

Appendix F - DRAFT

Bridge Deficiency Assessment

The Transportation Improvement Program (TIP) development process for bridge projects involves consideration of several evaluation methods in order to prioritize needed improvements. A sufficiency index is used to determine whether a bridge is sufficient to remain in service, or to what extent it is deficient. The index is a percentage in which 100 percent represents an entirely sufficient bridge and zero represents an entirely insufficient or deficient bridge. Factors evaluated in calculating the index are listed below.

- ❖ structural adequacy and safety
- ❖ serviceability and functional obsolescence
- ❖ essentiality for public use
- ❖ type of structure
- ❖ traffic safety features

The NCDOT Structures Management Unit inspects all bridges in North Carolina at least once every two years. A sufficiency rating for each bridge is calculated and establishes the eligibility and priority for replacement. Bridges having the highest priority are replaced as federal and state funds become available.

A bridge is considered deficient if it is either structurally deficient (SD) or functionally obsolete (FO). Structurally deficient means there are elements of the bridge that need to be monitored and/or repaired. The fact that a bridge is "structurally deficient" does not imply that it is likely to collapse or that it is unsafe. It means the bridge must be monitored, inspected and repaired/replaced at an appropriate time to maintain its structural integrity. A functionally obsolete bridge is one that was built to standards that are not used today. These bridges are not automatically rated as structurally deficient, nor are they inherently unsafe. Functionally obsolete bridges are those that do not have adequate lane widths, shoulder widths, or vertical clearances to serve current traffic demand or to meet the current geometric standards, or those that may be occasionally flooded.

A bridge must be classified as deficient in order to qualify for federal replacement funds. Additionally, the sufficiency rating must be less than 50% to qualify for replacement or less than 80% to qualify for rehabilitation under federal funding. Deficient bridges located on roads evaluated as a part of the CTP are listed in Table 3. For more details on deficient bridges within the planning area, contact the Structures Management Unit using the information in Appendix A.

Table 3 - Deficient Bridges

Bridge Number	Facility	Feature	Condition	Local ID
Edgecombe County				
4	Seven Bridges Road (SR 1404)	Swift Creek	FO	
5	Seven Bridges Road (SR 1404)	Swift Creek	FO	
15	US 64 Business (East Raleigh Boulevard)	Cowlick Branch	FO	
57	NC 97 (Atlantic Avenue)	Tar River	SD & FO	
35	Bulluck School Road (SR 1006)	Cokey Swamp	SD	
70	US 64 Alternative	Buck Swamp	FO	
124	CSX Transportation Rail Yard	SR 1175 (Sutton Road)	SD	
125	CSX Transportation Rail Yard	SR 1175 (Sutton Road)	FO	
140	US 64 Business (East Raleigh Boulevard)	US 64	FO	
Nash County				
118	US 64 EBL	NC 58	FO	
119	US 64 EBL	Stoney Creek	FO	
123	Rolling Acres Drive (SR 1670)	US 64	FO	
130	US 301 Bypass NBL (S Wesleyan Boulevard)	Tar River	FO	
134	US 301 Bypass SBL (S Wesleyan Boulevard)	Tar River	FO	
135	Womble Road (SR 1435)	Pig Basket Creek	SD & FO	C203315
136	Womble Road (SR 1435)	Pig Basket Creek	-	C203315
144	NC 58 (West Washington Street)	Stoney Creek	FO	
166	US 301 Bypass NBL (S Wesleyan Boulevard)	Maple Creek	FO	
167	US 301 Bypass SBL (S Wesleyan Boulevard)	Maple Creek	FO	
173	US 301 Bypass NBL (N Wesleyan Boulevard)	Stoney Creek	SD & FO	
175	US 301 Bypass SBL (N Wesleyan Boulevard)	Stoney Creek	FO	
185	US 64 Business EBL	US 64	FO	
187	Old Bailey Highway (SR 1001)	Little Sapony Creek	FO	
189	US 64 Business EBL (Buck Leonard Boulevard)	Stoney Creek	FO	
195	US 64 Business WBL (Buck Leonard Boulevard)	Stoney Creek	FO	
196	US 64 Business EBL (Sunset Avenue)	US 301 Bypass NBL (N Wesleyan Boulevard)	FO	
197	NC 4	US 301 Bypass SBL	FO	
198	US 64 Business WBL (Sunset Avenue)	US 301 Bypass NBL (N Wesleyan Boulevard)	FO	
221	North Halifax Road (SR 1544)	I-95	FO	
322	NC 48 (Peachtree Street)	Tar River	FO	

