

## WHITE PAPER

### **Applicability of Section 4(f) to the Route 250 Bypass Interchange at McIntire Road (IMR) Project**

#### **City of Charlottesville, Virginia**

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Prepared for: Route 250 Bypass Interchange at McIntire Road Project Steering Committee

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The purpose of this white paper is to present Section 4(f) as it applies to the Route 250 Bypass IMR project, and how the project team anticipates evaluating impacts to Section 4(f) resources.

Section 4(f) is a complex environmental regulation to which the Federal Highway Administration (FHWA) must comply before taking action on a transportation project. As a project sponsored by FHWA that proposes to affect Section 4(f) resources, the City of Charlottesville and the project team recognize the importance of following established nationwide Section 4(f) guidance. Thus, this white paper begins with an abridged discussion of Section 4(f), noting the context which is most relevant to the Route 250 Bypass IMR project. A discussion of Section 4(f) as it applies to this project follows the background discussion.

Much of the non-project specific technical information in the opening sections is drawn (or repeated) from two important sources – the March 1, 2005 FHWA Section 4(f) Policy Paper, available along with numerous other helpful documents at [www.environment.fhwa.dot.gov](http://www.environment.fhwa.dot.gov), and the Section 4f Interactive Training website at [www.Section4f.com](http://www.Section4f.com). Due to the volume and complexity of these regulations, it is not feasible to provide a complete overview of Section 4(f) in this white paper. For more information on nationwide Section 4(f) policy and practice, a review of the Policy Paper or visit to these websites is strongly recommended.

### **I. SECTION 4(f) BACKGROUND**

Section 4(f) of the U.S. Department of Transportation Act of 1966 (49 USC Section 303) stipulates that the Federal Highway Administration (FHWA) and other US Department of Transportation (USDOT) agencies cannot approve the *use* of land from a *significant* publicly owned public park, recreation area, wildlife or waterfowl refuge, or any significant historic site unless the following conditions apply:

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

Section 4(f) applies to any actions of agencies within the USDOT that affect the resources listed above. Prior to obligation of federal funding earmarked as High Priority Project No. 5044 in the Safe, Accountable, Flexible, Efficient, Transportation Act: A Legacy for Users (SAFETEA-LU), the Route 250 Bypass IMR project must comply with Section 4(f).

Section 4(f) includes several key terms that must be understood prior to any discussion. The following section includes definitions of some of the key terms most relevant to the Route 250 Bypass IMR project.

## **A. Definitions**

The most important term to understand for Section 4(f) is “**use**.” Section 4(f) is not an issue unless a project “uses” property from a resource protected by the Section 4(f). Generally, "use" occurs with a DOT approved project or program (1) when land from a Section 4(f) Resource has been permanently incorporated into a transportation facility (which occurs when land is acquired or a permanent easement obtained from a resource protected under Section 4(f)); (2) when there is a temporary occupancy of land that is adverse in terms of the Section 4(f) statute's preservationist purposes (such as a temporary constructive easement); or (3) when there is a constructive use of land.

Constructive use is a type of indirect use in which a transportation project's proximity impacts (as opposed to direct impacts) are so severe that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired. “**Substantial impairment**” occurs only when the protected activities, features or attributes of the resource are substantially diminished. Examples include excessive noise level increases, diminished aesthetic features, ecological intrusions, and other indirect impacts to the resource's environment or utility.

The term “**feasible and prudent**” is integral to the Section 4(f) process. It refers to the viability of alternatives being analyzed to avoid impacts to Section 4(f) resources. The term "feasible" refers to the constructibility of a project – whether or not it can be built using current construction methods, technologies and practices. The term "prudent" is more difficult to define. An alternative may be rejected as not being prudent for any of the following reasons:

- it does not meet project purpose and need
- it involves extraordinary operational or safety problems
- there are unique problems or truly unusual factors present with it
- it results in unacceptable and severe adverse social, economic, or other environmental impacts
- it would cause extraordinary community disruption
- it has additional construction costs of an extraordinary magnitude
- there is an accumulation of factors that collectively, rather than individually, have adverse impacts that present unique problems or reach extraordinary magnitudes.

Alternatives considered to avoid impacts to Section 4(f) resources can be rejected for either not being feasible or prudent or both. When considering multiple alternatives where some impact a Section 4(f) resource while others do not, an avoidance alternative must be selected if it is feasible and prudent.

Park and recreational resources are “**significant**” when the local, state, or federal officials with jurisdiction over the resource determine that one of the major purposes and functions of the resource is for meeting park or recreation needs in the area. Determinations of significance apply to the entire resource and not just the portion of the property proposed for use by a project. An historic site is considered “significant” if the site is listed on or eligible for the National Register of Historic Places, pursuant to the National Historic Preservation Act (NHPA).

“*De minimis*” is a new Section 4(f) application that applies to some Section 4(f) uses. As established in SAFETEA-LU, FHWA may determine that certain uses of Section 4(f) land after mitigation or enhancement are so minimal that the protected resource will not be adversely effected. For historic sites, “*de minimis*” determinations can be made when a determination of either "no adverse effect" or "no historic properties affected" is made in compliance with Section 106 of the NHPA. “*De minimis*” impacts on parks are defined as those that do not "adversely affect the activities, features and attributes of the Section 4(f) resource” provided the officials with jurisdiction over the resource agree in writing. In the

case of *de minimis* determinations, feasible and prudent avoidance alternatives do not need to be considered.

Certain portions of Section 4(f) resources may be exempt from Section 4(f) if evidence exists showing that the portion of the resource had been reserved for highway use prior to, or at the same time as, establishment of the resource. This so called “**joint development**” exempts resources from Section 4(f) because the land was reserved from, and thus, has never been a part of the resource.

## **B. Section 4(f) Evaluations**

As stated in the FHWA Section 4(f) Policy Paper, the Section 4(f) “statute does not require the preparation, distribution or circulation of any written document. The statute also does not contain a public comment element. Other than the U.S. Departments of Interior, Housing and Urban Development, and Agriculture, the statute does not require or establish any procedures for coordinating with other agencies or the public.”

Nevertheless, when a Section 4(f) resource may be affected by a FHWA action, a Section 4(f) evaluation is required to be prepared in accordance with FHWA regulations to determine whether there is a feasible and prudent alternative to the use of the land from the resource in question and to document whether all possible planning has occurred to minimize harm to the resource. There are two types of evaluations that can be prepared depending on the circumstances: “**individual**” evaluations or “**programmatic**” evaluations. The requirement for preparing Section 4(f) evaluations are found in 23 CFR 771.135 and guidance on preparing them can be found in FHWA’s *Technical Advisory, Guidance for Preparing and Processing of Environmental and Section 4(f) Documents: T6640.8A* (available at [www.environment.fhwa.dot.gov](http://www.environment.fhwa.dot.gov)).

Section 4(f) evaluations may be processed by FHWA as either a stand alone document or as part of the environmental document (Environmental Assessment or Environmental Impact Statement) required per the National Environmental Policy Act (NEPA). Typically, a stand alone Section 4(f) evaluation is only prepared under unusual circumstances; on Federal-aid projects that are developed in accordance with standard procedures, the Section 4(f) evaluation is incorporated into the environmental document and circulated to the public as part of the public involvement process. Under these circumstances, FHWA will consider any comments received on the Section 4(f) evaluation as part of the NEPA public involvement process.

### *Individual evaluations*

An individual Section 4(f) evaluation has two parts: a draft and a final. The draft evaluates alternatives which avoid the use of the Section 4(f) resource. The final version discusses – if applicable – the basis for any determination that a Section 4(f) avoidance alternative is not feasible and prudent. The Section 4(f) draft evaluation is set up to provide a description of: the project, the Section 4(f) property (or properties) affected by the project alternatives under consideration, the impacts to the Section 4(f) resource, the avoidance alternatives, and the impacts associated with the avoidance alternatives. The draft evaluation does not identify the selected alternative; that discussion is reserved for the next step in the evaluation process, the final evaluation. Specifically, the draft usually contains: 1) an Introduction; 2) Description of Proposed Action; 3) Description of Section 4(f) Resources; 4) Description of Impacts; 5) Avoidance & Minimization Alternatives; 6) Mitigation and 7) Coordination.

The final individual evaluation includes all of the information in the draft evaluation, plus 1) a discussion of the preferred alternative, and any use associated with the preferred alternative; 2) the basis for concluding that there is no feasible and prudent alternative to the use; 3) a determination that the project includes all planning to minimize harm; and 4) a demonstration that the preferred alternative causes the least harm of any feasible and prudent alternative under consideration after considering mitigation measures.

The draft Section 4(f) evaluation is generally included with the Environmental Assessment (EA) or Draft Environmental Impact Statement (DEIS); the final evaluation is often included with the Finding of No Significant Impact (FONSI) or Final Environmental Impact Statement (FEIS).

The draft Section 4(f) Evaluation is subject to a 45-day review by the U.S. Department of the Interior and as appropriate, the U.S. Department of Agriculture and the Department of Housing and Urban Development. Additional review of the final Section 4(f) Evaluation is possible if these agencies have not concurred that there is no feasible and prudent alternative to using property from a resource protected under Section 4(f) and that all planning to minimize harm has occurred.

#### *Programmatic evaluations*

Programmatic Section 4(f) evaluations can be used in place of individual evaluations where uses are considered minor. The primary advantage of a programmatic evaluation is that it saves time (it does not require the 45-day review by the federal agencies listed above) because the conditions for using a programmatic evaluation have already been established by rulemaking. Therefore, as long as the conditions are met, then a programmatic evaluation can be used. There are currently five types of programmatic evaluations:

- Independent Walkway and Bikeways Construction Projects
- Historic Bridges
- Minor Involvements with Historic Sites
- Minor Involvements with Parks, Recreation Areas and Waterfowl and Wildlife Refuges
- Net Benefit to a Section 4(f) Property

Programmatic evaluations are not exemptions from Section 4(f) compliance, and must include the same level of information and alternatives analysis included in individual evaluations.

#### *“De minimis” determinations*

Although technically not a Section 4(f) evaluation, **“de minimis” determinations** can also be used by FHWA to address effects to Section 4(f) resources that are not considered adverse. As stated in FHWA’s *Guidance for Determining De Minimis Impacts to Section 4(f) Resources* (December 13, 2005), “once the U.S. Department of Transportation (DOT) determines that a transportation use of Section 4(f) property, after consideration of any impact avoidance, minimization, and mitigation or enhancement measures, results in a *de minimis* impact on that property, an analysis of avoidance alternatives is not required and the Section 4(f) evaluation process is complete.”

For both historic properties and parks, the official with jurisdiction over the resource must concur in writing that the Section 4(f) use would have no adverse effect in order for FHWA to make a *de minimis* determination. In the case of historic resources, that official is the Virginia Department of Historic Resources (VDHR), which must concur with a “no adverse effect” or “no historic properties affected” as part of the Section 106 process under the NHPA. In the case of public parks and

recreational sites, de minimis determinations cannot be made until after public notice and opportunity for public review and comment.

De minimis impact findings are made for specific Section 4(f) resources as opposed to entire projects, i.e., a single park or historic site. If multiple Section 4(f) resources may be affected by a project, de minimis determinations can be made for some or all of the resources, provided they qualify, thereby streamlining the evaluation process required for that particular resource.

### **C. Alternatives Analysis**

The most important part of any Section 4(f) evaluation is the alternatives analysis. In order to prove that there is no “feasible and prudent” alternative to the use of Section 4(f) land, the alternatives evaluation must address both location alternatives and design shifts that totally avoid the land. Furthermore, alternatives and design shifts that cannot totally avoid the land but that minimize harm to the resource must also be considered unless they are not “feasible and prudent.”

The following quote is directly from the FHWA Section 4(f) Policy Paper of March 1, 2005, with emphasis added:

“Where sufficient analysis demonstrates that a particular alternative is not feasible and prudent, the analysis or consideration of that alternative as a viable alternative comes to an end. If all alternatives use land from 4(f) resources, then an analysis must be performed to determine which alternative results in the least overall harm to the 4(f) resources. *If the net harm to 4(f) resources in all the alternatives is equal, then FHWA may select any one of them.* In other words, if the project proposes to use *similar amounts of similar 4(f) resources*, there is no alternative that would cause the least overall harm. In either situation, it is essential that the agency having jurisdiction over the 4(f) resource be consulted.

It should be noted that *the net harm analysis is governed by all the possible mitigation* that could be done to minimize harm to the 4(f) resource. The net harm should be determined in consultation with the agency having jurisdiction over the resource or, in the case of historic sites, the State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO), as appropriate. By including mitigation, impacts on the 4(f) property could be reduced or eliminated. The alternative that results in the least net harm must be selected.

Not all uses of 4(f) resources have the same magnitude of impact and not all 4(f) resources have the same quality. *A qualitative evaluation is required.* For example, evaluation of the net impact should consider whether the use of the 4(f) property involves:

- A large taking or a small taking in relation to the overall size of the resource; or
- Shaving an edge of a property as opposed to cutting through its middle; or
- Altering part of the land surrounding an historic building rather than removing the building itself; or
- Examining the key features of the 4(f) resource or
- An unused portion of a park rather than a highly used portion.

When different alternatives propose to use different 4(f) resources, the importance of the resources must be considered. For example, three marginal acres of a large park may be less important than one acre of a smaller city park. To provide support for these complex evaluations, the officials with jurisdiction over the 4(f) resources should be consulted and their opinions documented in the administrative record.” (End quote)

*Nowhere in any Section 4(f) policy, regulation or guidance does it state that the alternative with the smallest area (or “footprint”) of resource taking must be selected. While the alternative with the smallest area of resource taking may very well have the least harm on a resource, other factors must be considered as part of the net harm analyses.*

SAFETEA-LU Section 6009 directs the Secretary of the US Department of Transportation to promulgate regulations that will clarify the factors to be considered and the standards to be applied in determining the prudence and feasibility of alternatives. Current rulemaking (Docket No. FHWA-05-22884; RIN 2125-AF14 and 2132-AA83; Federal Register July 27, 2006) proposes to clarify those standards as directed by SAFETEA-LU. The rulemaking, which is expected to be final in October 2007, does not change Section 4(f); rather, it develops regulation based on established Section 4(f) practice and case law.

## **II. SECTION 4(f) AS IT APPLIES TO THE PROJECT**

### **A. Section 4(f) Resources in the Project Area**

Two types of Section 4(f) resources are located within the Route 250 Bypass IMR project area: significant public parks and significant historic sites. The project team has consulted with the Charlottesville Parks and Recreation Department and received concurrence from FHWA that all parks within the project area are significant and thus subject to Section 4(f). This includes the primary portion of **McIntire Park**, located north of the Route 250 Bypass; **McIntire Skate Park**, located in the southeast quadrant of the intersection; and **Bailey Park**, a pocket park located west of the intersection along Route 250. Other public land located in the area, including the former Charlottesville and Rapidan Railroad right-of-way on the west side of McIntire Road, have been determined to not be Section 4(f) resources.

The project team has completed a Phase I Cultural Resources Investigation and received comments from VDHR. Based on the survey and comments, there have been two significant historic sites identified to date that would be subject to Section 4(f): **807 Park Street**, a contributing element to the Albemarle County Courthouse Historic District (National Register listed) and the **Rock Hill Academy landscape** (National Register-eligible). There are two sites in the project area that are undergoing additional study to determine their significance (eligibility for the National Register): **501 Park Hill** and the **McIntire/Covenant School**. There is one archeological site that will be further evaluated for National Register eligibility if the project cannot avoid the site.

The project team is also evaluating the potential for certain resources to be exempt from Section 4(f) as a result of joint development. This applies primarily to Bailey Park and McIntire Park, both of which have references to transportation elements in their development history.

### **B. Section 4(f) Evaluation Methodology**

In the case of the Route 250 Bypass IMR project, a use would most likely occur when a portion of Section 4(f) resources are permanently incorporated into a transportation facility through purchase of

right-of-way or permanent transportation easement. Compared to direct use, constructive use is a much less common form of use. Nevertheless, the potential for constructive use will be evaluated by the project team as needed, particularly for resources that are further removed from the project area (807 Park Street and 501 Park Hill).

As mentioned above, the project team has coordinated with VDOT, FHWA, the City of Charlottesville Parks and Recreation Department and VDHR to identify potential Section 4(f) resources in the project area. Based on this preliminary resource assessment it appears that an individual evaluation is most appropriate for this project. An individual evaluation can incorporate effects to all resources in a single document and thus seems to be the most straight-forward approach. The project team anticipates that the draft evaluation will be included as an appendix to the NEPA environmental document (currently expected to be an Environmental Assessment) and will be available for public review as part of that document.

Although not anticipated at this time, the results of ongoing alternatives analysis and coordination with officials with jurisdiction over project area resources may lead to a de minimis determination for one or more resources. Even if one or more of the resources is eligible for a de minimis determination, it will not eliminate the need for an individual evaluation.

### **C. Section 4(f) Alternatives Evaluation**

As required by Section 4(f), the project team will evaluate alternatives that avoid the use of Section 4(f) resources. The alternatives evaluation will look at alignment and design shifts that avoid use to all resources (i.e. "total" avoidance) as well as avoidance of specific resources.

The alternatives evaluation will determine if there are feasible and prudent alternatives to the use of Section 4(f) resources. For example, alternatives that avoid McIntire Park to the east and the west will be considered. Each one of these avoidance alternatives will be carefully evaluated in light of the criteria described in Section I. A. "Definitions" to determine if they are feasible and prudent.

Integral to the alternatives evaluation to determine feasibility and prudence will be the project purpose and need. Any alternative that does not meet project purpose and need is not feasible and prudent, and thus will not be further considered as a valid avoidance alternative.

Another important test for each avoidance alternative will be whether or not it results in unacceptable and adverse impacts to other environmental resources. Resources that will be considered include other Section 4(f) resources (especially historic sites), resources regulated under Section 404 of the Clean Water Act (streams and wetlands), residences, businesses and community facilities. The potential for community disruption will also be evaluated for each avoidance alternative. Finally, cost will be estimated for each avoidance alternative; alternatives that would involve excessive cost will not be considered feasible and prudent.

Following the avoidance evaluation, if there is no feasible and prudent alternative that avoids all resources the project team will perform a net harm analysis to determine which alternative minimizes harm to Section 4(f) park and historic resources. Mitigation opportunities will be factored into the alternatives evaluation. As discussed in Section I. "Background", the evaluation requires a qualitative analysis that carefully weighs the effects of each alternative. The net harm analysis will compare relative severity of harm to the resource (including area of impact), ability to mitigate adverse impacts, and the views of the officials with jurisdiction over the resource. If more than one alternative results in similar net harm to

## White Paper

City of Charlottesville, Virginia

June 4, 2007

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Section 4(f) resources, and no alternative presents the least net harm, than the project team/FHWA may choose freely among them.

In addition to the net harm analysis on Section 4(f) resources, there may be additional non-Section 4(f) environmental impacts that should be considered in determining which alternative is prudent. Factors that may be considered and contribute to the alternatives evaluation could include (among other factors identified in this section) those discussed at the Peer Review Session/Steering Committee Meeting on May 2 and 3, 2007. These factors include environmental health (Schenk's Branch and other water resources, noise, air quality), community facilities such as the Rescue Squad, neighborhood integrity and community cohesion. Effects to project resources as well as opportunities for mitigation may be evaluated for each of these environmental features.

### Sources:

FHWA Section 4(f) Policy Paper. Federal Highway Administration, March 1, 2005

[www.environment.fhwa.dot.gov](http://www.environment.fhwa.dot.gov)

Guidance for Determining De Minimis Impacts to Section 4(f) Resource. Federal Highway Administration, December 13, 2005.

Questions and Answers on the Application of the Section 4(f) *De Minimis* Impact Criteria. Federal Highway Administration, 2005. <http://www.fhwa.dot.gov/HEP/qasdemimus.htm>

Section 4(f) Interactive Training website, [www.section4f.com](http://www.section4f.com). Maryland State Highway Administration, 2006

Technical Advisory, Guidance for Preparing and Processing of Environmental and Section 4(f) Documents: T6640.8A. Federal Highway Administration, October 30, 1987.