United States Department of the Interior  
National Park Service  

National Register of Historic Places  
Registration Form  

This form is for use in nominating or requesting determinations for individual properties and districts See instructions in How to Complete the National Register of Historic Places Registration Form (NPS Bulletin 16A). Complete each item by marking "X" in the appropriate space for the information requested. If any item does not apply to the property being documented, place a "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property  

historic names Entrance Road________________________________________________
other names/site number Entrance Drive; Entrance Highway; NPS Route #1; State Route 110; HS-R10; #48CK1645_________________________________________

2. Location  

street & number Devils Tower National Monument___ not for publication ___
city or town Devils Tower____________________ vicinity ___
state Wyoming code WY county Crook code 011 zip code 82714-0010

3. State/Federal Agency Certification  

As the designated authority under the National Historic Preservation Act of 1986, as amended, I hereby certify that this X nomination _ _ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property _X_ meets ___ does not meet the National Register Criteria. I recommend that this property be considered significant __ nationally __ statewide _X_ locally. 
(_ See continuation sheet for additional comments.)

Signature of Federal Preservation Officer  

National Park Service  
Federal agency

In my opinion, the properties _X_ meet ___ do not meet the National Register criteria. (___ See continuation sheet for additional comments.)

Signature of commenting official  

Wyoming State Historic Preservation Office  
State agency
4. National Park Service Certification

I, hereby certify that this property is:

V entered in the National Register [Signature: M. McCollum 7/29/2000]
See continuation sheet.

__ determined eligible for the National Register
See continuation sheet.
__ determined not eligible for the National Register
__ removed from the National Register
__ other (explain): ______________

Signature of Keeper __________________________ Date of Action __________________________

5. Classification

Ownership of Property (Check as many boxes as apply)

__ private
__ public-local
__ public-State
X  public-Federal

Category of Property (Check only one box)

__ building(s)
__ district
__ site
X  structure
__ object

Number of Resources within Property
Contributing  Noncontributing
__1__  ____ buildings (historic entrance station)

__1__ (road)  __1__ structures (modern bridge)

__2__  ____ objects

__1__  ____ Total

Number of contributing resources previously listed in the National Register _0_

Name of related multiple property listing (Enter "N/A" if property is not part of a multiple property listing.)

Devils Tower National Monument Multiple Property Submission

6. Function or Use

Historic Functions (Enter categories from instructions)
Cat: Transportation  Sub: road-related

Current Functions (Enter categories from instructions)
Cat: Transportation  Sub: road-related
7. Description

Architectural Classification (Enter categories from instructions)
Other: NPS Rustic (landscape architecture)

Materials (Enter categories from instructions) (road & culverts)
foundation ___________________________
roof ________________________________
walls _______________________________
other asphalt; sandstone; metal

Narrative Description (Describe the historic and current condition of the property on one or more continuation sheets.) (SEE CONTINUATION PAGES)

8. Statement of Significance

Applicable National Register Criteria (Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing)

_X_ A Property is associated with events that have made a significant contribution to the broad patterns of our history.
___ B Property is associated with the lives of persons significant in our past.
_X_ C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
___ D Property has yielded, or is likely to yield information important in prehistory or history.

Criteria Considerations (Mark "X" in all the boxes that apply.) N/A
___ A owned by a religious institution or used for religious purposes.
___ B removed from its original location.
___ C a birthplace or a grave.
___ D a cemetery.
___ E a reconstructed building, object, or structure.
___ F a commemorative property.
___ G less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance Politics/Government; Transportation; Social History; Landscape Architecture
Period of Significance 1934-1950
Significant Dates 1934; 1938
Significant Person (Complete if Criterion B is marked above) ____________
Cultural Affiliation ________________________
Architect/Builder NPS Branch of Plans and Design

Narrative Statement of Significance (Explain the significance of the property on one or more continuation sheets.) (SEE CONTINUATION PAGES)

9. Major Bibliographical References

Previous documentation on file (NPS)
___ preliminary determination of individual listing (36 CFR 67) has been requested.
___ previously listed in the National Register
___ previously determined eligible by the National Register
___ designated a National Historic Landmark
___ recorded by Historic American Buildings Survey # ________
___ recorded by Historic American Engineering Record # ________
Entrance Road Crook County, WY

(Major Bibliographical References, continued)

Primary Location of Additional Data

___ State Historic Preservation Office ___ Local Govt.
___ Other State agency ___ University
___ Federal agency ___ Other

Name of repository: Devils Tower National Monument

10. Geographical Data

Acreage of Property _______ acres

UTM Reference (SEE CONTINUATION PAGE)

Verbal Boundary Description (Describe the boundaries of the property on a continuation sheet.) (SEE CONTINUATION PAGE)

Boundary Justification (Explain why the boundaries were selected on a continuation sheet.) (SEE CONTINUATION PAGE)

11. Form Prepared By

name/title Kathy McKoy, Historian, Intermountain Region, Denver Support Office
organization National Park Service date Jan. 31, 1996; revised April 15, 2000
street & number 12795 W. Alameda Parkway telephone (303) 969-2878
city or town Lakewood state CO zip code 80228

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets (INCLUDED)

Maps INCLUDED:
A USGS map (7.5 or 15 minute series) indicating the property's location.
A sketch map indicating location in park.

Photographs INCLUDED:
Representative black and white photographs of the properties.

Additional items: Photoxeroxes of color and historic photographs; photocopies of historic drawings, plans, and maps.

Property Owner

name Devils Tower National Monument
street & number P. O. Box 10 telephone 307-467-5283
city or town Devils Tower state WY zip code 82714-0010

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.). Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reduction Project (1024-0018), Washington, DC 20503.
ITEM 7 DESCRIPTION

Location and Environment

Devils Tower National Monument is located in the Belle Fourche River Valley of the Black Hills of northeastern Wyoming. Devils Tower is a unique and dramatic monolith of igneous rock (phonolite porphyry) that rises 867 feet from its base, visually dominating the surrounding countryside. The tower is located in the center of the monument.

Access to the monument's entrance road (part of State Route 110) is by State Highway 24, connecting with U.S. Highway 14 (seven miles to the south). State Route 110 begins at the junction with Highway 24, approximately .6 mile east of the monument boundary. The name "entrance road" designates only that portion of Route 110 which is located within the monument. The portion outside the monument boundary was historically a State, rather than a National Park Service (NPS), road. From Highway 24, Route 110 proceeds north/northwest to the boundary; the entrance road then proceeds past the entrance station; then northwest across the Belle Fourche River Bridge; then southwest past the prairie dog colony and park headquarters; then continues north, curving east then south, ending at the visitor center parking area. (See appended USGS and site maps.) The road passes through rolling, partly wooded upland cut with numerous ravines. Ponderosa pine forest is interspersed with small areas of open grassland.

Physical Description

The entrance road is a three-mile long, two-lane, asphalt paved road that spans the distance between the historic entrance station and the visitor parking area, located just west of Devils Tower. A three-inch bituminous crown covers nine-foot aggregate base course. Portions of the upslope, round bottom ditch aside the road is paved. Today the road varies in width from 20 to 22 feet with one-foot shoulders (except portions of the road located east of the bridge where shoulders are about 10 feet). The road provides access to the monument's primary developed areas, such as park headquarters and the visitor center (spur roads access the campground, picnic ground, and NPS residential and maintenance areas) and its significant natural areas, such as the prairie dog colony and Devils Tower.

Both historic and modern features occur along the road: modern features include the Belle Fourche River Bridge (constructed in 1980), and a number of paved parking or viewing pull-outs along the road's length (as indicated on the accompanying site map). Historic features include the entrance station, corrugated iron culverts (some with masonry headwalls at culvert inlets), and several masonry retaining walls associated with culverts. The Old Headquarters Area Historic District is adjacent to the terminus of the road (the parking area) and is historically associated with the early road; however, the district is being nominated under a separate form and is not included within the road boundary. Several photographs (originals and photocopies) of culverts are included as additional documentation and are representative of the type to be encountered along the road. See Item 8 for descriptions of the current bridge and 1987 road repairs.

---

1 This is documented on plans #4968.
2 The documentation which refers to the road as three miles in length is measuring from the monument boundary through the parking area, including the mileage around the parking loop. The parking area is excluded from the boundary of the road for purposes stated under Item 10, Boundary Justification.
3 Measurements were taken at several locations and indicated that the east end of the road was 22 feet and that it narrowed west of Prairie Dog Town to 20 feet.
4 A List of Classified Structures survey (LCS #151314) was completed for the entrance road in May 1999, documenting historic and non-historic road drainage structures.
Integrity
The narrow, winding entrance road retains a high degree of integrity from the historic period, particularly the portion located just west of the Belle Fourche River Bridge, and north of the parking area. Minor realignments all took place during the historic period with the exception of one. Unlike many park roads, its historic qualities were not lost through widening, straightening, realignment, or major reconstruction of the roadbed during Mission 66 or later years. Over the last half-decade, there have been minor alterations to the entrance road. They include the removal of the original log guardrails, the addition of parking and viewing pull-outs, the installation of a number of guard posts, the removal of sandstone walks and curbs in the parking area. Road drainage rehabilitation was completed about 1987. Work included paving the roadside ditch and installing six-inch bituminous curb at new drop inlets. (No historic culvert stonework was impacted by the replacement of drop inlets, according to retired maintenance worker Paul Conzelman.) The vertical log posts have been erected as vehicle barriers, and these differ in character from the horizontal log guardrails of the historic period. The guard posts and pullouts are not historic, but have only a minor impact on the road's setting. In addition, the original 1928 steel truss bridge has been replaced with a modern bridge, which detracts somewhat from the road's historic appearance at the east entrance.

On the other hand, the rustic style, log entrance station (constructed 1939-1941) remains at its original location at the east end of the road, contributing to the historic feeling and association of the road. The original width of the road was 18 feet with two-foot shoulders. Today's narrow road width and bituminous surfacing closely approximates that of the historic period. The original road also had sections of paved ditch and asphalt curbing, as does today's road (although some or all may date to 1987 repair work). The road also retains its original masonry stonework, alignment, gradient, slope treatment, and plantings. The entrance road thus retains sufficient integrity of location, design, setting, materials, workmanship, feeling and association to qualify for the National Register of Historic Places.

ITEM 8 STATEMENT OF SIGNIFICANCE
The entrance road is associated with the Devils Tower National Park Multiple Property Submission themes, "Administration and Development of Devils Tower National Monument, 1906-1950" and "National Park Service Rustic Architecture and Public Works Construction in Devils Tower National Monument, 1933-1940." The road was also evaluated under the historic context, "Historic Landscape Design in the National Park Service, 1916 to 1942," contained in Linda McClelland's Historic Park Landscapes in National and State Parks multiple property submission. The entrance road is eligible for listing at the local level of significance under criterion A, for its association with the early development of the monument's transportation system. The effort to develop and improve the transportation system at Devils Tower National Monument is representative of a pattern of activity found throughout the National Park Service during the 1930s. It is also significant for its association with the "New Deal" programs of the Great Depression. Such development would not have been possible without the funding made available by a variety of public works programs, nor without the labor of the Civilian Conservation Corps.

5 The construction of a new bridge at the Belle Fourche River in 1980 resulted in a realignment of a one-quarter mile section of the road.
6 The entrance station is being nominated to the National Register under a separate individual nomination.
7 The 1949 Development Outline for the monument describes the entrance road as 20 feet wide. Most MPS roads of the period were extended from 18 to 20 feet wide.
The entrance road is also eligible for listing under criterion C, as design, placement, slope contouring, associated structures (masonry headwalls and retaining walls), and revegetation clearly illustrate the naturalistic design philosophy of road construction developed by National Park Service during the 1920s and 1930s. The concern for providing visitor access to park areas while minimizing the impact to the landscape underlay the design, construction, and roadside landscaping efforts made throughout the NPS in road building activities predating World War II.

The areas of significance for the entrance road are Politics/Government (association with development of a national park), Social History (association with the public works programs of the Great Depression), Transportation (as the primary access route into the park) and Landscape Architecture (as exemplifying NPS naturalistic design philosophy of the 1930s). The period of significance dates from 1934, when the original 1917 road was reconstructed, to 1950, the end of the historic period as defined by the National Register of Historic Places.8

**HISTORY AND DEVELOPMENT OF THE ENTRANCE ROAD**

The earliest road to Devils Tower was a three-mile, 12 to 16-foot unpaved road with a grade of eight percent, constructed in 1917 by the National Park Service and Crock County.9 Visitors traveled by horse, horse-drawn buggy, and automobiles on this primitive road. Until 1928, there was not bridge across the Belle Fourche River, and visitors entering from the east had to ford the river. As the river was subject to sudden and unpredictable rises in the summer months, people often found themselves stranded in the park until waters subsided. A 150-foot long steel-truss bridge (with a 150-foot wooden east approach) was finally built in 1928, only to have the east approach washed out by the river the following year. The river channel was subsequently diverted in 1930 to protect the bridge.

Between 1927 and 1933, serious consideration was given to the idea of extending the entrance road to form a driving loop around Devils Tower. The earliest map to depict such a road was generated by the NPS Civil Engineering Division in August 1927 (see Map #C9, appended). In 1931, the NPS Office of Chief Engineer drew up plans #4908 in May 1931 entitled "Proposed Ultimate Program, Devils Tower National Monument, Map Showing Road Traverse Around Tower and Adjacent Topography" documenting that some concrete action was being taken to implement the idea. Such a road was never completed, however, nor was the new road aligned east of the 1917 roadbed as shown on the 1927 map. Instead, it was relocated west of the old roadbed. A hand-drawn map by Custodian Newell F. Joyner in January 1933 more accurately depicts the relationship between the old road and the one that was later constructed, depicted by a dotted line on his map (see appended Map #D50l). Joyner's map also shows a proposed road encircling Devils Tower.

In May 1931 Junior Landscape Architect Howard W. Baker made an inspection trip to the monument for purposes of choosing a site for the new custodian's residence and entrance station, collecting construction data, and inspecting the existing primary road. Baker reported to Chief Architect Thomas C. Vint:

> After inspection of the preliminary road survey, I doubt the advisability of doing much more than realigning and improving the present location. The amount of excessive gradient is small in comparison with the amount of new clearing and excavation which would be required to relocate the last half of the road within the Monument even

---

8 While approximately one-half of the road retains the 1917 alignment, this date was not chosen as the beginning of the period of significance as the road's realignment and reconstruction in the 1934, along with an extensive amount of roadside landscaping in the late 1930s, significantly altered the earlier road and its setting.

though the present road scar would be practically invisible from the proposed location.

The availability of funds under President Franklin Roosevelt's New Deal programs, however, would soon make such costly "new clearing and excavation" no longer an obstacle, and later reconstruction did relocate the last half of the entrance road.

Baker conducted a more extensive entrance road survey in September 1931, recorded in a trip report to Vint. Baker describes the proposed realignment of the road:

Between station 23 and station 40 a new survey leaves the old road. The present road traverses a meadow which would be very easy to obliterate.... However, there are conflicting landscape requirements... (1) To keep the roads from traversing meadows - (2) To locate the road to give the best possible view of [the tower]. I felt that the better view of the tower in this case could be sacrificed to keep the road near the toe of the slope. This location is better from an engineering standpoint and good views of the tower are obtained from the remaining sections of road.

Baker suggested that logs removed in clearing the new section's right-of-way be piled out of sight, yet accessible from the road, so that they might be used in later building projects. At the time, there was neither sufficient funds to complete the entire road or to construct culvert headwalls. Baker concurred with Engineer W. G. Attwell that construction of the section between the southern boundary and the parking area should be given priority and that "when money was allotted to finish the project, the [masonry] headwalls would be built at that time." Baker also recommended:

As soon as the present road becomes void it should be obliterated. This obliteration should be accomplished by removing all structures such as retaining walls, culverts, etc.... In the most conspicuous places planting should be done such as shrubs, pine trees and native grasses.

During the initial phase of President Roosevelt's "New Deal," legislation aimed at relief and recovery provided funds for maintenance or improvement of park roads and work on the entrance road could begin. Some portions of the road were reconstructed on new grades and alignment during 1933 and 1934. Joyner's January 10, 1935 report to the NPS Director described progress made on the entrance road since the establishment of public works programs:

About September 1, 1933 the sum of $18,000 became available under the Public Works as project FP233.8 for use in construction of our three miles of entrance road as per plan No. DT4949, and for bridge protection improvements. Since this sum was insufficient, we concentrated on the construction of a mile and a half of twenty-two foot wide roadway with a maximum grade of 6%. There was considerable sidehill cutting as well as some through-cutting. The rough grading of most of this was completed, we used some 50 head of local horses in this work.... On November 1, 1934, allotment advise [sic] was received involving $25,200 for use in completion of the entrance road including grading of the balance, finish grading and graveling of entire road, completion of parking area grading, and necessary bridge repair items. During December we had

---

10 Historic photographs indicate that dry-laid stone was employed in constructing the first retaining walls associated with culverts; it is likely that any such walls date to the road's initial date of construction.
11 It was graveled in 1935-1936 and oiled in 1937-1938.
12 Bridge improvements consisted of constructing 33 concrete tetrahedrons down stream from the bridge to keep the Belle Fourche River in its new channel.
sixty-eight head of stock at work and at the end of the month had completed all of the heavy work excepting at two points.... Because of the scarcity of food in this country we have been operating our own stable.

Joyner noted in this report that a contract was approved for crushed rock to be provided by J. J. Dooling of Gillette, Wyoming, when road grading was to be completed in the spring of 1935. In reporting landscape work, Joyner wrote, "With our CWA and ERA crews of the past year we accomplished considerable in the way of clean up work in connection with various construction activities.... Some mile and a quarter of abandoned road was obliterated in so far as could be accomplished without planting."

In the same January 1935 report, Joyner wrote, "The betterment of the approach road along with general western travel increase resulted in an increased attendance of 60% at the Devils Tower; in fact the number of visitors (17,500) represented a 50% increase over any previous year's count." Joyner, also commenting on the severe plight of residents in the region due to unemployment, noted conditions were somewhat alleviated when the early "November 1934 approval of our entrance road project... enabled us to build up a crew which during December averaged over seventy men."

In 1935 a small portion of the entrance road was relocated to remove a curve as it approached the Belle Fourche River Bridge (Drawing #4968). The change only realigned the section between the east boundary and the Belle Fourche River Bridge's eastern approach. According to a notation on the plans, the project was completed in October 1935. The paved approach road was 18 feet wide with 2-foot shoulders. The plans also indicate that the road that met the entrance road at the east boundary was "State Highway" and was a graveled road.

The establishment of CCC Camp NM-1 during the summer of 1935 greatly speeded up construction developments within the monument. The NPS Western Office's Branch of Plans and Design, based in San Francisco, California, assigned Landscape Architect Sam Serrano to work at Devils Tower to ensure that the office's design philosophy and guidelines were adhered to. Serrano reported to the Western Field Office but was responsive to park needs by assisting in the design and supervision of park projects while ensuring the preservation of the monument's natural appearance. In addition to receiving Serrano's regular field reports, District Architect Howard W. Baker (Landscape Architect) and Chief Architect W. G. Carnes, made occasional inspection trips to the monument. A number of NPS engineers from the Western Field Office's Branch of Engineering was also stationed at various times in the monument during construction activity.

In Serrano's 1936 report to Baker on Emergency Conservation Work (ECW) 6th and 7th Period activities, he gives a most thorough account of construction activities within the monument, from Oct. 1, 1935 to Oct. 1, 1936. Serrano began his lengthy report by noting that "the arrival of the [CCC] camp marks the beginning of a period of development such as the monument had not previously had.... One can not overestimate the lasting benefits which the monument has derived from the camp."

Serrano reported on the status of 62 ECW projects, including Project No. 13 (Culvert Installation), No. 14 (Head Walls and Spillways), No. 34 (Fine Grading), No. 42 (Seeding and Sodding), No. 43 (Road Obliteration), No. 46 (Moving and Transplanting Trees and Shrubs), and No. 54 (Guard Rails). Some excerpts from his report are quoted at length below for they indicate the great lengths that were gone to, to achieve the illusion of an undisturbed environment, particularly Projects no. 34, 42, 43, and 46:

17 The 1939 Master Plan describes the entrance road as having "an average width of 20 feet."
Proj. No. 13 - Culvert Installation. This project consisted of installing metal culverts along the three-mile section of entrance highway. This project involving the installation of about 225 lineal feet of culvert was carried over from the sixth period and completed during the seventh period.

Proj. No. 14 - Head Walls and Spillways. This project involved the construction of masonry headwalls at the culvert inlets along the entrance highway to protect the culvert openings. It was decided to eliminate headwalls at the culvert outlets because the fill slopes flattened to 3 to 1 and 2 to 1 which when seeded and sodded will be sufficiently stabilized to avoid the need of headwalls. This project requiring the construction of 22 masonry headwalls of varying dimensions was in progress during the sixth and seventh period. At the close of the seventh period there yet remained about 8 of them to be constructed.

As a side note, culverts during the 1930s were designed to be subordinate to the natural surroundings. The design guidelines were outlined in the 1938 NFS publication, Park and Recreation Structures:

The culvert proper is sometimes of local stone when it is abundant and workable, but if it must be of concrete or of galvanized iron, reasonable concealment of the fact is to be striven for. The head wall, by extending into the culvert opening, should avoid disclosing that it is a mere veneer. Natural rock is certain the preferred material for the head wall, laid either dry or in mortar.

To continue with Serrano's list of ECW projects:

Proj. 34 - Fine Grading. This project included flattening and rounding of roadside cut and fill slopes and also grading about buildings and other areas disturbed by construction activities in an effort to approximate natural conditions. Flattening and rounding of roadside cut and fill slopes was confined to the cuts and fills bordering the 3-mile section of entrance roadway. This roadway was constructed a few years ago by force account. Shortage of funds made it necessary to make both the cut and fill slopes so steep that revegetation, natural or artificial, would have been difficult. Rocks that accumulated from construction activities were dumped in the fill slopes and much of it was not covered with earth. In addition to being unsightly such fills presented a surface which was not conducive to obliteration by revegetation.

It is very essential that the roadside slopes be flattened, and rounded so that they would better harmonize with the surrounding natural contours, facilitate revegetation, and minimize erosion. I personally am strongly opposed to this type of treatment along natural gullies and streams because such features are results of natural processes. However, I feel that the treatment of roadside cuts and fills is justified because in that case we are attempting to restore to as natural a state as possible man made scars resulting from construction activities.

14 Joyner reported the following year that while ECW project #13 initially required the CCC to install 95 feet of metal culvert along the entrance highway, an additional 200 feet was required along the relocated portion of the entrance road.

15 Cited in Culpin, p. 486.
This necessary roadside work was made possible when Devil's [sic] Tower was allotted a C.C.C. camp. Before the roadside bank sloping was started, a thorough study was made on the ground, and the manner in which each slope was to be treated was decided in detail. Considerable thought was given and every controlling factor was taken into consideration in deciding the most desirable treatment for each roadside slope. It was recommended that work on rock cuts, which had already been taken back to a point of safety, be limited to the removal of loose rock. It was also suggested that individual rocks or rock outcrops be allowed to remain in the slopes, if after grading they were found to be firmly imbeded. In this way it was hoped to effect a desirable irregularity.

Generally the fill slopes were recommended to be 2 to 1. However, exceptions were made whenever the fills happened to be comparatively shallow in which case a 3 to 1 or even flatter fill was suggested. The amount of flattening recommended for cut sections depended upon various controlling factors and varied from slopes of 1 1/2 to 1 and 3 to 1. . . . Quite frequently cut sections, that would ordinarily have been flattened to 3 to 1 or 2 to 1 slopes, were designated to be given a steeper slope in order to save existing trees which would have been destroyed had a flatter slope been adopted. However, in no event was a dirt slope indicated to be steeper than 1 1/2 to 1. The thought being that it was essential to flatten all earth slopes to an angle of repose if the desired effects were to be obtained.

In addition to the flattening of the cut and fill slopes in the manner stated, it was recommended that the top of the dirt cuts and the tow of the fills be rounded so as to effect a better transition between the new slopes and the original contours. As with fill, the amount of rounding was dependent on the existing tree growth, as well as other factors. Serrano assessed the final outcome of the land-sculpting efforts of the CCC crews under his direction:

Most of the flattening and rounding of roadside slopes when completed was done in a very satisfactory manner. The large cut slope which occurs at the monument entrance is an exception. It was recommended that this huge cut be flattened more and that considerably more rounding be done at its top in order to eliminate the sharp angle which exists there and thus effect a better transition between the cut slope and the natural ground behind it. This however, was not done. I feel that to be very unfortunate, because the huge cut slope occurs at the very entrance and is directly in the line of vision of those entering the monument.

Serrano's apparent distress at not being able to adequately mitigate the visual effects of the cut slope just west of the Belle Fourche Bridge, a cut made at an earlier stage of the road's history, is understandable in the context of the philosophy held by National Park Service landscape architects during this era. As best they could, they followed the first NPS Director Stephen Mather's directive, stated in 1919:

In all of our landscape work the guiding principle followed is the natural conditions of the park must be disturbed as little as possible consistent with the necessary development in the public interest, and where such conditions have been unnecessarily or carelessly or wrongfully changed in the past they must be restored where this can be done, and in any case made less objectionable if restoration to a state of nature is impossible."

16 Cited in McClelland, Presenting Nature, p. 82.
According to Serrano's 1936 report, ECW Project No. 42, Seeding and Sodding, required that prior to flattening and rounding the roadside slopes, existing sod be removed, stockpiled, and replaced on the new slopes. In addition, about 50 lbs. of native grass seed was sown on the cut slopes along the entrance road in an effort to create a vegetative covering which would obliterate construction scars and minimize erosion. Project No. 43, Road Obliteration, involved obliteration of about 2 miles of old roadway made obsolete by construction of the new road. Project No. 46, Moving and Transplanting Trees and Shrubs, involved transplanting trees and shrubs in the headquarters area, along the obliterated roadway, and along the large cut slope near the monument entrance. Trees displaced by road building activities that were small enough to survive transplanting, were also saved and replanted.

ECW project #54, Guard Rails, initiated in 1937 during the CCC 6th period, called for the preparation and installation of horizontally mounted, log guardrails (using plans drawn up by the NPS Branch of Plans and Design) along much of the length of the entrance road. Historic photographs taken by Joyner in 1938 depict long sections of log guardrail by "Prairie Dog Flat" and "above the CCC camp." Plan show they were also to be installed along most of the last 1.25 miles of approach road to the tower. Seasoned logs, saddle-mounted as stringers across short logs on 4-inch high concrete footings, were peeled and stained with creosote. The guardrails, as well as bank sloping and rounding along the road, were completed in 1938. Serrano, in his earlier 1936 report, expressed a preference that "rock cone low earth berms" and a few weathered stones "placed in a free and natural manner" be used as barriers rather than log guardrails, but his suggestions were not implemented. (He felt such barriers would be less visually intrusive on the natural scene.)

Serrano's accounts are verified and augmented by Custodian Newell F. Joyner's reports of the period. In Joyner's December 10, 1935 report he recorded that among the year's "outstanding events" were the "graveling [of] the road from the entrance to the headquarters area in June" and "the occupancy of the CCC Camp early in August." Joyner reported that,

The grading and graveling of the Entrance Road from the boundary to the Headquarters Area has been practically completed. This project is in part responsible for the increased number of visitors to our parking area, and has made possible the maintenance of traffic, particularly since the CCC Camp has been here, when otherwise a wheel could not have been turned in this gumbo.

With regard to landscape work in the monument, Joyner noted in this report that,

Considerable progress has been made on the road-bank sloping projects under the ECW program. These banks were left at a 1 1/2 to 1 slopes or less and are being flattened back to 1 3/4, 2, and 3 to 1 slopes; sodding, seeding, and transplanting of trees and shrubs will be accomplished on these slopes. Not only will this present a much more pleasing appearance, but it will be a considerable help in the lessening of erosion...

Joyner also mentioned that the monument had secured the services of a "Senior Foreman, Landscape," who came here early in November [1935] after several months successful experience in a similar position in Yellowstone." (This was in addition to the services rendered by landscape architects from the Western Field Office.)

In August 1937 plans for improving and resurfacing the entrance road were drawn up by the Office of Chief Engineer in San Francisco (see "Proposed Asphaltic Surfacing and Improvements," #4985, appended). The work was performed by the Inland

---

Construction Company of Omaha, Nebraska, awarded the contract on a bid of $26,734. The plans called for realigning approximately .5 mile of road along the south boundary and asphalt surfacing of the entire road.

In his monthly narrative report for August 20 to September 20, 1937, Serrano noted that the CCC camp was scheduled to be abandoned on September 30 and that he devoted much of his time to "assisting in the completion of several important projects" in the monument. Grading of the road had been completed, but gravel and oiling had yet to be done. Serrano emphasized to the resident engineer overseeing the construction project

...the necessity of controlling the contractor's equipment and workmen's automobiles to protect the landscape features. Suitable parking spaces and turn arounds for equipment were designated... no work camp [was to be] established at the monument area and the surfacing material was secured and crushed off of the monument.

Serrano reported on the construction status of ECW projects. With regard to road work, culvert installation was complete, 21 headwalls had been constructed (with 5 more needed due to the relocation of a portion of the entrance highway)," fine grading was 95% complete, trees had been planted along road cuts, and some slopes were seeded and sodded. He commented,

'The work accomplished to date has proven to be very satisfactory. Besides stabilizing the slopes the resodding accomplished greatly enhances the roadside appearance and general effect of the monument entry way. We contemplated resodding all of the roadside cut slopes along the main highway but the abandonment of the camp makes that impossible at this time.

Rustic masonry and log entrance pylons were to be installed as Job. No. 60, and were "about 50% complete." Guardrails along the roadway had not yet been erected, although the log stringers, sleepers and concrete dead men were ready for installation.

Serrano supplemented the report of August 20-September 20, 1937, to give the status of all ECW projects "at the close of the 9th period and abandonment of the camp." The 9th period ended September 30, 1937. No additional work on the entrance road was accomplished during this 10-day period.

The 1939 Master Plan for the monument described the development of the main road as follows:

The general road system... consists of a three-mile section of entrance highway, which extends from the monument boundary to an area near the base of the tower known as headquarters area. This highway, excepting that portion lying between stations 50/50 and 77/33, was reconstructed on new grades and alignment and graveled during the winter of 1933-1934. During the summer and fall of 1937 that section between stations 50/50/ and 77/33 was relocated, regraded and graveled immediately following which the entire 3 miles of entrance road, including the parking area at 18 The original project called for 22; a report by Serrano in July 1937 said "22 wet masonry headwalls at culvert inlets" had been completed. The last report number of 21 may be an error.

19 Entrance pylons still exist just east of the entrance station, but are not the originals. It is possible that the modern signs there now may incorporate stonework and remnants of vertical logs from the original rustic design pylons. An attempt should be made to locate historic photographs or plans of the pylons.

20 This conflicts with earlier histories of the monument. Mattison says the camp existed 1935-1938; Daugherty "either 1939 or 1940" the camp as abandoned, but does not document either date.
its terminus, was oil surfaced to an average width of 20 feet. Gutter paving and seal coat was applied in 1938. Bank sloping and rounding and log guardrails were completed by ERA in 1938.

Finally, the 1939 Final Construction Report by the contractor (Contract I-IP-7036) gives an excellent physical description, as well as detailed construction history, of the entrance road at its time of completion. Excerpts are included below.

The Devils Tower Entrance Road begins at the end of a branch of Wyoming State Highway No. 514 at the East Entrance of Devils Tower National Monument and extends through the monument to the parking area... a short distance west of Devils Tower.

The main function of the Entrance Road is to enable vehicle travel to reach the Headquarters parking area, from which point an improved foot trail leads around the Tower. The road proper is 2.83 miles in length and the parking area of 38,100 square feet is equal to an 18 foot roadway .4 miles long.

About 800 feet from the East Entrance the road crosses the Belle Fource River on a steel bridge, then winds around the foot of the hill below the Devils Tower for about one mile, through grassy meadows, after which it enters a small canyon, covered with yellow pine, which it traverses until it reaches the parking area, at an elevation of 404 feet above the East Entrance. The original road was a winding affair built long ago, intended for limited horse travel, and several years ago became entirely inadequate to handle the steadily increasing motor vehicle traffic.

This road was widened and regraded in 1934 about one-half mile from Sta.50 to Sta.77 along the south boundary of the monument. At about Sta. 60 it left the monument area and after crossing two privately owned parcels of land, reentered the monument area. The entire road and parking area were gravel surfaced in 1935 and 1936 and remained in that condition, with the usual maintenance, until September 1937.

Early in 1937 it was decided to change the location near the south boundary from Sta. 50 to Sta.77 and locate the entire road inside the monument area. It was also decided at the same time to oil surface the entire road and parking area.

...It had been the original intention to oil surface or pave an 18 foot roadway and the parking area, but later it was decided to use a full roofed section on the road as far as possible. This plan involved paving the gutters or ditches in cuts and placing an asphalt curb on the fills... on [some] sections of the old graded section the cuts were not uniform distance from the road center line, and on several portions the distance to be paved would have been excessively wide and irregular. However the roofed section plan was followed out as far as possible and on the balance a standard 18 foot roadway was constructed.

...On account of the irregularities of gravel, crown of road and excessive superelevation on curves, an excess of scarifying and special excavation over that called for in the specifications was necessary.

...The asphalt curb on the roofed section was mostly built by hand and shaped with a small specially made hand roller.

---

21 See site map on #4988, August 1937, appended.
22 The road had 2 foot shoulders and is sometimes referenced as being 22 feet wide.
Work was initiated in September, temporarily suspended over winter, resumed in May and completed June 1, 1938. A seal coat was put on the road in Oct. 1938 under separate contract.

In a memorandum to the NPS Director prepared on January 3, 1940, Joyner regretted the Washington Office's withdrawal of remaining ERA funds, but celebrated all that had been accomplished since 1933. Among a long list of new improvements he noted: "Today our road is all-weather and the scars of construction have been removed."

The result of improved roads and visitor facilities in Devils Tower National Monument is reflected in its visitation records. Between 1931 and 1941, in spite of the Great Depression, the number of visitors nearly tripled from 11,000 to 32,951.23

The most significant event to impact the road since its construction was the removal of the 1928 Belle Fourche River Bridge. The monument's 1965 Master Plan (narrative for #3135) stated:

The nearby bridge is to be removed and replaced with another south of the present location. The old structure is narrow, barely affording two-way traffic and is in need of constant repair. A road realignment is also proposed to remove the potential hazard on the west side.24

According to records kept by retired maintenance worker Paul Conzelman, construction on the new bridge began in November 1979.25 It was sited immediately south of the existing bridge. The first traffic crossed the new bridge on August 22, 1980. The old bridge was demolished on September 19, 1980. The construction of the bridge and associated roadway resulted in .275 miles of road being realigned (including the bridge length). The alignment of the entrance road was changed slightly by the relocation of the bridge, reducing the sharpness of the curve west of the river (see #41901A, "Project 1, Bridge and Approaches," appended). The present bridge is a 300-foot long, slightly curved, single span, steel-reinforced concrete structure with concrete abutments and piers and steel guardrails. A four-foot wide, pedestrian walk was constructed on the south side of the 28 feet wide, two-lane roadway that crosses the bridge.

In the late 1980s, minor repairs were made to the road and its drainage. Plans for "Road Repair and Striping" (#80024A) in 1987 called for leveling, edge thickening, and patching of the road with bituminous asphalt. Six preexisting drop inlets were removed and replaced with cast concrete steel reinforced drop inlets and downdrains. (Only the steel grates are visible.) Paved ditch and six-inch bituminous curb were constructed at the locations of these inlets. Work also included the road striping and painting of traffic markings on the entrance road and associated pullouts.

As best can be determined from documentation, construction of the entrance road did not any pose exceptional engineering challenges. Neither does the road posses some of the larger structures frequently associated with roads, such as bridges, tunnels, and guardrails, which would make it architecturally distinctive. Its masonry culvert headwalls and retaining walls are modest in size, yet closely adhere to the design philosophy of the period and reflect a high level of craftsmanship. The road characteristics which qualify the entrance road for listing under criterion C are subtle in character, as they were intended to be. They are the distinctive characteristics enumerated in Item F, "Property Types," of McClelland's multiple property submission, Historic Park Landscapes in the National and State Parks. Under the general property type, "National Parks, Parkways and Monuments," subtype "Park Road Systems and Parkways," the nomination describes the character of major park

23 Mattison, p. 17.
25 Personal interview with Paul Conzelman, 1/30/96.
roads "designed or improved through the cooperation of the National Park Service and Bureau of Public Roads to provide entry to a park and access to the park's scenic features and recreational areas." The following characteristics, excerpted from the list on p. 179, are those which clearly served as guidelines during the 1933-1940 reconstruction of the entrance road:

- Protection of natural features (trees, outcrops, topography, drainage)
- Clearing with minimal impact (destruction and removal of trees, transplanting vegetation, saving duff, supervised burning, low-impact blasting to minimize scars and casting of materials)
- Alignment following topography and presenting natural beauty (curvilinear, tangents, radius curves, complex curves...)
- Gradient (varied, not to exceed 5%)\(^26\)
- Cut and fill (borrow pits and quarries to be located out-of-sight or outside the park)
- Cross-sections (crown, width of roadway, gutters, cut and fill, rounding and flattening of slopes, superelevation, sightlines)
- Surfacing (local stone)
- Treatment of slopes (rounded and flattened at a ratio of 3:1 or 4:1)\(^27\)
- Bank-blending
- Plantings (sodding, seeding, planting for erosion control, harmonization, and beautification)

The entrance road meets McClelland's registration requirements (p.194 of the MPS) because it is

- Associated with the 20th century movement to develop national parks for public enjoyment, to conserve natural features and scenic areas as public parks... [and to] develop natural areas... for public recreational use.
- Retains a majority of the physical characteristics (listed by McClelland) that were developed for the area during the New Deal era.
- Reflects the principles and practices of park landscape design developed and used by the NPS in national parks from 1916 to 1942 through ECW, CCC, PWA, or WPA projects from 1933-1942 (see list in McClelland's MPS, p. 194-195).
- Possesses historic integrity, as discussed in Item 7.

\(^{26}\) The gradient of the entrance road was reduced during reconstruction from its original 8% gradient to a 6% grade. According to Culpin, most surfaced park roads by the 1930s had a "ruling grade of 5%, with some 6%, and a few 7%." (p. 485).

\(^{27}\) Serrano's reports indicate that most often 2:1 and 3:1 ratios were the best that could be achieved along the entrance road given that they were working, for the most part, with a preexisting road cut. Some slopes were not flattened to the ideal ratio if doing so would involve the sacrifice of too many large trees.
While some roads in the national park system have been listed on the National Register as significant examples of engineering or due to their exceptional architectural features, the qualities which make the entrance road distinctive are related to the manner in which the road designers sought to integrate a transportation route with its natural surroundings. The only structures associated with the road are the remaining rustic masonry headwalls and retaining walls. Most of the labor expended by the CCC during the post-construction phase of the entrance road went into executing carefully planned landscaping projects. Significant effort and expense went into restoring the natural landscape, far more than would be available if a similar undertaking were to take place in parks today. For example, the land flanking the road cut was recontoured, either by flattening or rounding, to make it appear as if nature had been undisturbed by man's activities; to attain, as Landscape Architect Serrano called it, an "angle of repose." Rock outcroppings were left undisturbed on roadside slopes to present a natural, irregular appearance when surrounded by transplantings. Native grass seed was collected and disbursed on slopes; trees and sod were transplanted. This illusion of undisturbed nature is even more convincing today, as time has allowed the extensive plantings to mature.

The narrow width of the entrance road is also distinctive, particularly in today's age of the modern, multi-lane, high-speed highways. The road's narrowness invites, or rather requires, the driver to reduce their speed, to acknowledge that they are in a special place, and to take time to observe their surroundings. When the latest standards for park roads were developed in 1983, their purpose was defined as follows:

A park road should be fundamentally designed to maintain an overall continuing sense of intimacy with the countryside or area through which it passes. The purpose of park roads remains in sharp contrast to that of the Federal and State highway systems. Park roads are not intended to provide fast and convenient transportation; they are intended to enhance visitor experience while providing safe and efficient accommodations to park visitors.... They are not, therefore, intended nor designed as continuations of the State and Federal-aid network. 28

The entrance road is an example of a road "intimate" with its surroundings, one that invokes a strong feeling that it is a National Park Service road, quite distinctive from those found outside the monument's boundary.

28 Cited in Culpin, p. 487.
ITEM 9 BIBLIOGRAPHICAL REFERENCES


Devils Tower National Monument archives:

Drawings, plans, Development outlines -

Map C5, 1927, "Proposed Ultimate Program"
1932 Joyner map, "Devils Tower National Monument"
Map #D501, Jan. 1933, hand-drawn, N. F. Joyner
*Map #D509, Master Plan, 1939
Drawing #2004, 3/40 "Proposed Nature Trail" (TIC)
Map #A40 "Plan of Proposed Guard Rails," 9/35
Drawing #2011 2/49 Road System Plan
Map #D531, 3001-I, Jan. 5, 1949, signed 4/56; "General Development" (part of Master Plan)
Drawing #2049, 1941 - Regional Development Plan map, existing trail (S. portion)
Drawing #3001E, 1939, General Development Plan (map D#509)
DETO Master Plan Development Outlines, 1936-1939. NPS Branch of Plans and Design
DETO Development Outline, Jan. 1, 1949
DETO Master Plan, 1964.
DETO Master Plan, General Development Narrative, 1965.
DETO General Management Plan and Development Concept Plan, Feb. 1986

Reports -

"Report to the Chief Architect" from Howard W. Baker, Sept. 5-8, 1931.
Custodian's Monthly Reports, 1931-1940
Landscape Architect Reports, 1935-1937

Photos -

photo of headwall, 1935 (neg. 1)
expansion of parking area (neg. 12)
putting metal culvert through wooden one (neg. 26)
road showing guardrail, 1938 (neg. 8, 15)

Denver Service Center, Technical Information Center, Denver, CO:

Drawings:

#2011. Roads and Trails System 2/49
#2011-D. Roads and Trails System, July 1958
#4908, Road Traverse Around Tower and Adjacent Topography, May 1931
#4949 Entrance Road Plan and Profile, 9/33
#4952 Entrance Road Plan and Profile, 10/33
#4968 Proposed Relocation of Entrance Road Between East Boundary and Belle Fourche River, 4/35
#4985 Entrance Road Surfacing & Improvements, 4/37
ITEM 10 GEOGRAPHICAL DATA

UTMs (A) Zone 13 E 523860 N 493715
(B) Zone 13 E 523520 N 493718
(C) Zone 13 E 523000 N 493660
(D) Zone 13 E 522000 N 493650
(E) Zone 13 E 521900 N 493780
(F) Zone 13 E 522800 N 493726

VERBAL BOUNDARY DESCRIPTION

The boundary is a narrow corridor of land that encompasses the road, all of its associated structures, and its immediate natural setting. The corridor begins at the monument boundary and ends at the parking area located to the west of Devils Tower. Associated structures include the entrance station and kiosk, the Belle Fourche River Bridge, parking and viewing pullouts, culverts, headwalls, retaining walls, and drop inlets, and parking loop at Devils Tower. The corridor extends 150 feet in each direction from the centerline of the road, except at the (new) headquarters area where the south boundary is 50 feet south of the centerline for a distance of 250 feet to exclude the headquarters building, not historically associated with the road. The boundary is again constricted at the parking area to only include the paved parking loop. (Historic properties in the immediate vicinity of the parking area are being nominated under a separate individual form.) The boundary is shown as a dotted line on the accompanying site map.

GEOGRAPHICAL DATA

The entrance road is located within Devils Tower National Monument, Crook County, Wyoming, as shown on the accompanying USGS and site maps.

BOUNDARY JUSTIFICATION

The boundary includes all of the road's historic alignment, from the monument's entry to the loop parking area at Devils Tower, including the parking loop. Even though the parking area has lost much of its historic character (as documented in the nomination for the Headquarters Area Historic District) it retains its loop design and thus should be considered part of the entrance road.
PHOTOGRAPHS

1) Properties: Entrance Road
2) Location: Devils Tower National Monument, Crook County, Wyoming
3) Photographer: Kathy McKoy
4) Date taken: July 1, 1992; March 15, 1995
5) Location of negatives: Devils Tower National Monument

<table>
<thead>
<tr>
<th>Photo #</th>
<th>Description</th>
<th>direction of view</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Entrance Road, entrance station &amp; kiosk</td>
<td>to NW</td>
</tr>
<tr>
<td>2</td>
<td>Entrance Road, pullout at Prairie Dog Town</td>
<td>to E</td>
</tr>
<tr>
<td>3</td>
<td>Metal culvert outlet, associated w/Entrance Rd.</td>
<td>to NE</td>
</tr>
<tr>
<td>4</td>
<td>Stone culvert, associated w/Entrance Rd.</td>
<td>to S</td>
</tr>
<tr>
<td>5</td>
<td>Parking area &amp; Visitor Center</td>
<td>to S</td>
</tr>
<tr>
<td>6</td>
<td>Parking area &amp; island/kiosk</td>
<td>to SW</td>
</tr>
</tbody>
</table>

OTHER DOCUMENTATION
Color photographs (McKoy, 3/95) and historic black and white photographs (Serrano, 1936) are photocopied and appended immediately following this continuation page.
Parking & Pullouts along Entrance Road

1 Passing lane
2 Trailhead parking
3, 4, 5 Prairie Dog Town pullouts with wayside exhibits
6, 7, 8 Pullouts, tower view
9 Oversize vehicle parking

(Location, size of pullouts approximate. Information furnished by George San Miguel.)
“Resodding ditch line and cut slope after flattening and rounding along entrance highway.”
"Flattening and rounding cut slope along entrance highway."
"Roadside cut slope not touched except removal of loose material."
"Showing manner in which rock cut slopes left in rough state."
"Showing cut slope after flattening and rounding."
"Cut slope after flattening and rounding. Note all existing rocks strongly imbedded, not disturbed."
"Showing headwall typical of those constructed along entrance highway"