roads, and take some of the trails, on foot or on horseback, that lead to the beauty spots that are reserved for nature lovers. No one should expect to see the best of the park from an automobile, on a hurried trip.⁷⁹

⁷⁶ Idem, Superintendent's Monthly Report, May 1925, 4.

⁷⁷ "Roads and Trails of the Rocky Mountain National Park, Estes Park, Colorado" (Estes Park, CO: National Park Service, Rocky Mountain National Park, n.d.), 3.

⁷⁸ Ibid.

⁷⁹ Ibid., 1.

Problems with the Fall River Road

Although the Fall River Road had been open only two seasons, it was proving difficult to travel and maintain. The road was extremely steep, with grades up to 16 percent in places, and some vehicles could not negotiate the road due to low gear ratios or gravity-feed fuel systems. In early years, cars had to make backing "seesaw" turns around sharp switchbacks. Some of these had no guard rails or parapets, making such maneuvers even more hazardous. In fact, the road was so disturbing to some drivers that rangers were sometimes stationed at the switchbacks to help drive frightened motorists through.

The road also required extensive maintenance. Dry-laid retaining walls gave way with regularity, and the lack of sufficient culverts and drainage structures meant that the gravel surfacing was soon washed out over major stretches of the road. Bridges were substandard and culverts had been employed at points that should have been bridged; these culverts clogged with debris and the streams then washed out these sections. Maintenance of the road soon claimed a considerable part of the park budget.

The Park Service made such improvements as it could under its budget restrictions. It began by widening the troublesome switchbacks and then the rest of the road. Although the state and the counties had still not ceded jurisdiction over the road, park crews made a number of repairs and improvements. The park was reimbursed \$2,000 for work it did on the western segment in the 1921 season and promised another \$2,000. These funds were, however, considerably less than what was required to maintain the road even for one season.⁸⁰

Most of the early maintenance was done by crews employed by R. W. McQueary, the former contractor for the western segment of the road. McQueary was acting under a contract with Park Service but was administratively attached to the Colorado state highway department. McQueary's forces cleared away snow and rock slides, installed more culverts and widened more switchbacks. The park fielded its own maintenance crews, constructing a new reinforced concrete bridge over the Fall River near the Fish Hatchery. Construction camps with log or stone cook houses and quarters were constructed at Willow Park, near Poudre Lakes, and at timberline on the Fall River Road. These provided shelter for maintenance

⁸⁰ Toll, Superintendent's Monthly Report, February 1922, 5.

workers and snow removal crews who previously had to camp in tents, often on snow, in order to be near their projects.⁸¹

The most nettlesome problem associated with the Fall River Road was the annual task of removing snow from the road each spring. Heavy snowfall was always a factor at such high altitudes, but as the eastern road segment climbed up to the divide by following the Fall River valley, this section received little solar exposure, and the snow piled up to great depths. The road also crossed a number of major snow slide chutes which compounded problems. At times the snowpack covering the road would exceed 40'.

Clearing the road each year was an enormous feat. Most of the work had to be done by men working with shovels under severe conditions. The workers had to carry out operations in freezing cold and high winds, often in wet clothing, and were subjected to sunblindness and frostbite. The park experimented with other methods of snow removal, including burying dynamite in the fall where the snow would accumulate to its greatest depth, then exploding it in the spring. Melting the snow with blow torches, kerosene flares, and carbide lamps was proposed, but Superintendent Toll decided that a specially designed steam shovel was required and the park acquired one in May 1925. The machine significantly reduced but did not entirely eliminate the hand labor in snow removal operations.⁸²

The steep and narrow nature of the road, its difficult maintenance, and the extreme difficulty of clearing the road each year would soon lead the Park Service to consider constructing a new and better-located road across the park. Its construction became a possibility after 1924, when the National Park Service received a \$7.5 million appropriation to construct and improve roads throughout the system.

⁸¹ Idem, Superintendent's Annual Report, 1922, 11, 15; Superintendent Annual Report, 1925, 11-13; Superintendent's Monthly Report, May 1922, 5; Superintendent's Monthly Report, July 1922, 7; Superintendent's Monthly Report, September 1925, 6; "Attractive Road Camp Building Erected Near Fall River Pass," *Estes Park [CO] Trail*, 25 September 1925, 1.

⁸² Chauncey H. Vivian, "Fighting Snow in the Passes of the Rockies," *Estes Park [CO] Trail*, 5 December 1924, 3; "T.N.T. Ribbon Laid on Fall River Road to Blast Snow in Spring," *Estes Park [CO] Trail*, 24 October 1924, 5; Toll, Superintendent's Annual Report, 1925, 11.

"Cede Jurisdiction" Controversy

Before the park could begin planning for the new road project, the lingering question of jurisdiction over the park roads had to be resolved. Although the Park Service now owned and controlled the Bear Lake Road and several other spur roads in the park, neither the State of Colorado nor Larimer County had ceded control of their roads to the Park Service. These included the Fall River Road and the "High Drive," the two most popular routes in the park. Superintendent Way had maintained that these governments only held an easement for road-building purposes as the roads had been built prior to the creation of the park on land then in the public domain. Larimer County eventually transferred jurisdiction over its roads within the park to the federal government. Way then began efforts to have the state legislature turn over its roads to the park, and these were continued by his successor, Roger Toll.⁸³

In 1922, Superintendent Toll found himself in court over the monopoly transportation dispute. The State of Colorado, acting in behalf of citizen complainants, brought suit in federal court against Toll, challenging the federal government's right to regulate traffic over the roads in the park. Although by this point the government was willing for the case to be tried, the suit was dismissed in August and the question remained unresolved.⁸⁴

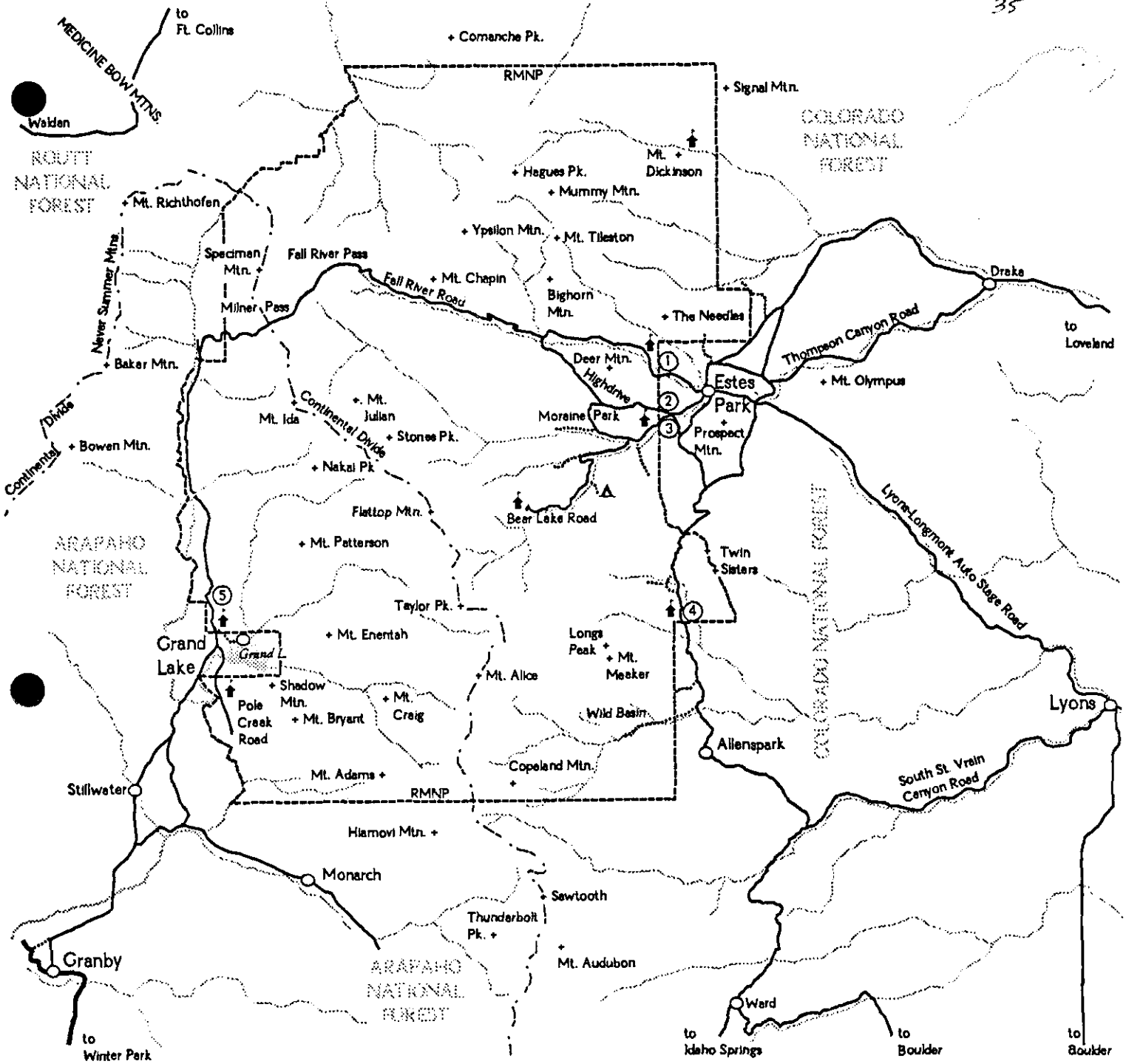
Two years later, the National Park Service, having received \$7.5 million for major road projects in the parks, made it clear that no funds would be spent on any roads at Rocky Mountain that were not under park jurisdiction. However, if the roads were ceded, several major projects, including the new transmontane highway, would be placed in the budget. The Park Service implied that nearly \$200,000 in a planned 1926 appropriation for the park might be held up if the roads were not ceded, and that \$500,000 in future road funds might instead be transferred to Yosemite National Park.⁸⁵

A coalition of mining interests, owners of inholdings within the park, and parties with water rights to park streams opposed the cession, fearing their holdings or rights would subsequently be confiscated. Others predicted that the park would institute entrance fees thereby encouraging tourists to use the toll free Berthoud Pass. However, Estes Park innkeepers and other local

⁸³ Musselman, 36-38.

⁸⁴ Ibid., 52-58.

⁸⁵ Ibid., 52-59.



**ROCKY MOUNTAIN NATIONAL PARK
 PARK ROADS AND APPROACH ROADS, 1924**

Fall Ridge Road completed.

● boundary reflects changes of 18 June 1922.

Map: Richard Quin, HAER Historian, 1993



↑ Ranger Station ▲ Campground

ENTRANCE STATIONS

1. Fall River
2. Highdrive
3. Thompson River
4. Southeast
5. Grand Lake

property owners came out in support of the cession, recognizing that major road improvements could be expected if the matter was resolved.⁸⁶

The state had still not ceded jurisdiction in 1927, and Congress held up all appropriations for further work on the Fall River Road. Dr. Hubert Work, Secretary of the Interior, threatened to close the road unless the state made the cession, and suggested that if the state did not relinquish, the park itself might be abolished. A cession bill failed to pass the state senate in April, and the proposed road appropriation for the park was subsequently withheld. This suspension of funds proved effective, and a number of the state's commercial organizations rallied in support of the cession legislation in 1928. Senator Laurence C. Phipps advised the Colorado General Assembly that \$457,000 would be earmarked for roads and maintenance in the park if jurisdiction was ceded by 3 March 1929. The National Park Service also indicated that it would construct the new scenic mountain highway to replace the Fall River Road if control over the roads was transferred. The act was then approved by the state house on 7 February, and by the senate eight days later. Governor William Adams signed it into law nine days later and a bill was subsequently introduced in Congress to accept the state's cession. This act was quickly passed and was signed by President Calvin Coolidge on 2 March 1928.⁸⁷ Resolution of the jurisdictional dispute set the grounds for a major park road construction program.

1924 Parks Road Program

National Park Service Director Stephen Tyng Mather always held that the key to attracting widespread support for the national parks was to improve access, therefore opening the parks to increased visitation. New visitors, he felt, would urge further support for the parks program. Although Mather worked closely with the railway companies which provided transportation to and concessions in the parks, he recognized that the automobile would "revolutionize the park tour, just as it changed travel conditions everywhere and turned into memories cherished methods of seeing and doing things."⁸⁸ Mather was aware of the political clout of automobile clubs and the automotive and petroleum industries,

⁸⁶ Ibid., 61-63.

⁸⁷ Ibid., 73-75.

⁸⁸ Quoted in Anne F. Hyde, "From Stagecoach to Packard Twin Six: Yosemite and the Changing Face of Tourism, 1880-1930" *California History* LXIX (Summer 1990), 163.

reasoning that improved roads and facilities catering to motorists would encourage these constituencies to support increased congressional funding for the parks. An avid car-camper, he insisted upon the development of more facilities for this new clientele. During his tenure as director (1916-1929), Mather successfully pressed Congress to allocate sufficient funds to provide the parks with improved roads. Mather supported the National Park-to-Park Highway Association in its efforts to establish a 6,000-mile loop system beginning at Denver and Rocky Mountain National Park and proceeding to Yellowstone, Glacier, Mount Rainier, Crater Lake, Yosemite and Sequoia before returning to Denver via Salt Lake City. He also endorsed the efforts of the National Parks Touring Association which worked with state and federal authorities to improve connecting highways. Mather's automobile-oriented policies would have long-reaching effects on the national parks. Parks began to concentrate more on improving access and facilities than on conservation. The increased numbers of tourists the new roads were drawing would ultimately result in congested conditions and create demands for further improvements.⁸⁹

By the early 1920s, only three parks--Yellowstone, Crater Lake, and Yosemite had substantially complete road systems, and these were inadequate for traffic demands. New cross-park roads were being planned for Zion, Glacier and Mount Rainier, but the pace of construction was slow, and these parks remained accessible only by dead-end spurs, the same situation as Rocky Mountain. Mather felt that each park should be provided with at least one good road; however, he did not want the parks to be "gridironed with roads" and believed construction should be limited, leaving most of the wilderness accessible only by trail. Mather wanted to bring existing roads up to standards first; new construction would be deferred until existing roads were improved and ongoing projects were completed.

In April 1924, Congress allocated \$7.5 million for a three-year program for park road-building projects. This was more than double the funds spent on roads in the parks since the creation of Yellowstone in 1872. Under the program, Rocky Mountain National

⁸⁹ Ibid.; Michael P. Cohen, *The History of the Sierra Club, 1892-1970* (San Francisco, CA: Sierra Club Books, 1988), 41; Mather, "Report of the Director of the National Park Service," 1918, 2 vols. (Washington, D.C.: Government Printing Office, 1919), I:852; "Report of the Director of the National Park Service" in *Reports of the Department of the Interior, 1920*, 2 vols. (Washington, D.C.: Government Printing Office, 1920), II:40; Horace M. Albright with Robert Cahn, *The Birth of the National Park Service: The Founding Years, 1913-33* (Salt Lake City, UT: Howe Brothers, 1985), 27-28, 104-05.

Park was allocated \$445,000, two-thirds of which was to go toward improving existing park roads.⁹⁰ However, the question still loomed as to whether federal funds could be expended on roads which had not been ceded to the park.

In conjunction with the new park road budget, National Park Service Assistant Engineer George A. Gregory was assigned to the park as resident engineer. Gregory also shared duties with Mesa Verde National Park, dividing his time between the two parks and the Park Service Engineering Division in Portland, Oregon. In June 1925, a crew under Gregory's supervision began investigations for improvements to the Bear Lake Road. Preliminary surveys were made in July for reconstruction of the High Drive from Deer Ridge across Beaver Meadows to Moraine Park, and for the western portion of the Fall River Road.⁹¹

While Gregory's surveys were underway, the National Park Service and the Bureau of Public Roads signed a memorandum of agreement under which the Bureau assumed responsibility for planning and supervision of major road projects in the National Parks. The National Park Service retained control over the projects through review by the Landscape Engineering Division and through fiscal authority; all projects were to be awarded by the Interior Department on recommendation of the Bureau of Public Roads. The Park Service retained responsibility for minor road projects and routine maintenance. Director Mather concluded the agreement after the Bureau constructed the Going-to-the-Sun Road [HAER No. MT-67] in Glacier National Park, a scenic mountain road that pleased Mather tremendously.

The first work under the major road program was carried out in fiscal year 1926. Of the \$140,500 available awarded for that year in 1924, \$40,000 was allotted for widening the Fall River Road west of Milner Pass. Another \$20,000 was allocated for the reconstruction of the northern segment of the High Drive and construction of two new miles between Deer Ridge and Horseshoe Park. (The latter project would become Project 1-A of the new "Fall River Pass Highway," or Trail Ridge Road, though plans had not yet been finalized for the new highway.) Reflecting Mather's insistence that existing roads would be upgraded first, the major portion of the first-year funds, \$125,000, was earmarked for

⁹⁰ Musselman, 85.

⁹¹ Toll, Superintendent's Monthly Report, May 1925, 7; Superintendent's Monthly Report, June 1925, 7; Superintendent's Monthly Report, July 1925, 8.

reconstruction of the western segment of the Bear Lake Road. The BPR was assigned construction administration over these projects.⁹²

Additional work was done under the regular park appropriation. This included the gravel surfacing of the eastern segment of the Fall River Road, widening and grade rectification on the road at Moraine Park Hill, parking area improvements at Chasm Falls and Bear Lake, and a spur from the Fall River Road to Aspenglen Campground.⁹³

In March 1926, the Park Service and BPR District Engineer Junius W. Johnson worked out a timetable for the coming season's road work. The north side of the High Drive and the lower portion of the Bear Lake Road were to be reconstructed first, and \$15,000 was authorized for new surveys for the work. Once the surveys were complete, the Bureau prepared the plans and specifications. Bert H. Burrell, NPS Acting Chief Civil Engineer, arrived in the park in April to review the proposed projects with Superintendent Toll. Park Service Associate Landscape Engineer Thomas C. Vint inspected the proposed road construction work two months later. Vint wanted assurances of close coordination in the work between the BPR and his Landscape Engineering Division.⁹⁴

On 20 May, the Bureau of Public Roads advertised bids for Project No. 2, the two-mile connector between Deer Ridge and Horseshoe Park. This project included construction of a stone-faced reinforced concrete bridge over Fall River. BPR engineer W. L. Lafferty spent several days in the park inspecting the proposed line and going over the project with prospective bidders. Contractor Luke E. Smith was awarded the \$44,000 project on 10 June and began work seventeen days later; Lafferty remained in the park to serve as resident engineer for the project. Completed in October, the connector was inspected by Superintendent Toll and BPR Engineer Johnson. A month later, NPS Associate Landscape Engineer Vint reviewed the work and accepted it for his department. Work on reconstruction of the south Deer Ridge section of the High Drive was in progress in spring 1927.⁹⁵

⁹² Musselman, 88.

⁹³ Ibid., 86-87.

⁹⁴ Toll, Superintendent's Monthly Report, March 1926, 2; Superintendent's Monthly Report, April 1926, 2; Superintendent's Monthly Report, July 1926, 1-2.

⁹⁵ Idem, Superintendent's Annual Report, 1926, 8, 15; Superintendent's Annual Report, 1927, 6; Superintendent's Monthly Report, May 1926, 4; Superintendent's Monthly Report, June 1926, 3; Superintendent's Monthly Report, October 1926, 3;

In September, the Bureau of Public Roads advertised the contract for reconstructing the Bear Lake Road. The project had been surveyed by NPS Engineer Gregory in 1925 and then turned over to the BPR for supervision. The contract was awarded in October to Shields & Flatt of Antonito, Colorado, on the basis of a low bid of \$122,051. Work began in November and good weather conditions allowed operations to be carried out through the winter. As most of the road was on a new alignment, several miles of roadway had to be cleared and excavated. The lower two miles between Tuxedo Park and the lower bridge over Glacier Creek opened in June 1927, and the remaining five miles was complete by the end of the 1928 season. The road was subsequently surfaced with crushed gravel under a separate \$42,000 contract awarded to W. A. Colt & Son of Los Animas, Colorado. Park crews constructed a 100-car parking area at the Lochvale trailhead in June 1929. A month later, the New Mexico Construction Company dustproofed the road with palliative oil. The reconstruction projects resulted in a 16' shoulder-to-shoulder crushed gravel surface road, a great improvement over the previous narrow winding dirt track. When the work was completed in September, Superintendent Edmund Rogers called the reconstructed Bear Lake Road "decidedly the best [highway] in the park, or in the region."⁹⁶

A BPR survey crew under the direction of Steven A. Wallace conducted investigations for five major park road projects in 1926 and 1927. The most important of these scheduled to be carried out under the three-year program was the new transmontane highway to replace the troublesome Fall River Road. The location survey for the first segment recommended a route from Deer Ridge (at the end

Superintendent's Monthly Report, May 1927, 2; Thomas J. Allen, Jr., Acting Superintendent, Rocky Mountain National Park, Superintendent's Monthly Report, November 1926, 1.

⁹⁶ Toll, Superintendent's Annual Report, 1927, 6; Allen Superintendent's Annual Report, 1928, 6a; Edmund Rogers, Superintendent, Rocky Mountain National Park, Superintendent's Monthly Report, June 1929, 3; Superintendent's Monthly Report, July 1929, 4; Superintendent's Monthly Report, August 1929, 2; Superintendent's Monthly Report, September 1929, 3; Albert H. Patterson, Project Engineer/Highway Engineer, U.S. Department of Commerce, Bureau of Public Roads, "Final Construction Report (1953-54) on Bear Lake 3-B Parking Area and Interim Improvements, Rocky Mountain National Park, State of Colorado" (Denver, CO: Bureau of Public Roads, Division 9, 12 March 1956), 1; W. L. Lafferty, Chief of Party, U.S. Department of Agriculture, Bureau of Public Roads, "Final Construction Report (1927-28) on Bear Lake National Park Project 2-B, Rocky Mountain National Park, Colorado" (Denver, CO: Bureau of Public Roads, 11 March 1929), 2-4.

of the new connector road from Horseshoe Park) northwest up Hidden Valley, then switching back to climb Trail Ridge. The road would follow the main crest of Trail Ridge on a generally west and northwest course to a high point of 12,183', then drop to Fall River Pass. Twelve miles would be located over 11,000 feet, well above timberline. West of Fall River Pass, the road would follow a new line as far as Milner Pass, then join the old alignment for two miles to Farview Curve. A steep series of switchbacks there would be abandoned for a longer series of sweeping curves as far as the Colorado River [name changed from Grand River in 1923]. The river valley segment would require only minor changes to alignment south to the park boundary at Grand Lake.⁹⁷ The new road would have much gentler grades and would be easier to keep clear from snow than the Fall River Road; it would also offer even more stunning scenery for park visitors.

Wallace's party also surveyed a new connection to the Bear Lake Road, leading west a mile from the Moraine Park area near Tuxedo Junction. Another new connector, running 8.2 miles between Deer Ridge and the Bear Lake road at Mill Creek, was recommended in order to provide north-south access between the main east side roads within the park. At the time, these roads were accessible only from outside the eastern boundary. Another recommendation was to improve the Moraine Park Road along the north side of the Big Thompson River west to The Pool. The reports also suggested reconstruction of the Wild Basin Road in the southeast corner of the park in order to open up new areas for camping, trail access and hotel sites, and to improve park administration. Wallace located a line for a new three-mile road into Wild Basin in 1928.⁹⁸

In 1929, Roger W. Toll was transferred to Yellowstone and was succeeded as superintendent by Edmund Rogers, formerly with the U.S. Geological Survey and then an officer at the Colorado National Bank. He was the brother of James Grafton Rogers, first president of the Colorado Mountain Club and the attorney who drafted the bill creating the park.⁹⁹ Rogers' term would be distinguished by the construction of the Trail Ridge Road, the pride of the park road system.

⁹⁷ S. A. Wallace, Chief of Party, Report of Surveys, Rocky Mountain National Park, Colorado (ND: United States Department of Agriculture, Bureau of Public Roads, District No. 3, 1927), 1-6.

⁹⁸ Ibid., 7-11; Allen, Superintendent's Annual Report, 1928, 8a; Toll, Superintendent's Monthly Report, October 1927, 2.

⁹⁹ Musselman, 89.

Construction of the Trail Ridge Road

The focus of the park road program was now the \$650,000 "wonder road" across Trail Ridge. A March 1929 press release issued estimated the new "Deer Ridge Highway over Fall River Pass" would cost at least \$1 million, 35 percent more than Horace M. Albright, the new Park Service director, had announced.¹⁰⁰

The Trail Ridge Road would be the major project in Rocky Mountain National Park carried out under the ten-year parks road program. At the same time, major construction projects were being carried out in other national parks. In Yosemite, Big Oak Flat road and parts of the Tioga Road were relocated and the Wawona Road was reconstructed. At Mount Rainier, the Mather Memorial Parkway, the Yakima Park and East Side highways were completed and work pressed ahead on the West Side Road and the Stevens Canyon Highway. The Zion-Mount Carmel Highway was constructed across Zion National Park, and other projects were begun or completed in other western parks. In the east, new motor roads were built in Acadia, Shenandoah and the Great Smoky Mountains national parks, and the first miles of a system of national parkways (Blue Ridge, Natchez Trace, and a series in the Washington area) opened to travel.

Construction began that autumn. The April 1929 appropriation allocated \$450,000 for construction of the 17.2-mile east side segment between Deer Ridge and Fall River Pass. The project was advertised in August and awarded in September to W. A. Colt and Son of Los Animas, Colorado, on the basis of the low bid of \$393,674.80. The 73 year old Colt had worked on the Erie Canal before building several branch railway lines for mogul Jay Gould. His work on the Gould-controlled Missouri Pacific brought him to Colorado, where he turned to roadbuilding. Colt constructed the road over 10,850' Wolf Creek Pass in the San Juan Mountains in the southwest corner of the state and was completing a surfacing project on the Bear Lake Road when he was awarded the Trail Ridge contract. Clearing operations were largely complete and excavation had begun before adverse weather shut down the project the following spring. The 1931 construction season was delayed by lingering winter weather. Workers concentrated on the remaining heavy excavation, but winter's return in October forced another suspension with the project 94 percent complete. Colt resumed the work in May 1932, and the project was ready for inspection in August.¹⁰¹

¹⁰⁰ Ibid., 77; "Government Will Abandon Fall River Road for Trail Ridge Highway," *Estes Park [CO] Trail*, 29 March 1929.

¹⁰¹ "Builder of Trail Ridge Road Honored," *Longmont [CO] Times*, 16 February 1955; Lafferty, "Final Construction Report (1929-30-31-32) on Fall River Pass National Park Highway, Trail

Soon after Colt began work on the eastern section of the road, staff from the BPR and the NPS Landscape Architecture Division inspected the west side segment between Fall River Pass and Kawuneechee Valley and recommended a change of alignment in the Poudre Lakes area. The Interior Department allotted \$455,000 of the park's \$500,000 1930 road budget for construction of this 10.2-mile section. Bids for the project were opened in September and the project was awarded to the L. T. Lawler Construction Company of Butte, Montana. Lawler's forces began clearing the right-of-way in October. In the following, 1931, season, most of the grading was completed and a subcontractor built two box culverts and a masonry retaining wall at Farview Curve. The final work began in June 1932 and was completed in August.¹⁰²

While heavy construction equipment was extensively utilized by both contractors, workers had to cope with thin air, severe weather and electrical storms. As noted, the weather conditions only allowed work to be carried out from mid-summer through the fall. Daniel Harrington, BPR inspector for the work, praised the men for their excellent work and noted that there was not a single hard hat on the operation.¹⁰³

Landscape protection measures accounted for 15 percent of the project costs. As was typical of national park road projects of the time, the contractors had to observe special regulations specified by the NPS Landscape Engineering Division to protect the park landscape. In clearing operations, salvageable timber was milled into lumber and used in the construction of park

Ridge Section 1-B, Rocky Mountain National Park, Larimer County, State of Colorado" (Denver, CO: Bureau of Public Roads, 12 June 1933), 8-18; Rogers, Superintendent's Monthly Report, January 1930, 2; Superintendent's Monthly Report, August 1932, 2-3.

¹⁰² Robert Coffey, Chief Engineering Inspector-Superintendent, U.S. Department of Agriculture, Bureau of Public Roads, "Final Construction Report (1930-31-32) on Fall River Pass National Park Highway, Project 1-C, Larimer and Grand Counties, State of Colorado" (Denver, CO: Bureau of Public Roads, District No. 3, 20 May 1933), 5-6, 8-9, 13-17, 20; Rogers, Superintendent's Monthly Report, November 1930, 3; Superintendent's Monthly Report, September 1931, 8-9; Clyde E. Learned, Senior Highway Engineer, Bureau of Public Roads, "Report on Fall River, West Side Section C (Final Construction)," 27 September 1932, attached to Coffey report.

¹⁰³ Daniel C. Harrington, "The Trail Ridge Saga," typed transcript of an address delivered at Rocky Mountain National Park, 17 July 1982, 6.

structures, smaller wood was sold to the park concessionaire for firewood, and the slash was burned in the right-of-way under strict fire protection guidelines. Some logs were used as cribbing to protect rock cliffs during blasting operations. Only native stone was used in the construction of retaining walls, stone embankments, and culvert headwalls. Surplus stone from the clearing operations was placed on the surrounding ground with the lichen side up. Special care was taken in the fragile alpine terrain. The tundra was stripped off in layers, and construction equipment was confined to the right-of-way. Alpine sod was salvaged and used to cover embankments. All work was carried out under the supervision of BPR resident engineer W. L. Lafferty and was periodically inspected by the park superintendent and representatives of the Landscape Engineering Division (and its successor, the Division of Landscape Architecture).¹⁰⁴

As Colt's eastern section neared completion, the National Park Service opened it to travel on 16 July 1932. Despite a report in the *Estes Park Trail* that President Herbert Hoover might come to the park to dedicate this "eighth wonder of the modern world," no dedication ceremony was held. The old Fall River Road remained open, allowing visitors to make a round-trip loop. The west segment between Fall River Pass and Poudre Lakes opened on 23 August. Traffic continued to use a section of the old road for the remaining distance south to Grand Lake.¹⁰⁵

The Bureau of Public Roads took over the two completed sections for post-construction administration. The National Park Service provided tools and equipment while the BPR secured the labor and managed the project. The work involved slide removal, redressing of surfaces, blading and dragging the new roadway surfaces, and slope stabilization. Under the contract, the BPR was also responsible for snow removal during this period. The snow was removed with a Snogo rotary plow after being loosened by a truck-mounted Baker plow or with explosives.¹⁰⁶

¹⁰⁴ Atkins, "Colorado's Spectacular Trail Ridge Road," *Colorado Heritage News*, February 1985, 5-6; Musselman, 92-93; Kaye, *Trail Ridge*, 7; Lafferty, "Final Construction Report, Trail Ridge Section 1-B, 19; Harrington, 6-7.

¹⁰⁵ "New Ridge Road Eighth Wonder of Modern World," *Estes Park [CO] Trail*, 18 September 1931, 1; "Trail Ridge Road Officially Opened to Car Travel Tomorrow," *Estes Park Trail*, 15 July 1932, 1; Rogers, Superintendent's Annual Report, 1932, 7; Musselman, 92.

¹⁰⁶ Lafferty, "Final Betterments and Maintenance Report (1932-1933) and Spring Snow Removal for 1933 on Fall River Pass National Park Highway, Projects 1-A, B & C, Rocky Mountain National Park,

In summer 1932, the NPS awarded a \$27,376 contract for the construction of 1,400' of masonry guard rail on the east side of the road to Collier & Latimer, Inc. of Denver. The firm failed to keep to the project schedule and withdrew in July 1933; the work was completed in September by a new contractor engaged by the bonding company. A \$50,852.50 contract for the construction of guardrails at various locations on the western segment was awarded in January 1934 to Edward Selander of Greeley, Colorado, who subsequently subcontracted out the work. This project was finished in October. A third contract for more guard rails and landscaping over the entire road was assigned in August 1936 to Selander; the \$90,735.25 contract included construction of a parapet wall at Rainbow Curve, enlargement of the Fall River Pass parking area, and retaining walls in several other locations. In 1933 and 1934, the Albuquerque, New Mexico firm of Everly & Allison began applied a palliative oil treatment (for dust control and surface stabilization) to the three completed sections under a \$110,588 contract. The masonry retaining wall at Many Parks Curve was built by a subcontractor.¹⁰⁷

Clearing and grading the next eight-mile section, extending south down the Kawuneechee Valley from Phantom Valley to a point just

Larimer and Grand Counties, State of Colorado" (Denver, CO: Bureau of Public Roads, 12 April 1934), 1-3; "Final Post Construction and Maintenance Report (1934-35-36) on Fall River Pass National Park Highway, Project 1-A, B, C, Rocky Mountain National Park, Larimer and Grand Counties, State of Colorado" (Denver, CO: Bureau of Public Roads, District No. 3, 9 March 1937), 3-4, 6-9.

¹⁰⁷ "Work Starts on Guard Rail Job," *Estes Park [CO] Trail*, 26 August 1932, 1; Rogers, Superintendent's Annual Report, 1932, 8; Superintendent's Annual Report, 1934, 17; Superintendent's Monthly Report, August 1932, 5; Superintendent's Monthly Report, September 1932, 7; Superintendent's Monthly Report, October 1932, 4-5; Superintendent's Monthly Report, June 1933, 7-9; Superintendent's Monthly Report, July 1933, 5; Superintendent's Monthly Report, September 1933, 2, 6; Superintendent's Monthly Report, January 1934, 5; Superintendent's Monthly Report, June 1934, 6; Superintendent's Monthly Report, August 1934, 6; Superintendent's Monthly Report, October 1934, 5; "Ed. Selander Awarded Stone Work Contract," *Estes Park [CO] Trail*, 2; Allen, Superintendent's Monthly Report, August 1936, 5; John C. Preston, Superintendent, Rocky Mountain National Park, Superintendent's Monthly Report, July 1937, 5; Lafferty, "Final Construction Report (1933-34) on Fall River Pass National Park Highway, Project 1-A, B, & C Surfacing, Rocky Mountain National Park, Larimer and Grand Counties, State of Colorado" (Denver, CO: Bureau of Public Roads, District No. 3, 23 April 1935), 5-6; Mayer, 137-39, 165.

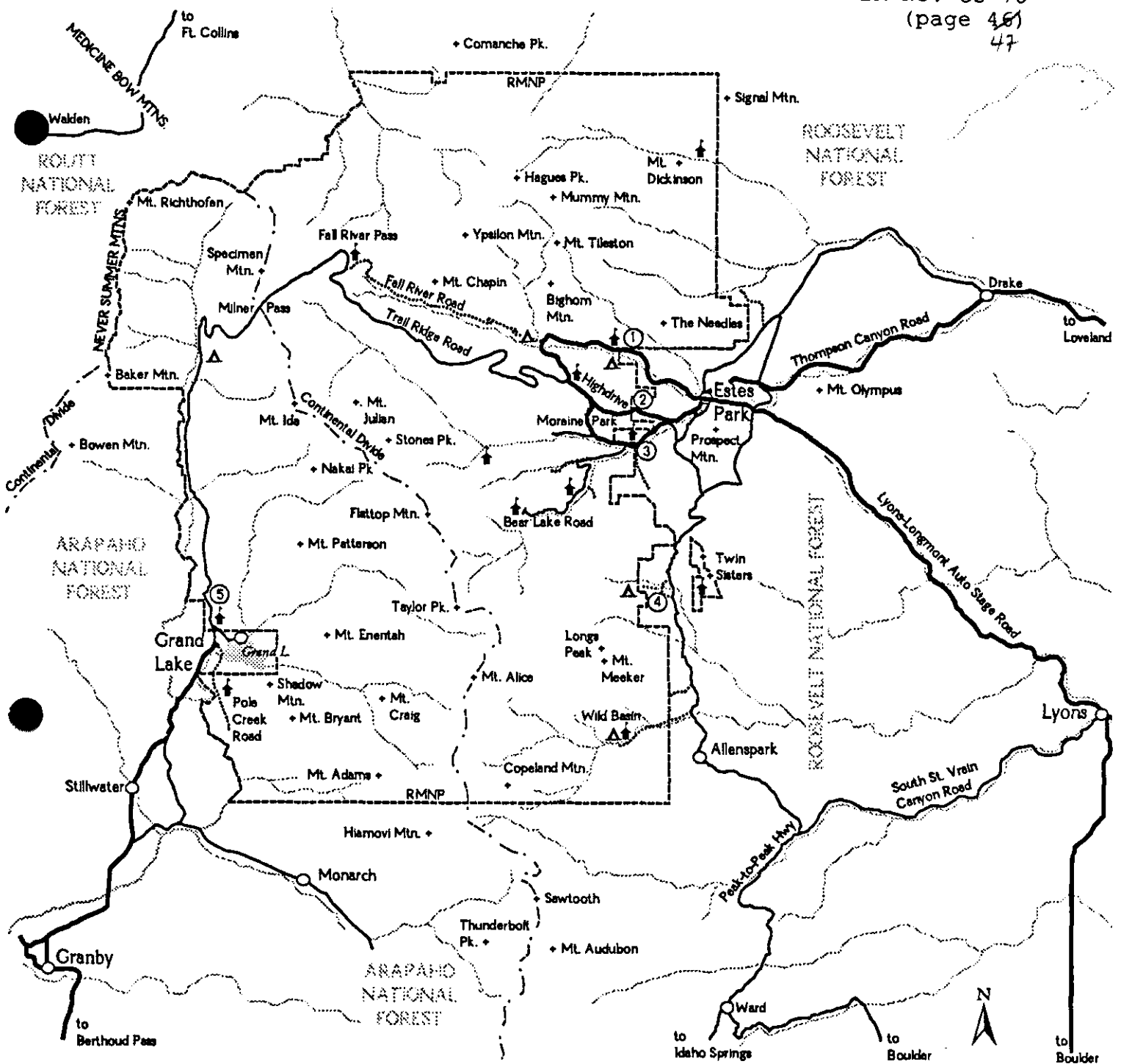
north of Grand Lake, was done by C. V. Hallenbeck of Denver under a \$103,494 contract awarded in November 1934. Hallenbeck began clearing a week after receiving the award and completed it by Christmas. Excavation and grading began in late November, and continued until July 1936 when the roadbed was completed. A gravel surface and preliminary oil coat were applied in 1937. Hallenbeck also received a \$125,000 contract to lay a 3" bituminous oil mat over the 32 miles of completed road; this work was completed in June 1935. That fall, he was awarded a third, \$78,800 contract for slope stabilization over the entire section, including flattening of cut slopes, installation of metal cribbing, and construction of more retaining walls. Hallenbeck completed the project in summer 1936.¹⁰⁸

Construction of the remaining 2.8-mile section did not begin until 1940. The Park Service had allotted the funds for the work were allotted as early as 1935, but all the required right-of-way were not obtained. Citizens of Grand Lake tried to have the road routed through their village, but Park Service officials decided to bypass the town and terminate the road a mile to the west. The \$67,687 grading contract was completed by Gerard Knutson of Kansas City, Missouri. All work was completed in September 1941 and the project was accepted by the Park Service. Due to wartime conditions and postwar budget restrictions, a bituminous surface was not applied until 1949.¹⁰⁹

With the completion of the latter project, BPR engineer Lafferty noted that the Trail Ridge Road had been completed to the standard of a graded, drained and bituminous surfaced highway; however, the section between Fall River Pass and the Kawuneechee Valley had

¹⁰⁸ Coffey, "Final Construction Report (1934-1936), Project NR-1-D1 Grading, Fall River Highway, Rocky Mountain National Park, Colorado" (Denver, CO: Bureau of Public Roads, 7 March 1937), 2-6, 9-12; Rogers, Superintendent's Monthly Report, October 1934, 5; Superintendent's Monthly Report, October 1935, 4; Superintendent's Monthly Report, November 1935, 4; Allen, Superintendent's Annual Report, 1936, 9; Superintendent's Monthly Report, July 1936, 4.



¹⁰⁹ Rogers, Superintendent's Monthly Report, December 1934, 5; Superintendent's Monthly Report, January 1935, 5; Superintendent's Monthly Report, May 1935, 4; John E. Doerr, Jr., Acting Superintendent, Rocky Mountain National Park, Superintendent's Monthly Report, August 1940, 1; David H. Canfield, Superintendent, Rocky Mountain National Park, Superintendent's Annual Report, 1941, 13; Superintendent's Annual Report, 1942, 6; Superintendent's Monthly Report, November 1940, 3; Superintendent's Monthly Report, August 1941, 3.



**ROCKY MOUNTAIN NATIONAL PARK
PARK ROADS AND APPROACH ROADS, 1933**

The Trail Ridge Road has been completed as far west as Phantom Valley; western segments of the Fall River Road have been abandoned or incorporated into the new highway. The Bear Lake Road is being reconstructed. Boundary reflects changes of 11 January 1932.

Map: Richard Quin, HAER Historian, 1993

 Ranger Station  Campground

ENTRANCE STATIONS

1. Fall River
2. Highdrive
3. Thompson River
4. Longs Peak
5. Grand Lake

deteriorated due to subgrade failure and would have to be reconstructed.¹¹⁰

Managing the System

At last, Rocky Mountain National Park had its own road system. In addition to the new scenic highway across Trail Ridge, Moraine Park and Glacier Park were served by the Bear Lake Road. The eastern section of the old Fall River Road remained in use, providing access to Horsehoe Park, Chasm Falls, and the striking upper Fall River Valley. However, the Park Service was considering closing this section, as the old road was difficult to maintain and traffic could now use the "high-gear" Trail Ridge Road.

Landscape architect Charles W. Eliot II issued a report on "landscape problems" in Rocky Mountain National Park in 1930. While he supported the construction and choice of location for the new Trail Ridge Road, still in progress, he pointed out that Rocky Mountain National Park had no general plan concerning park developments, and warned against further road construction without careful study.

Construction of roads without a definite general plan and without knowing how different areas in the park are probably going to be used is a precarious business. It is much better to build no roads than to run the risk of destroying wilderness areas. Roads can always be built later, if and when needed. Further improvement of the park in this manner can well wait upon the preparation of a general plan and the acquisition and control of all privately owned areas within the park boundaries.¹¹¹

Eliot also criticized plans to close the old Fall River Road following completion of the Trail Ridge Road, believing the road should be converted to a one-way scenic drive. He also called for the acquisition of the whole of Grand Lake, which he termed one of the major scenic attractions of Colorado, and construction of a road to provide views of the state's largest natural lake.¹¹²

¹¹⁰ Lafferty, "Final Construction Report (1949) on Fall River National Park Highway Project 1-D-2 Bituminous Surfacing, Rocky Mountain National Park, State of Colorado" (Denver, CO: Bureau of Public Roads, Division 9, 17 May 1950), 2-3.

¹¹¹ Charles W. Eliot, II, "Landscape Problems in and about the Rocky Mountain National Park," 3 July 1930, 16. RMNPHC.

¹¹² Ibid., 13-15.

There is no indication that Eliot's report was ever given any consideration by park officials. The Park Service did retain the east segment of the Fall River Road between Endovalley and Fall River Pass as a one-way scenic drive. Grand Lake, however, was not added to the park.¹¹³

While most attention was being devoted to the construction of the Trail Ridge Road, a number of minor road projects were completed. In 1931, a new loop road was constructed in the Glacier Basin Campground, the Longs Peak Road was reconstructed, access roads to the Grand Lake Lodge and Aspenglen Campground were improved, and the Bear Lake Road was oiled. These projects were carried out by park crews under force account, rather than under the supervision of the Bureau of Public Roads. (Under terms of the 1925 agreement, the BPR was responsible only for "major" road projects, those costing \$5,000 or more per mile). In 1932, the Roaring Fork and Chiquita Creek bridges on the Fall River Road were replaced at a combined cost of \$2,000.¹¹⁴

W. A. Colt & Son received the contract for grading the new internal park road from Deer Ridge to Moraine Park in December 1932. This work was completed by 1935, when an oiling project for the road was contracted to the Larson Construction Company. The surfacing was completed the following August and the road was placed in service.¹¹⁵ Part of the old "High Drive" was closed above Beaver Point in the fall of 1938 after this new road was put in service. The checking station at the old entrance was closed and the upper part of the road was obliterated.¹¹⁶

The glacial esker or embankment forming the dam for Copeland Lake gave way in June 1929, washing out 150' of the Wild Basin Road. A temporary bridge was constructed over the resulting gulch before the damage was repaired by the City of Longmont, which used the lake for a storage reservoir. At the time, the lake was located a half mile east of the park boundary. The Bureau of Public Roads

¹¹³ The south, east and west shores of Grand Lake were incorporated into the Shadow Mountain National Recreation Area (originally a National Park Service unit, now under U.S. Forest Service administration) in 1952.

¹¹⁴ Rogers, Superintendent's Annual Report, 1931, 9, 16; Superintendent's Annual Report, 1932, 14.

¹¹⁵ Idem, Superintendent's Annual Report, 1933, 13; Idem, Superintendent's Annual Report, 1936, 18.

¹¹⁶ Allen, Superintendent's Monthly Report, September 1936, 10.

began a new survey for improvements to the Wild Basin Road in July 1935.¹¹⁷

In 1930, a program of "roadside cleanup" was begun in the park. This involved slope stabilization and planting of native vegetation on old road scars. An old Bear Lake Road segment, recently replaced by the new alignment, was obliterated and planted with native trees and shrubs. In the fall, crews turned their attention to the "High Drive" with similar favorable results. On the Fall River Road, timber which had been cast to the side during construction more than a decade earlier was piled on the right-of-way and burned after snowfall. This program was expanded during the Depression when federal public works programs put workers to this task (see page 51).¹¹⁸

Park rangers also began stopping cars at the various park entrances in order to provide park information and regulations. Superintendent Rogers reported that the public took this change of procedure very well. Fee collections had not yet begun. Rangers had been assigned to the park entrances since 1921 but apparently only took a count of passing vehicles.¹¹⁹

The easy access provided by the park motor roads changed the nature of park interpretation. For visitors unable or disinclined to take to the park trails, the park began conducting "auto caravans" in the summer of 1931. Moraine Park and Horseshoe Park were highlighted in these interpretive trips. However, the programs did not prove particularly popular.¹²⁰

In September 1933, park officials attended a meeting at Denver at which the "Peak to Peak Highway Association" was organized. The new organization, sponsored by civic and commercial groups from Denver, Colorado Springs, Troutdale, Evergreen and Estes Park, aimed to encourage tourist travel over the new Forest Service highway project (the northern portion of which is now Colorado 7/72) extending north from Colorado Springs (Pikes Peak) through

¹¹⁷ Rogers, Superintendent's Annual Report, 1934, 15; Superintendent's Monthly Report, June 1929, 3; Superintendent's Monthly Report, July 1935, 6.

¹¹⁸ Rogers, Superintendent's Annual Report, 1930, 11; Superintendent's Monthly Report, June 1930, 3; Superintendent's Monthly Report, August 1930, 5; Superintendent's Monthly Report, September 1930, 4.

¹¹⁹ Rogers, Superintendent's Monthly Report, June 1930, 5-6; Atkins, "Entrance Stations."

¹²⁰ Rogers, Superintendent's Monthly Report, July 1931, 7.

Allenspark to Estes Park (Longs Peak). The Bureau of Public Roads reconstructed the section between Lamb's Notch, east of Longs Peak, and Estes Park in 1933. Platt Rogers, Inc., of Pueblo, Colorado, was awarded a \$57,000 contract for the two-mile segment between Lamb's Notch and the Fish Creek valley in March 1934, and in September, a \$133,000 contract for construction of another segment between the Estes Park Chalets and the village.¹²¹ The Peak-to-Peak Highway today provides the connection between the Wild Basin and Longs Peak roads and the main park road system at Estes Park.

While many park roads had recently been constructed or rebuilt, the status of approach roads was a vexing one. The state maintained two of the approach roads, two counties maintained another, and the Bureau of Public Roads and Larimer County another. However, Superintendent Rogers noted that the combination of funds spent on all five roads was barely sufficient to maintain any one of them. Plans by the state to reconstruct the Thompson Canyon Road were abandoned in January 1934. Rogers attended a meeting in February at which representatives from the Fort Collins, Loveland, Estes Park and Greeley chambers of commerce attempted to have the state resume the project. From this meeting emerged a new booster group, the Northern Colorado Highway Association, which successfully lobbied the state to allocate the funds. In August, the state appropriated \$115,000 for the reconstruction of the road under BPR supervision. The project was completed in August 1937 and dedicated by Colorado Governor Teller Ammons in May. The old North St. Vrain road from Lyons was reconstructed by the state in 1937 and 1938.¹²²

Another Bear Lake Road oiling contract was awarded in September 1936. The \$44,893 contract for section 2-B-1 was let to the Northwestern Engineering Company of Denver. The project involved application of an armor oil coat over 7 miles of the Bear Lake Road, and 4" oil penetration surfacing on the entrance section at Tuxedo Park and at "Stead Hill" in Moraine Park. Crusher-run material for the surfacing was taken from a pit in Glacier Basin. The gravel surfacing was completed in September, and the chip sealing in October. The parking area at Glacier Gorge was

¹²¹ Idem, Superintendent's Monthly Report, September 1933, 2; Superintendent's Monthly Report, March 1934, 2; Superintendent's Monthly Report, September 1934, 2.

¹²² Idem, Superintendent's Monthly Report, January 1934, 2-3; Superintendent's Monthly Report, February 1934, 3; Superintendent's Monthly Report, August 1934, 2; Canfield, Superintendent's Monthly Report, August 1937, 4; Superintendent's Monthly Report, May 1938, 4, 9.

reconstructed by force account crews under BPR supervision in the summer of 1938.¹²³

Depression-Era Work Programs

The park road projects provided needed relief for area unemployed as the nation plunged into the Great Depression. Construction of the Trail Ridge Road, reconstruction of the Bear Lake Road, and the numerous smaller park road projects were all completed in this period and utilized workers from the surrounding towns and outlying cities. Most of these workers were not carried on the park payrolls but rather were employed by various contractors.

At the onset of the Depression, park administrators were directed to investigate and report on labor conditions in the area and to work with local welfare agencies to secure out-of-work men for all major road and construction projects. In 1933, in order to provide work for as many unemployed men as possible, the park instigated a 15-hour rule to keep at least two full shifts of men on the payrolls. As two-thirds of the men commuted from the valley towns, a distance of at least 40 miles. Many workers complained of the policy, stating that the limited hours paid too little to justify the long trip. Late in the year, the hours were increased to 24 hours per week. Superintendent Rogers noted that the new policy was well-received and complaints ceased. Wages were generally low. General laborers were paid fifty cents per hour in 1931, but their wages were reduced to forty-five cents per hour as the Depression deepened.¹²⁴

In March 1933, President Franklin Roosevelt announced the establishment of the Civilian Conservation Corps (CCC), a massive program to utilize millions of unemployed young men for public works projects. The national parks benefitted because federal programs could be enacted quickly on public lands and because the large road projects then underway in the various parks could make good use of the workers. At Rocky Mountain National Park, both the Civilian Conservation Corps and its affiliated agency, the Emergency Conservation Works (ECW) program, set up work camps and carried out various projects, some of which were related to the road program. The men were housed in camps, provided with clothing, and paid \$1 a day, of which \$25 per month was sent back

¹²³ Allen, Superintendent's Monthly Report, September 1936, 4; Superintendent's Monthly Report, June 1937, 7; Canfield, Superintendent's Monthly Report, September 1937, 3; Superintendent's Monthly Report, October 1937, 4; Superintendent's Monthly Report, July 1938, 5; Patterson, 1.

¹²⁴ Rogers, Superintendent's Monthly Report, January 1934, 1.

to the enrollee's family. Army personnel organized the units and ran the camps, while Park Service personnel dictated the projects and sometimes supervised the work.

The Emergency Conservation Works established two camps in the park in 1933. Camp NP-1-C was located at Little Horseshoe Park in May, and its crews worked on sundry projects until November when they were transferred to Boulder. Camp NP-3-C was established near Phantom Valley and its crews worked until October, when they were sent to Arizona for the winter season. The two camps were reopened the following season, and a third camp, NP-4-C, was established on Mill Creek. Although the workers concentrated on erosion and insect control and improvement of park utilities, they did some work related to the park roads, including landscaping of the Fall River Entrance, obliteration of old roads, slope betterment and maintenance of several park routes. They also carried on the program of roadside cleanup, especially in the removal of dead and down timber and undergrowth along road corridors. In 1935, ECW crews assisted park crews with road maintenance work, including grading, clearing of culverts and gutters, and roadside cleanup. Superintendent Rogers noted that the work was helpful on account of limited funds available to the park maintenance division. ECW crews constructed seven new checking stations on the park roads in 1937. They also prepared 264 new "rustic" directional signs to replace unsightly metal ones then in use. Units also assisted in snow removal and graveled the Moraine Park Museum parking area.¹²⁵

The CCC/ECW boys were called "woodpeckers" by park staff and area residents, as they were transported in red White buses from which they descended with a clatter to their work. The epithet was at first resented but soon adopted by the crews themselves. Workers were a familiar sight in the park for nearly a decade. In 1940, Civilian Conservation Corps employees stabilized 72,765 yards of slopes and cuts along the Trail Ridge Road. The program was disbanded in 1942, due to wartime conditions and the improving national economy. The last enrollees left Rocky Mountain National Park on 29 July.¹²⁶

¹²⁵ Idem, Superintendent's Annual Report, 1934, 16; Superintendent's Annual Report, 1935, 11; Superintendent's Monthly Report, June 1933, 5-6; Allen, Superintendent's Annual Report, 1937, 18-19.

¹²⁶ Rogers, Superintendent's Monthly Report, June 1933, 12; Canfield, Superintendent's Annual Report, 1941, 14; Buchholtz, 187.

The Bureau of Public Roads was reorganized during the Depression as the Public Roads Administration (PRA) and attached to the new "Federal Works Agency" in July 1939. It remained in the new agency until July 1949, when it was reconstituted as the Bureau of Public Roads and was attached to the General Services Administration. In August, it was transferred to the Department of Commerce. Today, the Bureau's functions are carried out by the Federal Highway Administration of the U.S. Department of Transportation.¹²⁷

New Demands

Superintendent Rogers was transferred to Yellowstone National Park in May 1936 to succeed former Rocky Mountain Superintendent Roger W. Toll, who had been killed in an automobile accident near Deming, New Mexico. He was replaced by Thomas J. Allen, Jr., Superintendent of Hot Springs National Park and former assistant superintendent at Rocky Mountain. Allen served only a year before he was appointed Director of the Park Service's Region Two office in Omaha, Nebraska, in July 1937. At the same time, Assistant Superintendent John Preston was appointed Superintendent of Lassen Volcanic National Park. David H. Canfield, Superintendent at Crater Lake National Park, took charge of Rocky Mountain National Park.¹²⁸ Canfield's fourteen-year term would be marked by the completion of the Trail Ridge Road and the internal road improvements which provided the park with a modern road system.

As expected, the new Trail Ridge Road proved extremely popular with park visitors, and park visitation increased significantly. Traffic on the Bear Lake Road also rose substantially. This was a common dilemma for park officials, as witnessed in other parks: as park roads were improved to meet greater traffic demands, more cars would begin using the roads, placing new demands on the system.

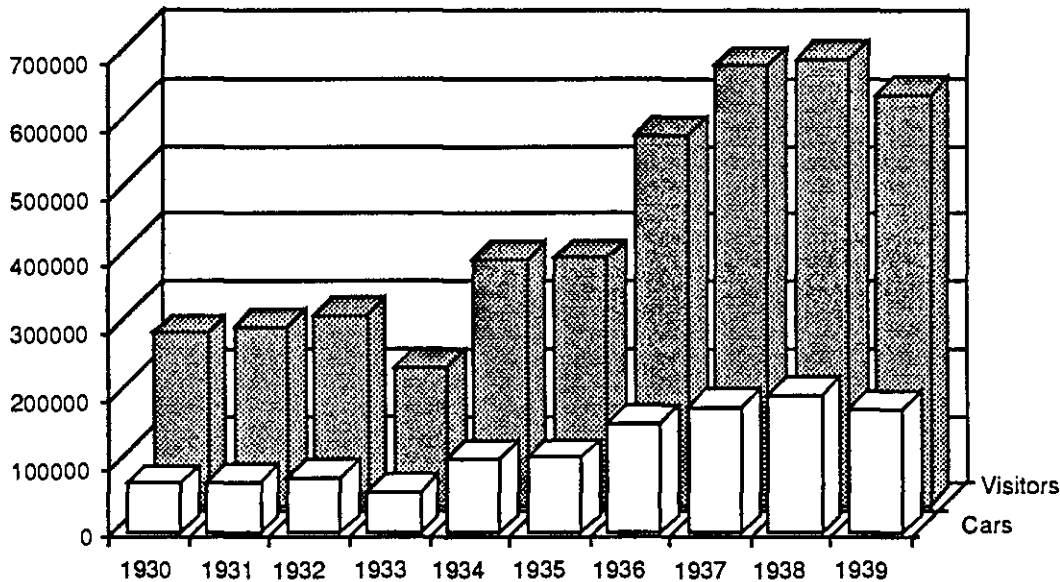
The increased traffic loads created several problems. Heavily-used roads necessitated more frequent maintenance. Improved roads also meant that cars traveled at higher speeds, leading to more serious accidents. The improved road network also affected the use of the park. In early days, visitors came to stay for weeks at a time, staying in the various lodges and using the spur roads for access to hiking and pack trails. The modern road system

¹²⁷ Truman R. Strobridge, compiler, *Preliminary Inventory of the Records of the Bureau of Public Roads* (Washington, D.C.: National Archives and Records Administration, 1962), 4-5.

¹²⁸ Allen, Superintendent's Annual Report, 1936, 2; Preston, Acting Superintendent's Monthly Report, July 1937, 1.

encouraged visitors to view the park from the comfort of their automobiles; many would never set foot on a trail. The time spent on a typical park visit dropped rapidly.

Visitation, 1930-1939



SOURCE: Rocky Mountain National Park Public Information Office.

Contributing to the rise in park visitation was increased use of the park for winter sports activities. In the winter of 1936, park crews began keeping the Trail Ridge Road open to traffic as far as Hidden Valley on account of increasing interest in winter activities. The Bear Lake Road was likewise maintained for winter travel.¹²⁹ By the late 1940s, Hidden Valley became the focus for winter sports, and a ski area flourished here until recent years.

Unlike other national parks, the Great Depression did not cause a decline in park visitation. A one-year drop was recorded in 1933, but every other year from 1930 to 1938 showed a steady increase. Visitation did drop significantly during World War II, plummeting from 685,393 in 1942 to 392,565 in 1942 and only 130,188 in 1943.¹³⁰

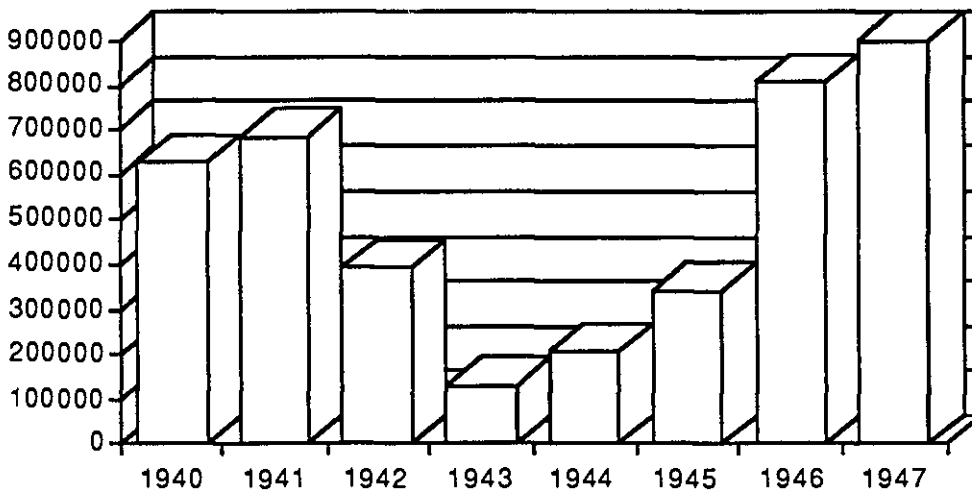
For the first time in the history of the park, an automobile entrance fee was instituted on 1 June 1939, and the park began manning entrance stations 24 hours a day. Approximately \$11,000

¹²⁹ Allen, Superintendent's Monthly Report, December 1936, 3.

¹³⁰ National Park Service, Rocky Mountain National Park, "1947 Annual Travel Report," RMNPHC.

was collected in the first month. The fees did not go to the park, but rather to the U.S. Treasury.¹³¹

Visitation, 1940-1947



SOURCE: Rocky Mountain National Park Public Information Office

During World War II, the park could do little to deal with the new demands. A number of park personnel enlisted in the military, much of the park equipment was transferred for military use, and the park budget was severely curtailed. In the winter of 1941-42, the Public Roads Administration made field investigations for a new entrance road leading from Beaver Point west of Estes Park into Rocky Mountain National Park at Beaver Meadows. However, the wartime curtailment of funds forced this project to lie dormant until 1950.¹³² Bituminous surfacing of the westernmost segment of the Trail Ridge Road was also deferred until after the war.

Following the cessation of hostilities and the subsequent lifting of gasoline and tire rationing, a massive influx of new visitors

¹³¹ Canfield, "Memorandum for the Director," 12 July 1939, attached to Superintendent's Annual Report, 1939.

¹³² William S. Mitchell, Highway Engineer, U.S. Department of Commerce, Bureau of Public Roads, "Location Survey Report (1950) on High Drive Entrance, Route 2, Rocky Mountain National Park, County of Larimer, State of Colorado" (Denver, CO: Bureau of Public Roads, Division Nine, 18 August 1952), 1.

was recorded in the park. The 1946 total visitation was nearly half a million people higher than in 1945, and the one million mark was passed two years later. Park Superintendent Canfield warned that park roads were in no condition to stand the increased traffic, and maintenance funds and manpower remained limited. Many park vehicles and much of the maintenance equipment had been transferred to the military, complicating the problems. The remaining vehicles and equipment were at least ten years old, and it was difficult to keep them in repair, as spare parts could not readily be obtained. The shortage was relieved the following year when the park was able to acquire some war surplus equipment, including five trucks, a road roller, and a Snogo rotary plow. Three new pickup trucks were purchased in 1947 and another six were ordered.¹³³

In the late 1940s, attention turned to the eastern approaches to the park. The road from Estes Park to the Fall River Entrance was reconstructed under PRA supervision in 1948. At the same time, the State of Colorado resurfaced Highway 66 between the village and the Thompson River Entrance. In 1950, Superintendent Canfield requested the reconstituted Bureau of Public Roads reinvestigate the proposed new entrance road line from Beaver Point to Beaver Meadows as a replacement for the troublesome Thompson River Entrance. The BPR conducted a new survey in 1950 and collected information on property titles and existing buildings on the right-of-way. Included in the project would be a new checking station (the present Beaver Meadows Entrance). A new connecting road between the Trail Ridge and Bear Lake roads was also surveyed. The survey recommended that the connecting road be constructed first, so as to allow abandonment of the Thompson River Entrance when the new entrance road would be put in place. The new connector would provide for travel between the Bear Lake and Trail Ridge Roads without requiring vehicles to exit and reenter the park from the east.¹³⁴

The deteriorated western segment of the Trail Ridge Road between Fall River Pass and Phantom Valley was substantially reconstructed in 1951 and 1952. The roadway was stabilized with a new base course topped by a bituminous mat. Metal cribbing was installed near the lower end of the project where steep slopes were giving way with regularity. This \$514,467.46 project was carried out by the Northwestern Engineering Company of Denver under BPR

¹³³ Buchholtz, 193; Canfield, Superintendent's Annual Report, 1946, 3; Superintendent's Annual Report, 1947, 3; "1947 Annual Travel Report."

¹³⁴ Canfield, Superintendent's Monthly Report, August 1948, 3; Mitchell, 2-8.

supervision. Park crews also laid a new 2" bituminous mat on the Horseshoe Park section of the Trail Ridge Road. The roadway was widened to 22' including shoulders. A new bypass road in the Stead's Ranch area of Moraine Park was completed by park crews in 1953.¹³⁵

On 30 June 1953, a tremendous rockslide on the Fall River Road 3.5 miles above Chasm Falls swept away some 1,200' of the roadway. The constant repairs and costly maintenance required to keep the road open convinced the National Park Service to close the road above Chasm Falls. The upper section between the falls and Fall River Pass was later converted to a pack trail.¹³⁶

By the mid-1950s, the increased traffic was creating even greater problems for the park. The limited parking areas were often filled, encouraging roadside parking, and worse, parking "on the resource." Entrance stations, visitor centers, and trailheads were commonly congested areas, but turnouts and scenic overlooks were also overcrowded, denying some visitors a part of the park experience. New Park Superintendent James V. Lloyd characterized the condition of the Trail Ridge Road as a "serious traffic menace," as only the recently reconstructed western segment was built to a sufficient width and provided with shoulders.¹³⁷

The Trail Ridge Road had become the most popular attraction in the park, and more than a million and half visitors each year enjoyed the scenic drive, many of them never leaving their cars. For such motorists, the park experience was considerably different than that enjoyed by early visitors. The "age of the automobile" also changed the experience for park personnel, as park historian Curt Buchholtz observed.

¹³⁵ Patterson, "Final Construction Report (1951-52) on Rocky Mountain National Park Project Trail Ridge Road 1-C Bituminous Surfacing and Stabilization, Counties of Larimer and Grand, State of Colorado" (Denver, CO: Bureau of Public Roads, Division Nine, 16 June 1954), 1-6, 10; Canfield, Superintendent's Monthly Report, June 1951, 3; Superintendent's Monthly Report, September 1952, 4; Francis D. LaNoue, Acting Superintendent, Rocky Mountain National Park, Superintendent's Annual Report, 1953, 13; Superintendent's Monthly Report, July 1951, 3-4; Superintendent's Monthly Report, August 1953, 4; James V. Lloyd, Superintendent, Rocky Mountain National Park, Superintendent's Monthly Report, September 1954, 3.

¹³⁶ LaNoue, Acting Superintendent's Monthly Report, July 1953, 3; James V. Lloyd, Superintendent, Rocky Mountain National Park, Superintendent's Monthly Report, October 1959, 12.

¹³⁷ Lloyd, Superintendent's Annual Report, 1956, 11.

The ranger's response to this mobile tourism meant spending more time patrolling the highways, less time hiking the trails, climbing the mountains, or pursuing poachers. The more romantic image faded as they assumed duties similar to those of other officers of the law. Once in a while the adventurous ranger reemerged to rescue climbers from cliffs or capture a crook or two or patrol the ski slopes of Hidden Valley. But the image of the rugged and romantic park ranger was changing with time. Perhaps, like the Park itself, the image seemed a little less romantic once the horses and trails were forsaken for automobiles and highways.¹³⁸

Rocky Mountain National Park, like other national parks and monuments, had serious needs, and the National Park Service responded with a major development program in the late 1950s.

Mission 66 Road Programs

When Conrad L. Wirth was appointed director of the National Park Service in 1951, he inherited a deteriorated and inadequately-funded park system. Little more than caretaker work had been done during World War II and in the decade following, and both natural and cultural resources were threatened by this lack of attention. Wirth enlisted the aid of Congress, and in 1955 announced "Mission 66," a ten-year program to upgrade and expand park facilities. This "comprehensive and integrated program of use and protection" was intended to meet the increasing demands of park visitors by the fiftieth anniversary of the National Park Service in 1966. These demands were largely those of the automobile tourist; Director Wirth wanted to provide the "optimum opportunity for public enjoyment of the parks," and made improved park roads a major component of the long-range development program. Wirth admitted that unrestricted automobile access was largely responsible for the severe crowding in the parks. However, he generally favored accommodating motorists, rather than restricting them.¹³⁹

As called for in Wirth's initiative, each park was to prepare a "mission statement". Rocky Mountain National Park's it called for major improvements to the road system, drawing attention to a number of problems.

¹³⁸ Buchholtz, 198.

¹³⁹ Conrad Louis Wirth, *Parks, Politics, and the People* (Norman: University of Oklahoma Press, 1980), 241-42; Cohen, 137.

The condition of roads and trails has fallen seriously behind what is called for by the current volume and type of traffic. Roads into Chasm Falls [the Fall River Road], Wild Basin, and Longs Peak Campground are substandard, and the main Park roads are in great need of resurfacing. Additional pull-outs and parking areas are needed, particularly along Trail Ridge Road where long strings of cars parked along the roadside now create traffic hazards, and interfere with access to major scenic features.¹⁴⁰

The mission statement outlined a general plan for upgrading the park roads. A new approach road would be established to replace the Thompson River Entrance, requiring construction of a new cut-off through Moraine Park to the Bear Lake Road entirely inside the park boundaries. The Fall River Road would be improved as far as Chasm Falls, and additional parking areas would be constructed along a number of the park routes. New visitor centers would be constructed on the east and west sides and at Bear Lake, and the park concessionaire would be required to provide improved transportation services aimed at reducing private automobile use. The road improvements alone were expected to cost \$5.2 million. In all, Rocky Mountain National Park sought more than \$9 million in improvements under Mission 66.¹⁴¹

A September 1955 "Improvements Report" gave more details on the proposed park work program. It called for the reconstruction of the Fall River Entrance as a matter of "urgent and extreme importance." The roadway was narrow, causing traffic congestion, and the approach was on a 5 percent grade, subjecting waiting vehicles to vapor lock. Traffic exiting the park tended to travel at high speed, endangering station personnel. The report proposed widening the entrance, flattening the roadway grade, and constructing a divider between the entry and exit lanes.¹⁴²

Replacement of the Thompson River Entrance was also recommended. The road was inconveniently located for visitors seeking to travel the Trail Ridge Road, and travelers headed for the Bear Lake Road had to cross a narrow, substandard bridge over the Big Thompson River and then climb a steep grade at Eaton Hill. The report

¹⁴⁰ National Park Service, Rocky Mountain National Park, "Mission 66 for Rocky Mountain National Park" (Estes Park, CO: National Park Service, Rocky Mountain National Park, 1966), 3.

¹⁴¹ Ibid., 4-6; Buchholtz, 202.

¹⁴² National Park Service, "Improvements Report, Rocky Mountain National Park," September 1955. RMNPHC.

proposed construction of a new \$250,000 entrance road from Beaver Point (at the west end of Estes Park) to Beaver Meadows, and for construction of a \$350,000 cut-off to the Bear Lake Road, eliminating the bridge and grade.¹⁴³ The proposed Beaver Meadows entrance road was essentially the same as that surveyed by the BPR in 1950.

The Trail Ridge Road required widening and resurfacing between the Fall River Entrance and Fall River Pass and additional turnouts. The estimated cost of the road improvements was \$650,000. The report also suggested the reconstruction and reopening of the collapsed upper section of the old Fall River Road at an estimated cost of \$70,000. Other suggested road projects included parking improvements at Fall River Pass and Hidden Valley; reconstruction of the Timber Creek, Aspenglen, and Endovalley campground roads; and improvements to the Moraine Park Road.¹⁴⁴

Historian Buchholtz noted that most of the improvements scheduled for the park "enhanced the Park for the pleasure of the automobile-oriented visitor" and cast it as "an outdoor museum with unsurpassed accessibility." The roads would be introduced by new "visitor centers" which would provide "general" information about the park and its resources.¹⁴⁵ New campgrounds, utilities, and other support facilities would be constructed, adding to the visitor's convenience but often at the cost of lost natural resources. On the other hand, the National Park Service purchased numerous inholdings and removed the improvements, returning these parcels to a natural state. The surviving hotels and lodges in the park were removed as a consequence.

Plans for the new eastern approach road were received in the park in May 1957. A sum of \$299,800 was allocated for the project in the park fiscal year 1959 budget and the necessary right-of-way was obtained. By the end of the year, contractor Carl V. Hill had cleared and prepared a base surface for the section from Beaver Point to Beaver Creek in Beaver Meadow. Surfacing with a bituminous mat began on 1 June. All work was completed in the fall and final acceptance was made on 27 October. In conjunction with the work, park crews constructed a new entrance station in 1960.¹⁴⁶

¹⁴³ Ibid.

¹⁴⁴ Ibid.

¹⁴⁵ Buchholtz, 204.

¹⁴⁶ Lloyd, Superintendent's Annual Report, 1958, 9; Superintendent's Annual Report, 1960, 8; Superintendent's Monthly Report, May 1957, 8.

Plans for the new Bear Lake cutoff were prepared by the Bureau of Public Roads and forwarded to the park in January 1957. Construction began in January 1960. The \$377,252 contract, which also included reconstruction of the Fall River Entrance and slide correction on the Trail Ridge Road, was awarded to the Eagle Construction Company of Loveland, Colorado. The new road was completed in November.¹⁴⁷ The new Fall River entrance station was constructed with divided lanes and a wider, level approach, eliminating the problems of the old. However, the distinctive rustic stickwork entrance arch was not reconstructed, diminishing the character of the oldest park gateway.

Another \$70,644 was appropriated for reconstruction of the Aspenglen Campground entrance road, and \$38,070 for parking area improvements and new signs. In all, a total of \$791,748 was expended on all the 1960 park road projects. In 1962, work began on the \$570,000 reconstruction of the Trail Ridge Road segment between the Fall River Road and Deer Ridge. Soon afterwards, construction began on the new Alpine Visitor Center at Fall River Pass; this facility was dedicated on 16 July 1965 as part of the Rocky Mountain National Park's Golden Anniversary celebration.¹⁴⁸

In December 1962, the Siegrist Construction Company of Denver was awarded a contract for the reconstruction of the Horseshoe Park--Deer Ridge section of the Trail Ridge Road. A. E. Scott of the Bureau of Public Roads was resident engineer for the project. The contractor's operations began in January 1963 with snow removal from the section, and grading work was underway in February and final acceptance was made in October. During the project, the rustic Fall River Bridge was replaced with a steel girder and reinforced concrete structure.¹⁴⁹

¹⁴⁷ Idem, Superintendent's Monthly Report, January 1957, 7; Superintendent's Monthly Report, May 1957, 8; Superintendent's Monthly Report, August 1958, 11; Superintendent's Monthly Report, September 1958, 11; Superintendent's Monthly Report, November 1958, 7; Superintendent's Monthly Report, October 1959, 6; Superintendent's Monthly Report, February 1960, 15; Superintendent's Monthly Report, November 1960, 8.

¹⁴⁸ Idem, Superintendent's Annual Report, 1958, 9; Superintendent's Annual Report, 1960, 8-9; Allyn F. Hanks, Superintendent, Rocky Mountain National Park, Superintendent's Annual Report, 1963, 1, 8; Fred J. Novak, Superintendent, Rocky Mountain National Park, Superintendent's Annual Report, 1966, 1.

¹⁴⁹ Hanks, Superintendent's Monthly Report, December 1962, 8; Superintendent's Monthly Report, February 1963, 7; Superintendent's Monthly Report, March 1963, 8; Superintendent's

On 22 June 1965, bids were opened for the construction of a new park visitor center and headquarters on the Beaver Meadows Entrance Road. The building was designed by Taliesin Associated Architects of the Frank Lloyd Wright Foundation and contracted to the Kunz Construction Company of Arvada, Colorado at a cost of the \$652,871.95. Ground-breaking for the structure took place in the afternoon of 16 July following the dedication of the new Alpine Visitor Center at Fall River Pass. Some minor road-related projects were also carried out this year. The road to the Fern Lake Trailhead was closed at the Cub Creek Trailhead, and old spur roads to the Stead's Ranch site in Moraine Park and to the Bear Lake Lodge were obliterated and reseeded. A new loop road was constructed in the Wild Basin Campground.¹⁵⁰

By the late 1950s, business interests in Estes Park were pushing for construction of an "all weather road" across the park. The town boosters predicted that an all-year road would bolster the area's winter economy. Their suggested route would follow the Fall River Valley, switchbacking from one side to the other to obtain a suitable grade. The National Park Service was completely opposed to the suggestion, believing the valley would be mutilated by the construction. As an alternative, NPS Director George B. Hartzog ordered the speedy reopening of the Old Fall River Road as a motor nature trail, believing this would appease the commercial interests.¹⁵¹

Park crews labored mightily to reopen the road. In the reconstruction of the collapsed section of road below Willow Park, large gabions (wire-bound baskets filled with stone) were employed to stabilize the slope. The Fall River Road reopened in 1968, again as a one-way road uphill.¹⁵² Although this was not the all-weather solution sought by the Estes Park merchants, the reopening

Monthly Report, April 1963, 9; Superintendent's Monthly Report, October 1963, 8; William C. James, Acting Superintendent, Rocky Mountain National Park, Acting Superintendent's Monthly Report, September 1963, 9.

¹⁵⁰ Granville B. Liles, Superintendent, Rocky Mountain National Park, Superintendent's Annual Report, 1965, 10; Forrest O. Beardmore, Park Engineer, Rocky Mountain National Park, Park Engineer's Monthly Report, December 1965, 3; Park Engineer's Monthly Report, November 1965, 3; Park Engineer's Monthly Report, October 1965, 3.

¹⁵¹ Atkins, "Note on the Fall River Road/The All Weather Road," 19 August 1981, Fall River Road file, RMNPHC.

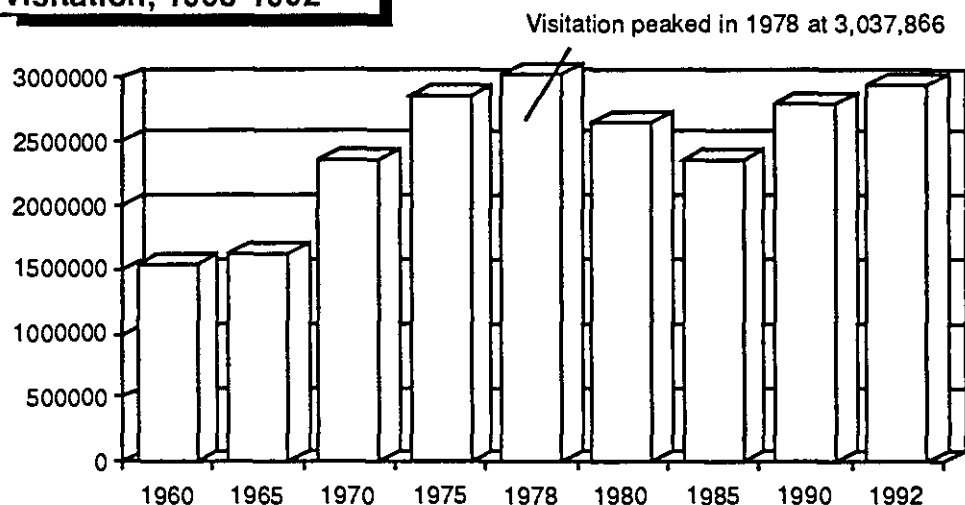
¹⁵² Ibid.

of the road proved popular with visitors and it remains a favorite park attraction.

Pavement versus Preservation

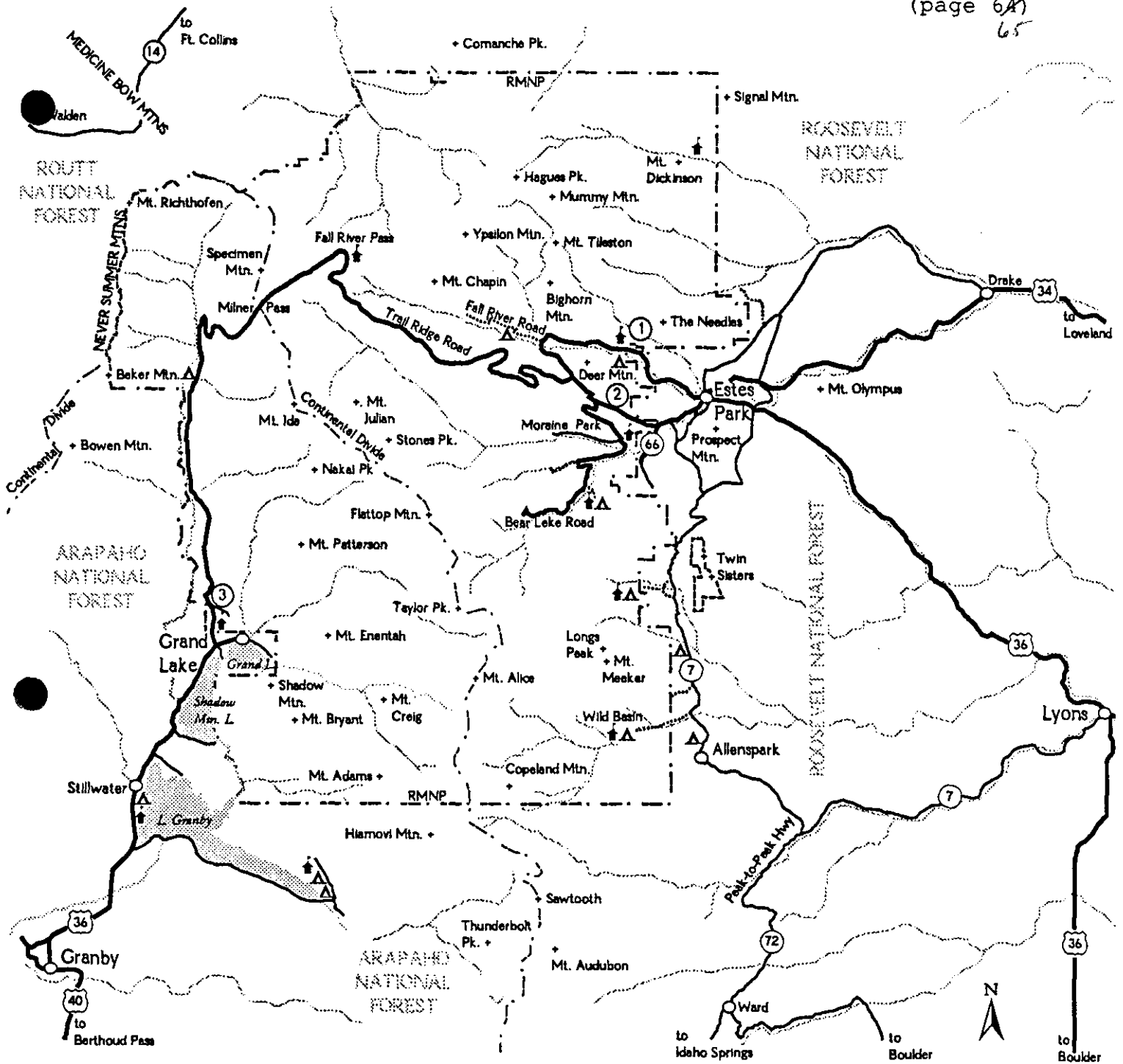
By 1970, the Rocky Mountain National Park road system was substantially complete. The showpiece was the Trail Ridge Road, the focus of most visitors' trips, offering stunning scenery in a drive across the alpine tundra at an elevation of more than 12,000'. The reopened eastern segment of the Fall River Road provided an interesting alternative and an experience similar to that known by early motorists. The Bear Lake Road was heavily used for access to Glacier Basin and the most popular park trailheads. The smaller park roads, to Longs Peak, Twin Owls, and into Wild Basin, remained graded but unpaved tracks leading to other popular trailheads.

Visitation, 1960-1992



SOURCE: Rocky Mountain National Park Public Information Office, 1993

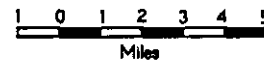
Visitation totalled 1,532,482 in 1960. In 1978, it passed three million, nearly double the 1960 total. The 1979 "oil crisis" then caused a considerable decline; figures dropped to 2,579,986 in 1979 and to only 2,220,219 in 1982 during the height of the Reagan recession. Totals have climbed again since, in 1992 reaching 2,942,743, not far behind the 1978 peak. Nearly 90 percent of the visitors were day users, and less than one percent stayed overnight in the backcountry. The average length of a stay was



ROCKY MOUNTAIN NATIONAL PARK PARK ROADS AND APPROACH ROADS, 1963

The Thompson River Entrance has been replaced by the new Beaver Meadows entrance road. New Moriane Park—Bear Lake connector is in use. Fall River Road has been abandoned west of Chasm Falls. Pole Creek Road abandoned because of Shadow Mountain Reservoir impoundment. Boundary reflects changes of 23 September 1960.

Map: Richard Quin, HAER Historian, 1993



Ranger Station
 Campground

ENTRANCE STATIONS

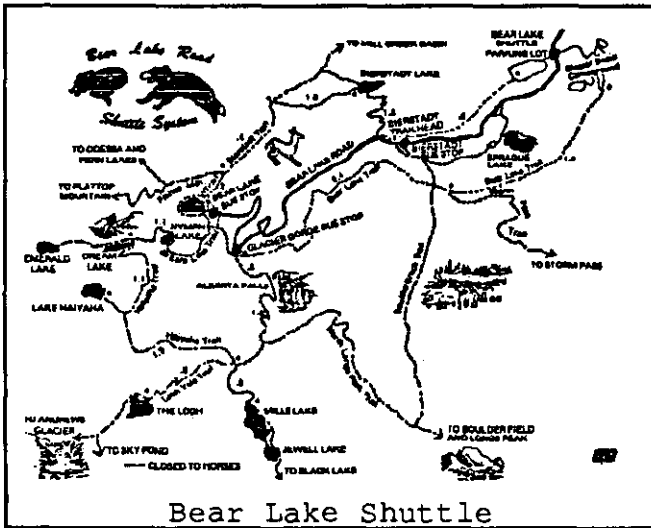
1. Fall River
2. Beaver Meadows
3. Grand Lake

six hours for day users and sixteen hours for overnights.¹⁵³ The overwhelming majority of visitors arrived and toured the park in private automobiles. Access by public transportation grew increasingly difficult. The communities on the edge of the park had irregular bus service for a while, but Estes Park is now connected with points beyond only by charter limousines. Some visitors travel by rail to Granby, seventeen miles southwest of Grand Lake, and far more travel by air to Denver and then to the park in rental cars. However, most modern "sagebrushers" or automotive tourists arrive in their personal automobiles.

While the number of park visitors nearly doubled, the park road system underwent few changes in the same period. Following the Mission 66 construction of the Beaver Meadows entrance road and the Bear Lake Cutoff, no new roads were constructed in Rocky Mountain National Park. Existing park roads have been widened, resurfaced, or in some cases partially reconstructed, and bridges and other structures have been continually replaced or rebuilt, but the road system has not been extended. At the time of this writing (1993), no major road construction projects were scheduled for the park.

The increasing numbers of tourists on a static road system results in park roads that are often crowded during the main summer season. The Trail Ridge Road remains the most popular attraction and its still-limited turnouts and parking areas are frequently congested. On many summer weekends, the huge parking area at Fall River Pass is filled to capacity. Parking is far more restricted on the old Fall River Road, and motorists frequently park on the roadside to take in the scenery or to inspect roadside attractions, backing up traffic behind them. However, the most severe congestion occurs on the internal roads on the eastern side of the park. Parking areas at Longs Peak and in Wild Basin are often filled by mid-morning, and the small trailhead parking areas for the Twin Sisters and Twin Owls areas fill most weekends. The most severe crowding occurs on the Bear Lake Road, which provides access to popular trails at Bear Lake, Bierstadt Lake, and Glacier Gorge.

¹⁵³ National Park Service, Rocky Mountain National Park, Public Information Office, "Visitation 1960 to Present," MSS report, 1993.



By the mid-1970s, traffic on the Bear Lake Road reached 4,200 vehicles a day during the main summer season. Parking areas filled quickly and many visitors simply parked along the way, sometimes blocking the road entirely. In response to the congestion, the park appealed to the Park Service for funds to institute a shuttle service to the Bear Lake Road and Glacier Gorge trailheads. The NPS Washington office presented the proposal to the Office of Management and Budget and was given approval

to transfer \$79,000 from other projects for an interim system. Arrangements were made with San Juan Tours, Inc., to rent six buses for the 1978 season. The free service was expanded in 1979 to include Moraine Park and the Fern Lake trailhead areas. In 1980, the system carried 159,569 visitors at a cost of nearly \$100,000. Shuttles had been recently employed at Yosemite and Grand Canyon national parks and were generally considered successful. However, some visitors objected to waiting for buses and worried about finding seats. At Rocky Mountain, the Bear Lake Shuttle greatly reduced overcrowding on the Bear Lake Road for some time. The Bear Lake Road shuttle remains in service, but other contemplated shuttles for the Fall River and Trail Ridge Roads never got beyond the planning stage.¹⁵⁴

The impact of visitors on the fragile alpine tundra accessible from the roads became another matter of concern. In 1959, researchers found that alteration of the ecosystem could begin within hours after an area becomes exposed to heavy use and that significant changes can take place in less than a week. Trampling of the delicate alpine plants and compaction of soil were the main negative effects, but visitors also removed rocks, plants, and pieces of turf. As part of the Mission 66 program, Rocky Mountain National Park funded another ecological reconnaissance to note the effects of Trail Ridge Road visitors on the ecosystem. The study found that the greatest effect was caused by visitors walking on the tundra over subsequent seasons. Such damage was most pronoun-

¹⁵⁴ Chester L. Brooks, Superintendent, Rocky Mountain National Park, Superintendent's Annual Report, 1977, 2; Superintendent's Annual Report, 1979, 1, "Statement for Management," 17; Buchholtz, 223-24.

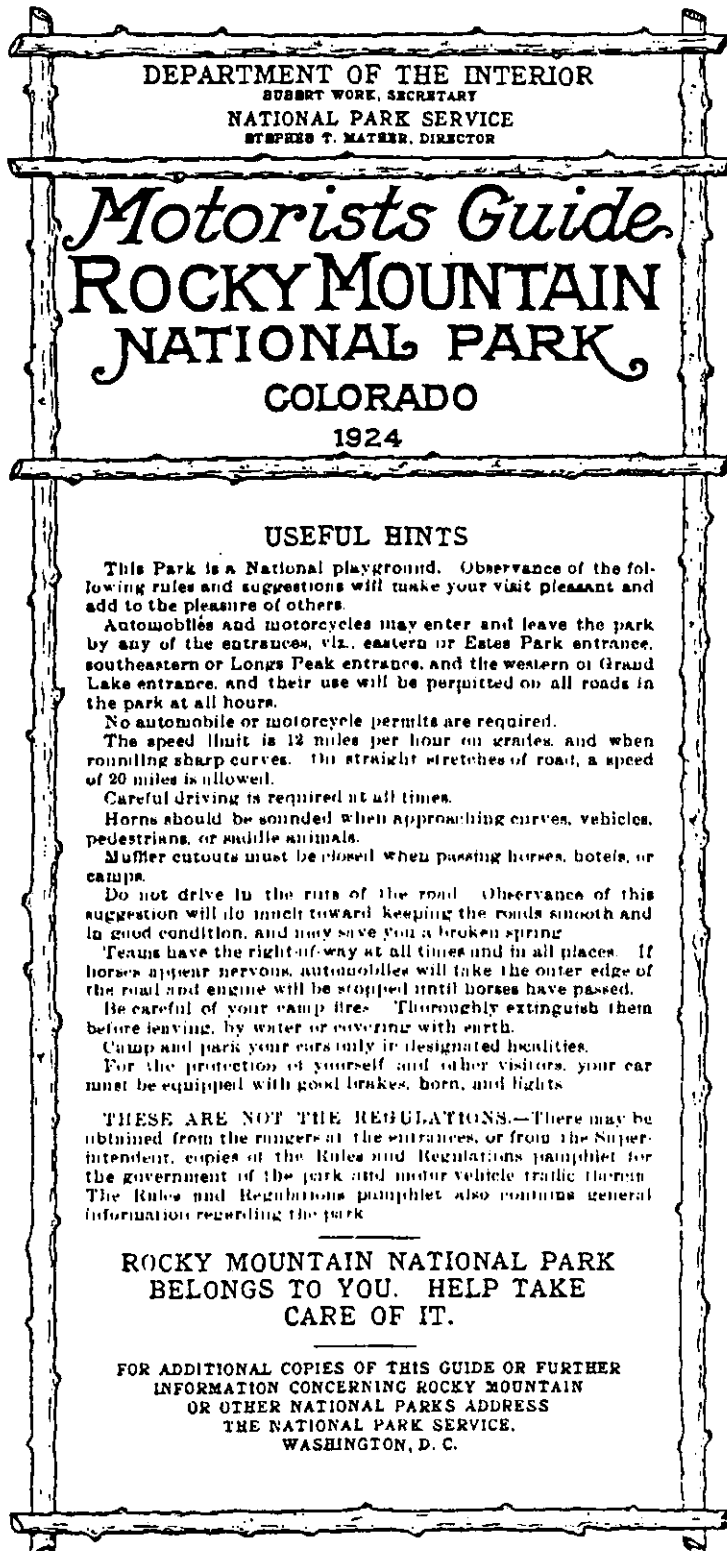
ced around turnouts and the Fall River Pass where visitors were concentrated in small areas. The researchers stated that the ecosystems at Iceberg Lake and the Fall River Pass had been "virtually destroyed" and the area around Rock Cut had been adversely affected. Alterations occurred rapidly, but the tundra was very slow to recover. As an example, the study predicted it would take from five hundred to a thousand years for the dominant species, *Kobresia mysosuroides*, to recover at Rock Cut. The construction of paved trails greatly reduced the damage;¹⁵⁵ however, the effects of trampling are still quite evident in some roadside areas. The Park Service has responded by constructing rail barricades along some sections. The Rocky Mountain Nature Association recently funded construction of a foot bridge spanning a tundra section to a popular roadside snowfield in the heavily-used Rock Cut area, reducing trampling on the exposed tundra along the roadway.

Man's impact on the environment was dramatically demonstrated in a 1982 disaster. The private Lawn Lake Dam on Roaring River gave way on 15 June, unleashing a terrible flood which swept down into the Fall River Valley, flooding Horseshoe Park, Aspenglen, and much of downtown Estes Park. Some 4,500' of the Fall River Road was buried by immense boulders and a brand-new bridge over Roaring River was swept away. The flood also destroyed the Aspenglen Campground Bridge and a large portion of the campground entrance road. The Fall River was subsequently rerouted to the location of a former box culvert and a new 46' prestressed concrete bridge was constructed over the new channel. The bridge and new road alignment were completed in the fall of 1984. Reconstruction of the road and the bridge cost took more than two years and cost more than \$300,000.¹⁵⁶

The park entrance fee increased from \$2 to \$5 on 1 January 1987 as part of a system-wide increase mandated by congressional

¹⁵⁵ John W. Marr and Beatrice E. Willard, "Effects of Visitors on Natural Ecosystems in Rocky Mountain National Park," MSS, (Boulder: University of Colorado, Institute of Arctic and Alpine Research, June 1959), ii, 6-11; Beatrice Willard Scott-Williams and John W. Marr, *Effects of Visitor Use on Alpine Tundra Ecosystems, Trail Ridge, Rocky Mountain National Park, Colorado* (Boulder: University of Colorado, 1965), 49-52.

¹⁵⁶ Brooks, Superintendent's Annual Report, 1982, 1, 20; National Park Service, Rocky Mountain National Park, Maintenance Division, "Completion Report 1520-7607-634, Alluvial Fan Road and Bridge," 6 February 1985; "Completion Report 1520-7611-634, Aspenglen Campground Road and Bridge," 2 February 1985. ROMO Maintenance Division files.



The rules of the road have changed over the years. These "hints" and regulations appeared in park general information brochures in 1924 (above) and 1993 (right).

Driving

Trait Ridge Road is one of the great alpine highways in the United States. It crosses the park from east to west and then drops into the Kawuneeche Valley, where the North Fork of the Colorado River flows. Its winding course takes you 3,713 meters (12,183 feet) above sea level and into a world akin to Earth's arctic regions. The road is usually open from Memorial Day to mid-October depending on snowfall. If you are pulling a trailer you will notice reduced power at this high elevation. Take three or four hours for this 80-kilometer (50-mile) scenic drive, stopping at the overlooks to absorb far-spreading views of Rocky Mountain's peaks and valleys. As you travel along Trait Ridge itself, above tree line, you are on the "roof of the Rockies" with superlative vistas of glacier-carved peaks on every side. For a closer look at the alpine world walk to Forest Canyon Overlook or take the half-hour round-trip Tundra Trail. Remember, the alpine tundra ecosystem is extremely fragile; stay on the paths. Also, stop at Fall River Pass, 3,595 meters (11,796 feet) to visit the Alpine Visitor Center, where exhibits explain the life of the alpine tundra.

Old Fall River Road, the original road crossing the mountains, runs from Horsehoe Park west to Fall River Pass. West of Endovalley Picnic Area, it is one-way uphill. The gravel road switchbacks up a narrow mountain valley, giving you an idea of what it was like to travel across the mountains in the early days of the automobile. Because of sharp switchbacks, trailers and motorized vans are prohibited. A guide booklet, available at the visitor centers, tells what you can expect to see as you make the drive. This road is closed in winter due to weather conditions.

Take Bear Lake Road if you have an extra hour or an extra day. This is one of the few paved roads in the Rockies that leads to the heart of a high mountain basin. The area is heavily used and is often congested. You can expect that parking lots here and at Glacier Gorge Junction will be full between 10 a.m. and 3 p.m. on summer days.

Vehicles must remain on roads or in parking areas. Parking any vehicle or leaving property unattended for longer than 24 hours without prior permission is prohibited.

Hitchhiking or soliciting transportation is prohibited.

When leaving your car unattended, please be certain it is locked and that all valuables are out of sight. Do not leave valuables at your tent.

Drivers should be on the alert for animals crossing roads, especially at dawn and twilight.

Trait Ridge Road reaches elevations dangerous to persons with heart conditions and other physical impairments. Even healthy persons are normally winded by the slightest exertion at these elevations.

ALCOHOLIC BEVERAGES It is illegal either to drink or have opened alcoholic beverages in a vehicle on park roads or in parking areas.

Don't forget: park roads are not high-speed highways; instead, they have been designed for maximum enjoyment of the scenery. Speed limits and traffic laws are enforced. Please obey signs. Report all accidents to the nearest park ranger station. There are no service stations within the park, so check your gasoline and other needs. Cars tuned for lower elevations often overheat and may vapor lock. If your car acts as if it isn't getting gas, pull off the road at the nearest pullout, stop your engine, and allow it to cool. If snow or cold water is available, put it on your fuel pump and the line leading to the carburetor. Let your car cool for 15 minutes before trying to start it again.

legislation. The park began operating its entrance stations every day (they were only open daily in summer and on weekends in the off-season), and considered operating an entrance station on the Wild Basin Road. Despite assurances made by Interior Secretary Donald Hodel on a visit to the park in the summer of 1986, the fees were not allocated to park operations but rather were returned to the U.S. Treasury.¹⁵⁷

The road system of Rocky Mountain National Park offers visitors access to several different ecosystems characterizing the higher regions of the central Rocky Mountains. The roads take visitors through lowland meadows and aspen groves, along swift-flowing rivers and streams, and up through subalpine forest to the alpine tundra at more than 12,000' elevation. No other national park roads offers the dramatic experience of a long drive across the tundra region, and no continuous highway in the United States reaches the elevation of the park's Trail Ridge Road. The careful relationship of the park roads to the landscape results in a road system which generally fits well into the environment. This is especially well-demonstrated where the roads cross the high alpine tundra with minimal damage to this extremely sensitive ecosystem. Roadway alignments were chosen to highlight natural features, and scenic vistas and overlooks provided to allow visitors to take in the magnificent terrain. The stone parapet walls and several road-related structures, constructed in the National Park Service's distinctive "rustic style" of architecture, relate well to their natural surroundings and help evoke a "national park road" experience. Not surprisingly, the park roads are the principal attraction for most of the nearly three million visitors who flock to Rocky Mountain National Park each year.

¹⁵⁷ Ann Widmer, "\$5 National Park Entry Fee Kicks In," [Loveland, CO] *Reporter-Herald Extra*, 12 February 1987, 1.

IV. BIBLIOGRAPHY

"1,000,000 Tourists Come to Colorado During 1919 Season: Denver Makes Rapid Strides in Placing Herself Before the Nation as Tourist Center of Rocky Mountains and Gateway to National Parks." *The Denver [CO] Post*, 1 January 1920.

Ackland, Diana, and Janie Freeburg, eds. *The Rockies*. Boston: Houghton Mifflin Company, 1993.

Albright, Horace M., with Robert Cahn. *The Birth of the National Park Service: The Founding Years, 1913-33*. Salt Lake City, UT: Howe Brothers, 1985.

--with Frank J. Taylor. *Oh Ranger!* 1928. Rpt. Golden, CO: Outbooks, 1986.

Allen, Thomas J., Jr., Acting Superintendent/Superintendent, Rocky Mountain National Park. Acting Superintendent's Annual Report, 1928.

--Superintendent's Annual Report, 1936.

--Superintendent's Annual Report, 1937.

--Acting Superintendent's Monthly Report, November 1926.

--Acting Superintendent's Monthly Report, April 1928.

--Acting Superintendent's Monthly Report, June 1928.

--Acting Superintendent's Monthly Report, August 1928.

--Acting Superintendent's Monthly Report, September 1928.

--Superintendent's Monthly Report, July 1936.

--Superintendent's Monthly Report, August 1936.

--Superintendent's Monthly Report, September 1936.

--Superintendent's Monthly Report, December 1936.

--Superintendent's Monthly Report, June 1937.

Atkins, T. Ferrel, Historian, Rocky Mountain National Park. "Colorado's Spectacular Trail Ridge Road," *Colorado Heritage News*, February 1985.

--"Entrance Stations." N.d., Fall River Entrance file, RMNPHC.

--"Fall River Entrance." N.d., Fall River Entrance file, RMNPHC.

--"Fall River Road, Historical Background." Fall River file, RMNPHC.

--"The Old Fall River Road: Motor Nature Trail." Brochure, 2nd ed., Estes Park, CO: Rocky Mountain Nature Association, 1982.

--"Note on the Fall River Road/The All Weather Road," 19 August 1981, Fall River Road file, RMNPHC.

"Attractive Road Camp Building Erected Near Fall River Pass," Estes Park [CO] Trail, 25 September 1925.

Beardmore, Forrest O., Park Engineer, Rocky Mountain National Park. Park Engineer's Monthly Report, October 1965.

--Park Engineer's Monthly Report, November 1965.

--Park Engineer's Monthly Report, December 1965.

Beals, Ralph L. *Ethnology of Rocky Mountain National Park: The Ute and Arapahoe*. Berkeley, CA: National Park Service, Field Division of Education, 1935.

Benedict, Audrey DeLella. *The Southern Rockies: A Sierra Club Naturalist's Guide*. San Francisco, CA: Sierra Club Books, 1991.

Billington, Ray Allen. *Westward to the Pacific*. St. Louis, MO: Jefferson National Expansion Memorial Association, 1979.

Blanchard, Arthur H. *Elements of Highway Engineering*. New York: John Wiley & Sons, 1915.

Brooks, Chester L., Superintendent, Rocky Mountain National Park. Superintendent's Annual Report, 1977.

--Superintendent's Annual Report, 1979.

--Superintendent's Annual Report, 1982.

Buchholtz, C. W. *Rocky Mountain National Park: A History*.
Boulder: Colorado Associated University Press, 1983.

"Builder of Trail Ridge Road Honored," *Longmont [CO] Times*, 16
February 1955.

Cairns, Mary Lyons. *Grand Lake: The Pioneers*. Denver, CO: The
World Press, 1946.

Canfield, David H., Superintendent, Rocky Mountain National Park.
"Memorandum for the Director," 12 July 1939, attached to
Superintendent's Annual Report, 1939.

- Superintendent's Annual Report, 1941.
- Superintendent's Annual Report, 1942.
- Superintendent's Annual Report, 1946.
- Superintendent's Annual Report, 1947.
- Superintendent's Annual Report, 1948.
- Superintendent's Annual Report, 1951.
- Superintendent's Monthly Report, August 1937.
- Superintendent's Monthly Report, September 1937.
- Superintendent's Monthly Report, October 1937.
- Superintendent's Monthly Report, May 1938.
- Superintendent's Monthly Report, July 1938.
- Superintendent's Monthly Report, November 1940.
- Superintendent's Monthly Report, August 1941.
- Superintendent's Monthly Report, August 1948.
- Superintendent's Monthly Report, June 1949.
- Superintendent's Monthly Report, September 1951.

Cairns, Mary Lyons. *Grand Lake: The Pioneers*. Denver, CO: The
World Press, 1946.

ROCKY MOUNTAIN NATIONAL PARK ROADS

HAER NO. CO-78

(page 23)

74

Carothers, June E. *Estes Park, Past and Present*. Denver, CO: The University of Denver Press, 1951.

Coffey, Robert, Chief Engineering Inspector-Superintendent, U.S. Department of Agriculture, Bureau of Public Roads. "Final Construction Report (1930-31-32) on Fall River Pass National Park Highway, Project 1-C, Larimer and Grand Counties, State of Colorado." Denver, CO: Bureau of Public Roads, District No. 3, 20 May 1933.

--"Final Construction Report (1934-1936), Project NR-1-D1 Grading, Fall River Highway, Rocky Mountain National Park, Colorado." Denver, CO: Bureau of Public Roads, 7 March 1937.

Cohen, Michael P. *The History of the Sierra Club, 1892-1970*. San Francisco, CA: Sierra Club Books, 1988.

"Colorado Transfers Park Road Control to U.S. Government." *The Denver [CO] Post*, 25 July 1919.

Doerr, John E., Jr., Acting Superintendent, Rocky Mountain National Park, Superintendent's Monthly Report, August 1940.

Dunning, Jimmie L., Superintendent, Rocky Mountain National Park. Superintendent's Annual Report, 1973.

Eliot, Charles W., II. "Landscape Problems in and about the Rocky Mountain National Park," 3 July 1930. RMNPHC.

"Ed. Selander Awarded Stone Work Contract," *Estes Park [CO] Trail*, 2 February 1934.

Estes Park [CO] Trail. 16 August 1913.

--4 July 1914.

Fazio, Patricia M. "Cragged Crusade: The Fight for Rocky Mountain National Park, 1909-15." MSS thesis, n.d.

Federal Works Agency, Public Roads Administration. *Specifications for Construction of Roads and Bridges in National Forests and National Parks*. Washington, D.C.: Government Printing Office, 1941.

"Gov. Ammons Praises the Fall River Road." *Estes Park [CO] Alikasai*, 25 July 1914.

"Government Will Abandon Fall River Road for Trail Ridge Highway." *Estes Park [CO] Trail*, 29 March 1929.

Hanks, Allyn F., Superintendent, Rocky Mountain National Park.
Superintendent's Annual Report, 1963.

--Superintendent's Monthly Report, December 1962.

--Superintendent's Monthly Report, February 1963.

--Superintendent's Monthly Report, March 1963.

--Superintendent's Monthly Report, April 1963.

--Superintendent's Monthly Report, October 1963.

Harrington, Daniel C. "The Trail Ridge Saga." Typed transcript
of address delivered at Rocky Mountain National Park, 17 July
1982. RMNPHC.

Hewes, Laurence Isley, Chief, Western Region, Bureau of Public
Roads. *American Highway Practice*. 2 vols. New York: John
Wiley & Sons, Inc., 1942.

Holland, F. Ross, Jr. *Rocky Mountain National Park: Historical
Background Data*. Denver, CO: National Park Service, Office
of History and Historic Architecture, Western Service Center,
March 1971.

Hyde, Anne F. "From Stagecoach to Packard Twin Six: Yosemite and
the Changing Face of Tourism, 1880-1930." *California History*
LXIX, Summer 1990.

James, William C., Acting Superintendent, Rocky Mountain National
Park. Acting Superintendent's Monthly Report, September
1963.

Kaye, Glen. *Longs Peak*. Estes Park, CO: Rocky Mountain Nature
Association, 1982.

--*Lulu City, Colorado River Trail*. Estes Park, CO: Rocky
Mountain Nature Association, 1983.

--*Moraine Park Nature Trail*. Estes Park, CO: Rocky Mountain
Nature Association, 1986.

--*Trail Ridge*. Estes Park, CO: Rocky Mountain Nature
Association, 1982.

Lafferty, W. L. Chief of Party/Assistant Highway Engineer, U.S.
Department of Agriculture, Bureau of Public Roads. "Final

ROCKY MOUNTAIN NATIONAL PARK ROADS

HAER NO. CO-78

(page 15)

76

Construction Report (1927-28) on Bear Lake National Park Project 2-B, Rocky Mountain National Park, Colorado." Denver, CO: Bureau of Public Roads, 11 March 1929.

--"Final Betterments and Maintenance Report (1932-1933) and Spring Snow Removal for 1933 on Fall River Pass National Park Highway, Projects 1-A, B & C, Rocky Mountain National Park, Larimer and Grand Counties, State of Colorado." Denver, CO: Bureau of Public Roads, 12 April 1934.

--"Final Construction Report (1929-30-31-32) on Fall River Pass National Park Highway, Trail Ridge Section 1-B, Rocky Mountain National Park, Larimer County, State of Colorado." Denver, CO: Bureau of Public Roads, 12 June 1933.

--"Final Construction Report (1933-34) on Fall River Pass National Park Highway, Project 1-A, B, & C Surfacing, Rocky Mountain National Park, Larimer and Grand Counties, State of Colorado." Denver, CO: Bureau of Public Roads, District No. 3, 23 April 1935.

--"Final Post Construction and Maintenance Report (1934-35-36) on Fall River Pass National Park Highway, Project 1-A, B, C, Rocky Mountain National Park, Larimer and Grand Counties, State of Colorado." Denver, CO: Bureau of Public Roads, District No. 3, 9 March 1937.

--"Final Construction Report (1949) on Fall River National Park Highway Project 1-D-2 Bituminous Surfacing, Rocky Mountain National Park, State of Colorado." Denver, CO: Bureau of Public Roads, Division No. 9, 17 May 1950.

LaNoue, Francis D., Acting Superintendent, Rocky Mountain National Park. Superintendent's Annual Report, 1953.

--Superintendent's Monthly Report, July 1951.

--Superintendent's Monthly Report, July 1953.

--Superintendent's Monthly Report, August 1953.

Liles, Granville B., Superintendent, Rocky Mountain National Park. Superintendent's Annual Report, 1965.

Lloyd, James V., Superintendent, Rocky Mountain National Park. Superintendent's Annual Report, 1956.

--Superintendent's Annual Report, 1958.

- Superintendent's Monthly Report, September 1954.
- Superintendent's Monthly Report, January 1957.
- Superintendent's Monthly Report, May 1957.
- Superintendent's Monthly Report, August 1958.
- Superintendent's Monthly Report, September 1958.
- Superintendent's Monthly Report, November 1958.
- Superintendent's Monthly Report, October 1959.
- Superintendent's Monthly Report, February 1960.
- Superintendent's Monthly Report, November 1960.

Mackintosh, Barry. *The National Parks: Shaping the System*. Washington, D.C.: National Park Service, Division of Publications and the Employment Development Division, 1991.

Marr, John W. and Beatrice E. Willard. "Effects of Visitors on Natural Ecosystems in Rocky Mountain National Park." MSS, Boulder: University of Colorado, Institute of Arctic and Alpine Research, June 1959.

Mather, Stephen T., Director, National Park Service. "Report of the Director of the National Park Service," 1918, in *Reports of the Department of the Interior*, 1918. 2 vols. Washington, D.C.: Government Printing Office, 1919.

--"Report of the Director of the National Park Service," 1920, in *Reports of the Department of the Interior*, 1920, 2 vols. Washington, D.C.: Government Printing Office, 1921.

Mayer, Marie. *Forest Canyon Pass, Rocky Mountain National Park, Larimer County, Colorado: A High Altitude Survey*. Denver: Denver Chapter, Colorado Archeology Society, 30 June 1989.

Mitchell, William S., Highway Engineer, U.S. Department of Commerce, Bureau of Public Roads. "Location Survey Report (1950) on High Drive Entrance, Route 2, Rocky Mountain National Park, County of Larimer, State of Colorado." Denver, CO: Bureau of Public Roads, Division Nine, 18 August 1952.

Musselman, Lloyd K. *Rocky Mountain National Park Administrative History, 1915-1916*. Washington, D.C.: National Park Service,

Office of History and Architecture, Eastern Service Center,
July 1971.

"New Ridge Road Eighth Wonder of Modern World." *Estes Park [CO] Trail*, 18 September 1931.

Novak, Fred J., Superintendent, Rocky Mountain National Park.
Superintendent's Annual Report, 1966.

"Park Officials Hope to Extend Tourist Season," *The Denver [CO] Times*, 26 June 1918.

Patterson, Albert H., Project Engineer/Highway Engineer, U.S. Department of Commerce, Bureau of Public Roads. "Final Construction Report (1951-52) on Rocky Mountain National Park Project Trail Ridge Road 1-C Bituminous Surfacing and Stabilization, Counties of Larimer and Grand, State of Colorado." Denver, CO: Bureau of Public Roads, Division Nine, 16 June 1954.

--"Final Construction Report (1953-54) on Bear Lake 3-B Parking Area and Interim Improvements, Rocky Mountain National Park, State of Colorado." Denver, CO: Bureau of Public Roads, Division 9, 12 March 1956.

Preston, John C., Acting Superintendent, Rocky Mountain National Park. Acting Superintendent's Monthly Report, July 1937.

Rensch, H. E. *Historical Background for the Rocky Mountain National Park*. Berkeley, CA: National Park Service, Field Division of Education, 1935.

"Roads and Trails of the Rocky Mountain National Park, Estes Park Colorado." Estes Park, CO: National Park Service, Rocky Mountain National Park, n.d..

Rocky Mountain Nature Association. "Trail Ridge Road Guide." Estes Park, CO: Rocky Mountain Nature Association, n.d.

Rogers, Edmund B., Superintendent, Rocky Mountain National Park. "History of Legislation Relating to the National Park Service Through the 82nd Congress." Washington, D.C.: National Park Service, 1958.

--Superintendent's Annual Report, 1929.

--Superintendent's Annual Report, 1930.

--Superintendent's Annual Report, 1931.

- Superintendent's Annual Report, 1932.
- Superintendent's Annual Report, 1933.
- Superintendent's Annual Report, 1934.
- Superintendent's Annual Report, 1935.
- Superintendent's Monthly Report, June 1929.
- Superintendent's Monthly Report, July 1929.
- Superintendent's Monthly Report, August 1929.
- Superintendent's Monthly Report, September 1929.
- Superintendent's Monthly Report, January 1930.
- Superintendent's Monthly Report, June 1930.
- Superintendent's Monthly Report, August 1930.
- Superintendent's Monthly Report, September 1930.
- Superintendent's Monthly Report, November 1930.
- Superintendent's Monthly Report, July 1931.
- Superintendent's Monthly Report, September 1931.
- Superintendent's Monthly Report, August 1932.
- Superintendent's Monthly Report, September 1932.
- Superintendent's Monthly Report, October 1932.
- Superintendent's Monthly Report, January 1933.
- Superintendent's Monthly Report, June 1933.
- Superintendent's Monthly Report, July 1933.
- Superintendent's Monthly Report, September 1933.
- Superintendent's Monthly Report, October 1933.
- Superintendent's Monthly Report, November 1933.

- Superintendent's Monthly Report, December 1933.
- Superintendent's Monthly Report, January 1934.
- Superintendent's Monthly Report, February 1934.
- Superintendent's Monthly Report, March 1934.
- Superintendent's Monthly Report, April 1934.
- Superintendent's Monthly Report, May 1934.
- Superintendent's Monthly Report, June 1934.
- Superintendent's Monthly Report, August 1934.
- Superintendent's Monthly Report, September 1934.
- Superintendent's Monthly Report, October 1934.
- Superintendent's Monthly Report, November 1934.
- Superintendent's Monthly Report, December 1934.
- Superintendent's Monthly Report, January 1935.
- Superintendent's Monthly Report, February 1935.
- Superintendent's Monthly Report, May 1935.
- Superintendent's Monthly Report, June 1935.
- Superintendent's Monthly Report, July 1935.
- Superintendent's Monthly Report, August 1935.
- Superintendent's Monthly Report, September 1935.
- Superintendent's Monthly Report, October 1935.
- Superintendent's Monthly Report, November 1935.
- Superintendent's Monthly Report, November 1935.

Scott-Williams, Beatrice Willard and John W. Marr. *Effects of Visitor Use on Alpine Tundra Ecosystems, Trail Ridge, Rocky Mountain National Park, Colorado.* Boulder: University of Colorado, 1965.

"Sommers Pushes Efforts to Finish Fall River Road." *The Denver [CO] Post*, 4 September 1920.

"State to Push Work on Fall River Highway." *The Denver [CO] Post*, 10 June 1919.

Steen, Kathryn. "Going-to-the-Sun Road." *Historic American Engineering Record No. MT-67.* Draft MSS, Washington, D.C.: National Park Service, *Historic American Engineering Record*, 1990.

Strobridge, Truman R., compiler. *Preliminary Inventory of the Records of the Bureau of Public Roads.* Washington, D.C.: National Archives and Records Administration, 1962.

"T.N.T. Ribbon Laid on Fall River Road to Blast Snow in Spring." *Estes Park [CO] Trail*, 24 October 1924.

Toll, Roger W., Superintendent, Rocky Mountain National Park. *Superintendent's Annual Report*, 1922.

--Superintendent's Annual Report, 1925.

--Superintendent's Annual Report, 1926.

--Superintendent's Annual Report, 1927.

--Superintendent's Monthly Report, February 1922.

--Superintendent's Monthly Report, May 1922.

--Superintendent's Monthly Report, July 1922.

--Superintendent's Monthly Report, May 1923.

--Superintendent's Monthly Report, November 1924.

--Superintendent's Monthly Report, May 1925.

--Superintendent's Monthly Report, June 1925.

--Superintendent's Monthly Report, July 1925.

--Superintendent's Monthly Report, September 1925.

- Superintendent's Monthly Report, March 1926.
- Superintendent's Monthly Report, April 1926.
- Superintendent's Monthly Report, May 1926.
- Superintendent's Monthly Report, June 1926.
- Superintendent's Monthly Report, July 1926.
- Superintendent's Monthly Report, September 1926.
- Superintendent's Monthly Report, October 1926.
- Superintendent's Monthly Report, December 1926.
- Superintendent's Monthly Report, January 1927.
- Superintendent's Monthly Report, May 1927.
- Superintendent's Monthly Report, June 1927.
- Superintendent's Monthly Report, July 1927.
- Superintendent's Monthly Report, October 1927.
- Superintendent's Monthly Report, May 1928.
- Superintendent's Monthly Report, July 1928.
- Superintendent's Monthly Report, October 1928.

"Trail Ridge Road Officially Opened to Car Travel Tomorrow."
Estes Park [CO] Trail, 15 July 1932.

Trowbridge, C. R., Acting Supervisor, Rocky Mountain National
Park. Supervisor's Annual Report, 1915.

- Supervisor's Annual Report, 1916.
- Supervisor's Monthly Report, August 1916.
- Supervisor's Monthly Report, September 1916.

U.S. Department of the Interior, National Park Service. "1947
Annual Travel Report," RMNPHC.

ROCKY MOUNTAIN NATIONAL PARK ROADS

HAER NO. CO-78

(page 82)

83

--"Completion Report 1520-1068-290, Chipseal 18 Miles Various Park Roads," 31 October 1986. ROMO Maintenance files.

--"Completion Report 1520-7607-634, Alluvial Fan Road and Bridge." 6 February 1985. ROMO Maintenance files.

--"Completion Report 1520-7611-634, Aspenglen Campground Road and Bridge," 2 February 1985. ROMO Maintenance Division files.

--General Information Regarding Rocky Mountain National Park, Season of 1917. Washington, D.C.: Government Printing Office, 1917.

--"Improvements Report, Rocky Mountain National Park." September 1955.

--"Mission 66 for Rocky Mountain National Park." Estes Park, CO: National Park Service, Rocky Mountain National Park, 1966.

--Old Fall River Road. Estes Park, CO: Rocky Mountain Nature Association, 1991.

--"Rocky Mountain National Park: Official Map and Guide." Washington, D.C.: Government Printing Office, 1992.

--"Rocky Mountain National Park, Season of 1917. Brochure, Washington, D.C.: National Park Service, 1917.

--"Rocky Mountain National Park: Useful Hints to Motorists." Washington, D.C.: National Park Service, 1917.

--"Statement for Management, Rocky Mountain National Park."
MSS report, Denver, CO: National Park Service, Rocky Mountain
Regional Office, May 1981.

--"Visitation 1960 to Present." National Park Service, Rocky
Mountain National Park, Public Information Office, 1993.

U.S. Department of Transportation, Federal Highway Administration.
"Plans for Proposed Project 1-B(2), Recycling and
Resurfacing, Trail Ridge Road, Rocky Mountain National Park
Road System, Larimer County, Colorado." Construction drawing
NPS No. 121-80900. Denver, CO: Federal Highway
Administration, 13 August 1982. National Park Service,
Denver Service Center, Technical Information Center files.

Vivian, Chauncey H. "Fighting Snow in the Passes of the Rockies."
Estes Park [CO] Trail, 5 December 1924.

Wallace, S. A., Chief of Party. Report of Surveys, Rocky Mountain
National Park, Colorado. Denver, CO: United States
Department of Agriculture, Bureau of Public Roads, District
No. 3, 1928.

Way, L. Claude, Chief Ranger In Charge/Superintendent, Rocky
Mountain National Park. Acting Superintendent's Annual
Report, 1917.

--Superintendent's Annual Report, 1918.

--Superintendent's Annual Report, 1919.

--Superintendent's Annual Report, 1920.

--Superintendent's Annual Report, 1921.

--Superintendent's Monthly Report, May 1918.

--Superintendent's Monthly Report, July 1918.

--Superintendent's Monthly Report, May 1919.

--Superintendent's Monthly Report, June 1919.

--Superintendent's Monthly Report, May 1920.

--Superintendent's Monthly Report, August 1920.

--Way to Stephen T. Mather, Director, National Park Service,
28 September 1918. Filed with Superintendent's Annual
Report, 1918.

Webster, Frank Lundy. "Road Hogs in Machines, on Horseback, and
Afoot Infest the Mountain Roads: Experiences in Beautiful
National Park Show Need of Educating Many to Show Common
Courtesies When Beyond Traffic Officers' Rule." *Denver Post*,
26 August 1917.

Weisbeck, Dean, Project Engineer, U.S. Department of
Transportation, Federal Highway Administration, "Final
Construction Report on Rocky Mountain National Park Project
1-B(2) Trail Ridge Road Recycling Asphalt Pavement and Hot
Bituminous Surfacing, Larimer County, Colorado." Denver, CO:
Federal Highway Administration, Central Direct Federal
Division, Region 16, 14 August 1987.

Widmer, Ann. "\$5 National Park Entry Fee Kicks In." [Loveland, CO]
Reporter-Herald Extra, 12 February 1987.

Wirth, Conrad Louis. *Parks, Politics, and the People*. Norman:
University of Oklahoma Press, 1980.

"Work Starts on Guard Rail Job," *Estes Park [CO] Trail*, 26 August
1932.

ADDENDUM 10
ROCKY MOUNTAIN NATIONAL PARK ROADS
Estes Park Vicinity
Larimer County
Colorado

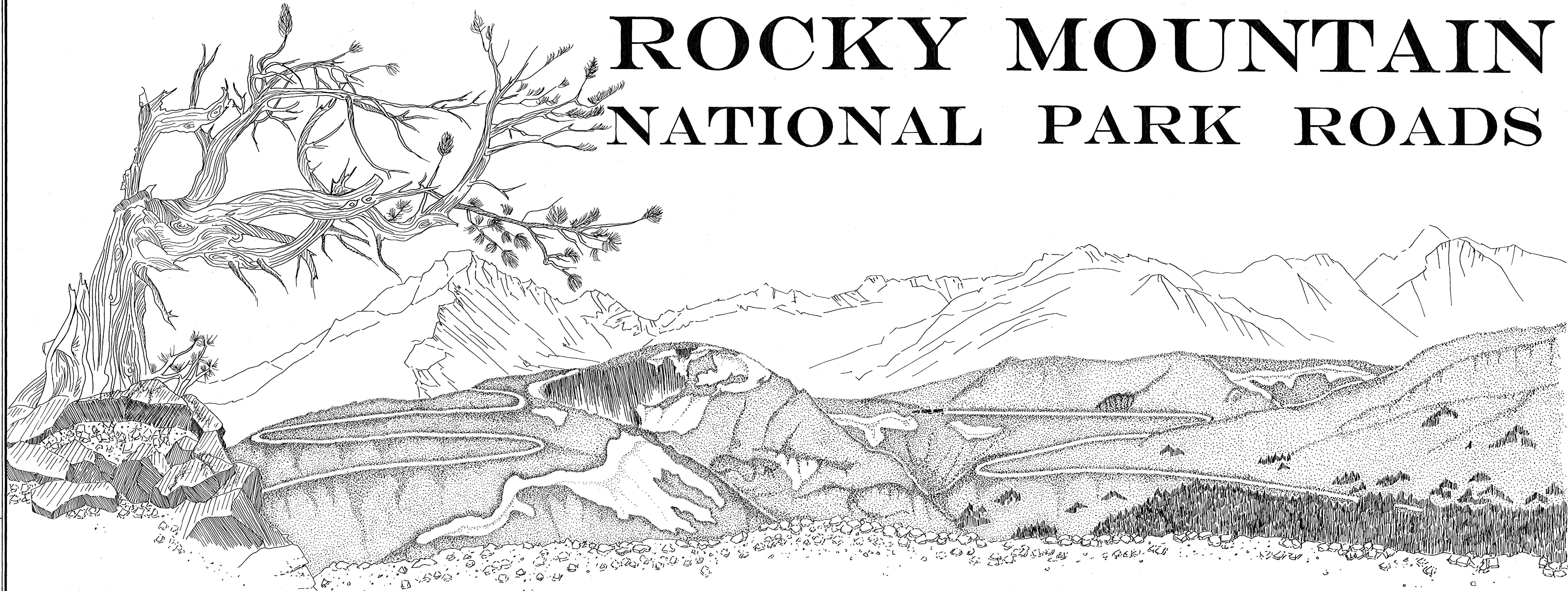
HAER NO. CO-28
78

HAER
COLO
35-ESPK.V
6-

REDUCED COPIES OF MEASURED DRAWINGS

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
Department of the Interior
1849 C Street, NW
Washington, D.C. 20240

ROCKY MOUNTAIN NATIONAL PARK ROADS



The road system of Rocky Mountain National Park offers visitors access to diverse ecosystems characterizing the higher regions of the central Rocky Mountains. The roads take visitors through lowland meadows and aspen groves, along swift-flowing rivers and up through subalpine forest to more than 12,000' in elevation. No other national park roads offers the dramatic experience of a long drive across the tundra region, and few offer such a wide variety of experiences. The careful relationship of the park roads to the landscape results in a road system that generally harmonizes with the environment. Roadway alignments were chosen to highlight natural features, and scenic vistas and overlooks were provided to allow visitors to take in the magnificent terrain. The stone parapet walls and road-related structures, constructed in the National Park Service's distinctive "rustic style" of architecture, relate well to their natural surroundings and help evoke a distinctive "national park road" experience. Not surprisingly, the park roads are the principal attraction for most of the nearly three million visitors who flock to Rocky Mountain National Park each year.

American explorers had considered the Rocky Mountains impenetrable, but native peoples of the Ute and Arapahoe tribes had long passed back and forth over the range; the two park roads now crossing the mountains follow their general routes.

The first to cross the mountains was the Fall River Road, constructed by the State of Colorado and Larimer and Grand counties to encourage tourism. Built between 1913 and 1920, this narrow unpaved single-lane road climbed up the deep Fall River Valley to Fall River Pass, then dropped down a series of sharp switchbacks to the Colorado River in the Kawuneechee Valley. This road proved difficult for early automobiles to traverse, and clearing the shaded route of snow each year was a difficult and dangerous undertaking. Soon after it was completed, the park began planning a replacement.

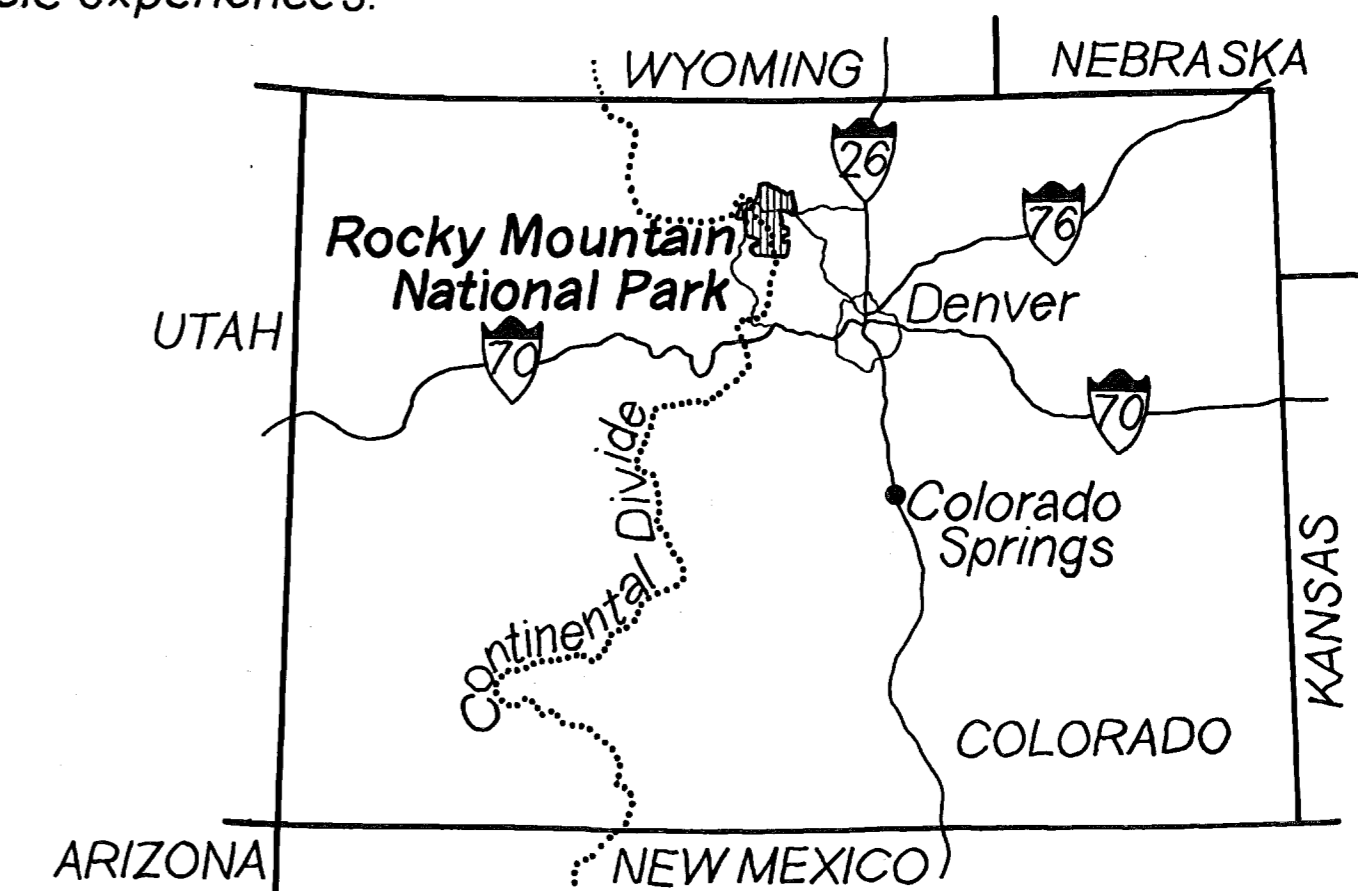
The Rocky Mountain National Park Roads Recording Project was undertaken during the summer of 2000 and is part of the Historic American Engineering Record (HAER), a long-range program to document historically significant engineering and industrial works in the United States. HAER (Eric DeLony, Chief) is administered by the Historic American Buildings Survey/Historic American Engineering Record (E. Blaine Cliver, Chief), a division of the National Park Service, U.S. Department of the Interior. The project was funded by the U.S. Department of Transportation's Federal Lands Highway Program (Art Hamilton, Administrator) through the NPS Park Roads and Parkways Program (Lou DeLorme, Manager) and cosponsored by Rocky Mountain National Park (Randy Jones, Superintendent) and the NPS Cooperative Program at Montana State University (Barry Sulam, Manager).

The field work, measured drawings, and historical reports were completed under the direction of Todd A. Croteau, Project Leader, and Tim Davis, Program Historian. The recording team consisted of Field Supervisor Brandy Dubs (Montana State University); Architects Arin Streeter (University of Tennessee), Eszter Vogel (US/ICOMOS, Hungary), Lucas Dupuis and Nathan Junkert (Montana State University), Christopher Boldt (University of Washington); Landscape Architect Magdalena M. Lisowska (US/ICOMOS, Poland); and Historian Richard Quin

The new Trail Ridge Road, constructed between 1926 and 1932, climbed nearly a thousand feet higher but crossed the more open terrain of Trail Ridge. This two-lane roadway was carefully designed to avoid damage to the fragile alpine scenery it crossed. Reaching 12,183' on Trail Ridge, it is the highest continuous highway in the United States.

The roads in the Bear Lake, Moraine Park, Lily Lake and Wild Basin areas were built as county or private roads to small holdings predating the establishment of the park in 1915; today, all are under park maintenance.

The road system of Rocky Mountain National Park continues to provide visitors with access to most majestic scenery. The roads wind through deep forest glades and across the open treeless tundra, providing glimpses of boldly colored wildflowers and magnificent wild animals. Even today, decades after they were built, excursions along these remarkable roads provide memorable experiences.



DELINEATED BY: Magdalena M. Lisowska, 2000

NPS PARK ROADS RECORDING PROGRAM UNITED STATES DEPARTMENT OF THE INTERIOR

ESTES PARK VICINITY

ROCKY MOUNTAIN NATIONAL PARK ROADS - 1920/1932

LARIMER COUNTY

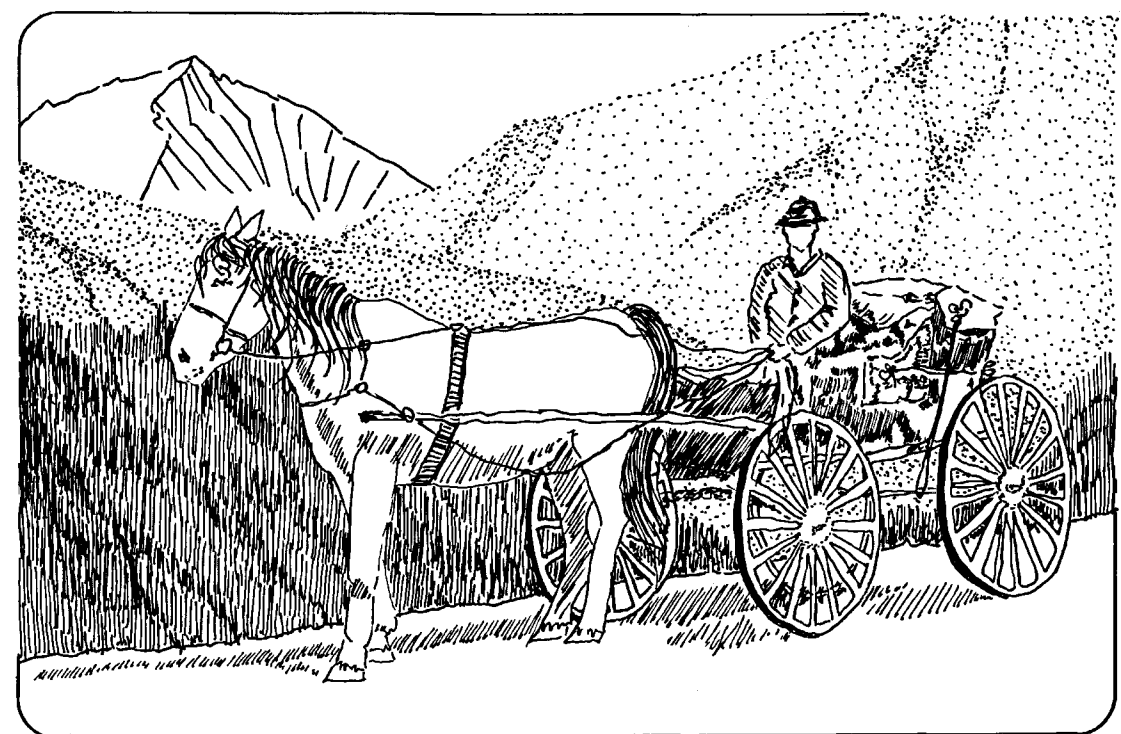
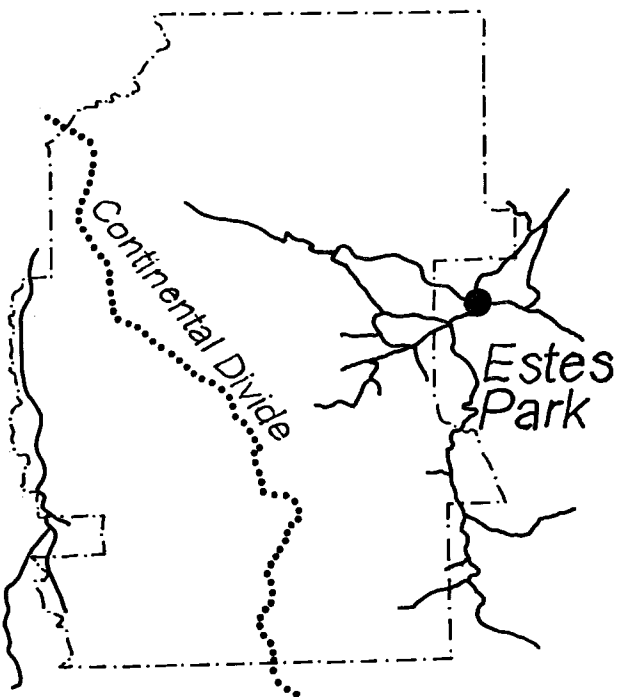
COLORADO

SHEET 1 of 8

HISTORIC AMERICAN ENGINEERING RECORD CO-78

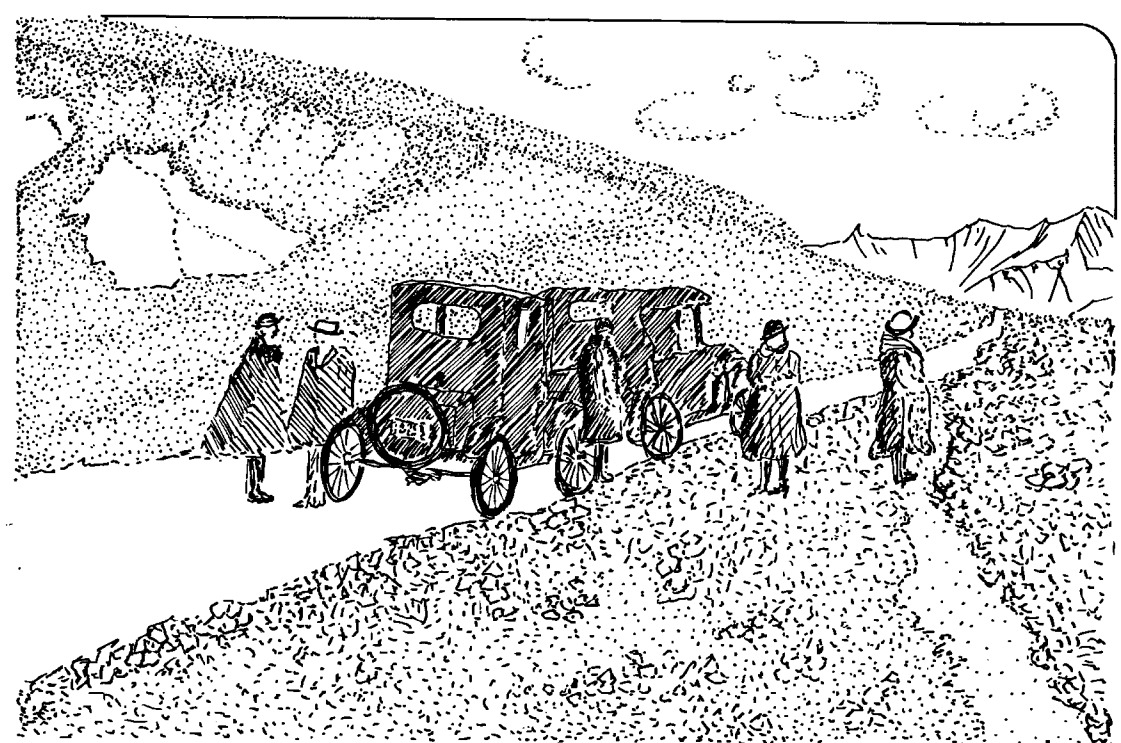
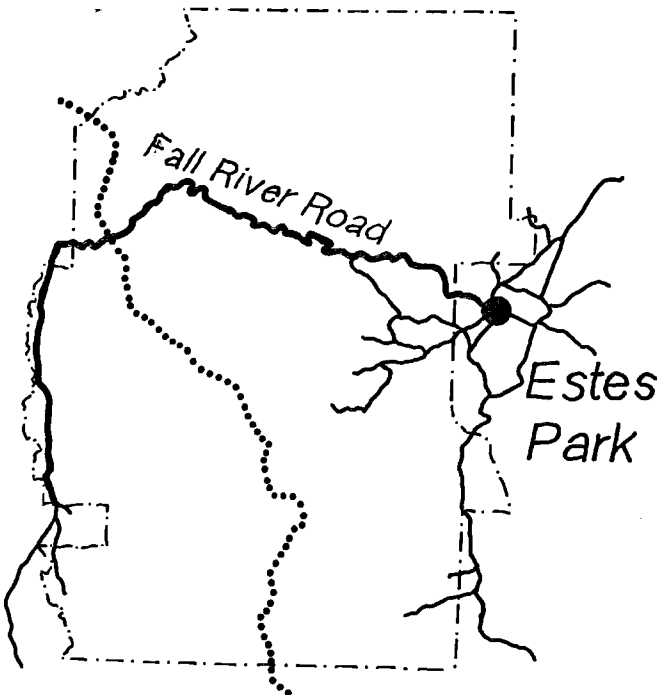
IF REPRODUCED, PLEASE CREDIT: HISTORIC AMERICAN ENGINEERING RECORD, NATIONAL PARK SERVICE, NAME OF DELINEATOR, DATE OF THE DRAWING

ROAD SYSTEM



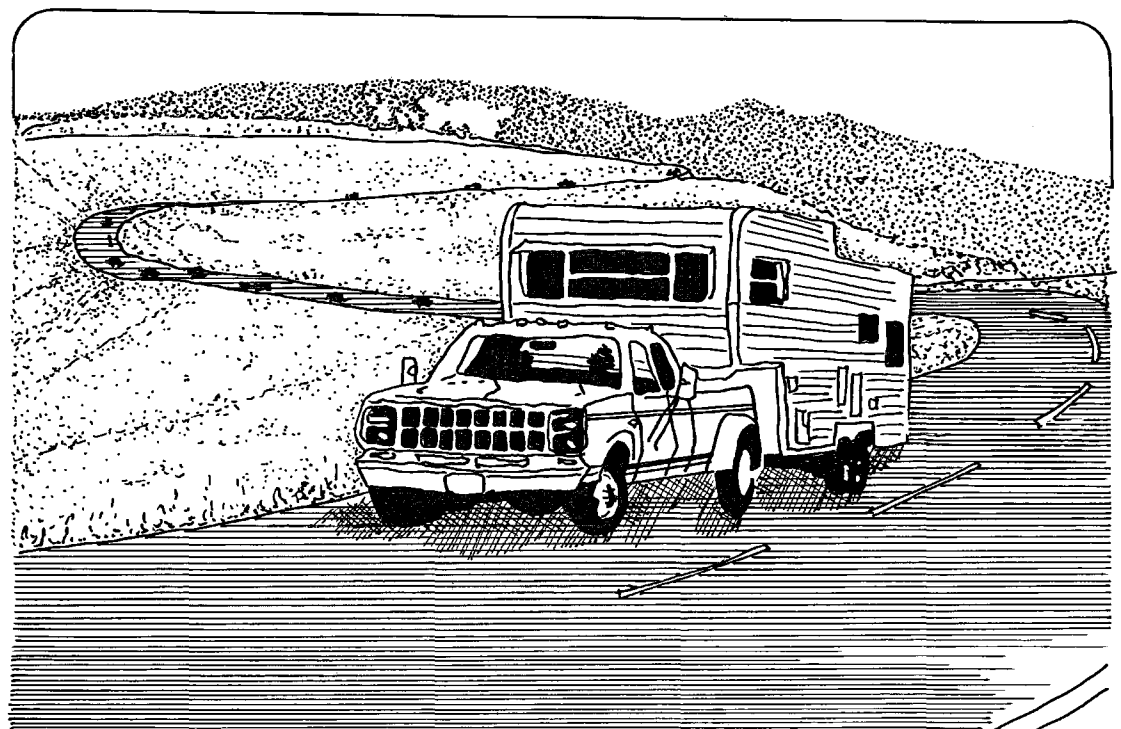
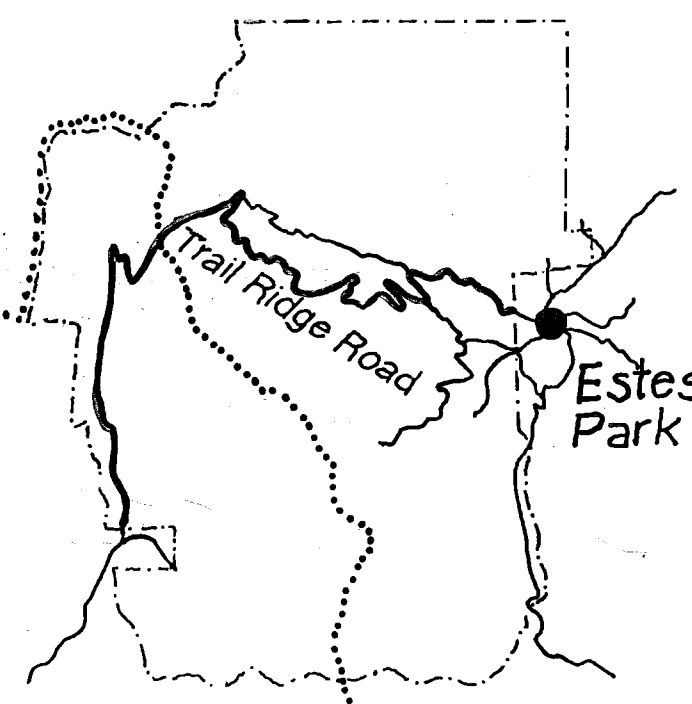
Road System and transportation before 1917

In its earliest years, Rocky Mountain National Park transportation system was limited to short spur roads leading into areas along the park's periphery. The first tourist road, the "Highdrive," was a scenic loop that climbed from Estes Park to Deer Ridge, offering attractive views of the distant mountains. These dirt and gravel roads were used by wagons, early automobiles, and commercial "jitneys."



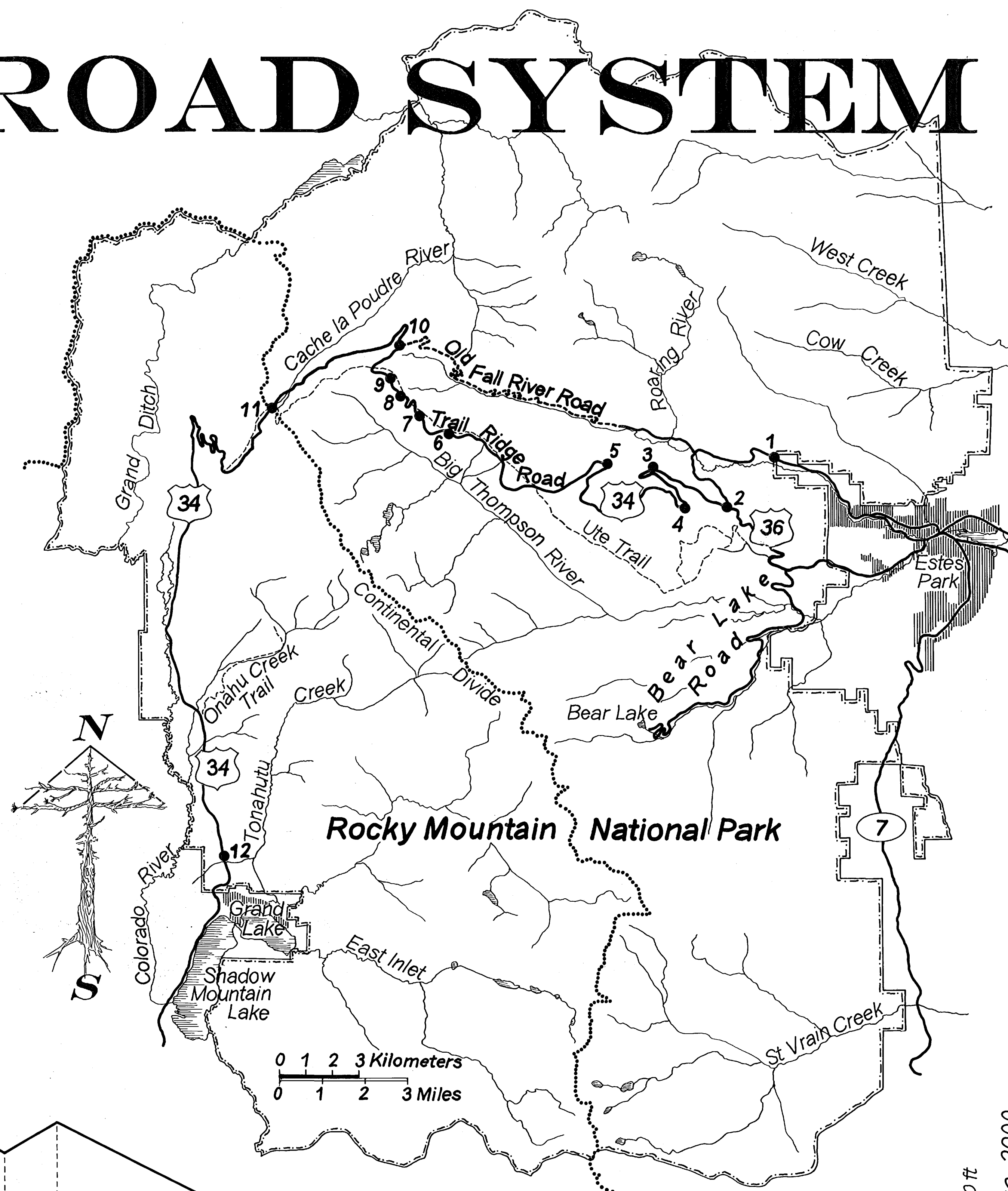
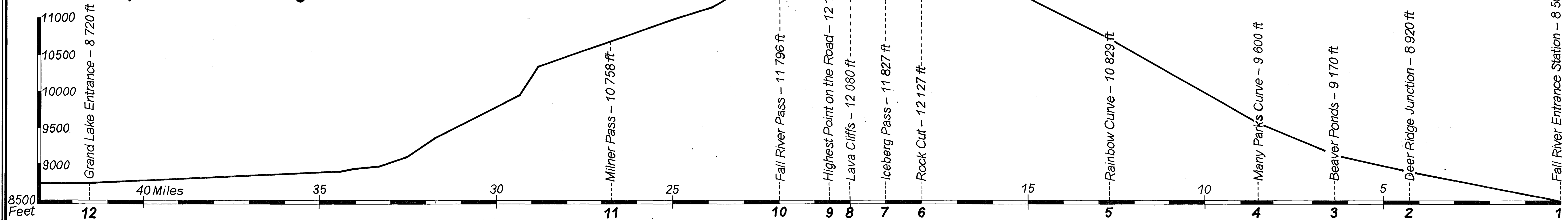
Road System and transportation after 1920

With the opening of the Fall River Road in 1920, motorists could cross the Continental Divide and reach the interior of the park. The road was popular but expensive to maintain and difficult for early automobiles to traverse on account of its steep grades. Sharp curves posed problems for larger vehicles and buses, while heavy snows kept the road closed late into the tourism season.



Road System and transportation from 1932

Elevation profile of Trail Ridge Road



DELINEATED BY: Magdalena M. Lisowska, 2000

NPS PARK ROADS RECORDING PROGRAM

UNITED STATES DEPARTMENT OF THE INTERIOR

ROCKY MOUNTAIN NATIONAL PARK ROADS - 1920/1932

ESTES PARK VICINITY

LARIMER COUNTY

COLORADO

SHEET

2 of 8

HISTORIC AMERICAN ENGINEERING RECORD

CO-78

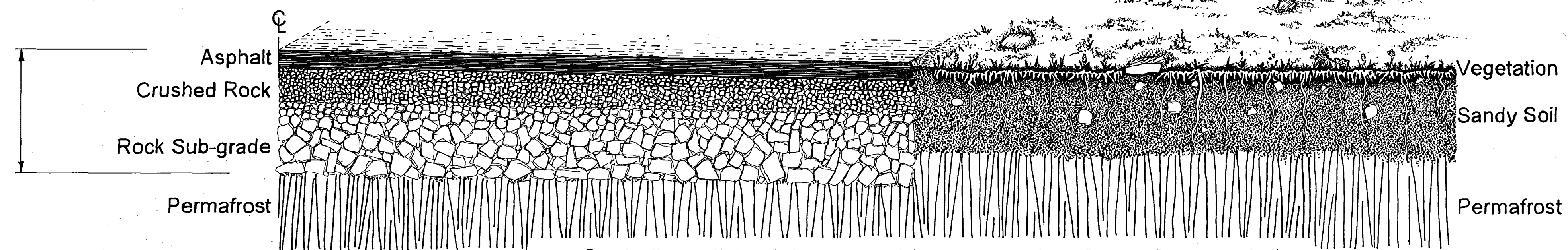
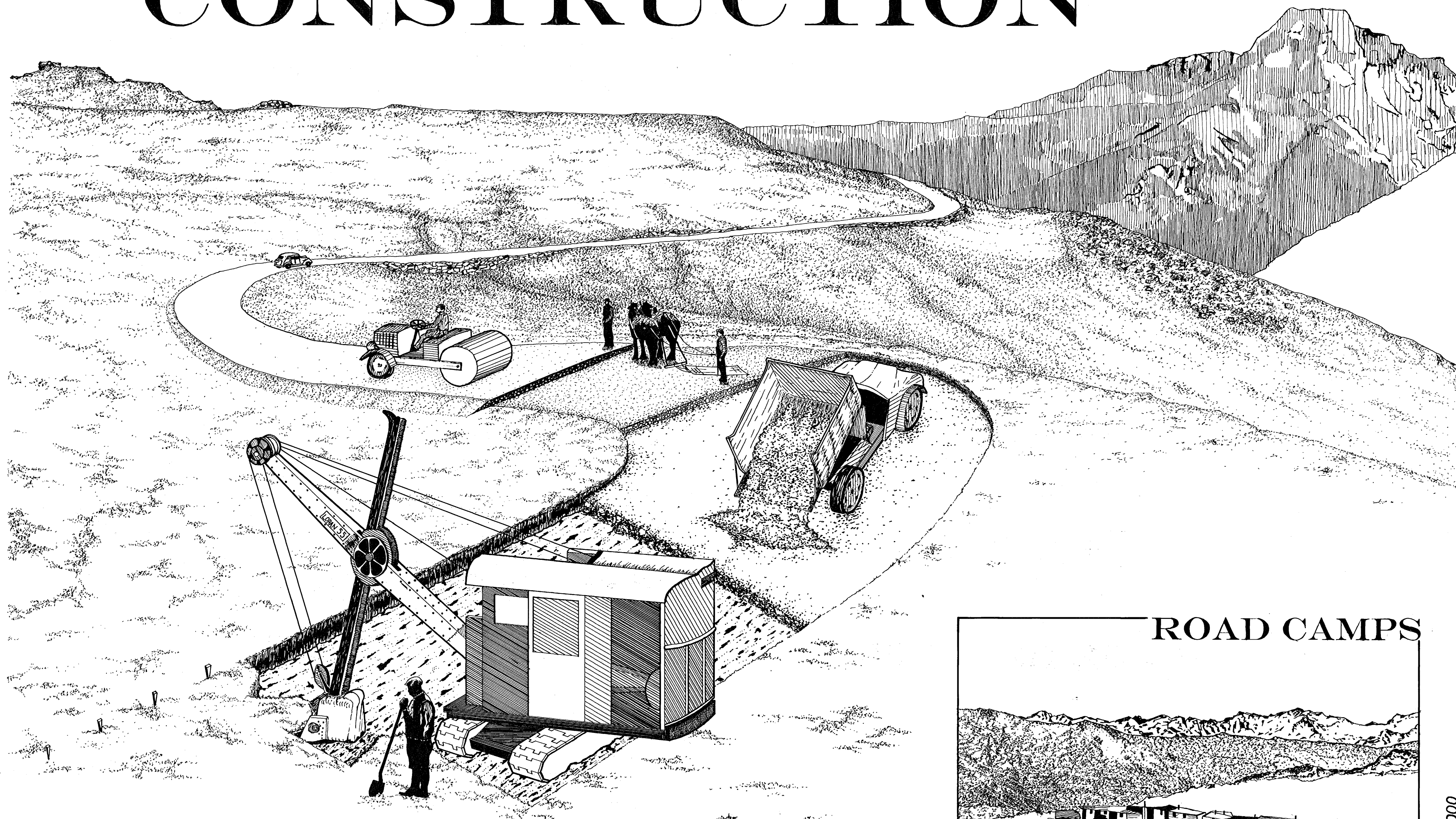
IF REPRODUCED, PLEASE CREDIT: HISTORIC AMERICAN ENGINEERING RECORD, NATIONAL PARK SERVICE, NAME OF DELINEATOR, DATE OF THE DRAWING

HIGH-ALTITUDE CONSTRUCTION

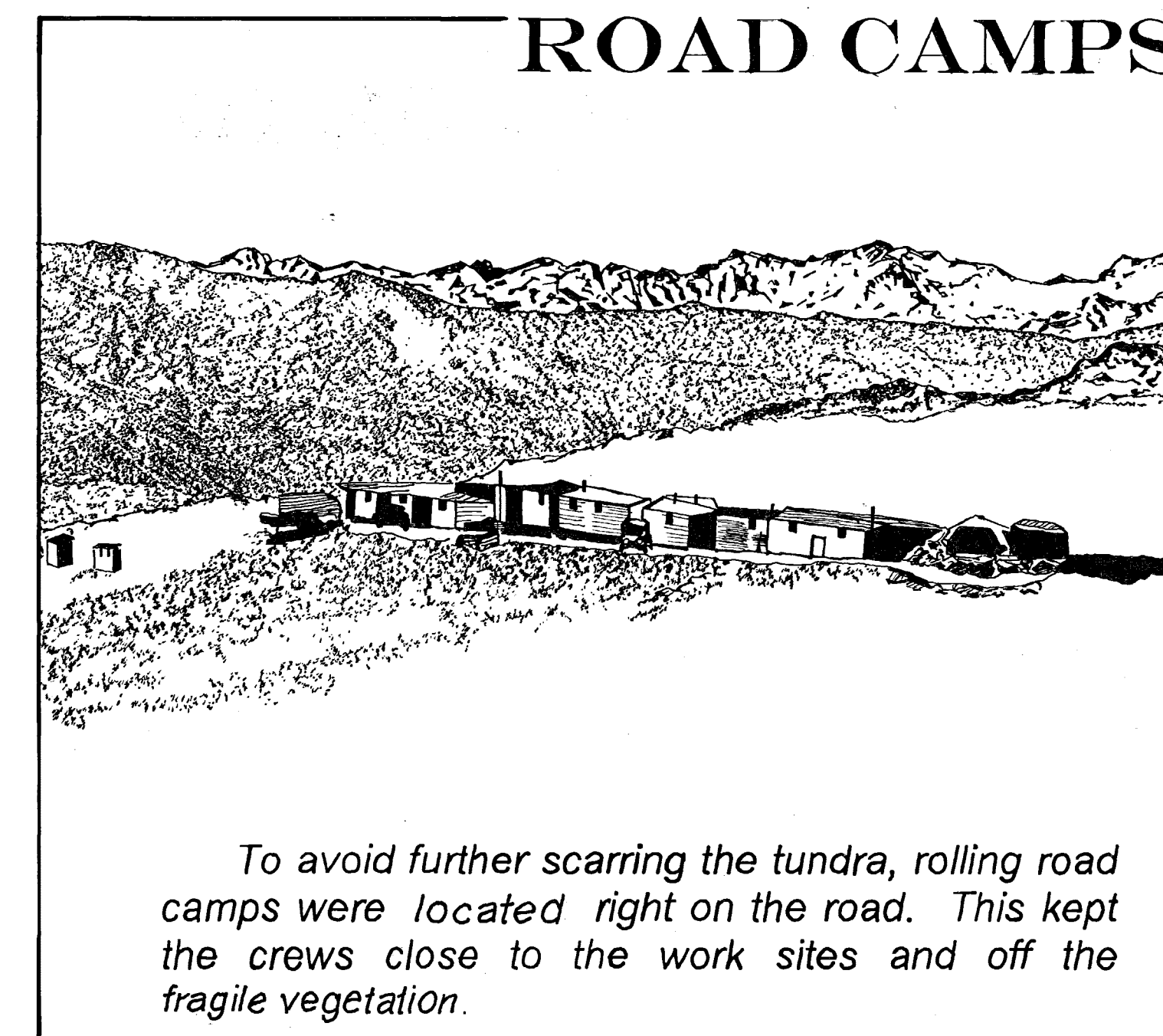
More than eight miles of Trail Ridge Road lie at least 11,000' above sea level; three miles are above 12,000'. Above treeline, the road crosses an open tundra landscape underlain by perpetually frozen soil called permafrost usually only encountered north of the Arctic Circle. In contrast to the tortuous climb up from the valleys below, the high elevation sections were designed with easy slopes and gentle curves sweeping across the landscape, offering spectacular views down Forest Canyon and the Fall River Valley. Close at hand on either side are many of the highest peaks of the northern Rockies.

Construction of the road through this harsh and ecologically sensitive landscape presented challenges rarely encountered in traditional roadway construction. Construction crews working in this section were routinely confronted by harsh weather conditions. Road-obliterating landslides and heavy snowdrifts hampered the work. Violent electrical storms and hurricane-force winds often forced crews down the mountain. Freezing temperatures and blinding snowstorms could occur at any time, even in the summer months. Compounding these problems was the lack of oxygen at the higher altitudes, making the hard work even more difficult.

One of the greatest challenges was constructing the roadway across the alpine tundra and permafrost, an extremely delicate ecosystem that develops at a rate of about an inch every hundred years. Normal drills would not penetrate the frozen material, and special equipment had to be designed. The thinner areas could be stripped away like sod or melted by exposure, but where it was deep, disturbance had to be minimized. The deeper parts below the surface could not be allowed to melt, or the area would turn into a permanent quagmire. Here the upper sections were carefully removed, then a prepared roadbed was constructed on rock fill resting directly atop the frozen soil. The tundra sod that had been salvaged was then used to cover the roadbanks scarred during construction.



ROAD AND TUNDRA SECTION



To avoid further scarring the tundra, rolling road camps were located right on the road. This kept the crews close to the work sites and off the fragile vegetation.

DELINEATED BY: Christopher A. Boldt, 2000

NPS PARK ROADS RECORDING PROGRAM
UNITED STATES DEPARTMENT OF THE INTERIOR

ESTES PARK VICINITY

ROCKY MOUNTAIN NATIONAL PARK ROADS - 1920/1932

LARIMER COUNTY

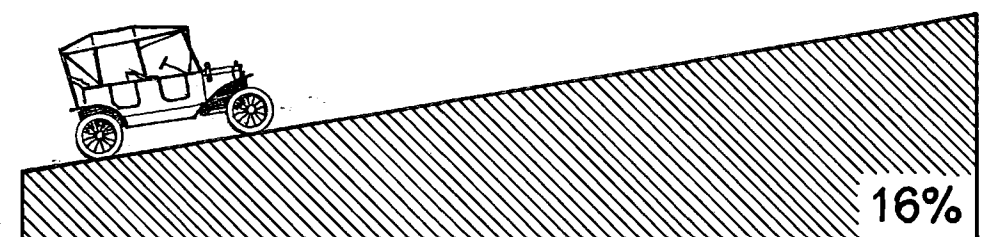
COLORADO

SHEET 3 of 8

HISTORIC AMERICAN ENGINEERING RECORD
CO-78

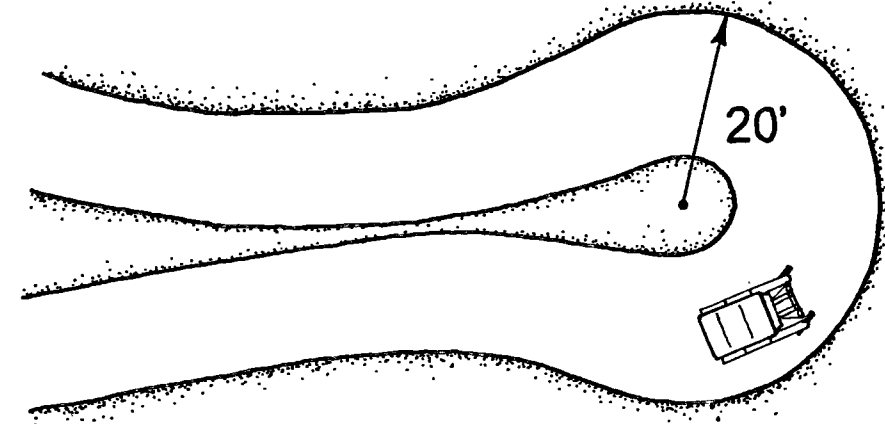
IF REPRODUCED, PLEASE CREDIT: HISTORIC AMERICAN ENGINEERING RECORD, NATIONAL PARK SERVICE, NAME OF DELINEATOR, DATE OF THE DRAWING

GRADE



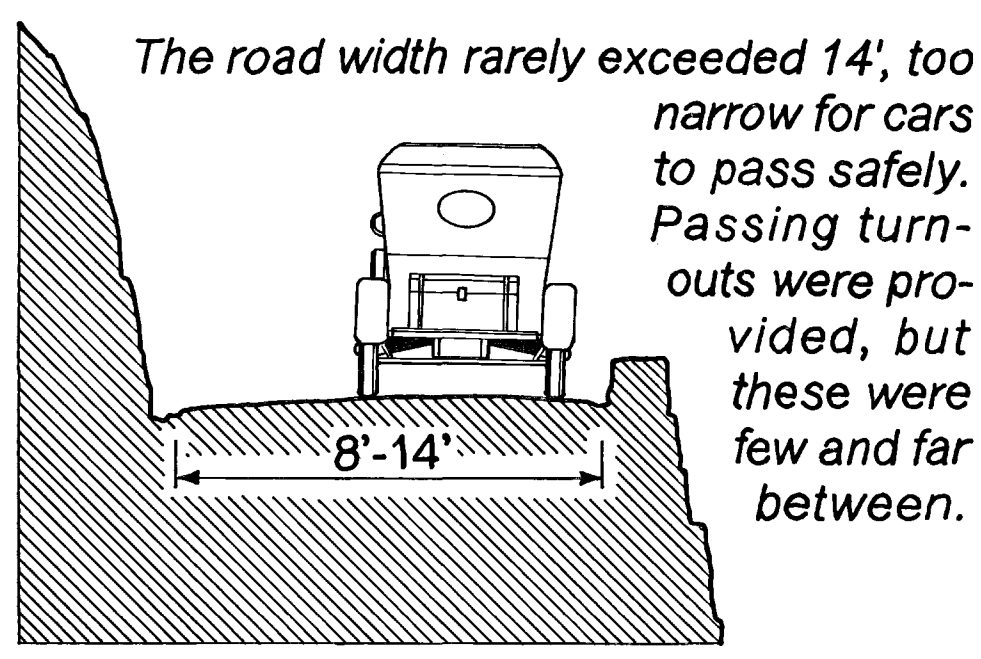
The road climbed to Fall River Pass on steep grades sometimes reaching 16%. Some early automobiles had to climb in reverse due to their weak engines and gravity-fed fuel systems. Surfacing materials washed off quickly.

TURN RADIUS

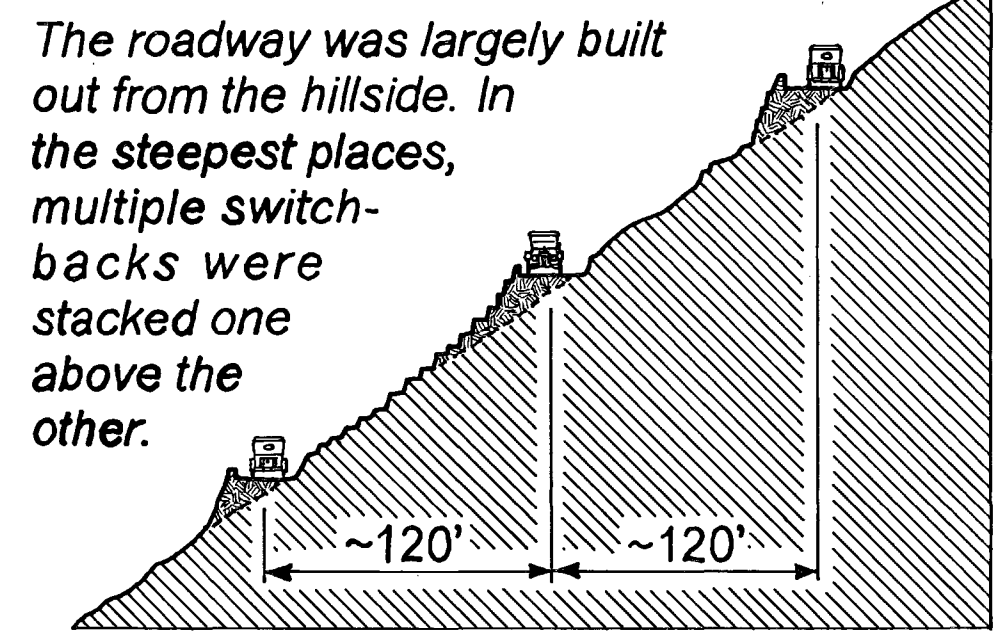


Motorists had to negotiate sixteen switchbacks with radii as tight as 20'. Some vehicles had to turn back and forth repeatedly to make the curves.

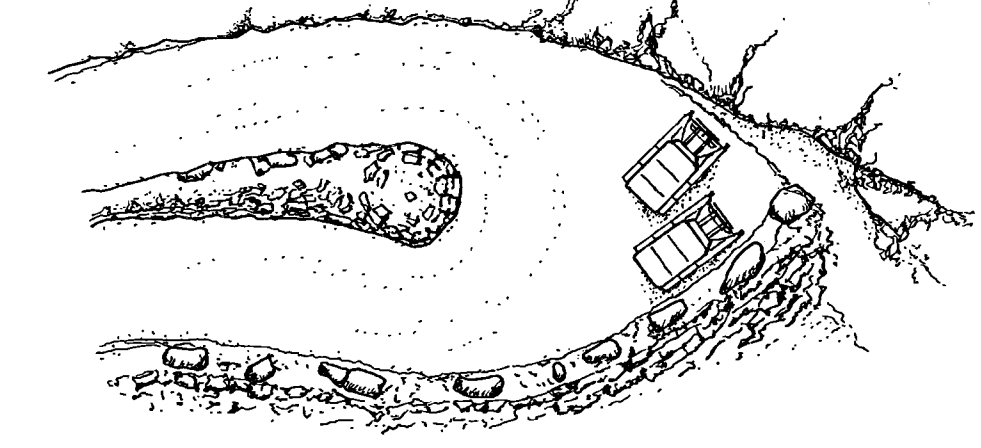
ROAD WIDTH



ELEVATION GAIN

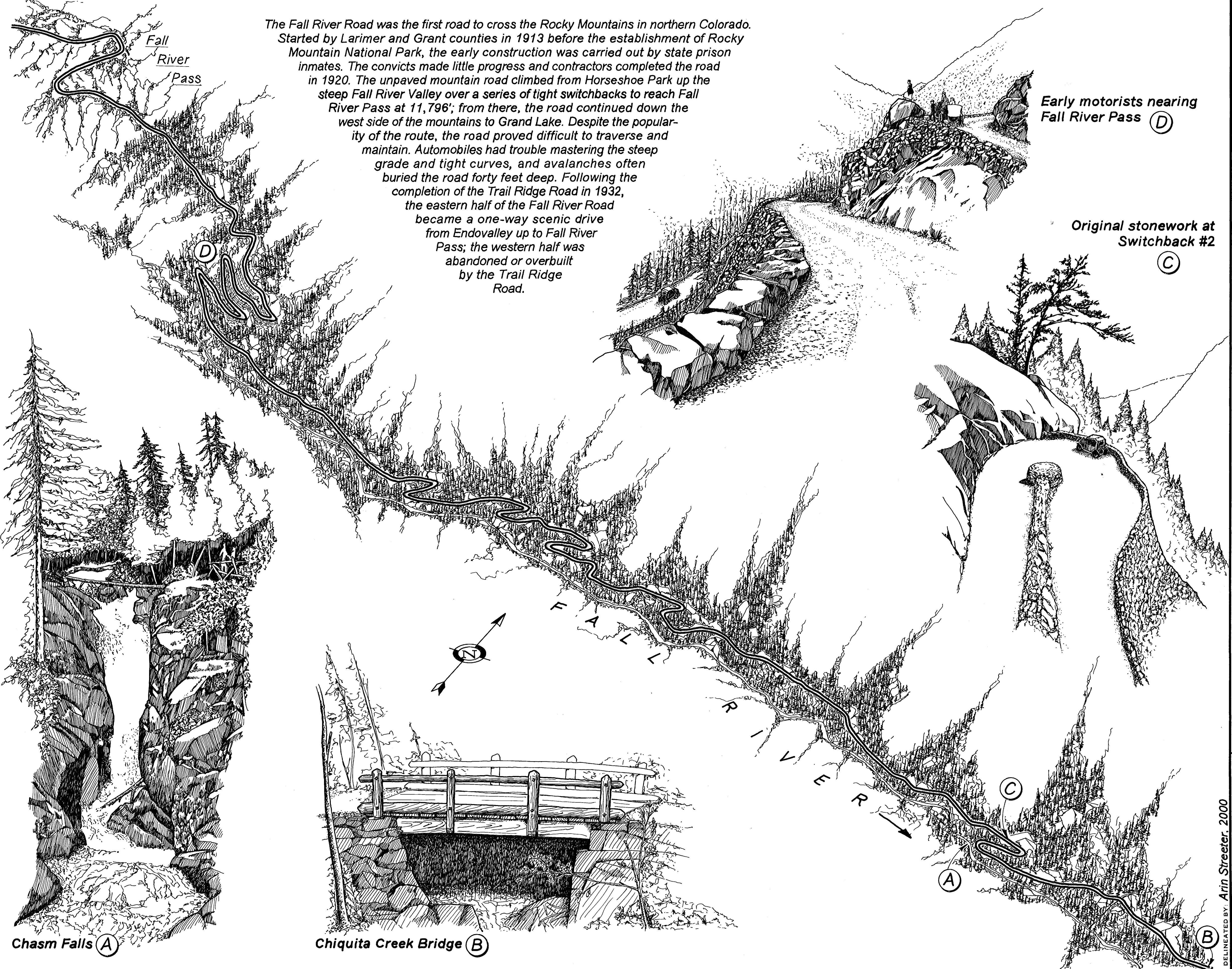


PULLOUTS



Few pullouts were provided to allow motorists to stop; some were located on switchbacks, making the curves even more difficult.

FALL RIVER ROAD - 1920



The Fall River Road was the first road to cross the Rocky Mountains in northern Colorado. Started by Larimer and Grant counties in 1913 before the establishment of Rocky Mountain National Park, the early construction was carried out by state prison inmates. The convicts made little progress and contractors completed the road in 1920. The unpaved mountain road climbed from Horseshoe Park up the steep Fall River Valley over a series of tight switchbacks to reach Fall River Pass at 11,796'; from there, the road continued down the west side of the mountains to Grand Lake. Despite the popularity of the route, the road proved difficult to traverse and maintain. Automobiles had trouble mastering the steep grade and tight curves, and avalanches often buried the road forty feet deep. Following the completion of the Trail Ridge Road in 1932, the eastern half of the Fall River Road became a one-way scenic drive from Endovalley up to Fall River Pass; the western half was abandoned or overbuilt by the Trail Ridge Road.

Early motorists nearing Fall River Pass (D)

Original stonework at Switchback #2 (C)

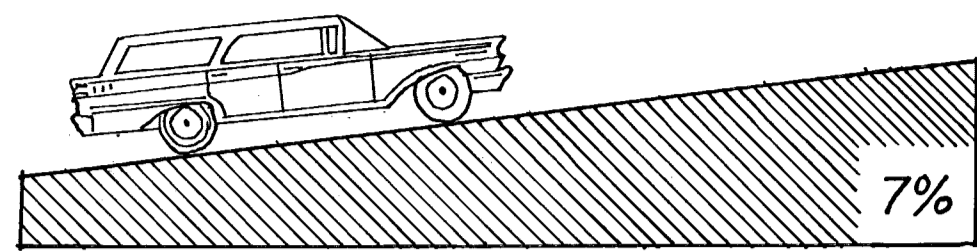
Chasm Falls (A)

Chiquita Creek Bridge (B)

DELINEATED BY Arin Streeter, 2000
NPS PARK ROADS RECORDING PROGRAM
NATIONAL PARK SERVICE
UNITED STATES DEPARTMENT OF THE INTERIOR
ESTES PARK VICINITY
ROCKY MOUNTAIN NATIONAL PARK ROADS - 1920/1932
LARAMIE COUNTY
COLORADO
SHEET 4 of 8
HISTORIC AMERICAN ENGINEERING RECORD
CO-78

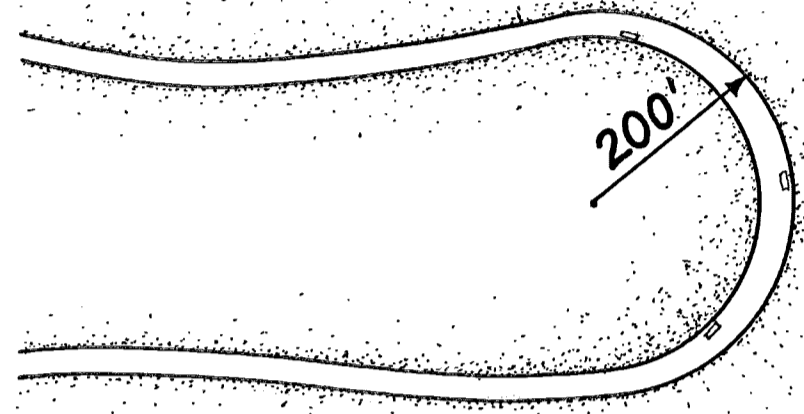
IF REPRODUCED, PLEASE CREDIT: HISTORIC AMERICAN ENGINEERING RECORD, NATIONAL PARK SERVICE, NAME OF DELINEATOR, DATE OF THE DRAWING

GRADE



The road was designed with a ruling grade generally less than 5% and never exceeding 7%, less than half as steep as the Fall River Road.

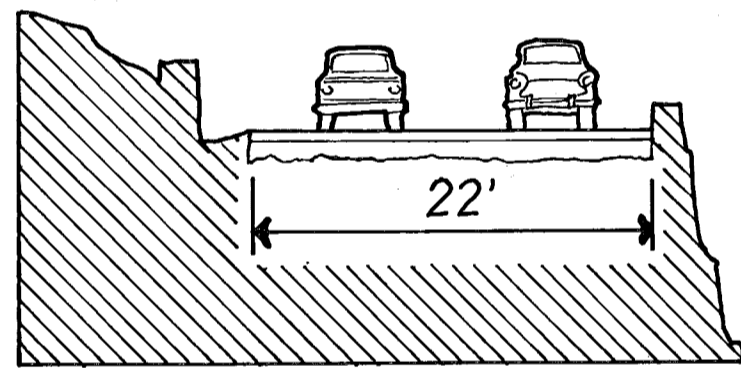
TURN RADIUS



Minimum radii for open curves was 100', and 200' on blind curves. Many curves were designed to sweep across but not dominate, the landscape.

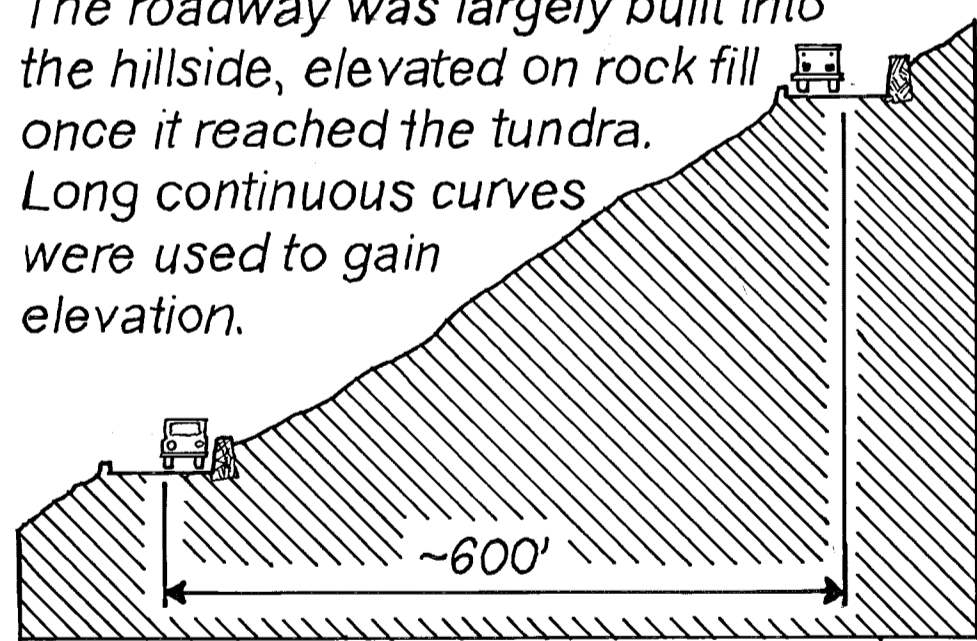
ROAD WIDTH

Unlike the single-track Fall River Road, Trail Ridge Road was designed as a two-lane with a 22' roadbed and 3' ditches in cut sections.

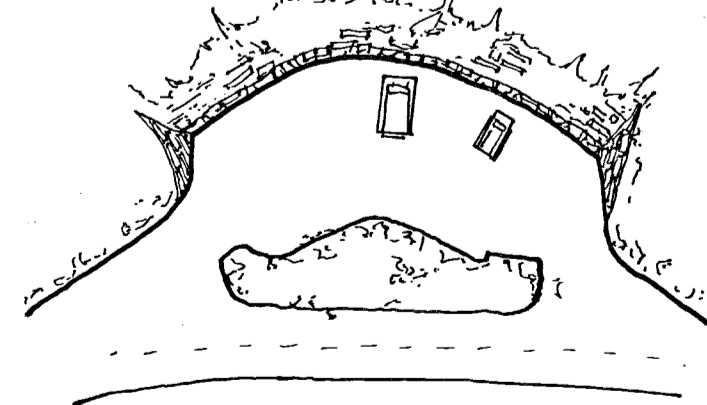


ELEVATION GAIN

The roadway was largely built into the hillside, elevated on rock fill once it reached the tundra. Long continuous curves were used to gain elevation.



PULLOUTS



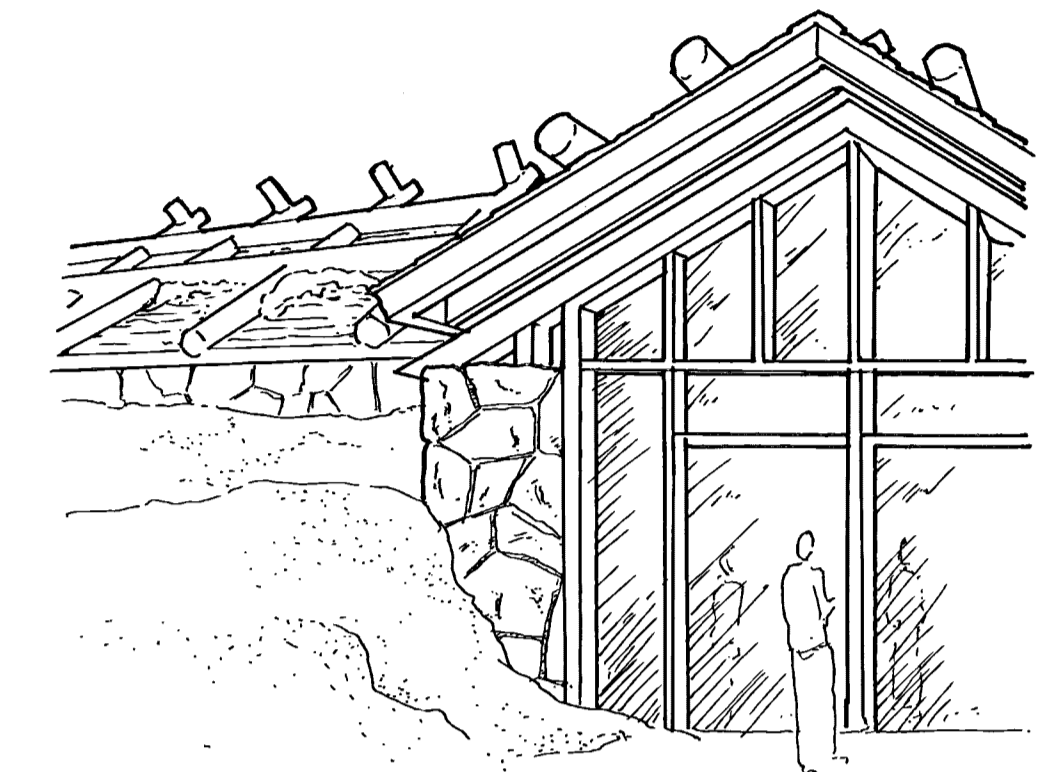
The commodious stone-walled turnouts, often located on major curves, provided ample space for visitors to take in the views.

TRAIL RIDGE ROAD - 1932

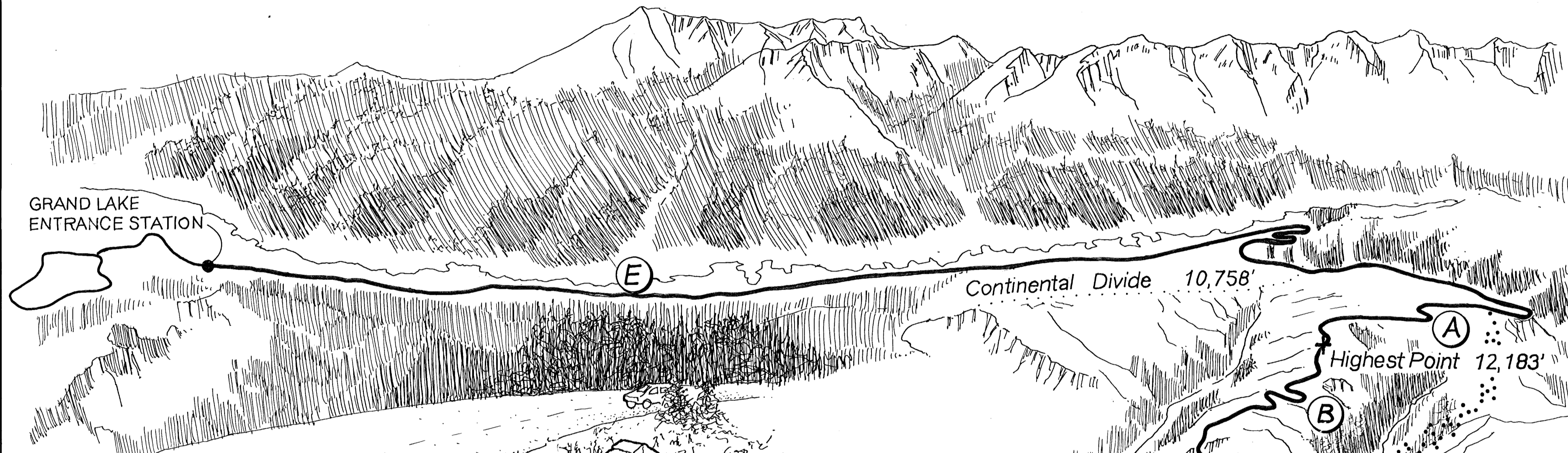
Trail Ridge Road provides spectacular views of the majestic scenery of Rocky Mountain National Park. It is the highest continuous motorway in the United States, with more than eight miles lying above 11,000' and a maximum elevation of 12,183'. The name "Trail Ridge Road" derives from its proximity to historic pathways used by native peoples to cross the Rocky Mountains.

Trail Ridge Road was designed to replace the Fall River Road, which proved inadequate for modern motor travel as soon as it opened in 1920. Trail Ridge Road was designed to have more gentle grades, broader curves, and a greater variety of scenic experiences. The sunny, ridge-top location would also reduce snow accumulation and allow Trail Ridge Road to open earlier than its shady, snow-laden predecessor.

Trail Ridge Road was constructed between 1926 and 1932 through the collaborative efforts of the National Park Service and the Bureau of Public Roads (now the Federal Highway Administration). Construction crews had to contend with imposing terrain, harsh weather, short working seasons, and stringent design criteria, which were intended to ensure that the road would "lie lightly on the land," displaying the region's rich scenic diversity with minimal impact on the natural environment. Trail Ridge Road opened in July 1932, providing motorists with access to impressive views, memorable wildlife viewing opportunities, and spectacular high mountain terrain.



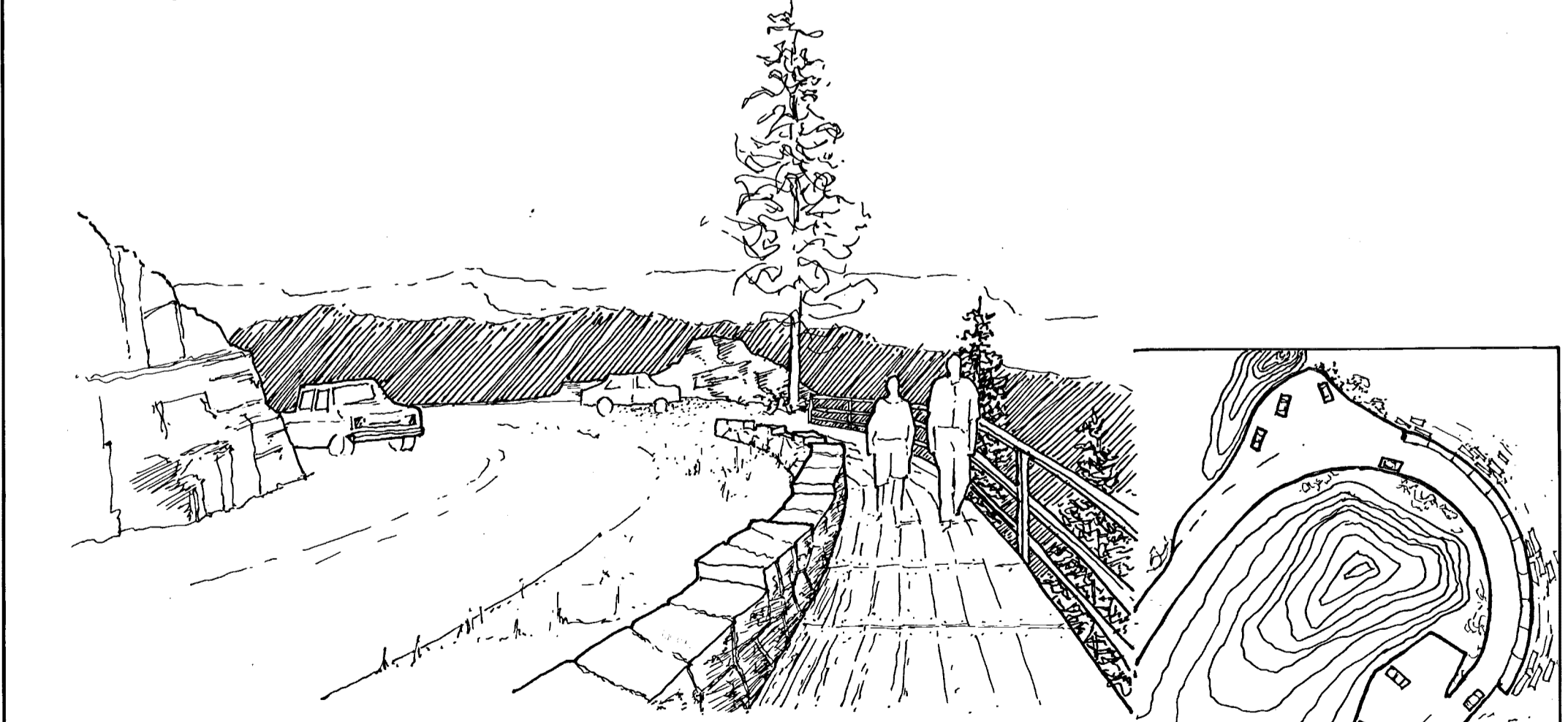
Alpine Visitors Center (A)
The heavy logs atop the Alpine Visitors Center are designed to withstand heavy snows and keep the roof from blowing away in fierce winter storms where winds can exceed 200 mph.



Kawuneeche Valley (E)
On the west side of the park, Trail Ridge Road passes through the Kawuneeche Valley, a region of dense forests, lush meadows, and winding streams. Several small creeks are bridged with attractive masonry culverts.

Tundra Curves and Lava Cliffs (B)
The graceful Tundra Curves are one of the most photographed features of Trail Ridge Road.

Fall River Road



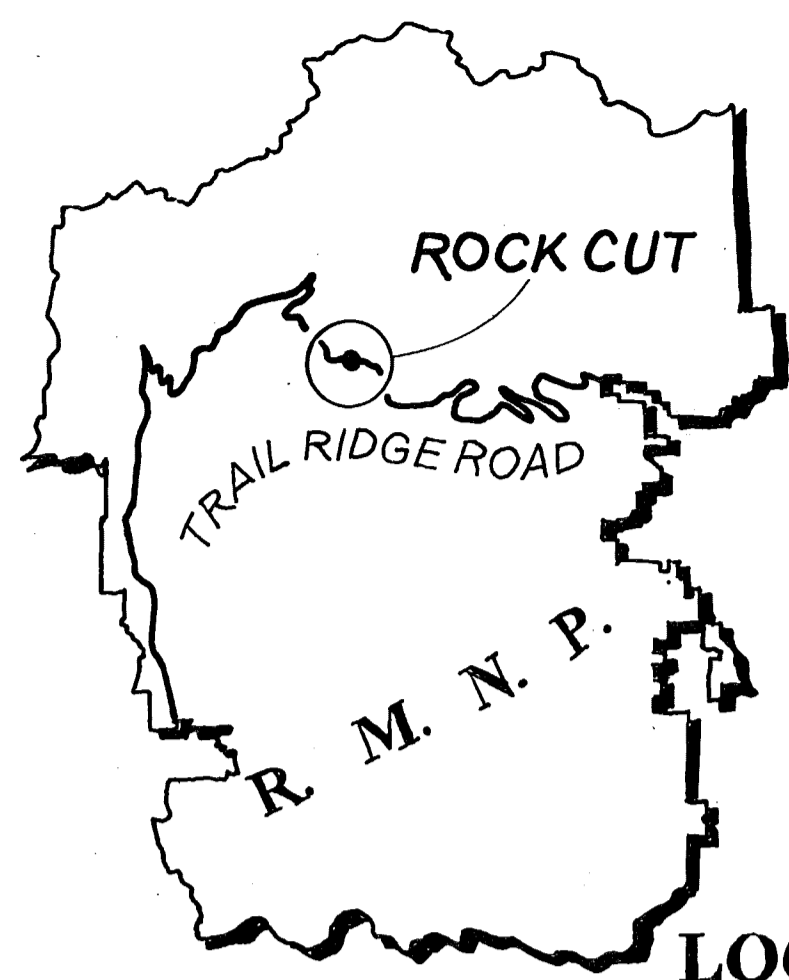
Many Parks Curve (D)
Trail Ridge Road was one of the first places the National Park Service developed a coordinated system of scenic pullouts designed to allow motorists to stop and safely view the surrounding scenery. The pedestrian walkway at Many Parks Curve was added in the 1960s to improve safety and provide even more impressive views.

Rock Cut (C)

Trail Ridge Road designers sought to showcase this unusual rock formation — an intrusion of igneous rock that rises above the bare alpine tundra. The looming rocks produce a memorable motoring experience that contrasts with the open tundra environment.

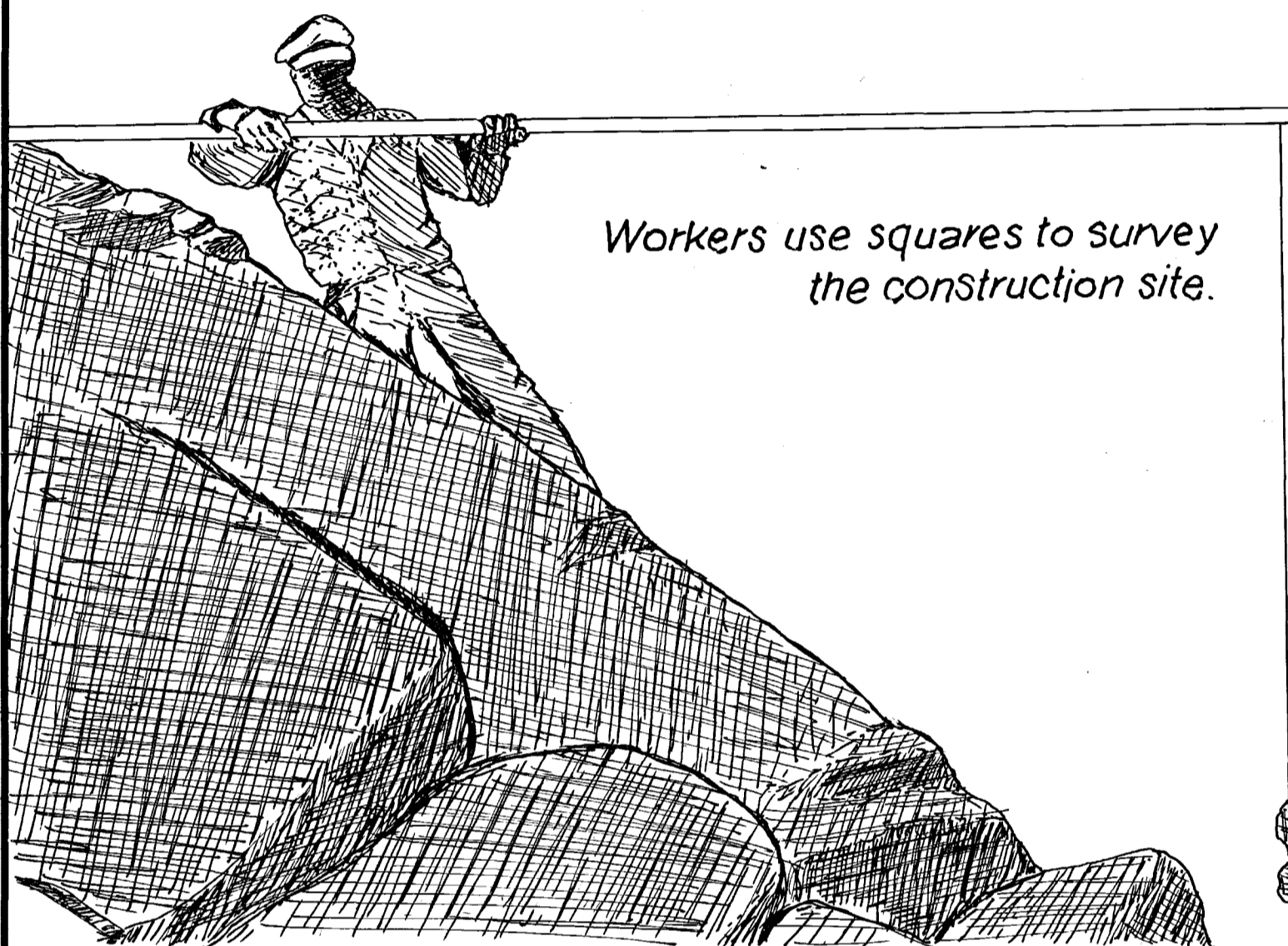
HISTORIC AMERICAN ENGINEERING RECORD CO-78
 SHEET 5 OF 8
 COLORADO
 LARIMER COUNTY
 ROCKY MOUNTAIN NATIONAL PARK ROADS - 1920/1932
 ESTES PARK VICINITY
 DELINEATED BY: Brandy Dubs, 2000
 NPS PARK ROADS RECORDING PROGRAM
 NATIONAL PARK SERVICE
 UNITED STATES DEPARTMENT OF THE INTERIOR
 IF REPRODUCED, PLEASE CREDIT: HISTORIC AMERICAN ENGINEERING RECORD, NATIONAL PARK SERVICE, NAME OF DELINEATOR, DATE OF THE DRAWING

THE ROCK CUT

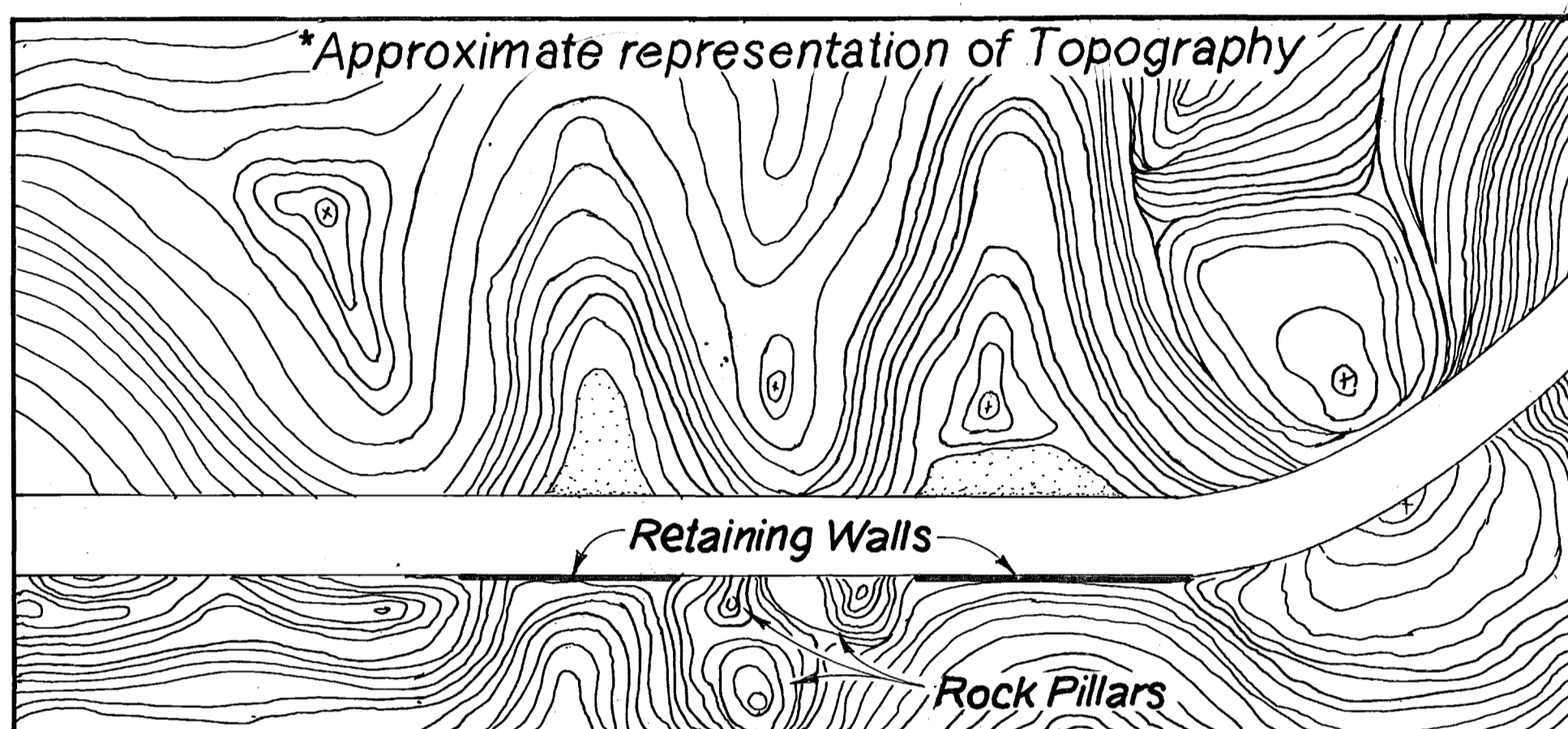


LOCATOR MAP

This projecting rock formation at 12,110' elevation had to be cut through by road crews in order to allow the Trail Ridge Road to pass. The highly resistant rock was blasted away with large quantities of explosives; in one case, 178 shots (a half ton of black powder) were wired together and fired at one time. The workers took special care to preserve the surviving stone monoliths on the downslope side, wrapping them in timber to protect them from rocks hurled by the blasting. Rocks thrown beyond the construction zone were retrieved to avoid marring the landscape. A steam shovel was employed to excavate the blasted material which was crushed and used in the bench sections for surfacing. The road through the rock cut is supported on high hand-placed dry-laid stone embankments topped by crenellated parapet wall.



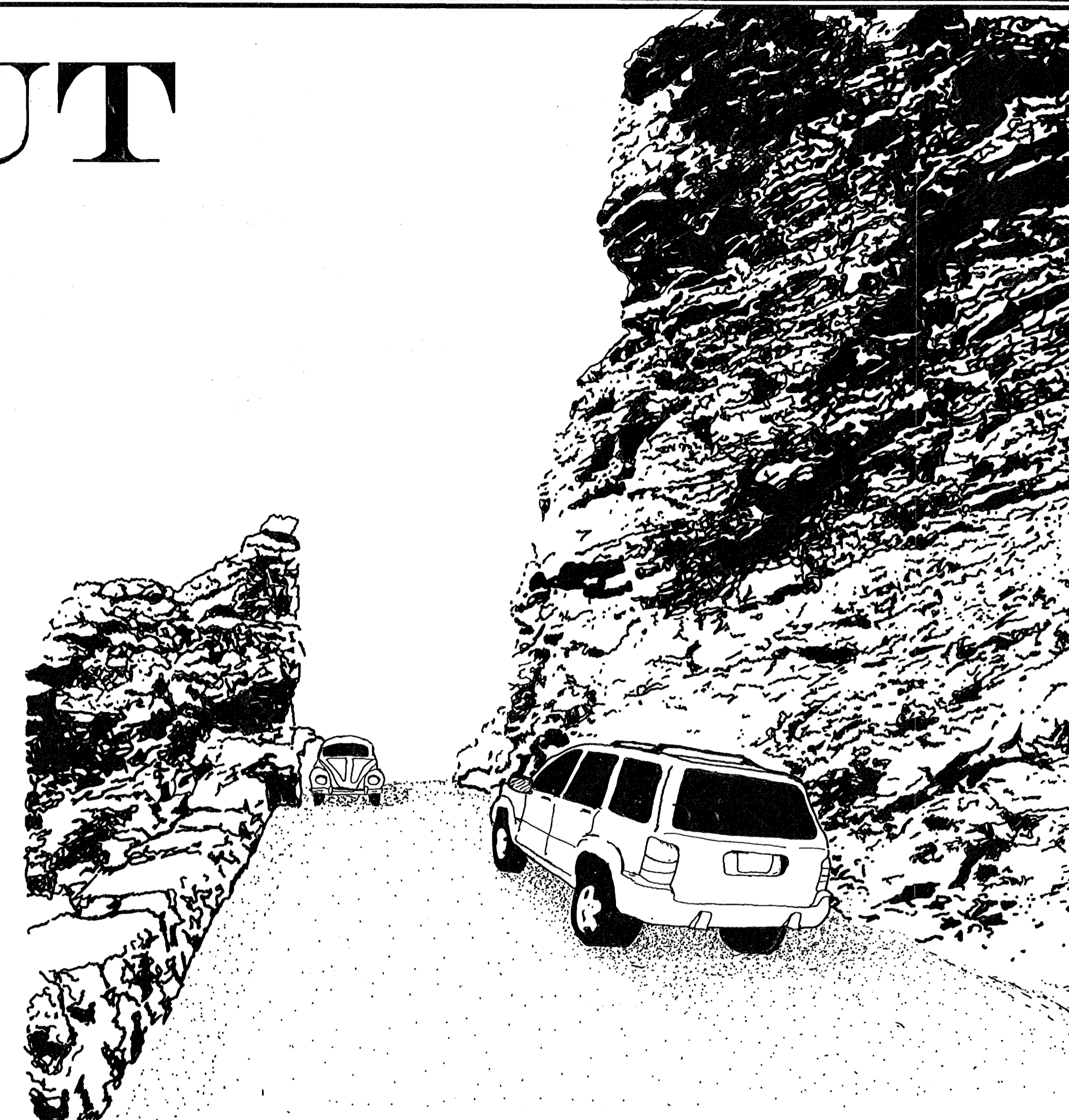
Workers use squares to survey the construction site.



*Approximate representation of Topography

Retaining Walls

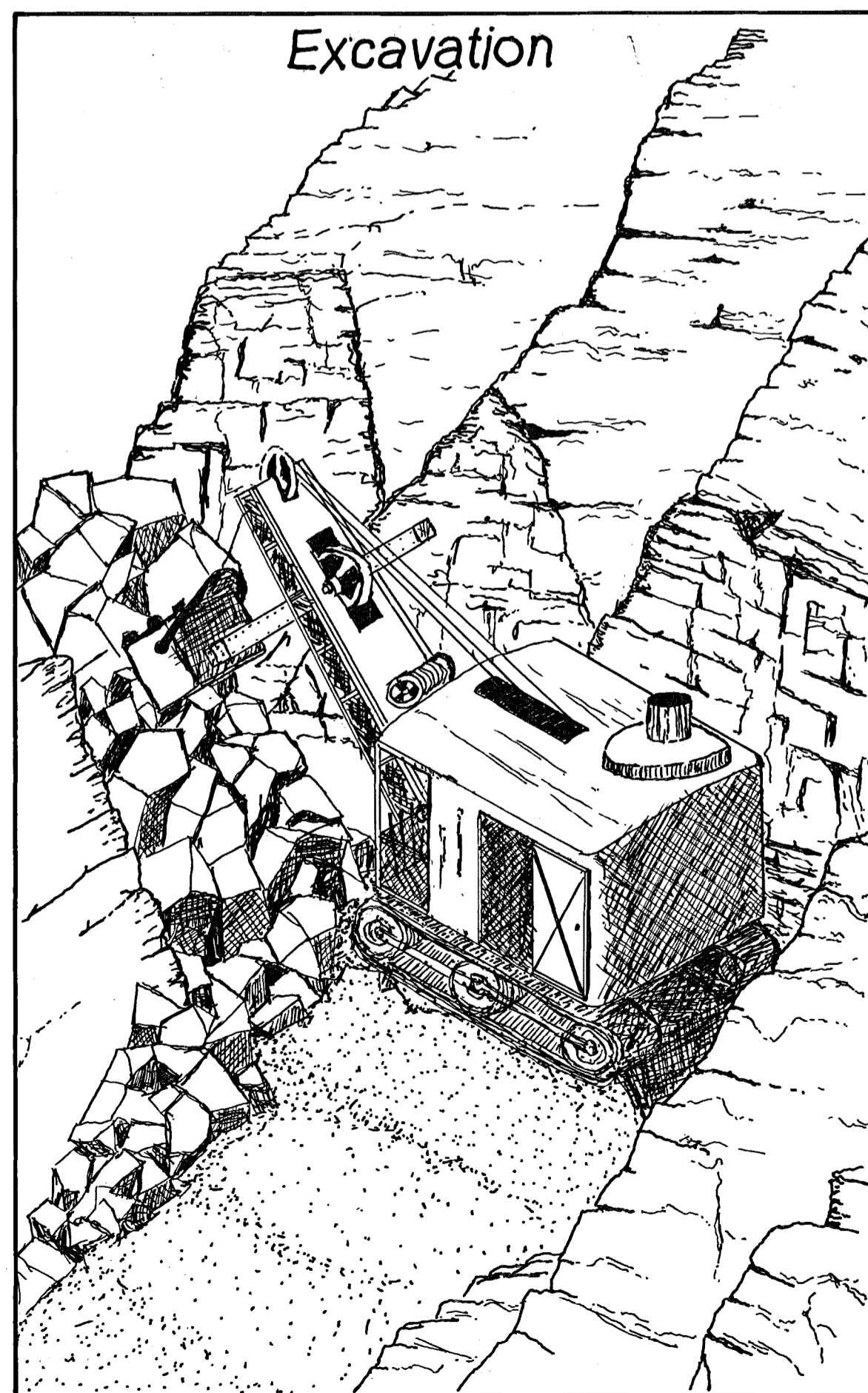
Rock Pillars



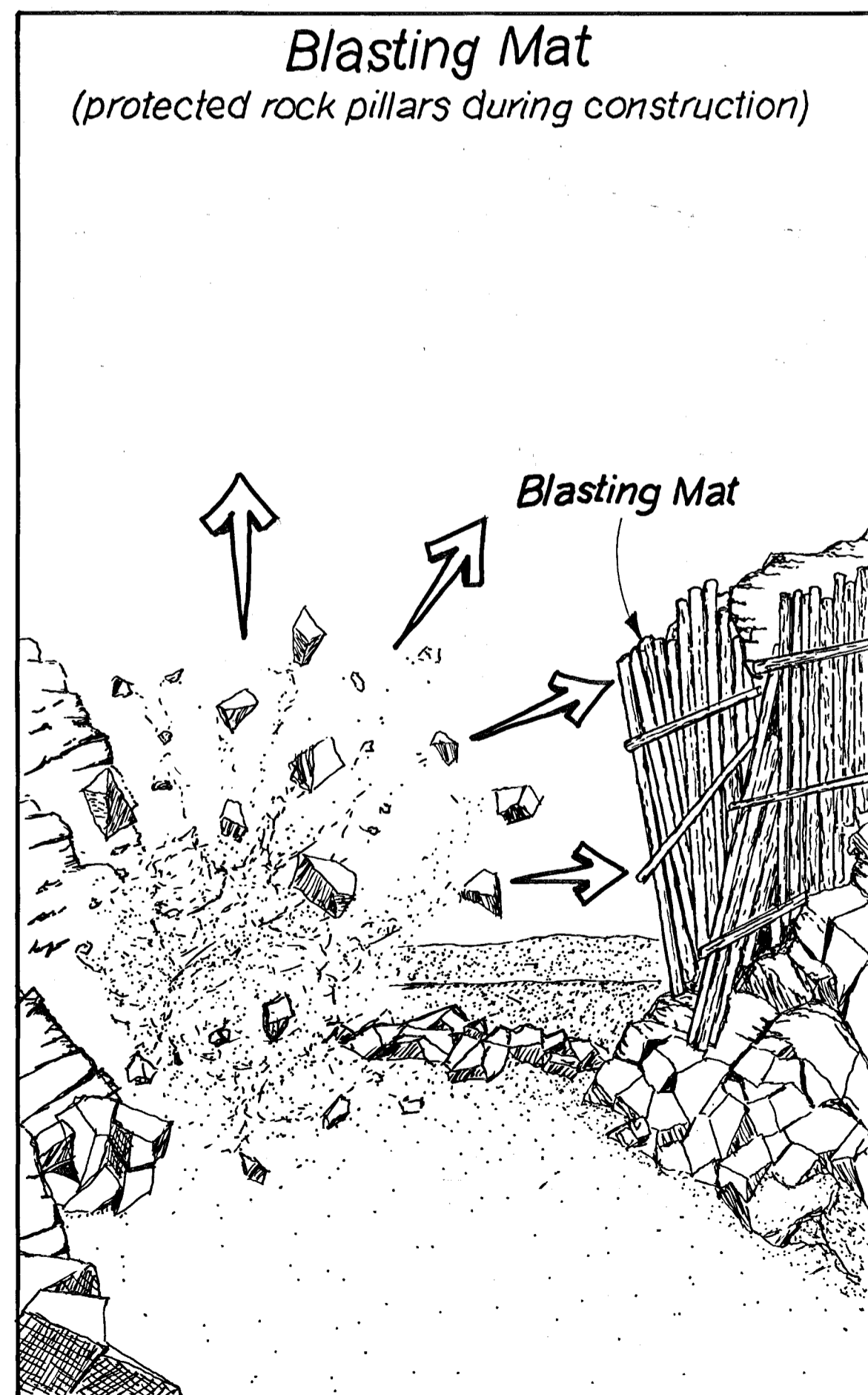
Choosing a Route



Drilling & Blasting

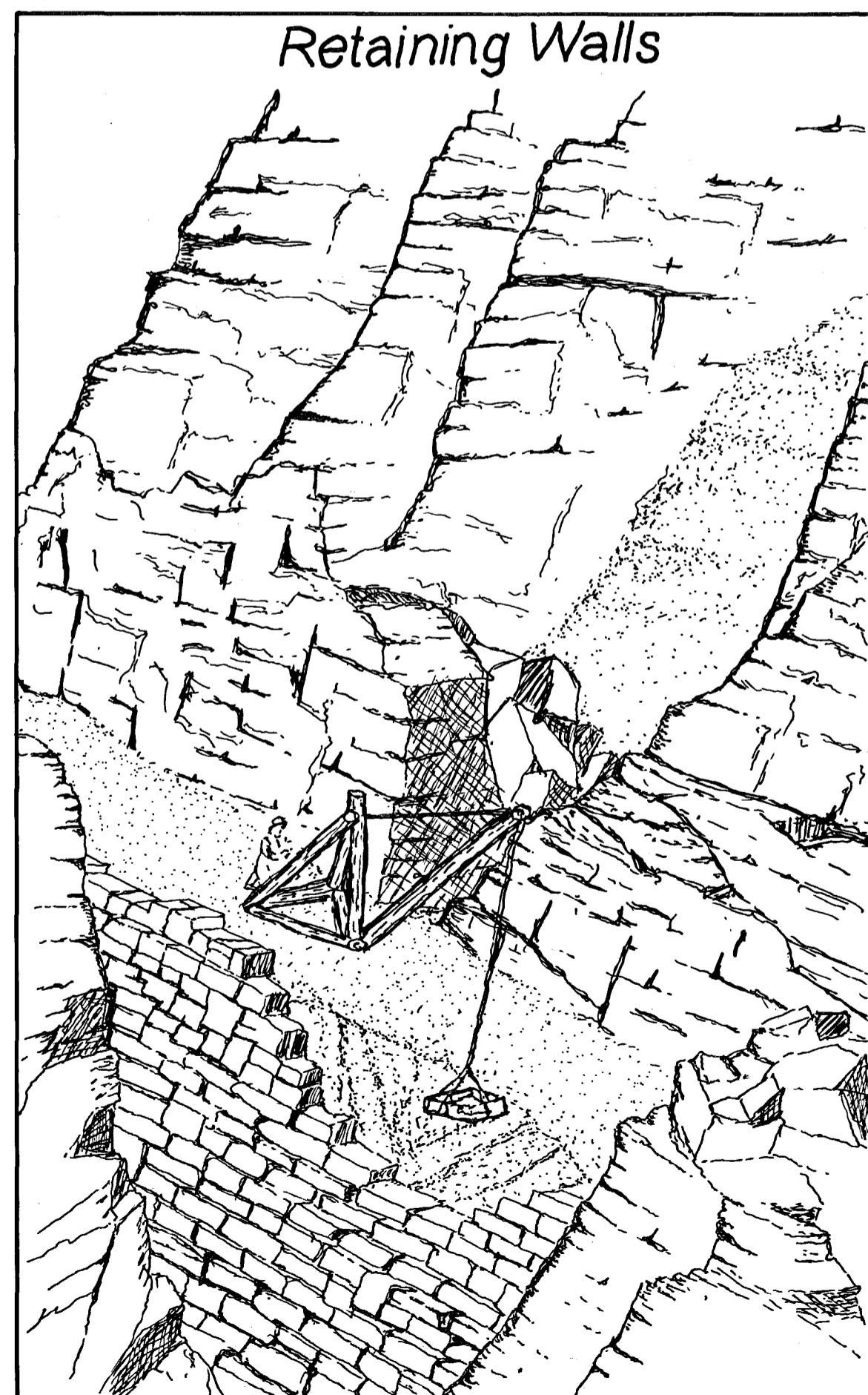


Excavation



Blasting Mat
(protected rock pillars during construction)

Blasting Mat



Retaining Walls

DELINEATED BY: Lucas Dupuis 2000
NPS PARK ROADS
RECORDING PROGRAM
NATIONAL PARK SERVICE
UNITED STATES DEPARTMENT OF THE INTERIOR

ROCKY MOUNTAIN NATIONAL PARK ROADS - 1920/1932

ESTES PARK VICINITY

LARIMER COUNTY

HISTORIC AMERICAN
ENGINEERING RECORD

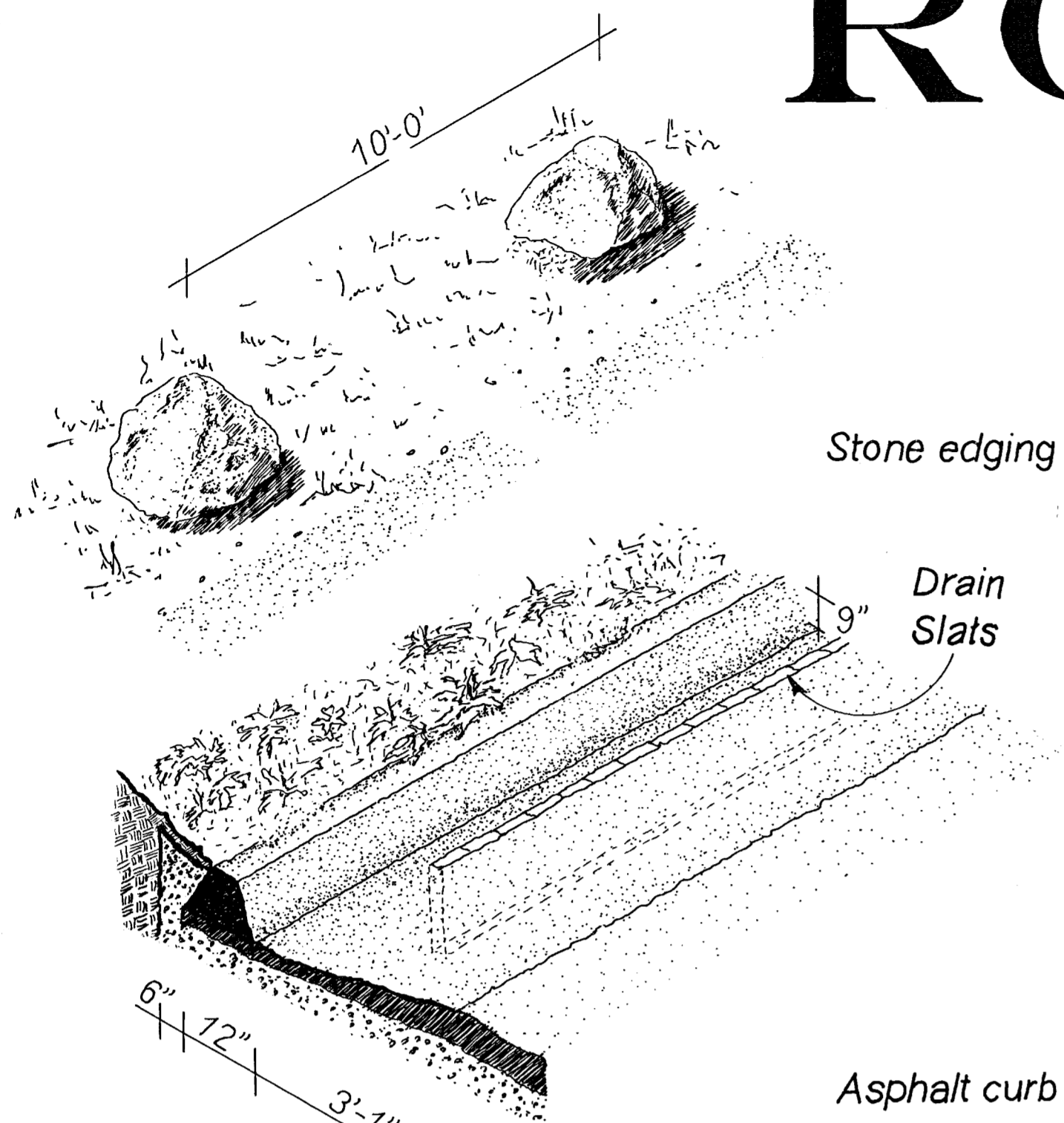
SHEET
6 of 8

COLORADO

CO-78

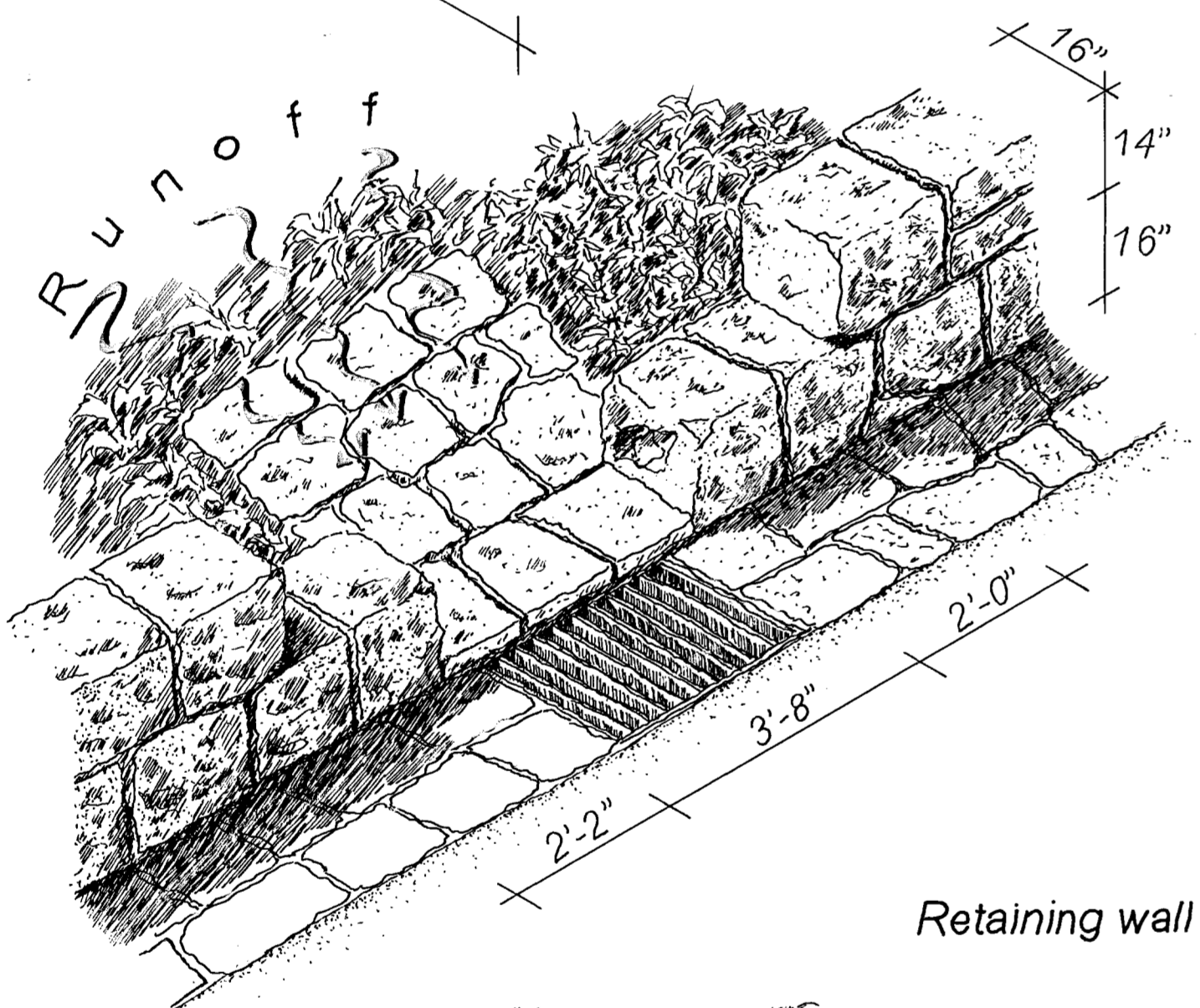
IF REPRODUCED, PLEASE CREDIT: HISTORIC AMERICAN ENGINEERING RECORD, NATIONAL PARK SERVICE, NAME OF DELINEATOR, DATE OF THE DRAWING

ROADSIDE EDGING



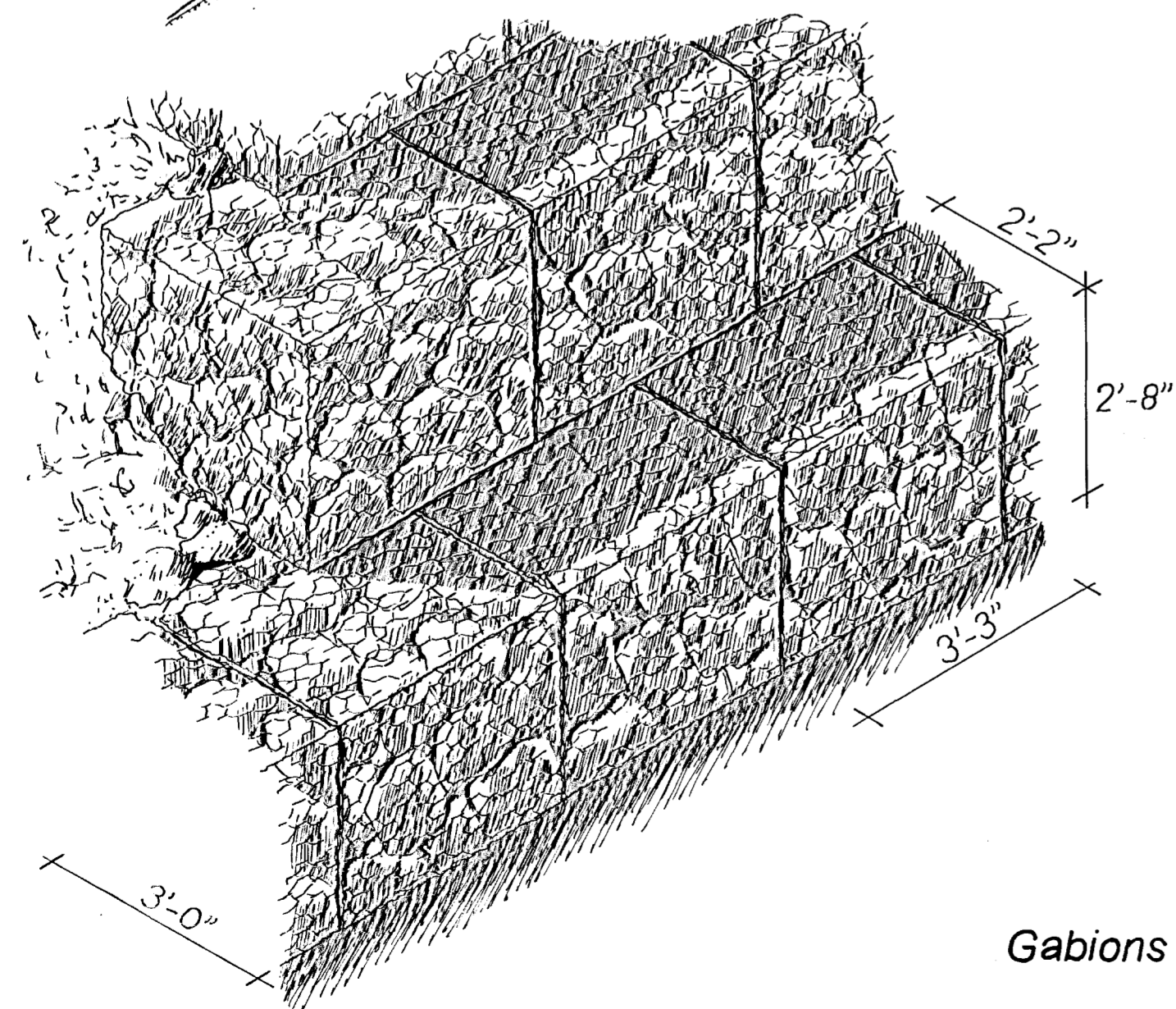
Stone edging

Drain Slats



Asphalt curb

Retaining wall

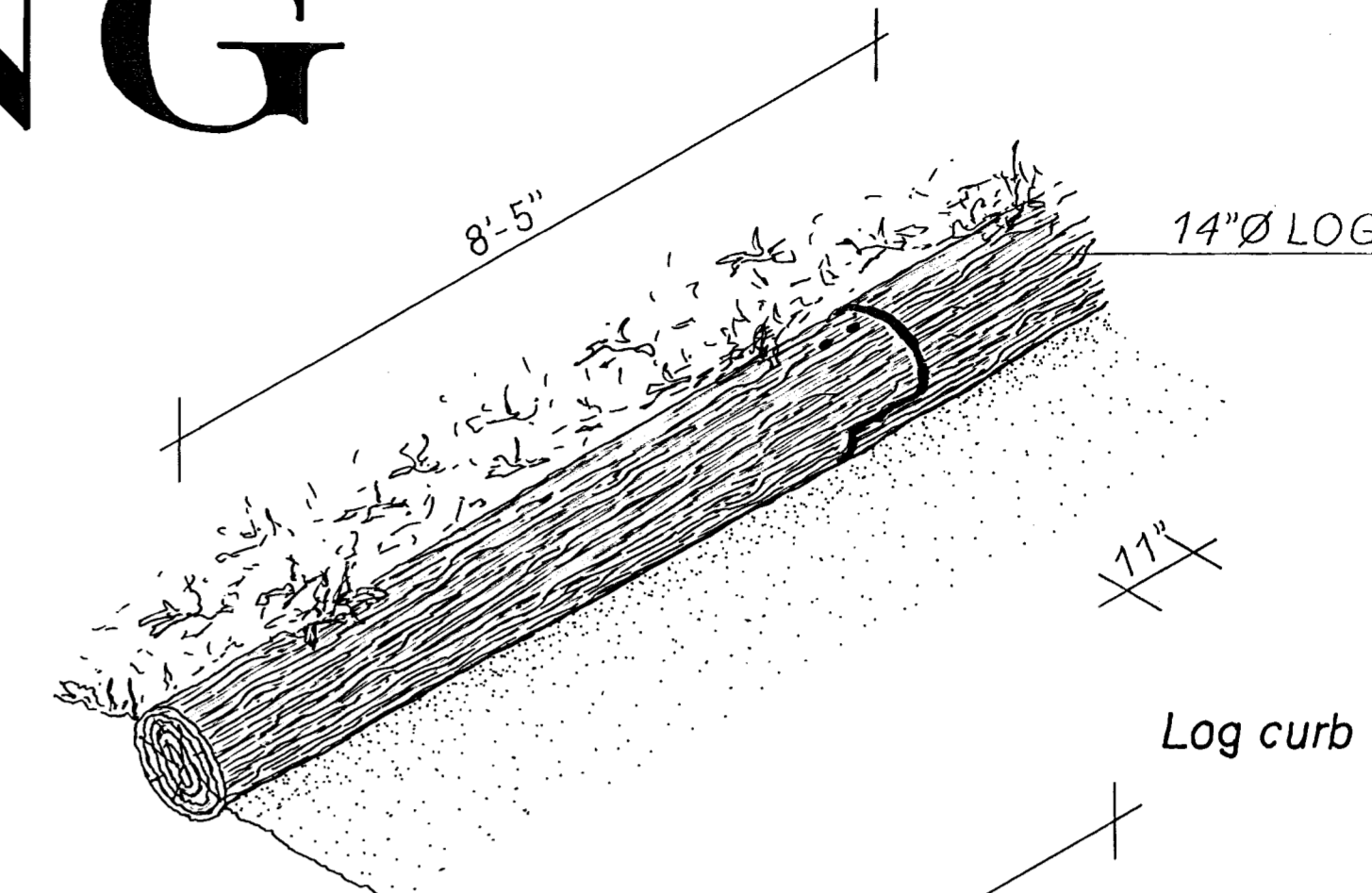


Gabions

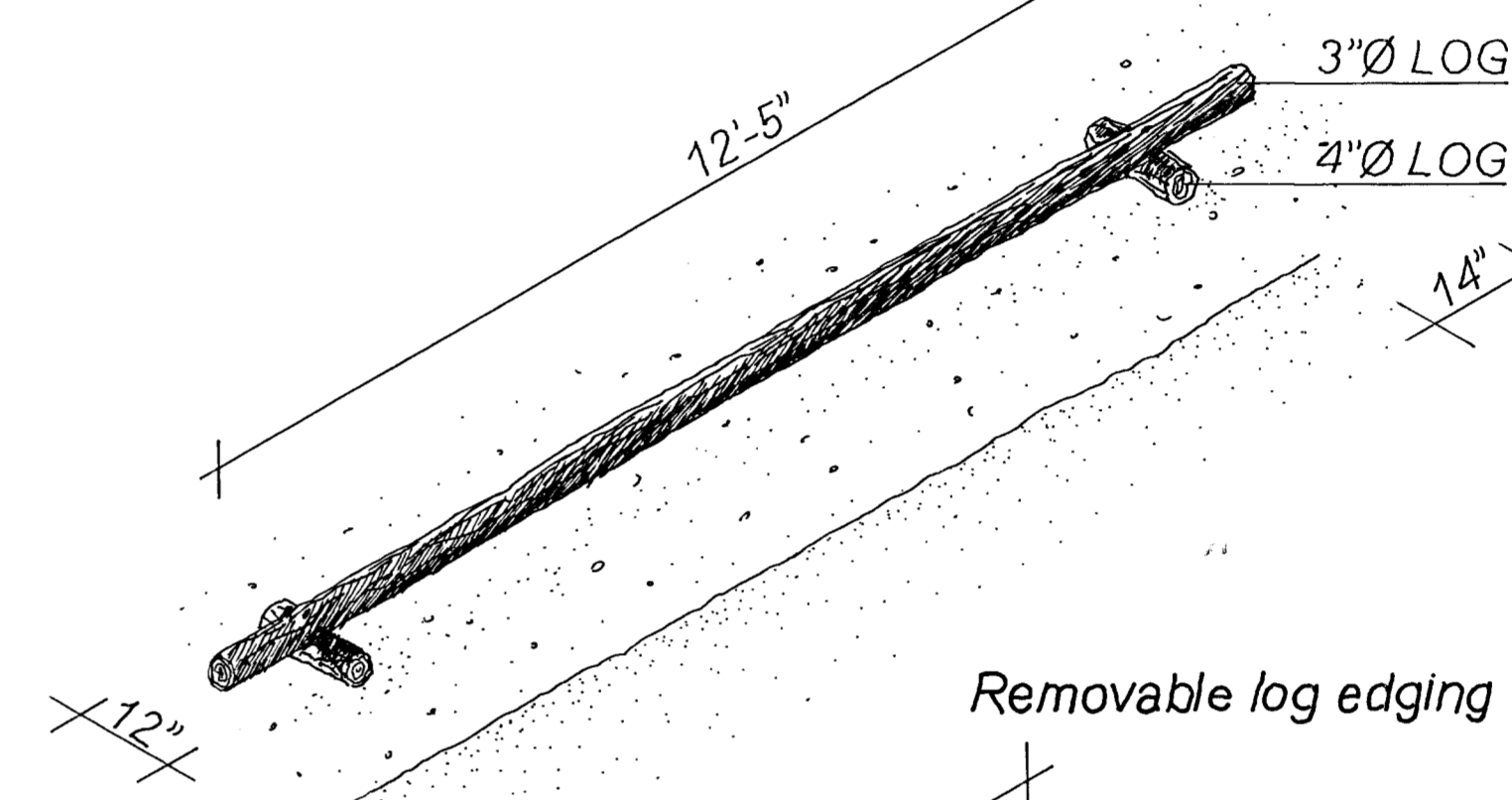
A variety of roadside treatments were employed along the edge of the Trail Ridge Road. The hand-laid rustic-style stone walls are the most extensively used form of roadside barrier. The original walls were "Type 3" crenellated parapet walls constructed from native stone chosen to harmonize with roadside outcrops. Over the years, some of these walls were partially buried as the road was repaved. Some of these sections are now being replaced with concrete core walls faced with native stone, much of it salvaged from the older walls. The park also has installed segments of precast concrete walls faced in artificial stone. These are used to stabilize

roadsides and to prevent uphill slopes from eroding, reducing the money and labor spent in ditch clearing and boulder removal.

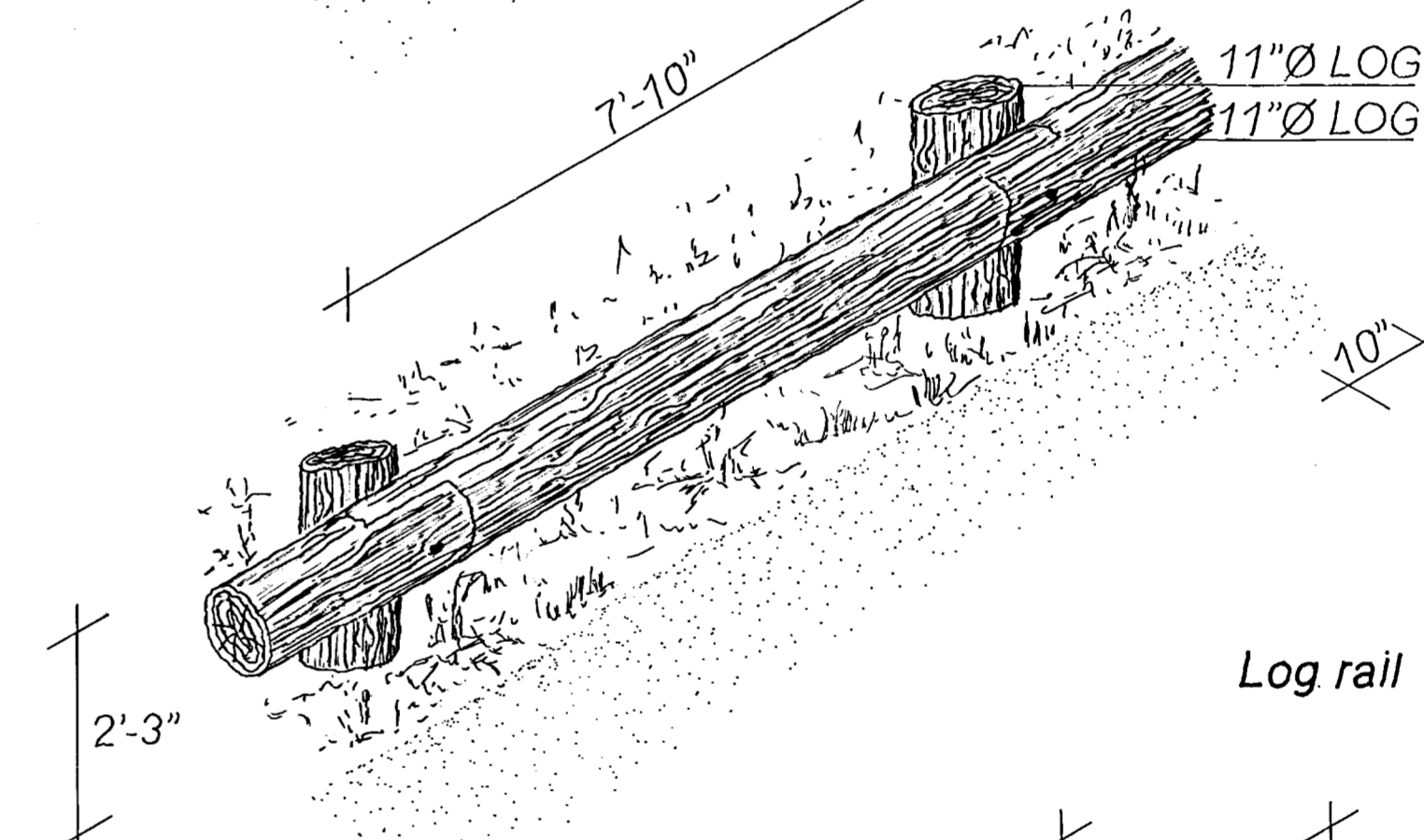
Wood poles resting on small cross logs are generally employed to discourage parking on narrow road sections; asphalt curbs flank other sections. Heavier log rails set into vertical posts formed roadside parapets on older road segments. Light A-frame pole fences are employed to delineate a separation between the roads and the wilderness beyond. On steep unstable sections prone to slides, gabions, rock-filled wire baskets, were used to stabilize the slopes.



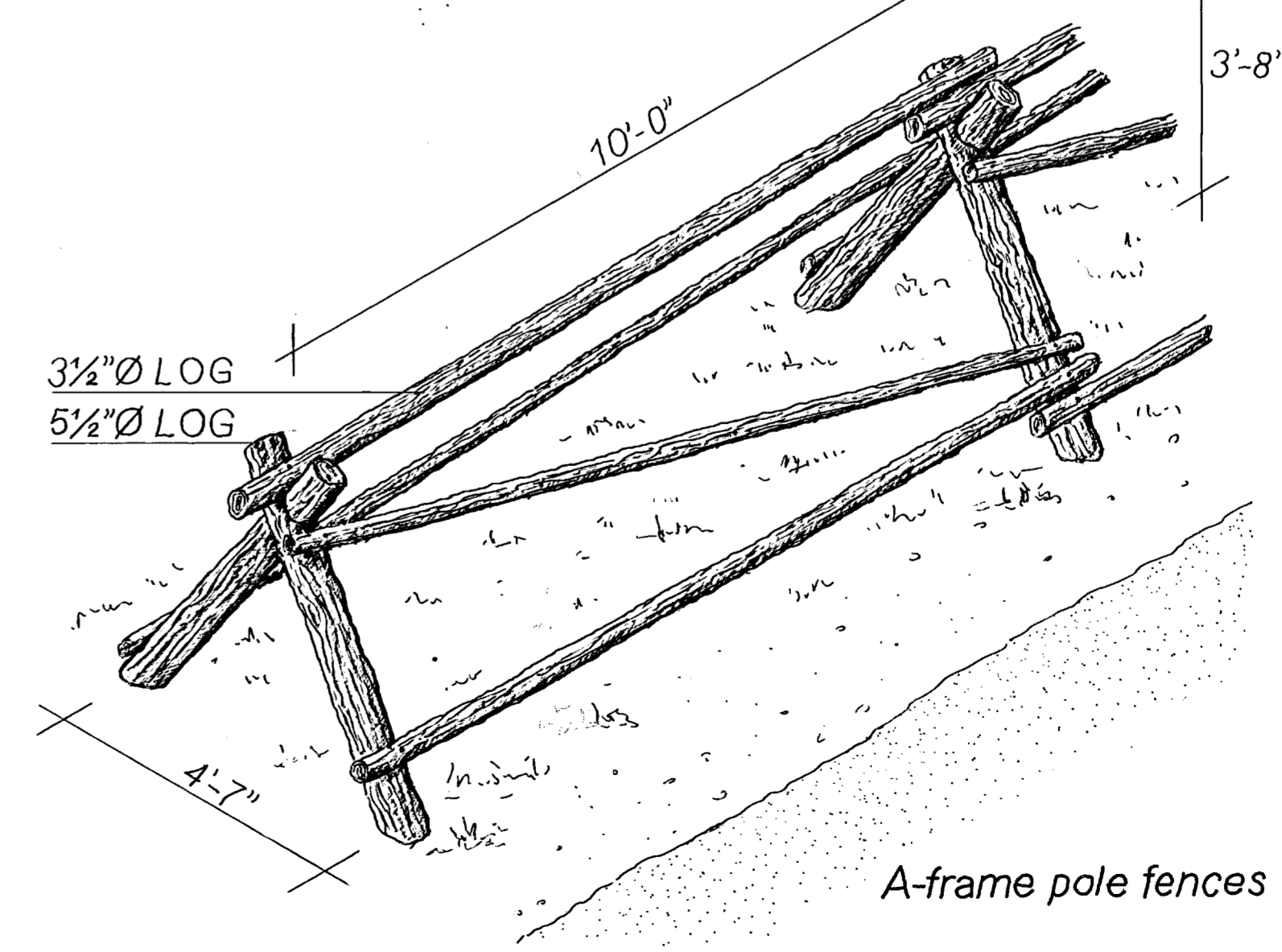
Log curb



Removable log edging

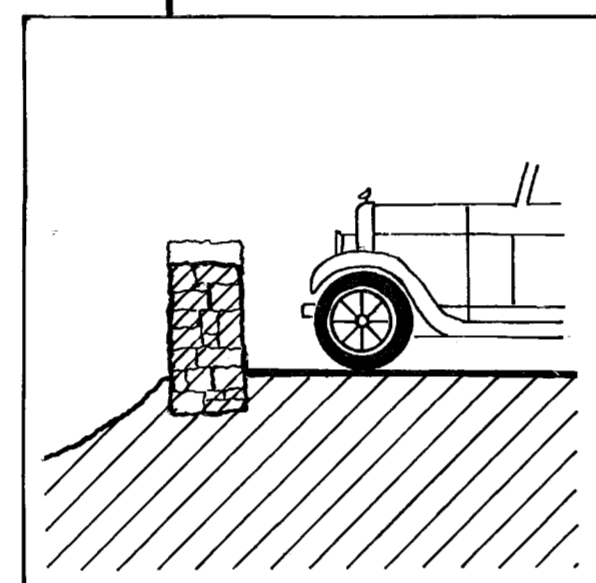


Log rail

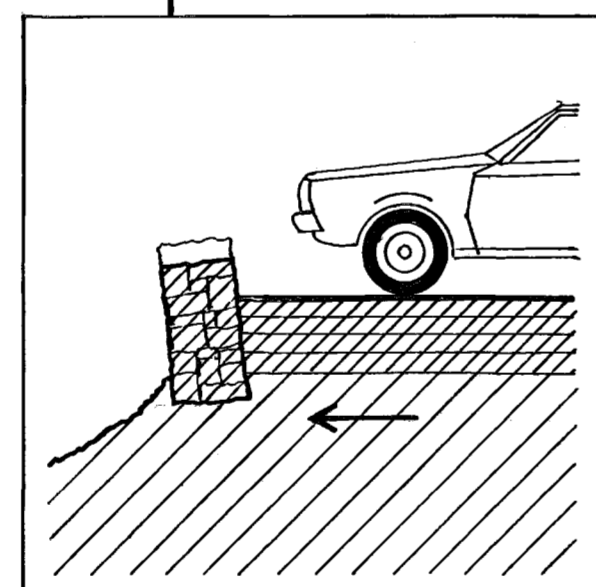


A-frame pole fences

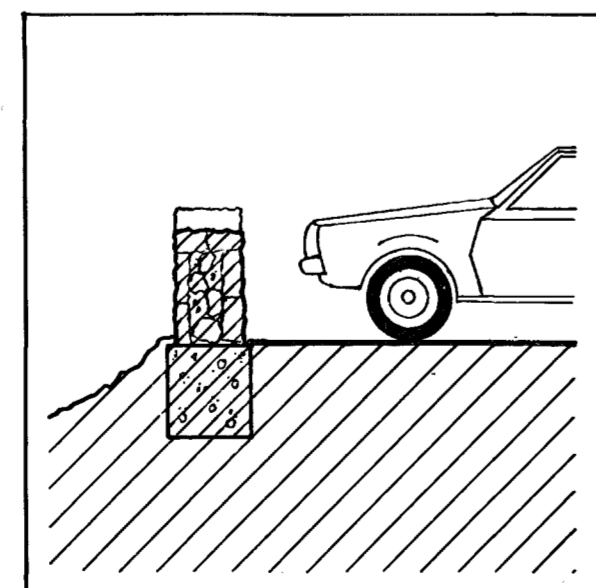
WALL RECONSTRUCTION



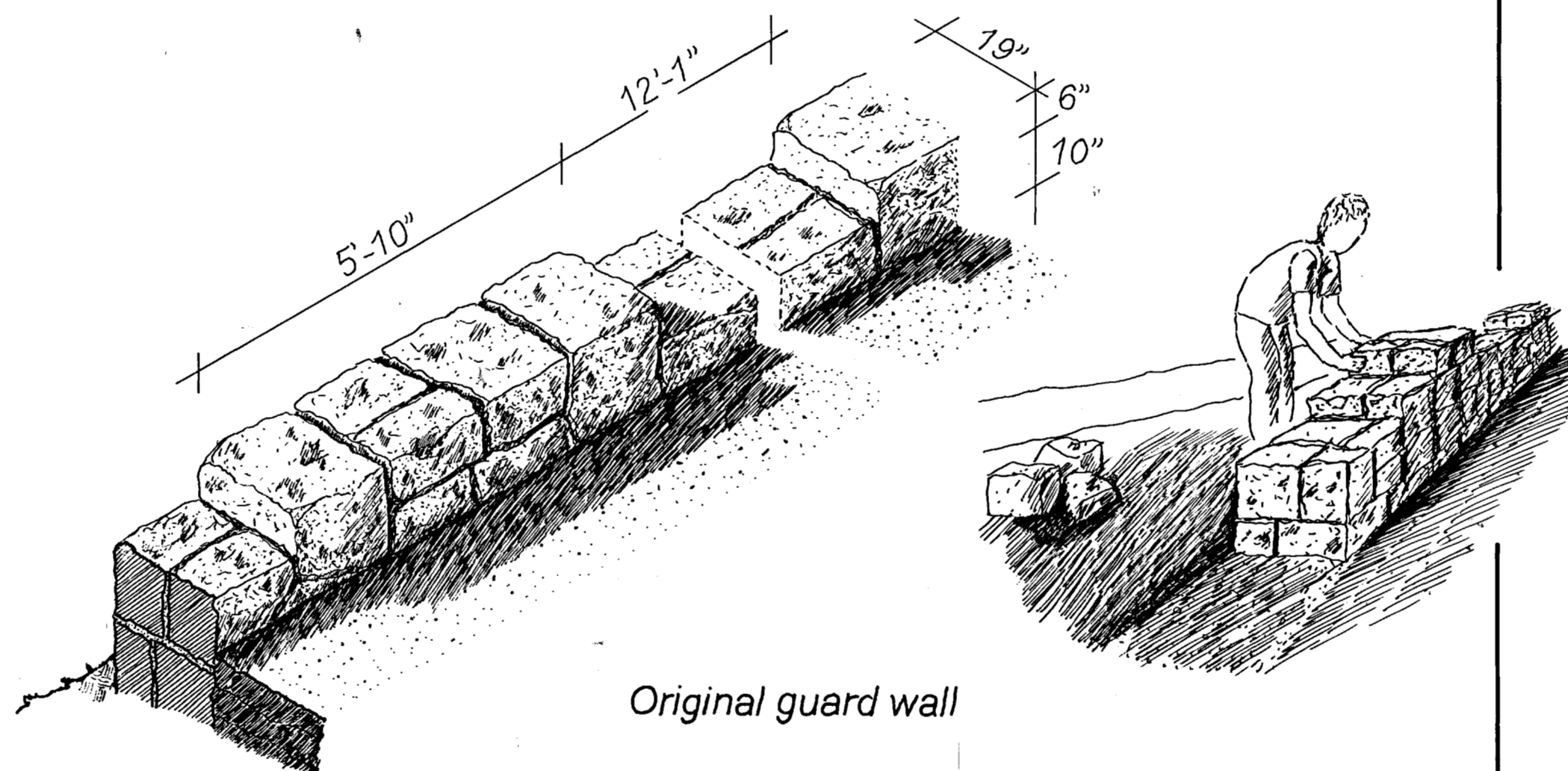
Original rustic style stone guard wall



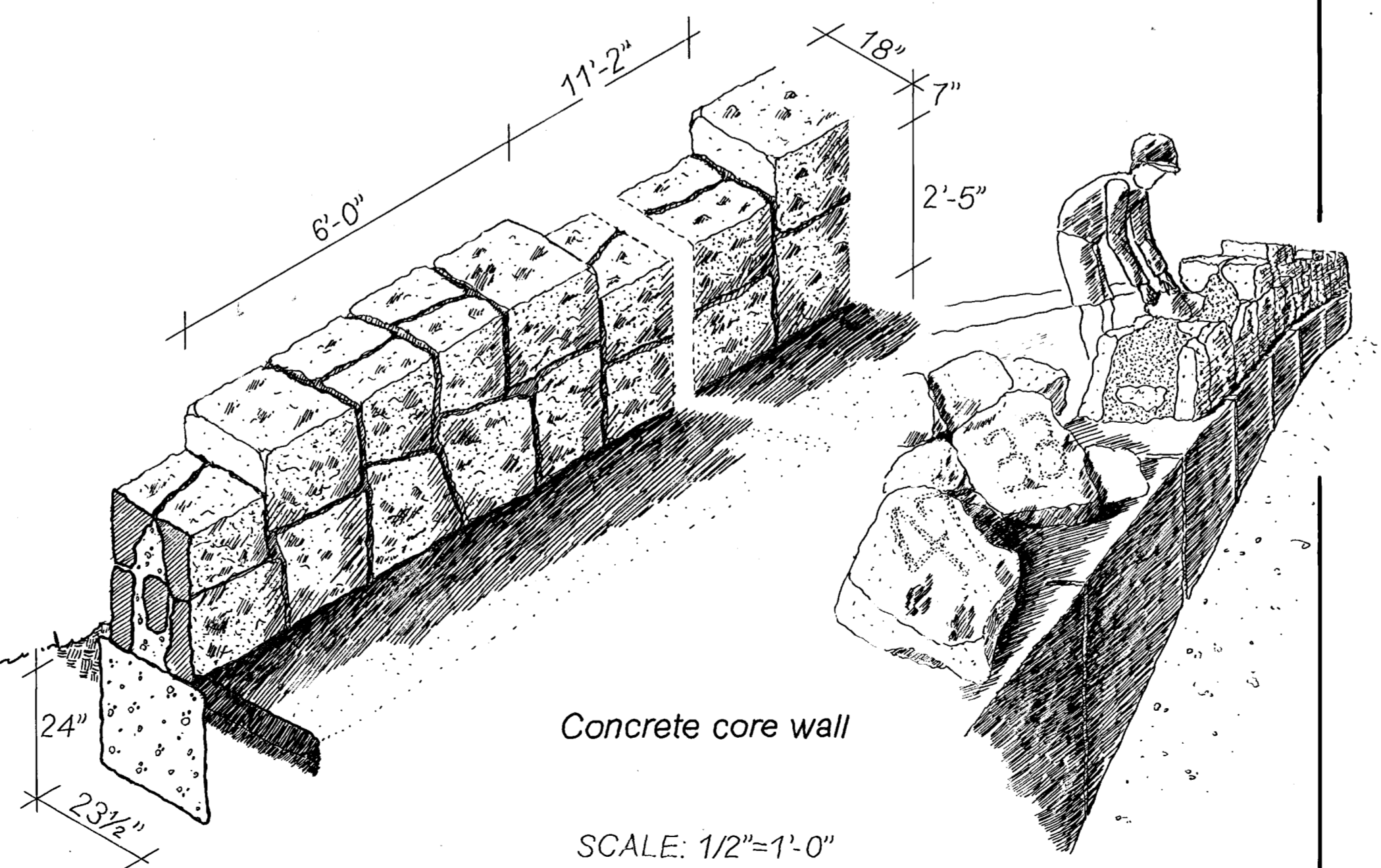
Repaying the roadway lowered the effective height of the walls



Replacement concrete core wall faced with native stone



Original guard wall



Concrete core wall

SCALE: 1/2"=1'-0"

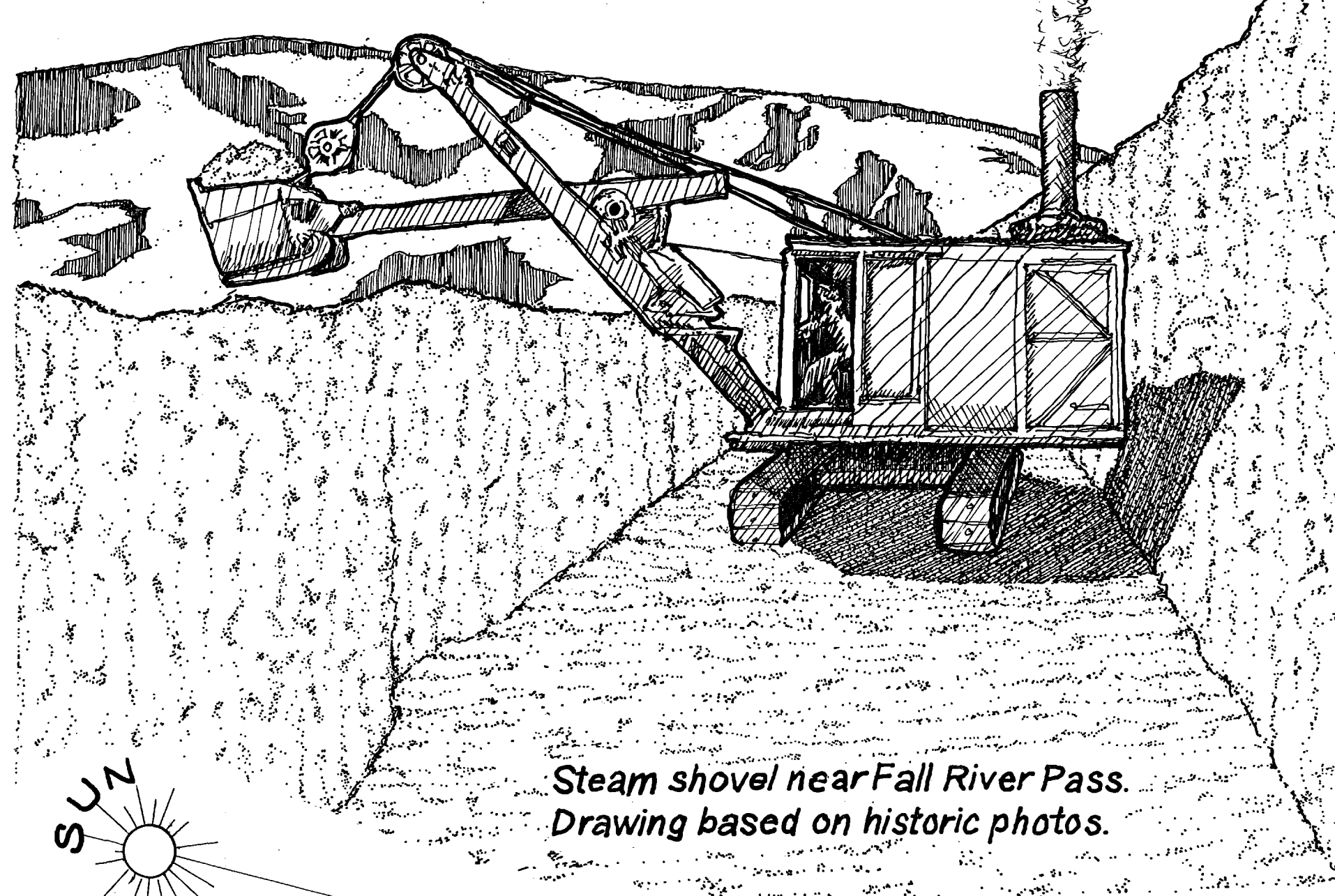
HISTORIC AMERICAN ENGINEERING RECORD
 SHEET 7 of 8
 COLORADO
 ROCKY MOUNTAIN NATIONAL PARK ROADS - 1920/1932
 LARIMER COUNTY
 ESTES PARK VICINITY
 DELINEATED BY: Eszter Vogel, 2000
 NPS PARK ROADS RECORDING PROGRAM
 NATIONAL PARK SERVICE
 UNITED STATES DEPARTMENT OF THE INTERIOR
 IF REPRODUCED, PLEASE CREDIT: HISTORIC AMERICAN ENGINEERING RECORD, NATIONAL PARK SERVICE, NAME OF DELINEATOR, DATE OF THE DRAWING

SNOW REMOVAL

Reaching heights of more than 12,000' above sea level, the roads in Rocky Mountain National Park are frequently buried deep in snow. The winter snowpack is often more than twenty feet deep, and twice that in areas buried by avalanches. Removing snow from the roads is a difficult and dangerous maintenance task.

Immediately after the Fall River Road was completed in 1920, park administrators realized that clearing snow would be a daunting task. The road climbed to Fall River Pass in a deep shaded valley, where avalanche chutes dumped deep accumulations of snow. The road was initially cleared with hand labor. Working conditions were severe. Cold temperatures combined with winds ranging up to more than 200 mph created extreme wind chill conditions. The high altitude sun caused snowblindness and severe sunburn. New avalanches would often cover cleared sections, forcing crews to repeat their work. Experiments were made with dynamiting and the use of blow torches, kerosene flares and carbide lamps, but it soon became clear that heavy equipment would be required. In 1925, the park acquired a specially designed steam shovel. In 1931 a "Sno-Go" rotary plow was placed in operation. Still, the tremendous snowpacks along the road were a major factor in deciding to construct the Trail Ridge Road on more open terrain. While the Trail Ridge Road was designed to pass through more open country with fewer places obstructed by heavy snow accumulation, the road climbed nearly a thousand feet higher than the Fall River Road and was also buried under deep snowpacks most years. By the time the road was completed in 1932, the park was using its new rotary plow. Even so, all old snow deeper than 45" had to be loosened with dynamite before it could be removed with machines. While heavier plows are now employed, opening the two park roads remains a tremendous and expensive undertaking. Despite periodic calls from tourist interests in nearby communities to keep the roads open year-round, crews face major challenges opening Trail Ridge Road by its target date of Memorial Day and Fall River Road by the Fourth of July.

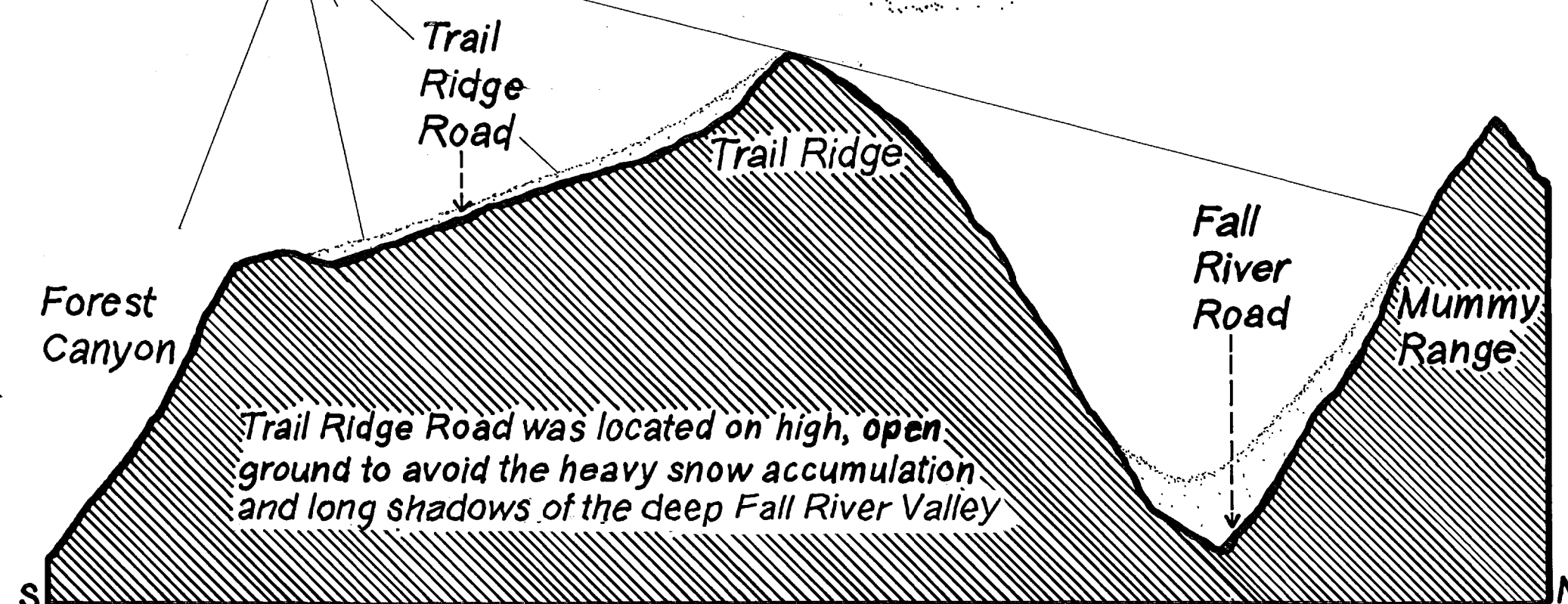
FALL RIVER ROAD



Steam shovel near Fall River Pass. Drawing based on historic photos.



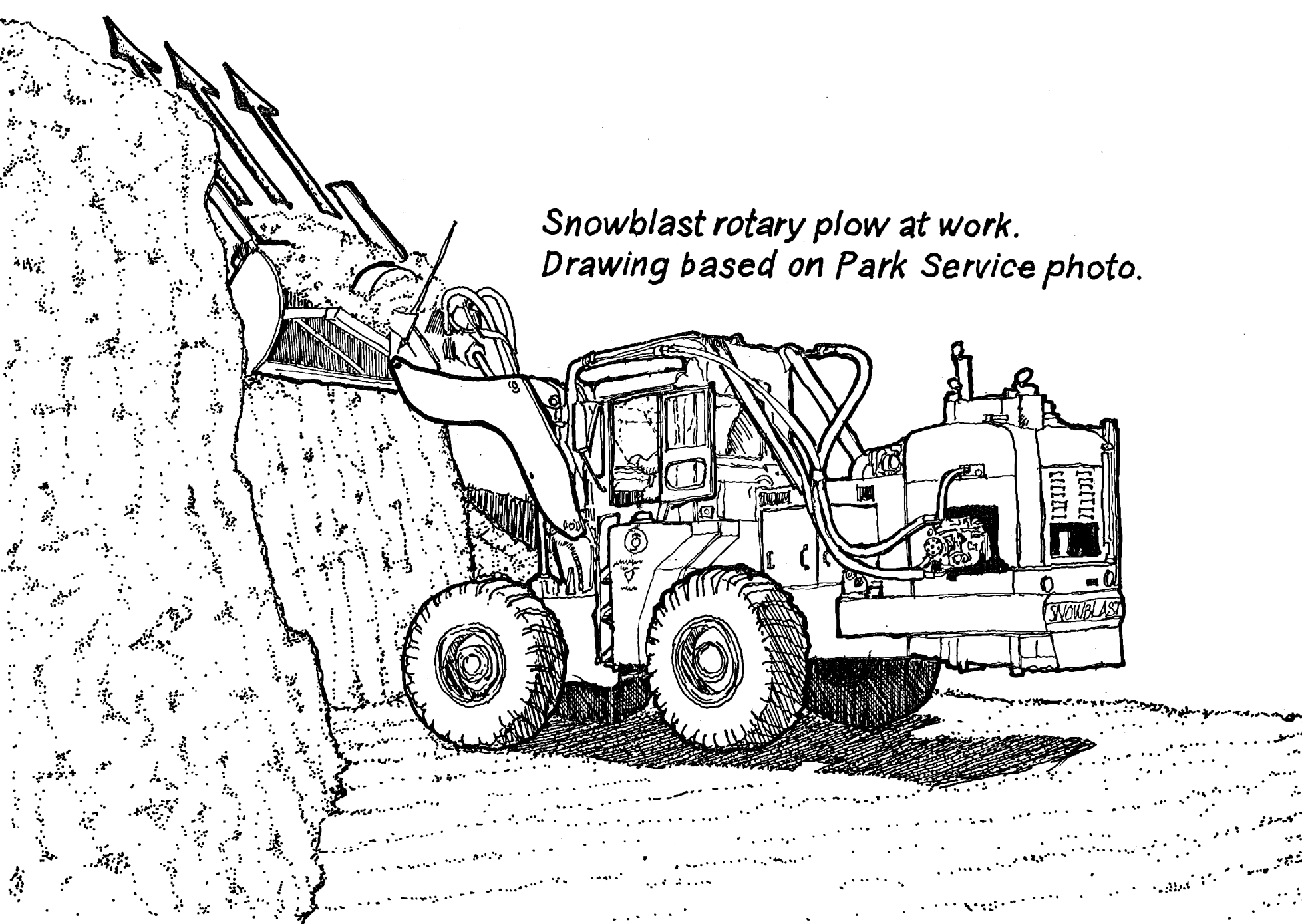
Clearing the road with hand labor. Drawing based on historic photo.



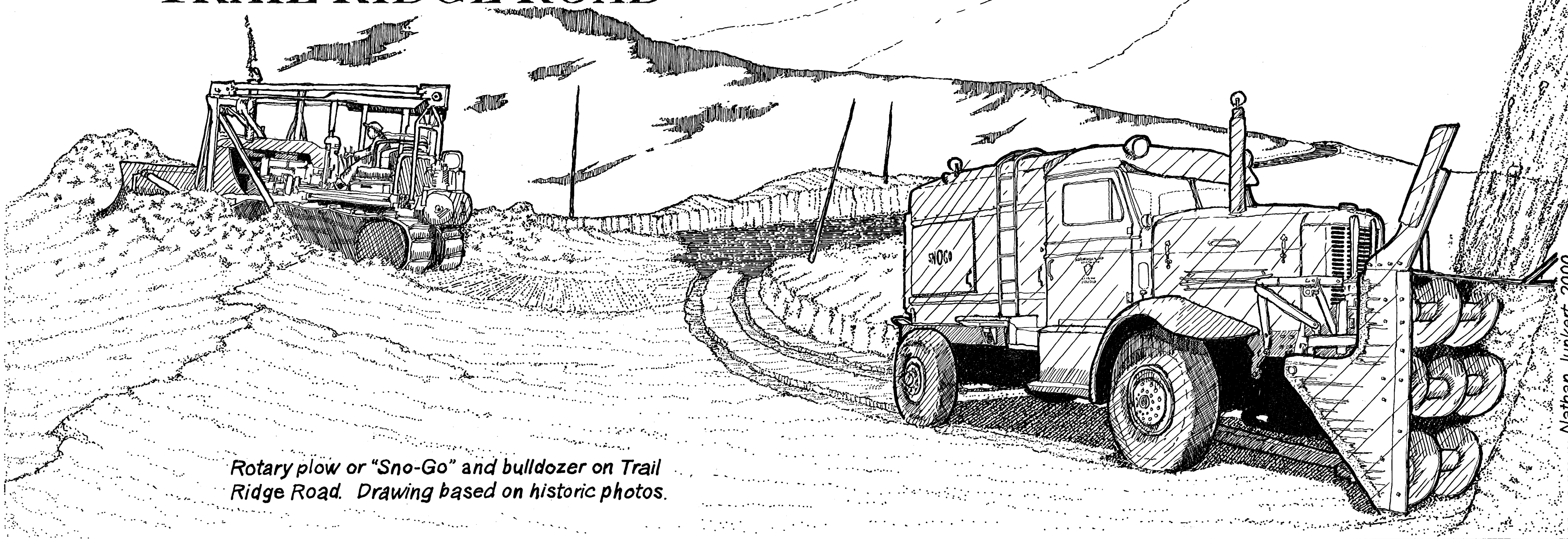
TRAIL RIDGE ROAD



Tour group driving over the recently opened Fall River Road. Drawing based on historic photo.



Snowblast rotary plow at work. Drawing based on Park Service photo.



Rotary plow or "Sno-Go" and bulldozer on Trail Ridge Road. Drawing based on historic photos.

HISTORIC AMERICAN ENGINEERING RECORD

SHEET 8 of 8

COLORADO

ROCKY MOUNTAIN NATIONAL PARK ROADS - 1920/1932

ESTES PARK VICINITY

NPS PARK ROADS RECORDING PROGRAM

UNITED STATES DEPARTMENT OF THE INTERIOR

CO-78

LARIMER COUNTY

IF REPRODUCED, PLEASE CREDIT: HISTORIC AMERICAN ENGINEERING RECORD, NATIONAL PARK SERVICE, NAME OF DELINEATOR, DATE OF THE DRAWING

DELINEATED BY: Nathan Junker 2000

NATIONAL PARK SERVICE