HAER
UTAH
10-MOAB.V,
1-

ARCHES NATIONAL PARK MAIN ENTRANCE ROAD
Beginning at U.S. Highway 91,
approximately 6 miles North of Moab
Moab vicinity
Grand County
Utah

HAER No. UT-70

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
Department of the Interior
P.O. Box 37127
Washington, D.C. 20013-7127

ADDENDUM
FOLLOWS...

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HISTORIC AMERICAN ENGINEERING RECORD

ARCHES NATIONAL PARK MAIN ENTRANCE ROAD

Arches National Park
HAER No. UT-70

Location:	Arches National Park, beginning at U.S. Highway 191, approximately 22 miles South of Interstate 70, running approximately 18.5 miles from park entrance to terminus at Devils Garden loop, Moab vicinity, Grand County, Utah Quad: Arches National Park, Utah UTM: Junction US 191: 12/620572/4274750 Devils Garden spur terminus 12/62582/4288175 Delicate Arch spur terminus 12/620311/4293347
Date of Construction:	1941-57
Type of Structure:	Vehicular Road
Designer/Engineer:	National Park Service Carl Alleman, landscape architect, Delicate Arch spur
Fabricator/ Builder:	Civilian Conservation Corps (CCC) Strong Construction Company, Utah
Owner:	National Park Service, Department of the Interior
Significance:	Planned during the 1940s, the Main Entrance Road utilized standards of design developed cooperatively between the National Park Service and the Bureau of Public Roads, minimizing negative impact on the natural features while allowing visitor access to previously inaccessible areas of the park.
Project Information:	Documentation of the Arches National Park Main Entrance Road is part of the National Park Service Roads and Bridges Project, conducted during the summer of 1993 under the co-sponsorship of HABS/HAER and the National Park Service Roads and Bridges Program. Christine L. Madrid, HAER Historian, 1993

CHRONOLOGY

1855	First white settlers arrive in the area and establish a fort; soon abandoned
1880	Moab, Utah, founded. Transportation across Colorado River provided by ferry.
1912	Three-span bridge constructed over Colorado River between Moab and Arches area to replace ferry transport.
1923	Earliest recorded automobile trip into Arches. Car driven by Alexander Ringhoffer bringing officials of the Denver and Rio Grande Western Railroad.
1929	Arches National Monument created.
1936	Dirt road from US 191 officially bladed out by county.
1938	Arches National Monument expanded to 53 square miles by Franklin Delano Roosevelt.
1940	Registration station erected at Balanced Rock to record number of visitors. Civilian Conservation Corps (CCC) begins work on road into Arches and constructs entrance culvert.
1942	CCC leaves Arches; only one mile of the entrance road has been blasted and graded.
1947	Temporary access roads planned and constructed while completion of permanent road delayed.
1948	Visitor numbers to Arches National Monument almost double from previous year due to improved access.
1957	Entrance culvert widened; construction resumes on entrance road; Courthouse Wash bridge constructed.
1958	New park road opens; visitation increases 106%.
1969	Arches National Monument expanded to 130 square miles by Lyndon B. Johnson.
1971	Richard Nixon signs proclamation declaring Arches a national park.

INTRODUCTION

Situated in the southeastern corner of Utah, Arches National Park is located off U.S. Highway 191 (previously known as U.S. Highway 163), approximately 22 miles south of its intersection with Interstate 70 (formerly U.S. Highway 50). The park contains some of the most frequently photographed and well-known rock formations in the State of Utah, including Delicate Arch and Balanced Rock. Many motion pictures have been filmed in the area, utilizing the rough, untamed appearance of the landscape. The greatest concentration of natural arches in the world can be found here--close to 2000 have been documented. The arches and other natural formations, including fins, monoliths and hoodoos, have been created by slow erosive processes which have patiently altered the terrain over millions of years. This evolution persists today, with fascinating geological forms in every state of decay and regeneration present throughout the park.

The Colorado River runs along 11 miles of the park boundary to the south, just beyond which lies Moab, Utah. This lively town provides basic services to tourists in the area, as none are furnished at Arches. Within the park, 26.5 miles of paved roads, supplemented by an additional 34.7 miles of backcountry roads, provide access to the impressive scenic areas. The primary route through the park is the awe-inspiring Main Entrance Road, winding by viewpoints and precariously balanced rock formations, rising from approximately 4000′ elevation at headquarters to almost 5200′ at the Devil's Garden terminus (see attached map for location of scenic features and names).

HISTORY

First founded by settlers in the mid-1800s, the desert region surrounding Arches National Park has not always been so easily accessible nor friendly to visitors. The first caucasian residents of the area arrived in 1855, sent by the Church of Jesus Christ of Latter Day Saints (Mormons) to establish a fort. The forty men were initially welcomed by the Ute Indians of the area. A conflict quickly arose between the groups and the settlers were forced to abandon their mission in less than four months. For the next twenty-five years, only ranchers and trappers dared to brave the heat and local inhabitants. Permanent settlement finally came about in 1880, when Moab, a

small "frontier town...with a rough, 'Wild West' reputation,"[1] was founded.

Survival in this rugged area was an arduous experience, and many residents of Moab, like other settlers in Utah, remained oblivious to the natural wonders located so close to their town. Few found time to wander and were additionally restricted by limited transportation options. Until 1912, the only way to move between Moab and the Arches region was by ferry operated across the Colorado River. Ferry transport was often undependable, however, and in 1912 a three-span bridge was constructed to provide a more reliable means of travel between the two banks. This bridge was replaced in 1955 by a wider, more substantial structure which could accommodate the heavy traffic along U.S. Highway 191.

After the bridge was completed in 1912, local residents began to explore the Arches area, creating dirt roads around and within the current park boundaries. Most of the roads, utilized primarily by wagons, were rough and unimproved two-track paths. These first roads frequently followed routes previously established by American Indians, ranchers with livestock, or prospectors.

Despite forays by early explorers and utilization by ranchers, the Arches area remained pristine and virtually unconquered until 1923. In September of that year, Alexander Ringhoffer completed the first recorded automobile trip into the future park. Ringhoffer, a local miner and prospector, drove up through the Salt Valley Wash to the Klondike Bluffs with two important visitors, both officials of the Denver and Rio Grande Western Railroad (D&RGW).[2] He attempted to stimulate their interest in the region, probably hoping that they would promote Arches in the same way that the Union Pacific Railroad (UPRR) had improved and developed the Grand Canyon and Zion. Ringhoffer also brought others into the area by this road, eventually forging new routes and continually championing the potential of the scenic area. The Salt Valley Wash route originally used by Ringhoffer and his touring companions is now employed as a four-wheel drive road entering the current park boundaries from the northern end, near Klondike Bluffs, and leading towards Balanced Rock and the Windows Section.

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[1] John F. Hoffman, *Arches National Park, An Illustrated Guide* (San Diego, CA: Western Recreational Publications, 1985), 104.

[2] *Ibid.*, 71.

Ringhoffer was not the only person who recognized the value of the scenic area. Although railroad officials of the D&RGW and other lines were not interested in commercially promoting Arches, Frank A. Wadleigh, passenger traffic manager for the D&RGW, was impressed enough to write to Stephen Mather, first director of the National Park Service (NPS), recommending that the region be incorporated into the park system.[3] Based on this and other recommendations, Mather sought to include Arches as a national monument.

Formal government recognition of the unique geological sites came only a short while after Mather expressed interest in the area. On April 12, 1929, Arches National Monument was created when Herbert Hoover signed the official Presidential proclamation declaring its new status. The park boundaries originally encompassed only seven square miles of land comprised of two detached areas--the Devils Garden and the Windows Section--selected for their concentration of unusual formations. Klondike Bluffs, the original impetus for creation of the monument, was not included in the boundaries of the park until November 25, 1938, when a Presidential proclamation signed by Franklin D. Roosevelt expanded the area to nearly 53 square miles or 34,250 acres. The park was further extended in 1969 by Lyndon B. Johnson to twice the area designated in 1938, enclosing nearly 130 square miles. National park status was not achieved until 1971, when Richard Nixon designated Arches as such, reducing the area to about 114 square miles.[4]

Unlike other parks and monuments established in this region, plans to construct large-scale visitor accommodations like those built at Bryce Canyon, Zion or the North Rim of the Grand Canyon were never initiated at Arches. Although the scenery of the area is at least as spectacular as that found in the other parks, the rugged and unforgiving desert climate may have intimidated early-twentieth century tourists. Perhaps others thought it more appropriate to preserve the wild isolation of Arches into the future. Nonetheless, the absence of tourist lodges, restaurants and other facilities at Arches was most likely due to the indifference shown by commercial interests such as the D&RGW and the UPRR. These railroads and others played central roles in the many "improvements" undertaken at other large national parks, and often persuaded local and state governments to participate in the overall development of a natural area in order to increase visitation and income.

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[3] *Ibid.*, 63.

[4] *Ibid.*, 63.

Without the participation of big business in its development, the roads within and surrounding the park were slow to evolve. The lack of modern improvements made early vehicular travel into the monument risky and hazardous to both car and driver. Access into Arches was initially limited to an unimproved dirt road through Willow Springs wash, leaving U.S. Highway 191 approximately 8 miles north of the current park entrance. This passage was originally carved out by sheep herders and was "roughly bladed out by county equipment in 1936,"[5] making entry into the park a long and adventurous journey through sand pits, ditches and flood waters.

The Willow Springs road was actually little more than a two-track dirt path through the desert, running approximately 8 miles from the highway towards Balanced Rock, one of the most impressive and popular of the park's geological formations and the first encountered by early visitors. By 1940, a registration station had been erected at this point in order to keep a more accurate record of the number of visitors to the monument. An interpretive exhibit was also installed, showing common plants in the region, local rock formations and maps of the park. The road continued on past Balanced Rock and ended at a picnic area near the Garden of Eden. From that point, a walking trail led to the Parade of Elephants and Windows Section. Leading off the Willow Springs road, the equally primitive Salt Valley Wash route allowed visitors to approach Delicate Arch, Devils Garden and Klondike Bluffs by car from the region of Balanced Rock. This road was even more frequently closed than Willow Springs due to flooding and had an annoying tendency to wash out or grow over with vegetation.

Like other earth roads, the Willow Springs route required continual maintenance and, in the absence of regular preservation, frequent repair. Proper upkeep of an earth road depends on maintaining a smooth surface and a good crown, with the intent of shedding water as quickly as possible. To do this, the road must be "dragged" or scraped whenever possible but only when wet and preferably muddy; a process which required good timing in a region which always had too much or too little rainfall. And, when not executed precisely, the scraping only exacerbated those problems which the operator was seeking to correct.

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[5] "Memorandum for the Regional Director, Region III," 27 February 1940. Arches National Park Administrative Collection (1929-1992), Folder 53.

In Arches National Monument, staffed and supervised only by a small number of people, regular maintenance of the Willow Springs road must have been nearly an impossible task. The compacted-sand and earth surface did not stand up well to weathering or traffic, becoming heavily corrugated and washed out by the end of each summer. The climate itself worked against park personnel; when the road was actually muddy enough to regrade it was most likely due to monsoon rains and flash floods, creating new washes and quicksand. The park personnel were probably too busy rescuing visitors to bother with maintenance. Despite its obvious disadvantages, this road was utilized as the primary visitor access into Arches for over twenty-two years.

General upkeep of the Willow Springs road was undertaken by the custodian of the monument and the staff (if possible). Often, the custodian was the only one responsible for this odious task. Henry G. Schmidt, custodian of the park from 1939-42, took note of the problems encountered by visitors traveling into the monument by this route. Assisted by a two-man Civilian Conservation Corp (CCC) crew in 1941, the three cooperatively managed to keep the road open for most of the year. Despite their efforts, the road washed out in January and June. In addition, particularly strong storms in September and October created ruts 1'-4' deep as water rushed down the grades. Constant patrol was required to ensure "that those brave travelers who attempted the drive to the Windows were able to reach the highway again."[6]

Sixteen cars were towed or dug out of washes and ruts in three days during that period, and Schmidt reported many visitors were unsatisfied with the condition of the road and the inaccessibility of the natural features to vehicles. Schmidt lamented:

> I look forward to the day when visitors can make this trip over a good highway, in comfort, and will then confine their remarks to the grandeur of the Arches instead of the impassibility of the road.[7]

The monthly report for October 1941 summed up the dilemmas posed by an inadequate road entrance into the park:

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[6] Henry G. Schmidt, Custodian, Arches National Monument, "Monthly Report," 22 October 1941. Arches National Park Administrative Collection (1929-1992), Folder 53.

[7] *Ibid.*.

> Two hundred thirty-four people, the greater majority of them from out of state, bumped, sloshed, cussed and skidded their way from Hiway [*sic*] 160 to view Nature's most spectacular spectacle -- The Arches. Almost the same number took one look at the road and decided they preferred to drive their car another year or two without wilfully abusing it, and went away disappointed.[8]

As early as 1939 the distress experienced by park visitors due to the quality of the Willow Springs road had been acknowledged by all, and plans for a modern highway into the park were begun. By November of that year, Charles A. Richey, associate landscape architect, and Horace Miller, associate engineer, arrived at Arches on behalf of the Park Service to complete a location survey of the new entrance road through the park, tentatively determining the projected route.[9] Miller intended to return to the park with a full crew at a later date to complete a more detailed survey of the road.

The entrance road, as currently existing, follows essentially the same route planned in 1939. Leaving Highway 191 near the remains of a Mormon "dugway", or primitive cattle drive trail, in Moab Canyon, the road travels up the north canyon wall through a series of dramatically ascending switchbacks, passes close to a number of scenic areas and terminates at a loop near the Devils Garden. A parking area and trailside exhibit were proposed for the Windows Section, the previous terminus of the Willow Springs road. In addition, a headquarters area was to be constructed near Highway 191 including an administration building and parking area for "20 autos or less," with "all roads, trails, and parking

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[8] Idem, "Monthly Report - October 1941," 22 October 1941. Arches National Park Administrative Collection (1929-1992), Folder 53.

[9] "Park Service Engineers Locating Arches Road," *Moab Times-Independent*, 9 November 1939.

areas [to] ultimately receive asphaltic surfaces."[10] The road was expected to cost $750,000 at completion with possible spurs to Delicate Arch and Klondike Bluffs added later.[11]

After completion of the new park entrance, visitor attendance to the monument was expected to increase dramatically. Most tourists to the area arrived by vehicle, and the "relative inaccessibility" and rough condition of the Willow Springs road likely kept visitor rates down.[12] In addition, the new entryway into Arches was sited to take advantage of vehicular traffic on Highway 191. Traveling over the bridge at Moab is nearly the only way to cross the Colorado River in the region, leading visitors directly past the new entrance of the park. Approaching the area by automobile was considered to be the only means to arrive at Arches, as the D&RGW, with a depot 30 miles away in Thompson, Utah, was "not expected to bring visitors to the monument."[13]

Construction of the proposed entryway was undertaken by Civilian Conservation Corps enrollees. The CCC, a national program initiated in 1933 by President Franklin D. Roosevelt, was developed as a federal relief agency to mediate unemployment of young men during the depression. The National Park Service benefitted greatly through the program, as many CCC projects were aimed at improving and maintaining the general facilities and natural resources of the parks.

By the end of 1939, the establishment of a CCC camp near Moab had been approved by the National Park Service. The 200 men assigned to the camp were employed exclusively in Arches National Monument. Located near the mouth of Moab Canyon, the 10-acre camp site was approximately one or two miles from the monument headquarters and a half-mile west of the Colorado River.

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[10] "Memorandum for the Regional Director, Region III," from Acting Superintendent, Arches National Monument, 27 February 1940. Arches National Park Administrative Collection (1929-1992), Folder 53.

[11] "Arches Unrivalled In Diversity of Scenic Interest," *Moab Times-Independent*, 30 May 1940. Arches National Park Administrative Collection (1929-1992), Folder 64.

[12] "Memorandum for the Regional Director, Region III," 5.

[13] *Ibid.*.

Preparation of the CCC camp site began immediately after the location had been approved. A quarter mile gravel access road connecting the camp with Highway 191 was completed along with other camp facilities, including barracks, a bath house, fresh water well, pump tower and storage tank. The men arrived shortly thereafter, consisting of a CCC company from Farmington Bay, Utah which was transferred to Moab to work within Arches National Monument.[14] The work completed by the CCC workers within the park was supervised by employees of the National Park Service. Each man enrolled in the CCC program was paid $30.00 per month, $25 of which was forwarded to the individual's home, the remaining $5 to be spent as the employee pleased.[15]

After construction of the camp had been completed, the CCC men assisted Custodian Schmidt with much-needed maintenance work on the Willow Springs road which, as described above, was frequently washed out, effectively closing the monument. The CCC also began building a new custodian's residence and storehouse in Moab Canyon, near the proposed beginning of the improved entrance road. A "very handsome" stone headquarters building was also planned, following the "old Mormon type of architecture"[16] which would echo the appearance of pioneer homes in nearby Moab. After these projects had been completed, the company intended to move forward with construction of the new road.

By September 1940, the CCC had begun working on the entrance road leading from Highway 191 into Arches National Monument. A multi-plate steel arch culvert was constructed across Moab Canyon wash and a graded route (3/10 mile in length) from there to the park headquarters was completed. Like the entrance road, the culvert was planned in harmony with the natural surroundings, not despite them. The masonry headwalls were constructed of locally quarried sandstone to complement and blend in with the predominant reds, whites, and browns of the desert. As originally constructed, the culvert was 20' wide and 6'-6" high, providing a 27' long

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[14] "Arches Unrivalled In Diversity of Scenic Interest."

[15] John C. Paige, *The Civilian Conservation Corps and the National Park Service, 1933-1942: An Administrative History* (Washington, DC:, U.S. Department of the Interior, National Park Service, 1985).

[16] "Construction of Arches Highway Starts in Earnest," *Moab Times-Independent*, 24 October 1940. Arches National Park Administrative Collection (1929-1992), Folder 64.

roadway over the wash.[17] The path of the wash under the culvert was altered and stone rip-rap was erected along one side to stabilize the banks. The culvert was widened in 1957 as the entrance road finally approached completion (see HAER UT-70-A, Arches National Park Main Entrance Road, Moab Canyon Wash Culvert).

The actual road into the monument, rising up the steep north canyon wall along a switchback, was expected to "involve a great deal of heavy construction." The camp was supplied with heavy machinery to complete the labor, including "a gasoline shovel, tractors equipped with bulldozers, jackhammers, compressors and graders."[18] The first unit of the Arches road, named Section 1-A and running about 3 miles, was intended to lead the visitor from the headquarters area to Courthouse Towers, where impressive monolithic rock walls of Entrada sandstone dominate the landscape.

The CCC had hardly progressed along the proposed route when construction on the entrance road was interrupted indefinitely by World War II. Although the Moab Canyon Wash Culvert, the headquarters building, and other maintenance buildings were completed by that time, only a small part of the new route through the park was undertaken before work was halted. When the CCC left Arches in 1942, less than one mile of the entrance route had been graded, just reaching the Three Penguins rock formation located above headquarters. This was, however, one of the most difficult sections of the road to complete as it included the steeply pitched and curved switchbacks.

Visitors had no choice but to continue utilizing the Willow Springs road for entrance into the park, presenting increased maintenance and safety concerns. The headquarters for Arches National Monument had been completed and opened at the head of the new entrance road, but travelers could not yet enter the park by this route. The Willow Springs access road began about 8 miles north of the new headquarters off Highway 191 with the monument entrance located another 8 miles further. As a result, many visitors did not take the time to stop and check local conditions at headquarters before driving into the area. This situation was a cause for concern to the superintendent, as most tourists were unaware of the very real dangers present both on the road and in the desert environment.

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[17] *Ibid.*.

[18] *Ibid.*.

Despite anxieties expressed by the park employees, funds to complete the new entrance road were not available either during or after the war. The increase of visitors following World War II taxed both the budget and the small staff, making it difficult to keep up with even the most basic maintenance and supervisory needs of the park. New permanent roads, which would attract more visitors and further burden the overextended park resources, were delayed until the economic climate improved.

Even though construction of permanent roads had been deferred indefinitely, the public continued to demand vehicular access to the most popular areas of the park. In response, plans for temporary access roads leading to several scenic points from the Willow Springs route were initiated in August 1947. The spur roads were intended to temporarily provide reliable "automobile access for the traveling public" to the Wolfe Cabin, Delicate Arch, Fiery Furnace and Devils Garden, terminating in the "general vicinity of these features"[19] while not encroaching on the primitive character of the area.

The proposed spur roads were constructed cooperatively by the Utah State Department of Publicity and Industrial Development and Grand County, donating approximately $16,000 and $4,000 each, respectively.[20] Actual work was completed and maintained using county equipment. The spurs were of "truck trail standard, 12 feet wide, with dips through some drainage channels."[21] Maximum grade was approximately 15 percent along switchbacks into the Salt Valley area. Only 3 miles of the spurs were actually located on monument land, the balance sited outside the park, possibly explaining the involvement of state and county governments. All county built spurs were considered temporary and were to be obliterated when the permanent road was completed.

Custodian Russell L. Mahan of the National Park Service visited Arches at the beginning of March, 1948 to observe the work in progress. He was attended by Carl W. Alleman, landscape architect and designer of the Delicate Arch road and trail, who noted the following:

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[19] Carl W. Alleman and Charles D. Carter, "Memorandum for the Regional Landscape Architect," 2 September 1947. Arches National Park Administrative Collection (1929-1992), Folder 56.

[20] *Ibid.*.

[21] *Ibid.*.

> A crew of five men and the following pieces of equipment were on the job: one Diesel Caterpillar Dozer (D-7), one Austin Western Power Grader (99-n), one Air Compressor, and one Two-Ton PWD Dump Truck. One Scoopmobile and three or four additional dump trucks are to be added when surfacing is started. Road Foreman Jack Beeson, his crew, and Custodian Mahan are to be complimented on the work accomplished thus far. By their keen corporation, and, with careful and skillful operators at the controls of the heavy equipment, construction scars have been held to a near minimum.[22]

A spirited advertising campaign publishing the new spur roads and increased automobile access within the park was undertaken. Articles regarding the upcoming opening appeared in the Denver Post, Salt Lake Tribune, and the New York Times. In addition, local groups, such as the Moab Lions Club, worked toward elevating the monument to national park status, hoping that the promotion would increase the involvement of the Park Service in the completion of major development work within Arches.[23]

The publicity generated for the park was successful, resulting in a dramatic increase in visitor attendance after the temporary roads were opened in 1948. While only 4,702 tourists had dared to enter the monument over the rough roads in 1947, more than 8,500 people from forty-one different states came to Arches in 1948.[24]

Despite the increased automobile access to the park allowed by the temporary spur roads, the approach road into the park via Willow Springs was still inadequate for heavy visitation. Records for Arches National Monument show that floods down Courthouse Wash were frequent, occurring several times each

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[22] Alleman, "Memorandum for Regional Landscape Architect," 19 April 1948. Arches National Park Administrative Collection (1929-1992), Folder 53.

[23] "Would Raise Arches to Status of Nat. Park," *Moab Times-Independent*, 30 September 1948. Arches National Park Administrative Collection (1929-1992), Folder 67.

[24] "Arches Travel Showed 100% Increase in Year," *Moab Times-Independent*, 30 September 1948. Arches National Park Administrative Collection (1929-1992), Folder 67.

season.[25] Visitors, temporarily stranded inside the park by flash-floods and quicksand, were generally unhappy with the conditions.

Obstacles to entry by the Willow Springs road reached a peak in 1957, when figures showed a drop of almost 3,000 visitors from the same period in 1956.[26] A particularly heavy rain season that year washed out the road frequently, resulting in the closing of the monument for thirty days. Rangers were required to turn visitors away at the entrance of the park until the roadway could be repaired.

Efforts to complete the paved entrance road from Moab Canyon into Arches were begun again in earnest in face of the deficiencies associated with the Willow Springs road. Newton B. Drury, director of the NPS, believed that the new road, in conjunction with a modern museum, administration building and utility systems, all completed over a period of several years, was urgently required "in order to catch up and keep pace with the development needs created by the increasing number of visitors and deferment of work during the war."[27] Facilities constructed by the CCC were by now fourteen years old and quickly becoming outdated and insufficient for the number of tourists entering the park.

Encouraging more people to visit Arches was the primary reason for continuing the development of the road between headquarters and Devils Garden, eliminating "the need for motorists to travel 12 miles up U.S. Highway 160 [from headquarters], and then for six miles over a county road to enter the Monument"[28] (referring to the Willow Springs road). In addition, tourists would no longer have to hike 3 miles from headquarters to Courthouse Towers or travel distances longer than one mile from the road to any specified scenic area. Bates Wilson, superintendent of the

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[25] Hoffman, 70-1.

[26] "Arches Travel Down, Closed Road Blamed," *Moab Times-Independent*, 2 January 1957. Arches National Park Administrative Collection (1929-1992), Folder 75.

[27] "$700,000 Road to Arches Planned by Park Service," *Moab Times-Independent*, 20 May 1948. Arches National Park Administrative Collection (1929-1992), Folder 13.

[28] "Contract Awarded for New Entrance Road In Arches National Monument," press release, U.S. Department of the Interior, Information Service, 5 July 1957.

park, expected the number of visitors to "increase from the present 28,000 to 150,000 a year" once the road was finished.[29] In 1957 a prospectus created for Arches National Monument outlined costs of development for the entire park, including all physical improvements. Of the estimated $2,236,000 allocated, $1,674,100 would be dedicated to roads and trails. One third of that amount was intended for the construction of the new entrance road.[30]

The contract for the new road was awarded July 5, 1957 to Strong Construction Company of Springville, Utah, the lowest of four bidders with a total cost of $581,013.46. The contract called for construction of a 217′ three-span concrete bridge over Courthouse Wash and 9.206 miles of road, titled project 1-A, from park headquarters near Highway 191 to Balanced Rock, to be completed within 320 calendar days.[31] In addition, spurs to Devils Garden and Delicate Arch were reconstructed and base surfaced along with the main road. The final surface mat for the spurs was completed at a later date, when the final paving was contracted for the park entrance road. Completion of the road was planned as part of the National Park Service's MISSION 66 program initiated by NPS Director Conrad L. Wirth.

Founded by the National Park Service in 1956, the MISSION 66 program was intended to develop and protect the natural and historic resources of "these priceless possessions of the American people."[32] The project would conclude after ten years, coinciding with the fiftieth anniversary of the National Park Service. The main emphasis during that time was the improvement and updating of outmoded facilities at Park Service sites throughout the country, including roads, trails, campgrounds,

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[29] "Arches Monument Getting Its First Paved Road," *Denver Post*, n.d. Arches National Park Administrative Collection (1929-1992), Folder 75.

[30] W. G. Carnes, Chief, Mission 66 Staff, Memorandum to Regional Director, Region Three, "Approval of Arches National Monument Prospectus," 8 April 1957.

[31] "Contract Awarded for New Entrance Road in Arches National Monument," U.S. Department of the Interior, Information Service, for release July 5, 1957. Arches National Park Administrative Collection (1929-1992), Folder 56.

[32] "Mission 66 for Arches National Monument", MSS, 17 April 1957. Arches National Park Administrative Collection (1929-1992), Folder 54.

utilities and picnic areas. Utah parks and monuments were given a high priority during the beginning of the program, preparing the region for expected increases in visitation rates.

Construction on project 1-A began July 19, 1957.[33] Proposed plans for this section specified a design speed of 40 m.p.h. on a 28′ wide graded surface with a 22′ wide base course, measured shoulder to shoulder. The Bureau of Public Roads publication "Transition Curves for Highways" was utilized throughout the design "to determine superelevation and transition lengths...and widening of curves."[34] In order to forge this section of the road, running up the canyon wall and over the rim, 185,000 cubic yards of rock was blasted and "30,000 yards of dirt and rock [were] moved from borrow ditches to form the road base."[35] A volatile combination of ammonium nitrate (fertilizer) and diesel fuel was utilized to blow out the road near the Three Penguins.[36] Marks are still visible along the rock walls where holes were drilled for the insertion of blasting materials.

Work was halted on the new entrance road for several days in February 1958 when 3000 cubic feet of rock slid onto the road along the switchback just above the headquarters buildings. Workers temporarily concentrated their efforts on removing loose rocks along the slide area to prevent further dislodging of materials.[37] Construction on the road quickly resumed and, by July 1958, the Willow Springs road had been closed off by fencing and contained signs directing visitors to the new entryway.[38] The final costs for the road between the entryway and the junction with the Windows road totaled $742,740 during the 1958 fiscal year. Work completed on minor roads and trails and the

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[33] *Deseret News & Telegram* [Salt Lake City, UT], 23 May 1958.

[34] "Plans for Proposed Project 1-A: Monument Entrance - Devils Garden," construction drawing, sheet 1 of 44, prepared by the Bureau of Public Roads, 15 March 1957.

[35] "Road Project Will Open Arches Monument to All," [Grand Junction, Colorado] *Daily Sentinel*, 28 March 1958.

[36] Lloyd Pierson, oral interview by author, July 1993, Arches National Park.

[37] "Road Project Will Open Arches Monument to All."

[38] *Moab Times-Independent*, 31 July 1958. Arches National Park Administrative Collection (1929-1992), Folder 75.

development of four parking areas was included in this amount.[39] The long-awaited official opening and road dedication was held Sunday, August 24, 1958. Mrs. J. W. Williams, age 80, cut the official ribbon accompanied by officials representing the National Park Service, the State of Utah and local interests. Mrs. Williams was the widow of one of Moab's earliest settlers and pioneers, Dr. J. W. Williams, who had died in 1956. He had practiced medicine in Moab for twenty-three years, from 1897 to 1919.[40]

While the entrance road was being completed, visitation rates were close to those recorded for the previous year. After the paved road was opened, however, visitation increased by 106 percent for the first six months of 1959. Almost 2,000 more people visited Arches during June 1959 alone than in June 1958.[41] Increases were due chiefly to increased advertising of the area and better accessibility to the natural features. An interest in Arches area was initiated by advertising from the State Tourist and Publicity Council. As the roads were completed and paved, the Council would increase advertising to publish the fact that the parks were more easily accessible. The Council discovered that "the overwhelming majority of tourists have neither the time nor desire to rough it on dirt roads."[42] This proved to be applicable throughout the region, as national parks and monuments found that visitation increased dramatically after the tourist was accommodated with modern, comfortable highways and other related services.

DESCRIPTION

The Arches National Park Main Entrance Road begins at U.S. Highway 191, approximately 6 miles north of Moab, Utah. Traveling rapidly along the highway between semi-trucks and Class 1 motorhomes, it may be easy to overlook the entrance to the park. Only a modest sign erected in 1987 signifies the turn-off, while the park buildings, including an entrance station, visitor center, employee housing, administrative buildings and

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[39] *Moab Times-Independent*, 26 February 1959.

[40] *Deseret News and Telegram*, 26 August 1958. Arches National Park Administrative Collection (1929-1992), Folder 75.

[41] "Arches Travel Shows Jump Over Last Year," *Moab Times-Independent*, 9 July 1959.

[42] *Moab Times-Independent*, 3 February 1960.

maintenance facilities, are placed somewhat inconspicuously at the base of the dramatic sandstone walls of Moab Canyon. The minor development at the administrative area of the park does not detract from the primitive nature of the region.

Directly north of Highway 191 a half-round arch, rock-faced culvert constructed by the CCC (see HAER No. UT-70-A) leads into Arches National Park. Continuing past the park structures and entrance station, built primarily during the MISSION 66 program, the road begins a steep ascent to the top of the canyon along switchbacks set into the side of the canyon walls. The sharp curves of the road here can only be negotiated at the slowest speeds--15 m.p.h. is recommended as the maximum. The road closely follows an earth fracture along the Moab Fault, which works to disguise the grade from those visitors approaching the park. From the main highway the road is completely obscured and practically invisible, the only clue to its presence being the string of automobiles and recreational vehicles running back and forth along its length.

As the visitor ascends the switchbacks, a long-ranging view of the surrounding country is presented. Each turn changes the outlook from the road, presenting a dramatic entry over the rim of the mesa. Once the motorist arrives on top of the plateau, the road changes into a gentle rolling route following the least obtrusive path through the landscape. The majority of the park's features are located here, easily accessed by trails leading from the roadway. The route flows from one area to the next, passing through desert-scrub communities, pinon-juniper woodlands, petrified dunes (termed "slickrock") and soft sand.

Currently, the main entrance road is composed of a graded surface, covered by a 6" diameter or smaller random cobble sub-base, laid 6" thick. The base material consists of 3/4" diameter or smaller gravel with good compaction to 3" thick. A hot-mix asphalt macadam surface is deposited over the base layers. The road is maintained with 3/8" fractured chip and crack sealant approximately every 6 to 8 years.[43] The two-lane road is in good condition, with a generally smooth surface and 2' shoulders. Signs placed at intervals along the road and at pullouts state the elevation, mark trailheads, and provide interpretation to the visitor. Wooden posts with light reflectors mark areas where the curves in the road approach dropoffs, but no guardrails are utilized.

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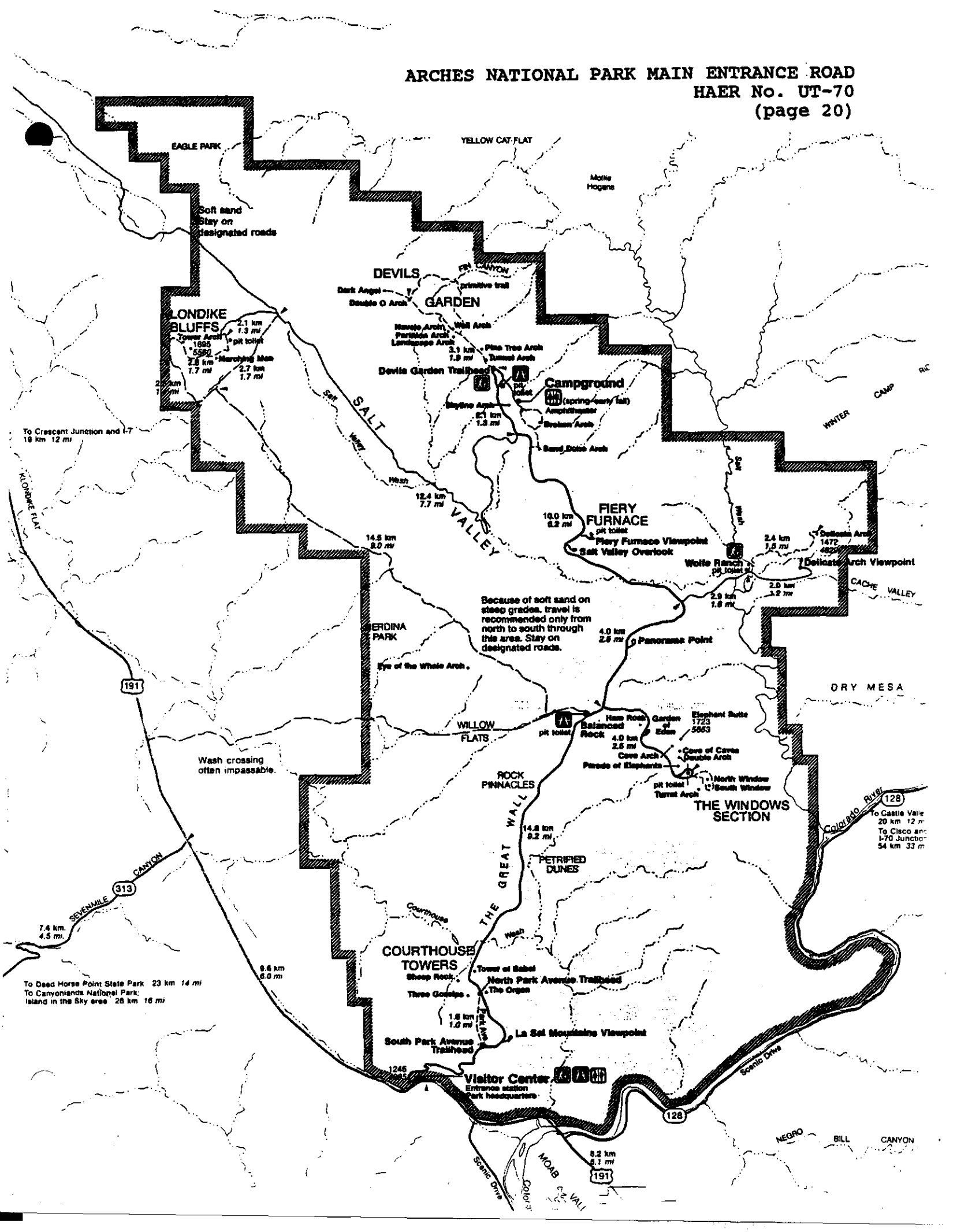
[43] Frank B. Darcey, III, Chief of Maintenance, Arches National Park, telephone interview, 7 July 1993.

The old section of the Willow Springs road, east of the main entrance road, is still visible, although many attempts have been made to obliterate it. Part of the road has been incorporated as the Balanced Rock foot trail for a short distance. The road turns north near the Rock, heading towards the Garden of Eden and the Windows Section. Efforts to revegetate and disguise the grade have been largely unsuccessful due both to the sandy surface set over tightly compacted earth and the wanderings of park visitors. Rocks placed along the Balanced Rock trail are intended to keep people from walking along the abandoned road. The old route appears to be well-traveled by foot traffic, however, despite signage discouraging such activity.

Throughout the park, paved roads have been hidden from view as much as possible, with every care taken to preserve the wild quality of Arches. It is perfectly feasible to photograph many of the scenic areas (some of which are located directly adjacent to the roadway) without having the road appear in the view. In addition, local materials were utilized as fill along the route to retain color-uniformity with the surrounding land and create minimal distraction for the motorist.

The road through Arches National Park provides one of the most pleasurable visitor experiences in the park system. By its use, the needs of motorists, hikers, and back-country enthusiasts can be accommodated. The average visitor stay within Arches is just two hours. Despite the brief sojourn, many visitors take the opportunity to leave their vehicles and embark on short walks to some of the most incredible naturally occurring formations present on earth. Those visitors with more time can take a fairly strenuous short hike over slickrock and sand to view other features such as Delicate Arch. The many photographs taken of the arch cannot rival the actual experience of standing beneath the fragile span, gazing out over the still primitive landscape. Throughout the park, the road passes precariously balanced rocks and colorful slopes, featuring stopping points with far-ranging panoramas and some of the most beautiful views in this country.

ARCHES NATIONAL PARK MAIN ENTRANCE ROAD
HAER No. UT-70
(page 20)



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ADDENDUM TO
ARCHES NATIONAL PARK MAIN ENTRANCE ROAD - Arches National Park Roads & Bridges
Beginning at U.S. Highway 91, approximately 6 miles north of Moab
Moab Vicinity
Grand County
Utah

HAER No. UT-70

HAER
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