

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
MEMORANDUM**

TO: All Bridge Inspection Staff
Structural Evaluation

FROM: *for* Manager *GR*
Structural Evaluation

DATE: August 17, 2009

PHONE: 530-3572

SUBJECT: Clarifications to Vertical Underclearance Posting Requirements

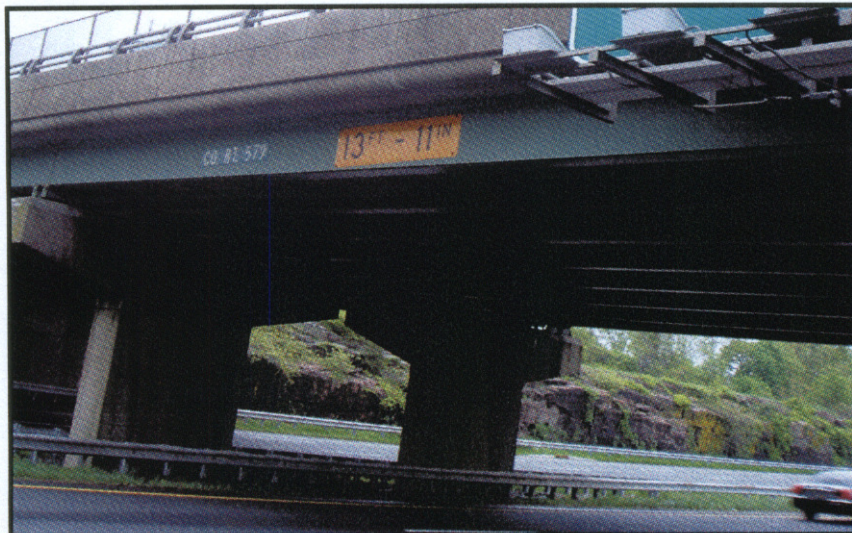
This memorandum will provide additional clarification on the proper procedure for issuing Priorities for inadequate posting for substandard vertical underclearances. This memorandum will cover:

- When to recommend posting signs for individual travel lanes beneath a structure (as opposed to a single posting sign to cover all travel lanes)
- When to recommend re-posting of a structure due to inadequate safety factor

1. Multiple Lane Postings:

When multiple travel lanes carry traffic beneath a structure with substandard clearances, one of two cases will occur:

Case A. Single posting sign indicating the overall minimum vertical clearance for all travel lanes



Case B. Each travel lane has its own posting sign indicating the minimum vertical clearance for that particular lane



Regardless of the number of travel lanes, there is one rule to determine whether Case A or Case B above should be applied to a structure:

If the difference in minimum clearance measurements does not exceed three inches between *any* two (or more) travel lanes, only one posting sign is necessary to cover all travel lanes (Case A). If the difference in minimum clearances exceeds three inches, however, each travel lane must be posted separately (Case B).

When an inspector identifies a structure that should be posted as in Case B but is actually posted as in Case A, a Priority 1 Memorandum should be issued to the Bureau of Traffic Engineering and Investigations to correct the posting. Conversely, if an inspector identifies a structure that should be posted as in Case A but is actually posted as in Case B, no Priority Memorandum needs to be written.

2. Safety Factor for Vertical Underclearance Posting:

All structures that are posted for inadequate vertical underclearance must have a factor of safety of at least 3 inches less than the minimum field-measured clearance. For instance, if the minimum vertical underclearance of a structure is field-measured as 14'-3", the posted clearance sign should never exceed 14'-0". This factor of safety is necessary to account for factors such as snowpack reducing vertical clearances or suspension oscillations temporarily increasing vehicle heights.

If an inspection team determines that a safety factor of at least 3 inches is not implemented on a posted structure, the team must issue a Priority I Memorandum to have the structure reposted.

Examples: A. Acceptable because safety factor is greater than 3 inches.



B. Acceptable because safety factor equals 3 inches



C. Unacceptable because safety factor is less than 3 inches (inspector must write PR-1 Memo to correct).



Please utilize these topics when issuing vertical underclearance Priority Memorandums to the Bureau of Traffic Engineering and Investigations to ensure that our intentions are clear.

If you have any questions or require further clarification, please do not hesitate to discuss with me.

GTR: RCP

c: Richard W. Dunne