

---

## **5.0 DRAFT SECTION 4(f) EVALUATION**

---

Section 4(f) of the Department of Transportation Act of 1966, as amended, (49 U.S.C. 303) states that the US Department of Transportation may not approve the use of land from a significant publicly owned public park, recreation area, wildlife and waterfowl refuge, or any significant historic site unless a determination is made that:

- There is no feasible and prudent alternative to the use of land from the property; and
- The action includes all possible planning to minimize harm to the property resulting from such use.

In addition, Section 106 of the National Historic Preservation Act of 1966 protects those properties that are included in or eligible for inclusion in the National Register of Historic Places. Section 3.7 of Chapter 3, “Affected Environment” identifies and describes historic architectural resources, archaeological resources, and public parks in the project area.

Within the project area, there are four Section 4(f) resources: the Green Park Historic District (National Register-listed), the Green Park Inn (National Register-listed), the Bollinger-Hartley House (National Register-listed), and the Blue Ridge Parkway (National Register-eligible and a public park). No wildlife or waterfowl refuges are in the project area. The proximity and impacts of each of the Build Alternatives to the area’s Section 4(f) resources is described in Chapter 4, “Environmental Consequences.”

One alternative, the Widening Alternative, would use a Section 4(f) resource by passing through the Green Park Historic District. The existing road is in the district and land from the district would be acquired for the Widening Alternative. Therefore, the Widening Alternative would “use” the Green Park Historic District and the requirements of Section 4(f) must be met. This is the only Section 4(f) use associated with the proposed alternatives. The four bypass alternatives would not use Section 4(f) resources, and the Widening Alternative would not use lands from any other Section 4(f) resource.

### **5.1 Description of Section 4(f) Property**

This section describes the setting and activity of the Green Park Historic District and contributing elements, including the Green Park Inn. This section also describes the relationship of these resources to similarly used lands in the vicinity.

#### **5.1.1 Green Park Historic District**

The Green Park Historic District is in the southern section of the Town of Blowing Rock, on the top of the Blue Ridge escarpment, at an elevation of about 3,640 feet (1,110 meters) above sea level. It is in both Caldwell and Watauga counties and is approximately 177 acres (71.6 hectares) in size. It contains 52 contributing resources and 46 non-contributing features.

---

### ***Boundary and Contributing Features***

The boundaries of the district are defined by four contributing groups of property, as shown on Figure 5-1:

1. The existing National Register Historic Property boundaries of the Green Park Inn nomination (1982).
2. The Blowing Rock Country Club Golf Course (excluding contemporary expansions).
3. The Leak and Wall Tract Subdivision.
4. The “Stevens and Thompson Group,” consisting of the “*Blowing Rock*,” the associated Blowing Rock Gift Shop, and adjacent contributing structures, that was surveyed by Elizabeth Stevens and Deborah Thompson in 1988 and 1989. Many of the structures are on properties developed by C.V. Henkel and the Craig family in the early twentieth century.

Table 5-1 identifies the properties contributing to the district, dates of construction, and the attributes that make them eligible for the National Register. This information was taken from the National Register nomination (National Park Service, August, 1994) and a 1997 survey conducted as a part of preparation of the DEIS. The 1997 survey identified a National Register-eligible extension to the district (Mattson, Alexander & Associates, May 1997). Table 5-1 also describes the properties’ relationship to US 321 in terms of distance and vegetative cover. The locations of contributing properties near US 321 are shown in Figure 5-2.

### ***Use and Ownership***

Most of the contributing properties in the district are residential, privately owned, and used as second or vacation homes. In some instances, these properties are occupied by year-round residents. The four non-residential contributing properties are the Green Park Inn, Gideon Ridge Inn, “The Blowing Rock” attraction and the associated Blowing Rock Gift Shop, and Blowing Rock County Club golf course, all of which are privately owned.

### ***Architectural and Landscape Features***

The Queen Anne-style Green Park Inn was an integral feature in the development of this mountain-top area for resort estates and cottages in the late nineteenth and early twentieth centuries. The golf course, constructed shortly after 1915, increased the recreational opportunities of the area, which in turn supported the continued success of the hotel and the marketability of residential properties in the Green Park area. The residential neighborhoods are contributing elements to the district because of:

1. Variations on vernacular architectural designs that have in common many design and decorative features.
2. Construction for similar purposes (i.e., as a resort house), and during a specific period (i.e., 1920 to 1930).
3. A common social focus on the Green Park Inn and the golf course/country club.

The three elements – hotel, golf course, and neighborhoods – are spatially contiguous and related historically. In addition, the landscaping of the area has been relatively stable for the last three-quarters of a century, creating an environment of mature trees, rhododendron and laurel thickets and well-kept lawns.

---

**Figure 5-1. Green Park Historic District**

This Figure may be viewed by clicking the [List of Figures](#)

**Table 5-1. Characteristics of District and Contributing Properties**

Number <sup>1</sup>	Property Name	Type of Property	Year Built	Attributes That Make Property Eligible		Distance from Structure to Existing US 321 ROW <sup>2</sup>	Distance from Structure to Existing US 321 Pavement <sup>2</sup>	Existing Width of Vegetation Cover Between Structure and US 321 <sup>2</sup>	Visibility of US 321 from Resource	Other Resource Features
				Historic	Architectural					
	Green Park Historic District	District	1891-1944	Construction for a similar purpose and during a specific period; common social focus on Inn and golf course	Variations on vernacular architectural designs with compatible styles, materials and features	US 321 passes through the district	US 321 passes through the district	Varies	Portions are visible.	Informal and densely wooded landscaping; stone walls along west side of US 321
District Contributing Properties:										
1	The Blowing Rock and Reception Center/Gift Shop	Commercial	1935	Association with “The Blowing Rock” attraction and the development of tourism in the area	Stone building with high hipped, wood shingled roof, reminiscent of Tudor Revival style	600 (183) [SE]	610 (186) [SE]	550 (168) [SE]	Mostly obscured to the southeast, though woodlands visible to the north across the gorge (about 2,600 ft)	“The Blowing Rock”; stone walls line driveway, parking lot, and building
2	Charles H. Turner Cottage and associated servants cottage	Residential	c. 1923	None	Typical vernacular style bungalow with wood shingle siding, fieldstone foundation, and low stone walls	480 (146) [SE] 445 (136) [N]	515 (157) [SE] 460 (140) [N]	390 (119) [SE] 20 (6) [N]	Mostly obscured by woodlands to southeast; view to north toward Inn partially shielded	View of the Inn and the golf course
3	Jack Dunavant Cottage	Residential	c. 1920s	None	Typical vernacular style bungalow with stone retaining walls at rear	450(137) [SE] 455 (139) [N]	490 (149) [SE] 465 (142) [N]	360 (110)[SE] 20 (6) [N]	Mostly obscured by woodlands to southeast; view to north toward Inn shielded partially by tree cover at road	View of the Inn and the golf course
5	Much More	Residential	c. 1923	None	Well-maintained example of classic bark-shingled bungalow with Craftsman influence	420 (128) [SE] 445 (136) [N]	460 (140) [SE] 470 (143) [N]	365 (111) [SE] 110 (34) [N]	Mostly obscured by woodlands to southeast; view to north mostly obscured by trees on the golf course	View of the Inn and the golf course

Table 5-1. Characteristics of District and Contributing Properties

Number <sup>1</sup>	Property Name	Type of Property	Year Built	Attributes That Make Property Eligible		Distance from Structure to Existing US 321 ROW <sup>2</sup>	Distance from Structure to Existing US 321 Pavement <sup>2</sup>	Existing Width of Vegetation Cover Between Structure and US 321 <sup>2</sup>	Visibility of US 321 from Resource	Other Resource Features
				Historic	Architectural					
6	Little More	Residential	c. 1923	None	Bark-shingled Craftsman style cottage; a unique example of architecture adapted to the landscape (each of the 6 rooms has its own level); connected to Much More Cottage by typical stone wall	415 (126) [SE] 435 (133) [N]	455 (139) [SE] 450 (137) [N]	375 (114) [SE] 90 (27) [N]	Mostly obscured by woodlands to southeast; view to north mostly obscured by tree cover on the golf course	View of the Inn and golf course
7	McDonald Family Cottage and garage	Residential	c. 1922	None	Bark siding-clad cottage; bark-clad garage	455 (184) [SE] 425 (172) [N]	495 (200) [SE] 440 (134) [N]	370 (113) [SE] 90 (27) [N]	Mostly obscured by woodlands to southeast; view to north obscured by foliage and structures	Dense foliage around house
8	Harper-Shuford-Wise Cottage	Residential	1923	None	Vernacular style rustic house with fieldstone foundations and use of peeled tree trunks as supports	390 (172)	395 (160)	190 (58)	Mostly obscured by woods to north	Dense foliage on property
9	Gideon's Ridge Inn	Hotel	1940-1942	None	Reminiscent of Tudor Revival style; exterior stone siding quarried at Grandfather Mountain; built by local stonemason who built Duke Chapel; typical low stone walls	190 (58)	230 (70)	180 (55)	Mostly obscured by woods down steep hillside to road	Dense foliage; stone walls
10	Shuford Family Cottage and garage	Residential	1925-1927	None	Two-story dwelling sheathed in bark; rustic front porch with skinned pole supports; steep gable roof, stone chimneys, and stone foundation	110 (34)	120 (37)	80 (24)	Partially obscured by trees with 35 ft. break in cover at road	Dense foliage around house
11	Clement-Slane Cottage and garage/servant's room	Residential	1923	None	Vernacular style cottage with bark siding	325 (132)	340 (104)	100 (31)	Mostly obscured by trees on parcel	Dense foliage on property

Table 5-1. Characteristics of District and Contributing Properties

Number <sup>1</sup>	Property Name	Type of Property	Year Built	Attributes That Make Property Eligible		Distance from Structure to Existing US 321 ROW <sup>2</sup>	Distance from Structure to Existing US 321 Pavement <sup>2</sup>	Existing Width of Vegetation Cover Between Structure and US 321 <sup>2</sup>	Visibility of US 321 from Resource	Other Resource Features
				Historic	Architectural					
12	Faraway and garage and other contributing structures	Residential	1920s	None	Two-story Foursquare cottage with characteristic chestnut bark shingle siding	630 (192)	645 (261)	210 (64)	View totally obscured by trees on parcel and adjacent properties	Stone walls; adjacent to “The Blowing Rock” property; spectacular view of the gorge
13	Knox Family Cottage and shed	Residential	c. 1910	None	Two-story vernacular style cottage	345 (140)	350 (107)	50 (15)	Partially shielded by trees near road	Dense foliage on property
14	Cannon Family Cottage	Residential	1915	Association with historical person	Vaguely Dutch Colonial style with Craftsman type windows	320 (98)	330 (101)	50 (15)	Partially shielded by trees near road	Rock wall in front of house; a gazebo observatory on the edge of the gorge at the rear of the house
15	Henkel Family Cottage	Residential	c. 1914-1915	Association with person of local significance	Vernacular architectural design, covered with wood shingles – a favorite building material in Blowing Rock	345 (140)	350 (107)	0 (0)	Clearly visible	Dense foliage around house; stone walls at rear
17	McDowell Cottage	Residential	c. 1890	Association with historic person	Outstanding architecture; two-story Queen Anne frame dwelling with additions and remodeling	390 (119)	400 (122)	210 (64)	View mostly obscured by trees on property and surrounding properties	Dense foliage around house; stone wall at rear
18	Robert A. Dunn Cottage	Residential	1924	None	Craftsman-style house with stone from Grandfather Mountain	550 (168)	555 (225)	400 (122)	View totally obscured by trees on property and surrounding properties	Dense foliage around house
20	Green Park Inn (National Register listed)	Hotel	1891/ 1914	Importance to the early development of the tourist industry in Western NC	Well-maintained example of “grand frame resort architecture” of the late Victorian era	55 (17)	65 (20) (35 feet [11 meters] to driveway canopy)	0 (0)	Clearly visible.	Porch sitting is an Inn amenity
21	Cottage	Residential	c. 1930	None	One-and-a-half story frame bungalow with wide weatherboard siding	65 (20)	70 (21)	0 (0)	Clearly visible	
22	Coxe Cottage	Residential	c. 1925	None	Typical rustic Craftsman cottage design	30 (9)	35 (11)	0 (0)	Visible – 40 ft wide break in foliage	Stone walls; dense foliage on south

**Table 5-1. Characteristics of District and Contributing Properties**

Number <sup>1</sup>	Property Name	Type of Property	Year Built	Attributes That Make Property Eligible		Distance from Structure to Existing US 321 ROW <sup>2</sup>	Distance from Structure to Existing US 321 Pavement <sup>2</sup>	Existing Width of Vegetation Cover Between Structure and US 321 <sup>2</sup>	Visibility of US 321 from Resource	Other Resource Features
				Historic	Architectural					
23	A.G. Jonas Cottage	Residential	1920s	None	American Foursquare style; chestnut bark shingle siding characteristic of the district; porch railing similar to that of the Green Park Inn	75 (23)	80 (24)	65 (20)	Mostly obscured by trees around the structure	Dense foliage around house
24	Cottage and garage	Residential	1920s	None	Craftsman style with roughly-hewn, scalloped-cut, weatherboard siding typical of other houses in Blowing Rock	90 (27)	100 (31)	50 (15)	Mostly obscured by trees between house and road	Dense foliage between house and road; stone walls
26	Craig Family Cottage and garage/servant's room	Residential	c. 1920	None	Craftsman style influence with wood shingle siding; interior chestnut	290 (88)	300 (91)	100 (31)	Mostly obscured by trees and shrubs around structure and tree cover near roadway	Dense foliage between house and road; stone walls
29	Green Family Cottage	Residential	1920s	None	Two-story cross-plan frame dwelling with bark siding; located behind the Green Park Inn	335 (102)	350 (107)	190 (58)	View totally obscured by trees on parcel and surrounding parcels	Dense foliage around house
33	Charles Calvert Smoot, III Cottage and garage	Residential	c. 1935	None	Variant of Tudor Revival style; stone veneer and typical stone wall	600 (183)	620 (189)	530 (162)	View totally obscured by trees on parcel and surrounding parcels	Dense foliage around house; stone walls
34	Helen Potts Armstrong Cottage	Residential	c. 1935	None	Two-story frame dwelling with a low hip roof and stone foundation; interior and exterior stone chimneys	770 (235)	810 (247)	600 (183)	View totally obscured by trees on parcel and surrounding parcels	Dense foliage around house
35	James Ross Cannon Cottage	Residential	c. 1927	Association with persons of regional significance	General Craftsman style with fieldstone and wood shingle siding; stone walls around terrace	795 (242)	810 (247)	370 (113)	View totally obscured by trees on parcel and surrounding parcels	Dense foliage (woods and rhododendron thickets) around house; stone walls

**Table 5-1. Characteristics of District and Contributing Properties**

Number <sup>1</sup>	Property Name	Type of Property	Year Built	Attributes That Make Property Eligible		Distance from Structure to Existing US 321 ROW <sup>2</sup>	Distance from Structure to Existing US 321 Pavement <sup>2</sup>	Existing Width of Vegetation Cover Between Structure and US 321 <sup>2</sup>	Visibility of US 321 from Resource	Other Resource Features
				Historic	Architectural					
39	Blowing Rock Golf Course (north of Inn)	Recreational	1915-22	Importance to historic development of the Green Park area	Compatible with district landscape features (mature conifers, well kept lawns, rhododendrons and laurels)	35 (11)	50 (15)	0 (0)	Hole west of US 321 partially obscured by tree cover at road; otherwise clearly visible	Private home reduces the chance that errant drives hit traffic on US 321
43 <sup>3</sup>	Young-Shaw-Steele House	Residential	c. 1928	None	One-and-a-half story frame dwelling with Craftsman-style elements of design; first and second story porches	This resource is over ¼-mile from US 321 and, thus, has no visibility from US 321. The resource is in closer to the Bypass Alternative 1 corridor.				

<sup>1</sup> Numbers used in the Green Park Historic District Nomination. Missing numbers correspond to non-contributing structures.

<sup>2</sup> A direction to US 321 is indicated for resources along Gideon Ridge where US 321 is in proximity to resources from two directions.

<sup>3</sup> Property part of proposed Green Park Historic District expansion, see “Phase II Intensive Architectural Survey and Evaluations”, Mattson, Alexander and Associates, Inc., May 24, 1997.

---

**Figure 5-2. Relation of Historic District to the Widening Alternative**

This Figure may be viewed by clicking the [List of Figures](#)

---

To date, there has been little intrusive development to interrupt the visual character of the area. While several structures post-dating the formative context of the district have been built within the district, these additional structures are of styles and materials making them compatible and consistent with the contributing structures. As of early 2001, grading was underway for a set of new condominiums behind and to the north of the Green Park Inn. In 2000, a developer proposed the construction of condominiums on the opposite side of US 321 from the golf course. Two contributing structures would be displaced by the project. As of early 2001, the proposed development had not been formally submitted to the Town of Blowing Rock for review and approval.

Common architectural styles of the late nineteenth and early twentieth century exhibited by contributing structures include the late Victorian (Queen Anne), Tudor Revival, American Foursquare, and Craftsman styles. Some contributing structures have original chestnut bark siding, a type of exterior siding characteristic to the area. Another common architectural component is the use of stone for exteriors, chimneys and fireplaces, foundations, and walls.

### ***Views***

Situated atop the Blue Ridge escarpment, residents and visitors have spectacular views of the surrounding Blue Ridge Mountains. The Green Park Inn and other contributing properties in the historic district are among the first properties viewed by people traveling north on US 321 from points south. Viewers from the road see the park-like setting created by the mature trees and well-established landscaping, homes set back from the road and partially obscured by the landscaping, and the entrance to the Inn adjacent to the roadway. Dense woods tend to obscure the view of the road from most of the contributing structures in the district. Exceptions are views from the front of the Green Park Inn and from several homes on Pinnacle Avenue. Viewers at the Inn, within 65 feet (19.8 meters) of US 321, have an unobstructed view of the roadway from the front porch.

### ***Traffic and Pedestrian Movement***

Vehicular traffic in the Green Park Historic District is carried on US 321 and on local streets. Approximately 30 gravel parking spaces for Green Park Inn patrons are across from the Inn on the west side of US 321; people using these spaces must cross US 321 on foot to reach the Inn.

### ***Noise***

An existing peak hour noise level of 61.4 dBA ( $L_{eq}$ ) was modeled at the Green Park Inn (see Section 3.6 in Chapter 3, receptor 38 on Table 3-14).

## **5.1.2 Green Park Inn**

The Green Park Inn was listed on the National Register of Historic Places (NRHP) on June 3, 1982. Its location is shown on Figure 5-2. Its National Register property boundary is shown in Figure 5-1. The original portion of the structure was built in 1882. The property borders the right-of-way of existing US 321. The main entrance of the Inn is approximately 65 feet (19.8 meters) from the road, although the edge of the driveway canopy is within 32 feet (9.8 meters) of the roadway.

### ***Characteristics***

The Green Park Inn is considered significant because of its importance in the early development of the tourist industry in western North Carolina. The original 1882 wood frame structure was built in the Queen Anne style of architecture and today it is considered a well-maintained example of “grand frame resort architecture” of the late Victorian era (Swaim and Hutchison,

---

1981). Twentieth century alterations and additions of frame and brick complement the original style. The foundation of the original structure is wood piles set in concrete or brick footings.

The 1982 Green Park Inn National Register property boundary represents the extent of the Green Park Hotel property as late as 1950. Included in this boundary are three structures contributing to the Green Park Historic District – the Green Family Cottage (#29 in Table 5-1), the Charles Calvert Smoot III Cottage and garage (#33), and the James Ross Cannon Cottage (#35). The forested landscaping in the area is consistent with the aesthetic environment of the Green Park Inn and the adjacent district.

### ***Use and Ownership***

The Green Park Inn is privately owned. It has been used as a resort hotel since its construction in 1882. The Inn is also used for dining, catering, and meetings. Outdoor activities for the guests include sitting on the front porch (facing US 321) and swimming in the pool on the north side of the Inn. A patio is available for outdoor sitting on the south side of the hotel; the road is not visible from this patio.

The Inn has sleeping accommodations and dining operations. There are 85 sleeping rooms, 12 meeting rooms, and approximately 450 seats for restaurant service. The Inn caters not only to tourists for overnight and resort accommodations but also to tourists and residents for dining service and meetings.

Because of the mountain setting, the Inn is not air-conditioned. Windows in the rooms are opened in the spring, summer, and fall seasons to take advantage of mountain breezes.

The peak season for tourist activity is April through October, although the Inn and its restaurants are open year round. The peak season guests are generally traveling to the area to enjoy the cooler weather, the mountain setting, and the tourist attractions. In the winter, the Inn receives guests traveling to the area for the winter sports (skiing) and for Inn and restaurant promotions.

### ***Access, Guest Movements, and Parking***

Vehicular access to the Green Park Inn is via US 321 and Green Hill Road. Parking for guests is available on the south side of the Inn (east of US 321) and west of the Inn across US 321. Approximately 95 to 120 unmarked paved parking spaces for guests are available, including the approximately 30 spaces in the gravel lot west of the highway. Approximately 30 parking spaces for employees are available to the rear of the Inn. Guest parking on the west side of US 321 must cross US 321 on foot to and from the Inn.

## **5.1.3 Relationship to Similarly Used Lands in the Vicinity**

The Green Park Inn forms both an historical and architectural anchor for the Green Park Historic District and for the Town of Blowing Rock. Architectural and landscape elements similar to those found within the district are evident elsewhere in the town. The overall direction of the Blowing Rock Comprehensive Plan (1993) is the preservation of the resort village character of Blowing Rock, a character that was developed in large measure because of the contributing structures and landscaping of the Green Park Historic District.

---

## 5.2 Impact of the Section 4(f) Property

The purpose of the proposed project is to provide an acceptable level of service for the user by increasing the capacity of US 321. An improvement in traffic safety also would result. Five alternatives are evaluated in the Draft Environmental Impact Statement (DEIS). Only one, the Widening Alternative, would use land from the Green Park Historic District. It also would pass adjacent to the National Register boundary of the Green Park Inn.

In the Green Park Historic District, the Widening Alternative would be a four-lane road with curbs and gutters and generally no median. Left turn lanes would be provided for those turning from US 321 to Green Hill Road or Rock Road. A left turn lane would be provided for turns from Green Hill Road to US 321. The proposed landscape plan described in Chapter 2 assumes a 12-foot (3.7 meters) landscaped median in front of the Green Park Inn. An exception to the project's design criteria for curves would be allowed at the single curve within the district. It was found that a curve with a design speed 5 mph (8 km/h) less than the planned criteria would help minimize new right-of-way requirements and potential displacement. The use of District lands would be confined to the portion of the District through which US 321 currently passes. The portion of the historic district that borders US 321 south of Blowing Rock would be unaffected by the Widening Alternative.

The impact of the Widening Alternative on the Green Park Historic District and on the Green Park Inn would be an adverse effect, as defined by the criteria of effect contained in the January 2001 regulations of the Advisory Council on Historic Preservation (*Code of Federal Regulations*, Title 36, Part 800). The Bypass Alternatives would neither use land from the Green Park Historic District and the Green Park Inn, would not have an adverse effect on the District, as documented in Section 4.6.1 in Chapter 4. The Widening Alternative would adversely affect the District by converting district land to highway use. The widening would displace two contributing structures and associated rock walls, and use land from two additional contributing structures. In addition to the use of property within the district, the Widening Alternative would have visual and construction-related impacts. Impacts to the Green Park Inn relate solely to changes in its setting and construction-related impacts. The Widening Alternative would not use land within its National Register boundaries except during construction when its sidewalk would be temporarily removed and then replaced.

The potential impacts to the Green Park Historic District and its contributing properties, including the Green Park Inn, are discussed below under the following subheadings: displacement and area used, potential for incompatible development, visual change, traffic operations, drainage, air quality, noise, Blowing Rock Country Club hole #4, and construction. Figure 5-2 shows the relation of the historic district to the Widening Alternative.

### 5.2.1 Displacement and Land Area Used

Table 5-2 indicates the effects of the Widening Alternative on contributing properties. A total of approximately 3.7 acres (1.50 hectares) of new right-of-way would be acquired and converted to highway use within the District. The thin solid line that parallels the proposed pavement shown in Figure 5-2 and Figure D-1c to Figure D-1e (in Appendix D) is the proposed right-of-way line. Two contributing structures would be displaced, the Cottage (#21 in Table 5-2) and the Coxe Cottage (#22). Two other contributing structures would lose a portion of their associated grounds through the acquisition of additional right-of-way. Approximately 280 square feet (85 meters) from of the rear portion of the Shuford Family Cottage (#10) property and 0.15 acre (0.06 hectare) of the rear yard of the A.G. Jonas Cottage (#23) property would be purchased for new

**Table 5-2. District and Contributing Properties Used<sup>1</sup>**

Number	Property Name	Structure Displaced	Other Features Used	New ROW Taken from Property	Construction Easement Purchased
	Green Park Historic District	Cottage (#21 in Table 5-1) and Coxe Cottage (#22)	Informal and densely wooded landscaping and stone walls along west side of US 321.	approximately 3 acres (1.2 hectares)	approximately 0.7 acre (0.28 hectare).
District Contributing Properties:					
10	Shuford Family Cottage and garage	No	None	approximately 280 square feet (85 meters) associated with grading and wider right-of-way	0
20	Green Park Inn (individually National Register listed)	No	Sidewalk removed and rebuilt during construction; 30 space parking lot and sign on west side of US 321 are within the new right-of-way. Both would be replaced.	0 (land owned by the Inn is purchased across US 321 from the Inn, but it is not within the Inn's National Register boundary)	0 (construction easement would be purchased from the Inn, but it is not within the Inn's National register boundary)
21	Cottage	Yes	Home, driveway, and associated stone wall.	approximately 0.15 acres (0.06 hectare)	approximately 0.12 acres (0.05 hectare)
22	Coxe Cottage	Yes	House; stone wall; some foliage.	approximately 0.19 acres (0.08 hectare)	0
23	A.G. Jonas Cottage	No	55 feet (16.8 meters) of densely wooded landscaping between house and road, leaving 10 feet (3.1 meters)	approximately 0.15 acres (0.06 hectare)	0
39	Blowing Rock Golf Course	No	An approximately 6-foot- (1.8 meters) high retaining wall replaces a slope at the edge of the fairway of hole #4	0	0

<sup>1</sup> No property is used by the Widening Alternative from the contributing structures that are not included in this table.

right-of-way. Approximately 0.35 acre (0.14 hectare) of the Inn's property west of US 321 (including the gravel parking lot) would be purchased for right-of-way, although this parcel is outside the 1982 National Register boundary for the Inn. Replacing the gravel parking lot with a new parking lot would require the purchase of a 0.54-acre (0.22 hectare) construction easement across US 321 from the Inn. Included in the loss of land would be the removal of the associated landscaping elements that are characteristic of the District (see Section 5.2.3).

The Widening Alternative would also result in the temporary displacement during construction of the business sign for the Green Park Inn on the west side of US 321, stone walls along the west side of US 321, and a sidewalk on the east side of US 321 in front of the Green Park Inn. These

---

features would be reconstructed or relocated during construction. An approximately 6-foot- (1.8-meter) high retaining wall would be constructed along the edge of the golf course, adjacent to hole #4. The retaining wall would replace an existing embankment that lies between the existing US 321 pavement and the golf course. Use of a retaining wall here would permit the creation of an 8-foot-(2.4-meter) wide flat berm between the curb of the Widening Alternative and the golf course, in keeping with standard NCDOT highway design practice. A railing would be placed on top of the retaining wall.

## **5.2.2 Potential for Incompatible Development**

The land within the Green Park Historic District boundaries is zoned R-6M (the Green Park Inn, a condominium apartment, and a condominium apartment under construction), R-10M (lots opposite the Inn and golf course), and R-15 (the balance of the District). The R-6M zoning district is a higher density residential district in which two-family and multi-family residences constitute the predominant use. The R-10M zoning district is a medium density residential district in which multi-family residences constitute the predominant use. The R-15 zoning district is intended to be a low-density residential district in which single-family residences constitute the predominant use.

Development opportunities and development proposals exist in the District near US 321. As of early 2001, grading was underway for new condominium apartments behind and to the north of the Green Park Inn. In 2000, a developer proposed the construction of condominiums on the side of US 321 opposite from the golf course. This proposal would displace one contributing structure, one of the two that would be displaced by the Widening Alternative. As of late 2000, the developer was revising his development plan to take into account the Widening Alternative. The Widening Alternative would have displaced the development as it was originally conceived. Land across from the Green Park Inn and a former golf course hole across US 321 and south of the Inn are developable. Also, as discussed in Section 3.1.3 of Chapter 3, in the 1990s, the number of building permits issued in Blowing Rock rose from about 15 to 17 per year in the early and mid 1990s to about 27 a year in 1999, with a one year high in 1998 of 38 permits. Given the above factors, it is likely that development will ultimately occur on vacant lands in the District along US 321.

The overall direction of the Blowing Rock Comprehensive Plan (1993) is the preservation of the resort village character of Blowing Rock, a character that was developed in large measure because of the contributing structures and landscaping of the Green Park Historic District. Thus, given these policies, the design of such development will likely complement the surrounding historic structures. New structures, however, would be contemporary and non-contributing. Full development of the vacant lands along US 321 in the District would create a line of contemporary structures that would separate the part of the District east of US 321 from the part west of US 321.

Since the development trends just described exist today and since the purpose of the Widening Alternative is to improve safety and serve traffic associated with already anticipated growth, there is no reason to believe that the Widening Alternative would influence these existing trends one way or another. In addition, the Widening Alternative would not increase the accessibility of vacant properties. These findings apply both to vacant District lands along US 321 and other parts of the District where vacant land exists.

---

### 5.2.3 Visual Change

Visual impacts of the Widening Alternative and the other alternatives being evaluated are described in Section 4.3.1 of Chapter 4. Table 5-3 describes changes the Widening Alternative is expected to cause to the visibility of US 321 within the district and from its contributing structures. Visual changes would result from the increase in the number of lanes from two to four and accompanying topographic changes and vegetation losses. Views from the properties within the district and views of the district from the road would both change.

#### *Roadway Changes*

Roadway Width. The Widening Alternative would increase the existing 24-foot (7.2-meter) pavement width to 52 feet (15.9 meters), except in the Green Hill Road and Green Park Inn area where the pavement width would increase to 64 feet (19.5 meters) because of the installation of left turn lanes and of the landscaped median contained in the alternative's landscape plans.

Topographic Changes. Excavation to accommodate the widened roadway surface would alter the existing topography within the planned right-of-way. The proposed area of excavation is the dashed line adjacent to the proposed pavement shown in Figure 5-2 and Figure D-1c to Figure D-1e (in Appendix D). The relationship of the Green Park Inn and the A.G. Jones Cottage to proposed excavation of the existing ground is illustrated in Figure 5-3 and Figure 5-4. These are the two contributing structures closest to the Widening Alternative.

Vegetation and Other Landscape Features Lost or Changed. The widening of existing US 321 through the District would result in some loss of upper and lower story vegetation that currently contributes to the turn-of-the-century resort village character and blocks views of US 321 for many of the structures in the district. The loss of vegetation would be confined to the portion of the district through which existing US 321 passes in Blowing Rock. Low decorative stone walls would be removed from in front of the two contributing structures that would be displaced. A landscape plan is proposed as mitigation that would include replacing trees and the stone walls. The median in front of the Green Park Inn would be planted with trees. (See the discussion of mitigation in Section 5.4.)

#### *View of the Road*

As shown in Table 5-3, the Widening Alternative would result in changes in the view of the road from several of the properties contributing to the Green Park Historic District.

Green Park Inn. The existing roadway is clearly visible from the front of the Inn (including the front porch), and the Widening Alternative would remain clearly visible. The view from the Inn would be of a wider roadway surface with the Widening Alternative. There would be no change in the distance of the near lane to the Inn. The new pavement would be added to the west side of the road, away from the Inn (see Figure 5-3). The surface of the new road would be lower than the existing road by about 6 inches to accommodate the installation of curbs without permanently using Inn property. The sidewalk along the front of the Inn would be removed during the construction of the project, but it would be replaced. The removal of upper and lower story vegetation along the west side of the road would also open up views from the Green Park Inn of contributing and compatible structures in the District. Views of features outside the district would not be opened.

Blowing Rock Country Club Golf Course. The golf course users now have a clear view of approximately 400 feet (122 meters) of US 321 beginning at Goforth Road and continuing north until tree cover and structures begin to obstruct the view from the course. The Widening

**Table 5-3. Visual Change in District and at Contributing Properties**

Number <sup>1</sup>	Property Name	Distance from Structure to Widen ROW/ Change from Existing Condition	Distance from Structure to Widen Pavement/ Change from Existing Condition	Width of Vegetative Cover Between Widened Road and Structure/ Change from Existing Condition	New Pavement Width/Change from Existing Road	Change in Visibility of US 321 from Resource Without Proposed Landscape Plan
	Green Park Historic District	US 321 passes through district	US 321 passes through district	Varies (see contributing structures)	50 to 64 (15 to 20)/26 to 40 (7.9 to 12)	Remains visible; a few once obscured properties would have clear or partial views; pavement width increased in front of resources.
District Contributing Properties:						
1	The Blowing Rock and Reception Center/Gift Shop	600 (183)/0 (0)	615 (187)/5 (2)	550 (168)/0 (0)	50 (15)/26 (7.9)	No change in profile of road in long distance views to the north but new rock cut is visible from “The Blowing Rock” and parking lot.
2	Charles H. Turner Cottage and associated servants cottage	410 (125)/-35 (-11)[N]	430 (131)/-30 (-9)[N]	0 (0)/-20 (-6)[N]	50 (15)/26 (7.9)	Becomes clearly visible to the north; views southeast unchanged.
3	Jack Dunavant Cottage	415 (126)/-40 (40)[N]	430 (131)/-35 (-11)[N]	0 (0)/-20 (-6)[N]	50 (15)/26 (8)[N]	Becomes clearly visible to the north; views southeast unchanged.
5	Much More Cottage	410 (125)/-35 (-11)[N]	445 (136)/-25 (-8)[N]	110 (34)/-0 (-0)[N]	55 (17)/31 (9)[N]	Remains mostly obscured to the north; views southeast unchanged.
6	Little More Cottage	400 (122)/-35 (-11)[N]	420 (128)/-30 (-9)[N]	90 (27)/-0 (-0)[N]	58 (18)/34 (10)[N]	Remains mostly obscured to the north; views southeast unchanged.
7	McDonald Family Cottage and garage	400 (122)/-25 (-8)[N]	420 (128)/-20 (-6)[N]	90 (27)/0 (0) [N]	50 (15)/26 (7.9)	Remains mostly obscured to the north; views southeast unchanged.
8	Harper-Shuford-Wise Cottage	380 (116)/-10 (-3)	390 (119)/-5 (-2)[N]	190 (58)/0 (0) [N]	50 (15)/26 (7.9)	Remains mostly obscured.
9	Gideon’s Ridge Inn	190 (58)/0 (0)	230 (70)/0 (0)	180 (55)/0 (0)	50 (15)/26 (7.9)	Remains mostly obscured.
10	Shuford Family Cottage and garage	100 (30)/-10 (-3)	120 (37)/0 (0)	80 (24)/0	50 (15)/26 (7.9)	Remains partially obscured.
11	Clement-Slane Cottage and garage/servant’s room	275 (84)/-50 (-15)	300 (91)/-40 (-12)	50 (15)/-50 (-15)	58 (18)/34 (10)	Remains mostly obscured.
12	Faraway and garage and other contributing structures	580 (177)/-50 (-15)	605 (184)/-40 (-12)	150 (46)/-60	50 (15)/26 (7.9)	Remains totally obscured.

Table 5-3. Visual Change in District and at Contributing Properties

Number <sup>1</sup>	Property Name	Distance from Structure to Widen ROW/ Change from Existing Condition	Distance from Structure to Widen Pavement/ Change from Existing Condition	Width of Vegetative Cover Between Widened Road and Structure/ Change from Existing Condition	New Pavement Width/Change from Existing Road	Change in Visibility of US 321 from Resource Without Proposed Landscape Plan
13	Knox Family Cottage and shed	290 (88)/-55 (-17)	315 (96)/-35 (-11)	25 (7.6)/-25 (-7.6)	64 (20)/40 (12)	Remains partially obscured
14	Cannon Family Cottage	255(78)/-65(19.8)	290(88)/-40(12.2)	25(7.6)/-25(7.6)	64(19.5)/40(12.2)	Becomes partially obscured
15	Henkel Family Cottage	275(84)/-70(21.3)	305(93)/-45(13.7)	0/0	64(19.50)/40(13.7)	Remains clearly visible.
17	McDowell Cottage	320(98)/-70(21)	345(140)/-55(16.8)	210(64)/0	64(19.50)/40(12.2)	Remains mostly obscured.
18	Robert A. Dunn Cottage	495(200)/-55(16.8)	530(215)/-25 (10.1)	360(110)/-40(12.2)	50(15.2)/26(10.5)	Remains totally obscured.
20	Green Park Inn (National Register listed)	55(22)/0	65(26)/0	0	64(19.5)/40(12.2)	Remains clearly visible; pavement width increased in front of resource, but near edge would be no closer than existing (see Figure 5-3).
21	Cottage	NA	NA	NA	NA	Structure is displaced
22	Coxe Cottage	NA	NA	NA	NA	Structure is displaced
23	A.G. Jonas Cottage	15(4.6)/-60(18.3)	50(15.2)/-30(9.1)	10(3.1)/-55(16.8)	50(15.2)/26(7.9)	Remains slightly obscured; dense foliage depth severely reduced to 15 feet (4.6 meters) (Figure 5-4).
24	Cottage and garage	65(19.8)/-25(7.6)	100(31)/0	50(15.2)/0	64(19.5)/40(12.2)	Remains mostly obscured. Near lane would be no closer, but road would be 38 feet (11.6 meters) wider.
26	Craig Family Cottage and garage/servant's room	290(88)/0	300(91)/0	100(31)/0	64(19.5)/40(12.2)	Remains mostly obscured.
29	Green Family Cottage	335(102)/0	350(107)/0	190(58)/0	64(19.5)/40(12.2)	Remains totally obscured
33	Charles Calvert Smoot, III Cottage and garage	510(156)/-90(27)	570(174)/-50(15.2)	460(140)/-70(21)	50(15.2)/26(7.9)	Remains totally obscured.

**Table 5-3. Visual Change in District and at Contributing Properties**

Number <sup>1</sup>	Property Name	Distance from Structure to Widen ROW/ Change from Existing Condition	Distance from Structure to Widen Pavement/ Change from Existing Condition	Width of Vegetative Cover Between Widened Road and Structure/ Change from Existing Condition	New Pavement Width/Change from Existing Road	Change in Visibility of US 321 from Resource Without Proposed Landscape Plan
34	Helen Potts Armstrong Cottage	630(192)/ -140(43)	770(235)/ -40(12.2)	580(177)/ -20(6.1)	52(15.9)/28(8.5)	Remains totally obscured
35	James Ross Cannon Cottage	795(242)/0	810(247)/0	370(113)/0	64(19.5)/ 40(12.2)	Remains totally obscured.
39	Blowing Rock Golf Course	35(10.7)/0 (to green north of US 321)	50(15.2)/0 (to green north of US 321)	0	55(16.8)/31(9.5) narrowing to 52(15.9)/28(8.5)	Remains clearly visible.
43 <sup>2</sup>	Young-Shaw-Steele House	NA	NA	NA	NA	US 321 is not visible from this structure.

<sup>1</sup> Numbers used in the Green Park Historic District Nomination. Missing numbers correspond to non-contributing structures.

<sup>2</sup> Property part of proposed Green Park Historic District expansion, see "Phase II Intensive Architectural Survey and Evaluations", Mattson, Alexander and Associates, Inc., May 24, 1997.

---

**Figure 5-3. Widening Alternative at the Green Park Inn**

This Figure may be viewed by clicking the [List of Figures](#)

---

**Figure 5-4. Widening Alternative at the A.C. Jonas Cottage**

This Figure may be viewed by clicking the [List of Figures](#)

---

Alternative would remove two structures currently blocking the view of US 321 from the course; beyond that point, the existing structures and vegetation would continue to block the view. For approximately 500 feet (152 meters) beginning at Goforth Road, the near lane would be no closer to the golf course than the existing road; beyond that point the new pavement would begin to shift to the golf course's side of the road but would not use land from the golf course. (See Figure D-16g and Figure D-1h in Appendix D.) The road generally would be 52 feet (15.9 meters) wide in front of the golf course, an increase of 26 feet (7.9 meters). The road surface would remain above the level of the golf course and would not be seen. A retaining wall approximately 6 feet (1.8 meters) high would be introduced between US 321 and the Blowing Rock Country Club property line to accommodate an 8-foot (2.4-meter) wide flat berm between the curb and the wall. Currently, the terrain slopes downward from the edge of the existing pavement to the golf course. Changes in the topography and vegetation lost to the widened right-of-way on the west side of US 321 would be seen from the golf course. These change would be adjacent to hole #4, the course's signature hole.

Other Contributing Properties. For five of the contributing properties, the views of the roadway would be altered by a decrease in the depth of vegetation between the property and the widened roadway or by the introduction of the widened roadway into already clear views of existing US 321 (see Table 5-3). Changes would be as follows:

- The Blowing Rock and Reception Center/Gift Shop. Views from The Blowing Rock and Reception Center/Gift Shop are of portions of US 321 outside the historic district. From The Blowing Rock and the parking lot of the gift shop, the view to the north across the gorge for approximately 2,600 feet (793 meters) would include a new rock cut on the Widening Alternative west of Norwood Circle. A portion of the cut would be landscaped with new trees. To the southeast, US 321 would remain mostly obscured.
- Charles. H. Turner Cottage. The existing 20 feet (6.1 meters) of vegetation between this structure and US 321 would be removed by the right-of-way. Although now obscured from structure views, approximately 600 feet (183 meters) of US 321 and its widened pavement would become clearly visible to the north of this structure. The near lane, however, would be 435 feet (133 meters) away. In addition, re-vegetation in the right-of-way would replace some of the trees lost. US 321 at its location southeast of the structure would remain obscured.
- Jack Dunavant Cottage. The 20 feet (6.1 meters) of existing vegetation between this structure and US 321 would be removed by the right-of-way. Although now partially obscured, an 800-foot (244-meter) length of US 321 and its widened pavement would become clearly visible to the north of this structure. The near lane, however, would be 430 feet (131 meters) away. In addition, re-vegetation in the right-of-way would replace some of the trees lost. A potential view of US 321 to the southeast would remain obscured.
- Henkel Family Cottage. The wider pavement and the replaced Green Park Inn parking lot would be visible from this home. Landscaping would partially shield these views.
- A.G. Jonas Cottage. Fifty-five feet (16.8 meters) of vegetation between this structure and US 321 would be removed by the right-of-way; 10 feet (3.1 meters) of vegetation would remain. US 321 and its widened pavement would be visible through the remaining vegetation. The near lane of US 321 would be 50 feet (15.2 meters) away rather than 80 feet (24 meters). The right-of-way line would be 15 feet (4.6 meters) away from the structure. (See Figure 5-4.)

---

The Widening Alternative would use 0.15 acre (0.06 hectare) of land associated with this structure. Re-vegetation in the right-of-way would replace some of the trees lost.

Nineteen other properties would have little or no change in their existing views of US 321, as described in Table 5-3. The view of the road would remain partially to totally obscured by vegetation and/or intervening structures. All but two of these properties would be at least 200 feet (61 meters) away from the near edge of pavement. The two closer properties would be 100 and 120 feet (37 meters) away.

### ***View from the Road***

With the Widening Alternative, the loss of vegetation would open to motorist's views of the fronts of some contributing structures on Gideon Ridge Road and Pinnacle Avenue. The reduction in the density of vegetated cover at the A.G. Jonas Cottage would open the now private space to partial view by US 321 users. That view, however, would be momentary and then be blocked by vegetation or structures on adjacent parcels. The landscaping plan proposed for the district would replace some of the vegetation that would be removed. Views of incompatible features outside the boundaries of the district would not be opened.

## **5.2.4 Traffic Operations**

### ***Level of Service Compared to the No-Build Alternative***

The 1998 average daily traffic in the Green Park Historic District is 8,925 to 9,525 vehicles per day. During the peak hour (October weekend), traffic operates at a less than desirable level of service (LOS) D. By 2025, the average daily traffic is expected to grow to 15,900 to 16,900 vehicles per day. The Widening Alternative would eliminate congestion and substantial intersection delays for motor vehicles in the US 321 area. Traffic growth would not change.

With the No-Build Alternative, traffic would exceed the capacity of the road during the peak hour (LOS F). The Widening Alternative would raise the 2025 peak hour level of service to a desirable LOS C. The intersections of Rock Road/Green Hill Road and Goforth Road currently operate at peak hour LOS A for traffic on US 321. Traffic attempting to enter or cross US 321 from these side streets experience some delay during peak periods, (LOS D and C, respectively). With the No-Build Alternative, the Rock Road/Green Hill Road intersection would experience traffic that would exceed its capacity during the peak hour (LOS F). Turning traffic would delay traffic on US 321. The Widening Alternative includes a signal and turn lanes that would create an acceptable LOS B. Motorists turning from Goforth Road onto US 321 would experience substantial delays in 2025 (LOS F). The Widening Alternative would result in a desirable LOS C for those motorists. The level of service categories are defined in Table 1-2 in Chapter 1.

### ***Speed***

The posted speed limit on US 321 through the district would remain 35 miles (56 kilometers) per hour.

### ***Access***

Green Park Inn Entrance, Parking, and Sign Displacement. The Green Park Inn and two contributing homes are the only structures in the District with direct access to US 321. The two contributing homes would be displaced. The entrance to the Inn would be unchanged. An approximately 30-space parking lot for the Green Park Inn on the west side of US 321 and outside the Inn's National Register boundary (but within the District) would be displaced by the Widening Alternative. A new parking lot would be built. Unlike the current gravel lot, the new

---

lot would be designed so that its users do not have to back directly onto US 321 to leave, thereby providing a safer situation. The sign for the Green Park Inn is within the parking lot and also would be displaced. Space exists on remaining lands opposite the Inn to relocate the sign.

Pedestrian Crossings. A concentration of pedestrians traveling across US 321 occurs at the Green Park Inn. Pedestrians cross the highway to reach the Inn from the parking lot just described. An increase in road width along this section would mean an increase in the pavement width that pedestrians must cross. A median is suggested as a part of the proposed landscape plan; this median would allow pedestrians to cross one direction of travel at a time. A traffic signal would be placed at the intersection of US 321 with Rock Road/Green Hill Road. It would facilitate movements of any pedestrians crossing of US 321 between Green Hill Road and Rock Road. Pedestrians crossing between the Inn and its extra parking could cross at the signal, but doing so would increase their walking distance. A marked crossing would be provided between the parking lot and the Inn. The nearby signal would stop northbound traffic, making it easier to use this crossing.

### **5.2.5 Air Quality**

National Ambient Air Quality Standards (NAAQS) and state air quality standards would not be exceeded in the Green Park Historic District with the Widening Alternative (see Section 4.4 in Chapter 4).

### **5.2.6 Noise**

With the No-Build Alternative, increased traffic volumes would raise peak hour noise levels less than 3 dBA at sensitive receptors. It is widely accepted that the average human ear can barely perceive noise level changes of 3 dBA or less. With the Widening Alternative, most sensitive receptors in the District, would experience either no change in noise levels or an increase that is less than 3 dBA over existing levels. At three homes, levels would rise 7.3 dBA to 74.9 dBA and would exceed the Federal Highway Administration's (FHWA) noise abatement criteria (NAC). Current levels of 67.6 dBA also exceed the NAC. Noise barriers would not be cost-effective at these homes and would introduce an additional non-historic feature into the District. (See Section 4.5 in Chapter 4.)

### **5.2.7 Drainage**

Members of the Blowing Rock Country Club expressed the concern that runoff from the widened pavement would tax the capacity of a storm sewer under the golf course. US 321 roadway drainage in the Green Park Historic District would be channeled by curbs and gutters and conveyed via a closed storm drain system to a suitable new outfall. The town's existing drainage system would either be replaced or expanded.

The vertical alignment (profile) of the roadway directly controls the location and placement of drainage structures. Utilizing gravity flow, drainage systems usually begin several hundred feet (meters) downhill of crests (tops of hills or high points) and flow toward a sag (low points). Upon reaching a sag, the drainage system discharges to an available natural outfall that is of sufficient size to handle the expected peak flow. The Widening Alternative would have sags at approximately 500 feet (152 meters) south of Green Hill Road, the intersection of Country Club Drive, and the intersection of US 321 Business. Crests would be at the intersection of US 321 with Goforth Road and at the intersection with Norwood Circle.

---

On-site (highway) and off-site (flowing onto the highway from the surrounding terrain) runoff would be handled by pipe drainage systems. The off-site runoff would be from a catchment area west of US 321 and bounded by Pinnacle Avenue. Rather than allowing this runoff to pass through the Blowing Rock Country Club on the east side of US 321, the new US 321 drainage system would catch the flow. The on-site and off-site flow would then exit the storm drain at one of the natural outfalls. The natural outfalls are at the swale at approximately 500 feet (152 meters) south of Green Hill Road, the swale opposite Country Club Road, and the swale along US 321 before US 321 Business.

### **5.2.8 Blowing Rock Country Club Hole #4**

Two homes outside the District but adjacent to the Blowing Rock Country Club golf course hole #4 would be displaced. Country club officials have indicated that the displacement of the two homes adjacent to hole #4 would increase their liability risk because these homes help prevent errant drives from the tee from reaching US 321 and striking passing motor vehicles.

### **5.2.9 Construction**

Chapter 2 describes the sequences of construction operations and discusses timing, traffic control, and maintenance of access for the Widening Alternative. Section 4.16 of Chapter 4 addresses topics related to contractor control, excavation procedures, (including blasting), control of erosion, dust, and noise, and other construction issues.

In the Green Park Inn Historic District, construction of the Widening Alternative would not be complex. First, the two new lanes would be constructed and then traffic would be switched to the new lanes during reconstruction of the existing lanes. In the road section to the north of the District where existing curves are being straightened, a pilot car operation would be needed for approximately 5 to 10 months (depending upon the time of year when the contractor commenced the operation) to allow for one lane of travel. Traffic waiting to go northbound on the single available lane could back-up into the District. The access points to the Green Park Inn would be kept open. The parking lot across from the Inn would not be available to Inn customers during construction. Dust and noise would affect the Inn's guests. The Inn is not air-conditioned, and the windows are open in the summer. Sitting on the front porch is a common activity of guests.

In developing and implementing its construction projects, the NCDOT endeavors to minimize inconveniences and disturbances and would do so with the Widening Alternative, as discussed in Section 4.16 of Chapter 4. Construction operations would be conducted in a manner that minimizes noise and dust, protects landscaping outside the proposed right-of-way, maintains traffic flow and access, and protects historic structures from damage during blasting.

## **5.3 Avoidance Alternatives**

Four alternatives that would avoid the potential impacts to the Green Park Historic District were considered: the No-Build Alternative, a Blowing Rock Bypass (four design alternatives in two corridors), the redesignation of US 321 (in order to encourage through traffic to use another route and thus eliminate the need for capacity improvements through the Green Park Historic District), and a transit alternative.

The paragraphs that follow describe the ability of each of these alternatives to meet the purpose and need for the project and factors relevant to a decision on the feasibility and prudence of each

---

alternative. These alternatives are described in detail in Chapter 2. An alternative is feasible if it is buildable. An alternative is considered not prudent only if it involves "truly unusual factors" or "unique problems" or the cost of community disruption reaches "extraordinary magnitudes." (<http://nepa.fhwa.dot.gov/ReNepa>) The feasibility and prudence of alternatives that meet the purpose and need of the US 321 improvements project and that avoid Section 4(f) resources will be determined based on a combination of the severity of construction and long-term impacts, safety, traffic service provided, and cost. Both the impact assessment contained in the DEIS and DEIS review comments will be considered when making this decision for the avoidance alternatives described in this section. This decision will be presented in the Final Environmental Impact Statement.

### **5.3.1 No-Build Alternative**

The No-Build Alternative would avoid the adverse impacts described above. It would not meet the purpose and need of the project, however, as discussed in Chapter 2. The No-Build Alternative would not have a positive effect on the capacity or safety of the highway. Under the No-Build Alternative, peak hour level of service on US 321 would fall to an unacceptable LOS F along the road and at its intersections.

The paragraphs that follow describe the ability of each of these alternatives to meet the purpose and need for the project and factors relevant to a decision on the feasibility and prudence of each alternative. These alternatives are described in detail in Chapter 2. An alternative is feasible if it is buildable. An alternative is considered not prudent only if it involves "truly unusual factors" or "unique problems" or the cost of community disruption reaches "extraordinary magnitudes." (<http://nepa.fhwa.dot.gov/ReNepa>) The feasibility and prudence of alternatives that meet the purpose and need of the US 321 improvements project and that avoid Section 4(f) resources will be determined based on a combination of the severity of construction and long-term impacts, safety, traffic service provided, and cost. Both the impact assessment contained in the DEIS and DEIS review comments will be considered when making this decision for the avoidance alternatives described in this section. This decision will be presented in the Final Environmental Impact Statement.

### **5.3.2 Bypass Alternatives**

All of the Bypass Alternatives would avoid impacts to the Green Park Historic District. Their design characteristics are described in detail in Section 2.4 of Chapter 2. Their community, cultural resource, natural resource, and environmental quality impacts are described in detail in Chapter 4. Key differences between the alternatives in terms of their ability to meet the project's purpose and need, impacts, and cost are:

- The Bypass Alternatives all would meet the purpose and need of the project. Some Improvements would be needed, however, on existing US 321 prior to the 2025 design year to attain the capacity goal of LOS C identified in Chapter 1. With the Bypass Alternatives, there would be three or four segments of existing US 321 operating at less than the preferred level of service. There also would be up to two more intersections operating at less than preferred level of service along existing US 321 than with the Widening Alternative.
- Bypass Alternatives 4A and 4B would displace fewer homes than would the Widening Alternative. Bypass Alternative 1A and 1B each would require the relocation of eight more homes than would the Widening Alternative.

- 
- The Bypass Alternatives would avoid impacts to the Green Park Historic District and residences in the Country Club Drive and Norwood Circle areas. Bypass Alternatives 1A and 1B would, however, bisect and adversely affect several existing and developing neighborhoods along its length. Bypass Alternatives 4A and 4B would adversely affect two small rural residential areas.
  - The visual impact of Bypass Alternative 4A would adversely affect the Blue Ridge Parkway, a National Register-eligible resource. Bypass Alternative 4B also would be a substantial presence in the viewshed of the Parkway.
  - There would be between 19 and 66 more acres (7.7 and 26.7 hectares) of natural plant communities affected with the Bypass Alternatives. Bypass Alternative 4A would affect the greatest amount of natural plant communities. Bypass Alternative 4A would use culverts at nine more stream crossings than would the Widening Alternative. With any of the Bypass Alternatives, habitat fragmentation would be worse than with the Widening Alternative. Bypass Alternative 4A create the greatest habitat fragmentation.
  - The Bypass Alternatives would cost between \$29.2 and \$204.4 million more than the Widening Alternative. Their total right-of-way and construction costs would be:
    - Widening Alternative: \$45,900,000
    - Bypass Alternative 1A: \$75,100,000
    - Bypass Alternative 1B: \$92,200,000
    - Bypass Alternative 4A: \$170,500,000
    - Bypass Alternative 4B: \$250,300,000

### **5.3.3 Re-designation of US 321**

The Concerned Citizens of Blowing Rock, a local citizen organization, proposed that a different highway route between Lenoir, North Carolina and Hampton, Tennessee be designated as US 321 as an alternative to widening the existing US 321 from Patterson to Blowing Rock. This would be done to reduce forecast traffic volumes and eliminate the need for capacity improvements. The location of the citizen-proposed route is shown on Figure 2-9 in Chapter 2. The citizen-proposed route is approximately the same distance as the existing US 321 route between Lenoir and Hampton (69 miles (111 kilometers) and 66 miles (106 kilometers), respectively). This alternative is discussed in detail in Section 2.3.3 of Chapter 2.

A study of the merits of this alternative found no particular roadway design or environmental issues that would make the redesignation of the citizen-proposed route as US 321 difficult. The study found, however, that the route would not serve as a reasonable alternative to widening US 321 for the following reasons:

- The amount of traffic that would shift to the redesignated route would be small;
- The future capacity needs of US 321 would not be changed; and
- Accident rates along US 321 would not be reduced.

Thus, the redesignation alternative would not meet the purpose and need of the proposed action as identified in Chapter 1.

---

### **5.3.4 Transit Alternative**

The potential for transit to meet the project's purpose and need was examined from two perspectives. First, a trip end model was used to estimate a potential transit ridership rate. Second, an estimate was made of the percent of design peak hour traffic using US 321 in 2025 that would have to be attracted to transit to achieve the goal of LOS C presented in Chapter 1's statement of purpose and need. The model concluded that less than 2 percent of the trips in the Blowing Rock area were likely to be attracted to transit. The second analysis found that at one location, 55 percent of all peak hour automobile traffic on US 321 in 2025 would have to be served by transit to achieve LOS C on existing US 321. At another location, 70 percent would need to be attracted to transit. Given the extreme difference between the 2 percent modeled number and the 55 and 70 percent of the other analysis, it was concluded that transit could not meet the purpose and need of the project. This alternative is discussed in greater detail in Section 2.3.4 of Chapter 2.

## **5.4 Measures to Minimize Harm**

The following measures to minimize harm to the Green Park Historic District are addressed below: transportation systems management; narrow pavement; pavement location selection; a Green Park Inn parking replacement and pedestrian protection plan; landscaping; proposed sale of the two displaced contributing structures; and construction planning and operations strategies. Transportation systems management would not meet the traffic capacity objectives of the project. With the exception of a proposed landscaped median in front of the Green Park Inn, the pavement is as narrow as possible to meet the purpose and need of the project. [The additional lanes included in the Widening Alternative were placed in the proposed design so that harm to the district would be minimized.] A landscape plan and the offer to sell the two displaced contributing structures would be included in the Memorandum of Agreement with the State Historic Preservation Officer and the Advisory Council on Historic Preservation if the Widening Alternative is selected as the preferred alternative. Construction planning would be an integral part of project development if this alternative were selected. Contractor controls would be included in construction contracts.

### **5.4.1 Transportation Systems Management (Two-Lane and Three-Lane Alternatives)**

Transportation systems management (TSM) is defined as modest physical and operational improvements to traffic performance, safety, and management. While these improvements are often installed as parts of larger projects, they can be implemented quickly as short-term improvements. These projects typically do not involve large capital outlays; as a result most (but not all) projects with substantial right-of-way acquisition are not considered TSM improvements. Potential TSM strategies that could be applied to the US 321 corridor include:

- Left- and right-turn lanes and/or a third turning lane;
- Widening the existing lanes to 12-foot (3.6-meter) lanes and standard shoulders;
- Straightening of sub-standard horizontal curves; and
- Elimination or substantial reduction of curb cuts (driveways).

The ability of such improvements to meet the purpose and need of the project is examined in Section 2.3.5 of Chapter 2. The analysis found that four lanes would be essential to meet the purpose and need's goal of LOS C. Within Blowing Rock, a marginal LOS D could be achieved during 2025 weekday peaks with wider lanes and turn lanes. Without a four-lane improvement,

---

traffic would be congested during 2025 weekend peaks (LOS E or F). Since the weekday peak represents the 190th to 375th peak hour, depending on the segment of US 321, US 321 in Blowing Rock would be congested roughly 6 to 12 percent of the time over the course of a year in 2025. Based on these findings, TSM improvements would not meet the purpose of providing an adequate level of traffic service through 2025.

## **5.4.2 Design Features**

### ***Narrow Pavement***

The Widening Alternative would replace the existing 24-foot (7.2-meter) roadway through the historic district with four 12-foot (3.6-meter) lanes, turn lanes at the intersection of Rock Road/Green Hill Road, and a 12-foot (3.6-meter) decorative landscaped median in front of the Green Park Inn. With the exception of the landscaped median, this is as narrow as the pavement can be and still meet the project's capacity and safety objectives. The pavement could be narrowed by removing the landscaped median. The landscaped median is not required to meet the purpose and need of the project. It is proposed as an aesthetic feature to provide pedestrians with the opportunity to cross the widened road one direction of travel at a time. This could be done as a part of a Memorandum of Agreement if the Widening Alternative is selected as the preferred alternative. The elimination of the median would not eliminate the need to displace the two contributing structures and their associated rock walls.

### ***Pavement Location Selection***

With the Widening Alternative, the existing roadway would be widened to the side of the road that would result in the least impact to the district, generally the west side. If all or part of the widening occurred on the east side of the road, the Green Park Inn, the district's anchor, would be displaced, or its viability would be substantially impaired by the loss of its front entrance and its closer proximity to US 321. In addition, hole #4 of the golf course would be removed with such a change in the pavement location.

### ***Green Park Inn Parking Replacement and Pedestrian Protection***

With the Widening Alternative, the sidewalk in front of the Inn would be replaced. Also, parking would be replaced with a new parking area on the other side of US 321. A crosswalk and warning signs also would be added to protect pedestrians when crossing from the parking lot to the Green Park Inn.

### ***Landscaping***

As part of the Widening Alternative, several items would be added through landscaping to help minimize harm. A landscaped median would be provided in front of the Green Park Inn, as well as re-vegetation of trees along the widened road. The stone walls to be removed during construction would be replaced. Decorative lamp posts also would be provided in front of the Inn. An additional stone wall would be placed between the new parking lot and the widened road. The Green Park Inn's sign would be relocated.

A final landscape plan would be developed in cooperation with the State Historic Preservation Officer, the Advisory Council on Historic Preservation, the Town of Blowing Rock, and other consulting parties.

---

### 5.4.3 Offer Displaced Contributing Structure For Sale and Conduct Historic American Building Survey

The Coxe Cottage (#22 in Table 5-1) and another cottage (#21), both contributing structures to the district, would be displaced by the Widening Alternative. No sign of occupancy at the Coxe Cottage was found during the historic resource field surveys. To preserve the structures, NCDOT would offer the current owners of the Coxe Cottage (#22 in Table 5-1) and cottage #21, the opportunity to move the houses to other sites within the district at no cost to the owners. If the current owners are not interested in that proposal, NCDOT would offer the houses for sale at a nominal fee to other parties who are willing to move the structures to different sites within the district. If no suitable sites can be found within the district, the current owners or other parties may be offered the opportunity to relocate the structures to other sites outside the district. If the structures must be demolished, their exteriors would be recorded photographically and interior floor plans would be prepared prior to demolition according to the standards of the Historic American Building Survey (HABS).

### 5.4.4 Construction Planning and Operations

There are steps that would be taken to minimize harm during construction. Examples of such steps are addressed in Section 4.16 in Chapter 4 and will continue to be addressed throughout the construction planning process if the Widening Alternative is selected as the preferred alternative.

The following incentives (see Section 4.16.2 of Chapter 4) could reduce community impact by compressing the timeframe of the contractor activities and construction elements that tend to create adverse conditions for the public:

- Lane Rental Contract Provision. A lane rental contract provision can be beneficial by creating an incentive for the contractor to minimize lane closures.
- Quality Bonus Program. Quality scoring factors could include such items as success in effective blasting management, coordination of utility relocations to minimize disruption of service, dust control, maintenance of access to businesses and residences, erosion control, and safety.
- Milestone Incentive/Disincentive Provisions. In some instances, it is advantageous for the owner to provide incentive/disincentive provisions in the construction contract for certain critical elements. These could be used to help minimize impacts to the community.

The NCDOT will consider these and other potential incentives in developing construction contracts.

Innovative techniques described in Section 4.16.3 of Chapter 4 that would be applied to the construction process include:

- Integrated construction management;
- Early resident engineer involvement;
- Special construction contractor pre-qualification and personnel approval;
- Public outreach program; and
- Rapid response crew.

---

As described in Section 4.16.4 of Chapter 4, NCDOT would enhance blasting safety and minimize the risk of impacts at blast vibration and air-overpressure (the increase in air pressure caused by blasting) on neighbors and structures by requiring the contractor to submit a general blasting plan and specific plans for individual blasts. In addition, a program designed to monitor blast-induced ground vibration and air-overpressure would be implemented to ensure that nearby property and occupants are not damaged or unduly disturbed by blasting. Should monitoring reveal that the contractor exceeded specification levels, the NCDOT could shut down the contractor's blasting operation and require the contractor to submit a blasting resumption plan that describes how the incidents leading to non-compliant levels would be prevented on future blasts.

As described in Section 4.16.8 of Chapter 4, air quality impacts from construction would be reduced with control measures.

## **5.5 Coordination**

### **5.5.1 State Historic Preservation Office**

#### *During Preparation of 1993 Environmental Assessment*

Contact with the North Carolina Division of Archives and History (State Historic Preservation Officer or SHPO) was initiated in the early stages of preliminary design. The agency:

- Provided comments on the original project scoping letter and on the Blowing Rock Bypass scoping letter;
- Met twice with NCDOT representatives to discuss the Green Park Historic District's boundaries and potential impacts;
- Reviewed and commented on the findings of the historic and archaeological resource surveys;
- Concurred with the determined boundaries of the historic district and the identified contributing structures; and
- Concurred with the FHWA's finding that the Widening Alternative would have an Adverse Effect on the historic district.

Issues raised in connection with the potential impacts to the Green Park Historic District, avoidance alternatives, and measures to minimize harm are as follows:

- Alternatives that avoid the Green Park Inn and the Green Park Historic District should be seriously examined;
- Visual impacts to the district should be evaluated. Landscaping should be included as a measure to minimize harm; and
- Potential air, noise, and traffic impacts should be evaluated.

All of these issues have been addressed in the DEIS.

---

### ***During 1997 Bypass Alternatives Study***

Contact with the SHPO was initiated in the early stages of the Bypass Alternatives Study. They were in attendance at the two interagency meetings held on February 1, 1996 and December 17, 1996.

### ***During Preparation of the DEIS***

Review and Approval of Historic Resource Survey Reports. The SHPO reviewed and concurred with the findings in the historic architecture survey report (Mattson Alexander & Associates, May 1997) prepared to determine the concurrence with the report's findings in a letter dated July 9, 1997 (see Appendix A). This survey only included the project area south of the Blue Ridge Parkway. A second survey for the Parkway and areas north of the Parkway was conducted in 2000. (Mattson, Alexander & Associates, March, 2000). The Blue Ridge Parkway was determined to be eligible for inclusion in the National Register. No structures over 50 years old exist north of the Parkway. Since the Parkway's eligibility was established in an earlier context not associated with the US 321 project and no structures over 50 years old were found north of the Parkway, the SHPO did not need to review and concur with the findings in that report.

NEPA/404 Merger Team. NEPA/Section 404 merger meetings are held under an agreement between the NCDOT, the FHWA, and the US Army Corps of Engineers (USACOE). They are a formal means to involve early in the project development process the state and federal regulatory agencies that have an interest in the issuance of USACOE dredge and fill permits for wetland and stream impacts under the terms of Section 404 of the Clean Water Act. The SHPO also participated in those meetings. Merger meetings for this project were held on November 4, 1999, December 14, 2000, and January 18, 2001. These meetings are described in Section 8.4.1 of Chapter 8.

Field Review Meeting. A field reconnaissance was conducted on August 22 and 23, 2000 with representatives of the FHWA, the SHPO, the NCDOT, the National Park Service, and the Advisory Council on Historic Preservation. The purpose of the field reconnaissance was to view and discuss draft preliminary design plans and impact issues, including those for the Widening Alternative.

Other. A meeting held on February 22, 2000 with the SHPO. The purpose of the meeting was to discuss plans for the evaluation of impacts and the development of mitigating measures.

## **5.5.2 Other Meetings**

### ***During Preparation of 1993 Environmental Assessment***

Meetings were held with the owners of the Green Park Inn on September 11, 1991 and on November 16, 1992. One of the owners at the time was the president of the Blowing Rock Historical Society. Concerns expressed were: the potential for the project to increase traffic volumes on US 321, the visual impact of the project, the need for the parking and sign opposite the Inn on US 321 to be replaced, the potential reduced appeal of the Inn for guests during construction, and the potential for construction blasting to damage the Inn's structure.

### ***During Preparation of the DEIS***

A meeting was held on February 24, 2000 with portions of the study team, the Blowing Rock Historical Society, and other interested parties, including a Green Park Inn owner. At this meeting the study team presented the positions and issues of the Historical Society. Members of the study team met with the Blowing Rock Historical Society again, including a Green Park Inn

---

owner, on October 9, 2000 in order to further discuss the issues and concerns that the Historical Society had with the project.

### **5.5.3 Consulting Parties**

The historic resources identified for this project and the impacts of the Build Alternatives are discussed in detail throughout this chapter, in Section 3.7 of Chapter 3, and in Section 4.6 of Chapter 4. Section 106 of the National Historic Preservation Act of 1966 (NHPA) requires Federal agencies (in this case, the FHWA) to consider the effects of their actions on historic properties. Since 1999, a cornerstone of the Section 106 process is that FHWA must identify the appropriate parties that should be involved in the process of identifying historic properties in a project area, assessing a proposed project's effects on historic properties, and potential means of minimizing harm to those resources. This involvement is referred to as "consultation."

During the review of the DEIS, all consulting parties will be given the opportunity to comment on the following related to historic resources:

- Whether any additional resources may exist in the project area;
- The correctness of effect determinations contained in the DEIS; and
- The appropriateness of mitigation measures proposed and other measures that might be considered.

If a preferred alternative is selected that has an adverse effect on historic resources, all consulting parties will have an opportunity to provide comment during the development of a Memorandum of Agreement (MOA).

The Section 106 regulations lists the following as potential consulting parties:

- State and/or Tribal Historic Preservation Officer;
- Indian Tribes and Native Hawaiian organizations, as applicable;
- Representatives of local governments;
- Applicants for Federal assistance, permits, licenses and other approvals; and
- Additional parties.

Consulting parties for the US 321 project are the SHPO, the Advisory Council on Historic Preservation, and the NCDOT. The FHWA also invited representatives of the Town of Blowing Rock, Watauga County, Caldwell County and representatives of North Carolina's Native Americans. The Concerned Citizens of Blowing Rock is also a consulting party.

The "additional" consulting parties referenced in the Section 106 regulations were identified in three ways. During Fall 2000 briefing meetings held in the project area, Section 106 consulting party regulations were discussed and an invitation to be a consulting party was extended to the members of the Project's Citizen Advisory Committee members. An invitation to be a consulting party was also extended through a Spring 2001 newsletter and again in a Summer 2001 newsletter.