



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

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**MEMORANDUM TO:** Project Engineers  
Project Design Engineers

**FROM:** W. J. Rogers, P.E.  
State Bridge Design Engineer

**DATE:** July 13, 1998

**SUBJECT:** BRIDGE SCUPPER DETAILS

New standards, BS1, BS2, BS1SM, and BS2SM have been developed and are attached for your use when the Hydraulics Unit calls for scuppers on structures. The scuppers are intended to prevent water from sheeting across the bridge deck in transitional superelevation sections, to remove water from the low point in sag vertical curves, or to prevent the spread of water from encroaching on travel lanes.

When scuppers are required, the Hydraulics Unit will determine their number, location, and whether a collection system will be utilized. The location of scuppers shall be shown on the "Superstructure Plan of Span" sheets. In cases where a collection system is required, the Structure Utilities group in Design Services will be responsible for assisting in the preparation of plan details.

The "T" bars around the bridge scupper shall be epoxy coated and included in the "Superstructure Bill of Material". The length of the 6" Ø (152mm Ø) pipe to be shown on the plans shall be computed so that a minimum of 3" (75mm) of pipe extends below the deck. Payment for furnishing and installing the bridge scuppers is incidental to the pay item for "Reinforced Concrete Deck Slab". Payment for furnishing and installing the collection system shall be made at the lump sum price bid for "Structure Drainage System @ Station \_\_\_\_\_".

The Design Manual and Policy Manual will be revised to reflect this policy at a later date.

WJR/LES/lh



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