#### Great Smoky Mountains National Park Gatlinburg Spur Safety Improvements Environmental Assessment



### You are Invited to Participate

The National Park Service (NPS) is preparing an environmental assessment (EA) and seeking public input on proposed safety improvements along the Gatlinburg Spur (the Spur). The Spur is part of the Foothills Parkway in Great Smoky Mountains National Park (Park) and comprises approximately 4.2 miles of four-lane divided urban parkway serving an annual daily average of 49,000 vehicles per day between Pigeon Forge and Gatlinburg in Sevier County, Tennessee. The Park is initiating a 30-day public scoping period in compliance with the National Environmental Policy Act (NEPA) and National Historic Preservation Act (NHPA).

The park obtained initial public input on the proposed project during a civic engagement public comment period from April 20 through May 22, 2020. NPS received 40 responses expressing support for the Spur safety improvements as well as a range of alternative elements for consideration. Input received during civic engagement was considered during development of preliminary alternatives for the proposed improvements. As part of the current public scoping comment period, NPS is soliciting input on the proposed action, preliminary range of alternatives, and issues that should be considered during the NEPA review. For additional information on the planning project and to provide comments please visit <a href="https://parkplanning.nps.gov/SpurImprovements">https://parkplanning.nps.gov/SpurImprovements</a>.

### Schedule

This public scoping period represents the second opportunity for you to be involved in the planning process. The comment period will be open through September 26, 2021. Once the NPS has reviewed all public and agency comments on the preliminary range of alternatives, the Park will prepare the EA. There will be one additional opportunity for public comment when the EA is released.

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April/May 2020	Civic engagement period
Now – Sept 26, 2021	Public scoping period (we are here)
October 2021	Review public scoping comments and finalize the range of alternatives
November / December 2021	Prepare internal draft EA
Winter 2022	Release EA for public review / Public comment period
Spring 2022	NPS decision

## Background

Federal legislation authorizing the Foothills Parkway also provided for reconstruction of the 4.2-mile section of U.S. 411 from Pigeon Forge to Gatlinburg to create the Spur. As part of the Foothills Parkway, the National Park Service manages the Spur as a limited-access road with the goal of retaining its parkway character and design themes. Unlike other sections of the Foothills Parkway and other Park roads, commercial vehicle use is not prohibited on the Spur.

The Spur (figure 1) runs primarily northsouth, connecting the cities of Pigeon Forge and Gatlinburg, Tennessee. The West Prong of the Little Pigeon River (West Prong) runs between the northbound and southbound lanes, with bridges connecting intersections on either side. The Spur serves local communities, commuters, Park visitors, and Park staff. The roadway also connects to the Gatlinburg Bypass, providing an alternate route to the Park without going through downtown Gatlinburg. Park visitation has continued to grow in recent years, with the number of visitors increasing more than 30 percent from 2010 to 2019. Over the same timeframe, the population of Sevier County increased 9.3 percent to 98,250 people. Traffic volumes on the Spur are particularly high during daily peak commuting hours and throughout the Park's peak visitation season(s).

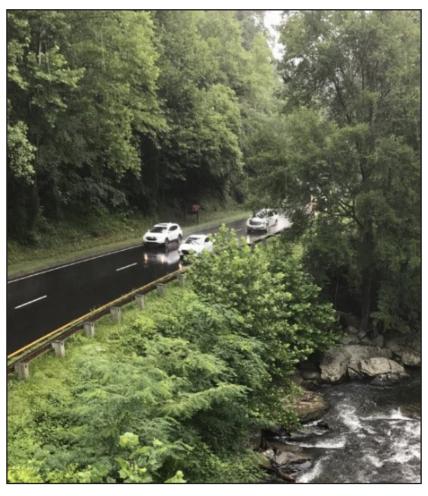


Figure 1 | Gatlinburg Spur and West Prong

In June 2019, the U.S. Department of Transportation's Federal Highway Administration (FHWA) completed a Traffic Study within the Gatlinburg Spur Corridor of the Park. The study analyzed existing and future traffic conditions, with and without road improvements, focusing on four intersections or sub-areas that comprise the project area (*figure 2*). The study indicated a need to address specific safety issues and traffic congestion at the intersections.

### Purpose and Need for Action

The purpose of the action is to improve safety and traffic flow along the Spur in a manner that retains the parkway character of the road. The proposed project is needed to address high traffic volume, congestion issues, and safety concerns.

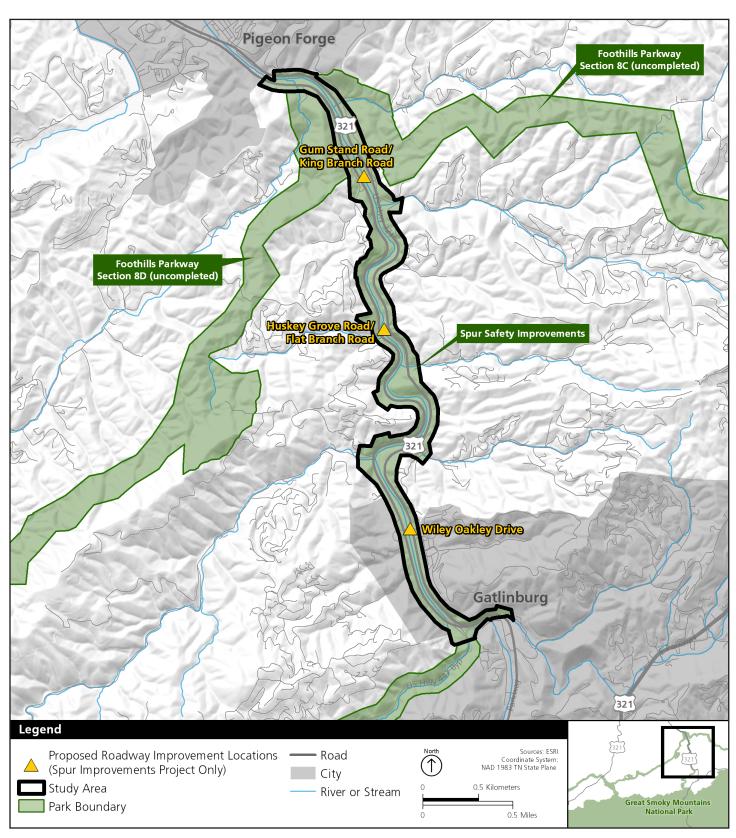


Figure 2 | Project Area



### **Preliminary Alternatives**

As part of the EA, intersection-specific alternatives are being considered as well as corridor-wide improvements. A no action alternative will also be analyzed. Under the no action alternative, there would be no change to the existing corridor and intersections along the Spur. Congestion and safety concerns are expected to continue if no action is taken.

#### **Corridor-wide Improvements:**

Corridor-wide improvements could be implemented at select locations along the Spur to address current or future safety needs and may include the following:

- Install curb and gutter treatments in select locations to reduce shoulder drop-off issues and discourage visitors from parking along the roadway shoulder in undesignated locations. Specific locations for curb and gutter treatments could include areas where rutting is evidence of tires dropping off the edge of the pavement or areas where there is evidence of roadside parking.
- Implementation of rockfall mitigation measures in areas where exposed rock faces create a safety risk. Potential options under consideration include slope stabilization techniques such as rock scaling, anchors, and shotcrete, and rockfall protection measures such as mesh and cable nets, barriers, and catchment areas. In some cases, minor realignment of the roadway could be necessary. For example, construction of a barrier or catchment to prevent rock from falling onto one side of the road might also require shifting the travel lanes slightly.
- Install intelligent transportation systems (ITS) for speed monitoring and wildlife protection. Speeding motorists and bear/vehicle collisions along the Spur are not uncommon. ITS using dynamic messaging could serve the multiple purposes of encouraging drivers to adhere to the speed limit and alerting motorists to the presence of bears.
- Harden shoulders/develop pull-off areas. The installation of additional pull-off areas or hardened shoulders in selected areas would improve emergency vehicle access and provide space for disabled vehicles or motorists needing to pull safely off the roadway. Pull-off areas would be in locations that are generally already flat and vegetated with grass and could accommodate 30 feet long and 12 feet wide paved areas.



# **Sub-Area 1:**Gum Stand Road Crossover Bridge

Issue: The location of the bridge in sub-area 1 creates a difficult pattern for drivers entering and exiting the bridge. For example, a driver turning left from the bridge onto the Spur must be aware of thru traffic on the Spur, as well as traffic turning left in front of them onto the bridge. In addition, drivers attempting to access King Branch Road/Gnatty Branch Road or Gum Stand Road from the bridge are forced to quickly merge across two lanes of traffic.

Proposed Improvement: At this intersection, NPS would convert the existing bridge to a contra-flow bridge where vehicles travel to the left of opposing traffic, making left-turn movements to and from the bridge free-flow movements into an acceleration lane (see *figure 3*). This design would allow vehicles crossing the bridge to turn left onto the Spur without having to stop or cross oncoming traffic. Vertical separation (including raised islands or delineators) would be installed along the northbound Spur's acceleration lane between the bridge and King Branch Road/Gnatty Branch Road to prevent vehicles from entering the bridge into the wrong lane. The same would occur southbound. Signage would also note this restriction.

# **Sub-Area 2:** Huskey Grove Road / Flat Branch Road

**Issue:** On-ramps and acceleration lanes at Huskey Grove Road and Flat Branch Road are shorter than required for the speed limit on the Spur. This results in vehicles stopping at the end of the on-ramps, as opposed to yielding, and creates unsafe traffic conditions.

Proposed Improvement: NPS would extend the acceleration lanes along the west side of both the southbound and northbound Spur (*figure 4*). Extending the existing lanes would allow for traffic entering the Spur to yield to oncoming traffic instead of coming to a full stop, which is the current traffic pattern. Extension of the acceleration lanes would require grading and allow for greater merging distance and time for vehicles to increase speed and effectively merge into traffic.

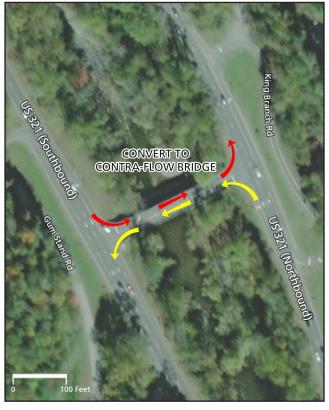


Figure 3 | Proposed Improvement: Sub-Area 1

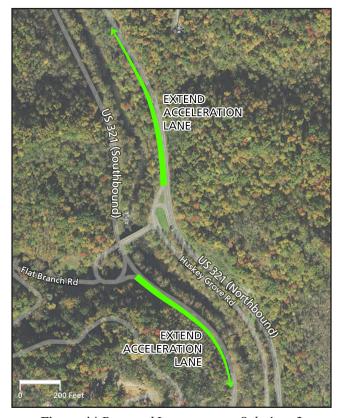


Figure 4 | Proposed Improvement: Sub-Area 2

# **Sub-Area 3:**Wiley Oakley Crossover Bridge

Issue: Wiley Oakley Crossover Bridge connects Wiley Oakley Drive and Little Smoky Road across the West Prong. Access to the Gatlinburg Welcome Center is provided less than 200 feet west of this intersection. East of the Spur, the roadway continues as Little Smoky Road, intersecting with North Mountain Trail and traveling into the Westgate Resorts property. This bridge is heavily used because of the location of the welcome center on one side and Westgate Resorts property on the other. Backups on the bridge can be significant for motorists turning left or going straight. Additionally, significant at-grade perpendicular crashes can occur when motorists attempt to cross both lanes of the Spur to continue straight onto the side roads in either direction.

**Proposed Improvement – Option 1:** NPS would construct a flyover bridge to provide a grade-separated interchange to eliminate vehicles crossing both lanes of the Spur (*figure 5*), reduce the number of left-hand turn movements, and allow motorists to merge onto the Spur more easily. The existing bridge would be removed and existing utilities would be relocated.

Proposed Improvement – Option 2: NPS would construct two contra-flow bridges in place of one bridge at Wiley Oakley Drive (*figure 6*). The two contra-flow bridges would be located north and south of the existing structure along the Spur and would create intersections where vehicles could only make U-turns, reducing the potential for atgrade perpendicular crashes. The NPS is also considering two one-way bridges under this option, as opposed to two contra-flow bridges. One-way bridges would require a smaller footprint while achieving similar safety goals.

Proposed Improvement – Option 3: NPS would remove the left-turn lane from the northbound Spur as well as restrict vehicles from crossing over the Spur when going to or from the Westgate Resorts Road to the existing Wiley Oakley Drive bridge. Drivers would instead continue northbound or southbound on the Spur to the next available crossover bridge and/or use local roadways to reach their desired destination.



Figure 5 | Proposed Improvement: Sub-Area 3, Option 1



Figure 6 | Proposed Improvement: Sub-Area 3, Option 2



### **Alternatives Considered But Dismissed**

During the civic engagement period, several commenters suggested installing traffic signals along the Spur to improve safety and reduce speeds, as well as reduce the potential for accidents at the crossover bridge intersections. The potential for installing traffic signals at intersections along the Spur was dismissed because of their incompatibility with the parkway purpose and design, as well as potential impacts on congestion in Gatlinburg and Pigeon Forge.



# Your participation will help shape this Management Plan.

#### **How to Comment**

Until September 26, there are a variety of ways you can submit comments:



Submit comments electronically (preferred method): <a href="https://parkplanning.nps.gov/SpurImprovements">https://parkplanning.nps.gov/SpurImprovements</a>



Submit written comments by mail to: Great Smoky Mountains National Park Gatlinburg Spur Safety Improvements EA 107 Park Headquarters Road Gatlinburg, TN 37738

The public comment period ends on September 26, 2021.