1. NAME OF PROPERTY

Historic Name: SKYLINE DRIVE HISTORIC DISTRICT

Other Name/Site Number: N/A

2. LOCATION

Street & Number: Shenandoah National Park (SHEN) Not for publication:

City/Town: Luray Vicinity: x

State: VA County: Code: Zip Code: 22835

Albemarle	VA003
Augusta	VA015
Greene	VA079
Madison	VA113
Page	VA139
Rappahannock	VA157
Rockingham	VA165
Warren	VA187

3. CLASSIFICATION

Ownership of Property		Category of Property	
Private:	___	Building(s):	___
Public-Local:	___	District:	X
Public-State:	___	Site:	___
Public-Federal:	X	Structure:	___
		Object:	___

Number of Resources within Property

Contributing	Noncontributing	
80	73	buildings
23	2	sites
87	10	structures
29	0	objects
219	85	Total

Number of Contributing Resources Previously Listed in the National Register: 219

Name of Related Multiple Property Listing: Historic Park Landscapes in National and State Parks MPS

4. STATE/FEDERAL AGENCY CERTIFICATION

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this ____ 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 ____ meets ____ does not meet the National Register Criteria.

Signature of Certifying Official Date

State or Federal Agency and Bureau

In my opinion, the property ____ meets ____ does not meet the National Register criteria.

Signature of Commenting or Other Official Date

State or Federal Agency and Bureau

5. NATIONAL PARK SERVICE CERTIFICATION

I hereby certify that this property is:

___ Entered in the National Register
___ Determined eligible for the National Register
___ Determined not eligible for the National Register
___ Removed from the National Register
___ Other (explain):

Signature of Keeper Date of Action

6. FUNCTION OR USE

Historic:	Landscape	Sub:	Park
	Transportation		Road-related (vehicular)
	Recreation and Culture		Outdoor Recreation
	Landscape		Conservation Area
	Landscape		Natural Feature
	Domestic		Camp
	Domestic		Hotel
	Commerce		Restaurant
	Government		Government Office

Current :	Landscape	Sub:	Park
	Landscape		Natural Feature
	Landscape		Conservation Area
	Transportation		Road-related (vehicular)
	Recreation and Culture		Outdoor Recreation
	Domestic		Camp
	Domestic		Hotel
	Commerce		Restaurant
	Government		Government Office

7. DESCRIPTION

ARCHITECTURAL CLASSIFICATION: Other: National Park Service naturalistic landscape design
Other: National Park Service rustic architecture

MATERIALS:

Foundation:	earth, granite, limestone, concrete
Walls:	granite, limestone, weatherboard, log
Roof:	asphalt, concrete, shake
Other:	earth, granite, limestone, asphalt, log, glass

Describe Present and Historic Physical Appearance.

Summary

Skyline Drive, with its adjoining overlooks, waysides, picnic areas, campgrounds, and development areas, [1] is nationally significant under NHL Criterion 1 & 4. Because of the pivotal role that the Skyline Drive Historic District played in the history of the national park system and the evolution of park road design, federal policies in conservation and recreation, and the employment relief measures of the New Deal, Skyline Drive is nationally significant under the NHL theme Transforming the Environment. For its exemplary expression of the principles and practices of National Park Service road design, landscape naturalization, and rustic architectural design and as a showcase of the landscape conservation work of the Civilian Conservation Corps, the park road and its associated features are also nationally important under the theme Expressing Cultural Values (Planning, Landscape Architecture, and Architecture).

Skyline Drive is primarily significant for its leading role in the movement to conserve and enhance the Nation's natural resources in the eastern United States for enjoyment and outdoor recreation by the American public that gained momentum in the mid-1920s and continued through the 1930s. It represents efforts by the United States Government with the cooperation of the Commonwealth of Virginia to conserve the characteristic scenic and natural resources of the Central Appalachians and Blue Ridge in the form of Shenandoah National Park. Designed and constructed between 1930 and 1942, it played an important role in the efforts of the federal government to provide economic relief in the form of employment for both skilled and unskilled labor during the Great Depression. These programs included drought relief funding beginning in 1931 and the varied make-work and relief programs of the New Deal era (1933 to 1942) including the Civilian Conservation Corps (CCC), Public Works Administration (PWA), and Works Progress Administration (WPA). These programs not only promoted economic stability but moreover reflected the social-humanitarian purposes of the New Deal, advanced the conservation of natural areas, and expanded the recreational resources of the nation.

Designed as the backbone of Shenandoah National Park, Skyline Drive also illustrates the principles of naturalistic landscape design promoted by the National Park Service for work in state and national parks and parkways in the early 20th century. Designed and constructed in the 1930s, the drive represents an important stage in the adaptation of the principles and practices of naturalistic and rustic design that had been developed for Western park roads to the gentler topography of the Appalachians and the emerging East Coast ideas for parkway development. Distinguishing design characteristics include the graceful curvilinear alignment; the rounding, flattening, and planting of cut and fill slopes in native species to blend naturalistically into the surrounding topography; the picturesque parking overlooks at frequent internals to provide scenic valley and ridgetop vistas and to link motorists with the Appalachian Trail and other trails leading to waterfalls, outcroppings, springs, scenic views, and virgin stands of trees. Recreational areas for picnicking, camping, dining and overnight accommodations were developed according to the park's master plan at regular intervals along the drive, including Dickey Ridge, Elkwallow, Pinnacles, Skyland, Big Meadows, Lewis Mountain, and South River. The CCC played a major role in the development of these areas, as did the Virginia Sky-line Company, which as the park's concessionaire built village-like clusters with lodges and overnight cabins and waysides with shops, lunchrooms, and gasoline stations. Several of these buildings—Big Meadows Lodge,

[1] The Skyline Drive Historic District was listed in the National Register of Historic Places at the national level of significance on 28 April 1997; two boundary increases were accepted on 19 September 1997 and 5 December 2003. These listings recognized the importance of the drive and its associated resources under National Register criteria A and C in the areas of Landscape Architecture, Architecture, Community Planning and Development (park), Conservation, Engineering, Entertainment/Recreation, Politics/Government, and Social History.

Dickey Ridge Lodge, Lewis Mountain Lodge, Skyland Community Building— are outstanding examples of National Park Service rustic architecture applied to the eastern deciduous forests and geological character of the Blue Ridge.

Among the historic resources associated with the construction of Skyline Drive are the Skyland development area, which illustrates the recreational history of the northern Blue Ridge from the 1880s when it began as a private resort, through the 1920s when it played an important role in the creation of Shenandoah National Park. During the CCC era, the site of CCC camp NP-1 was located nearby, and the area was redeveloped according to national park standards and became one of the overnight areas operated by the park concessionaire. The district also includes the ranger station at Simmons Gap which was shaped by the CCC in the 1930s, a remnant CCC camp building at Piney River that figured prominently in the CCC's forestry program, the open meadow which was the site of the former Big Meadows CCC camp (NP-2) and the focal point of the Big Meadows development area, and the Rapidan Road, which was built to connect the drive (at Big Meadows) with President Herbert Hoover's fishing retreat under the first allocation of funds in 1931.

The Skyline Drive Historic District meets the registration requirements at the national level of significance outlined in the Historic Park Landscapes in National and State Parks MPS and published in *Building the National Parks: The Historic Landscape Design of the National Park Service* (McClelland, Johns Hopkins University Press, 1998). Properties eligible under this context must:

1.) be associated with the 20th century movement to develop national parks for public enjoyment, to conserve natural features and scenic areas as public parks, to organize statewide systems of state or local parks, or to develop natural areas, including sub-marginal lands, for public recreational use.

2.) retain several or all of the physical characteristics that were developed for that area during or before the New Deal era (1933-1942).

3.) reflect the following principles and practices of park landscape design developed and used by the National Park Service in national parks from 1916 to 1942 and in state and national parks through ECW, CCC, PWA or WPA projects from 1933 to 1942.

- o protection and preservation of natural scenery and features
- o prohibition of exotic plants and wildlife
- o presentation of scenic vistas through the location of park facilities and development of overlooks
- o avoidance of right angles and straight lines in the design of roads, trails, and structures
- o use of native materials for construction and planting
- o use of naturalistic techniques in planting, rockwork, and log-work to harmonize manmade development with natural surroundings
- o adaptation of indigenous or frontier methods of construction
- o transplanting and planting of native trees, shrubs, and ground covers to erase the scars of construction and earlier uses of the land.

4.) possess historic integrity of location, setting, design, materials, workmanship, feeling, and association, and overall reflect the physical appearance and condition of the landscape during the period of significance.

Construction on the drive preceded the establishment of the park by almost five years and became the organizing framework through which the park was developed for public enjoyment and use. In a century

dominated by the automobile, the linear corridor flanking the drive became synonymous with what would become a national park of more than 190,000 acres. The drive was constructed in a brief but highly intense period of national park development, and the park's plan today strongly reflects the master plans of the CCC-era, 1935-1942. Skyline Drive and the principal developed areas of the park that were in place in 1942 have undergone relatively little change and continue to reflect the park's initial planning and the intensive period of development during the Great Depression. Today largely comprised of mature forest and rugged peaks, the setting throughout the district reflects the naturalistic and scenic character envisioned by its designers in the 1930s. To an extraordinary degree the drive and associated recreational facilities exemplify the principles and practices of NPS park design and the manifold legacy of the Civilian Conservation Corps. The period of significance extends to 1952, to recognize the small amount of work done to complete the guardwalls after World War II and some minor changes that were in keeping with the 1930s plans.

Extending 105.5 miles from US Route 340 at Front Royal to Rockfish Gap, the boundary for the existing National Register district and the proposed NHL district is defined as 125 feet on either side of Skyline Drive's centerline. This boundary creates a 250-foot corridor that corresponds to the original right of way (in the years before the establishment of the park) and includes the cut and fill slopes, numerous stone culverts and walls, important viewpoints, and the plantings installed to blend the roadway with the natural setting. At overlooks, wayside stations, and picnic grounds the boundary extends 125 feet beyond the toe-slope of the overlooks, 125 feet beyond the edge of paved parking areas at the waysides, and 125 feet beyond circulation roads at the picnic grounds. The boundaries at Skyland, Lewis Mountain, and Big Meadow have been drawn to encompass the architectural and landscape features that were included in the 1930s master plan for these development areas.

Atop the crest of the Blue Ridge Mountains, the 105.5-mile Skyline Drive in Shenandoah National Park offers panoramic views of the Shenandoah Valley to the west and the Piedmont to the east. In 1940 following its completion, National Park Service Landscape Architect Harvey P. Benson praised the "mountaintop motorway" for its innovation and beauty stating:

> It is for the far-reaching views from the Skyline Drive that the park is most widely known. Macadamized and smooth, with easy gradient and wide sweeping curves, the Drive unfolds to view innumerable panoramas of lofty peaks, forested ravines and the patchwork patterns of valley farms.[2]

The Southern Appalachian National Park Committee, assembled by the United States secretary of the interior, first proposed the concept for a Skyline Drive in 1924, and shortly after the commonwealth of Virginia created the Commission on Conservation and Development to ensure its creation. Construction of Skyline Drive began in 1931 and occurred in three distinct phases, with the Central District, Thornton Gap to Swift Run Gap, completed first in 1934. The North District, from Front Royal to Thornton Gap, was completed in 1936, and the South District, from Swift Run Gap to Jarman Gap, was finished in 1939. The northernmost portion of the Blue Ridge Parkway, from Jarman Gap to Rockfish Gap, was constructed in 1936-37, and in 1939 became part of Shenandoah National Park extending Skyline Drive as far south as Rockfish Gap.

The Skyline Drive Historic District is located in Shenandoah National Park which lies in 75-mile portion of the Blue Ridge Mountains of Virginia. Lying entirely within the boundaries of the Shenandoah National Park, Skyline Drive serves as the park's major access road. It runs 105.5 miles from its northern end in Front Royal

[2] Harvey P. Benson, "The Skyline Drive: A Brief History of a Mountaintop Motorway," *The Regional Review* 4 (2): 3.

to its southern end at the Rockfish Gap near Waynesboro. The drive is accessible from four entrances. The northernmost entrance is at Front Royal at the junction of US Route 340. The Thornton Gap entrance lies 31.5 miles south at the junction of US Route 211. Swift Run Gap lies at the junction of US Route 33, 34 miles further south. The southernmost entrance is at Rockfish Gap, which lies 105.5 miles south of Front Royal at the junction with US Route 250 and connects with the northern end of the Blue Ridge Parkway, an approximately 500-mile national parkway begun in the mid-1930s to connect the Shenandoah and Great Smoky Mountains parks. Skyline Drive and the park are within the bounds of eight counties: Albemarle, Augusta, Greene, Madison, Page, Rappahannock, Rockingham, and Warren. The Blue Ridge forms the northern and easternmost chain of the southern Appalachian Mountains forming a continuous, undulating and rugged corridor of peaks and gaps running northeast to southwest. To the west lies the Shenandoah Valley, also known as the "Great Valley of Virginia," and to the east lies the Piedmont Plateau.

Shenandoah National Park was one of two national parks in the Southern Appalachians authorized by Act of Congress in 1926 and established in the 1930s through the acquisition and donation of land by the states in which they were located (North Carolina, Tennessee, and Virginia). Portions of Virginia's Blue Ridge, some of which had been cultivated or cut-over for timber, have reverted to forest within Shenandoah National Park forming the heart of a beautiful natural reserve that is accessed by the long-distance Appalachian Trail (more than 2000 miles in length from Springer Mountain, Georgia, to Mount Katadin, Maine) and an extensive network of foot and bridle trails. The drive features parking overlooks and road widenings, picnic grounds, wayside stations, trailheads and parking areas, stone guardwalls, and other engineering and landscape architecture features. Shenandoah's environment is dynamic and ever changing; yet Skyline Drive, with its overlooks, recreational facilities, waysides, and ranger stations, maintains a high degree of historic integrity dating to the period 1931 to 1951 when the vision of the Southern Appalachian committee took material form through the collaboration of the National Park Service (NPS) and Bureau of Public Roads (BPR), the ingenuity of park engineers and landscape architects, and the hard work of the approximately four thousand skilled and unskilled laborers hired by the BPR to build the road, and the more than ten thousand enrollees and several dozen LEM's (locally experienced men) of the Civilian Conservation Corps (CCC) whose workmanship and "woodsmanship" erased the scars of construction, prepared the park for visitor use and enjoyment, and fulfilled the aesthetic and functional requirements of the mandate that all park construction be made to harmonize with the natural surroundings.

One of the earliest explorers of this region was Virginia Governor Alexander Spotswood, who in 1716 led a company of 63 men across the Blue Ridge, through Swift Run Gap into the Shenandoah Valley. Land-grant programs for settlers and treaties with Native Americans opened the valley for settlement. English, Scot-Irish and German immigrants settled the region, and by 1745 more than 10,000 homesteaders had settled in the valley. The Valley of Virginia was the scene of intensive military action during the Civil War, and because it was a leading agricultural center, it was known as the "breadbasket of the Confederacy." Although the Blue Ridge Mountains of northern Virginia witnessed only limited battle action, they contained mountain gaps and roads that permitted passage of both Union and Confederate troops between the Shenandoah Valley and the Piedmont. The Valley's economy today is still primarily agricultural-based and it is a leading poultry producer.

The origins of the idea for Skyline Drive have been traced to the 1924 report of the Southern Appalachian National Park Committee. Charged with selecting the site of a national park, the committee urged the creation of a park on the Blue Ridge of Northern Virginia, stating that "the greatest single feature" could be a "skyline drive along the mountain top following a continuous ridge and looking down westerly on the Shenandoah Valley from 2,500 to 3,500 feet below, and commanding a view of the Piedmont Plain stretching easterly to the

Washington Monument...few scenic drives in the world could surpass it."[3]

With the support of President Herbert Hoover, the State's acquisition of a 100-foot right of way, and funding from a special allocation for the development of national park roads in drought-stricken Virginia, construction on Skyline Drive began in 1931. The official ground breaking occurred July 18, 1931, at Thornton Gap, and work on the central section progressed through the summer, ceasing in December with the onset of winter. Construction resumed the following spring, with federal and state officials and local businessmen calling for the drive to open in July. It was generally believed that opening the drive would be an economic cure to the drought that had devastated the surrounding region. The temporary opening of the road to loop traffic from Thornton Gap to Hawksbill Gap on October 22, 1932, was considered a victory for the drive's many supporters. The drive was an immediate success. More than 30,000 tourists in over 8,000 automobiles toured the drive by the end of November, when it was closed. Without guardwalls and a finished surface, the drive was considered hazardous and didn't reopen until September 15, 1934, when the entire central section from Thornton Gap to Swift Run Gap was completed.[4]

The north section from Front Royal to Thornton Gap was constructed next and opened on October 1, 1936. Construction on the south section from Swift Run Gap to Jarman Gap began in April 1936 and was completed in 1939. When the south section was opened for traffic August 29, 1939, the drive connected with the northernmost segment of the Blue Ridge Parkway, which had been constructed in 1936-37 and extended from Jarman Gap to Rock Fish Gap. More than eight miles in length and 200 feet in width, the segment became an extension of Skyline Drive, and since 1939 has been managed and maintained by the Shenandoah park (although the transfer was not made official until 1961). Conceived by Sen. Harry Flood Byrd, Sr. of Virginia and others in 1933, the Blue Ridge Parkway was designed to connect Skyline Drive with the Great Smoky Mountains National Park. From the beginning it was envisioned as an extension of Skyline Drive in the form of a ribbon-like corridor 200 feet wide and almost 500 miles long. Today the Blue Ridge Parkway is considered the premier example of the long-distance national parkway which was introduced and perfected by the NPS. A joint project of the NPS and the BPR, construction on the Blue Ridge Parkway began in 1936 and ceased in 1942, because of the war. Work resumed after World War II and construction was finished in the late 1980s.[5]

Historically, many turnpikes and lesser roads traversed the Blue Ridge Mountains, but few followed the crest of the ridge. Most of these roads passed through the numerous gaps in the mountains, for example, the Gordonsville Turnpike that crossed the Blue Ridge at Fishers Gap, the New Market to Sperryville Turnpike that crossed at Thornton Gap, and Swift Run Gap Turnpike that crossed at Swift Run Gap. When Skyline Drive was completed, the NPS decided to limit vehicular access to the mountaintop and close the many roads that crossed the ridge. Many local inhabitants railed against the road closures arguing that it was inconvenient and limited their travel to the state's capital and center of commerce and industry at Richmond. On June 26, 1939, the House of Representatives passed House Joint Resolution 338, which closed all roads to the ridge within the bounds of Shenandoah National Park with the exception of U.S. Route 211 at Thornton Gap (the Lee Highway), and U.S. Route 33 (the Spotswood Trail) at Swift Run Gap.[6] Today, many of these historic routes have been

[3] Committee on Public Lands, *Providing for the Acquisition of Lands in the Southern Appalachian Mountains for Park Purposes: Report to Accompany H.R. 11980,* 68th Cong. 2nd Sess., 1925, H. Rept. 1320, p. 5.

[4] Dennis Elwood Simmons, "The Creation of Shenandoah National Park and the Skyline Drive, 1924-1936," Ph.D. Dissertation, University of Virginia, 1978; pp. 86-88; and Virginius Dabney, "New Skyline Drive Opens in Virginia," *New York Times*, 13 November 1932, II, p. 6.

[5] Ian Firth, "Blue Ridge Parkway Historic Resource Study," (U.S. Department of the Interior, National Park Service, Atlanta, Draft Report 1991), pp. 17-20; Barry Mackintosh, *The National Parks: Shaping the System* (Washington, DC: US Department of the Interior, National Park Service, 1991), p. 54; and Simmons, "Shenandoah," p. 96.

[6] "H.J. Res. 338" Box 27, File Folder 13012, SHEN Archives.

maintained as fire roads or provide limited access for administrative purposes.

In spring 1933, President Franklin D. Roosevelt promised public works funds under the National Industrial Recovery Act, and the services of the newly formed Civilian Conservation Corps (CCC), under the Federal Unemployment Relief Act, to furnish the necessary labor to complete the drive and develop Shenandoah National Park. CCC enrollees worked under the direction of NPS landscape architects, who worked for the Eastern Office of the Branch of Plans and Design (formerly called Landscape Division) under Charles E. Peterson. Several CCC camps operated within Shenandoah National Park from 1933 to 1942 (at which time the CCC was disbanded because of World War II). CCC work projects were principally directed at landscape conservation measures--blazing trails and fire roads, clearing picnic areas and campgrounds, planting slopes, and clearing the woods of dead chestnut trees. The work on the drive consisted of grading and planting the slopes of the drive, clearing dead trees from the roadsides, collecting wildflower seed, constructing retaining walls at the overlooks, developing picnic grounds, and building comfort stations and other small buildings.[7] The onset of World War II effectively marked the end of CCC construction and improvements to Skyline Drive (during the war the Civilian Public Service, consisting of conscientious objectors, worked on construction projects).

Historic Physical Appearance

The Blue Ridge Mountains are part of the Appalachian Mountain chain. The land comprising Shenandoah National Park and Skyline Drive was formed by several different geological forces. This land is supported by a granite base that formed eons ago, far below the earth's surface. The granite was uplifted by hydrostatic rebound, and the overlying strata were eventually eroded to expose the granite in jagged hills with deep valleys. Volcanic activity later filled the valleys, creating a vast lava plain. The lava plain subsided to form a seabed onto which sediments were deposited to a depth of 30,000 feet. Alternating periods of deformation and subsidence, along with occasional volcanic activity and successions of incurrences and retreats of the sea, formed the strata of the land. Approximately 300 million years ago, compression from the Atlantic Ridge Rift Zone produced the parallel folds that have since formed the Appalachian Mountains.[8] Human use of Shenandoah National Park's land has influenced its physical appearance. Native Americans[9] left marks on the land by clearing portions of the forest for hunting camps and village sites and improving their hunting capabilities. Some clearings attributed to Native Americans--"balds"--were used by European settlers for pasture or home sites. There is evidence of these clearings in the park today.[10] The Big Meadows area, which is still maintained by the park as an open meadow environment, is the best known example. At the time the park was established the clearing at Big Meadows was the site of CCC Camp NP-2 and extended from Milam Gap to Fishers Gap and north to the present Big Meadows campground. Big Meadows had been used for home

[7] Simmons, "Shenandoah," pp. 90-94. For a complete account of the CCC in Shenandoah, See Reed Engle, "*Everything Was Wonderful: A Pictorial History of the Civilian Conservation Corps in Shenandoah National Park* (Luray, Vir.: Shenandoah Natural Historic Association, 1999).

[8] U.S. Department of the Interior, National Park Service, *General Management Plan/Development Concept Plan January 1983, Shenandoah National Park, Virginia*. (Denver: Denver Service Center, 1983), p. 37.

[9] National Park Service archeological investigations undertaken in connection with construction projects, including the ongoing rehabilitation of Skyline Drive, are providing new information about Native American land use. These include Michael Hoffman and Robert W. Foss, "Man in the Blue Ridge--An Archeological and Environmental Perspective," paper presented at the Second Annual Shenandoah Research Symposium, Shenandoah National Park, and at the 42nd Annual Meeting of the Society for American Archeology, New Orleans, Louisiana, 1977.

[10] John A. Conners, *Shenandoah National Park: An Interpretive Guide* (Blacksburg, Virginia: The McDonald and Woodward Publishing Company, 1988), p. 83.

sites and summer pasture by European settlers and their descendants until the area was obtained by the National Park Service. There were extensive stands of American chestnut in the Big Meadows area and other places within the boundaries of the proposed park. By the time construction began on the drive, these stands had become ghost-like forests with the trees decimated by chestnut blight and deemed a fire hazard. One of the important tasks assigned the Civilian Conservation Corps was the removal of the dead and decaying timber. While much was cut for firewood and distributed to the poor in nearby communities, a large amount was reserved for the construction of log guardrails, cribbing for fill slopes, drinking fountains, comfort stations, shelters, and other construction in the park.

John Lederer is credited with having written the first Anglo-American account of a visit to the land in what is now Shenandoah National Park. It described his 1669 visit to the region and was published in London in 1671. In 1716, Virginia's Lieutenant Governor Alexander Spotswood led what is considered the first expedition over the Blue Ridge Mountains and into the Shenandoah Valley beyond. In spite of these explorations, the Shenandoah Valley and the surrounding mountains remained frontier wilderness until the mid-18th century when the Valley experienced a steady population growth from 1745 to 1770.

The Blue Ridge Mountains experienced little population growth during this time period; however, some of its resources were heavily exploited. The area was ideally suited for iron production, with numerous iron ore banks, abundant mountain streams to power the bellows, limestone for flux, and a seemingly endless supply of Massanutten Mountain and Blue Ridge timber for making charcoal. The Shenandoah Valley charcoal iron industry, while virtually destroyed during the Civil War, was revived and continued until the 1880s. The operation of ten or more ante-bellum furnaces on the western slopes of the Blue Ridge required extensive cutting of mountain timber. The most widely accepted estimate is that it annually took approximately 8,000 acres of forest to support one charcoal blast furnace for a year. Even with regeneration of the forest, clearly the charcoal needs of these furnaces quickly depleted the Blue Ridge timber resources. Other local industries used the Blue Ridge timber as well. Perhaps most significant were the local tanneries that used the bark of chestnut oaks as a major source of tannin in the 1700s and 1800s, and on into the twentieth century.[11]

Around 1800, the mountain population began growing due largely to soil depletion in the valley. Mountain residents were able to supplement their incomes by selling timber, chestnuts, tanbark, and furs. Carding mills and sawmills were built at the base of the hollows to make use of available water power. The mountains sustained population growth, but at the cost of diminished natural resources. Beginning in the 1840s, the use of improved agricultural methods resulted in renewal of the valley's depleted soil, and the area became a rich agricultural region. During the Civil War, the Union Army realized the importance of the valley as a major agricultural region for the Confederate states. The Federal "scorched-earth" policy, initiated late in the war, devastated the lower Shenandoah Valley. Crops, mills, granaries, iron furnaces, or anything that was of agricultural or military use to the Confederates was destroyed. The turnpikes crossing the Blue Ridge were of strategic importance, but saw only limited engagements and suffered less sustained damage from the war, despite the massive troop movements across them by both Union and Confederate armies.

After the war the devastated Shenandoah Valley was revitalized agriculturally through farming and orchards, and economically by the iron, lumber, and tannery industries. The construction of the Shenandoah Valley Railroad and the rebuilding of the Virginia Central Railroad further aided in the valley's revitalization. Railroad construction and the introduction of steam powered carding mills and sawmills caused these industries to move

[11]Lys Antonie' Schaeffer, "The Charcoal Iron Industry of the Northern Shenandoah Valley" (Master's Thesis, George Washington University, 1978), p. 40; Darwin Lambert, *The Undying Past of Shenandoah National Park* (Boulder, CO: Roberts Rinehart, Inc., 1989), pp. 75-78 and 161.

from the base of the mountains closer to the rail lines. By the turn of the century chemical processes had replaced the need for tanbark; this development, plus the onset of chestnut blight, caused the decline of the tanning industry. This led the mountain people to hurriedly sell their chestnut trees for lumber and shingles, leaving the land cleared for pasture and subsistence farming. Additionally, the continued cycle of soil depletion and land abandonment perpetuated the practice of more land clearing. Thus, in 1924, when Shenandoah National Park and Skyline Drive were first proposed, the northern Blue Ridge Mountains consisted of one-third open field and nearly two-thirds early second growth forest, with pockets of mature forest.[12]

The designers of Skyline Drive were able to draw upon their experience from previous western park road projects. They endeavored to create roads that lay lightly on the land and flowed gently with the natural topography. This meant designing the roadway with gradual changes in grade and curves that gently transitioned from one to another, avoiding tangents altogether. By following the existing topography, the designers were able to reduce the number and severity of road cuts and fills. Where cut and fill operations were necessary, special techniques were used to reduce their visual impact and damage to the surrounding woodlands and meadows. Cut and fill slopes were carefully shaped and flattened to reduce erosion and blend with the surrounding topography. When the alignment required cuts in the natural bedrock, the blasting was done by gentle, carefully controlled charges so that the volume of stone removed was minimal, scarring was reduced and the cuts took on the appearance of natural rock outcroppings.[13]

Plantings further erased the evidence of the cut and fill operations and prevented soil erosion. Slopes were seeded with wildflowers, sodded, or stabilized with small shrubs. Existing ornamental-quality plants were often protected by careful grading. Most of the vegetation used on cut and fill slopes along the drive was planted shortly after the slopes were flattened. In keeping with the NPS's prohibition on the use of exotic plant materials, only native vegetation was used along the drive, and for the most part it was either transplanted from the road right-of-way or propagated at one of the CCC-operated nurseries in the park (records indicate that some materials, including Virginia creeper, hickories, and black walnuts were purchased from commercial nurseries). The CCC enrollees provided the labor force necessary to run the nurseries, transplant shrubs and trees, and carry out the task of blending the newly prepared slopes into the natural setting of meadow or forests. One nursery was located at the Big Meadows near CCC Camp NP-2, and another near the northern entrance of the park. The plantings imitated but also enhanced the park's natural beauty, especially when placed in bays along the cut slopes of the drive or in the islands that separated and screened many of the overlooks. Along the drive such plantings, sometimes in combination with small boulders, helped reduce soil erosion by slowing down and absorbing the runoff from heavy rains. Several species of native plant materials were commonly used along the drive and in development areas. Trees included black walnut *(Juglans nigras),* alternate-leaved dogwood *(Cornus alternifolia),* pitch pine (*Pinus rigida),* table mountain pine (*Pinus pungens),* eastern white pine (*Pinus strobus),* and red spruce (*Picea rubens).* Shrubs included azalea (*Rhododendron spp.),* American bittersweet *(Celastrus scandens),* strawberry bush *(Euonymous americanus),* mountain laurel *(Kalmia latifolia*), arrowwood viburnum *(Viburnum dentatum),witch-hazel (Hammeralis virginiana),* and rosebay rhododendron *(Rhododendron maximum).*

The rustic architectural standards developed by the NPS for the western parks were adapted for the construction of buildings and structures along the drive and in adjoining recreational areas. These enabled artificial construction to blend harmoniously into the natural surroundings. Building materials chosen for entrance

[12]Conners, *Shenandoah National Park*, pp. 83-89; NPS, DSC, *SHEN GMP/EA*, pp. 58-64; Henry Heatwole, *Guide To Shenandoah National Park and Skyline Drive* (Luray, Virginia: Shenandoah Natural History Association, 1988), pp. 28-40; and Lambert, *Undying Past,* pp. 25-33.

[13] Benson, "The Skyline Drive," *The Regional Review*, p. 5.

stations, guardwalls, picnic shelters, comfort stations, signage, and drinking fountains were indigenous and provided a unified architectural character that fit well with the surrounding outcroppings and eastern deciduous forest. Materials included native stone, log, and wood cut into shingles, slab board, or finished weatherboard; much of the latter was produced at thesawmill operated by the CCC Camp NP 1 (Skyland) from the dead chestnuts cleared from nearby woodlands. One of the finest structures built by the CCC is the picnic shelter at Pinnacles Picnic Grounds; this building is supported by a post-and-beam frame made of massive logs, surmounted by a hipped roof finished in concrete shingles that imitate stone, and distinguished by a large, centrally located stone chimney that provided four fireplaces. Many of the CCC-built comfort stations throughout the park were constructed of squared up logs arranged with carefully joined notches. Particularly distinctive were the stone comfort stations built at Stony Man Overlook and the Lewis Mountain Campground.

Historically, both log guardrail and hand-laid stone guardwalls were used along the drive and at overlooks to keep automobiles within the surfaced or graded areas. Massive log guardrails, originally found along several stretches of the drive, were removed many years ago. The stone guardwall developed for use on Skyline Drive differed from the standard designs developed by the Landscape Division for western parks. The stone used in the Central and North District was taken from the road excavation and quarried at several sites along the drive; due to new policy that prohibited the quarrying of stone in the national parks, the walls of the South District, which were built in the 1950s, relied on sources outside the park. The original stone guardwalls, constructed of native stone, were dry laid with the top course set in mortar and deeply raked; in large part the walls followed construction methods familiar to the region's farmers and conveyed a strong association with the park's cultural origins. Much of the original guardwall in the North and Central Districts has been replaced with a stone-veneered wall made with a reinforced concrete core engineered for modern highway safety. Original guardwall has been retained at the overlooks throughout the park and in the South District.

While overlooks had been incorporated in several of the earlier roads in western parks, and great expense and planning had gone into pioneering designs such as the Sunrise Loop on Mt. Rainier's Yakima Park Road or the Wawona Tunnel and Overlook at Yosemite, nowhere previously had the concept of a continuous chain of overlooks been explored by national park designers. On Skyline Drive each overlook or road widening was carefully orchestrated in sequence and designed to present park visitors with a seemingly unending panorama of places, such as the distant Massanutten Mountain across the Shenandoah Valley or Piedmont Plain stretching toward the eastern horizon, and more intimate views into the forested hillside, deep hollows, and meandering streams below. The concept introduced on Skyline Drive—of numerous viewpoints integrally tied into an undulating, serpentine roadway--would be perfected on the Blue Ridge Parkway and become the basis of the national parkway idea. The parking overlooks and road widenings were designed. Some overlooks were built within the naturally sloping grade of the ridge while others were supported by massive areas of fill that were shaped to appear as naturalistic as the surrounding landforms. The parking overlooks were built to handle varying numbers of cars and provide a terrace-like viewing station. Many had stone walls, sidewalks and curbs (sometimes laid by the road contractors). The plantings in these islands consisted of native species in naturalistic compositions so that they blended with the surrounding natural vegetation. Some were richly planted with masses of various maples, oaks, pines, mountain laurel, azaleas, and other native species often incorporated with rock outcroppings, cut-stone curbing and other features. Other planting islands were treated with varying degrees of simplicity with the simplest consisting mostly of specimen trees with wildflowers and grass. Overlooks such as Crescent Rock, Jewell Hollow, and Doyles River provided paths to scenic outcroppings or interesting rock formations or connected with side trails or the long-distance Appalachian Trail (A.T.).

Through the placement and design of the parking overlooks, the designers of Skyline Drive orchestrated a

seemingly endless and ever-changing panorama of mountain views, both intimate views down into the hollows to either side of the Blue Ridge and distant vistas dominated by the undulating contours of the Blue Ridge and the distant Alleghenies. These features were fully integrated into the design of a scenic road that not only fit gracefully into the natural topography but also drew motorists to places where scenery could be seen at its best advantage. A landscape architect would carefully go over the preliminary road alignment and suggest changes that would protect landscape features or take advantage of scenic points previously missed. Parking overlooks and road widenings were designed to give visitors a chance to stop and enjoy the views. Planted islands separated the overlooks from the drive and were designed to screen the noise and distraction of traffic moving along the drive. Sixty-seven overlooks and road widenings were constructed along the105.5 mile drive; each was designed by NPS landscape architects who worked for the Landscape Division, later called the Branch of Plans and Design, or were hired to supervise the work of the CCC. Of the original 67 overlooks, 65 remain in their original location and retain the historic design features, including the dry-laid stone parapets and retaining walls, which date to their construction in the period 1932-1942. The first overlooks were built in the Central District and were designed separately from the roadway and constructed by the CCC in 1933 and 1934. Later overlooks, especially in the South District, were built under the construction contracts for the drive and represented the collaboration of the NPS and BPR and the advances in road design that occurred in the 1930s. In either case the overlooks were designed and their construction supervised by NPS landscape architects. In addition to the resident landscape architect Harvey P. Benson, who was appointed in January 1935, most of the park's landscape architects were assigned to specific CCC camps within the park, and worked under the direction of the resident landscape architect.

Present Physical Appearance

Skyline Drive is a 105.5-mile, two-lane scenic park road entirely within the boundaries of Shenandoah National Park. The high elevation of the drive, as it follows the crest of the Blue Ridge, provides the Shenandoah National Park visitor the opportunity to observe the surrounding scenery from a vantage point 2,500 to 3,000 feet above the valley floor. The drive was designed to provide park visitors with a pleasurable driving experience and a panorama of changing scenery, as well as numerous opportunities to stop to enjoy the views, to climb high peaks, or to explore nearby streams and cascades. Along the drive are wayside stations where motorists can stop for gas and food, parking overlooks which provide scenic views and paths to nearby features and recreational trails, picnic grounds, developed areas providing campgrounds, overnight accommodations, and other visitor services. These contribute to the recreational quality of the road. The asphalt pavement of the drive is approximately 20 feet wide, with three-foot shoulders where the roadbed is in cut and five-foot shoulders where the road bed is on fill (although the road widens to approximately 24 feet on curves). Stone guardwalls are used along the drive where they are necessary. Dry-laid stone guardwalls are part of the original design. Unfortunately the original walls were not high enough for modern safety standards, and could not withstand the impact of an automobile traveling at 35 mph, necessitating their replacement by the Federal Highway Administration. The rehabilitation of the stone guardwalls began in 1983 and is ongoing (See Guardwalls section below). The new guardwalls consist of a concrete core, similar to that of the common "Jersey" barriers, with a mortared stone veneer cut from the original stone. This technique makes it obvious that the new guardwalls are not of the same vintage as the original guardwalls. The mortar joints, which did not show in the original masonry, are readily visible in the new walls. The stones of the original walls were laid on their face with edges left exposed, while the stones of the new walls are laid on their edges with their face exposed. As the walls have weathered, the differences between the new and old guardwalls have become less evident and the new walls have begun to blend harmoniously with the natural surroundings.

The road shoulders are grass covered and the grass, depending on the district, is mowed three to six times a year. This gives the shoulders a natural appearance without allowing the grass to grow high enough to obstruct

the sightlines of tourists using the drive. The slopes between the shoulders and the tree line are mowed on a yearly basis. The yearlong interval between cuts allows wildflowers and herbaceous plants to grow while prohibiting the establishment of pioneer trees and shrubs. The variety of wildflowers along the drive is quite diverse and adds color and interest to the landscape. Well established bays of mountain laurel, rhododendron, azalea, and a few fern bays occur along the road; most of these were planted under the direction of the NPS landscape architects and the CCC foreman; they add to the scenic quality of the drive during the different seasons. Forest fires in 2001 damaged much of the ground- and shrub-cover along the northernmost portions of the Central District, between Marys Rock and Jewell Hollow. It is interesting to note that not only have the mountain laurel flourished since the fires but the patterns in which they were planted seventy or more years ago by the CCC have once again become visible.

Vegetation has changed the appearance of the views from the overlooks as mature forest growth has replaced the young second growth forest of the 1930s. A mature forest, with bays of laurel, azalea, rhododendron, and ferns, has replaced the fields and pastures. The broad sweeping panoramic views that made the park famous in its early years are now replaced by framed views. Vegetation has grown into the foreground and middle ground of the overlook vistas, creating the structure for framed views. In the 1950s, as vegetation was renewed, drive-by vistas were cleared along the drive to open up views not visible from an overlook or road widening. Although the forest growth has taken away some of the views from the drive, it has added opportunities for framed views that did not exist before. A recent effort in the park has cleared many of the slopes supporting the overlooks, once again revealing views of the hollows, valley and mountain peaks.

While generally attracted by the striking views, visitors to Skyline Drive can observe natural processes in action. The healthy forests of chestnuts have been gone for more than 75 years. Shenandoah's forest continues to be affected by infestation insects, primarily the Gypsy Moth, a pest whose larvae consumes the foliage of the oak tree and other hardwoods, but also by the pine borer, spruce bud worm, and other insects that kill trees. The loss of mature trees creates openings in the forest canopy and allows sunlight to reach the forest floor. This permits plants that were previously shaded to grow and become established. The loss of the park’s prized stands of hemlocks to the woolly adelgid have affected distant views of mountainside and deep glens, and places such as Hemlock Overlook are no longer interpreted for their natural stands of hemlock.

With the return of the mature forest, the size of the park's deer population has increased. A distinct deer browse line is visible on the forest edge along portions of the drive. A browse line occurs when the competition for food forces deer to eat the new growth and low twigs that grow at the forest's edge. The forest edge is a natural source of food for deer and other wildlife. It is only during times of overpopulation that the edge growth is consumed faster than it can be replenished, resulting in a visible browse line. The vegetation at Big Meadows shows the signs of the deer population. Deerberry and blueberry are shrubs that normally grow to a height of four to six feet, and at Big Meadows the deer have browsed most of them down to less than a foot. These plants now resemble low-growing groundcover rather than shrubs.

One element which park officials can do little to control is air pollution. Air pollution from the Ohio and Mississippi valleys is drawn into the Shenandoah Valley and the resulting haze obscures views from the drive. This is not limited by the park's boundaries. Pollution is trapped in the valley and hollows surrounding the park and obscure the views from the drive, including those of Massanutten Mountain, only twelve miles away. In the early years of the park, the Washington Monument was visible from the drive. Now visibility is variable, attaining the least clarity when the air currents are calm and pollution is able to accumulate. The best time for viewing the scenery from the drive is after a cold front moves across the valley. Then visitors can view the Allegheny Plateau, some thirty miles away.

Construction Methods and Equipment

In January 1926, the NPS and the Bureau of Public Roads (BPR), a division of the U.S. Department of Agriculture, signed an interbureau agreement, whereby the construction of the major roads in national parks was to be carried out cooperatively, thus combining the expertise of the BPR's civil engineers with the standards that the NPS developed for the protection of natural scenery in parks. In keeping with the National Park Service's mission to preserve the parks unimpaired for future generations, designers of national park roads sought ways to build roads that caused minimum destruction to the natural landscape while presenting the scenery from the best possible vantage point. By the late 1920s, NPS's landscape architects and engineers, under the direction of Chief Landscape Architect Thomas Vint and Chief Engineer Francis Kittredge, were developing standards of workmanship, location, and design for roads and road structures, such as guardwall, culverts, bridges, and tunnels. Concerned with landscape preservation and harmonization, landscape architects called for practices of clearing, blasting, cut and fill, rounding and flattening slopes, bank-blending, and planting that minimized the impact on the environment. At the time construction began on Skyline Drive, the NPS was experimenting with methods that blended park roads and overlooks with the adjoining landscape by the use of a "rustic" style of architecture, a naturalistic approach to landscape design, and techniques for transplanting and planting native trees, shrubs, and ground covers. Furthermore, the NPS developed standards for the minimum radius of curves, spiralizing (connecting curves), and maximum grades, and the NPS brought this experience to the BPR, who were likewise accomplished in National Forest projects. Together the NPS and BPR applied this knowledge to NPS projects in the West, such as Going-to-the-Sun Highway (NHL) in Glacier National Park and Yakima Park Road in Mount Rainier National Park (NHL), in the late 1920s. Skyline Drive and Colonial Parkway, also in Virginia (connecting Yorktown and Jamestown), became the first roads in the East to be built according to the techniques perfected by the Landscape Division for laying the roads gently on the land and harmonizing them with the native landscape. [14]

In overcoming the mountainous topography of Virginia's Blue Ridge, construction crews on Skyline Drive used typical road building techniques developed in the western parks. Although constructed over a decade's time, similar methods were used for all sections of the drive. Typically, the route was first surveyed, and planning and construction documents were prepared. After surveying, road construction began with the installation of drainage structures and grading operations, which allowed the natural streams to flow under the road. Marys Rock Tunnel, designed in 1932, illustrated the park service's desire to preserve the area's natural topography. Here the decision was made to excavate a tunnel rather than irreparably scar one of the ridge's distinctive geological features.

National Park Service staff selected the route of Skyline Drive and located the scenic overlooks and recreational waysides, while BPR personnel, under the direction of H. J. Spelman, Resident Engineer, oversaw the surveying, the awarding of contracts and the actual construction. BPR crews surveyed the route with a transit and established stations. The transit crews located stations at 100-foot intervals and marked them with a stake or flag. Stations were used to locate overlooks, culverts, beginning and ending of curves and spirals, and other engineering features. The road builders were required to fit the roadway into the surveyed route, and nowhere was the grade to exceed eight percent or the curves to have a radii less than 200 feet.

Following the completion of flagging the 100-foot right-of-way, the roadbed was graded. Contractors used power shovels, bulldozers, and other equipment to cut and fill as required. In some areas of fill, chestnut log cribbing was used to support the fill. Generally, side-hill cuts were employed, where a bench or shelf was cut

[14] Linda Flint McClelland, *Building the National Parks* (Baltimore: The John Hopkins University Press, 1998), pp. 201-27.

into the side of the mountain (this technique was perfected by the National Park Service at Yellowstone National Park and Pinnacles National Monument, and became standard practice for road construction in national parks and forests).[15] Additionally, explosives were used to blast bedrock in the right of way. Carefully controlled blasting both minimized the scarring of the mountainside and conserved stone for use as fill and crushing for paving. (The fill at Marys Rock Tunnel Overlook is an example of this technique.) Fills were used extensively at overlooks to provide an adequate base to construct parking areas and guardwalls. Culverts, tile underdrains, and gutters were constructed prior to fills and following cuts. Scrapers or graders were employed to smooth the road surface prior to completion of paving.

Upon completion of grading operations, the roadway was prepared for paving. This was a two-part operation with the traffic-bound base course being laid first. This base course was essentially a macadam surface, where crushed stone from one inch to 1-1/2 inches was placed and compacted to a thickness of six inches (the exception to this was in the Central District, where the stone was not compacted to expedite the opening of the drive). After compacting, a second course of smaller crushed rock, one inch and smaller, was laid (the dust acted as a binder which made the surface cohesive and waterproof). Ideally it was compacted by vehicular traffic and hence the name "traffic-bound," but in practice it was often rolled by the contractor. Finally, the macadamized roadbed was treated with a bituminous "road-mix" that formed an asphalt surfacing. The parking lots for the overlooks were similarly paved.

The equipment used in the construction of Skyline Drive was not exceedingly heavy, but was very modern for the times. Most of the work was accomplished with power shovels of 1-1/4 to 2-yard capacity, dump trucks with 1/2 ton to 5-ton capacity, bulldozers, tractor crawlers, and blade graders. Early in the project these were either gasoline or electric powered, but diesel engines replaced them. The pneumatic drills were powered by portable air compressors, and at least one stationary compressor was in use.[16]

Construction of Skyline Drive

The actual construction of the roadway, from clearing and grubbing to rough and finish grading to paving, was contracted by the BPR to private construction companies. Each contract indicated a specific section of the drive and all sections combined were considered a project. Hence, the Central District was project 1-A-B-C-D-F, but was contracted as sections 1-A and B, 1-C, and 1-D and F. Additionally, project 1 indicates the Central District, project 2 the North District and project 3 the South District. Project 2-A-2 indicates the second contract let on that section.[17]

Central District

Initial survey work for the central section began in late January 1931. Due to the fact that the survey and construction plans had to be completed before the money ran out at the end of the fiscal year, June 30, 1931,

[15] F.A. Kittridge, "Improved Highway Design for Side-Hill Cuts," *Engineering News-Record* July 26, 1934, pp. 114-15.

[16] "Skyline Highway Tops Blue Ridge Mountains," *Engineering News-Record* July 7, 1932, p. 12; and H.J. Spelman, "Building Roads in Shenandoah National Park: Area in Virginia Blue Ridge Made Accessible by Recreational Parkway," *Civil Engineering* 8 (1935): 484.

[17] This section was compiled by researchers from the Institute for the History of Technology and Industrial Archaeology, University of West Virginia. It is based on the Final Construction Reports for Skyline Drive, contract files, and articles found in various contemporary civil engineering journals. Additional information was gleaned from the use of both historic and aerial photographs. Please note that the Central District was constructed first and has the shortest construction report, while the South District (including Jarman Gap to Rockfish Gap) has the longest, most in-depth narrative reports. Lacking final reports for the North District, the description of the construction of this section is based on journal articles and contract files.

this was a hurried preliminary survey. Because of the winter conditions, 25 percent of the time allotted was lost because of fog, snow, and rain. Ultimately this survey, because it was done so quickly, forced an increase in production costs. The line and grade at several locations had to be realigned, often over more difficult material, i.e., hard bedrock. The middle section was constructed first for a number of reasons, including the previously noted Rapidan Camp access. Also it lies between US Route 211 and the just completed US Route 33, or the Spotswood Trail Road, which would give immediate access to the drive.[18]

Just prior to the end of the fiscal year, two contracts were let to start construction of Skyline Drive. The first contract was awarded to Albert Brothers of Salem, Virginia, on June 21, 1931, for constructing sections 1-A and B, a total of 19.97 miles of road from Thornton Gap to Big Meadows. A second contract was let on June 29, 1931, to the West Virginia Construction Company of Huntington, West Virginia, to build section 1-C, some 20.11 miles of road from Big Meadows to Swift Run Gap (note that 5.17 miles of the Rapidan Road were also constructed under this contract). Three hundred calendar days were allotted for completion of the contracts, exclusive of down time due to weather conditions. Extensions were granted as additional work was undertaken. These contracts were for clearing and grubbing and building a graded roadbed only. Contracts for laying the stone pavement were advertised later. While the official ground breaking occurred on July 18, 1931, actual construction of the drive commenced at Panorama on July 22. The second section was started a day later at Swift Run Gap. Sections 1-A and B were completed September 8, 1932, and section 1-C was completed August 27, 1932. Following the completion of rough grading of the Central District in late summer 1932, contracts were let in the fall of 1933 to construct a traffic-bound base with a bituminous road-mix surface. Ralph E. Mills Construction Company of Frankfort, Kentucky, was awarded the Thornton Gap to Big Meadows section and Keeley Construction Company of Clarksburg, West Virginia, was awarded the Big Meadows to Swift Run Gap section. Stone crushing for paving was begun in December 1933 and continued through the winter, with several shutdowns because of cold weather. Stone was quarried from three sites within the park, including a site near the south end of Marys Rock Tunnel. The crushed stone was stockpiled at convenient points along the drive for use in paving the road. [19]

The paving of the traffic-bound base began in early spring of 1934 and was completed in August of the same year. Due to the hardness of rock quarried in the park, it was not possible to make sufficient rock dust or fines to bind the surface. Consequently, limestone dust was purchased and applied to bind the surface. In early September, after binding, a bituminous road-mix was applied to the surface and the road was opened for travel on September 15, 1934. An additional bituminous surfacing was added circa August, 1935.[20]

The Central District is approximately 34 miles in length. Costs of construction for this portion of the drive, including the 5.17 miles of Rapidan Road construction, were as follows:

Construction:	$1,212,826.00
Road Surface:	87,357.00
Guard Walls:	97,073.00
Engineering:	173,223.00
Total	$1,570,479.00

[18]William Austin, *Final Construction Report-Project 1 A-B-C-D-F Shenandoah National Park,* (Luray, Va.: U.S. Department of Agriculture, Bureau of Public Roads, 1933), p. 1; "Skyline Highway," *Engineering News-Record*, p. 11; In the 1950s, 0.44 miles of this section were eliminated during a road realignment near Big Meadows.

[19] Austin, *Final Construction Report-Project 1A-B-C-D-F*, pp. 1-2. and 484. In the 1950s, 0.44 miles of this section were eliminated during a road realignment near Big Meadows.

[20] Spelman, "Building Roads," *Civil Engineering*, p. 484.

This was approximately $39,184.00 per mile. The 34-mile Central District opened for traffic on September 15, 1934.[21]

The speed with which road construction commenced on the central section and the small 100-foot corridor in which the crews worked caused a number of problems. When asked to evaluate the road, Gilmore D. Clarke, Fine Arts Commission member and designer of the Westchester County, New York, parkway system, criticized the manner in which the Landscape Division had signed off on the preliminary survey without calling for the "refinements of alignment" typical of national park roads; his chief criticism was "that the line has been too mechanically laid down," and the "artistry of road planning" was lacking. Several years later Harvey Benson, the park's resident landscape architect, commented on the speed with which the central section was built and the efforts to upgrade the road several years later:

> A limited time was set for use of the allotted funds and both design and construction work had to be speeded. Horizontal curves had to be laid out in plain circular fashion and the required superelevation was built into them. Minimum standards allowed some of the horizontal curves to be built with radii of less than the 200 feet now effective so that time could be saved and excavation costs kept within the funds available....In 1934 additional contracts were let to revise a few cases of bad alignment, spiralize all horizontal curves, and to provide bituminous surfacing. In designing the alignment and figuring superelevation for the curves, a maximum speed of 45 miles an hour was used although a speed limit of 35 miles is in effect at present. The maximum gradient was 7.8 per cent, which occurs in only a few spots."[22]

North District

The northern section was less rugged and rocky, and sufficient time was given to surveying the road and carefully incorporating the NPS design conventions in the final design. Benson recalled that "it was not difficult to adjust a good line to the topography" and that the road width was increased here from 30 to 34 feet allowing a 20-foot pavement and a five-foot shoulder between the road and guardwall.[23]

The North District was constructed as projects 2-A-B-C. Section 2-A-1 ran from Front Royal to Compton Gap, Section 2-B-1 from Compton Gap to Hogback Mountain, and Section 2-C-1 from Hogback Mountain to Thornton Gap. Based on the methodology employed in constructing the other sections of the drive, the survey work for the North District was executed and the construction contract bids were advertised. Concurrent with surveying the North District was the preparation of construction drawings. Construction contracts for the North District for grading, drainage, and stone surfacing were let during the summer of 1934. On June 16, 1934, the Waugh Brothers of Fayetteville, West Virginia, were awarded the contract to construct section 2-A, 9.76 miles of road from Front Royal to Compton Gap. Construction began during the summer of 1934, and was completed in late July or early August of 1935.[24]

Sammons-Robertson Company of Huntington, West Virginia, was contracted to construct 10.4 miles of section 2-B on June 16, 1934. Clearing and grubbing operations began in July, and this section was graded in October 1935. The contract for Project 2-C was awarded on July 18, 1934, to Albert Brothers of Salem, Virginia, for the

[21] Benson, "The Skyline Drive," *The Regional Review*, p. 7.

[22] Clarke to Demaray, 6 July 1931, National Archives, NPS, Box #731, as quoted in Engle, *A Sky-Line Drive*, p. 57; Benson, "The Skyline Drive," pp. 4-5.

[23] Benson, "The Skyline Drive," p. 6.

[24] Spelman, "Building Roads," p. 484; and Contract File No. 630-03.1, Shenandoah National Park Headquarters, Luray, Virginia.

10.325-mile-long section. Clearing operations began in mid-August 1934, and the grade finishing operations were completed in September 1935. After the finishing operations were completed, the various sections required final surfacing with asphalt. In early June, 1935, the Corson and Gruman Company of Washington, D.C., was awarded a contract to place a road-mix bituminous surface course from Front Royal to Thornton Gap for $30,580. Work on Project 2-ABC-3 apparently began in late June or early July 1935 and was probably completed in the summer of 1936.[25]

Construction costs for the 32-mile long North District were as follows:

Construction:	$1,088,376.00
Road Surface:	102,326.00
Guard Walls:	46,346.00
Engineering:	98,129.00
Total Costs:	$1,335,177.00

This was approximately $41,725 per mile.[26] The North District was opened for traffic on October 1, 1936, just in time for the fall foliage season. .

South District

The BPR engineers and the NPS landscape architects encountered a number of difficulties in selecting the alignment for the southern section. Practical considerations sometimes out-weighed aesthetic ones. Benson recalled:

> The terrain throughout this section is extremely rugged and it was difficult at times to locate the line where it best would serve its scenic purpose without causing considerable scar to the mountainsides. In several instances alternative routes were staked out so that careful field study could be made. At one time it was thought that a 1700-foot tunnel would be necessary through Black Rock Mountain, midway in the south section. Further investigation resulted in a sacrifice of extraordinary views and alignment in favor of a location on the opposite side of the ridge where excavation was much lighter and where eventual maintenance work would be greatly reduced...Because of the tremendous excavation involved in building this road over the steep hill sides, cut by precipitous ravines..., it was not practicable to retain the 34-foot road section that was employed on the previous [northern] link...In the interest of economy it had to be reduced to the 30 feet used originally on the first section of the Drive. [27]

All parking places were included in the original design work and excavation quantities were balanced with the general road project. The size of the overlooks was increased here so that both cars and buses could maneuver with ease and safety.

Built in 1937-38, the South District was constructed last and in four sections: 3-A-1, Swift Run Gap to Simmons Gap; 3-B-1, Simmons Gap to Browns Gap; 3-C-1, Browns Gap to Black Rock Gap; and 3-D-1, Black Rock Gap to Jarman Gap. Preliminary survey work began on section 3-B-1 in late 1933. This was followed by

[25] Contract File No. 630-03.1, SHEN."Project 2-ABC-3: Surfacing Between Front Royal and Thornton Gap," Contract File No. 630-03.1, SHEN.

[26] Benson, "The Skyline Drive," p. 7.
[27] Ibid., 6.

surveying sections 3-A-1, 3-C-1 and 3-D-1, which began in early 1934. As with the other drive construction projects, the design, engineering, and construction features were a joint venture between the NPS and the BPR. Sections 3-A and 3-B were planned at Luray, while sections 3-C and 3-D were planned at Roanoke, Virginia. [28]

Section 3-A bids were advertised in January 1935, but all the respondents were rejected. In March 1935 the project was readvertised and M.E. Gillioz of Monett, Missouri, was awarded the contract to construct 8.044 miles of road, including incidental construction, for $438,475.00. However, because the right-of-way for this section of the drive was not secured, the awarding of the contract did not occur until December 1935. In early April 1936, construction on section 3-A of the drive began at station 10, near the former location of the interchange with U.S. Route 33, when work crews started clearing and grubbing. These operations were completed in late June 1936. As the clearing and grubbing was completed, rough grading began; in early May excavation of the roadbed was begun. This work began at station 65 (mile post 66.7) and by mid-October work was completed to station 138 (near Smith Roach Gap). Work stopped in December 1936 because of bad weather and resumed in April 1937. The rough grading of section 3-A was finished by the end of June. Following the completion of grading operations, the roadbed was ready to be surfaced with the crushed stone traffic-bound paving material. Crushed stone purchased from the Mundy Lime and Stone Company's Elkton plant was stockpiled at station 65. The laying of the crushed stone roadbed began in late October 1936 at station 20 (approximately 1/4-mile south from Swift Run Gap). After working for only a few weeks, activity stopped because of the onset of winter weather. It resumed in early April 1937. The base course was laid by the end of June and the second course was in place by mid-November 1937. [29]

Section 3-B was advertised in early March 1936 and the bids opened on March 26. Again, M.E. Gillioz of Monett, Missouri, was awarded the contract to construct the 10.188-mile section (including incidental construction) for $461,387. Clearing and grubbing began at station 405, north of Simmons Gap, on May 5, 1936, and progressed south toward Browns Gap. These operations were completed by the first of July. At station 522 (south of Loft Mountain Overlook), a pioneer road (a rough, ungraded road) was begun in late July. This road preceded the rough grading of section 3-B. Grading operations began at station 925 (Browns Gap) on September 1, 1936, and continued through early winter when work stopped. Grading work resumed in early April and was completed in August 1937. Before the completion of the grading of this section, the laying of the crushed stone surface began. As with section 3-A, the crushed stone purchased from the Mundy Lime and Stone Company's Elkton plant was stockpiled beginning in March 1937. Stockpiling of stone was completed in June. The laying of the first course of stone began at station 700 (south of Rockytop Overlook) during the first week of July. The laying of the second course began in August and was completed by the end of September. [30]

Contracts for the construction of the 4.795-mile section 3-C were advertised on December 12, 1936, and the bids opened on January 14, 1937. Chandler Brothers, Inc., of Virgilina, Virginia, was awarded the contract for the sum of $132,000 to construct this section. Clearing and grubbing operations of this heavily wooded section began on March 26, 1937, at station 926 near Browns Gap. Work progressed on schedule until it was completed at the end of November. Grading operations were begun at station 939 (north of Dundo Hollow Overlook) in late March 1937. These operations were completed by late November. As with the other sections in this district, contractors laid a crushed stone surface. However, there was a special feature incorporated in the laying of the stone to help stabilize it. The addition of calcium chloride prevented the freezing and heaving

[28] Austin, *Final Construction Report-Project 3-B-1,* Shenandoah National Park: Grading, Drainage and Traffic Bound Surface (United States Department of Agriculture, Bureau of Public Roads, 1938), pp. 6-7; Austin, *Final Construction Report-Project 3-A-1,* pp. 6-8; Austin, *Final Construction Report-Project 3-C-1,* p. 6-8; and William Austin, *Final Construction Report-Project 3-D-1,* pp. 6, 8-9.

[29] Austin, *Final Construction Report 3-A-*1, pp. 8-13, 18-19.

[30] Austin, *Final Construction Report 3-B-1,* p. 7-10 and 14.

of the stone during the winter. Again, crushed stone was purchased from Mundy Quarry, of Port Republic, Virginia, while the remaining stone needed was crushed with a Cobb and Homewood crusher located on the Browns Gap Road. The first course was laid beginning at station 948 (north of Dundo Hollow Overlook) in early October 1937 and was almost completed to section 3-D by the end of November when work stopped. Work was resumed in May 1938 and the first course was finished in mid-July. The second course began in mid-November 1937 and was terminated because of weather. The laying of the second course resumed in May 1938 and was completed in July of the same year. The first application of calcium chloride was applied in mid-July and the final coat was applied in September. [31]

Work on section 3-D, from Black Rock Gap to Jarman Gap (9.389 miles), was advertised for construction bids on September 29, 1937; the submitted bids were opened on October 28. Albert Brothers Construction, Inc., of Salem, Virginia, which also constructed section 2-C, was awarded the contract for the sum of $315,276. Clearing and grubbing began at Jarman Gap on January 8, 1938, and progressed northward. These operations were completed in late April. On the heels of grubbing and clearing came the construction of a pioneer road. This was begun at station 518, near Jarman Gap, progressing north. Grading operations began as soon as the pioneer road was well underway. Grading began in January and was completed in mid-October 1938. Final grading was completed in December. Unlike sections 3-A and B, which relied entirely on crushed stone purchased from outside sources, Albert Brothers quarried, crushed and stockpiled stone within the bounds of the park. They erected a stone crusher near Jarman Gap in March, 1938, and crushed some 32,000 tons of rock, stockpiling it nearby. In July, they laid the first course from station 516 to Jarman Gap, and another 145 feet into section 1-A of the Blue Ridge Parkway. These operations then turned northward to be completed by late October. The laying of the second course began in August and was completed in early November. A third and final course was laid beginning in mid-September and completed in late November. [32]

Following the installation of drainage structures, rough and finish grading, and the laying of the traffic-bound crushed stone surface, sections 3-A, B, C and D required paving with a "road mix bituminous surface course." Sections 3-A and B were bid on together, as were sections 3-C and D, and these contracts were executed separately a year apart. Project 3-AB-2, advertised in mid-1938 for paving 18.141 miles (including incidental paving), was awarded by contract on July 13, 1938, to Southern Asphalt Company of Richmond, Virginia, for the sum of $62,806.00. Construction began in mid-August and was completed in mid-November.[33]

Following advertising in early 1939, Barrett Paving Company of Harrisonburg, Virginia, won the contract for "bituminous surface treatment [section 3-C] and road-mix bituminous surface course [section 3-D]" for a sum of $32,141.00. The paving began in mid-May and finished in late August 1939.[34]

Construction costs for the 32.4-mile southern district were as follows:

Construction:	$1,277,345.00	
Road surface:	99,183.00	
Guard walls:	160,000.00	(estimated)
Engineering:	130,000.00	(estimated)

[31] Austin, *Final Construction Report 3-C-1*, pp. 5, 9-10.
[32] Austin, *Final Construction Report 3-D-1*, pp. 10-12, 16-17.
[33] Austin, *Final Construction Report SNP Project 3-AB-2: Road Mix Bituminous Surface Course* (Federal Works Agency, Public Roads Administration, 1939), pp. 4-8.
[34] Austin, *Final Construction Report SNP Project 3-CD-2: Bituminous Surface Treatment and Road-Mix Bituminous Surface Course* (Federal Works Agency, Public Roads Administration, 1940), pp. 5-9.

Total: $1,666,528.00

This was approximately $51,436.00 per mile. The South District opened to the public on August 29, 1939 and was connected to the northernmost segment of the Blue Ridge Parkway. By the time the 97 miles of Skyline Drive had been completed, 67 parking overlooks had been installed with a total parking capacity of 1,800 cars.[35]

Jarman Gap to Rockfish Gap

Concurrent with the construction of the North District of Skyline Drive, section 1-A of the Blue Ridge Parkway from Jarman Gap to Rockfish Gap was built during 1936-37. When the southernmost section of Skyline Drive was completed and opened to traffic in 1939, the administration and maintenance of section 1-A of the parkway shifted to Shenandoah National Park (although the transfer didn't become official until 1961). Section 1-A of the Blue Ridge Parkway, the northernmost section from Jarman Gap to Rockfish Gap, a distance of 8.496 miles, was surveyed in spring or summer of 1935 by the Virginia Department of Highways, in collaboration with the NPS and the BPR. The Commonwealth of Virginia obtained the right-of-way for this section of the parkway based on the survey. Construction plans for this section were developed jointly by BPR personnel and landscape architect Stanley Abbott of the NPS's Branch of Plans and Design in the late summer of 1935. The road was designed with a 20 foot surface, five-foot shoulders for fill sections and three-foot elsewhere and two-foot wide side ditches. At curves, the road was to be widened and designed with transitional spirals--each curve being constructed with a minimum radius of 204.63 feet and superelevations that were carefully calculated for speed and grade.[36]

Contracts for grading, drainage and crush stone surfacing of section 1-A of the Blue Ridge Parkway were advertised on October 22, 1935. The bids were opened on November 21, with Ralph E. Mills Company of Frankfort, Kentucky, winning the contract on November 30. The contract totaled $322,865. Construction of this section began in March 1936, and all clearing, with the exception of overlooks, slope rounding and incidental work, was completed by June of that year. The rough grading, including cutting and filling, was completed by November 1936, and allowed to settle over the winter. The filled areas were brought to grade during the spring construction and final grading was completed in May 1937. Surfacing of the road with the crushed stone base began while the finish grading operations were being completed. As with the other sections of the drive, stone was crushed on-site and stockpiled by November 1936. The surfacing began near the McCormick Gap Parking Overlook and proceeded south toward Rockfish Gap. When this section was completed, the crews returned to their starting point and began working north toward Jarman Gap. Because of the hardness of the rock, insufficient fines were made and 1,964.44 tons of fines were purchased from the Curtis Mathews Quarry in Waynesboro. Completion of the surfacing was accomplished in May 1937.

Following the completion of grading and surfacing with crushed stone, contractors paved the roadbed with a bituminous surfacing. To this end, the Corson and Gruman Company of Washington, D.C., was awarded a contract on July 1, 1938 for the "stabilization of existing crushed stone surfacing and bituminous surface treatment." However, the condition of the crushed stone base was found to be deficient, forcing the BPR to rebuild portions of the roadway before Corson and Gruman could begin paving. Roadway paving began with scarifying it, followed with the addition of emulsified asphalt, which was then mixed, spread, dragged and

[35] Benson, "Skyline Drive," pp. 6-7.

[36] Austin, *Final Construction Report Project 1-A-1, Blue Ridge Parkway: Grading, Draining and Crushed Stone Surfacing, Augusta and Albemarle Counties, Virginia* (United States Department of Agriculture, Bureau of Public Roads,1940), pp. 6-8

compacted. After compaction, a light asphalt seal coat was spread and covered with light crushed stone chips. Construction began July 28, 1938, and was completed August 11, 1939. [37]

The following construction costs were incurred in the course of building Section 1-A:

Construction:	$331,136.00
Road Surface:	
Guard Wall: (built later)	
Engineering:	27,500.00
Total:	$358,636.00

This was approximately $39,924.00 per mile, not considering the road surface and guard wall costs.[38] This section opened for through traffic on Skyline Drive on August 29, 1939.

Marys Rock Tunnel

Marys Rock Tunnel is Skyline Drive's most celebrated engineering structure. In 1932, crews bore the 610-foot tunnel through a solid granite ridge. The tunnel enabled road builders to protect the natural beauty and scientific interest of the rock formation and avoid what would have been a costly, unsightly, and destructive cut and fill operation. Above the north portal, a 47-foot hand laid rock embankment, was designed by the landscape architects and constructed to "prevent excavated material in denuding a steep hillside of trees and other vegetation." The tunnel was completed in three months with work crews working in shifts round the clock. NPS landscape architect Lynn Harris prepared drawings for rusticated stone masonry portals that blended with the natural rock. When the first blasts were detonated the surface soil slid away revealing the perfectly fractured surface of the underlying bedrock, and the decision was to abandon the idea of a manmade portal and maintain the naturalism of the openings at both ends. The CCC later planted the area above the portals with black locust and other plants. An overlook was designed for the southern end of the tunnel and was constructed with much of the excavated fill.[39]

In July 1958, the NPS announced that Marys Rock Tunnel would be closed for traffic at night, beginning July 28, so that the tunnel could be lined with concrete and the road repaved. Lining of the tunnel was a remedy to correct flaws in the original tunnel construction, principally water seepage in the summer and the formation of icicles in the winter (over the years this has been met with limited results). Lewis Construction Associates, Inc. of Goldsboro, North Carolina, won the contract for the sum of $201,627.00. The firm completed installation of the concrete liner and repaving in early April 1959.[40]

Underpasses

The Jarman Gap to Rockfish Gap section in the South District has four unique engineering features not found

[37] Ibid, p. 8-11; Austin, *Final Construction Report, Project 1-A-2, Blue Ridge Parkway: Stabilization of Existing Crushed Stone Surfacing and Bituminous Surface Treatment* (Federal Works Agency, Public Roads Administration, 1940), pp. 7-9.

[38] Austin, *Final Construction Report Project 1-A-1*, p. 16.

[39] Austin, *Final Construction Report-Project 1A-B-C-D-F*, p. 2; "Marys Rock Tunnel," Sheet 14, del. Michael P. Lanning, Skyline Drive, Shenandoah National Park, Roads and Bridges Recording Project, Historic American Engineering Record VA-119.

[40] "SNP Press Release, 17 July 1958" and "A.F. Ghiglione, Regional Engineer to Lewis Construction Associates, 29 April 1959," Contract File No. 14-10-011-974, SHEN.

elsewhere along the drive--three cattle underpasses and one bridle path underpass. These projects began in June 1936 and were completed in May 1937.[41] Because this portion of the park was built originally as part of the 200-foot wide Blue Ridge Parkway, it closely abuts nearby farms. The underpasses were needed to permit the movement of cattle from one pasture to another without interfering with traffic on the drive. The bridle path underpass and an associated retaining wall were constructed to facilitate horseback riding along an adjacent bridle trail. Considered contributing resources, these structures remain in place and retain high integrity.

Culverts, Gutters and Underdrains

Skyline Drive as other national park roads were designed to permit the natural passage of mountain streams and tributaries below the road's surface. This relied upon the construction of numerous culverts, gutter, underdrains and drop inlets that carried surface water from the upstream side of the drive to the downstream side. They were required because of thousands of natural swales and springs crossed by the drive, but also because of the run-off caused by the nature of the land as farmsteads and the deforested condition of the land. Without these structures, the subgrade and crushed stone roadbed would become undermined. H.J. Spelman, BPR Resident Engineer during the drive's construction period, noted that, "Liberal provision is made for underdrainage although subsoil conditions are generally good."[42] The sheer number of culverts and drains constructed along the course of the drive is indicative of the importance of these structures in mountain-road building. By 1942, approximately 1,113 culverts had been constructed along the route from Front Royal to Rockfish Gap.[43]

Although two types of culverts were installed along the drive, six discernible culvert inlet subtypes were built. The headwall type is one of the two parent types and has two subtypes, the straight headwall and ell (or "L") headwall. The other, and more prevalent type, is the drop inlet type with four subtypes: double, parallel walls with inlets on both ends; headwall with semicircular back wall, with inlets on either or both ends; metal grate inlet; and straight-lipped cap (composed of concrete) inlet with gutter pan. Excluding the metal grate and straight-lipped cap types, all systems were constructed of coursed, mortared stone. Even the drop basins of the grate and cap types were built of coursed, mortared stone. The headwall types carried streams and small watercourses beneath the drive and exited on the downhill side. Generally, culvert outlets consisted of the masonry straight headwall type. Pipe typically used between the walls and drop basins/inlets was corrugated metal pipe, 18 inches, 24 inches, or 36 inches in diameter. Walls varied in length, width, and depth depending on the size of the pipes and the hydraulic flows of the surrounding drainage area; they generally measured seven to ten feet in length, 20 to 22 inches in width, and 18 to 24 inches in height.

Tile underdrains were installed along the drive to carry surface water away from the roadbed. Functioning much like "french drains," the underdrains were laid in trenches dug parallel to the roadway and consisted of loosely placed terra cotta pipes backfilled with gravel and earth. In some places, rock-paved gutters with drop inlets were constructed above the drains, further channeling rainwater and seasonal water away from the road.[44]

In the 1980s Shenandoah initiated a comprehensive program to repair and replace culverts and drains along the length of the drive. Culverts were replaced where they had failed due to the weight of the overlying roadbed, rust, pipe separation due to fill settlement, or had become plugged due to poor hydraulic gradients, or eroded material had filled and covered the headwalls. Because the right-of-way is now heavily wooded and the surface

[41] Austin, *Final Construction Report, Project 1-A-1,* p. 12.
[42] Spelman, "Building Roads," *Civil Engineering,* p. 483.
[43] This number was calculated by counting indicated culverts on the Plan and Profile Drawings (ca 1950) at the Park Headquarters. This count was not collaborated by field work.
[44] William M. Austin, Highway Engineer, Bureau of Public Roads to Harvey P. Benson, Resident Landscape Architect, National Park Service, 18 September 1936. SHEN Maintenance.

run-off is greatly reduced, a number of culverts were eliminated or moved. The replacement headwalls and gutters are all constructed of stone, and the drop inlets are made of concrete. The major construction difference between the original and replacement headwalls is that the new construction has much wider mortar joints. The major difference between the original and replacement drop inlets is in the concrete slab cover. The original design featured a recessed lip, while the new design uses a non-recessed lip. The replacement gutters are like the originals in design, but they feature a wide mortar joint. All four of these features are sympathetic in their design. Original construction culverts, headwalls, drop inlets, and rock paved gutters retain their integrity and contribute to the significance of the drive. Rehabilitated culverts, headwalls, drop inlets, and rock paved gutters, while sympathetic in design, do not contribute to the historic significance of the drive.

Guardwall

The construction of Skyline Drive included laying of stone guardwalls on curves, straight sections with drop-offs, and at parking widenings and overlooks. These dry-laid walls were mostly constructed by NPS-BPR contractors after each section had been opened to traffic. The guardwalls in the North and Central districts were completed prior to the dedication of the drive in 1939. The guardwall in the South District, including the Blue Ridge Parkway, were finished after World War II. In late June 1957, A.B. Torrence Company of Elkton, Virginia, was awarded a contract to construct guardwalls in sections 3-B, C, and D in Shenandoah and section 1-A of the Blue Ridge Parkway for the sum of $145,200.00. Construction started at the end of July, 1957, in section 3-B where a sample wall was laid at station 437 (south of Simmons Gap). With the acceptance of the sample wall, construction began in early August 1957, and was completed in mid-July 1958. Sandstone used for walls constructed in sections 3-B and C was quarried within the boundaries of the park. The distinctive dark blue limestone used in section 3-D and section 1-A of the Blue Ridge Parkway was furnished by Elkton Lime and Stone Company of Elkton, Virginia.[45] Contractors used non-indigenous limestone because post-World War II federal regulations forbid the quarrying of stone within the boundaries of national parks.

While estimating in 1940 the average cost of construction for the 97-mile Skyline Drive at $47,000 per mile, Benson said that the guard wall, much of which had been completed, averaged about "$1 the running foot." [46]

Park records dating from the 1950s indicate that some 212,552 feet, or approximately 40.3 miles of guardwall had been constructed. Beginning in 1983, the Federal Highway Administration began a program to replace Skyline Drive's original stone guardwalls. While it is unfortunate that these historic guardwalls are currently being replaced and in some instances new guardwalls are being added for increased safety, the new construction is designed to meet modern highway safety standards. Central to the construction of these new walls is a 27-inch high reinforced concrete unit, similar to the design of the standard 36-inch "Jersey" barrier used on interstate highways. As the old walls were removed, the stone was stockpiled and later cut by Spanish masons into smaller sections and used to face the new walls. The new guardwalls are sympathetic in their design to the original walls. It should be noted that historic guardwalls are only being replaced in areas along the drive where safety requirements dictate it, but original guardwalls are maintained at overlooks where they have not deteriorated. The originally constructed guardwalls are contributing components of the drive, while the replacement guardwalls are noncontributing.

During construction of the drive, log guardrails were placed at many points along the route, particularly at areas where it was desirable to keep automobiles from parking on the grass or from damaging nearby trees and shrubbery. As with many other log structures in the park, crews used chestnut logs that had been salvaged from

[45] *Final Construction Report Shenandoah National Park, Project 3B8-C4-D3 and 1A3: Masonry Guard Wall* (Department of Commerce, Bureau of Public Roads, 1958), pp. 6-8.

[46] Benson,"The Skyline Drive," p. 6.

the dead stands of chestnuts to construct the guardrails. First, vertical log posts were set in the ground and the horizontal rails let into the posts. Today, there are no remaining log guardrails. Rot from ground contact had rendered them unsafe by the mid-1950s and they were removed.

Embankments

Many of the retaining walls constructed along the drive to reduce erosion and support fill areas were hand-laid dry rock embankments constructed under contract. Following BPR standards, the contractors first thoroughly compacted the embankment slope and then excavated a footing as designated by the engineer. Laborers hand-laid the rock in place according to the special provisions set forth by the Landscape Division. They were to be of a "durable nature" and not less than one-cubic foot in volume. The walls were laid so that the stones were "bedded, bonded and tied in place," with the spalls or stone waste used only for the back filling of voids.[47] Some of the embankments at overlooks were constructed with CCC-labor. Embankments have high integrity and are contributing structures.

Parking Overlooks and Road Widenings

When the completed drive officially opened in 1939, sixty-five road widenings and parking overlooks had been constructed. These were constructed with the help of the CCC who built walls and sidewalks, installed curbing, and planted the islands that screened the overlook from the drive. Some overlooks had special features such as comfort stations (Stony Man), paths to nearby rock outcroppings (Crescent Rock) or provided views in several directions (Jewel Hollow). Others (such as Marys Rock and Hazel Mountain) had built in water fountains that were constructed by the CCC. Only a small number of paved or gravel parking areas and overlooks have been added to the drive since the end of the CCC-period in 1942.

Road widenings as used in this document are paved areas where the roadway has been widened to allow parallel parking. Frequently, road widenings are only drive-through overlooks, such as the No Name Overlook. Generally, the road widenings feature a guardwall and perhaps an interpretive sign. On the other hand, parking overlooks, such as Crescent Rock, Bacon Hollow, and Calf Mountain, have head-in parking and often feature landscape elements such as planted islands, sidewalks, curbs, and guardwall. At many overlooks, historic stone curbing separates the parking plaza from the walkways and surrounds the planting islands; some of the historic curbing has been partially or completely obscured by subsequent resurfacings or by natural erosion and vegetative growth. Some parking overlooks, Hazel Mountain for example, incorporate existing natural features, such as rock outcroppings, into their design. The character of the overlooks varies from district to district depending on the state of the art at the time of their construction. The earliest overlooks are those in the Central District, such as Hazel Mountain, Franklin Cliffs, Jewell Hollow, and Crescent Rock (Figures 4 and 5). Designed by the park's first NPS landscape architect Roland W. Rogers, they exhibit a greater emphasis on picturesque, naturalistic compositions that conform closely to the natural topography and are outstanding examples of CCC workmanship. Later overlooks, such as the No Name Overlook in the North District and Bacon Hollow in the South District, reflect the simplier and more utilitarian designs that resulted from the NPS's increasing experience in eastern road design and were constructed by the road contractors. Water fountains were installed by the CCC at many overlooks, usually in the form of randomly coursed stonemasonry constructions that were incorporated in guardwalls, as visible at Hazel Mountain Overlook.

Generally, only parking overlooks on Skyline Drive required construction drawings. Landscape architects and engineers of NPS's Eastern Division of the Branch of Plans and Design, under the auspices of Charles Peterson,

[47] "Special Provisions," p. 11, Box 27, File Folder 13012, SHEN. These are amended general specifications of the BPR.

Deputy Chief Architect, prepared the drawings for each overlook. Each overlook drawing featured design details such as the overlook configuration, cross-section of the guard wall with construction material, curbing, etc. Today the overlooks appear much as they did when Skyline Drive was opened and they maintain their integrity in terms of design, workmanship, setting and materials. Still, there have been minimal changes to the overlooks, principally the repaving of the parking areas. The use of asphalt as the principal paving material dates to the earliest construction of the drive, both as a road surface and for paving walkways. The overlooks originally had gravel walks; the use of asphalt in this application dates to the early 1940s. Although the dry-laid stone guardwall of native stone running along sections of the central and northern sections of the drive have been removed and replaced for safety reasons with a higher stone-veneered reinforced concrete core, the original CCC-built walls remain in place at the overlooks and have been only rehabilitated by park staff and the Federal Highway Administration in cases where they are deemed no longer safe because of deterioration.

The drive's original 65 overlooks are contributing structures. Since World War II, only two overlooks have been added to the drive: Beagle Gap was added to the southern (Blue Ridge Parkway) section in the late 1950s under Mission 66, the 10-year building program in which the National Park Service updated its facilities nationwide. Hensley Ridge Overlook near Swift Run Gap was added in 1974, when the grade separation and new entrance station were constructed. Beagle Gap and Hensley Ridge overlooks are classified as noncontributing structures. In addition there are eight paved and unpaved parking areas where visitors can pull off the drive and study a map, or in some instances walk to nearby natural features. When completed, the drive also featured six trailhead parking areas that, like Little Stony Man Parking Area, were paved areas without any views that provided access to nearby trails. Since the 1950s, several trailhead parking areas have been expanded or added, such as Meadow Spring Parking Area and Dark Hollow Falls Parking Area, to permit overnight parking for back-country campers and day-parking for hikers. These parking areas are considered component features of the drive but are not classified or counted separately. Although not historic they are compatible in design and materials to the historic road.

Views and Vistas

What distinguished Skyline Drive from earlier park roads was the integration of multiple views and vistas in the location of the roadway and the placement of overlooks. The idea for a scenic parkway was a new one to the NPS designers of the Eastern Office, one that was simultaneously being explored in the design of the Colonial Parkway in Tidewater Virginia, and would reach its ultimate expression in the Blue Ridge Parkway begun in 1935.

The park experience for most visitors to Shenandoah National Park was evoked by the vistas and views observed from the more than sixty parking overlooks that were placed at regular intervals along the 105 mile roadway of Skyline Drive. Vistas from the northernmost section of the drive formed a varied sequence for motorists traveling southeast from Front Royal along Dickey Ridge. Overlooks such as Shenandoah Valley (milepost 2.8), Signal Knob (milepost 5.7), and Gooney Manor (milepost 7.3), then as now offered motorists views northwest back toward the head of the valley and southwest to the westward extension of the park along Gimlet Ridge, Matthew's Arm, and Hogback Mountain. Across the valley one could view the long Massanutten Mountain and the distant ridges of the Alleghenies on clear days, extending as far west as West Virginia, and follow the meandering and often glistening ribbon that marks the Shenandoah River. Along the drive and in distant slopes mature forests have grown in locations where the open meadows and former farmsteads familiar to the CCC enrollees and NPS designers lay abandoned in the 1930s, creating in many places verdant tunnels which contrast sharply with open sun-filled vistas that have been periodically cleared at designated overlooks.

Turning south at Compton's Gap (milepost 10.4) the drive intersects with the long distance Appalachian Trail

for the first of many times. Beyond this point the juxtaposition of nature and culture seems in perpetual balance in most of the valley and Piedmont views, especially those seen from Hogwallow Flat Overlook (milepost 13.9), which provides a wide oblique view of a still-rural Rappahanock County rimmed in tree-covered hills, and Hogback Overlook (milepost 21, elevation 3385 feet), which wraps around Hogback Mountain and presents a memorable panorama from north and west to southwest.

Despite the changes wrought by nature on the mountains and new land uses and farming methods in the surrounding valley and Piedmont, today's visitors can still appreciate the predominantly rural scene below. Periodic vista clearing has kept the views from most overlooks open. From most overlooks one can still perceive the striking juxtaposition of a rugged mountain landscape and fertile river plain and, in places, glimpse traces of the patchwork of small valley farms so prized by landscape designer Harvey Benson in 1940. The most visible change today lies in the distant views of the town of Front Royal to the north with its sprawling residential subdivisions and exurban shopping centers and the increasing development that marks Warren County and the greater Winchester area. At the foot of the mountain, however, views penetrate deep into the hollows where mountain farms and hamlets such as Boyds Mill and Browntown, lie hidden in the shadows of the towering Blue Ridge. Here many smaller tree-covered hills— Buck Mountain Long Mountain and Round Mountain—lie undisturbed outside the park boundaries. Similar bucolic scenes repeat again and again the length of Skyline Drive at overlooks such as Jewell Hollow (milepost 36.4) and Sandy Bottom (milepost 67.8) -- framed and edged by mature woodland and the many streams that drain from the mountains, today's park visitor can experience the legacy of the park designers of the thirties who sought to recover the wildness of the rugged mountain landscape while showcasing the rich cultural heritage that defines the Southern Appalachians.

Along the more than 105 miles that make up the drive, several overlooks present views exclusively dominated by the natural and wild aspects of the park, where the human presence seems limited to the manmade overlook and paved road. Today, due to the planting efforts by the CCC of the 1930s and more than seventy years of natural revegetation, there is little evidence of the upland farms with abandoned pastures and orchards that were familiar to the landscape architects of the National Park Service and the park's earliest visitors. From the Range View Overlook (milepost 17.1, elevation 3075 feet), the visitor encounters a rare southward view, flanked to the east by Jenkins, Wolf, and Keyser Mountains (outside the park) and to the south and west by the receding sequence of multiple peaks by which Skyline Drive will pass on its southward trek—Pignut, Piney Ridge, and Pass Mountain in the foreground, and Marys Rock, Hazel Mountain, Old Rag, Pinnacles, and Stony Man in the receding distance offering a preview of the most rugged section of the park (in the central district) and the scenery yet to come. Buck Hollow Overlook (milepost 32.9, elevation 2710) in the central district provides a reverse northward view over Skinner Ridge to Pass Mountain, Hogback Mountain, Mt. Marshall, and Pignut Mountain in the north district., from Pinnacles Overlook (milepost 35.1, elevation 3320 feet) the visitor can look southeast down through the now-wild Nicholson and Corbin Hollows (named for early families who settled here) to the rising citadel of Old Rag, and from Old Rag Overlook (milepost 46.5) several miles down the drive on the eastern slope of Haywood Mountain the visitor can look northeast across the Cedar Run and White Oak Canyon drainage to the same majestic peak. Further down the drive, in the southern district, westward views from the Two-Mile Run Overlook (milepost 76.2, elevation 2770 feet) and Rockytop Overlook (milepost 78.1, elevation 2860 feet) provide layers of forested slopes and receding peaks (most within the park boundaries)— Two Mile Ridge, Rocky Mount, Brown Mountain, and Lewis Peak, as well as the distant southern tip of Masanutten Mountain.

Entrance Stations

Skyline Drive is a limited access road with entrance stations at Front Royal, Thornton Gap, Swift Run Gap, and

Rockfish Gap. Historic photographs show that the first entrance stations at North Entrance, Thornton Gap, and Swift Run Gap were small square buildings of log construction, with wood shingled hip roofs. However, these were temporary structures and removed after more permanent structures were constructed.[48] The North Entrance and Swift Run Gap entrance stations, built circa 1940, were of frame construction with cut stone facing. These buildings featured a gabled roof spanning the two inbound lanes, supported at the ends by stone faced columns, and a small octagonal office. The only remaining entrance station dating from the early years is located at Rockfish Gap. It is a single story, one-room wood structure that dates to the mid-1930s. In 1990s it was taken out of use and a temporary prefabricated building erected several feet to the south. The building was originally on another location and was shortened by approximately one and a half feet when it was moved to the current location. The original shingles were replaced with the current board and batten siding in the 1960s. It is in a highly deteriorated condition and is scheduled for removal and replacement under a mitigation agreement with the Virginia Department of Cultural Resources and Advisory Council on Historic Preservation.

Between 1955 and 1966, Mission 66 provided funding for new construction and development in the national parks. New entrance stations were built at Front Royal and Thornton Gap resulted from the monies made available during this period. Baughan Construction Company, Inc. of Luray, Virginia, erected the Thornton Gap Entrance Station for a cost of $28,055. Construction of the new entrance station began in October 1960 and was completed in August 1961.[49] Previously, in 1958-59, the area around Panorama was graded and resurfaced and the grade separation built at Thornton Gap in 1961. Located on the ramp leading from US Route 211 (Lee Highway) to Skyline Drive, the Thornton Gap Entrance Station was recently renovated. The grade separation, loop, and entrance station at Thornton Gap are noncontributing resources. General contractor Philip Dinges of Luray constructed the North Entrance Station in 1965-66. This structure cost $23,398. The NPS Eastern Division Branch of Plans and Design in Philadelphia designed both the Thornton Gap and North Entrance Stations.[50] The North Entrance Station and the approach to the drive from U.S. 340 are noncontributing. In 1974-75 the Baughan Construction Company erected the Swift Run Entrance Station for a cost of $137,239.[51] The present grade separation at the crossing of US Route 33 and Swift Run Gap was constructed at the same time. Both the Swift Run Entrance Station, located on the approach ramp to the park, and the grade separation are noncontributing resources.

Picnic Grounds

Once Shenandoah National Park was established, the construction of recreational facilities alongside Skyline Drive proceeded. Recreation activities were limited to those considered appropriate for the enjoyment of a national park, and included picnicking, camping, hiking, backpacking, and fishing. The Pinnacles Picnic Grounds (originally called “Sexton Knoll”), five miles south of Thornton Gap, was the park’s first recreational area. It was developed and made ready for use when the Central District of the drive opened in late 1934. It provided parking for 170 cars, 100 tables, five water fountains, and a standard comfort station (with water and a sanitary system) all installed by the CCC. Benson wrote: “Since this first major recreational development others have followed in rapid succession due to the overwhelming demands made on the park by the increasing travel on Skyline Drive.” South River opened in 1935; picnic grounds followed at Elkwallow, Dickey Ridge, Big Meadows, and Lewis Mountain. By 1940 the picnic grounds of Shenandoah National Park, all accessible from Skyline Drive, had a total capacity for 715 autos and featured 95 fireplaces, 350 tables, 30 water fountains,

[48] Lambert, *Undying Past*, p. 261.
[49] "Contract 14-10-0137-103 Baughan Construction Co., Entrance Station Thornton Gap," SHEN Archives.
[50] "D52 1:134-194 (Entrance Station, North Entrance) (Specs., Estimates etc.)" Contract Files North District, SHEN.
[51] "Entrance Station Building-Swift Run Gap--4840-74-5 Folder 1;" and "Contract No. CX484040041 Entrance Station Bldg. Swift Run Gap," Contract Files South District, SHEN.

and six comfort stations.[52]

All the picnic grounds developed by the CCC between 1934 and 1940 continue to operate as picnic grounds in Shenandoah National Park today and reflect the master plans, site plans and characteristic features of the period in which they were constructed. The only picnic grounds constructed after the CCC-era is the Loft Mountain, the only picnic grounds in the south district. Individual plans were prepared by the park's landscape architects and designed to incorporate natural features such as rock outcroppings and native trees. Generally, CCC enrollees cleared the areas of brush and small trees, laid out roads and paths, constructed log or stone comfort stations, and installed fire grates, paths, water fountains, and picnic tables. The design of picnic areas exhibit advances in recreational planning as well as park road design. Wye intersections enabled motorists to leave and return to the drive with a minimum of disruption to the moving traffic on the drive, while narrow one-way loop roads led visitors through the grounds to parking areas that were often on either side of the road. Stone stairways and remnant rock gardens remain in some picnic areas. All the picnic grounds remain in their original configuration and have experienced little alteration to either the layout or design of structures such as the CCC-built comfort stations and boulder fountains.

Two types of historic water fountains are found in the park's picnic grounds and were constructed by the CCC. First is the boulder type constructed of one large boulder hollowed to form a bowl and allow for internal pipes. The third type consists of coursed, stacked rock constructions. These designs date to the drive's period of significance and are considered contributing objects. This type is also attributed to the CCC development of the park and is based on a design dating to 1940. Several of the chestnut-log fountains built in the early CCC-period were replaced with this design in the 1950s. Although it is unknown which stacked fountains date from the early 1940s and which are later replacements, they are all considered contributing objects since they fall within the original design intent for the park.

The Elkwallow, Pinnacles (formerly Sexton Knoll), South River, and Dickey Ridge picnic grounds retain high integrity and are contributing sites. The Elkwallow picnic grounds adjoin the Elkwallow Wayside built and operated by the park concessionaire to provide gasoline, groceries, and dining. The Dickey Ridge, Lewis Mountain, and Big Meadows picnic grounds are also contributing sites and are part of larger development areas originally offering lodging, dining, and camping facilities. They all reflect a high degree of historic integrity.

Appalachian Trail Crossings

The development and blazing of the Appalachian Trail influenced the creation of Shenandoah National Park. Work on the 2,100-mile Trail commenced in 1921, and by 1937 all sections were incorporated into a continuous path from Maine to Georgia. In 1927 George Freeman Pollock and others organized the Potomac Appalachian Trail Club in Washington, D.C., with the purpose of developing and maintaining the A.T. through the Blue Ridge Mountains. Ironically, it also had an additional agenda to promote the establishment of Shenandoah National Park.[53]

The construction of Skyline Drive and the blazing of the Appalachian Trail were in direct conflict with each other, as they both meandered along the crest of the Blue Ridge Mountains. This conflict was most evident in the South District, when construction was stopped until a new road route could be surveyed, as the trail was already in place. By 1940, the 96 miles of the trail in Shenandoah National Park were rerouted and had been

[52] Benson, "The Skyline Drive," p. 9.
[53] Lambert, *Undying Past*, p. 214.

built to NPS engineering standards that called for a four foot-width. Harvey Benson wrote:

> The Appalachian Trail, the longest marked foot trail in the world today, extending 2,049 miles from Maine to Georgia, traverses the length of Shenandoah National park paralleling the Skyline Drive. The old route, which was little more than a blazed path, has been relocated and reconstructed by the CCC for the 96 miles routed though the park....Just as the Skyline Drive furnishes motorists with relaxation and enjoyment of those rare bits of scenic lore, so the Appalachian Trail provides recreation for the hiker who can devote days to the exploration of this newly developed national park.[54]

Within Shenandoah National Park, the trail is interwoven with Skyline Drive, crossing it fifteen times and providing both trail access and parking.[55] Collectively the Appalachian Trail Crossings are counted as one contributing site in the inventory and section 5. Only those portions of the Appalachian Trail that pass within the 250-foot corridor are included in the Skyline Drive Historic District. A number of shelters (lean-tos and overnight cabins) were built along the trail, many by the CCC; these, however, are outside the NHL district boundaries. The administrative/fire roads that branch from the drive and provide access to the shelters are noted in the inventory.

Fire Roads, Trails, and Road Traces

Many of Shenandoah's fire roads are former mountain roads that were closed to public vehicular traffic by the end of the 1930s. Some were constructed by CCC work crews according to the fire protection maps in the park master plans. Others were constructed more recently. Some of the trails emanating from the drive use old mountain roads, others date to the CCC era, and others are more recent. Many road traces, like trails and fire roads, predate the park. Others led to quarry sites and dump sites.

Signage and Mile Post Markers

Signs used along the course of the drive include traffic control signs, such as stop signs and speed limit signs and informational signage, such as interpretive kiosks and overlook entrance signs. Original 1930s signage design was rustic and used chestnut logs. The deterioration of this signage led to its replacement in the mid-1950s during Mission 66. The differences in the two types of signage are clear. Early signage used a rustic lettering style. There are no known examples remaining in the historic district. Concrete mile post markers such as those on the Blue Ridge Parkway were installed on the drive about 1950. Collectively, all mile post markers are considered as one contributing object.

Maintenance of the Drive

Beginning in 1983, the Federal Highway Administration began a program to rehabilitate Skyline Drive. The *General Management Plan/Development Concept Plan* called for the total rehabilitation of the deteriorated chestnut cribbing, crushed drainage structures, and crumbling guardwalls. The base and drainage structures were to be replaced along the same vertical and horizontal road alignment and stone guardwalls were replaced.[56]

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[54] Benson, "The Skyline Drive," p. 10.
[55] Conners, *Shenandoah National Park,* p. 97.
[56] NPS, DSC, *SHEN GMP/DCP,* p. 85.

Previous to the start of the current renovation, Skyline Drive underwent regular maintenance, mostly focused on repaving and resealing various sections of the drive. Other maintenance changes included the relining of Marys Rock Tunnel; relocating the drive at two places (see below); finishing construction of guardwalls; the construction of grade separations at Thornton and Swift Run gaps; and new entrance stations at Front Royal, Thornton Gap, and Swift Run Gap.

Construction files reveal that systematical repaving and resealing of the drive began in 1950. This work commenced with the repaving of the drive from Front Royal to Thornton Gap. This work was completed in October 1950. Over the rest of the decade work continued, as Bootens Gap to Swift Run Gap was resurfaced in 1951; the repaving continued from Swift Run Gap to Big Flat Mountain late in 1951, and was completed in 1952. Work continued in the Southern District as the sections from Simmons Gap to Jarman Gap were paved. Presumably, similar maintenance work was performed on the Jarman to Rockfish Gap section. This type of work continued through the 1960s and 1970s, until the beginning of the 1983 renovations.[57] The North District was repaved during the summer of 1992.

Road Realignments

The original alignment of Skyline Drive essentially is unchanged. While it has been repaved many times since its construction, the drive maintains a high degree of integrity. While the alignment of the road changed in several places during the construction of the drive, particularly in the Central District due to the haste of the original survey work, the drive since 1942 has only had two realignments. The first realignment was made in 1955, when F.D. Cline Paving Company of Raleigh, North Carolina, was awarded a contract for $343,236 to relocate the road north of Big Meadows. The drive was realigned for .4 miles in the vicinity of milepost 50, eliminating a dangerous horseshoe curve and replacing it with a straight shallow cut and the addition of parking for the Dark Hollow Falls Trail. The work began in late summer of that year and was completed in July 1956.[58]

The second road realignment was south of Mile Post 76, between Station 559+08 and 563+50. The original construction cut failed and the road was realigned with a new cut into the mountainside. A. B. Torrence Company of Elkton, Virginia, as the only bidder, was awarded the contract for $29,729. Work included grading, laying a stone base course, pavement and rebuilding the guardwall. Work commenced in early June 1964 and was completed in mid-July of the same year.[59]

Wayside Stations

The necessity of buying gasoline and food, using rest rooms, or just stopping to rest prompted designers to incorporate wayside stations at regular intervals in the design of the drive. Such facilities enabled visitors to stop for gasoline and water, eat meals, and buy groceries. Waysides with parking for 50 cars were designed by Marcellus Wright Jr., the architect for the park's concessionaire, the Virginia Sky-Line Company, and were built in 1937-38 at Elkwallow in the North District and Big Meadows in Central District. In 1940 Benson commented favorably on their design and siting: "Both these stations, of attractive design fitting harmoniously into the landscape, are situated far enough from the Drive, with all parking and service facilities in the rear, not to encroach too seriously on the scenic value of the motorway, but they still are readily accessible to the

[57] Contract Files for North, Central, and South districts, SHEN.

[58] H.J. Spelman, Division Engineer, Bureau of Public Roads to Guy D. Edwards, Superintendent, Shenandoah National Park, 4 April 1955. Contract File, "D30 Roads and Trail Project 1A4-B6," SHEN.

[59] Taylor Hoskins to Regional Director, Southeast Region, 9 April 1964. Contract File: "Project 1-3B9 Shenandoah National Park Skyline Drive Relocation Approximately 10.6 Miles South of Skyline Drive-Route US 33 Intersection," SHEN.

traveler."[60]

The Panorama tea room at Thornton Gap and restaurant and cabins at Swift Run Gap, both operated by the Virginia Sky-Line Company, provided similar services but were removed in the 1960s and early 1970s when the park entrances were redeveloped. A new concessionaire-run facility (dining room and store) was built at Panorama in the early 1960s and is not included in the district, the Loft Mountain Wayside in the South District is a non-contributing resource; it was developed in 1964, reflects the modern design ethic associated with Mission 66, and is the only visitor facility on the drive constructed outside the period of significance.

Dickey Ridge

The Dickey Ridge development area was originally developed as a concessionaire's facility by the Virginia Sky-Line Company. The site is located on the west side of Skyline Drive, 4.6 miles south of Front Royal (Milepost 4.6). The developed area contains approximately 15 acres that were, at the time the area was developed, lightly wooded. The area ranges in elevation from 1920 to 1940 feet and is a relatively flat area in the continuous four-mile ascent of the drive south of Front Royal. Dickey Ridge is known for its spectacular views of the Shenandoah Valley--what Benson called a "300-degree arc" of the "adjacent lowland country."[61]

A multi-purpose concessionaire's building, which included a dining hall, opened in May 1938. Nearby parking was provided for 110 automobiles. In 1939, twelve cabins of native chestnut, were built with accommodations for 60 guests. In 1951, the tourist cabins were moved to Elkwallow, Skyland, and Lewis Mountain. During the 1960s, the parking area at Dickey Ridge was expanded and in the mid-1980s new rest room facilities were constructed; they were further remodeled circa 2000. The lodge/visitor center, with its flagstone patio, once used for dancing patio, was recently restored. The improvements to Dickey Ridge are sympathetic and the visitor center retains a high degree of historic integrity.

Today Dickey Ridge consists of the former lodge (now a visitor center), associated roads and parking lots, a vacant area that was originally the location of guest cabins, and a picnic area. An access road intersects with Skyline Drive, curves around to provide access to the visitor center and parking areas, and intersects with the picnic area loop before returning to the drive. Although the cabins are no longer located on the site, the circular drive that originally provided access to them is still extant. The picnic area to the south is also surrounded by a loop road that connects with the access road to the visitor center. It occupies a slightly elevated knoll which rises in elevation from the access loop and then drops down again to meet the drive. It is semi-wooded with stone outcroppings. Several footpaths, which are original to the area and contributing site features, provide access from the two parking areas. Picnic tables and the accompanying fire grates are dispersed throughout. Random ashlar stone drinking fountains and a comfort station date to the construction of the picnic area, and are contributing resources.

Formerly the Dickey Ridge Lodge, the visitor center (1938) is a one-story (plus partial attic) multi-section building, and the focal point of the Dickey Ridge area. The lodge was designed by Marcellus Wright, Jr., for the park operator Virginia Sky-Line Company and constructed in 1938 to serve as the dining hall for visitors and overnight guests staying at the nearby cabins. It was converted into a visitor center in 1958 at which time the projection room on the northwest was added. Like much of Wright's other work in the park, the building was sited to take advantage of views from the mountain and design reflected an additive principle of massing to achieve a vernacular domestic quality that fits the natural topography of the site. In his work, Wright followed

[60] Benson, "The Skyline Drive," p. 8.
[61] Ibid., p. 8

landscape and architectural design ideas developed by the Landscape Division (later Branch of Plans and Design) with the purpose of building structures to "blend unobtrusively into the natural setting." In an interview, Wright noted: "Fitting into the landscape was the main goal...and then using the native materials to the greatest extent possible."[62] Wright's adherence to these ideas can be seen in all of his designs for Shenandoah National Park, particularly the lodges for Dickey Ridge, Big Meadow, and Lewis Mountain and the conference center at Skyland.

The building consists of four side-gabled sections with roofs of slightly different heights and two end cross-gable sections. On the front (east) facade, the central section that houses the main entrance is of random ashlar stone. This section also features large ashlar stone chimneys on either end of the building. Side elevations have horizontal wood siding. The end gables are a combination of stone and horizontal wood siding above. The southern cross-gable section is pierced by a large stone exterior chimney. On the rear (west) facade of the building, a covered porch supported by posts covers the facade between the cross-gabled sections. This section of the facade is covered with horizontal wood siding. As on the front facade, the cross-gabled sections are stone ashlar below the windows and horizontal wood siding above. The interior of the building features chestnut paneling, craftsman-style wall sconces, and large stone fireplaces. It is one of the best examples of NPS rustic architecture in the eastern United States. The lodge building was closed during World War II and did not reopen until 1958, when it became a visitor center. Noncontributing resources include a comfort station (1984) built near the visitor center made of wood framing and siding and a concrete foundation.

The Picnic Ground Comfort Station (1938) is a rectangular log structure with a gabled roof. The exterior walls are of squared logs, joined using V-notches. The roof is of concrete shingles. The entrances to the building are located on the two long sides of the building. Privacy walls, also constructed of squared logs, screen the entrances to the building. Each of the long facades also features multi-pane windows that are hinged at the bottom to swing inward. The building has stone and concrete foundations and is in good condition.

Skyland Development Area

Skyland is located on and adjacent to a small plateau with a mean elevation of 3,560 feet. Located just west of Stony Man Peak, Skyland consists of two level ridges and provides spectacular views of the Shenandoah Valley, Hawksbill Valley, Kettle Canyon, Bushy Top, and Massanutten Mountain to the west and southwest. Located at Milepost 41.7, west of Skyline Drive, Skyland was originally established as a nineteenth-century mountain resort, and now serves as a recreational, lodging, and service facility for park visitors. The earliest rustic cabins, dormitories, and stables from the resort era were augmented by additional small moved from Dickey Ridge in 1952. Later buildings include multiple motel-style lodgings, a dining hall, and registration office. These later buildings attempt to respect the architectural character of the earlier buildings by using similar materials and siting the buildings within the historically developed areas and are noncontributing resources.

The architecture of Skyland consists of buildings from three distinct periods: initial development as a rustic resort (1887-1930); early public ownership (1930-1939); and National Park Service development (1939-present). [63] Buildings dating from the earliest development at Skyland share similar characteristics, due in large

[62]For a discussion of the NPS principles of rustic architecture, see McClelland, *Building the National Parks;* Laura Soulliere Harrison, *Architecture in the Parks National Historic Landmark Study,* (Washington, D.C.: National Park Service 1986. Quotation is from Marcellus Wright, interview by Carol Hooper, 1994, Robinson & Associates, Inc., files.

[63]Much of the information on construction dates and alterations to the Skyland buildings is taken from the draft National Register nomination for Skyland completed by Reed Engle, Cultural Resource Specialist, Shenandoah National Park, in 1993. Other

part to developer George Freeman Pollock's stipulations on the architectural appearance of the cabins. Although most of these original cabins have been slightly altered–most apparently on the interiors–to accommodate multi-family uses, they are distinct from the later phases of development in the area. All of the original cabins had open porches, reflecting the fact that the social life at Skyland was oriented toward outdoor activities and socialization with other visitors. Small casement windows were consistently used, and may have resulted from limitations of Pollock's mill (and later, other local mills), which guests were required to use for building supplies. If more light was desired, these casement windows were grouped together. Both roofing and siding were natural, unfinished materials derived from local vernacular traditions. Chestnut logs and bark, and sawn or hand-split shingles were common materials. All residences built after 1890 had stone chimneys, which often took the form of a buttress or formed an exterior wall, and open fireplaces were found in all cabins. Massing was generally irregular and roof shapes were complex, with multiple shapes and pitches found on single cabins. Nine cabins from this early period are extant; collectively they form a picturesque grouping of early rustic resort architecture whose style was derived from local vernacular cabins. Much of the renovation work on the original Skyland cabins was performed by the CCC to reflect the NPS principles and practices of rustic architecture. Interior alterations to divide cabins into multiple units were particularly common in the CCC years and have recently been reversed as part of an effort to restore the appearance of the Pollock era cabins. The cabins include:

Fell (Kettle) Cabin (ca. 1902, 1911)
Byrd's Nest Cabin (1906)
Trout Cabin (1909)
Peak View Cabin (1910)
Pine Grove (1911)
Vollmer Cabin (1919)
Whispering Pines Cabin (The Pines) (ca. 1920)
Boulder Cabin (ca. 1925)
Massanutten Lodge (1911)

The most impressive and imposing of all of the cabins from the Pollock era, Massanutten Lodge was built for Addie Nairn Hunter, who would become Pollock's wife. Designed by the noted Washington, D.C., architect Victor Mindeleff and constructed in 1911, Massanutten is sited on a high, steeply sloping ridge overlooking the Shenandoah Valley. Blending a variety of building materials and forms, the result is an excellent example of rustic architecture. The lodge has an L-shaped footprint, and is essentially one story, although when viewed from the west, there are two levels due to the steep grade of the site. The east elevation faces the upper camp road and the building is sited approximately eight feet below the road's grade. Constructed of stone masonry with deeply incised pointing, portions of the lodge are stuccoed with half timbering or sheathed in large bark shingles. Fieldstone chimneys mark the east facade. The original entrance to Massanutten was on the east elevation, which featured a porch that wrapped around to encompass a portion of the south facade. This entrance was enclosed by 1935 and converted into a kitchen in the 1930s, with the remaining portion of the porch retained. A side entrance on the north elevation served as the main entrance. However, the kitchen was removed and the original entrance configuration was restored in 2001.

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information is taken from Park Building Survey records, Building Files, Series XI, Boxes 1, 2, and 11, Shenandoah National Park Archives, Shenandoah National Park, and "Cultural Landscapes Inventory 2001: Skyland, Shenandoah National Park."

However, the most impressive elevation is the west facade, which is dominated by massive fieldstone piers supporting a projecting balcony. Also supported by rough-hewn logs, the balcony's railing members are rough-hewn and arranged in a rustic pattern. The roof, which is a collection of hipped and gable shapes, is covered with non-toxic replications of the original red, diamond-patterned, asbestos-tile shingles. The original interior finishes of Massanutten Lodge have been restored and consist primarily of exposed, stained wood and plaster walls. The living room, hall, and bedroom feature varnished oak and pine, tongue-and-grooved flooring, and exposed rafter ceilings, and an inglenook fireplace is present in the living room. Some remnant exotic (non-native) remained when the walls of the cottage garden were restored in 2001 when the road was narrowed to approximate its original width. Fieldstone retaining walls surrounding portions of Massanutten Lodge are significant landscape features, and the foundation stones to the original gazebo remain.

Undertaken by Pollock for his guests' use, the first stable was built ca. 1890 and was described as being constructed of logs. A maintenance building was constructed in the stable area ca. 1939, and the northernmost wing of the stable was added ca. 1953. The resulting configuration of stable wings is U-shaped, with the individual horse stalls opening onto a small corral enclosed by a split-rail fence. Walls are sheathed in dark-stained wood boards hung in a vertical, flush-board configuration. The pent roofs are covered with green tar paper and extend to shelter the stalls. A concrete mounting block of undetermined age is located within the stable area. Adjacent to the stables are several service buildings, including a sewage treatment facility, firehouse, maintenance shop, and several recently constructed prefabricated houses.

Sometime between 1890 and 1930, George Pollock constructed the first dormitories at Skyland to serve as housing for the workers at Skyland. All of the workers who lived in the dormitories during the early years of Skyland were African American, while local mountain people who worked at Skyland returned to their nearby homes each night. The dormitories, which are lettered sequentially, display the evolution of building materials over time. Dormitories A and B were built by Pollock, with Dormitory C following in 1941, according to National Park Service records. Dormitory D was added in 1964, E and F in 1966, and G in 1970. Dormitories A, B, and C are nearly identical. Rectangular in plan, each gable end contains a door sheltered by a shed-roof entrance porch. The upper portions of the dorms are clad in naturally stained wood in a board-and-batten pattern, while the lower portions are clad in horizontally laid clapboards in the same stained wood. Dormitories A and C are supported by fieldstone foundations that have been patched with concrete masonry units (CMUs), while the entire foundation of Dormitory B consists of CMUs. Windows on all three dorms are six-over-six, double-hung sash, hung singly and in pairs. The roofs of all three dorms are covered in asphalt shingles and feature no eave overhang on the gable ends, and only minimal overhang on the sides

Several buildings date to the first twenty years of years when the Virginia Sky-Line Company, as the park operator, managed Skyland. A Recreation Hall/Conference Center (1939) was built in the lower cluster of lodging and service-related buildings. It was designed by Marcellus Wright, architect for the Virginia Sky-Line Company and is an outstanding example of rustic park architecture. The building consists of four, side-gable portions: a dominant central portion plus one wing that telescopes to the north and two that extend to the south, each with successively lower ridgelines. About three times as long as the other portions of the building, the dominant unit contains an almost full-length, shed-roof porch supported by square members. Stone chimneys flank this section of the building, which is reached by several centrally located wooden steps. Three sets of multi-pane glazed doors feature prominently on the front elevation, and are flanked by six-over-six, double-hung sash windows. The wings also feature prominent fenestration. The main section of the building is clad in horizontally laid, rough-sawn, slab clapboard siding, while all of the telescoping sections are sheathed in board-and-batten on their upper portions, with the lower third of each section covered with vertically laid, smooth-sawn clapboards. The porch roof is covered in standing-seam metal, and the remaining portions of the roof are

covered with concrete fiberglass tiles. The interior shows extraordinary fine workmanship in the chestnut beams, paneling, and other period details.

In addition, five cabins were moved to Skyland from Dickey Ridge in 1952 (they were built in 1939): Dogwood, Ash, Maple, Hemlock, and Wildwood.[64] Also designed by Wright, the cabins are gable-roof buildings, some with entrances on the gable side, and others with entrances on the long sides. Entrances are reached by way of small, elevated entrance porches with square, wood posts and split-rail railings. Windows are generally six-over-six, double-hung sash, hung singly and in pairs. Double-pane casement windows are also present in lesser numbers. Each cabin rests on concrete masonry-unit foundations, and some of the porches are supported by concrete masonry piers. All of the cabins retain their original, irregular, slab-board siding. Roofs are covered with wood or asphalt shingles. When constructed, the larger cabins had fireplaces and small ridge chimneys, but these were removed when the cabins were relocated.

Later buildings include the Dining Room (1952) built when Pollock's original dining hall completely burned in 1948, the Virginia Sky-Line Company, the park concessionaire, built a new restaurant on a higher plot of land, where it offered spacious views and remains today.[65] The new building opened in 1952, a flagstone terrace was constructed in 1956, and a lobby and bar were added in the 1970s. The exterior is clad in a variety of materials, including wood clapboards, coursed fieldstone, and concrete masonry units. The dining room itself features large ribbon windows, affording patrons a view of the valley below. Other windows found on the building include nine-pane casements, triple-pane jalousie windows, and various configurations of double-hung sash. A new flagstone terrace and retaining wall, replacing and matching the one constructed in 1956, was installed in 1997; it is located directly south of the dining room.

Constructed in 1956, the registration building for Skyland is located south of the Dining Room. It is a small, single-story building clad in regularly sawn, stained clapboards. As the popularity of Shenandoah National Park–and Skyland–grew, the small cabins were no longer adequate or efficient to lodge the numerous visitors. Between 1960 and 1980, the Virginia Sky-Line Company constructed a series of motel-style lodging units around Skyland. While in most cases, attempts were made to site the buildings sensitively, use compatible building materials, and keep the building profiles to one or two stories, these lodging units differ from the small cabins previously constructed at Skyland and in some cases have been sited to take advantage of the ridgetop views while obstructing the views from several historic cabins. The motel-style units are either one or two stories in height, with off-center gable or shed roofs. Most are clad in concrete masonry units and/or wood siding. Some have balconies overlooking the Shenandoah Valley.

Built between 1964 and 1970, Dormitories D, E, F, and G display few of the features of the earlier-constructed rustic Dormitories A, B, and C. Rectangular in plan, these dorms feature peaked gable roofs with substantial overhanging eaves. The dorms are constructed of concrete masonry units, with minimal vertical wood paneling around entrance areas. Single-pane jalousie windows are set high on each elevation. Paired entrance doors are located on each gable end, as well as on the long sides. No foundations are visible, and the roofs are covered with asphalt shingles.

[64]Other cabins were moved from Dickey Ridge to Lewis Mountain in 1951.

[65]The original dining hall was located behind the current site of the Dickey Ridge Cabins. Remnants of its stone foundation are still visible.

Pollock's original "field" remains at Skyland. Located to the west of the Recreation Hall, the open space was part of Pollock's original plan, and the site of many recreational activities such as tennis and croquet. Many stone retaining walls found throughout Skyland are primarily from the Pollock era. Some remain in their original historic context, near buildings or paths. Others remain intact, but have lost their historic context because the buildings that they surrounded are no longer extant.

Skyland is comprised of several different landscape types, each with its own character-defining features, and most are the product of man's intervention with the previously natural surroundings. The presence of two natural water sources, Furnace and Kagey's Springs, were critical in Pollock's selection for the location of Skyland. The circulation system from Pollock's era remains visible today. Pollock's original approach to Stony Man Plateau was known as the Old Skyland Road and followed the road trace established when copper was first smelted in the area. It wound its way up from Hawksbill Valley through Kettle Canyon to Furnace Spring where Pollock built the Kearney, English and Pollock Mill. Pollock erected a gate along the Old Skyland Road as a formal entrance to his resort. According to 1910 and 1930 surveys of Skyland, Pollock expanded his circulation system to accommodate growth at his resort. Although the roads were packed earth surfaces during Pollock's era, they continue to be used and have been paved. Many other new paved roads have been added over
the years by the National Park Service to allow access to new buildings as they have been constructed. Other historic circulation features include the various hiking trails: Stony Man Nature Trail is accessed from an area in the northern portion of Skyland and was originally a wagon road for logging activities in the pre-resort era of the site; it was later modified for hiking during the Pollock era; the Passamaquoddy Trail, which was in existence by 1932; and the Millers Head Trail, which appears to date from the 1930s. The Appalachian Trail, realigned in 1988, also runs through a portion of Skyland, running just east of the building clusters and joining the Stony Man Nature Trail for approximately ½ mile. Horse trails encircle the stable area, dividing and branching northeast toward Stony Man Mountain and south toward Big Meadows.[66]

Select portions of Judd Gardens, a significant designed landscape dating to the 1911, are present at Skyland. Stone walls that were originally a part of the Judd Gardens are extant. Other vegetative remnants of Judd Gardens continue to convey the scope of the large-scale, rather formal garden, such as the exotics plants introduced to the area by the Judds. Hardscape features, such as the above-mentioned stone walls, also indicate the original layout and boundaries of the garden. Although sections of Judd Gardens suffer from successional vegetation and neglect, many of the designed areas are evident today. Judd Gardens retain the seven landscape areas laid out by the Judds. These include the Sentinel Lodge Garden, Western Forest, Lower Entry Garden, Great Lawn Area, Jonquil and Herb Garden, Stroll Garden, and Lower Hemlock/Pine Forest.[67]

Other small-scale features are found at Skyland. These include a copper pot (base for a still) located outside of the Conference Hall and a stone furnace situated near the Old Skyland Trail, remnants from the copper mining era of Skyland. Several sets of granite steps are remnants from the early resort era. A CCC-constructed pump house, located near the Old Skyland Trail, is set into existing rocks on the side of a small slope. Numerous

[66]"Cultural Landscapes Inventory 2001: Skyland," 3:11.

[67]For a complete description and discussion of Judd Gardens, see *Judd Gardens: Cultural Landscape Report*, prepared for the United States Department of the Interior, National Park Service, Mid-Atlantic Region by Land and Community Associates, December 1993.

small-scale features that are the result of CCC work in the area include retaining walls, culverts, railings, trails and paths, signage and trail markers. Stone foundations of some of the original buildings remain, including those of Pollock's original dining hall and Annex Cabin, his personal residence.

Views and vistas are a significant part of Skyland's historic character and are one of the major reasons that Pollock selected the site for his resort. Looking westward, several significant views of the Shenandoah Valley and the Massanutten mountain range are available from Skyland. The agricultural land of the valley below provides a scenic focal point for the westward vista, with the mountains as a backdrop. From portions of the upper areas of Skyland, including Massanutten Lodge, views to the west of the valley are hindered by recent concessionaire construction. Less accessible views to the valley are available from secluded areas such as overlooks on hiking trails. Stony Man Mountain, which rises to the northeast of Skyland, is best viewed from the "field" area. Dense vegetation throughout much of Skyland blocks this view from areas closer to the cliff's edge.

Lewis Mountain Development Area

South along the drive from Big Meadows lies the Lewis Mountain Development Area. The developed area sits on a plateau approximately 3,400 feet above sea level east of Lewis Mountain and consists of a picnic grounds, lodge and eight cabins (having 15 overnight units), and a campground, 30 campsites for tents or trailers, a picnic area, a camp store, and two comfort stations. A paved road and wye intersection connect the facility to Skyline Drive, and a foot path links it to the Appalachian Trail. The CCC helped create the infrastructure of the area, as it did for most of Shenandoah National Park, beginning in 1938. The CCC carved out the roadway through the developed area, cleared walking paths, built the comfort stations, and cleared, graded, and landscaped the picnic grounds and the campground. Enrollees also planted native trees and shrubs, such as mountain laurel and witch hazel.

The Virginia Sky-Line Company developed the Lewis Mountain facilities to accommodate African American visitors during the period of racial segregation that marked Depression-era Virginia. The developed area opened in the summer of 1939, but was closed in 1942 for the duration of World War II. Desegregated after the war, Lewis Mountain reopened in 1946. The area with its lodge, cabins, campground, and picnic area have not changed greatly since the end of the period of significance (1931-1952). Several cabins were moved here from Dickey Ridge in 1952. Roads and paths have been paved, parking areas have been created, and utilities have been upgraded in recent years. In general, the changes have all conformed to the original plan of the facility in scale, materials, and colors.[68]

The original lodge at Lewis Mountain and its eight cabins flank the access road at the center of the developed area, between the picnic area on the north and the campground on the south. Richmond architect Marcellus Wright, Jr., designed five of the cabins, as well as the lodge, in the late 1930s.[69] A long, low one-story building, the lodge (since 1950 the camp store) has brown flitched wood siding, gray concrete shingles covering the gable roof, and flagstone terrace allow this building to blend into the woods, an effect that was enhanced by the planting of four hemlock trees across the front of the store. The wooden siding covers a wooden structural frame on concrete piers. Stone is used in the chimney and fireplace and in the restroom walls. Chestnut

[68]"Cultural Landscapes Inventory: Lewis Mountain," 1:2.

[69]Three of the cabins were designed for the Lewis Mountain facility in 1939. Two others were designed and built at Dickey Ridge, in the northern portion of the park, in 1938 and moved to Lewis Mountain in 1951. Two cabins were added to the facility in 1948. By that time Wright's relationship with Virginia Sky-Line appears to have ended.

paneling covers most of the interior walls, and the floors are of varnished pine. The door is centered in the central block of the building, flanked by windows. Some alterations took place in 1996 to make the camp store accessible to handicapped visitors including raising a portion of the porch terrace to create a ramp to the front entrance door.

Cabins 1-3, the three one-story cabins designed by Wright, sit on the side of a hill facing west across the entrance road toward the camp store. They are wood-framed buildings resting on stone piers. Rough-cut wooden weatherboards, painted brown, and wood-shingled gable roofs cover the wooden structural framework. Cabins 4 and 5 continue the string of accommodations along the hill overlooking the camp store. They were built in 1948 by Virginia Sky-Line after designs by Richmond architects Louis W. Ballou and Charles G. Justice, but use similar materials and follow the rustic style already established within the facility. They possess the same low profile, and the materials (frame construction on concrete piers, brown-stained wood siding, wood-covered interior walls, pine floors) are similar to the other cabins. Cabin 4 has dining pavilions like those of Cabins 1-3, attached to its west and north elevations. Cabin 5 has no attached dining pavilions, but two freestanding ones stand to its south. The pavilions consist of wooden posts supporting a shingled, gable roof. They stand on concrete pads and shelter picnic tables (wooden tops on metal supports) and wooden cabinets. Fireplaces sit along one side of the pavilions' concrete pads.[70]

Two other Wright-designed cabins stand at Lewis Mountain, known as Cabins F and G or the Chestnut and Spruce cottages. They are located near each other south of Cabins 1-5 close to the entrance to the camping area. These cabins were built in 1938 at the Dickey Ridge facility and moved to Lewis Mountain in 1951. Cabin F, the northernmost of the two, is a wood-framed building resting on a cinder-block foundation. It has wooden siding with a shingled, gable roof. Like the other Wright-designed cabins, it consists of two bedrooms linked by a central, shared bathroom. An open, wooden porch resting on cinder blocks fronts both entrances. The bedrooms are approximately 13' 6" x 12' and are floored with tongue-and-groove pine. The rooms have pairs of six-over-six, double-sash windows on the north elevation. Each bedroom has a single six-over-six, double-sash window facing south. South of Cabin F is a freestanding dining pavilion like those near Cabin 5. It is thought that this pavilion was added when the cabin was moved in 1951.[71] Cabin G, south of cabin F and its dining pavilion, is built of the same materials as Cabin F, but its floor plan is slightly different. In Cabin G, the bathroom is laid out lengthwise in the middle of the east wall and projects from it, making the shape of the flanking bedrooms irregular. Entrances are on the west elevation, with a pair of six-over-six, double-sash windows next to each. Single windows are located in the north and south walls of the cabin. A dining pavilion–with the same facilities found in the others at Lewis Mountain–is attached to the north wall of Cabin G, and in 1995 the cabin was retrofitted at this end to make it handicapped accessible. A ramp provides access to the attached dining pavilion, and a door opens from the north elevation into the cabin.[72]

In 1940, a tent platform near the Appalachian Trail was turned into a one-room cabin, now known as Cabin 15. The cabin stands south of Cabin G. The platform was probably built by the Potomac Appalachian Trail club for use by hikers on the trail, construction of which began in 1927. It consists of a wooden frame on a concrete slab and covered with vertical board and batten siding. The single enclosed room with an open beam ceiling

[70]"Cultural Landscapes Inventory: Lewis Mountain," 3:14; "Cottage 4, 7-8, Lewis Mtn., 0-279, 1948-1961," Park Building Survey Records, Building Files, Box 3, Folder 2, Shenandoah National Park Archives, Shenandoah National Park; "Cottage 5, 9-10, Lewis Mtn., 0-280, 1948-1961," Box 3, Folder 3, Park Building Survey Records, Building Files, Shenandoah National Park Archives, Shenandoah National Park.

[71]"Cultural Landscapes Inventory: Lewis Mountain," 3:14; "Chestnut Cottage, Lewis Mtn., 0-282, 1939-1961," Park Building Survey Records, Building Files, Box 3, Folder 5, Shenandoah National Park Archives, Shenandoah National Park.

[72]"Cultural Landscapes Inventory: Lewis Mountain," 3:14; "Spruce Cottage, Lewis Mtn., 0-283, 1939-1961," Park Building Survey Records, Building Files, Box 3, Folder 6, Shenandoah National Park Archives, Shenandoah National Park.

and concrete floor measures 14' x 8' 8" and is lit by two transom windows on its west elevation. The door is on the east elevation. A 6' 2" porch extends across the east side of the cabin.[73]

The cabins and the camp store sit back from the main road through the Lewis Mountain facility. Asphalt or chip-and-seal paths connect the cabins to each other and to the road. The original paths, as well as the main road itself, were created by the Civilian Conservation Corps between 1938 and 1940. Since then they have been paved. Two sets of log steps lead down from the paths to paved pull-offs in front of Cabins 2 and 3. Another set of log steps leads down from the road to a paved parking area next to the camp store. The parking area was constructed and the pull-offs paved in the 1980s. Vehicles reach the parking area by a paved access drive that leaves the main road, runs through the parking lot, and returns to the road beyond the camp store. The cabins at Lewis Mountain stand among mature natural vegetation and trees and shrubs planted by the Civilian Conservation Corps. The CCC planted mountain laurel and oak trees elsewhere along the road, mountain laurel and witch hazel in groups around the cabins, and hemlocks at the camp store. The CCC was also responsible for the mature pine trees and the under story of witch hazel that covers much of the area. Utility work in 1999 resulted in the removal of some vegetation in the area. This vegetation has been replanted but remains immature. Despite the presence of these replanted areas, Lewis Mountain remains a shady area of tall trees and luxuriant undergrowth in contrast to the mountaintop settings of the other concessionaire-built facilities within the park.[74]

Early in their work at Lewis Mountain, CCC laborers cleared the area of dead chestnut trees and undergrowth, graded the roadway and parking lots, cleared trails, and carved a picnic area out of the natural growth. The picnic area lies in the northernmost portion of the developed area, just beyond the entrance from Skyline Drive. A paved, one-way road loops around the picnic area. Parking areas exist on the southern and eastern legs of the picnic loop. As a result of the work of the CCC, a high canopy of pine trees shades the open, grassy areas of the picnic grounds and clusters of mountain laurel abound throughout. The CCC also created the boulder fields on the east side of the picnic area and carved the paths that link the parking lots, the picnic tables, and the comfort station.[75]

A group of four picnic tables and a grill on the north side of the picnic grounds is handicapped accessible, perhaps made so in 1995-96 when the lodge and one of the cabins were altered for accessibility. Another significant feature created by the CCC is the picnic area comfort station. Finished in 1938, it is 25' x 13' wide and constructed of chinked logs resting on a stone foundation. Both the design and the materials link it to the rustic style employed elsewhere in the Lewis Mountain facility, in Shenandoah National Park, and in national parks across the country. The Lewis Mountain comfort station has vertical, brown-stained, wooden siding on the exterior gables, and its interior consists of cement floors, painted cement plaster wainscot to the bottom of the windows, exposed logs from the bottom of the windows to the eaves, and exposed beam ceilings. The men's and women's restrooms are separated by a storage area. Entrances to the restrooms are located on the north and south elevations of the building, and each entrance has a privacy screen of wooden posts and logs on a low stone wall. The privacy screens were removed and restored in 1999.

The CCC placed three boulder-type drinking fountains in the picnic area, one near the comfort station and two outside the loop road. The fountains rest on asphalt pads. A pipe from the facility's water system runs through the boulder to a spigot on side of the boulder. To provide water for the comfort station and the fountains, the

[73]"Cultural Landscapes Inventory: Lewis Mountain," 1:11, 2:2, 3:14; "Lewis Mountain Camping Shelter, 0-392, 1976," Park Building Survey Records, Building Files, Box 3, Folder 67, Shenandoah National Park Archives, Shenandoah National Park.

[74]"Cultural Landscapes Inventory: Lewis Mountain," 3:6.

[75]Ibid., 2:1-2, 3:6-26.

CCC built a pump house into the side of the hill near the Lewis Mountain facility and a reservoir south of the campground off the path leading to the Appalachian Trail. The pump house's wooden door is framed by stones. It lies along the utility corridor extending westward from Skyline Drive. Two tanks, installed during the Mission 66 program, replaced the CCC reservoir.[76]

At the southern end of the Lewis Mountain development is the campground (Figure 9). The facility's main road becomes a one-way loop through the campground, winding past 30 campsites. The campground, the loop road and trails, the comfort station, two retaining walls, three boulder drinking fountains, and the campground office were created by the Civilian Conservation Corps and finished by 1940. The office, at the entrance to the loop road, is 12' x 8' with board and batten siding and a shed roof. Twelve-light windows on the north and south elevations illuminate the interior[77]

The comfort station is 35' x 16' and constructed of coursed stone with board and batten siding in the gable. Set on a stone foundation, it blends with the wooded setting. It has a gable roof with concrete shingles and board and batten gable ends. Tile covers the interior walls to the bottom of the windows, stone above. The ceiling is of exposed beams painted white. Men's and women's restrooms occupy the northern and southern ends of the building, on either side of a storage area. Stone walls barriers screen the entrances on the east and west sides. A pair of windows pierces each of two walls of the restrooms. These windows have recently been restored, stripped of their paint, and stained chestnut. On the west side of the comfort station, the CCC constructed the mortared stone retaining wall that remains in place. It is 1½' to 2' wide and 2' to 3' tall and runs 75' alongside a north-south trail through the campground. Stone steps follow the incline at each end of the wall.[78]

The campsites have T-shaped spurs that enable a vehicle to pull-in and park. Currently, they are covered with chip-and-seal surfaces and have concrete bumper stops. Each campsite is equipped with a metal grill mounted on concrete and a picnic table consisting of a wooden top on metal supports. A host campsite was added in the last 20 years. It is similar to the other campsites but has electricity and water. Two of the campsites near the host site are designated for handicapped use.[79] As at the picnic area and around the cabins, trees, grass, and shrubs surround the campsites, reinforcing the natural setting of the Lewis Mountain facility. Across the southern leg of the loop road is a natural rock outcropping nearly 200' across. The campground is also linked to the natural landscape by paths that connect the developed area to the Appalachian Trail.

Big Meadows and Rapidan Road

Located at Mile 51.0, east of Skyline Drive, Big Meadows occupies a plateau at approximately 3,500 feet of elevation. The meadow at Big Meadows is the only large treeless area in Shenandoah National Park, comprising approximately 130 acres. Poorly drained soil and the relatively cold higher elevation have somewhat discouraged tree growth, although the treeline of the meadow has changed–at times substantially filling in portions of the meadow–within the twentieth century. Sedges and grasses thrive and form a natural meadow. Much of the expanse of Big Meadows is the product of human intervention due to National Park Service management practices, such as mowing and selective and controlled burning.

[76]"Cultural Landscapes Inventory: Lewis Mountain," 3:24-25.
[77] Ibid., 2:2, 3:14.
[78]"Cultural Landscapes Inventory: Lewis Mountain," 3:14, 3:25.

[79] Ibid., 3:3, 3:25.

Several outcroppings of rock occur within the meadow. One outcropping is centrally located while another monolithic formation occurs on the northeastern side of the meadow, close to the present treeline. In 1941, this rock formation was designated by Secretary Harold Ickes as a memorial to honor Robert Fechner, director of the Emergency Conservation Work (later the Civilian Conservation Corps) after his death.[80]

Remnants of 1930s-era resources include CCC hedges and flowerbeds. At present, Big Meadows supports over 270 species of vascular plants. Sassafras, wild cherry, hazelnut, and gray birch trees have taken root at the perimeter. The better-drained, higher parts of the meadow contain extensive blueberry fields, while the wetter areas play host to such plants as marsh marigold, Canadian burnet, swamp fern, and thick clumps of hawthorn and dogwood. Other common meadow plants, many of which attract large numbers of birds, bees and other animals, include fly-poison, milkweed, Queen Anne's lace, goldenrod, bracken fern, and various grasses, sedges and composites (daisies, asters, etc.).

Located at the western edge of the meadow is the entrance to the Rapidan Road. Leading to President Herbert Hoover's fishing camp/White House retreat, the road was constructed in 1931, and consists of a 6.3-mile, two-lane gravel road bed cut through an often steep wooded area of Shenandoah. Winding in an easterly direction, the road contains a number of switchbacks to avoid the sometimes steep changes in elevation. Culverts and banks flank the road at various points, attesting to the engineering feat of clearing dense forest growth. Dry-laid, fieldstone retaining walls measuring between 12 and 18 inches in height line portions of the road throughout its course. Portions of the original trans-mountain and Skyline Drive roadbeds are now part of Rapidan Road.

Big Meadows Development Area

The developed section of Big Meadows located at Milepost 51 in the central district consists of approximately 118 acres. The site was named for the open meadows in the area that were historically used for grazing. The Big Meadows area, which lies on the south slope of Black Rock Mountain, ranges in elevation from approximately 3,570 to 3,720 feet. There are important views of the meadowland (from the wayside) and of the valley to the west from the lodge. There are five sections of the Big Meadows area included in this nomination: the lodge/cabin area, campground, picnic grounds, the visitor center/wayside area, and the park maintenance area. These areas are linked to each other by an access road that extends from Skyline Drive to the lodge and campground areas and is approximately a mile long and 20 feet wide. Adjacent to the road's intersection with the drive is the Wayside/Visitor Center area. Slightly beyond this is the intersection with a separate curvilinear road that provides access to the parking areas for the Visitor Center/Wayside and then leads back to the west side of the Drive. Farther along, the next road intersecting Big Meadows Road leads to the sewage treatment plant. The sewage treatment area dates to 1978, and is not included in the NHL district. The next intersection is with a side road that leads to the maintenance area on one side and a road that leads to a housing area for park employees on the other. Slightly farther on is an intersection with a spur leading to the campground/picnic area; further on the road becomes a loop road with spurs for the lodge and cabins. At the main entrance to Big Meadows Lodge the road terminates in a traffic circle. Beyond the circle is the parking area for the lodge and cabin area.

[80]Memo to Hon. James J. McEntee, Chairman of the Robert Fechner Memorial Committee, February 18, 1941, National Archives and Records Administration, RG 35, Entry 22, Boxes 1-2.

The Wayside/Visitor Center area is located along the west side of Skyline Drive. It consists of the Byrd Visitor Center to the north, the Wayside complex in the middle, and the service station to the south. Behind this grouping to the west is a parking area consisting of two areas separated by an island planted with trees and low vegetation. The Wayside area originally consisted only of a (smaller) wayside building and an accompanying gas pump area. The historic master plans proposed a museum for the area immediately north of the wayside overlooking the meadow. In 1966 with funds from Mission 66, the large, modern Byrd Visitor Center was constructed on this site.

The wayside building (1939) is a wood-frame building with an irregular footprint and complex massing that reflects the many alterations made to the building since its construction in 1939. The building is entered through the west side, which consists of cross-gabled sections at either end and a center low section that houses the dining room. Portions of this facade, along with portions of the south facade, are covered with horizontal wood slab siding. The only original portion of the building that is now visible is located on the southwest corner of the building. This wing has always housed the bathrooms. Windows on this facade are varied, some being six-over-six double-hung sash and some being fixed single-pane glass. The other major facade of the building -- the east facade that faces Skyline Drive -- is entirely post-1950 construction and the most visible portion of the building is covered with modern horizontal siding. It also features small, high, single-pane fixed windows. Major additions/alterations to the building were made in 1957, 1959, and 1961. In general these changes have added to all sides of the building and have more that doubled the area of the building. Although the building's integrity has been seriously compromised by its many alterations, the original sections of the building remain largely intact and the alterations are considered reversible as the original structural frame is still in place. Overall, the building, even in its altered condition, still conveys much of the original design intent.

The Byrd Visitors Center (1966) is the largest of the buildings constructed at the park after the period of significance. This modern split-level building, which was recently remodelled, features a low pitched roof and large, sealed, plate-glass windows. The facade of the west (main entrance) side of the building is of exterior plywood and stone construction. It is largely "closed" with few windows or openings aside from the main entrance. On the east side of the building on this floor, the main visitor areas look out through large glass windows over the meadowland. This facade of the building is largely made of glass and stone. The service station (1961) also noncontributing is a small, modern, concrete-block building with a shallow hipped roof. The front facade consists of four, large, plate-glass panels, and a single central entrance. The side and rear facades consist largely of concrete blocks. Two small noncontributing storage buildings for ice and garbage are located immediately adjacent to the wayside building.

The Big Meadows Campground and Picnic Grounds are reached by a spur road off the main access road. This spur provides access both to the campground area and the picnic grounds and amphitheater. The campground area has two major loop systems that create separate but adjacent camping areas (Area “P-T” and Area “U-Y”). Both areas, which are located off a common entrance road, consist of a major one-way loop road crossed by multiple one-way roads that divide the areas into separate tiers.

The original campground area -- a contributing feature to the historic district-- is the more northerly loop. It consists of a generally fan-shaped peripheral loop bisected by four parallel loop roads. The five camping areas are now called areas "U," "V," "W," "X," and "Y." An unusual feature of this campground area is the fact that rather than having pull-in car parking areas for each site, most sites have parking areas that span the width of the loop and provide access to campsites from two roads. This design allows use by car trailers, which can pull into the sites and exit without backing up. The most northerly tier (certain "X" and "Y" sites) have the more traditional pull-in spots. There are scattered other pull-in sites at the far northern and southern ends of the loop.

Original log comfort stations are located in the third ("W") and fourth ("X") tiers. All sites include wood picnic tables with metal supports, and a fire grate. The picnic tables and fire grates are replacements and are not original to the site. The four water fountains in this area, which appear to be original to the site, are of the "boulder" type built by the CCC. They consist of a single large boulder through which a pipe and bubbler have been added. (Some also include a spigot for water.) Trees and shrubs are used to screen and provide privacy between campsites. At the time it was constructed, the campground included 50 trailer sites, 20 tent sites, 20 fire-grates, 50 tables, and 6 fountains. In addition to the general layout of the original campground area (including the location of the checking station, roads, camp sites, and comfort stations) contributing landscape features include paths and the fountains/water pumps. Historic photographs (Figure 10) reveal that as the time it was constructed, many of the loops in the campground area, like the rest of the meadow area, were largely open.

In the 1960s, an additional loop of camping sites was added to the south of the original loop. This area falls outside the period of significance and does not contribute to the historic district. The loop, which is larger than the original loop, is divided into four tiers (incorporating areas "P," "Q," "R," "S," and "T"). It consists entirely of sites with pull-in parking. Walk-in sites are located off the peripheral loop to the east and the south. With the new loop and additional walk-in sites, the campground now has over 200 tent sites and 20 recreational vehicle sites.

Contributing buildings in the Big Meadows campground area include a visitor contact station and two comfort stations, all built by the CCC. The contact station (1939) is a small log building with stone and mortar foundation. The walls of the building are of squared, v-notched logs with mortar chinking. The building's pitched roof, originally covered with chestnut shakes, now has replacement asphalt shingles. The building features a large fieldstone exterior chimney on the south side. The front (west) facade of the building has two low window openings and a door. The middle window currently functions as the service window. An employee's entrance to the building is also located on the north side of the building. A porch, supported by metal poles, covers the entrance area of the building. This porch is not an original feature of the building. In addition, changes have also been made to the fenestration pattern. (The front elevation originally held a central entrance and two flanking windows). Original plans for the building indicate that the chimney was intended to be on the opposite (north) side of the building. Overall, the building retains much of its original exterior appearance.

The identical comfort stations, built at opposite ends of the campground in 1937 are located on the "W" and "X" tiers. They are rectangular log structures with pitched roofs. The exterior walls are of squared logs, joined using V-notches. Their roofs, originally of chestnut shake shingles, were replaced with concrete shingles in 1949. Walls, also constructed of squared logs, screen the entrances to the buildings. Each of these facades also features multi-pane windows that are hinged at the bottom to swing inward. Windows are also located on the side elevations. The buildings have stone and concrete foundations. Plans for the buildings, entitled "Standard Comfort Station, Shenandoah National Park" were drawn by A. Paul Brown. Although they have been altered in the interior (for instance, replacement of plumbing fixtures, etc.), on the exterior the buildings are basically unaltered. Noncontributing resources in this area include two modern comfort stations (built in the 1960s), three utilitarian buildings made of concrete-block units that function as a shower building, laundry, and storage building. A non-historic wood shed-type is used to store firewood.

The picnic ground, a contributing element to the Historic District, is a roughly circular area located off the spur road leading to the campground. It is located to the north and west of the campground. The loop road that surrounds the picnic area has three parking areas. The picnic sites, most of which are located inside the loop road, include non-original picnic benches and fireplace units in a semi-wooded setting. A modern (noncontributing) amphitheater is located roughly 150 feet from the picnic area, and is reached by a footpath.

In addition to the general layout of the picnic area (including the location of the access road, parking areas, and comfort station) contributing landscape features include the path system and the boulder drinking fountains. Historic photographs indicate that when it was created, the picnic area was largely open. Contributing resources in the Big Meadows picnic area include a centrally located comfort station built in 1937. The exterior walls are of squared logs, joined using V-notches. The roof, originally of chestnut shake shingles, was replaced with concrete shingles in 1949. The entrances to the building are located on the two long sides of the building. Each of these facades also features two fixed multi-pane windows. Two such windows are also located on the sides of the building. The building has stone and concrete foundations. The building has received few alterations. Noncontributing resources include the modern, open-air amphitheater (c.1978), a projection booth, and a pit privy.

The lodge/cabin area at Big Meadows has the largest number of built resources of any section of the development areas. The road system in the Lodge area is part of the original master planning for the site and is a contributing element to the historic district. As was apparently true when the site was developed, the Lodge/cabin area is largely wooded, with openings around the buildings. The lodge and the Rapidan and Double Top multi-unit guest accommodations are at the western edge of the ridge and offer views over the valley. The vistas were primary determinants of the location of these buildings. A playground is located to the south and west of the Lodge entrance circle. It is not part of the original master planning for the site and is not a contributing feature of the historic district.

The Big Meadows Lodge (1938-39) was designed in the NPS rustic style by Marcellus Wright, Jr., for the Virginia Sky-Line Company (Figures 7 and 8). It is one of the finest examples of NPS concessionaire-built rustic architecture and the finest of Wright's work for Shenandoah National Park. Like Wright's other buildings at the park, this building is characterized by complex massing incorporating a number of component parts of different materials and with varying roof forms to fit the varying hillside elevation and to follow the outer mountaintop ridge. The effect of the massing and materials lends a village-like scale to the lodge, which contains a store, a large dining roof, a lounge, and second story accommodations. The building is two stories high (with a partial basement) and is of masonry and wood frame construction. The foundations of the building are concrete, and the exterior walls are of coursed stone masonry (sandstone) with wood siding. Concrete shingles (recently replaced to match the original shingles) are used on all original sections of the building.

Benson described the building completed in July 1939: "Of native stone and chestnut, the building rambles more than 300 feet in length and rests soundly on the edge of an escarpment which affords interesting views of the valley and distant mountain ranges. A large dining room, accommodating 150 guests and finished entirely in native chestnut, is oriented so that diners may enjoy far-reaching views of the surrounding countryside. In addition to a large lobby and lounge, 26 guest rooms (all with baths and some with fireplaces), have been provided." [81]

In 1940 Benson said the lodge was "virtually the beginning of the development proposed by the operator in the vast area at Big Meadows....There is sufficient room for 150 to 200 cabins if the demand arises for such an increase in lodging facilities, and adequate areas have been planned for riding horse stables, game courts, outdoor theater, community building and museum." [82] Such grandiose plans did not materialize, although the post war period saw the construction of several new guest facilities and staff housing.

The main entrance to the building is the central front-gabled section located in the middle of multiple side-

[81] Benson, "The Skyline Drive," p. 8.
[82] Ibid.

gabled components. To the east, three sections each with dormers and end gable chimneys step downward. To the west, the portion of the building adjacent to the entrance consists of a long area housing the dining room. This area has an overhanging roof that forms an integral porch and a massive central chimney running parallel to the roof gable that pierces the roof. At the end of this area is the projecting cross-gabled store area. Two smaller stepped segments of the building lead off to the east of this section.

The entry area of the building is of stone construction at the first-floor level and of horizontal (flitched) siding at the second-floor. On either side of the entrance are a single (vertical) row of glass blocks. The occasional use of glass blocks is characteristic of Wright's work at Shenandoah. Above the entrance doors at the second-floor level is a narrow decorative wood balcony. A single 12-over-12 double-hung sash window is centered above the balcony. The rear elevation, facing the valley, features a flagstone terrace that runs most of the length of the building. Part of the structure rests on masonry piers and part is supported by the basement level walls.

The building contains 62 guest rooms and 32 baths, in addition to the registration, dining, gift shop, and lobby areas. Materials used in the interior include chestnut paneling and stone masonry for the walls, chestnut sheathing for the ceiling, and tongued and grooved oak and/or waxed flagstone flooring. The major spaces include the lobby, the sitting room (labeled "concessions" in the original drawings) located off the foyer at the rear of the building, and the dining room located off the foyer to the west. Both the sitting room and the dining room are open to the second-floor ceiling and the building's massive scissor-trussed chestnut timbers.
The lodge has received a number of alterations since its construction. Most of the alterations, however, were made to areas of the buildings not visible from public spaces. Alterations to the kitchen area, including the addition of a preparation room were made in 1959-1960 and exterior stairways were added to meet safety codes in 1994-95. Immediately adjacent to the lodge is a noncontributing, frame storage building (1961).

Other contributing resources in the development area include a group of five cottages--the first built resources in the area. They are located to the south and west of the lodge. Designed by Marcellus Wright, Jr., these include Petersburg Cottage (1938), Bridesburg Cottage (1938), Blacksburg Cottage (1938), Lynchburg Cottage (1938), and Mountain View Cottage (1938). These simple wood frame cottages -- originally identical -- include two separate housing units. The T-shaped buildings have hipped roofs on the main section of the building and a separate hipped roof on the wide "T" section. The entrance to the buildings is also through this section. Windows on the buildings are eight-over-eight double-hung sash. The buildings were constructed with flitched-edge wood siding and masonry piers. On the interior, the buildings feature a large stone chimney with hearths opening into both main rooms. The Mountain View cottage is the most altered of the five cottages, a covered porch having been added to one side of the building, and a bedroom and bathroom were added to the other side. The siding on the Blacksburg and Petersburg cabins has been replaced with standard horizontal wood siding but otherwise the buildings are little altered on the exterior. A historic storage building for linens was built before 1939).

A series of multiple-unit accommodations are located in a line to the south of the lodge and on the opposite side of the parking area from the cabins. Three of the four eight-unit structures --Piedmont Cottage (1941), Blackrock Cottage (c.1946), and Hawksbill Cottage (c.1946) were built in the 1940s and are contributing resources to the historic district. All are wood frame buildings with concrete foundations. The buildings have gable roofs with cross gabled sections on either end and a porch running along most of the length of the building. The units are covered with vertical board-and-batten siding. The buildings, which were designed by the Richmond firm of Ballou and Justice, have not been altered significantly.

Located near the point where the loop road returns to the main access road are a group of five small cabins that are currently used for storage but previously were used as employee housing. All were moved from the Swift

Run area. Four of the cottages--Employee Cottage "B" (pre-1933), Cottage "C" (pre-1939), Cottage "D" (pre-1939), and Cottage "E" (pre-1939)--are identical, frame, two-room cottages with an attached bathroom in the rear. All are side-gable buildings with double entrances on the long side and either six-over-six or replacement one-over-one double-hung windows. The frame buildings have concrete-block foundations and are covered with horizontal wood siding. Small porches supported by thin posts which were original features of the buildings, have been removed. In addition, the current bathrooms, added to the rear of the building, replaced smaller bathrooms located inside the buildings. Employee Cottage "A" (pre-1933) is similar to the other four cabins in most respects, but has only a single room and bath. Despite the minor alterations, this group of small cottages is largely intact and they still retain much of their original appearance.

Noncontributing resources in the Big Meadows Lodge/cabin area include the Double Top Cottage (1959) and Rapidan Cottage (1963) which are multiple-unit accommodations located to the west of the cottages. These units are similar in their layout to traditional motel units and have wood siding and concrete-block foundations. Each unit is reached by a single flight of stairs. Crescent Rock (1986) is another multi-unit guest building of recent construction although it is similar in appearance to the Piedmont/Blackrock/Hawksbill grouping. Five 1960s-era employee housing units (three of concrete-block and two of frame construction) are located on the loop road after it curves back around to meet Big Meadows Road. Other noncontributing buildings include several small, modern storage buildings.

The Big Meadows Maintenance Area is located on the east side of Big Meadows access road. In addition to the cluster of maintenance-related structures, this area also includes employee apartments, a freestanding employee residence, and a group of three buildings that were formerly used as stables and tackrooms. The area is reached via an access road located roughly half way between Skyline Drive and the Lodge. The access road, which is a contributing element to the Historic District, curves around to the south and ends close to the service area. Immediately to the north, a smaller road provides access to the employee housing (including the former Hoover School). Immediately to the south, a small road provides access to the stables area. The maintenance area, which consists of seven buildings (two of which are now attached), is a large, open, rectangular area, with buildings in a roughly U-shaped configuration. The stable area consists of four buildings (two of which are attached) also positioned in an U-shaped configuration. The original master planning for the area includes the current layout of the access road and the location of the maintenance area, employee housing area, and the stables area (originally set out as the location of the employee garage). Early photographs reveal that at least part of the maintenance area was enclosed by a wood fence.

Contributing resources in the maintenance area include most of the maintenance buildings, one of the stables-complex buildings, and the former Hoover School, which was moved to Big Meadows from the south district of the park and adaptively remodeled as the Ranger’s residence in 1945. In general, the buildings in the maintenance area were designed with consistent rustic styling and a common palette of materials. The largest maintenance building was built by private contractors with PWA funds, while the other buildings appear to have been CCC work projects. They are rectangular one-story frame buildings with concrete floors and footings. Their most distinctive feature is their vertical slab siding -- 3- to 4-foot vertical half-round boards arranged in multiple parallel horizontal rows. The buildings have gable roofs that were originally covered with random-width wood shingles; most are now covered with green, roll-asphalt roofing. The gable ends of the buildings are covered with horizontal lap siding. The buildings have copper gutters and multiple-pane steel casement windows, some of which open out and some of which are fixed. Garage doors are of vertical wood board construction and have side steel strap-hinges. Contributing resources include:

Equipment Shed/Garage (1939)
Maintenance/Vehicle & Equipment Storage (1939)

Blacksmith Shop/Storage Shed (1939)
Storage Shed (Ranger's Office) (1939
Carpenter Shop/Storage Building) (1939)
Warehouse/Storage (1939)
Gas/Oil Building (1939)
Stables (1939)
Office/Ranger's Quarters (c.1930)

The Ranger's Quarters is a frame, gable-roofed building with wood siding and concrete-block foundations. Windows are six-over-six double-hung wood sash. A small gabled porch protected the entrance. Although the exact manner of alterations is not clear, it appears that the building was added to on part of the front and the rear. Original building fabric is located on the sides and part of the front of the building. Noncontributing resources in the Big Meadows maintenance area include two apartment buildings constructed in the 1960s and the stables and a tackroom—office building in 1959.

Piney River Ranger Station

The Piney River area is located off Skyline Drive at approximately Milepost 22. It is reached by an approximately 400-foot-long paved access road from Skyline Drive. The road, which leads off from Skyline Drive to the west, branches at the major resource in the area -- a former CCC technical office. From that point, spur roads lead both to the north and south. Most of the older resources are located to the north. A large new maintenance building is located off a short drive to its south, as is a modern residence. The area around the buildings is largely open except for a few isolated deciduous trees located along the road. Piney River is the former site of a CCC camp NP-12 .

Significant contributing resources to the historic district are associated with the CCC's use of the site: Ranger Office/former CCC Camp Building and Maintenance/Equipment Shed-CCC (1937). In 1943, when the building was converted into use as a ranger station, a number of alterations were made to it. On the exterior, these include the replacement of chestnut-post foundations with stone foundations and the addition of a small porch at the intersection between the main portion of the building and the extension. On the inside, alterations include moving the bathroom from in front of the living-room area on the porch to its current location, partitioning off a small laundry room in the extension area, constructing a new brick chimney in the southeast corner of the dining room, and replacing a number of doors and windows to accommodate these changes. Also contributing is the small, one-story, frame Naturalist's Office-CCC (1935). Noncontributing resources at the Piney River area include a recently constructed residence (1987), maintenance building (1984), and two gas/oil buildings (1960 and 1993).

Simmons Gap Ranger Station

The Simmons Gap area is located off Skyline Drive at approximately Milepost 73. It is the former site of an Episcopal Mission and is now the maintenance area for the south district of the park. The portion of the Simmons Gap area included in this nomination contains approximately nine acres. The site is reached by a short paved access road that branches off from the east side of Skyline Drive. The land on either side of the curved road before the developed area is largely forested. The access road comes to a dead end in the maintenance building area. Just prior to the end of the road, a side road leads off to the south. This short road leads to the rest of the developed area that includes the remaining mission building, new residential buildings, and a handful of 1930s and 1940s storage buildings and offices associated with the maintenance area. A stone bridge over a small creek provides access to this part of the area.

The Ranger Residence (built in 1925, and adapted to its current use in the 1930s) is also known as the Simmons Gap Mission Community Hall. This simple rectangular one-story building is of fieldstone construction. The building has a gabled roof with asbestos shingle covering and nine-over-six double-hung sash windows. A central stone chimney is located in the center of the building at the roofline. The entrance to the building is through the west side and is reached via a raised open porch. A wood porch with a garage below located on the south side of the building is believed to date from the late 1930s. On the north facade of the building, a Gothic-arched entrance been filled in. Although the ghost of the former entrance is visible, the patching was competently done and does not significantly affect the integrity of the structure. The structure as it now stands was heavily modified by the National Park Service for its use as a residence. The building has been used by the National Park Service since the park's opening, and its significance is tied to its association with park operations. Because the building was present during the period of significance, relates to the documented significance of the district, and possesses historic integrity, it is considered a contributing resource.

The other contributing elements to the historic district are five small utilitarian wood frame buildings with gable roofs and German siding. All have green roll asphalt roofing, are painted brown, and are relatively unaltered. The earliest of these were constructed by the CCC and include the fire cache (1937), gas/oil building (1934), two sheds (1937 & 1939), and a maintenance shop (1939). A ranger’s office (1948) also contributes. Noncontributing resources include two recently constructed residences (1986 &1990), a rescue cache (1978), and three small utilitarian sheds, and privies.

8. STATEMENT OF SIGNIFICANCE

Certifying official has considered the significance of this property in relation to other properties:
Nationally: X Statewide: _ Locally:

Applicable National Register Criteria:	A X B _ C X D
Criteria Considerations (Exceptions):	A _ B _ C _ D _ E _ F _ G
NHL Criteria:	1 and 4
NHL Theme(s):	III. Expressing Cultural Values 5. architecture, landscape architecture, and urban design VII. Transforming the Environment 3. protecting and preserving the environment
Areas of Significance:	landscape architecture social history entertainment/recreation politics/government architecture engineering conservation community planning and development
Period(s) of Significance:	1931 - 1951
Significant Dates:	1931, 1933, 1936, 1942
Significant Person(s):	N/A
Cultural Affiliation:	N/A
Architect/Builder:	Bureau of Public Roads National Park Service William Austin Roland W. Rogers Lynn Harriss Harvey Benson James Lassiter
Historic Contexts:	The Historic Landscape Design of National and State Parks, 1916 to 1942 Architecture in the Parks National Historic Landmark Study

State Significance of Property, and Justify Criteria, Criteria Considerations, and Areas and Periods of Significance Noted Above.

SUMMARY

Skyline Drive, with its adjoining overlooks, waysides, picnic areas, campgrounds, and development areas, is nationally significant under NHL Criterion 1 and 4. Because of the pivotal role that the Skyline Drive Historic District played in the history of the national park system and the evolution of park road design, federal policies in conservation and recreation, and the employment of relief measures of the New Deal, Skyline Drive is nationally significant under the NHL theme Transforming the Environment. For its exemplary expression of the principles and practices of National Park Service road design, landscape naturalization, and rustic architectural design and as a showcase of the landscape conservation work of the Civilian Conservation Corps, the park road and its associated features are also nationally important under the theme Expressing Cultural Values (Planning, Landscape Architecture, and Architecture).

Skyline Drive is primarily significant under Criterion 1 for its association with the efforts of the United States Government and the Commonwealth of Virginia to conserve the characteristic scenic and natural resources of Virginia's Blue Ridge Mountains in the southern Appalachians in the form of Shenandoah National Park. The drive was intended to be the premier feature of the park—and the primary organizing framework for the park's development. As in the western parks, major and minor development areas were located in reference to the road system, but at Shenandoah it became the backbone of the proposed park and an important link in what was envisioned in 1931 as a continuous park-to-park highway that passed through the Southern Appalachians and extended from the nation's capital to Mammoth Cave in Kentucky.

It is also significant for its pivotal role in the movement that gained momentum in the mid-1920s and continued through the 1930s to conserve and enhance the Nation's natural resources in the eastern United States for enjoyment and outdoor recreation by the American public. It represents the increasing popularity of recreational motoring in the United States in the 1920s and 1930s and the evolving design of national park facilities to attract and accommodate increasing numbers of visitors who were visiting the parks by automobile.

It is furthermore associated with efforts of the federal government to provide economic relief in the form of employment for both skilled and unskilled labor during the Great Depression. These included a special allocation in 1931 for drought relief funds for road construction in national parks, and the extensive economic relief programs of the New Deal era (1933 to 1942) which included the Civilian Conservation Corps (CCC), Public Works Administration (PWA), and Works Progress Administration (WPA), and Emergency Relief (FERA). These programs not only promoted economic stability but moreover reflected the social-humanitarian purposes of the New Deal by advancing the conservation of natural areas and expanding the recreational resources of the nation, while creating employment for thousands of skilled and unskilled workers.
The drive, furthermore, demonstrated a new form of outdoor recreation that combined recreational motoring with the conservation of the nation's finest scenery and natural resources. The leadership of the National Park Service in conserving natural resources and designing facilities for outdoor recreation by the mid-1930s extended to an increasing number of national parks and monuments, state parks, recreational demonstration areas, and national parkways. During the 1930s, because of its proximity to Washington D.C., and its embodiment of the goals and purposes of President Franklin Delano Roosevelt's New Deal program, Skyline Drive became a showcase for the work of the CCC and public works agencies in the eastern United States. Designed as the backbone of Shenandoah National Park, Skyline Drive under Criterion 4 illustrates the principles of naturalistic landscape design adopted and advanced by the National Park Service in the early 20th

century. The design of the drive and component structures such as Marys Rock Tunnel represent the high engineering standards that resulted from the National Park Service's 1926 interbureau agreement with the Bureau of Public Roads, as well as the naturalistic principles and practices of landscape design through which the road was constructed to lay lightly on the land and harmonize with the natural setting. Designed and constructed in the 1930s, Skyline Drive represents an important stage in the adaptation of the principles and practices developed for western park roads to the gentler topography of the Southern Appalachians and the assimilation of emerging eastern ideas for park and parkway development. Distinguishing design characteristics include the graceful curvilinear alignment; the rounding and flattening of cut and fill slopes; the planting of native trees and shrubs to blend the road naturalistically with the surrounding topography and enhance the drive's scenic beauty; and picturesque parking overlooks at frequent intervals that presented a sequence of scenic vistas and provided access to the Appalachian Trail and spur trails leading to waterfalls, springs, scenic viewpoints, and virgin stands of trees.

Skyline Drive is distinctive for its linearity and the intention of its designers to display a continuous and ever-changing panorama of valley and mountain from a park road carefully orchestrated with winding curves and numerous scenic overlooks. Begun in 1931 it was one of several road projects by the Bureau of Public Roads and the National Park Service that Chief Landscape Architect Thomas Vint identified as outstanding and among the first to fully implement the design improvements formulated by the Landscape Division in the late 1920s.

Skyline Drive is credited with laying the conceptual foundation (and overlook prototypes) for the subsequent design of the more ambitious and advanced Blue Ridge Parkway. In keeping with the road's purpose as a recreational motorway within a day's drive of many eastern cities, recreational areas were planned at regular intervals along the drive to provide facilities for picnicking, camping, and other visitor services associated with automobile travel. Collectively the drive and its associated areas form an exemplary, outstanding, and cohesive park landscape that illustrates the state-of-the art design methods of park road construction in the 1930s as well as the landscape conservation practices of the CCC, such as clearing roadside debris, naturalizing road banks with native plantings, and constructing pedestrian paths and dry-laid stone walls at scenic overlooks.

The cohesive character of both landscape features and park structures in the Skyline Drive Historic District contribute to the district’s national importance under Criterion 4. The district contains a full complement of CCC built structures, most rendered in native stone or timber (often chestnut)--in the form of guardrails, culvert headwalls, retaining walls, comfort stations, equipment sheds, and even water fountains. These fall into the three categories outlined in the NPS-published *Park and Recreation Structures* (1938): basic services and administration, recreational and cultural facilities, and overnight and organized camp facilities. Rustic and picturesque in character, the park structures built by both the CCC and the concessionaire was unified by a common vocabulary of materials, hand-wrought finishes, and architectural designs, that blends with the Eastern deciduous forest and rock outcroppings and ledges that make up much of the park’s natural setting. Log framing abounds throughout, much of it having be drawn from the dead and decaying chestnut forests (casualties of the chestnut blight)and fashioned into useable form at the sawmills set up by the CCC. Log, slab, and shingles were commonly used as siding on most park buildings, with the exception of stonework that appeared on such buildings as the recently restored comfort station at Stony Man Overlook and lodge at Big Meadows. Also distinctive at Shenandoah is the roofing made from concrete shingles (connected with reinforcing rods) that were made by the CCC enrollees. Such a material was desirable because it provided an inexpensive, lightweight, and durable alternative to slate and quickly assumed a weathered appearance, like nearby boulders, by attracting mosses and lichens. The concessionaire used similar materials that were manufactured by a company in Richmond, Virginia, for the construction of Big Meadows Lodge; during the lodge’s recent rehabilitation, damaged shingles were replaced with the same material ordered from the same company (this material is also used by Colonial Williamsburg).

In addition, the district contains several outstanding examples of NPS, CCC, and concessionaire-built architecture. Commonly called "parkitecture," they include the Big Meadows Lodge, Dickey Ridge Lodge, and Pinnacles Picnic Pavilion--are among the finest examples found today in the parks of the eastern United States. They compare favorably in design and integrity with western examples, such as the lodges at Zion, Bryce, and Grand Canyon national parks, which were designated National Historic Landmarks in 1988 under the Architecture in the Parks NHL Theme Study.

Transforming the Environment: The Origin of Skyline Drive and Shenandoah National Park

Skyline Drive is a testament to the expanding movement for conservation, public outdoor recreation, and regional planning that gained momentum in the 1920s and became the hallmark of Federal policy in the 1930s. A campaign spearheaded by the American Civic Association and the American Society of Landscape Architects resulted in the creation of the National Park Service to administer the national parks and monuments in 1917. The new agency was entrusted with promoting and regulating the use of national parks in ways that would "conserve the scenery and natural and historic objects and the wild life therein and … provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." [83]

Shortly after the creation of the National Park Service, a Statement of Policy was drawn up and approved by Secretary of the Interior Franklin Lane on May 13, 1918. The document set forth broad principles to guide the agency in its choice, development, and management of national parks. First of all the criteria set for new parks, called "park projects," required that such areas possess "scenery of supreme and distinctive quality or some natural feature so extraordinary or unique as to be of national interest and importance." Unquestionably the existing parks of the West, which had been created out of the domain of public land under the control of the U.S. Government, were held in such lofty esteem: Yellowstone, the first national park was created in 1872--the result of the famous Washburn-Doane Expedition--and with the overwhelming support of the U.S. Congress introduced the national park idea. Yosemite Valley and the Mariposa Big Tree Grove were first designated a natural reserve in 1864 by the State of California and made a national park in 1890. Mount Rainier National Park had been designated in 1899, Crater Lake in 1902, and Glacier in 1910. Grand Canyon, which had been administered for many years by the United States Forest Service, and the privately donated Lafayette National Park (later called Acadia) in the East were both established in 1919; they were among the first areas designated under the new policy.[84]

Expanding the language of the 1916 enabling legislation that created the service, the statement of policy set forth three fundamental principles for stewardship:

> First, that the national parks must be maintained in absolutely unimpaired form for the use of future generations as well as those of our own time; second, that they be set apart for the use, observation, health, and pleasure of the people; and third, that the national interest must dictate all decisions affecting public or private enterprise in the parks.[85]

[83] National Park Service Act, 16 U.S.C. 1 et seq. (1988), August 25, 1916, ch. 408, 39 Stat. 535.

[84] The Statement of Policy was published in the *Annual Report of the Director of the National Park Service, 1918* (Washington, D.C.: Government Printing Office, 1919). For further discussion, see Linda Flint McClelland, *Building the National Parks* (Baltimore: The Johns Hopkins University Press, 1998), pp.134-36.

[85] Annual Report, 1918, p. 813-14, as quoted in McClelland, *Building the National Parks*, p. 134.

The policy opened the parks to automobiles, motorcycles, and other motor vehicles, and called for the building of facilities that provided comfort and necessary services for visitors, including a range of overnight accommodations from campsites to luxurious hotels. Such arrangements were already provided by concessionaires, called park operators, in the first parks in the West.

In the 1920s, planners, politicians, and conservationists became aware of the growing metropolis around the cities of the eastern United States, the rapid disappearance of wilderness, and society's increasing dependence on the automobile for recreational motoring. These concerns resulted in alliances among state, federal, and local government agencies for the purpose of setting aside the nation's natural resources for conservation and outdoor recreation. NPS Director Stephen Mather attended the first meeting of the National Conference on State Parks in Des Moines and continued to maintain a dialogue with state park organizations. This organization met annually at places such as the Palisades Interstate Park in New York and New Jersey, Turkey Run State Park in Indiana, and the Skyland resort on Virginia's Blue Ridge Mountains. The expansion of outdoor recreation opportunities nationwide gained unprecedented impetus in the 1930s through New Deal programs, such as the Public Works Administration, Works Progress Administration, and Civilian Conservation Corps. Envisioned in the mid-1920s and substantially completed and in operation by the end of 1942, Skyline Drive was one of the first and most ambitious projects to result from such an alliance between the federal and a state government and to take form through the economic relief programs of the 1930s under the supervision of landscape architects of the National Park Service.

The origins of the idea for Skyline Drive can be traced to the 1924 Report of the Southern Appalachian National Park Committee. Because the majority of the national parks were in the West and not easily accessible by the large number of Americans living in the East, interest in establishing a national park in the southern Appalachians gained momentum in the 1920s. National Park Service Director Stephen P. Mather drew attention to the need to establish eastern parks in his annual report of 1923. Mather, who was a strong advocate of a "park-to-park" system of highways to link western national parks and other scenic areas, believed that because of the increasing popularity of the automobile, a southern Appalachian park should be within a day's travel of the large eastern cities. Mather's view reflected the increasing concern among planners, politicians, and conservationists about the growing metropolis in the eastern United States and the inevitable loss of wilderness and regional character. Mather wrote: "I should like to see additional national parks east of the Mississippi....There should be a typical section of the Appalachian Range established as a national park with its native flora and fauna conserved and made accessible for public use and its development undertaken with Federal funds." Mather addressed the separate problem of land acquisition, posing the concept that such a park be created, as Acadia National Park (at the time the other major natural park in the East) had been, "by the donation of lands from funds privately donated."[86]

Secretary of the Interior Hubert Work actively supported Mather's vision for a well-orchestrated "interstate chain" of national and state parks where motorists could proceed from national park to another, stopping in state parks located a day's drive apart along the way. In his address to the fifth national conference on state parks, opportunely held at Skyland, in May 1925, he rallied support for the idea of eastern parks:

> The whole national-park movement is based on the desire of man to commune with nature. More

[86] Stephen Mather, *Seventh Annual Report of the NPS* (Washington, D.C.: Government Printing Office, 1923), p. 16. Also quoted in U.S. Department of the Interior, *Final Report of the Southern Appalachian National Park Commission to the Secretary of the Interior, June 30, 1931* (Washington, D.C.: Government Printing Office, 1931), p. 1.

> than a million and a half people last year visited the 19 national parks and 323 national monuments guarded by the Department of the Interior. The geysers and buffalo of Yellowstone, the gorges of the Grand Canyon, the giant trees of Sequoia, the glaciers of Mount Rainier, the falls of Yosemite, the prehistoric dwellings of Mesa Verde, the living volcano of Lassen Peak, and the petrified forests of Arizona have attracted millions of people and will continue to draw them westward in the years to come. It is time that other primeval spots in the East containing similar natural wonders be preserved for the benefit of this densely populated section.[87]

Early in 1924, Secretary Work appointed a five-member Appalachian National Park Committee to survey areas in the southern Appalachians for possible designation as national parks. The committee consisted of Congressman Henry W. Temple of Pennsylvania, as chairman, a conservationist and supporter of national parks; William C. Gregg, an industrialist and the president of the National Arts Club; Col. Glenn S. Smith, a division engineer for the United States Geological Survey and the Department of the Interior's representative; Maj. William A. Welch of the Palisades Interstate Park, one of the nation's foremost park managers and landscape engineers; and Harlan P. Kelsey, a horticulturalist, town planner, and former president of the Appalachian Mountain Club. The committee's primary tasks were to review proposals for future park sites in the southern highlands, visit proposed sites, and report their findings to Secretary Work, who would in turn make a final recommendation to Congress.[88]

Mirroring the sentiment of the 1918 Statement of Policy, the Southern Appalachian National Park Committee set criteria to guide their search. Any area recommended for national park status was to cover no fewer than 500 square miles, to have forests, shrubs, flowers, streams, and cascades in their natural condition, and to represent the outstanding character of the southern Appalachians. Potential park areas were to be accessible by rail and highway. Beyond these practical concerns, the committee's criteria perpetuated late-nineteenth and early twentieth-century attitudes about parks and nature which focused on scenery preservation and the inspirational values offered by the native landscape. Mountain scenery was to have "inspiring perspectives and delightful details." Much of the land was "to contain forests, shrubs, and flowers, and mountain streams, with picturesque cascades and waterfalls overhung with foliage, all untouched by the hand of man." There were to be "abundant springs and streams" for camping and fishing. And, finally, the entire park was to be a "natural museum, preserving outstanding features of the southern Appalachians as they appeared in early pioneer days." The committee's naïve belief that, even in the heavily settled eastern United States, wildness could be equated with primeval conditions was countered by a confidence that whatever was lacking from the natural scene could be reclaimed through the ingenuity of the park designer. [89]

The committee sent out questionnaires to local communities asking for suggestions and received responses from various communities in Virginia, Tennessee, North Carolina, West Virginia, Kentucky, Georgia, and Alabama. The committee members embarked on several trips to visit such places as Linville Gorge, Roan Mountain, Grandfather Mountain, and Mammoth Caves. Support for parks in the Blue Ridge Mountains of northern Virginia came from two groups, one led by George Freeman Pollock, who operated the Skyland resort on the shoulder of Stony Man Mountain at the highpoint of Virginia's Blue Ridge and launched an intensive campaign to get the members of the Committee to visit the region.[90] The other group was led by L. Ferdinand Zerkel, a

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[87] *Final Report of the Southern Appalachian National Park Commission*, p. 11.

[88] John Ise, *Our National Park Policy: A Critical History* (The Johns Hopkins University Press, 1961), p. 253.

[89] *Final Report of the Southern Appalachian National Park Commission*, p. 7. Committee members Kelsey and Welch were both experienced in park design and the principles of landscape architecture; Kelsey was an expert in the botany of the southern highlands and propagated rhododendrons and other trees and shrubs of the region at his family's nursery; Welch had done extensive plantings at Bear Mountain State Park, as well as created the Storm King Highway high above the Hudson River.

[90] Pollock first came to the Blue Ridge Mountains in the autumn of 1886, to inspect a tract of more than five thousand acres owned

real estate agent and lumber salesman from nearby Luray, Virginia, who had formed an alliance of businessmen to promote a location for a national park at Massanutten Mountain on the west side of the Shenandoah Valley. Eventually the two groups would join forces and support the Blue Ridge on the eastern side of the valley as the site for the future national park. This local interest resulted in the creation of the Northern Virginia National Park Association for the specific purpose of gaining approval of the park committee and the U. S. Congress for a national park in the northern Blue Ridge Mountains.[91]

In their search for “a recreational ground for the people not only of today but of the coming generations," the committee members visited the Blue Ridge, often staying at Skyland and exploring the mountain ridge and hollows by horseback. They were greatly impressed with the region and became convinced that the ridge with its peaks and valleys and numerous running brooks and splendid waterfalls would provide the ideal setting for a national park. The Great Smoky Mountains of Tennessee and North Carolina were also given major consideration because of the “height of the mountains, depth of valleys, ruggedness of the area, and unexampled variety of trees, shrubs, and plants.” Although highly desirable, the prospects for developing a park in the Great Smoky Mountains were complicated by a number of factors, including the time, careful study, and cost required to provide roads and visitor facilities in an area having an extensive annual rainfall.[92]

Clearly the committee was set on recommending an area closer to the population centers along the Atlantic seaboard and an area whose superlative qualities would be highly visible and easily accessible to large numbers of the public. The Blue Ridge Mountains of Virginia offered such a place. In his first report to Secretary Work, Congressman Temple wrote:

> It will surprise the American people to learn that a national park site with fine scenic and recreational qualities can be found within a 3-hour ride of the National Capital and within a day’s ride of 40,000,000 of our inhabitants. It has many canyons and gorges with beautiful cascading streams. It has some splendid primeval forests, and the opportunity is there to develop an animal refuge of national importance. Along with the whole southern Appalachians, this area is full of historic interest, the mountains looking down on valleys with their many battlefields of Revolutionary and Civil War periods, and the birthplaces of many of the Presidents of the United States.
>
> The greatest single feature, however, is a possible sky-line drive along the mountain top, following a continuous ridge and looking down westerly on the Shenandoah Valley from 2,500 to 3,500 feet below, and also commanding a view of the Piedmont Plain, stretching eastward to the Washington Monument....Few scenic drives in the world could surpass it.[93]

The December 1924 report clearly identified the Blue Ridge of Virginia--what would soon be given the name "Shenandoah National Park"--as the committee’s first choice for a major eastern national park in the southern highlands. Most importantly it described the creation of a “skyline drive” as the principal means through which the public would experience the mountain scenery and the panorama of surrounding forests and farms. The

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by his father and several business partners. Drawn by the beauty and isolation of the area around Stony Man Mountain, Pollock resolved to establish a camp and rustic resort as a commercial enterprise that would draw those who shared his love of the outdoors. Skyland, Pollock's resort, was founded in 1887. Among those who joined him in supporting the park idea were criminal investigator Harold Allen of the Justice Department; and George H. Judd, Jr., a partner in the well-known Judd-Detweiler Publishing Company, who were regular vacationers at Skyland.

[91] Simmons, "Shenandoah," pp. 11-18.

[92] *Final Report of the Southern Appalachian National Park Commission,* pp. 6-7.

[93] *Ibid.,* p. 8.

report also encouraged the creation of a second park in the Great Smoky Mountains. Soon after both houses of the U.S. Congress passed bills and on February 21, 1925, President Calvin Coolidge approved an act "to provide for the securing of lands" in the southern Appalachian Mountains (and the Mammoth Cave region of Kentucky) "for perpetual preservation as national parks." The act also strengthened the official status of Templeton's five-member committee, renaming it the Southern Appalachian National Park Commission and charging it with the task of establishing a process for raising funds for land acquisition.

"Ruggedness," historian Alfred Runte has observed, was the primary factor in the selection of the Blue Ridge and Great Smoky Mountains for future national parks—a carry over from the early days of the National Park Service when mountain-based parks were favored. While affirming that in the mid-1920s "monumentalism was still a preeminent force behind the advancement of scenery preservation," Runte has also viewed the two eastern parks as "transition parks" on the threshold of the ecological era:

> While both [parks] anticipated the ecological standards of the later twentieth century, Congress first required each region to approximate the visual standards of the national park idea as originally conceived. The persistence of monumentalism dictated that landscapes represented in the East also be of some topographical significance. Whatever the merits of the Great Smokies and the Blue Ridge Mountains as wilderness, wildlife, and botanical preserves, none of these features had as yet been recognized apart from their scenic base.[94]

Interior officials were uneasy about the prospect of bringing lands into the park system that were less than pristine. In 1932 Louis C. Cramton, special attorney to the secretary of the interior and the former chairman of the House appropriations committee, conducted a study to determine what Congress in establishing the national park system intended the national parks to be and what policies it expected would govern the parks. The 1932 statement of policy that resulted upheld the mandate to preserve the parks and resources therein in unimpaired condition, stating: "Proper administration will retain these areas in their natural condition, sparing them the vandalism of improvement." Given Cramton's familiarity with the Southern Appalachian parks, it is not surprising that the new policy made provisions for the designation of potential parks in settled areas of the United States, which might have private homes or commercial businesses, before natural restoration took place (less such lands fall into private ownership). In the building of roads the park service was to ensure that "the route, the type of construction, and the treatment of related objects contributed to the fullest accomplishment of the intended use of the area." The protection of landscape values was reduced in the Statement of 1932, which served as a guide for the CCC work in national parks, to one short principle: "Roads, buildings and other structures necessary for park administration and for public use and comfort should intrude upon the landscape or conflict with it only to the absolute minimum." [95]

The idea of a linear corridor in the southern Appalachians was not entirely new. The scenic and recreational value of Virginia's Blue Ridge was recognized by the supporters of the long-distance Appalachian Trail. In October 1921, the *Journal of the American Institute of Architects* carried an article by Benton MacKaye, "An Appalachian Trail: A Project in Regional Planning" calling for the creation of a continuous footpath along the Appalachian Range from Maine to Georgia. MacKaye envisioned the trail as the backbone of a whole system of wild reservations and parks, which, linked together by feeder trails, would be a reservoir for maintaining the primeval and rural environment of the Appalachians. In March 1925, the first Appalachian Trail Conference was held in Washington, D.C., and a committee representing the various geographical regions crossed by the proposed trail was selected. William A. Welch, manager of the Palisades Interstate Park and a member of the

[94] Alfred Runte, *National Parks: The American Experience* (Lincoln: University of Nebraska Press, 1979), pp. 115-117.

[95] Cramton's statement appeared in the *1932 Annual Report*, pp. 7-9, as cited in McClelland, *Building the National Parks*, pp. 288-90.

Southern Appalachian National Park Commission was appointed chairman of the committee. In November 1927, the Potomac Appalachian Trail Conference (PATC) was organized at Washington, D.C., to build and maintain the trail along the Blue Ridge and to support the establishment of Shenandoah National Park. By the end of the 1920s, work on the trail was underway through the volunteer efforts of hikers and trail-builders, many of whom were influential leaders from the nation's capital. In 1928, Benton MacKaye, who had become a highly respected member of the American Regional Planning Association of America founded in 1923, published *The New Exploration: A Philosophy of Regional Planning*, in which he expanded upon his theory for controlling the growth of metropolitan areas in the eastern United States and drew attention to the critical importance of preserving the Appalachians as an "indigenous" environment.[96] Unfortunately MacKaye was opposed to the creation of the mountaintop roadway and the relocation of the trail which it required. On this he disagreed with other members of the trail conference, particularly Myron Avery who took over the trail conference leadership of the effort and willingly worked with the park's designers in finding an alternative route for the segments of the trail that lay in the right-of-way for the drive.

While the committee reported the two park areas had "primeval" stands of trees and were relatively unspoiled and remote, recent research has demonstrated that several thousand people made their home on the slopes of the Blue Ridge and the land for the park was in varying stages of agricultural production and had either been cleared for fields and pasture or had been long before cleared of its valuable timber. A network of local roads made passage between the Piedmont on the east and Shenandoah Valley on the west possible. Furthermore, by the time the park was established in 1936, many of the stately American chestnut trees, which had been a local source of income (residents sold the nuts) as well as a beautiful sight, had succumbed to the chestnut blight. The creation of the Skyline Drive upon the ridge depended in large part on reclamation measures, what Charles Eliot in the 1890s had called "landscape forestry," as well as selecting the best views and attending to the comforts of park visitors. The experience of the Landscape Division in the West equipped Charles E. Peterson, who moved East to head the newly created Eastern Division in 1930, and his staff with the techniques for refurbishing the landscape and erasing the scars of the construction which was inevitable in a new park area.

Shenandoah's enabling legislation gave the responsibility for acquiring the land for the new park, including the right-of-way for Skyline Drive, to the Commonwealth of Virginia. Congress authorized the Secretary of the Interior to accept title to the land for Shenandoah National Park once a substantial amount of land had been purchased through state and private efforts. The commission had recommended a park boundary that included 521,000 acres, and the legislation of May 22, 1926, stipulated that approximately one-half or 250,000 acres of the land be acquired by public or private donation before the park could be established. Subsequent legislation reduced the amount of land required for the park's establishment, finally reducing it in 1932 to 160,000 acres. Although the Commonwealth of Virginia presented the deeds to the Department months earlier, it wasn't until December 26, 1935, that Secretary of the Interior Harold L. Ickes accepted title to 176,429 acres thus creating Shenandoah National Park. The park was officially dedicated by President Franklin D. Roosevelt the following summer on July 3, 1936.[97]

The first funds for the Virginia park were raised through private donations by the Shenandoah National Park Association, which under the leadership L. Ferdinand Zerkel of Luray, sponsored a "Buy an Acre" campaign and succeeded in gaining $1,200,000 in pledges by April of 1926. The fund-raising efforts of the private groups

[96] Benton MacKaye, *The New Exploration: A Philosophy of Regional Planning* (Harpers Ferry, West Virginia: Appalachian Trail Conference, and Urbana-Champaign, Illinois: University of Illinois Press, 1990), pp. xxiii and 119.; Lewis Mumford, Introduction to *New Exploration* by Benton MacKaye, p. xiv; Lambert, *Undying Past*, p. 214.

[97] Reed L. Engle, *The Greatest Single Feature...A Sky-Line Drive: 75 Years of a Mountaintop Motorway* (Luray, Vir.: Shenandoah National Park Association, 2006), p. 17-19.

supporting the park and the recommendations of the commission helped persuade Congress and President Calvin Coolidge to authorize the establishment of Shenandoah National Park and Great Smoky Mountains National Park by an act of Congress on May 22, 1926, and Mammoth Cave National Park three days later Figure 1). Uneasy about having a private organization assume the role of raising funds, Harry Flood Byrd, who had become Governor of Virginia in January 1926, gained the support of the Virginia General Assembly to establish the Virginia State Commission on Conservation and Development to promote conservation statewide as an aid to economic development and to organize efforts to acquire the land for the new national park. In February 1928, Gov. Byrd was successful in urging the General Assembly to approve an expenditure of $1,000,000 for land acquisition. William E. Carson, Byrd's former campaign manager and a businessman from Riverton near the northern end of the proposed park, was appointed the commission's chairman.

Carson was an untiring advocate for the Shenandoah park and the construction of a scenic drive along the crest of the Blue Ridge. Carson was successful in March 1928 in getting the Governor and Virginia legislature to authorize procedures for the condemnation of lands and buildings for the purpose of establishing a public park. He was also instrumental in getting Assistant Director Arno Cammerer of the National Park Service to resurvey the proposed boundaries for the park (and decrease the required acreage) when land appraisals indicated higher than expected costs. It was through Carson's success in galvanizing influential support across the state and in Congress that resulted in the funding to begin construction on Skyline Drive.[98]

Knowing that President Hoover was tremendously fond of trout fishing, Carson convinced Hoover in the winter of 1929 to establish a fishing retreat, Rapidan Camp (later called Camp Hoover) on the upper Rapidan River.[99] Aware of the implications for the future of the park if such a road was built, Carson commented to Hoover that a useable road was needed to provide convenient and safe access to Rapidan Camp and to connect it with Skyland. The President reacted favorably to the idea of the road, emphasizing the benefit of such a road to the "traveling public." Although Hoover appears to have originally endorsed the project in early October 1929, the collapse of the American stock market several weeks later intervened and the project was temporarily shelved. Hoover maintained his interest in the proposed park, apparently giving NPS Director Horace Albright special instructions (on various viewpoints and possible uses for the abundance of chestnut wood) while accompanying him on horseback to inspect the proposed park. When Hoover left the White House in early 1933 he transferred his private ownership of the Rapidan property to the U.S. Government.

The onset of the Great Depression coincided with what was considered to be the worst drought in the history of Virginia. The drought led to crop failure in the apple orchards of the Blue Ridge region, greatly hurting the region's farmers and greatly reducing local employment in harvesting and packing. Declining economic conditions in the region spurred Carson to make an appeal for relief funding to get construction started on the road from Thornton Gap to Rapidan Camp. By the autumn of 1930, Carson promoted a plan to accomplish the twin objectives of putting jobless men to work and making the area accessible to the public by building the road. As the economic depression worsened in 1930 and 1931, the prospects of building a ridge road grew in importance as a source of employment for the people of the northern Blue Ridge. Employment was urgently needed, and President Hoover agreed to provide money from drought relief funds to build the road, if Congress approved the measure. U.S. Senator Carter Glass of Virginia, at the urging of Carson and Albright, introduced a bill to make drought relief funds available for building roads in the national parks. Upon passage of the bill, President Hoover immediately allocated money to build the road from Front Royal to Jarman Gap, nearly the

[98] Engle, *A Sky-Line Drive*, pp. 20-24; *Final Report of the Southern Appalachian National Park Commission*, p. 30. It was also under Carson's tenure that Virginia developed a state park system, orchestrated a statewide network of scenic and historical highways, and encouraged the creation of the Colonial Parkway by the National Park Service and Bureau of Public Roads between Jamestown and Yorktown in the Tidewater region.

[99] Ibid., pp. 66-67, 70.

entire length of Shenandoah National Park. This initial allocation of $1,570,479 was subsequently denied, however, when Hoover issued a general order of economy because of the national financial crisis.[100]

Meanwhile, Chairman Carson continued to pressure Senator Glass and federal authorities until he succeeded in obtaining enough money to build a thirty-four mile section of road from Thornton Gap to Swift Run Gap. This was an extension of the originally planned twenty-mile segment connecting Thornton Gap on Lee Highway (VA 211) to Skyland and Rapidan Camp. Local newspaper editors would later urge readers to pressure state and federal authorities to extend the road south to Waynesboro, and north to Front Royal.[101] Finally with appropriations made available for road construction in the national parks by the Emergency Public Works Act, the Bureau of Public Roads (BPR) in cooperation with the National Park Service began the initial work on the Skyline Drive in the summer of 1931.[102]

Later, in the fall of 1932, an additional one million dollars was allocated to extend the road north to Front Royal and south to Jarman Gap. However, when President Franklin D. Roosevelt took office in March 1933, he issued a general order impounding all government funds. One month later, in April 1933, when Roosevelt visited Rapidan Camp, he promised Chairman Carson he would reinstate the funds necessary to build Skyline Drive.[103] Roosevelt's New Deal legislation ensured the completion of Skyline Drive as a joint project of the NPS and the BPR. Skyline Drive became one of the many public works projects carried out in national parks as a result of the National Industrial Recovery Act of May 26, 1933, which earmarked $3.3 billion for public works projects, and the creation of the Public Works Administration (PWA) by executive order on June 16, 1933. Much of the construction of the North and South Districts of Skyline Drive were built with appropriations dedicated, under Title II Public Works and Construction Projects, for building and maintaining highways and parkways.
New Deal programs introduced by President Roosevelt to boost employment in early 1933 provided the impetus for a massive expansion of national park development nationwide, from the construction of roads and administrative facilities to forest preservation, landscape naturalization, roadside cleanup, campground construction, and recreational development. Park development occurred at a rapid pace following master plans that had been developed for each park as a result of the Employment Stabilization Act of 1931. Development throughout the national parks adhered to the principles of scenery preservation, naturalistic landscape design, and rustic park architecture, which had been developed by the Landscape Division (renamed the Branch of Plans and Design in 1933) under Chief Landscape Architect Thomas C. Vint.[104]

From 1933 to 1942 two major sources providing the funding and resources for the development of the national parks, including the authorized but not yet established Shenandoah National Park. First were federal projects funded by emergency appropriations and administered by the Public Works Administration (PWA), which was established by executive order on June 16, 1933, to implement the National Industrial Recovery Act. This program channeled special allotments for capital improvements in the national parks, such as roads and buildings. Second was Emergency Conservation Work (ECW), which was authorized by the Federal Unemployment Relief Act of March 31, 1933, and created the Civilian Conservation Corps (CCC). Under the

[100] Engle, *A Sky-Line Drive*, pp. 28-31; Lambert, *Undying Past*, p. 220.
[101] Simmons, "Shenandoah," p. 78.
[102] Engle, *A Sky-Line Drive*, p. 30; "Shenandoah National Park Project", Zerkel File, File Folder 13010, SHEN Archives; and Barry Mackintosh, *The National Parks: Shaping the System* (Washington, DC: US Department of the Interior, National Park Service, 1991), p.54. According to documents uncovered by Engle, the Skyline Drive project received $250,000 of the $1,500,000 allotted the park service; this was half of the portion given for park roads in Virginia, another $250,000 went toward the first construction on the Colonial Parkway in Tidewater Virginia.
[103] Davidson, "How the Skyline Came to Virginia", Zerkel File, File Folder 13010, SHEN Archives.
[104] For a detailed explanation of the principles and practices of NPS park design and a history of Vint's Landscape Division see McClelland, *Building the National Parks* (Baltimore: The Johns Hopkins University Press, 1998).

first directives the CCC was organized in camps of 200 young men 18 to 24 years old. The Civilian Conservation Corps was envisioned as a body of unemployed and generally unskilled young men, who could be put to work on conservation projects throughout the nation. As the program received reauthorization several times during the Roosevelt administration, the CCC also developed an educational component that included instruction in the basics—reading and writing—and skills that would prepare the young men for future careers. Funds also became available to the National Park Service for the acquisition of land for recreational demonstration areas that were to be constructed by the CCC; the three big eastern parks–Shenandoah, Blue Ridge Parkway, and Acadia—benefited from this program.

The CCC camps assigned to national parks carried out various conservation projects, including forest protection, roadside cleanup, landscape naturalization, trail construction, improvements such as planting and building sidewalks in park villages, planting the slopes of newly constructed roads, and the construction of small park structures such as trail bridges. What became important at places, such as Shenandoah National Park, was not the creation of any one particular building or structure (such projects were generally reserved for skilled contractors, often paid with PWA funds), but rather the less visible tasks that were repeated over and over on each mile of roadway and in one recreational area after the other as the drive took form. Such work erased the scars of construction, reclaimed damaged forests or rock outcroppings, cleared the land of dead timber and construction debris, and provided the small but essential facilities (such as a water fountain, comfort station, or oil shed). Time and ecological process have erased many signs of the human manipulation of the land in the 1930s, and woodlands, road banks, and areas of visitor use landscape, have taken on the illusion that nature here was never disturbed. The many historic photographs of the road construction and the CCC work in progress along Skyline Drive, however, suggest the extent of human effort and attest to the remarkable accomplishment of “the CCC’s” in transforming a landscape that had previously been cut over, cleared, mined, farmed, and marred by road construction into a cohesive natural park environment that has captured the essence of the southern Appalachians. Ongoing historical research and archeology have dispelled many of the myths surrounding the condition of the mountains in the 1920s. Today the view from the drive is interpreted and managed as the result of an intermingling of cultural and natural forces that have shaped the park from its glacial origins to the present day.[105]

Development of the new park, including the road construction by the BPR and the conservation work of the CCC, was placed under James R. Lassiter, the engineer-in-charge of the park project, in 1933. Lassiter would become the park's first superintendent in 1935. The CCC work--ranging from forest protection to trail construction--was directed in the field by skilled technicians, including foresters, landscape foremen, and landscape architects, who were employed by the National Park Service under the funding for Emergency Conservation Work. The CCC camps provided the manpower to improve and beautify Skyline Drive by rounding and flattening the slopes of the drive and planting them with sod and native plants. The CCC also played an important role in developing overlooks and trail crossings, clearing the landscape along the road of dead chestnut, clearing and developing sites for picnic areas, and building comfort stations. From 1933 to 1942 at Shenandoah, the CCC was employed in all aspects of developing the new national park for visitor enjoyment and appreciation; this included constructing miles of recreational trails, improving the Appalachian Trail, dismantling and clearing of former farmsteads, removing dead and decaying chestnut trees to prevent forest fires and restore woodlands to a state of beauty, and constructing administrative facilities such as maintenance shops, and recreational facilities such as cabins and riding stables.[106]

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[105] Reed Engle, ed., *Shenandoah: Managing Cultural Resources in a Natural Park.* Special Issue, *CRM* 21, no.1 (1998). This issue provides an overview of the recent research and management practices in the park.

[106] The most complete account of the CCC work at Shenandoah, with many photographs reproduced from the park archives, can be found in Reed L. Engle, *Everything Was Wonderful.*

From 1933 to 1937, Emergency Conservation Work (ECW) in national parks was carried out by the NPS's Forestry Division with the cooperation of Vint's Branch of Plans and Design. Much CCC work came under the direct supervision of the resident landscape architect for each park, who also supervised the landscape aspects of the contractors' work in building the drive. Other park specialists, such as naturalists and foresters, directed work related to their programs. The CCC technical advisers--architects, landscape architects, and engineers--were directly employed by the National Park Service through ECW funds. The CCC also hired skilled workers called local experienced men or "LEMs," Skilled and knowledgeable about local growing conditions, planting practices, and methods and materials of construction[107]

Skyline Drive, with its recently constructed roadway, provided an excellent proving ground for the kinds of emergency conservation work that the CCC was to carry out in national parks. The first National Park Service CCC camps were established at Skyland (NP-1) and Big Meadows (NP-2) in early May 1933. Additional camps were later established at Bald Face (NP-3), Front Royal (NP-4 & NP-26), Grottoes (NP-5 & NP-27), Sperryville (NP-9), Pinnacles/Sexton Knoll (NP-10), and Piney River (NP-12). With the onset of World War II, the CCC was disbanded in July 1942. During World War II, Shenandoah National Park used Civilian Public Service camps, which employed conscientious objectors, for a variety of work projects --park maintenance, fire fighting, clearing former building sites, and completing some of the roadside plantings in the southern district.

Another source of funding and labor for state and local park development was the Works Progress Administration (WPA). The WPA was established by executive order by President Roosevelt in 1935 and headed by Harry Hopkins until 1939. This program paid wages for skilled labor in a variety of fields, including art, theater, architecture, writing, and engineering. WPA funds helped create reservoirs and lakes for recreation, amphitheaters for public entertainment, lodges in state parks and national forests, murals for public buildings, public highways, and utility systems. Administered through state agencies, the funds were given to local governments and were designed to increase the purchasing power of paid workers on WPA projects and thereby stimulate the economy. In December 1935, the National Park Service began to cooperate with the newly created WPA by assuming responsibility for the technical supervision of the work programs of forty-one WPA work camps operating in state, county, and municipal parks. At Shenandoah the creation of infrastructure at Big Meadows (water and sewer system) was completed by WPA labor and funds.

Mindful of the opportunity for assisting the development of a new national park at the back door of the nation's capital, President Roosevelt took special interest in the work of the CCC at Shenandoah. Throughout the 1930s he strongly urged Congress to reauthorize the Corps and make it a permanent program of the U.S. Government. In August 1933 Roosevelt visited the Shenandoah camps with a delegation of government officials, which included Harold Ickes, the secretary of the interior; Robert Fechner, who headed the CCC program; the secretary of agriculture; and Senator Harry F. Byrd. Here he was depicted in a well-publicized photograph dining in the out-of-doors with the enrollees of the Big Meadows camp. Several years later on July 3, 1936, the President returned to Big Meadows for the nationally-broadcast dedication of the new park and used the occasion to praise the fine work of the Civilian Conservation Corps and emphasize the importance of outdoor recreation to the American public. He commented:

> In almost every other part of the country there is a similar need for recreational area, for parkways, which will give to men and women of moderate means the opportunity, the invigoration, and the luxury of touring and camping amid scenes of great natural beauty....They

[107] McClelland, *Building the National Park,* p. 336-38; *Presenting Nature: The Historic Landscape Design of the National Park Service, 1916 to 1942* (Washington, DC: United States Department of the Interior, National Park Service, 1993), p. 195.

> will forget the rush and the strain of all the other long weeks of the year, and for a short time at least, the days will be good for their souls.[108]

Problems with establishing the park did not end with acquisition of the Blue Ridge tracts. The Commonwealth of Virginia had delivered the deeds to the U.S. Department of the Interior in August of 1934. Because of several court cases challenging Virginia's power of eminent domain, the acceptance of the deeds by the U.S. government was delayed until December 1935 when the U.S. Supreme Court issued its refusal to consider the final appeal of a case brought by Mace, Mace, and Via. By 1935 the federal Resettlement Administration became involved in establishing several resettlement communities for former residents who had been displaced by the park. These communities were collectively called Shenandoah Homesteads and were located at various places along the foot of the Blue Ridge (figure 3), including Ida Valley in Page County; Flint Hill and Washington in Rappahannock County; and Wolftown on the Madison-Greene county line. Not all families were resettled, but some 172 families were moved to new communities. Under an agreement with the NPS, elderly infirm residents were allowed to continue to live on park lands, and Annie Shenk, the last inhabitant to do so, left the park in the early 1970s and died in 1978 at the age of 92.[109]

Expressing Cultural Values: Building Skyline Drive

In his introduction to the recent compilation of the Historic American Engineering Record documentation for national park roads— based on a more than twenty year recording project, historian Timothy Davis wrote:

> America's national park roads and parkways are outstanding design achievements that exemplify the harmonious integration of highway engineering and landscape architecture. The challenge of building roadways through remote and rugged terrain inspired some of the most spectacular feats in the history of American engineering, yet even in the most demanding locations designers went to great lengths to make sure that park roads would "lie lightly on the land," impinging as little as possible on their natural and cultural surroundings. By designing roadways to showcase park scenery and employing graceful curves, naturalistic landscaping, and attractive rustic features, the National Park Service created a world renowned road system that provides access to that America's most treasured scenery while standing as a remarkable social, artistic, and technological achievement in its own right.[110]

Skyline Drive, which had been first mentioned in Temple's report in 1924, materialized and was completed under the administrations of President Herbert Hoover and President Franklin D. Roosevelt. It is one of a number of outstanding park roads built in national parks through the National Park Service's cooperative agreement with the Bureau of Public Roads. The building of the Skyline Drive was a significant event in Depression-era America because it represented the creation of jobs to benefit the region's economy, but it also provided one of the first opportunities to apply the road building techniques and landscaping practices developed for the western national parks to new parks in the East. Western projects included the Yellowstone Grand Loop, the Going to the Sun Highway in Glacier National Park, and the General's Highway in Sequoia National Park. Eastern roads begun in the decade of the 1930s included the Colonial Parkway, Blue Ridge Parkway, Newfound Gap Highway in Great Smoky Mountains National Park, and Skyline Drive. While the

[108] Franklin D. Roosevelt, comments at the Dedication of Shenandoah National Park, 3 July 1936, as quoted in Engle, *A Sky-Line Drive*, p. 15.

[109] Simmons, "Shenandoah," p. 164.

[110] Timothy Davis, "Drawing on the Road," in *America's National Park Roads and Parkways: Drawings from the Historic American Engineering Record*, ed. Timothy Davis, Todd A. Croteau, and Christopher H. Marston (Baltimore: Johns Hopkins University Press, 2004) p. 1.

crest and hollows of the Blue Ridge were accessible by the turnpikes and rough mountain roads at the time the park was authorized, it was Skyline Drive that opened the scenic Blue Ridge to the day visitor and created an unraveling panorama of mountain peaks, distant views, and valley scenery.

Since the establishment of the National Park Service in 1917, Director Mather had promoted the construction of state-of-the-art roads within national parks and, in 1924, Congress began to make annual appropriations for the construction of roads in national parks. In 1926, the National Park Service formed an interbureau agreement with the Bureau of Public Roads (U.S. Department of Agriculture), through which park roads were built according to the most up-to-date engineering and standards of road design. In the late 1920s, the Landscape Division of the National Park Service under Thomas C. Vint, which was located in the Western Field Office in San Francisco, developed a design process and aesthetic standards for the construction of roads, bridges, guardrails, culverts, overlooks, and other road structures that would protect the natural features of the park and harmonize with the native landscape. In 1930, Charles Peterson of the Landscape Division was transferred east to work on the design of Colonial Parkway and establish an eastern office of design at Yorktown, Virginia, which later became the Eastern Division of the Branch of Plans and Design and was moved to Washington. This office was also responsible for the planning and design for Acadia National Park and the new Shenandoah and Great Smoky Mountains parks. The interbureau agreement and the National Park Service design process and standards could be applied to the construction of roads in a "national park project," as an authorized but not yet established national park was called.

The advances made in the design and construction of national park roads under the interbureau agreement in were substantial, leading one historian to describe the 1920s and 1930s as the "golden age" of park road development and remark that this distinction:

> owed much to the skill and determination of the construction forces that labored on them. Most of the primary road work—grading, paving, drainage, and bridge construction--was performed by private contractors whose employees were experienced with specialized construction techniques and the operation of heavy equipment. The invention of dynamite and the advent of gasoline and diesel powered machinery enabled these crews to overcome obstacles that stymied earlier road builders. Paradoxically, more powerful technology enabled the NPS to produce roadways that often seemed to lie more lightly on the land. Large amounts of earth and rock could be moved with relative ease making it possible to create longer more graceful curves and gentler grades.[111]

More than technical achievement, the significance of national park roads extended to the high artistic quality and the unity they forged with the natural environment where they were built. By 1932 the Bureau of Public Roads had already built about 25 million dollars' worth of park roads, and was well-acquainted with the operation of the park service's Landscape Division. That year at the annual conference of national park executives, bureau spokesman Dr. L. I. Hewes called the landscape architects of the National Park Service "pioneers" in road landscape work. He remarked: "When the history of this period is written, we are going to have to admit that the beautification of highways started as an offspring of this marriage of the Bureau of Public Roads and the National Park Service. It is a wonder to me [national park designers] find so many different ways of giving the landscape effect ….The way to landscape a highway hasn't been found and there are no books about it, so this landscape division in the Park Service is doing pioneer work and we are learning with them and perhaps they are learning a little about roads from us." Thirty years later, citing evidence from the 1944 report of the National Interregional Highway Committee (which anticipated what would become the

[111] T. Davis, *America's National Park Roads and Parkways*, p. 11.

Eisenhower System of Interstate Highways in the 1950s), planners Christopher Tunnard and Boris Pushkarev recognized the influence of national park road-building techniques on the design of the modern limited access highway, particularly the flattening and rounding of cut and fill slopes to prevent erosion and blend the road with its setting.[112]

To NPS Director Horace Albright, 1930 marked an important turning point for Vint's landscape division; it was, he stated, "the year in which the fruits of its labor to protect the roadside and the natural landscape generally during road and trail construction became definitely apparent, to the casual visitor as well as to the specialist." On the historical importance of this period, another historian has written:

> The achievements of the road-building program evolved from the technical and aesthetic experiments of the 1920s, the collaboration of the landscape engineers and civil engineers, and the adoption of specific principles of design and practices of construction which emerged from Vint's office in the years from 1928 to 1932. Improvements continued during the 1930s.... Road building in national parks was funded on a scale never before imagined. Through public works allotments and the efforts of the Civilian Conservation Corps, the construction of roads and the finishing of slopes to a naturalized condition created safe, efficient, and naturalistic systems of roads in each park and many monuments. The achievements of the roads program were seen primarily in the parks of the West before 1932. In the 1930s, the focus shifted to the parks of the East, where the park service assumed leadership in the development of scenic and historic parkways, thus realizing portions of Mather's vision for a park-to-park highway system. The early lessons and the advances worked out in the 1920s and 1930s continued to guide park road development. They were inherent in the intent, principles, and philosophy underlying the design standards for modern park roads, which the National Park Service published in 1968. [113]

The commencement of construction on Skyline Drive in summer 1931 was particularly propitious given the advances in park road design and other aspects of park development that had taken place under the Vint's direction in the preceding three years. In 1930 Vint observed that his efforts to balance the needs of public access and landscape preservation by developing specialized road-building techniques were finally in place. These techniques, which soon were adopted by the BPR for road construction in national parks and other public lands, included gentle methods of rock excavation, a naturalistic treatment for the shaping and planting of road embankments, the construction of stone and log guardrails, and the design of standardized culverts, drains, and drop-inlets that blended harmoniously with the natural setting. At the end of 1931, Vint named seven of the first generation park roads that he judged as "outstanding" in their design: the Wawona Road and Tunnel in Yosemite, General's Highway joining the Sequoia and General Grant parks, Rim Drive at Crater Lake, Going-to-the-Sun Highway in Glacier, Trail Ridge Road in Rocky Mountains, Colonial Parkway between Jamestown and Yorktown, and Skyline Drive, on the crest of the Blue Ridge.[114]

As a linear park road and scenic recreational drive, Skyline Drive surpassed all previous park roads in several aspects. First of all, the construction of Skyline Drive preceded the creation of the park by five years, and as such dominated and ultimately determined the visitor's experience. Running the entire length of the proposed

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[112]McClelland, *Building the National Parks*, pp. 232-33. Hewes's comments are from National Park Service, "Minutes of the Twelfth Conference of National Park Executives, Hot Springs National Park, Arkansas, April 3 to 8, 1932." document 65378 (National Park Service, Washington, D.C., mimeo.) 113. The same year he similarly credited the NPS for design innovations in *Civil Engineering* 2 (1932). Christopher Tunnard and Boris Pushkarev, *Man-made America: Chaos or Control*? (New Haven: Yale University Press, 1963), 222.

[113]McClelland, *Building the National Parks*, pp. 232. Albright's quotation comes from the *1930 Annual Report*, pp. 187-88.

[114]Ibid. p. 230.

park, Skyline Drive was designed to present a continuous panorama of scenic views. This was achieved through the selection of a route along the ridge, the presentation of views by vista clearing and the construction of parking overlooks at regular intervals, and advances in spiralizing curves. Extensive clean-up and forest fire prevention was carried out by the CCC along the roadside to remove dead timber left by the chestnut blight that had affected the region in the late 1920s. The planting of native trees, shrubs, and ground covers was carried out on a large scale not only to control erosion on the cut and fill slopes of the drive, but also to erase the evidences of former fields and farms and to beautify the roadside and recreational waysides. The location of parking overlooks was coordinated with access to the long distance Appalachian Trail and spur recreational trails to springs, waterfalls, overlooks, and other scenic features. Recreational waysides providing picnic areas, campgrounds, wayside stations, and overnight areas were provided at convenient intervals for motorists along the drive. Through these measures, Skyline Drive became the backbone of Shenandoah National Park and the principal means through which the park would present the scenic beauty and native character of the central Appalachians to park visitors while preserving the area for the enjoyment of future generations. Skyline Drive utilized and advanced design conventions (such as the scenic overlook and picnic loops) that would shape the national parkway concept that was soon after embodied in the planning and design of the Blue Ridge Parkway, the prototypical national parkway that would eventually connect the Shenandoah and Great Smoky Mountains national parks. Unlike many park roads, the construction of Skyline Drive was fast-tracked and completed in less than a decade.

Before construction began on Skyline Drive, the proposed route was surveyed and flagged. The preliminary survey for the road was conducted under the guidance of NPS Landscape Architect, Charles E. Peterson, head of the Eastern Office of the Landscape Division (later called the Branch of Plans and Design), and engineers of the Bureau of Public Roads William M. Austin and H. J. Spelman. Contractors hired by the Bureau of Public Roads carried out the greater part of the public works construction--including the construction of the road and overlooks, Marys Rock Tunnel, and most of the native stone guardwall--according to detailed plans and specifications prepared by the BPR engineers and NPS landscape architects. In some cases, work was carried out by day-labor hired directly by the United States Government. Local labor was given preference for any construction jobs along the drive under conditions prescribed by the National Industrial Recovery Administration.[115]

The first work began on Skyline Drive in 1931 in the Central District under the supervision of the Bureau of Public Roads and the National Park Service. The Commonwealth of Virginia acquired a 100-foot right-of-way based on the preliminary road survey so that construction could proceed. Work proceeded quickly once construction funds became available. When Peterson's approval of the alignment for the first stretch constructed (between Thornton Gap and Rapidan Camp) was criticized by Gilmore Clarke, who was landscape architect for the park and parkway system in Westchester County, New York, and nation's premier builder of scenic parkways, Peterson responded that, while his hasty approval was dictated by the speed with which construction funds had to be used, the road's alignment conformed to the standards set in the design of western roads, including the General's Highway at Sequoia, on which he personally had worked for BPR chief engineer Austin in 1928 before coming to work for the park service. This meant horizontal curves were laid out in plain circular fashion and the required superelevation or banking built into them. In 1934, however, additional work was completed on the original sections of road to correct several alignment problems, to spiralize all horizontal curves (by then a standard practice for NPS/BPR project), and to provide bituminous surfacing. When the road was completed, the alignment and superelevation of the curves were designed for a maximum speed of 45 miles an hour, and the maximum gradient was 7.8 per cent (which occurred in only a few places). The portion of the central section between Thornton Gap and Hawksbill Gap was opened for several weeks in October and

[115] Engle, *"A Sky-Line Drive,"* pp. 30-33; Davidson, "How the Skyline Came to Virginia."

November 1932, and, on September 15, 1934, the entire 33.9-mile central section between Thornton Gap and Swift Run Gap was completed and opened to the public.[116]

"The Skyline Drive project," according to historical landscape architect Reed Engle, "served as a testing ground for new design concepts and alternative ways of road building….Clearly, the design process of the National Park Service was maturing rapidly and the landscape architects were taking greater charge of the road design process." As the immediacy that marked the first construction faded, landscape architect Roswell Ludgate of Peterson's staff approached Austin to seek agreement on a collaborative process for all future projects on Skyline Drive. Ludgate recommended that the Bureau engineer and the landscape architect work together from the start (including the "flagging out" of the preliminary survey), and that topographic measurements be taken and provided to the landscape architects so that a "spline line" could be projected on construction drawings and so that site plans and drawings for parking areas and other landscape features could be prepared early in the design process and included in the construction contracts. Special design considerations included the flattening and rounding of all earth slopes and the use of double spiral curves in place of the circular ones previously used on the western roads--to render "an easier driving road" and "better landscape effect." Derived from the construction of railroads in the late nineteenth century, the use of spiral curves in tandem with superelevation techniques enabled park road builders to accommodate more even speeds on a narrow right-of-way and compensate for the outward thrust of the moving automobile as it approached a radial curve. According to Engle, "Aesthetically, spiral curves resulted in less abrupt transitions and provided ever-changing views—they allowed roads to conform more gently to the existing topography." The use of transitional spirals greatly enhanced the pleasure of recreational motoring and would become one of the major advances of the NPS roads program of the 1930s, Skyline Drive being the proving ground for what would by the end of the 1930s become the defining character a new form of park, the national parkway.[117]

Construction in the North District followed, and the 32-mile section between Front Royal and Thornton Gap opened to the public on October 1, 1936. BPR contractors had completed all but the hard surfacing of the North District at the time of Shenandoah's dedication by President Roosevelt on July 3, 1936. The 31-mile section in the South District, between Swift Run Gap and Jarman Gap officially opened on August 29, 1939, completing the 97-mile Skyline Drive and making it possible for motorists to drive the entire length of the park from Front Royal to the beginning of the Blue Ridge Parkway, which when completed would connect the Shenandoah and Great Smoky Mountains parks. Soon after Skyline Drive's completion, Resident Landscape Architect Harvey Benson remarked that the drive, best known for its far-reaching views, revealed "innumerable panoramas of lofty peaks, forested ravines, and the patchwork of valley farms."[118]

Austin agreed to Ludgate's proposal concerning the collaboration of the two agencies, and Peterson, seeking even greater control over the design process, expanded the list of Special Provisions that Vint's staff had programmed into the design and construction of national park roads to include items such as the rounding of cut slopes and transplanting of trees and shrubs of value from the right-of-way before construction to other locations or to nurseries maintained by the CCC. The road standards and special provisions came under the oversight of Roland W. Rogers and Lynn Harriss, who were hired as the first resident landscape architects when the Emergency Conservation Work began in the park in May of 1933.

Despite the desire to limit the amount of cut and fill and follow the natural topography as closely as possible,

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[116] Engle, *A Sky-Line Drive*, pp. 57-59; Benson, "The Skyline Drive," pp.4-5.

[117] Engle, *A Sky-Line Drive*, pp. 61-63. It is likely that transitional spirals were already in use on the Westchester County parkways, and became one of the techniques that resulted from Vint's staff exchange.

[118] Heatwole, *Guide to Shenandoah*, p. 42; Benson, "The Skyline Drive," p. 3.

hundreds of thousands of cubic yards of earth and rock had to be excavated to prepare the roadbed, a job requiring 134 pieces of major equipment and eleven blacksmiths to keep everything in good repair. Throughout the construction of the drive, engineers were careful to select the line that presented the best scenery without causing considerable scarring to the mountainside. In some places, this required relocation of the existing Appalachian Trail. Efforts were made to blend the road into the natural environment and protect vegetation and rock outcroppings. Work camps were located within the right of way to minimize the damage to surrounding woodlands and hillsides.

While more than four thousand laborers worked for the BPR contractors that built Skyline Drive, an estimated twelve thousand CCC enrollees worked at Shenandoah during one or more of the 18 six-month periods that the CCC operated between May 1933 and July 1942.[119] The Civilian Conservation Corps (CCC) carried out extensive conservation work along Skyline Drive under the supervision of landscape architects and landscape foreman. The CCC was responsible for clearing the roadside debris to reduce fire hazards and improve visual appearance of woodland devastated by loss of the region's native chestnuts; flattening, rounding, and planting the slopes along Skyline Drive to reduce soil erosion and enhance the scenic character; constructing water fountains at overlooks that connected with nearby natural springs; replanting the clearings that marked former farms or abandoned roads; preparing areas for waysides, picnic areas, and campgrounds; and constructing comfort stations at picnic areas, overlooks, and campgrounds. Nurseries, maintained by the CCC at Big Meadows and near the Front Royal entrance, were essential for the park's extensive program of planting and transplanting, much of which was carried out along Skyline Drive and the adjoining recreational areas. In 1938, Shenandoah National Park was one of five national parks to maintain forest nurseries for the purpose of raising plants for reforestation, landscape planting, erosion control, and replacing trees in and adjacent to campgrounds and other developed areas.[120]

Since its opening, Skyline Drive has been one of the most heavily traveled recreational roads in the nation with approximately 90 million people having used it. In the first five years, visitation to Shenandoah National Park surpassed that of all units of the National Park System, becoming second only to Great Smoky Mountains in 1940. For the year beginning October 1, 1934, 149,408 automobiles and 516,637 visitors came to the park, and the following year, when the park was officially dedicated, the number increased to 203,525 automobiles and 694,098 visitors. More than one million persons came to the park in more than 300,000 vehicles the next year, from October 1, 1936 to September 30, 1937. The following year, when the final section of the road was opened, 911,612 visitors and 270,833 automobiles came to the park. During World War II, traffic on the road declined due to gasoline rationing and rubber conservation measures, but after the war visitation began to increase and steadily rose from a low of 42,084 cars in 1943 to a high of 3,055,000 visitors in 1977.[121] Until park visitation began to decline nationwide in the 1980s, an average of two million people visited Shenandoah National Park annually.[122]

Expressing Cultural Values: The Landscape Design of Skyline Drive

The design significance of Skyline Drive lies in the achievement of an aesthetically pleasing scenic and recreational park road—the first of its kind in the eastern United States, and the creation of a transportation corridor giving access to a splendid national park whose scenic and natural values emerged from practices of

[119] Davidson, "The Skyline Drive and How it Came to Virginia" Zerkel File Folder 13010, SHEN Archives.
[120] McClelland, "Notes on the Landscape Design of Shenandoah National Park," Washington, D.C., 1996 (Typewritten).
[121] Statistics provided by Shenandoah National Park Maintenance Personnel during the summer 1992 field work, updated by Reed Engle in December 2006; Benson, p. 4).
[122] NPS, DSC, *Shenandoah National Park General Management Plan Environmental Assessment*, p. 2.

selecting park boundaries, developing viewpoints and vistas, and reclaiming a natural landscape that had been altered through human use, soil erosion, and the chestnut blight. This achievement resulted from trends in conservation, recreation, landscape architecture, regional planning, and government that coalesced in the early 1930s. Drought-relief funding, PWA funds, and the work of the CCC made this achievement possible, as did the formative experience of the National Park Service in park design, master planning, landscape naturalization, and road and trail construction.

Skyline Drive's design embodies the principles and traditions of naturalistic landscape architecture as exhibited in the park and parkway movement of the early twentieth century. It is also representative of scenic road construction advanced by the National Park Service and Bureau of Public Roads in the United States in the 1920s and 1930s. The road--with its numerous overlooks, graceful curving alignment, and carefully blended cut and fill areas--has high artistic value as a work of naturalistic landscape architecture and as a scenic park road. Wye intersections and loop drives are significant aspects of the design of National Park Service roads in general and were employed in the design of Skyline Drive so that recreational facilities could be safely integrated into the design of the motorway without impeding the flow of traffic and affecting the experience of recreational motoring. As a linear, ridge-top road built through the collaboration of the Bureau of Public Roads and the National Park Service, Skyline Drive made innovations in national park road design, mainly through the creation of numerous scenic overlooks, the coordination of road traffic with recreational trails, and the development of recreational waysides--picnic areas, campgrounds, wayside stations, and overnight concessionaire's facilities--to serve the motoring public.[123]

Several things differentiate Skyline Drive from other national park roads and make it important in the evolution of the recreational and scenic parkway which reached its zenith in the Blue Ridge Parkway. First of all, to an unprecedented extent, the designers selected the location of the road and developed numerous overlooks based on scenic vistas of the ridge and the valley. The interpretation of natural and cultural values through viewpoints along the drive as well as the restoration of woodlands from former clearings, fields, and pasture to a natural mixed hardwood forest figured prominently in the design of the road. Secondly, the road was envisioned as a scenic drive on the crest of the Appalachian Mountains. It was to be the backbone of a natural park and would become an essential link in the park-to-park highway envisioned in the eastern United States to connect the Shenandoah and Great Smoky Mountains parks. The design of Skyline Drive represents the coming together of two strong design influences that coincided with the formation of an eastern office of national park design under Charles Peterson in 1930. These influences were 1) the experience of NPS landscape architects and engineers in building scenic park roads in the natural parks of the West, and 2) the influence of the design of eastern parkways, most notably those of the Westchester County Parks and Parkway Commission under the leadership of Gilmore Clark.

The National Park Service's 1918 Statement of Policy called for the preservation of the natural landscape in national parks and the harmonization of manmade facilities as basic precepts of park design and development. Most significant to the future development of all national parks, including the construction of Skyline Drive, was the clause recognizing the importance of planning, calling for the hiring of landscape architects, and setting forth an ethic of design for national park development:

> In the construction of roads, trails, buildings, and other improvements, particular attention must be devoted always to the harmonizing of these improvements with the landscape. This is a most important item in our program of development and requires the employment of trained engineers who either possess a knowledge of landscape architecture or have proper appreciation of the

[123] McClelland, *Building the National Parks,* pp. 376-78.

> esthetic value of park lands. All improvements will be carried out in accordance with a preconceived plan developed with special reference to the preservation of the landscape, and comprehensive plans for future development of national parks on an adequate scale will be prepared as funds are available for this purpose.[124]

Beginning in 1919, a landscape engineer, later called landscape architect, was directly involved in park planning and setting design standards compatible with the natural setting of each park. By the 1930s, NPS landscape architects and engineers had developed a cohesive style of landscape design that fulfilled the demands for national park development, while at the same time the preserved the natural qualities of the park. This "cohesive style" dictated that all future developments in the national parks be restricted to naturalistic construction and harmonize with the natural landscape. The principles of landscape preservation and harmonization were drawn from the 19th century naturalistic landscape movement, which also influenced the 20th century parkway movement.

Naturalistic landscape design is rooted in the nineteenth century English gardening tradition, which was popularized in the United States by the writings of Andrew Jackson Downing and through the development of urban parks by Frederick Law Olmsted, Sr., and other landscape architects. The principles of naturalistic or informal landscape design were adopted as the fundamental means for blending construction with the natural setting. These principles included the preservation of existing landforms and vegetation, the selection and framing of vistas, the screening of obtrusive elements, the planting of native species, and the use of local native materials and traditional or pioneering methods in constructing structural elements. These design tenets were carried over into the twentieth century through the writings of Henry Hubbard, Frank Waugh, Samuel Parsons, Jr., and O.C. Simonds and appeared on a large scale in the design of state and national parks in the 1920s and 1930s.[125]

One of the first landscape architects to be assigned to work along Skyline Drive was Roland W. Rogers, an experienced landscape architect and former student of Frank A. Waugh, a renowned landscape educator and proponent of the natural style in landscape design. When he arrived on site in spring 1933, Rogers recognized the potential of the drive, which at the time consisted of a 100 foot right-of-way and an unfinished roadbed between Thornton Gap and Big Meadows. He described the road to his professional colleagues, many of whom were out of work due to the worsening Depression:

> Skyline Drive is exceptionally high in scenic value, offering many striking views of neighboring valleys, mountains, and streams, and affording splendid opportunities for picnic grounds, camp sites, and other developments, none of which has been developed yet. When a second section of some thirty miles is added to the north of the present section, and over forty miles is added to the south, the Drive will be one of the most unusual park highways in the country.[126]

Working under Peterson and Lassiter in 1933 and 1934, Rogers and another landscape architect Lynn Harriss worked on designs for retaining walls to stabilize the steep slopes above the portals at Marys Rock Tunnel and site plans for the overlooks at Jewell Hollow and Crescent Rock in the central section of Skyline Drive. They checked the work of the contractors and CCC for compliance with National Park landscape standards, as well as oversaw the relocation of the Appalachian Trail. Early in 1935, Harvey P. Benson became the resident

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[124] *1918 Annual Report*, p. 1075, as quoted in McClelland, *Building the National Parks*, p. 135.

[125] For a detailed account of the origins of the NPS design ethic, see McClelland, *Building the National Parks*, 17-122.

[126] Roland W. Rogers, "Emergency Conservation Work in the National Parks: Shenandoah National Park," *Landscape Architecture* 24, no. 1 (Oct. 1933):33.

landscape architect and was placed in charge of coordinating the park's first master plan and supervising landscape design and construction for the entire park, including work related to both BPR contracts and the CCC. Benson, a graduate of Iowa State's program in landscape architecture (chaired by Philip Elwood, Jr.) had previous experience working with the CCC in Rocky Mountain National Park and Chattanooga Battlefield. The landscape work of each CCC camp was then placed under an assistant or junior landscape architect, who reported to Benson and worked on the master plans and project drawings for his area. Landscape architects and architects working under Benson during the period 1935 to 1942 included Wallace G. Atkinson, G. E. Baughan, Henri Charbanne, Scudder Griffing, George C. Knox, M. J. Orcutt, James K. Somerville, and James T. Swanson.[127]

Park roads were central to carrying out the National Park Service's mission to make the parks accessible to the public. In response to the increasing numbers of visitors coming to the western parks by automobile after World War I, Director Stephen Mather supported the construction of park roads, especially ones such as Going-to-the-Sun Highway in Glacier National Park, which would make remote and spectacular scenery accessible to large numbers of people. Beginning in 1924, Congress began granting appropriations annually for the development of roads and trails in national parks. This was further strengthened when a cooperative agreement between the BPR and the NPS in 1926 began a relationship whereby park designers were responsible for setting aesthetic standards of workmanship, location, and design of roads. Concerned with landscape preservation and harmonization, landscape architects called for practices of clearing, blasting, cut and fill, rounding and flattening slopes, bank-blending, and planting that minimized the impact on the environment. NPS landscape architects called for methods of construction that blended the roads and overlooks with the adjoining landscape by the use of a "rustic" style of architecture and by a naturalistic approach to landscape design.

By the end of 1928, the NPS had developed standardized designs and specifications for the construction of bridges, guardrails, and buildings. These specifications drew on the naturalistic principles to blend manmade structures into the natural environment by using native materials and informal elements of design. The NPS developed and implemented much of this new approach in the construction of roads in western parks. Going-to-the-Sun Road (NHL) in Glacier National Park and the Yakima Park Highway (NHL) in Mount Rainier National Park are representative of the first national park roads constructed under the interbureau agreement; they served as laboratories for the development of landscape sensitive methods of construction, which by 1931 were incorporated in the specifications for all road projects.

Vint's Landscape Division adopted the terms "roadside cleanup" and "landscape naturalization" for the commonplace but important work that greatly improved the appearance of park roads and ultimately achieved the illusion that nature had never been disturbed. Roadside cleanup included restoring natural conditions along highways by clearing dead timber and debris, repairing construction damage, plantings slopes, screening the traces of old roads, clearing vistas, and planting old roadways and borrow pits. Although the cost of such work was originally programmed into construction costs, with the creation of the CCC in 1933, it was broken down into a series of CCC projects that could be completed within a single, six-month enrollment period. Landscape naturalization included: "grading around buildings or elsewhere for better topographical effects; filling and fertilizing of soils; transplanting or planting of trees, shrubs, lawns, and flowers to make artificial work harmonize with its surroundings; erection of outdoor furniture such as stone seats, drinking fountains, flagstone walks, etc.; vista clearing and screen plantings; and the cleanup in areas not included as Roadside Cleanup."[128]

[127]Ibid.

[128]McClelland, *Building the National Parks*, p. 262.; Vint to Resident Landscape Architects, "1930 Field work on Naturalization Data Requested," RG 79, National Archives, Washington, D.C.

The rapid growth of automobile ownership in the twentieth century transformed the American economy, society, and environment. Between 1910, when Ford began producing the Model-T on a massive scale, and 1930, automobile registrations in the United States increased from 458,000 to nearly 22 million. Automobile sales grew astronomically: 2,274,000 cars in 1922, more than 3,000,000 annually from 1923 to 1926, and nearly four and a half million in 1929 before the stock market crashed. According to Federal Highway Administration statistics, 8,000 automobiles were in operation in 1900, one-half a million in 1910, nine-and-a-quarter million in 1920, and nearly 27 million in 1930.[129]

Western park roads built on the road-building techniques introduced by Engineer Hiram Chittenden at Yellowstone in the late nineteenth century and were influenced by the spectacular design of the Columbia River Highway (NHL) designed by Samuel Lancaster for the Oregon Highway Administration beginning about 1915. Inspired by the scenic roads of Europe, Lancaster incorporated sophisticated techniques in engineering and made use of overlooks, bridges, and tunnels to accommodate significant changes in elevation and set the road into the steep and rugged terrain of the natural gorge. The long-distance road immediately caught the attention of NPS Director Stephen Mather, who envisioned a park-to-park highway from Colorado to Washington, and the road soon was designated an important link in the route connecting the Yellowstone and Glacier parks with Mount Rainier and Crater Lake.[130]

Although the original source for the idea of Skyline Drive remains unknown, it is clear that the appointment of Major William Welch of the Palisades Interstate Park to the Southern Appalachian National Park Commission was an influential factor. Welch was a highly esteemed park builder and a regular participant in the National Conference on State Parks, having been involved in the creation of the Palisades Interstate Park (New York and New Jersey) and the development of recreational parks along the Hudson. Welch is best known for his work at Bear Mountain State Park, which included the reforestation of fields, industrial quarries, and other areas of well-used land, and the creation of the Storm King Highway below West Point, which wrapped dramatically around the steep escarpment and provided breath-taking views of the Hudson River scenery. To Welch, the prospect of a skyline drive was a feasible and appropriate solution for opening the Blue Ridge Mountains for public enjoyment. [131]

The origins of parkway development have been traced to landscape architect Frederick Law Olmsted, Sr., who in 1870 coined the term "parkway" to be used to denote roadways that were simply wider and more richly furnished than ordinary streets. Olmsted and Calvert Vaux introduced the idea of wide boulevards to connect city parks and open spaces in their proposals for Prospect Park in Brooklyn. In their "Preliminary Report to the Commissioners for Laying out a Park in Brooklyn, New York" the two men suggested the creation of a "shaded pleasure drive" running from the park to the ocean and the East River. In the same year Olmsted designed a boulevard in Brooklyn which he termed the Jamaica Parkway (now Eastern Parkway). In 1870 Olmsted and Vaux also proposed parkways for two other cities, Buffalo and Chicago. In addition, the parkway concept was adopted by other designers in other cities, for example by H.W.S. Cleveland in Minneapolis. The early parkways were broad tree-lined streets leading to parks and they could be straight and formal, or winding and picturesque, depending on the amount of space available.[132]

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[129] Joel A. Tarr and Josef W. Konvitz, "Patterns in the Development of Urban Infrastructure," in *American Urbanism*, ed. Howard Gillette Jr. and Zane L. Miller (Westport, Conn: Greenwood Press, 1987), p. 210; Mel Scott, ..., p. 186. Federal Highway Administration, *Highway Statistics: Summary to 1985*, as quoted in Paul L. Knox, *Urbanization* (Englewood Cliffs, N.J.: Prentice Hall, 1994), p. 107.

[130] McClelland, *Building the National Parks*, p. 131.

[131] Ibid., 56-57.

[132] Norman Newton, *Design on the Land: The Development of Landscape Architecture* (Cambridge: Harvard University Press, 1971), pp. 596-67.

The completion of New York's Bronx River Parkway following World War I marked the beginning of the modern parkway era. The term "parkway" now denoted a strip of land dedicated to recreation and the movement of passenger automobiles. Also, the parkway was not itself a road; it was supposed to contain a "roadway." The parkway also was to differ markedly from that of an ordinary highway in that it was meant for comfortable driving in pleasant surroundings, not merely for getting from one place to another. With these characteristics in mind, the parkway movement gained momentum in the first four decades of the twentieth century. Completed in 1923, the Bronx River Parkway, is generally regarded as the first "true" parkway in the United States. Designed by landscape architect Hermann Merkel and built under the direction of engineer Jay Downer and landscape construction supervisor Gilmore Clarke, the construction of the Bronx River Parkway produced important innovations in road design. The parkway road had four ten-foot wide lanes of concrete. In addition, it had a curvilinear alignment following the river, which was designed to allow speeds of 35 miles per hour. The most important features were the limitations placed on access to the road. The roadway was separated from adjacent properties by park land, and intersecting roads were carried over the parkway on grade separations or bridges. Enthusiasm for parkways led to the establishment in 1922 of the Westchester County Park Commission, which had the authority to acquire lands for parks and parkways. Over the next ten years the Commission built over a dozen parks and a system of interconnecting parkways.[133]

The Westchester system strongly influenced the design of all subsequent parkways. Within the NPS, the influence was strong particularly in Peterson's Yorktown office, where designs for the Colonial Parkway from Yorktown to Jamestown were underway. In the winter of 1930-31, NPS exchanged staff with Westchester County personnel. Landscape architects John Wosky and Kenneth McCarter spent several months studying the county's methods of highway design (McCarter would become the regional landscape architect for the Eastern office and Benson’s superviser when the NPS was reorganized and decentralized in the late 1930s). The Westchester design influence is noticeable in the parkways around the nation's capital at Washington, D.C., especially the Mount Vernon Memorial Highway along the Potomac River in Virginia, which had been commissioned in 1928 and built in some haste to be opened in time for the 200th anniversary of the birth of George Washington. The 14.6-mile long road extended from Mount Vernon to the Arlington Memorial Bridge, and became part of the George Washington Memorial Parkway project in 1930. Furthermore, Gilmore Clarke, as the landscape member of the National Commission on Fine Arts, would influence the design of NPS parkways and scenic highways in the 1930s.[134]

In Skyline Drive's design, one finds all of the elements of the naturalistic landscaping tradition tempered by the influences of the parkway movement and national park design. A simple ribbon of pavement without a central median, Skyline Drive was designed for pleasure-driving at reasonable speeds to present scenic views of the mountaintops, the Shenandoah Valley, and the Piedmont Plateau. It was designed to run alongside the Appalachian Trail (which it in many places displaced) providing access at many points to the long-distance trail as well as many spur trails leading to mountain peaks, waterfalls, hollows, and outstanding geological features and groves of trees. The Skyline Drive was closely fitted to the natural topography of the land and every effort was made to minimize the destruction of the natural rock outcroppings and vegetation and to blend the manmade features of the road with the natural surroundings. In keeping with the concerns for the preservation of natural character, the engineers and landscape architects assured that existing trees were protected, transplanted, cleared, or reintroduced to create the natural scene, to open up vistas, to screen facilities, and to blend construction with the mountainous setting of Shenandoah National Park. While pockets of forest remained along the right-of-way of the drive, mostly in the South District, much of the old growth forest had

[133] Newton, *Design on the Land*, pp. 597-605.
[134] McClelland, *Building the National Parks*, pp. 228-229.

been either cleared for grazing or timber. Others had been destroyed by the chestnut blight that swept through the area in the 1920s. In order to restore the landscape surrounding the Skyline Drive, the designers, drawing on the naturalistic gardening tradition, used only trees and shrubs of native species. By using indigenous materials the designers were able to knit the many parts of the road into one cohesive unit. Native trees and shrubs were placed to look as if they had naturally grown in the wild. Where stone walls were required indigenous materials were used quarried from cuts along the road or from carefully selected sites out of view from the drive.

The most distinctive aspect of the design of Skyline Drive was the development of scenic overlooks and parking pull-offs at frequent intervals, and recreational waysides including picnic areas, campgrounds, wayside stations, and overnight areas. The design and development of these components provided opportunities for landscape naturalization and naturalistic gardening that utilized inherent scenic features and natural resources, such as valley vistas, picturesque rock outcroppings, and native vegetation.

Overlooks were developed by utilizing the scenic views of ridges, peaks, hollows, and the patchwork of valley farms, distinctive rock forms and outcroppings of the Blue Ridge, and the palette of native trees, shrubs, and ground covers, many having popular appeal for their seasonal flowering or autumn foliage. Parking overlooks reflected the increasing influence of motoring as a form of outdoor recreation and the designer's response to presenting motorists with a sequence of ridgetop and valley views and drawing them out of their automobiles to take in the full panorama or to engage in a short hike to an even more spectacular viewpoint. Overlooks were selected and developed as points of access to natural rock outcroppings and nearby natural features or to connect with trails and have features such as curving stairways of local lichen-covered stones. Many overlooks had dry-laid stone retaining walls that created a terrace for viewing the scenery and parking automobiles. Others were built upon flattened and rounded slopes that blended into the surrounding woodland. Sidewalks and curbs were an integral part of the construction of the parking overlooks and usually separated the parking areas from the protective stone guard walls.[135]

In the late 1920s, the designers of the western parks worked out the technical and aesthetic problems of building parking overlooks to present grandiose views such as the Cascade Range from Oregon to Canada at Sunrise Loop in Mount Rainier and the spectacular view over Yosemite Valley from the end of the Wawona Tunnel. At Shenandoah, however, it was the unravelling panorama of the Blue Ridge Mountains, the Shenandoah Valley and the Piedmont Plateau that became the leading factor in the design of the drive and the planning of the park. At numerous places along the drive, road widenings and parking overlooks were constructed to give the motorist an opportunity to stop, enjoy scenic vistas, and, in many cases, hike along the Appalachian Trail or follow spur trails to scenic features, water falls, and springs. The designers of Skyline Drive provided motorists with a sequence of less-dramatic but more frequent views. The overlooks became extensions of the road itself, situated and designed to lead motorists off the main roadway with the expectation of yet another view of the spectacular scenery. At the same time such overlooks could provide interpretive signs, fountains with water piped in from nearby springs, and the occasional comfort station. By the end of 1939, sixty-seven parking overlooks had been built at various points along the drive, offering a total parking capacity of 1,800 cars.[136]

The automobile changed the way visitors used the national parks, allowing them to travel greater distances and to move through the landscape at greater speeds. New emphasis was placed on the scene from the road and the need for parking. Park plans were to have accommodations in the form of roadways with guardwalls, filling stations, sidewalks for pedestrians, sources of water, and ample parking areas, but they also needed to consider traffic safety and other problems caused by automobiles. The damage of the automobile on nearby trees and

[135] McClelland, *Building the National Parks*, p. 361.
[136] Benson, The Skyline Drive, p. 6. Engle, *A Sky-Line Drive*, 93.

vegetation was studied by U.S. Forest Service plant pathologist E. P. Meinecke in the Giant Forest at Sequoia, and became the leading factor in the design and redesign of campgrounds, picnic areas, and other areas where parking was essential. While Meinecke applied his findings to the design and rehabilitation of forest and park campgrounds, NPS's Landscape Division immediately began to explore new campground designs for automobiles with trailers and to incorporate guardwalls, sidewalks and paths, and curbs in their design of overlooks and one-way loop roads and parking spurs in the design of recreational areas. Such improvements – evident throughout Skyline Drive and Shenandoah National Park —offered the multiple advantages of separating pedestrians from automobile traffic, facilitating a smooth flow of traffic, and confining automobiles to paved or prepared surfaces. [137]

Overlooks, such as Jewell Hollow, Crescent Rock, Hogback Mountain, and Hazel Mountain, featured unique designs based on the natural topography and developed the scenic potential of spectacular vistas, natural topography, and the region's dramatic geological features. These were among the earliest parking overlooks constructed in the central and northern districts. Supported by a massive retaining wall of native stone and providing a broad outlook of the Shenandoah Valley, Jewell Hollow Overlook provided paths that connected the parking lot with the Appalachian Trail and nearby outcroppings that provided scenic views. The Crescent Rock Overlook was first surveyed by Engineer in Charge, James Lassiter, in February 1933, and laid out by Rogers in 1934, utilizing the site's contours, rock formations, and also many of the existing trees recorded on Lassiter's topographic map. The outer edge of the overlook was a terrace created by a massive dry-laid retaining wall surmounted by a rustic stone guardwall. Crescent Rock, the overlook's primary feature, was reached by a short footpath from the parking area. Because the site had historically attracted large numbers of people, several designs were made for a multi-tiered parking lot with one way roads and tiers separated by islands of natural vegetation. Stony Man Overlook was built in two sections and included a comfort station (one of the few built of native stonemasonry), a water fountain, and parking for several dozen cars. Hogback Overlook, which more closely resembles a road widening than a scenic pull-off, was notable for its great length, spectacular panoramic view of the Shenandoah Valley, and the rugged rock outcropping around which the road wrapped in an elegant circular arc.

The natural outcrops of rock with their inherent picturesque character, which characterized the rugged terrain of the Blue Ridge, were accentuated wherever possible. Hazel Mountain Overlook (1935) on the eastern side of the ridge was developed at the site of a picturesque outcropping of granodiorite having a dramatic pattern of jointing. Soil was removed from the base of the outcropping and additional stones were embedded into the site to exaggerate its inherent picturesque character. Curvilinear stone walls sprang from each side of the outcrop to provide a barrier for cars and a guardrail for visitors. Stone steps were built by the CCC to the summit of the outcropping where one could view the dark hollows and farmlands below. The parking area was separated from the drive by an island, edged in stone and densely planted with native pines, oaks, and an understory of mountain laurel (*Kalmia latifolia*) to screen the sight and noise of traffic on the drive and to blend the overlook with the natural slopes beyond the drive. Hazel Mountain (Figure 6) was one of several overlooks where, under the direction of the resident landscape architect, the CCC installed pipes from a nearby spring to create a build a water fountain into the stone wall as a source of water for travelers as well as automobiles.

By the time construction in the north and south districts began, the landscape architects were providing the Bureau of Public Roads with designs for overlooks to be constructed at the same time as the adjoining roadway. The planting of the overlooks was still carried out by CCC, but the guardwall, retaining walls, and terraced areas of fill were all constructed by skilled contractors, through PWA allotments. This led to the adoption of several standard designs and an almost formulaic approach to their placement along the drive, as observed at

[137] For further discussion of Meinecke's findings, see McClelland, *Building the National Parks*, pp. 276-85.

places such as Moorman's River Overlook. The parking overlooks remain an important part of the experience imparted by Skyline Drive. Engle has written: "After almost eight decades the overlooks along Skyline Drive are seen as an integral part of the roadway. The vistas, traffic patterns, and visitation have changed. As vegetation has matured and returned, the views no longer encourage visitors to stop at the overlooks; rather overlooks encourage travelers to stop for the views."[138]

The Master Plan and Recreational Facilities

Through the planning process for Shenandoah National Park, which resulted in the first formal master plan in 1935, Skyline Drive became the backbone of the new park. Not only was it the park's principal and predominant thoroughfare, but it furthermore became the central means for carrying out the central mission of the park--to preserve and protect the characteristic scenery and natural features of the Blue Ridge Mountains for the enjoyment of the general public and for future generations. To most visitors the drive was the park.

Recognizing the inseparability of park road and park, historian Timothy Davis has written that Skyline Drive –

> ...exemplified the Park Service's determination to bring the national park experience within easy reach of eastern motorists. ...The winding ridgetop route provided the same sorts of scenic views and rustic features that western tourists had grown to associate with the national park experience. Skyline Drive also epitomized the manner in which a park's road could become synonymous with the park itself. While Shenandoah National Park encompassed almost 200,000 acres of mountainous terrain, most visitors' perceptions were limited to the narrow corridor surrounding the ... scenic drive.[139]

By 1933, master plans had evolved into the six-year "master plan" where park improvement projects were systematically phased over a six-year period. All aspects of park design were coordinated through the master plan. During the New Deal, park planners revised the master plans annually, to keep pace with the rapid progress made possible through the extensive public works funding and the work of the CCC.[140]

Substantial progress was made on the master plan for Shenandoah National Park in 1935. The master plan identified Skyline Drive as the central corridor through which visitors could enjoy the park's recreational and scenic resources. The master plans, which were updated annually in the late 1930s, also identified the system of trails, picnic grounds, wayside stations, developed areas providing overnight accommodations and other visitor services, minor administrative roads, and even the resettlement communities established outside the park. The earliest plan called for the development of the park headquarters along Skyline Drive just north of Thornton Gap. In the late 1930s, however, the headquarters--including an administration building, staff housing, and maintenance facilities--was built west of the park boundaries along Route 211 near Luray. The change in location reflects a park-service wide trend by the late 1930s to locate park headquarters at the edge of parks instead of upland sites where access was limited and weather could be harsh.[141]

Through an agreement with Virginia Sky-line Company, Inc., of Richmond in 1937, concessionaire-provided services were developed at convenient intervals along the drive. Overnight facilities, including lodges and cabins, and dining rooms were planned for Skyland, the resort formerly owned by George Freeman Pollock, and

[138] Engle, *A Sky-Line Drive*, p. 93.
[139] T. Davis, *America's National Park Roads and Parkways*, p. 9.
[140] McClelland, *Building the National Parks*, pp. 304-05.
[141] PWA funds were used for the construction of the stately administration building fashioned of local sandstone with interior chestnut paneling and woodwork and reminiscent of building styles drawn from the region's cultural heritage. Although not included in the Skyline Drive Historic District, it remains one of the finest examples of Park architecture in the eastern United States.

at new sites at Big Meadows, Dickey Ridge, and Lewis Mountain. Wayside stations, having a cafeteria, store, service station, and restrooms, were established off the drive at Elkwallow and Big Meadows. The concessionaire hired Marcellus Wright, Jr., a Richmond architect to design their facilities, which used native materials (stone and chestnut) and followed principles of rustic park architecture promoted by the National Park Service. The development of the concessionaire's facilities was coordinated with the National Park Service, accommodated in the park's master plan, and received the technical assistance from the park service engineers and landscape architects. WPA labor was used for the development of the utilities--electricity and water--at Big Meadows and Dickey Ridge. The Civilian Conservation Corps also assisted the development of these areas by constructing roads, paths, and parking lots and planting shrubs and trees.[142]

While redefining the meaning of outdoor recreation to include recreational motoring, Skyline Drive provided easy access to the long-distance Appalachian Trail and recreational areas--overlooks, picnic areas, trails, and campgrounds--where the scenic resources of the Blue Ridge could be appreciated and enjoyed. Except for U.S. Highway 211 through Thornton Gap and U.S. Highway 33 through Swift Run Gap, which were developed by the Virginia Department of Transportation as scenic approach roads, the drive was closed in 1939 to all cross-ridge traffic, thereby allowing uninterrupted travel through the park. While this strengthened the park's identity as a self-contained park, it also conformed to the parkway concept of providing limited and controlled access to facilities along the roadway.

As recreational motoring gained in popularity in the 1930s, park service designers explored the development of recreational waysides to provide services and amenities along park roads and facilities for camping and picnicking. The idea for recreational waysides was not a new one. Jens Jensen had introduced the idea of waysides at periodic intervals along the Lincoln Highway to provide picnic areas and campgrounds. Small recreational areas as well as filling stations and lunch counters had been integrated into the design of the Westchester County parkways under the direction of Gilmore Clarke, and the design of the Columbia River Highway by Samuel Lancaster of the Oregon Highway Department in the 1910s had been coordinated with the recreational facilities of adjoining national forests. What was new, however, was the coordination of such facilities in the master plan for the new national park and the use of federal relief programs to create model facilities for outdoor recreation that were well-adapted to the needs of the motoring public, including picnic areas, and overnight campgrounds.

At Shenandoah these facilities were developed in response to the increasing use of parks by motorists and as part of the New Deal agenda to expand opportunities for public recreation by providing model facilities for hiking, horseback riding, picnicking, and camping. The recreational waysides were placed at regular intervals along the drive and were well integrated into the design of the drive. Spur roads to recreational waysides intersected at angles with the main drive, often in the form of "wye" intersections having islands with rockwork, plantings, and signs. Recreational waysides often provided access along foot trails to scenic viewpoints, picturesque waterfalls, or groves of aged hemlocks, thus adding to the recreational program of the park road. These areas have artistic value for their naturalistic design and associative value as the work of the CCC and the Works Progress Administration, which was created in 1935 and administered through state agencies, to provide employment for skilled and unskilled workers in local public works projects.

The wayside stations developed by the Virginia Sky-line Company, Inc. at Elkwallow (North District) and Big Meadows (Central District), provided a gasoline station, lunchroom, and camp store run by the concessionaire. These facilities reflected the new emphasis placed on recreational motoring and were conveniently located along the drive, often adjoining NPS-managed picnic grounds and campgrounds equipped with tables, water,

[142]Benson, "The Skyline Drive," pp. 8-9.

and comfort facilities. These functioned similarly to the preexisting lunch rooms and gasoline stations at Thornton Gap (Panorama) and Swift Run Gap, which were removed in the 1960s and 1970s. The wayside for the South District was not completed before World War II intervened and progress on the park's master plan halted. Funds finally became available in the 1960s and the wayside at Loft Mountain was built in a modernist design reflective of the Mission 66 program. At the same time new facilities were also constructed at Panorama.

Picnic grounds were built at convenient intervals along the drive--Dickey Ridge, Elkwallow, Pinnacles (formerly Sexton Knoll), Big Meadows, Lewis Mountain, and South River--allowing visitors to experience the natural surroundings of the Shenandoah National Park. The picnic grounds at Big Meadows, Dickey Ridge, Elkwallow, and Lewis Mountain were part of larger developed areas that included other facilities, including campgrounds, wayside stations, and overnight accommodations. The first picnic grounds were constructed at Pinnacles (formerly Sexton Knoll) in the Central District by the CCC and first opened to the public in 1935. The picnic grounds were located off the drive along a loop road. Carefully designed wye intersections allowed traffic to safely move on and off the drive causing little interruption to the flow of traffic on the drive. The grounds were equipped with parking areas, parking barriers, footpaths, picnic sites with tables and fireplaces, rustic stone stairways, water fountains fashioned from boulders or chestnut logs, paths to nearby trails, comfort stations, and a large picnic shelter with a central hearth and chimney. Footpaths were constructed to bring visitors from the parking areas on either side of the loop drive to the scenic rock formations, commonly called the Pinnacles, where spectacular views could be enjoyed, and to connect the picnic grounds with the Appalachian Trail. A similar plan was used for the picnic grounds built later at Dickey Ridge, Elkwallow, Lewis Mountain, Big Meadow, and South River; each, however, was tailored to fit the site's topography and vegetation. The loop roads at the Elkwallow and South River picnic grounds were designed to encircle picturesque knolls. At Elkwallow the CCC built a particularly picturesque system of curving paths and rustic stone stairways. At Dickey Ridge, the CCC created an informal rock garden with moss and lichen-covered rocks, gathered perhaps as old stone walls were dismantled nearby. The picnic grounds contained CCC-built water fountains made of boulders and chestnut logs. Comfort stations had logs or slab siding made from chestnut, concrete foundations veneered with stone-masonry, and roofing of chestnut shakes or cement shingles that were designed to attract lichens and moss and to give a slate-like appearance and naturalistic quality.

Dickey Ridge, Skyland, Big Meadows, and Lewis Mountain all provided overnight accommodations. The first campground along Skyline Drive opened in 1937 at Big Meadows and soon after another opened at Lewis Mountain. They were designed according to the Meinecke system of campground planning and adhered to the latest designs of the Branch of Plans and Design for combined automobile and trailer camping. The Meinecke plan called for a circulation system of one-way loop roads and individual campsites each having a parking spur defined by boulder or frame barriers, a tent clearing, fireplace, table, and vegetative screening. To accommodate the increasing popularity of trailer camping, the Shenandoah campgrounds provided elongated, drive-through parking spurs so that cars hauling trailers could drive off and on the road without having to back up. Two additional campgrounds have been built at Matthews Arm in the North District and Loft Mountain in the South District.

Skyline Drive and the developed areas of Shenandoah National Park contain a number of significant examples of park architecture. The comfort stations found in picnic grounds and campgrounds represent the standard utilitarian design rendered in native chestnut timbers and stone veneered foundations and constructed by the Civilian Conservation Corps. Chestnut wood usable for construction was salvaged from the debris gathered by the CCC during the cleanup of forests and roadside and was used for wooden guardrails (no longer surviving) and many of the concessionaire's and government buildings in the park. The comfort stations, along with rustic boulder fountains, stone stairways and steps, and fireplaces, remain today to illustrate the designs of park

service landscape architects and demonstrate the workmanship of the Civilian Conservation Corps. For many years the entrance station at Rockfish Gap was the only surviving example of the original entrance stations built in the 1930s. (Because of its seriously deteriorated condition and altered character, it will soon be removed in accordance with a recent agreement with the Advisory Council on Historic Preservation).

Today the Big Meadows Lodge (1939) and Dickey Ridge Lodge (1938), designed by Marcellus Wright, Jr., for the Virginia Sky-line Company, Inc., are among the finest examples of rustic "parkitecture" in the national parks of the eastern United States. The wayside stations at Big Meadows and Elkwallow, the concessionaire's building at Lewis Mountain, and the many cabins at Big Meadows, Lewis Mountain, and Skyland (some of which were originally located at Dickey Ridge) add to the full complement of structures designed by Wright to serve the needs and comforts of the traveling public in keeping with the principles and practices of National Park Service rustic architecture.[143]

Skyland figured importantly in the creation of Shenandoah National Park and the construction of Skyline Drive. Not only did Skyland provide the setting for the visit of the Southern Appalachian National Park Commission and other meetings that resulted in the founding of the park, but perched on a west-facing slope of the Blue Ridge Mountains, is a strongly evocative example of a late nineteenth- and early twentieth-century, middle-class destination that was transformed into an overnight area for visitors to Shenandoah National Park. Some of the original cabins were the site of important meetings that figured importantly in the planning and early history of the national park. Furthermore, Skyland was owned and operated by Freeman Pollock, who was one of the park's most voracious advocates and who along with other property owners on the Blue Ridge was forced to relinquish his property to the park.

Skyland is an interesting and complex collection of rustic park architecture, reflecting examples of cabins and mountain homes dating from its initial establishment as a private resort camp in the late 1880s and through its adaptation by the CCC to an overnight resort within the newly formed Shenandoah National Park in the 1930s, when its management was assumed by a park concessionaire, the Virginia Sky-Line Company, Inc. It provides an interesting portrayal of the transition from early-rustic camps inspired by the Great Camps of the Adirondacks of the late nineteenth century and the evolution of National Park Service concepts of naturalistic and rustic design. Existing features of Pollock's resort were incorporated into the design of the overnight area of the park during the 1930s, first as a result of the work of the CCC Camp which remodeled many cabins to better fit the functional needs of automobile touring in the 1930s and conform to the park service's principles of naturalistic and rustic design. Finally, during the CCC-era, the Skyland complex was landscaped and its infrastructure was augmented using labor provided by the Civilian Conservation Corps. Additional cabins were moved from Dickey Ridge in 1951.

Big Meadows and Lewis Mountain development areas took form in the late 1930s for the purpose of providing various forms of overnight accommodations. Big Meadows was the most ambitious of the development areas planned for Skyline Drive and attracted the most visitors. Spread out over many acres extending as much as a mile from Skyline Drive, it provided a wayside like that at Elkwallow, a campground (originally built for automobiles with trailers) and picnic area, and a mountainside lodge complex (with a lodge and cabins). It also functioned as a large administrative area providing a ranger station and maintenance complex. The various components of the development area were separated and screened from each other in keeping with their respective functions. All construction during the period of significance reflected the rustic architectural

[143] For a discussion of the significant aspects of park rustic architecture see, McClelland, *Building the National Parks*, pp, 147-55, 242-55, and 425-42; Laura Soulliere Harrison, *Architecture in the Parks National Historic Landmark Theme Study (*Washington, D.C.: National Park Service, November 1986).

principles and materials that were promoted by the Landscape Division and had appeared elsewhere along the drive. The water and sewer system for the Big Meadows area was constructed as a Works Progress Administration (WPA) project.

The tangible resources and the background history of the Lewis Mountain development area enriches our understanding of the social history of the period in which Skyline Drive was created. After the drive was opened and visitors began flocking to the park in large numbers, it became apparent that Virginia law required for separate facilities to accommodate the park's African-American visitors. This situation raised a number of issues, especially in regards to the concessionaire's agreement. The picnic grounds at Sexton Knoll (now Pinnacles) had always been open to all park visitors. In 1937 planning began on an overnight complex exclusively for African-Americans that would provide a lodge, cabins, and campground for overnight visitors and a picnic area for day-use. After World War II when the concessionaire's facilities reopened (the lodges, etc. closed during the war), all the park facilities were desegregated.

The Idea of a National Parkway

Landscape historian and former NPS designer Norman Newton credited President Hoover and Arno Cammerer in their support for the building of Skyline Drive with initiating the "parkway notion" that led several years later to the development of the Blue Ridge and Natchez Trace Parkways. Addressing the expansion of the national park idea to new kinds of parks in the mid-twentieth century, a Conservation Foundation report in 1985 reiterated similarly credited the pivotal role of the drive in the evolution of national park roads and parkways, stating: "High in the mountains, Skyline Drive gave the conceptual model for the more ambitious Blue Ridge Parkway."[144]

Many other sites along the Blue Ridge between Waynesboro, Virginia, and Cherokee, North Carolina, on the eastern slope of the Great Smokies were visited by the Southern Appalachian Park Committee in 1924. It is interesting to note, however, that while local supporters in these places lost their bids for a national park, unknowingly they planted the idea in the minds of park planners and government officials for a new kind of park called "the national parkway." that would continue beyond Shenandoah National Park and would link such sites together to form the Blue Ridge Parkway, a 500-mile parkway connecting the Shenandoah and Great Smoky Mountain parks, which was proposed in August and September 1933.

A precursor to the national parkway concept, Shenandoah's Skyline Drive remains one of the finest park roads in the National park System. It was envisioned from the beginning as an integral part of the development of Shenandoah National Park and became, for the automobile and the motoring public, the backbone of the new and developing park. It was developed with full coordination of outdoor recreational resources--hiking trails, connections to the long distance Appalachian Trail that similarly functioned as the linear backbone of the park for visitors on foot or horseback. It, furthermore, embodies the synthesis of outdoor recreation and conservation based on reclamation that was the hallmark of public policy in the 1930s. Unlike the Blue Ridge Parkway, which relied on the purchase of easements as an alternative to land acquisition, and that took more than five decades to complete, Skyline Drive was completed within a ten-year period and represents in its entirety, with little alterations or additions, the prevailing ideas about conservation and outdoor recreation of the 1920s and 1930s and the remarkable efforts of the Commonwealth of Virginia and the federal government to create a national park in the eastern United States.

[144] Newton, *Design on the Land*, pp. 541-42; *National Parks for a New Generation* (Washington, DC: Conservation Foundation, 1985), p. 56.

Fulfilling Director Stephen Mather's early vision, Skyline Drive became an essential link in an eastern national park-to-park highway (Figure 2) agreed upon in a conference at Washington, D.C. in April 1931.[145] The park-to-park system was envisioned as a continuous network of state and federal-aid highways, parkways, and park roads connecting the three new national parks in the southern Appalachians with the memorials of the nation's capital and a growing number of state parks, federally-administered historic areas (battlefields), and other historical and natural attractions in the Southeast. Responding to the increasing popularity of recreational motoring, the park-to-park highway idea coincided with the origins of state park systems and heritage tourism in Virginia, Tennessee and Kentucky. The network consisted of highways such as Virginia's Lee Highway (which connected the nation's capitol with Skyline Drive at Thornton Gap) and federal-aid highways such as U.S. Route 60 (which carried travelers from Yorktown, Jamestown, and Williamsburg, in Tidewater Virginia west through the Appalachians into West Virginia and Kentucky). One route followed modern-day highways through Cumberland Gap and into Kentucky alongside traces of Daniel Boone's Wilderness Road, and another led travelers from Louisville, Kentucky, south past the Lincoln Boyhood Home to Mammoth Caves National Park. Still others extended southward towards Great Smoky Mountains running parallel to the Appalachian chain and connecting with tourist destinations such as Blowing Rock, North Carolina, or Mt. Mitchell State Park.

The movement for expanding the nation's recreational resources that began in efforts such as the creation of Shenandoah National Park extended, through the leadership of the National Park Service, to the recreational development of state and local parks through the Emergency Conservation Work (CCC), the recreational demonstration areas--many of which were later transferred to state governments, and the Park, Parkway and Recreational Area Study Act of 1936, whereby the idea of regional planning of federal, state, and local assets for recreation and conservation purposes gained a firm foothold. Many of the region's new state parks and recreational areas were conveniently located along many of the routes that made up the park-to park network; these included Douthat and Hungry Mother State Parks and the U.S. Forest Service's Sherando Lake Recreation Area in Virginia; Watoga and Hawks Nest State Parks in West Virginia; Pickett Rustic State Park and TVA's Norris Lake in Tennessee, and Cumberland Falls State Park in Kentucky.

Perhaps the special appeal of the completed drive, as well as a lingering sense of nineteenth-century romanticism, was best conveyed by one White House press official in 1941—just a decade after construction began :

> Ninety miles of splendidly built highway curving easily along the crest of the range. In that 90 miles the motoring mountaineer can find the things a motorist must have. Camps; charming restaurants; picnic grounds; gas stations. But not one too many, thank our stars. The Skyline Drive runs straight down the line; and out of 940,000 visitors to the park only a small percentage leave the concrete. Only a few camp on the mountain side; but those who stop and begin to delve into the wilderness features will find endless opportunities for exploration in mountain places…. I suppose the great sentinel who watches out from the ridge is Stony Man; a rock profile which has seen many millions of years go by in the valley below. He is the old man of the mountains now visited by hundreds of thousands of visitors to Skyland….As you look up at the old stone face from the valley below, you will wonder how any human can get to that top. An Eagle!—Yes. But never a human. Yet the engineers have made it so easy. It's just a pleasant easily graded uphill stroll. Really a very good introduction to Blue Ridge Mountain climbing, because from the Stony Man eminence on a clear day you can seem to see all the way across

[145] Eastern National Park to Park Highway Map, prepared by the Eastern National Park to Park Highway Association, 1931, from Collection of the Technical Information Center, Denver Service Center, National Park Service.

the continent!—Well, anyhow you can see into West Virginia.[146]

Historic Integrity

Today, Skyline Drive--with its numerous overlooks, graceful curvilinear alignment, and splendid scenery--remains one of the most complete and intact naturalistic park roads of the 1930s and one of the most popular recreational roads in the eastern United States. Legacy of the CCC remains vibrant and visible today—the result of hardy construction but also due to the appreciation that park officials and the general public for the material culture of the Great Depression.

Since Skyline Drive's completion in 1939, there have been few physical changes to the alignment and location of the road. Thus the original recreational intent and scenic character have remained intact. The most substantive changes have been the 0.4-mile realignment of Skyline Drive north of Big Meadows, the redesign of the intersection of Route 211 and Skyline Drive at Thornton Gap in 1962, the redesign of the park entrance and intersection with VA 340, at the Front Royal in the ca. 1990. By and large, the alignment follows that constructed in the 1930s, and the recreational waysides developed in the 1930s remain intact. Some changes, primarily the construction of new buildings and the relocation of others, have occurred in the concessionaire's facilities at Skyland, Dickey Ridge, and Big Meadows. An 8.7-mile portion of the Blue Ridge Parkway between Jarman Gap and Rockfish Gap, was completed in 1936-37. It was added to the initial 96.8 miles of Skyline Drive in 1939 when the southern section was completed and opened to the public. This made the drive 105.5 miles in total length and enabled it to connect with the Blue Ridge Parkway south of Waynesboro. Although this segment continued to be administered by Shenandoah National Park from that time on, the transfer was not made official until 1961.

The view from the drive has continuously evolved since 1939. Land within the park that was once homesites, fields, pastures, and cut-over wood lots has been reclaimed by forest. Mountain roads that once crossed the ridge were closed to through traffic in the 1930s, severing the socio-cultural relationship links between the hollow and upland communities east and west of the mountains. In many cases, former roads now serve as fire roads and truck trails. Through a natural process of revegetation and the activities of the CCC in roadside clean-up, forest fire prevention, and the selective planting of native trees and shrubs, the landscape surrounding the drive has returned to a mature forest. The roadside, picnic areas, and many trails offer seasonal displays of native flora and foliage, from plants such as laurels, rhododendrons, hickory, and Virginia creeper. Views from the drive and overlooks have been somewhat altered by encroaching vegetation, modern development beyond park boundaries, increasing air pollution, and in recent years the loss of native oaks due to gypsy moth infestation.

Beginning in 1983, major rehabilitation of the Skyline Drive was initiated under the Federal Lands Highway Program (FLHP). The rehabilitation replaced the chestnut cribbing which supported the original roadbed and removed the dry-laid stone guardwall in the northern and central sections. A number of the ca. 1100 culverts that carry the park’s many streams beneath the drive were repaired and where found unsafe were replaced. The replacement guardwalls designed especially for the drive are constructed of a concrete core faced with native

[146] Earl Godwin, “A Newspaperman Looks at the Shenandoah National Park,” *1941 Yearbook: Park and Recreation Progress* (Washington, D.C.: Government Printing Office, 1941) p. 15.

stone cut from the boulders that made up the historic walls and laid in a repeating pattern of random stonemasonry; they are designed to blend into the rustic surroundings while adhering to current standards for highway safety. Although these changes have necessitated some loss of original details, the overall landscape design of the road (spatial organization, location of road and overlooks, setting, associated recreational facilities, etc.) remain intact and are highly illustrative of the CCC-era during which the road and its associated features were constructed and opened to the public. Furthermore, the topographic features, rich flora and fauna, and juxtaposition of mountain peaks and deep hollows continue to inspire and refresh today's motorists.

Mission 66 brought several changes to Skyline Drive. The ambitious ten-year development program was designed to upgrade the national parks to modern standards to accommodate rising visitation after World War II. Its impact, however, on the ridge-top drive and its associated resources was minimal, perhaps suggesting that the design of the drive had anticipated large number of visitors and succeeded in dispersing them along the drive rather than at one or a handful of attractions. Interchanges with grade separations that had been proposed during the late 1930s were built in the 1960s to facilitate the movement of traffic in and out of the park at Thornton and Swift Run Gaps. The dining rooms at Panorama and Swift Run Gap, which predated the park, were removed and at Panorama were replaced by a new concessionaire facility in a modernist style. A short segment of road near Big Meadow was redesigned to eliminate a dangerous curve in the late 1950s. A number of gravel parking areas have been built along the drive to accommodate day-hikers and back packers. A Mission 66 visitor center was built on what in the 1930s master plans was proposed as the site for a museum overlooking Big Meadow. The concessionaire development proposed in the master plans for Loft Mountain in the South District finely took form during this period. New entrance stations were built at the Front Royal, Thornton Gap, and Swift Run Gap locations in the 1960s and 1970s.

Conclusion

In the aftermath of widespread criticism of Mission 66 park road design by conservation organizations, including the National Parks Association, National Park Service Director George Hartzog convened a committee to review and report on park road design. In 1967 for the first time, a comprehensive statement of policy and Park Road standards were published. Both reflected the principles and practices that flourished in the golden age of park road design in the 1920s and 1930s along with new ecological considerations such as carrying capacity. While the park road standards reflected the traditional concerns for accessibility and landscape preservation and the philosophies of presenting nature and constructing in harmony with nature, they for the first time acknowledged the environmental damage that roads in some locations had caused. The new philosophy affirmed the pioneering work of Vint, Kittredge, and other park service designers and gave renewed emphasis to the visitor's experience—scenic, educational, inspirational, and recreational. The committee stated what was intuitively understood by the designers of Skyline Drive three and half decades earlier:

> Every segment of every park road should relate to the environment through which it passes in a meaningful way, and should, to the extent possible, constitute an enjoyable and informative experience in itself.... For this reason long tangents which encourage faster speeds--and fleeting views of kinetic "scenery"--should always be avoided. The horizontal and vertical alinement [sic.] should respect the terrain, so that the road is laid lightly onto the land. In deciding upon road locations, maximum advantage should be taken of interpretive and scenic values. And the design and location of the road should constantly encourage people to leave their automobiles to more thoroughly experience the park by providing pullouts, parking, scenic overlooks, and trail connections.[147]

[147] "Park Roads Standards: A Report to the Director of the National Park Service," in *Administrative Policies for Natural Areas of*

Other critics of park policies praised Skyline Drive: some for the way the drive dispersed visitors along the ridge, others for the grand scenery or recreational opportunities afforded along its length, still others for its access to the back-country. In *Man and Nature: Reflections on Policy* (1967), a critical assessment of the condition of national parks in the light of the concerns of the environmental era, authors Fraser Darling and Noel Eichhorn praised Skyline Drive, calling it "a beautifully planned highway and a model for other nations." Another source praised the approach highways that "put the visitor on top of the mountain" and commented:

> The Skyline Drive has served to narrow the view of those who visit and those who plan for Shenandoah to a narrow ridge top ribbon. The fact that the parkway has concentrated use in a relatively small area, leaving the balance in very light use appropriate for wilderness, is to be applauded."[148]

Just as Skyline Drive had become the organizing framework for the visitor's park experience in the 1930s, wilderness advocates saw the drive and its approach roads as the defining edges of six separate wilderness areas.
Ecological, cultural, and economic considerations would make the re-creation of such a drive unlikely today. Such an achievement became possible only in a decade when federal and state interests in recreation and conservation coalesced, when natural resources were valued for the inspiration and recreation they engendered, when fresh ideas drawn from the fields of civil engineering and landscape architecture were applied to the lofty goals of landscape preservation, and when economic relief empowered a generation of young men to create an enduring legacy of workmanship and woodsmanship.

Changes have occurred at Skyland and Big Meadows, mostly in the form of motel-like accommodations. The units were built as small interconnected groups. Although these do not contribute to the significance and some block the mountaintop views, they were built to lie lightly on the ground, and to harmonize with the earlier architecture and the natural setting. Because the landform and the many views from Skyland and Big Meadow remained unimpaired, the western boundaries of the NHL district in these places follow the edge of the escarpment.

Air pollution poses the greatest threat to the visitor's experience of Skyline Drive, often obscuring the distant views of mountains, Piedmont and valley in an indecipherable haze. But when the weather is clear and the sky sparkles, the visitor can experience the distant shades of blue, pink, and purple as ridge after ridge recedes toward the horizon—the scene that attracted the park's first visitors in the 1930s. The views of the valley remain more or less the same; new reservoirs, modern pole-barns and long poultry barns mark modern improvements, but the overall setting-- so greatly dominated by the natural presence of river, valley, and mountains—still conveys the grand scale and magnificence that drew early settlers and, in 1924, charmed the members of the national park commissions. The valley is sharply defined on the west Massanutten Mountain in the George Washington National Forest. The Shenandoah River, in its meandering course, remains a dominating force of valley life and scenery often appearing to mountain visitors as a silver ribbon in a lush green valley. A new state park provides access on the river to canoeists, kayakers, and rafters. Although Front Royal and Luray have grown, they still fit neatly into the patchwork of valley farms and at night charm visitors to the mountains with their displays of lights. Other mechanisms are in place to encourage preservation of the

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the National Park System, Revised ed. (Washington, D.C.: Government Printing Office, 1970), p. 131.

[148] Noel Eichhorn and Fraser Darling, *Man and Nature: Reflections on Policy* (Washington, D.C. Conservation Foundation, 1967), p. 22; *Preserving Wilderness in Our National Parks* (Washington, D.C.: National Parks and Conservation Association 1971), p. 7.

valley, on which the view from the mountain-top depends; these include the designation of the Shenandoah National Battlefield heritage area and the definition of a rural historic landscape that follows the river and takes in the historic farms, fields, and visitors.

Today the legacy of the CCC and the genius of the designers of the National Park Service and Bureau of Public Roads resound in both the built resources of the Skyline Drive Historic District and the regenerating forests and spectacular vistas of mountains, valley, and the Piedmont, which draw motorists from their automobiles to experience the out-of-doors and enjoy the scenic beauty. One is reminded that Skyline Drive today as it was in the 1920s and 1930s remains a meeting place of culture and nature, and that the research, interpretation, and resource management of recent years ensures that this rich dual legacy will endure to inspire generations yet to come.

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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: #
_x_ Recorded by Historic American Engineering Record: # VA-119

Primary Location of Additional Data:

__ State Historic Preservation Office
__ Other State Agency
__ Federal Agency
__ Local Government
__ University
_x_ Other (Specify Repository): Shenandoah National Park Archives

10. GEOGRAPHICAL DATA

Acreage of Property: 3190

UTM References:	Zone	Easting	Northing
1 North Park Entrance	17	742920	4310050
2 Road	17	743310	4309880
3 North Entrance Station	17	743440	4309550
4 Paved Parking Area	17	743500	4308220
5 Parking Area	17	743250	4308240
6 Dickey Hill Tr Crossing	17	743130	4308520
7 Shenandoah Valley Overlook	17	742570	4308090
8 Dickey Ridge Visitor Center	17	742490	4306040
9 Dickey Ridge Picnic Grounds Entrance Road	17	741590	4305910
10 Dickey Ridge-Exit Road	17	742700	4304330
11 Dickey Ridge-Comfort Station	17	742650	4305650
12 Snead Fire Road	17	742700	4305330
13 No Name Overlook	17	742470	4304540
14 Signal Knob Overlook	17	742130	4304540
15 Gooney Run Overlook	17	742340	4302780
16 Gooney Manor Overlook	17	742710	4302090
17 Dickey Hill Trail Crossing	17	743420	4302150
18 Lands Gap Fire Road	17	744260	4301940
19 Unpaved Parking Pullout	17	744510	4301500
20 Indian Run Overlook	17	746090	4300540
Road Trace	17	745340	4299630
21 Jenkins Gap Overlook	17	744810	4298760
22 Mt. Marshall Trail	17	744920	4298390
23 Hogwallow Flats Overlook	17	744710	4297450
AT Crossing	17	744160	4297000
24 Browntown Valley Overlook	17	743380	4296370
AT Crossing	17	742170	4295260
25 Range View Overlook	17	740900	4294040
26 Gimlet Ridge Overlook	17	739330	4293910
AT Crossing	17	738860	4293360
27 Mt. Marshall Overlook	17	738780	4293120
28 Keyser Run Fire Road	17	738390	4293230
29 Little Hogback Overlook	17	737870	4293330
30 Little Devil Stairs Overlook	17	737430	4293110
31 Hogback Fire Road/AT Crossing	17	736530	4293670
32 Hogback Overlook	17	736290	4293720
AT Crossing	17	736159	4293500
33 Rattlesnake Point Overlook	17	733580	4292460

34 Piney River Ranger Station 17.735260.4292380
AT Crossing 17.734020.4290990
35 Elkwallow Wayside 17.733910.4290990
36 Elkwallow Picnic Grounds-comfort station
17.733720.4290920
37 Elkwallow Picnic Grounds Entrance
17.733560.4291060
38 Elkwallow Picnic Grounds Exit 17.733600.4290890
39 Fire Road 17.733400.4290770
40 Thornton River Trail 17.732990.4289350
41 Thornton River Trail 17.732900.4289230
42 Jeremys Run Overlook 17.732150.4288030
43 Thornton Hollow Overlook 17.733110.4287370
44 Hull School Road/Bryds Nest
Shelter #4 Road 17.732990.4286590
45 Beahms Gap Parking Area 17.733090.4286110
46 Pass Mountain Overlook 17.731910.4283870
47 Fire Road 17.732020.4283750
Pass Mountain Hut Road/AT Cros 17.732950.4282500
48 Thornton Gap Entrance Station 17.733110.4282480
49 Thornton Gap Grade Separation 17.733110.4282470
50 Marys Rock Tunnel-north portal 17.733890.4281640
51 Marys Rock Tunnel-south portal 17.733920.4281420
52 Marys Rock Tunnel Overlook 17.733960.4281300
53 Buck Hollow Overlook 17.734300.4280670
54 Hazel Mountain Overlook 17.734120.4280390
55 Meadow Spring Parking Area/
Fire Road 17.733790.4279840
56 Byrds Nest Shelter #3
Service Road 17.733350.4279560
57 Pinnacles Overlook 17.733040.4278060
Road Trace 17.732600.4278320
58 Jewell Hollow Overlook 17.731600.4278510
Pinnacle Picnic Grounds 17.731460.4278330
59 Pinnacles Picnic Grounds 17.731240.4278100
Pinnacles 17.731300.4278220
Pinnacles 17.731340.4278160
60 Pinnacles-comfort station 17.731260.4278140
61 Pinnacles Ranger Station-Service Roads
17.731340.4277490
62 Nicholson Hollow Parking Area 17.730670.4277230
63 Nicholson Hollow Trail 17.729930.4276950
64 Crusher Ridge Trail 17.729840.4276930
65 Stony Man Overlook 17.729610.4276760
66 Little Stony Man Parking Area 17.729350.4276030
67 Hemlock Spring Overlook 17.729650.4275140
68 Thorofare Mountain Overlook 17.729940.4274100
69 Road Trace 17.729250.4273820

70 Skyland, North Entrance	17.728570.4274580
71 Skyland, SOuth Entrance/White Oak Canyon Parking Area	17.727940.4273900
72 Limberlost Parking Area/ Old Rag Fire Road	17.728020.4273120
73 Timber Hollow Overlook	17.727890.4272650
74 Cresent Rock Overlook	17.728040.4271280
75 Whiteoak Fire Road	17.728390.4270660
76 Hawksbill Gap Parking Area	17.727960.4270640
77 Old Rag View Overlook	17.727380.4269350
78 Upper Hawksbill Parking	17.727180.4269140
79 Fire Road	17.726560.4269280
80 Fire Road	17.725770.4269620
81 Spitler Knoll Overlook/ Rock Spring Parking Area	17.725270.4269510
82 Franklin Cliffs Overlook	17.724930.4268330
83 Fishers Gap Overlook	17.724680.4267960
84 Red Gate Road	17.724800.4267950
85 Skyland-Big Meadows Horse Trail Crossing	17.724610.4267750
86 Dark Hollow Falls Parking Area	17.723920.4266370
87 Rapidan Road	17.723160.4266060
88 Lewis Spring Parking Area	17.723020.4266060
89 Tanners Ridge Overlook	17.722840.4265960
90 Tanners Ridge Fire Road	17.722760.4265760
91 Milam Gap Parking Area/ AT Crossing	17.722740.4264120
92 Naked Creek Overlook	17.722320.4263470
93 Hazeltop Ridge Overlook	17.721860.4261750
94 Bootens Gap Parking Area/ Conway River Fire Road	17.721780.4260630
95 The Point Overlook	17.721520.4259950
96 Bearfence Mtn Parking Area	17.721000.4258800
97 Meadow School Parking Area	17.720800.4258240
98 The Oaks Overlook	17.719240.4255170
99 Pocosin Cabin Parking Area	17.719180.4254480
100 Baldface Mountain Overlook	17.717650.4252610
101 Abandoned Road/Service Road	17.717640.4252030
102 South River Overlook	17.716810.4251070
103 South River Picnic Grounds	17.716750.4215020
South River	17.716880.4250780
South River	17.716740.4250770
South River	17.716620.4250800
104 South River-Comfort Station	17.716810.4250800
105 South River PATC Maint Road	17.716400.4250760
106 Dean Mountain Parking Area	17.716260.4250650
107 Hensley Hollow Overlook	17.715190.4249250
108 Hensley Ridge Overlook	17.714540.4249080

109 Swift Run Gap Entrance Station 17.714370.4248170
110 Swift Run Gap Grade Separation 17.714460.4248050
111 Paved Parking Area/
AT Crossing & Parking Area 17.713840.4246710
112 Swift Run Overlook 17.713340.4246160
113 Sandy Bottom Overlook 17.712750.4245670
114 Smith Roach Gap Parking Area/
AT Crossing 17.711950.4244850
115 Bacon Hollow Overlook 17.711340.4244040
116 Eaton Hollow Overlook 17.709480.4244060
117 Rocky Mount Overlook 17.709270.4243440
118 Beldore Hollow Overlook 17.708120.4242980
119 Simmons Gap Ranger Station/
Maintenance Area 17.707880.4242750
120 Loft Mountain Overlook 17.707410.4240120
121 Rocky Mount Trail 17.705750.4241390
122 Two Mile Run Overlook 17.705500.4241280
123 One Mile Run Trail 17.705420.4241120
124 Brown Mountain Overlook 17.704800.4240660
125 Ivy Creek Overlook 17.704730.4239760
AT Crossing 17.704700.4239680
126 Rockytop Overlook 17.704220.4239120
127 Dirt Road 17.704700.4237480
128 Loft Mountain Wayside 17.704630.4237250
129 Doyles River Parking Area 17.702730.4236380
130 Big Run Overlook 17.702620.4236290
131 Doyles River Overlook/ AT Crossing
17.701760.4235500
132 Civil War Gun Emplacement 17.701630.4235460
AT Crossing 17.700340.4234760
133 Browns Gap 17.700340.4234760
134 Dundo Overlook/Dundo Group Camp
17.699400.4234050
135 Jones Run Parking Area 17.698940.4233560
AT Crossing 17.698850.4233380
136 Abandoned Road 17.698510.4232860
137 Blackrock Parking Area 17.698420.4232740
138 Trayfoot Mountain Overlook 17.697410.4230790
AT Crossing 17.697000.4230900
139 Horsehead Overlook 17.696390.4239340
140 AT Crossing 17.696440.4229000
Riprap Trail Parking Area 17.695090.4225790
141 Riprap Overlook 17.695090.4225790
142 Moormans River Overlook 17.695340.4225040
143 Wildcat Ridge Parking Area 17.695190.4224940
AT Crossing 17.695020.4224510
144 Crimora Lake Overlook 17.694870.4224190
145 Turk Mountain Overlook 17.694100.4222840

146 Turk Branch Trail	17.694140.4222250
147 Sawmill Run Overlook	17.694280.4220540
148 Sawmill Ridge Overlook	17.694320.4219730
149 Fire Road	17.694660.4219580
150 Jarman Gap	17.694560.4218790
151 Power Line Crossing	17.694310.4217960
152 Calf Mountain Overlook	17.692740.4216500
153 Cattle Underpass	17.692990.4216290
154 Cattle Underpass	17.693700.4215900
155 Beagle Gap Overlook	17.693910.4215640
156 Private Road	17.692580.4214690
157 Cattle Underpass	17.691390.4214530
158 McCormick Gap Overlook	17.691120.4214700
159 Bridle Path Underpass	17.688500.4212290
160 Rockfish Gap Entrance Station	17.688430.4212130
AT Crossing	17.688020.4211800
161 Rockfish Gap	17.687890.4211490

Verbal Boundary Description:

Beginning at the intersection of US Route 340 in Front Royal, Virginia, and Skyline Drive, and following the centerline of the drive for approximately 105.5 miles to Rockfish Gap, the boundary is defined as 125 feet on either side of the drive's centerline creating a 250-foot right-of-way. At overlooks, wayside stations, ranger stations, and picnic grounds the boundary extends 125 feet beyond the toe-slope of the overlooks, 125 feet beyond the edge of paved parking areas at the waysides, and 125 feet beyond circulation roads at the picnic grounds and ranger stations. This boundary description applies to the Dickey Ridge Wayside and Picnic Grounds, Elkwallow Wayside and Picnic Grounds, Pinnacles Picnic Grounds, South River Picnic Grounds, Piney River Ranger Station, Simmons Gap Ranger Station, Rapidan Road, and the 65 contributing overlooks listed in the Resource Inventory. The boundaries for the major development area at Skyland, Big Meadows (including the meadow) and Lewis Mountain extend east and west of the drive and are indicated on Maps A, B, C, and D, which are drawn to a scale of 1 inch equals 200 feet.

Boundary Justification:

The boundary includes Skyline Drive, and the overlooks, waysides, picnic areas, trailhead parking areas, ranger stations, and other features immediately adjoining the drive that are associated with the historic design and construction of Skyline Drive. The district also includes the Rapidan Road connecting Big Meadows and Rapidan Camp (an NHL) because it was built with the first relief funds for the park and was associated with the development of the drive. The district also includes the development areas at Dickey Ridge, Elkwallow, Skyland, Big Meadows, and Lewis Mountain because they are highly intact examples of 1930s park development and form outstanding collections of rustic park architecture and naturalistic landscape design and contain the work of NPS landscape architects; Marcellus Wright, Jr., the concessionaire’s architect.; and the CCC. Also included are the administrative/ranger stations at Piney River and Simmons Gap because they contain work by the CCC or remnant CCC-camp buildings and historically were associated with the construction and operation of the drive during the period of significance. The developed areas at Pinnacles Ranger Station, Loft Mountain, Mathews Arm, and Panorama are not included because they were constructed after the period of significance.

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