

March 19, 2015

Mr. Shane Parris, PE
Resident Construction Engineer
South Carolina Department of Transportation
1868 Old Georgia Highway
Gaffney SC 29340

Re: Request For Information
I-85 Over Norfolk Southern Railroad
Bridge Replacement Package E
Cherokee County
SC File No. 1112.039094

Dear Mr. Parris:

An approved design exception request was included with the RFP information package which documents the existing vertical geometry in the area near the I-85 Bridge over the Norfolk Southern Railroad. The elements of the design exception are described as a stopping sight distance of 511 feet which correlates to a design speed of 56 mph (level grade) and 53 mph (grade adjusted) as well as a maximum grade of 4.5% which exceeds the maximum grade of 4.0% specified in the 2005 AASHTO *A Policy on Design Standards Interstate System*.

Field surveys of the grade approaching from the south (I-85 NB) show that the actual existing grade is 5.05% as opposed to 4.5% as documented in the approved design exception. This discrepancy does not affect the considerations documented in the design exception that ultimately led to the approval of the design exception:

- A 5.05% grade is still consistent with other grades along I-85 throughout Cherokee County
- Crash analysis performed demonstrated that the existing vertical geometry in this area does not have a significant impact on crashes. Therefore, the existing 5.05% vertical grade was captured in this analysis and was part of the basis for the conclusions regarding effects on crashes.
- Scope of this project is a bridge replacement and the amount of reconstruction to remedy the existing deficiencies remains significant.

The stopping sight distance and K-value documented in the approved design exception will be maintained in the final design. The vertical curve represents the more severe component of this design exception compared to the maximum grade and the existing condition will not be degraded. The mitigation strategies outlined in the design exception request will be implemented in the form of full shoulder widths in the southbound direction as well as additional clear recovery area to the outside in the northbound direction to prevent or reduce the severity of lane departure crashes.

Please advise if you need any additional information to evaluate this request.

Respectfully,



Andy Gillis
Preconstruction Manager

CC: Bill Hedgpath (UIG)
Lindy Hallman (UIG)
John Davis (UIG)