MINIMUM CRITERIA DETERMINATION CHECKLIST

TIP Project No.: B-5765

State Project No.: 45721.1.1

Project Location: Bridge No. 115 on SR 1711 over Winston-Salem Southbound

(WSSB) Railway in Davidson County.

Project Description: The North Carolina Department of Transportation (NCDOT) proposes to replace Bridge No. 115 on Gumtree Road (SR 1711) over WSSB Railway in the Town of Midway, Davidson County (refer to Appendix A, Figure 1). The purpose of the project is to replace a structurally deficient bridge.

Bridge No. 115 was constructed in 1975 and has a posted weight limit of 32 tons. The existing structure is a 3-span structural steel bridge that is 125 feet long with a clear roadway width of 27.75 feet. Bridge No. 115 carries 5,600 vehicles per day (2018 ADT), which is anticipated to increase to 8,400 vehicles by 2040. NCDOT Structure Management Unit records (May 2017) indicate that Bridge No. 115 has a Deck Condition rating of 4 (poor) out of 9, a sufficiency rating of 2, and was identified as a high priority bridge replacement due to sub-standard deck geometry and structural deficiencies.

Bridge No. 115 will be replaced in-place with an off-site detour. The proposed structure will be an approximately 156.5-foot long single-span welded steel-plate girder. The bridge typical section includes two, 12-foot lanes with 4-foot offsets for a minimum clear roadway width of 32 feet. The height of the structure will be increased approximately four feet, with a minimum vertical clearance over the existing railroad tracks of 23.5 feet. The use of sheet piles will allow WSSB Railway to construct an additional future track if needed. The project length is approximately 1,300 feet. The proposed design speed is 40 mph. Preliminary plans are included in Appendix A. The proposed project, B-5765, is state-funded with an estimated construction cost of \$1.7 Million.

Anticipated Permit or Consultation Requirements: No permits required. Railroad coordination is ongoing.

Special Project Information:

Environmental Commitments – The list of project commitments (green sheet) is included at the end of the checklist.

Design Exceptions – There are no anticipated design exceptions for this project.

08/21/19 1 of 6

Alternatives Evaluation-

- **No Build** The No-Build Alternative would not eliminate the structural deficiencies of the existing bridge, and thus is not a viable option.
- **Build Alternatives** The following Build Alternatives were considered:
 - 1. Rehabilitation The bridge was constructed in 1975. Some temporary repairs have been made previously. The corrugated steel deck has corroded; the steel beams and piles have experienced section losses due to corrosion. Replacement of these structural elements would effectively constitute replacing the bridge.
 - **2.** Offsite Detour (Preferred Alternative) An approximately 2-mile off-site detour utilizing Hebron Church Road and Old US 52 was evaluated and determined to be acceptable. This alternative is preferred as it minimizes relocatees, construction time, and overall project cost.
 - **3.** *On-site Detour* An on-site detour would require construction of a temporary detour bridge and result in a minimum of one additional relocatee, a longer construction schedule, and increased construction costs.
 - **4.** *Staged Construction* Staged construction was not evaluated due to the availability of an acceptable off-site detour.
 - **5.** *New Alignment* Given that the alignment for SR 1711 is acceptable, a new alignment alternative was considered infeasible as it would result in a higher overall project cost and would likely result in additional relocatees.

Relocations - Due to the increased height and length requirements of the replacement bridge, one residential relocatee is anticipated southwest of Bridge No. 115 (Parcel 8; refer to Appendix A, Sheet No. 4).

Pedestrian and Bicycle Accommodations - Bridge No. 115 is located on the 700-mile NC 2 (Mountains to Sea) state bike route, which follows Old US Highway 52 onto Gumtree Road within the study area. NCDOT Division of Bicycle and Pedestrian Transportation (DBPT) recommended that the replacement bridge and approaches include 4-foot shoulders (minimum), as well as a 42-inch high railing on the bridge. The Davidson County Comprehensive Transportation Plan recommends minimum 4-foot paved shoulders and 54-inch railing heights. As shown in Appendix A (Sheet No. S-2), the proposed replacement bridge includes 4-foot shoulders and a 54-inch high (4-foot, 6-inch) two-bar metal rail.

Detour - Traffic would be managed with an off-site detour. The detour would begin from Gumtree Road (SR 1711) to Hebron Church Road (SR 1713), to Old US 52, and end on Gumtree Road, for a distance of approximately 2 miles.

08/21/19 2 of 6

Threatened & Endangered Species - The biological conclusion for the Northern longeared bat (NLEB) is unresolved. No potential NLEB habitat or evidence of bats were observed by NCDOT biologists during a site visit on May 24, 2018. The USACE has developed a Standard Local Operating Procedure for Endangered Species (SLOPES) to address NLEB when they are the lead agency, which NCDOT will follow for this project. This procedure applies to projects in Divisions 9-14. The requirements of the SLOPES for NLEB will be completed prior to Let and will be submitted to the USACE.

Cultural Resources - NCDOT's cultural resources staff reviewed the project under a programmatic agreement with the State Historic Preservation Office and determined that there are no known National Register of Historic Places (NRHP) eligible or listed archaeological resources within or adjacent to the Area of Potential Effects (APE) and no archaeological survey is required (refer to Appendix B). The preliminary historic architecture and landscapes review indicated that a site survey was necessary to determine if a full National Register evaluation would be warranted. Based on the results of the site survey conducted on April 11, 2018, no historic properties will be affected by the proposed bridge replacement (refer to Appendix B).

Agency Comments - NCDOT sought input from resource and regulatory agencies via a Start of Study scoping letter emailed on July 30, 2018. Letters were sent to the following agencies (responding agencies are denoted by an asterisk [*]):

- Federal Highway Administration*
- US Army Corps of Engineers*
- US Fish and Wildlife Service*
- NC Department of Environmental Quality
- NC Department of Parks and Recreation*
- NC State Historic Preservation Office*
- NC Wildlife Resources Commission
- NCDOT-DBPT*

Of the responses received, USFWS indicated that Schweinitz's sunflower may occur in the project area. Schweinitz's sunflower surveys were conducted for this project on August 15, 2018. In addition, the NCDOT-DBPT recommended that a minimum of 4-foot shoulders and 42-inch rail height be included in the design of the replacement bridge. As indicated previously, the proposed replacement bridge includes 4-foot shoulders and a 54-inch high, two-bar metal rail (refer to Appendix A, Sheet No. S-2).

Input forms were sent to the Midway Fire and Rescue Chief, Gumtree Fire Department Chief, Davidson County EMS Director, Davidson County Sheriff's Office, Davidson County Planning and Zoning Director, Winston Salem Urban Area MPO Deputy Director of Transportation, and Davidson County Schools Transportation Director. The Midway Fire and Rescue Chief noted that any potential detour route and bridge closure would have a moderate impact on response time. The Davidson County School District's Transportation Director noted that bus routes can be adjusted if advance notice of road closures is provided. In addition, it was noted that the proposed bridge closure would

08/21/19 3 of 6

likely conflict with the Midway Christmas Parade route, which occurs annually in the study area on the last Saturday of November.

Public Involvement - A project newsletter was mailed on May 31, 2019, to 84 property owners within the project area and along the proposed off-site detour route. Written comments were submitted by four residents during the comment period. These comments were all in reference to the proposed off-site detour and included concerns over the additional traffic volume and travel speeds of detoured vehicles on Hebron Church Road. In response to these comments, NCDOT has verified that Hebron Church Road (SR 1713) was resurfaced in June 2018 and would sufficiently carry the added traffic volume from the proposed off-site detour. NCDOT Division 9 has offered to place orange advisory signs with a reduced speed limit along the detour route. The posted speed limit would remain in effect.

PAR	T A: MINIMUM CRIT	ERIA				
			YES	NO		
1	1. Is the proposed project listed as a type and class of activity allowed under the Minimum Criteria Rule in which environmental documentation is not required?					
		then the project <u>does not</u> qualify as a environmental assessment is required.				
If yes	, under which category?	Category #9 – Reconstruction of existing crossroad or railroad separations and existing stream crossings, included but not limited to pipes, culverts, and bridges.				
	ner category #8, #12(i) or #15	is used complete Part D of this checklist. ERIA EXCEPTIONS				
			YES	NO		
2.	concentrations that would b	cause significant changes in land use expected to create adverse air quality				
3.		ave secondary impacts or cumulative significant adverse impact_to human health				
4.	Is the proposed activity of s activity have such widespre	uch an unusual nature or does the proposed ad implications, that an uncommon concern s has been expressed to the Department?				

08/21/19 4 of 6

5.	Does the proposed activity have a significant adverse effect on wetlands; surface waters such as rivers, streams, and estuaries; parklands; prime or unique agricultural lands; or areas of recognized scenic, recreational, archaeological, or historical value?			
6.	Will the proposed activity endanger the existence of a species on the Department of Interior's threatened and endangered species list?			
7.	Could the proposed activity cause significant changes in land use concentrations that would be expected to create adverse water quality or ground water impacts?			
8.	Is the proposed activity expected to have a significant adverse effect on long-term recreational benefits or shellfish, finfish, wildlife, or their natural habitats?]
PAR	T C: COMPLIANCE WITH STATE AND FEDERAL REGULA	<u>TIONS</u>		
		YES	NO	
9.	Is a federally protected threatened or endangered species, or its habitat, likely to be impacted by the proposed action?			
10.	Does the action require the placement of temporary or permanent fill in waters of the United States?			
11.	Does the project require the placement of a significant amount of fill in high quality or relatively rare wetland ecosystems, such as mountain bogs or pine savannahs?			
12.	Is the proposed action located in an Area of Environmental Concern, as defined in the coastal Area Management Act?			
13.	Does the project require stream relocation or channel changes?			
Cult	ural Resources			
14.	Will the project have an "effect" on a property or site listed on the National Register of Historic Places?			
15.	Will the proposed action require acquisition of additional right of way from publicly owned parkland or recreational areas?			
	Response to Question 9 - Habitat for Schweinitz's sunflower is found along portions of the maintained communities and along the edges of the Basic Mesic Forest. A plant survey was conducted of all potential habitat in the study area on August 15, 2018, and no specimens of any sunflower were observed. A review of NHP records on August 16, 2018, indicated no known occurrences within 1.0 mile of the study area. The biological conclusion for this species is No Effect.			

08/21/19 5 of 6

PART D:(To be completed when either category #8, 12(i) or #15 of the rules are used.)

16.	Project le	ngth:		<u> </u>				
17.	17. Right of Way width:							
18.	Project completion date:							
19.	9. Total acres of newly disturbed ground surface:							
20.	Total acre	es of wetland impacts:		_				
21.	Total line	ear feet of stream impacts:						
22.	22. Project purpose:							
Prepa	ared by:	Lawa M. Stevens Laura Stevens, AICP Parrish and Partners, LLC	Date:	8/22/2019				
Appr	roved by:	Kevin Fischer Kevin Fischer, PE Structures Management Unit North Carolina Department of Transportation	Date:	8/23/2019				

08/21/19 6 of 6

PROJECT COMMITMENTS

Davidson County
Replace Bridge No. 115 on Gumtree Road (SR 1711) over
Winston-Salem Southbound Railway

WBS No. 45721.1.1 Project No. B-5765

NCDOT Division 9, NCDOT Structures Management Unit (SMU) Continued Coordination and Outreach

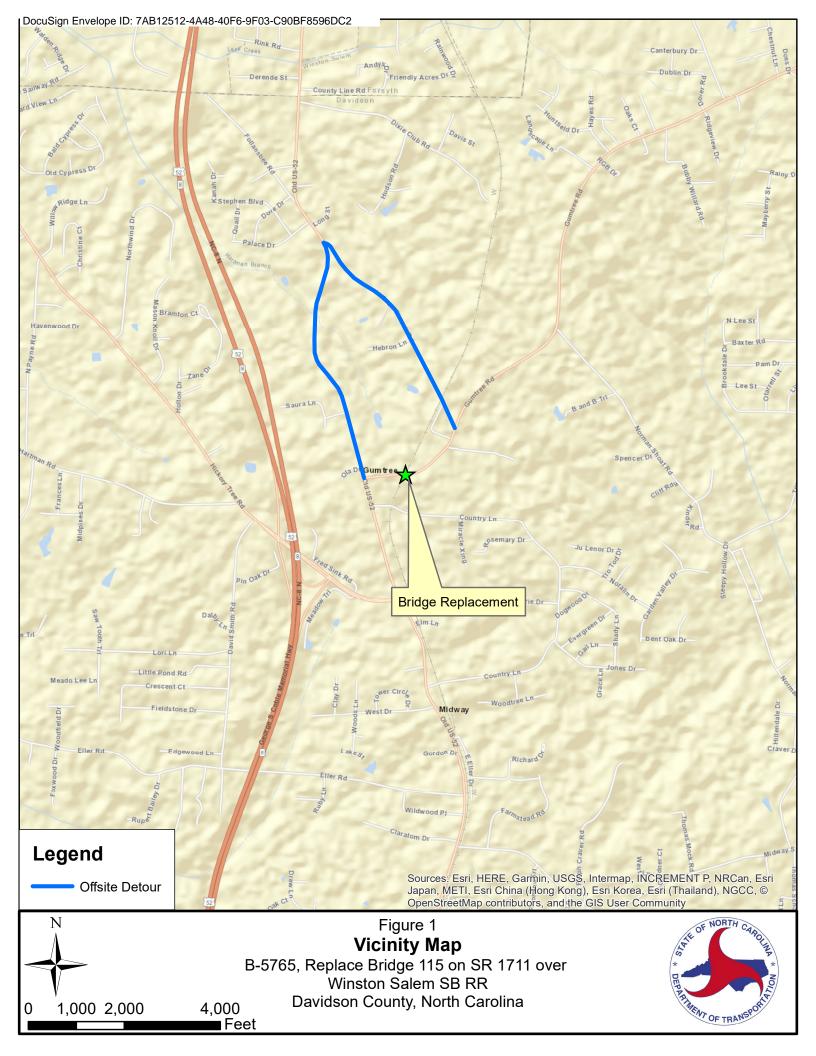
- The Division Project Manager and/or SMU Project Manager will coordinate with Winston-Salem Railway representatives prior to construction to secure the necessary access to railroad right-of-way.
- In order to have time to adequately reroute school buses, the Division Project Manager will contact the Davidson County School District's Transportation Director (336-249-8977) at least six months prior to road closure.
- The Division Project Manager will coordinate with emergency management officials (Midway Fire and Rescue [336-764-0920], Gumtree Fire Department [336-788-3544], Davidson County EMS [336-242-2270], Davidson County Sheriff's Office [336-242-2100]) to discuss detour planning for emergency vehicles.
- If construction requires closure of Gumtree Road during the month of November, the Division Project Manager will coordinate with the Midway Town Manager (336-764-5455) to discuss potential detour planning for the annual Midway Christmas Parade.
- NCDOT Division 9 will place orange advisory signs with a reduced speed limit along the off-site detour. The posted speed limit will remain in effect.

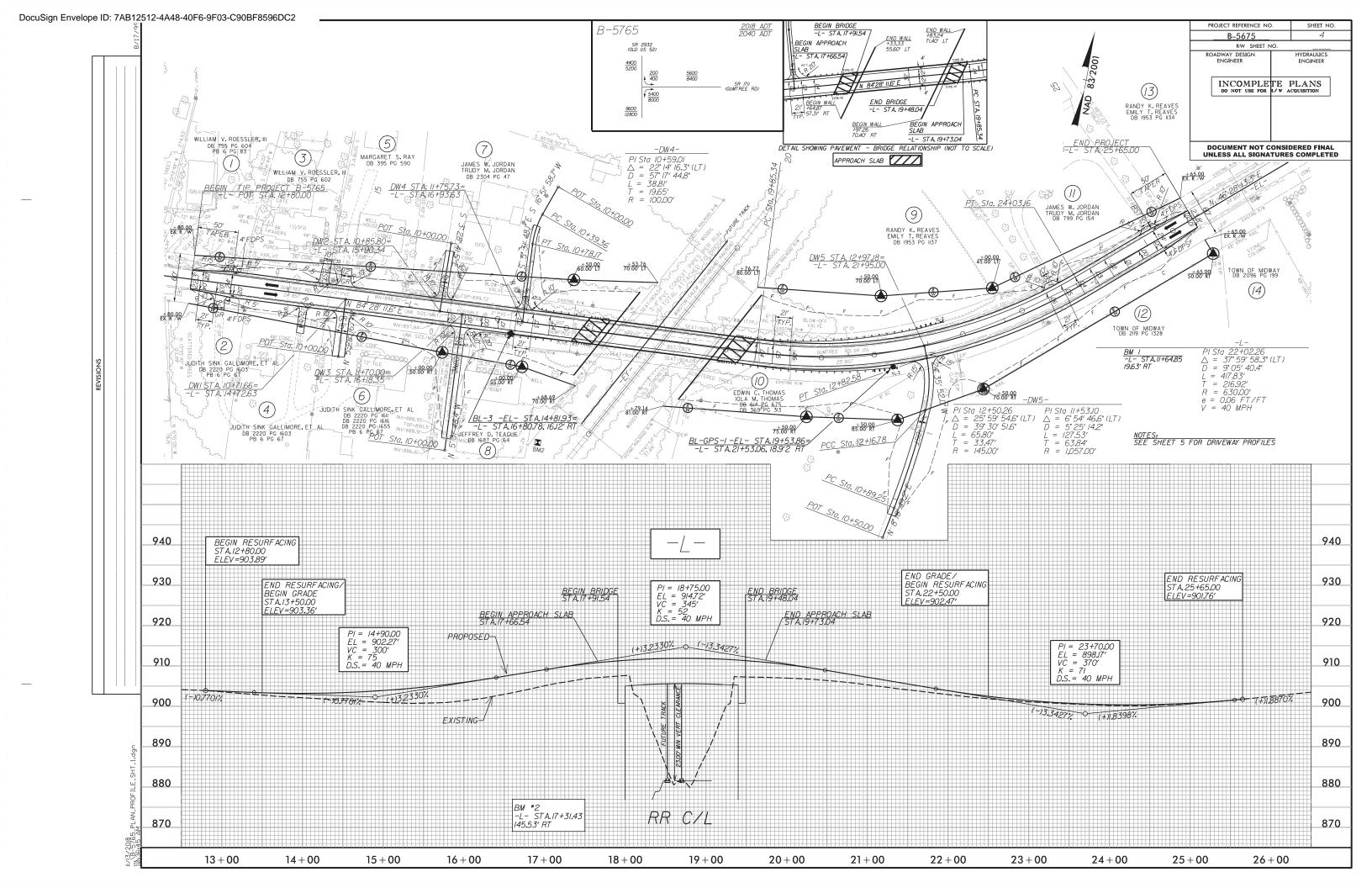
NCDOT Environmental Analysis Unit Northern-Long Eared Bat (NLEB)

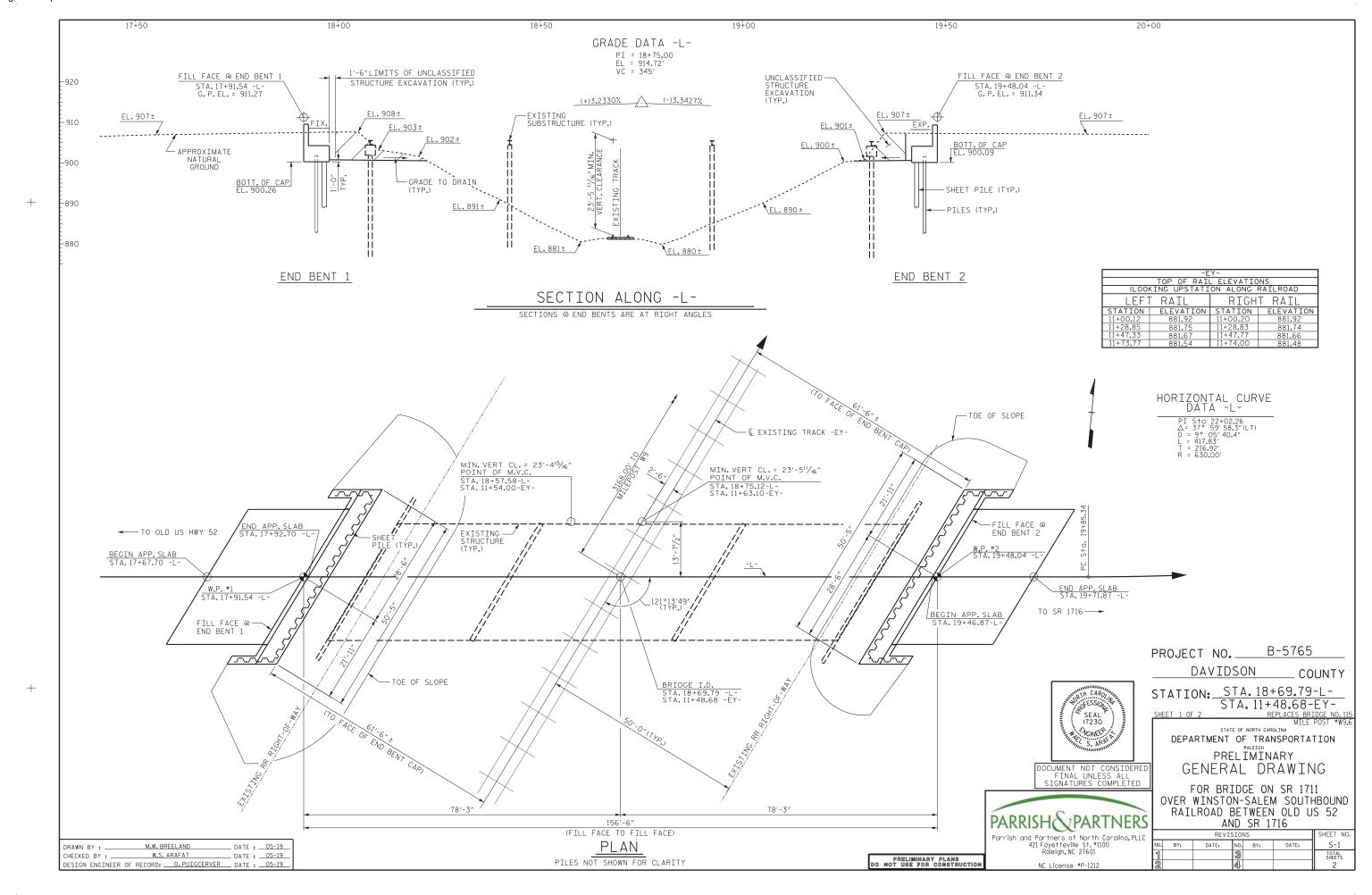
• The USACE has developed a Standard Local Operations Procedure for Endangered Species (SLOPES) to address NLEB when they are the lead agency, which NCDOT will follow for this project. This procedure applies to projects in Divisions 9-14. The requirements of the SLOPES for the NLEB will be completed prior to Let and will be submitted to the USACE. A Biological Conclusion is not required.

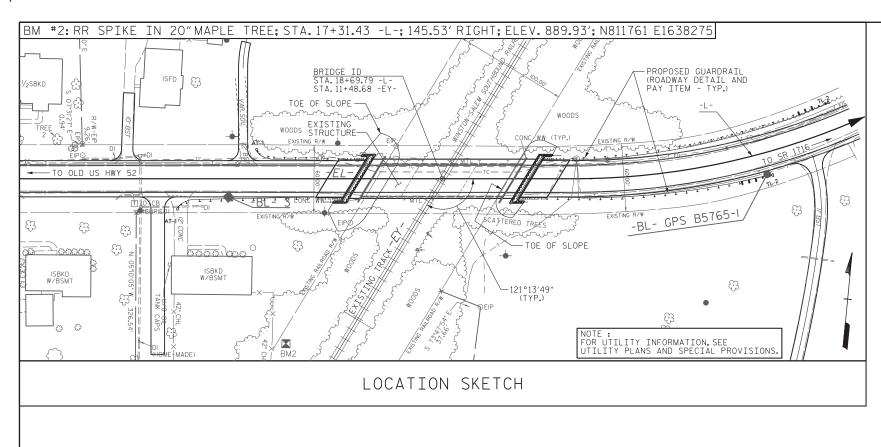
APPENDIX A

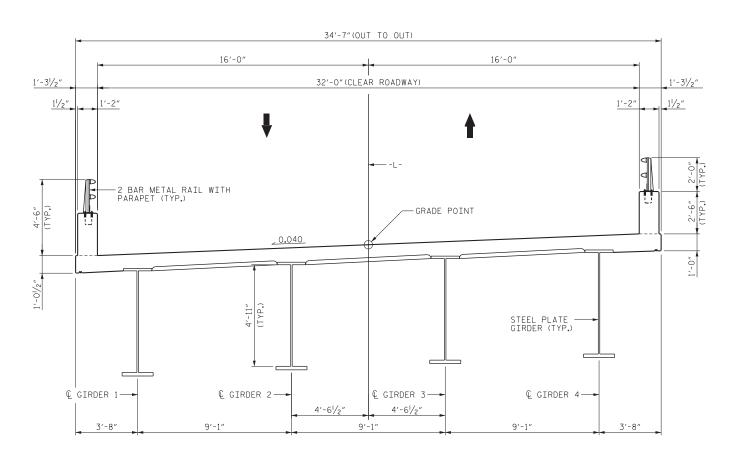
Preliminary Design











TYPICAL SECTION

_ DATE : __05-19_

_ DATE : ___05-19

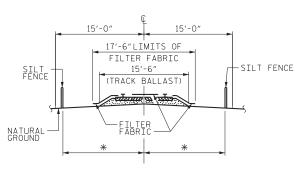
SIMPLE SPAN PLATE GIRDERS WITH COMPOSITE DECK

NOTES

ASSUMED LIVE LOAD = HL-93 OR ALTERNATE LOADING.

THIS BRIDGE HAS BEEN DESIGNED IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

THIS BRIDGE IS LOCATED IN SEISMIC ZONE 1.



RAILROAD EROSION CONTROL DETAIL

* TO BE DETERMINED BY RESIDENT ENGINEER IN CONSULTATION WITH RAILROAD ENGINEER.

NOTES

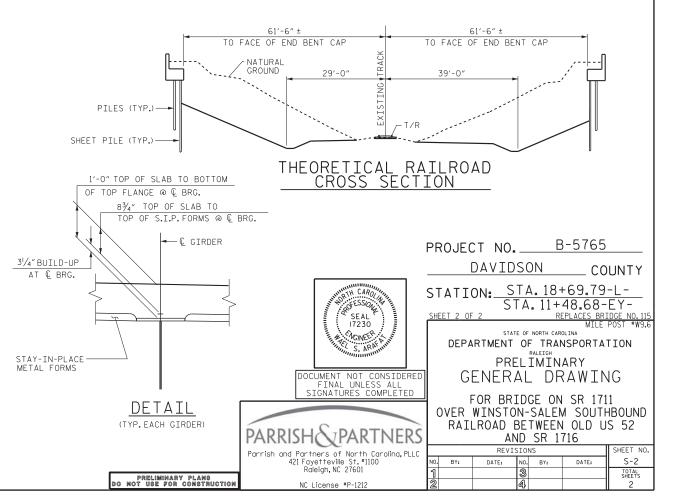
RAILROAD EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO PERFORMING ANY WORK IN THE RAILROAD RIGHT-OF-WAY.

ADDITIONAL EROSION CONTROL MEASURES FOR PROTECTION OF RAILROAD DITCHES MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.

NO SEPARATE PAYMENT WILL BE MADE FOR RAILROAD EROSION CONTROL MEASURES.

LIMITS OF SILT FENCE AND FILTER FABRIC PARALLEL TO THE RAILROAD SHALL EXTEND A MINIMUM OF 25'-0"OUTSIDE OF SUPERSTRUCTURE OR TOE OF SLOPE ON CONSTRUCTION, A GREATER LENGTH OF SILT FENCE OR FILTER FABRIC MAY BE REQUIRED IF SO DIRECTED BY

FILTER FABRIC TO BE NAILED TO TIMBER RAIL TIES WITH PRIME SOURCE "GRIP CAP" OR EQUIVALENT. FILTER FABRIC ON SHOULDER TO BE SECURED AS DIRECTED BY THE ENGINEER AND RAILROAD.



DRAWN BY :

CHECKED BY : __

M.W. BREELAND

W.S. ARAFAT

DESIGN ENGINEER OF RECORD: 0. PUIGCERVER DATE : 05-19

APPENDIX B

Cultural Resources Correspondence



NO ARCHAEOLOGICAL SURVEY REQUIRED FORM

This form only pertains to ARCHAEOLOGICAL RESOURCES for this project. It is not valid for Historic Architecture and Landscapes. You must consult separately with the Historic Architecture and Landscapes Group.



PRO IFCT INFOR	DATA TION

Project No:	B-5765	County:	Davidson	
WBS No:	45721.1.1	Document:	MCC	
F.A. No:		Funding:	∑ State	☐ Federal
Federal Permit Requ	ired?	No Permit	Туре:	

Project Description: NCDOT proposes to replace Bridge No. 115 on SR 1711 (Gumtree Road) over the Winston-Salem railroad in Davidson County. The state-funded project crosses a railroad rather than a stream, creek or river and does not require a federal USACE permit, therefore NC GS 121-12(a) applies for this archaeological review. The proposed bridge would be somewhat longer and taller than the existing structure. An offsite detour has been identified for use during construction. Design plans were available a the time of the review and guided the establishment of the following Area of Potential Effects (APE). For purposes of this archaeological review, the APE is the project length of about 1300 feet by a maximum width of about 150 feet to allow for any necessary easements. A large portion of the APE may be considered disturbed by the existing and previous roadway, bridge and associated soil disruption.

SUMMARY OF CULTURAL RESOURCES REVIEW

Brief description of review activities, results of review, and conclusions:

The project area along SR 1711 in Davidson County is populated with twentieth century houses and crosses open lawns and fields. An established railroad is cross by the structure to be replaced. Utilities are present along the magins of the APE according to virtual drive by viewing that was accomplished using Google Maps. No cemeteries were noted during the virtual viewing or on the USGS mapping at the project location, nor were any noted on cemetery data maintained by NCDOT archaeologist, Paul Mohler.

The Office of State Archaeology was visited for research and to determine if any previous archaeological reviews, surveys or sites are associated with the nearby vicinity. There are no recorded archaeological sites near the project area, including any on the Nationa Register of Historic Places, and no archaeological surveys have been conducted nearby, save TIP U-5786 (Hickory Tree Road widening, PA 17-11-0028) where soils were found to be generally eroded and no NRHP-eligible archaeological sites were identified.

Historic mapping was examined. Older mapping shows that the SR 1711 roadway used to dip towards the south on the eastern side of the railway before crossing westward. After 1975, when the existing bridge was reportedly constructed, USGS mapping shows the current alignment. This change is present also in aerial photography (1955, 1965, 1971 then after construction, 1980). The southeastern quadrant of the APE has been previously disturbed by the construction then dismantling of the previous roadbed and bridge launches over the railroad.

As much of the existing APE has been modified for the current roadway, bridge and drainage, expectations are low for encountering new archaeological sites, especially any that may be intact and significant. Further, as there are no documented NRHP eligible of listed archaeological resources within or adjacent to the APE, no further work is recommended under NC GS 121-12(a).

Brief Explanation of why the available information provides a reliable basis for reasonably predicting that there are no unidentified historic properties in the APE:

The scale and nature of the project is limited to the replacement of an existing bridge with a new structure at the same location. An offsite detour will be used. The APE of the project overlays the current transportation facility and is heavily disturbed by the original roadway and bridge construction. New impacts will be necessary with ROW and easements extending beyond the current limits.

Review of background archaeological information, examination of mapping and virtual drive-by suggests low probability for the presence of significant, intact archaeological resources within the APE. Since there are no known NRHP eligible or listed archaeological resources within the APE, no further investigation is warranted under NC GS 121-12(a).

This project falls within a North Carolina County in which the Catawaba Nation has expressed an interest. It is recommended that you contact each federal agency involved with this project to determine their Section 106 Tribal Consultaion requirements.

SUPPORT D	OCUMENTATION					
See attached:		Photos Other:	Correspondence			
FINDING BY NCDOT ARCHAEOLOGIST						
<u>NO ARCHAE(</u>	OLOGY SURVEY REQUIRED					
Bural	Ont		6/16/2019			
NCDOT ARC	HAFOI OGIST		Date			



HISTORIC ARCHICTECTURE AND LANDSCAPES NO HISTORIC PROPERTIES PRESENT OR AFFECTED FORM

This form only pertains to Historic Architecture and Landscapes for this project. It is not valid for Archaeological Resources. You must consult separately with the Archaeology Group.

	PROJE	CT INFORMATION	ON		
Project No:	B-5765	County:	Davidson		
WBS No.:	45721.3.1	Document Type:	MCC		
Fed. Aid No:		Funding:	State		
Federal Permit(s):	⊠ Yes □ No	Permit Type(s):	USACE		
Project Descript Replace Bridge 1	<u>ion</u> : No 115 on SR 1711 (Gumt	ree Rd) over Winsto	on-Salem Railroad.		
SUMMAI	RY OF HISTORIC ARC	HICTECTURE A	ND LANDSCAPES REVIEW		
		d or Study Listed pr	operties within the project's area of		
potential effects. There are no properties less than fifty years old which are considered to meet Criteria Consideration Consideration of potential effects.					
Consideration <i>G</i> within the project's area of potential effects. There are no properties within the project's area of potential effects. There are properties over fifty years old within the area of potential effects, but they do not					
	meet the criteria for listing on the National Register. There are no historic properties present or affected by this project. (Attach any notes or				
documents as needed.) <u>Date of field visit</u> : April 11, 2018					
Description of review activities, results, and conclusions: Review of HPO quad maps, relevant background reports, historic designations roster, and indexes was undertaken on December 18, 2017. Based on this review there are no NR, DE, LL, SS, or SL in the project area; however, a few structures over 50 years old were revealed. An NCDOT Architectural Historian conducted a site visit on Aril 11, 2018 and determined that no properties in the project study area warrant further investigation. Most date from the mid-1960s to a few circa 1940s houses. None of these houses rise to the level of National Register eligibility due to their lack of architectural integrity and significance due to their common style and type as well as significant alterations. No historic properties will be affected by this bridge replacement.					
SUPPORT DOCUMENTATION					
⊠Map(s) □]Previous Survey Info.	Photos Corresp	pondence Design Plans		

FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes - NO HISTORIC PROPERTIES PRESENT OF AFFECTED

Shellen Reap
NCDOT Architectural Historian

)ate





HISTORIC ARCHICTECTURE AND LANDSCAPES **SURVEY REQUIRED FORM**

This form only pertains to Historic Architecture and Landscapes for this project. It is not valid for Archaeological Resources. You must consult separately with the Archaeology Group.

PROJECT INFORMATION				
Project No:	B-5765	County:	Davidson	
WBS No.:	45721.3.1	Documen	ut MCC	
		Type:		
Fed. Aid No:		Funding	State Federal	
Federal	⊠ Yes □ No	Permit	USACE	
Permit(s):		Type(s):		
Project Description	<u>on</u> :			
Replace Bridge N	o 115 on SR 1711 (Gumt	tree Rd) over V	Vinston-Salem Railroad	
			E AND LANDSCAPES REVIEW	
	view activities, results, an			
			vice map reveals that the in the Area of	
	,		over 50 years of age. An architectural	
	•	y to determine i	if any of these properties warrant a full	
National Register evaluation.				
	SUPPOR'	T DOCUMEN	TATION	
Mon(s)	Dravious Survey Info	Photos	Correspondence Design Plans	
\bowtie Map(s)	Previous Survey Info.	Photos	CorrespondenceDesign Plans	
FINDING BY NCDOT ARCHITECTURAL HISTORIAN				
Historic Architecture and Landscapes **SURVEY REQUIRED**				
Instance Memberate and Landscapes SORVET REQUIRED				
Shelby Reap			January 24, 2018	
NCDOT Architectural Historian Date			Date	

Anticipated Fieldwork Completion Date: July 24, 2018