

Everyone,

Please following guidelines in the Roadway Design Manual, Part 1, section 5-13, for the placement of traffic bearing boxes and steel grates and frames. This has been an ongoing issue. The forwarded e-mail contains my most recent discussion.

Thanks for the continued support and hard work, Jay.

Subject: Re: [Fwd: Masonry Drainage Structures]

Date: Thu, 22 Aug 2002 09:16:39 -0400

From: "Cynthia B. Perry PE" <cbperry@dot.state.nc.us>

Organization: North Carolina Department of Transportation

To: "Jay A. Bennett PE" <jbennett@dot.state.nc.us>

CC: "Garry Lee, PE" <glee@dot.state.nc.us>

Jay,

In reference to traffic bearing grates and frames: I checked with my people and they said that they still have problems with traffic bearing boxes and grates and frames not being called for correctly. But, they did say that it was getting better.

In talking with Garry Lee, we feel that Roadway and Hydraulics should be responsible for determining boxes.

Traffic bearing boxes are not to be used in curb and gutter. CB's are designed to take the load. Traffic bearing boxes should be used within 4' of the cop. This include shoulder berm and expressway gutter sections. We can have a traffic bearing box and not have steel frame and grates. Refer to Roadway Design Manual part 1, section 5-13 (under the Drainage section). Steel frame and flat grates are to be used where it has been determined that traffic bearing drop inlets are needed on **controlled access projects** in locations that pedestrian traffic is not anticipated. There should be no situations where we have steel frames and grates on boxes unless they are traffic bearing.

Let me know if you need anything else.

Thanks,

Cynthia

"Jay A. Bennett PE" wrote:

Cynthia,

Traffic bearing grates and frames! Please refer to Dennis Jernigan's e-mail. What have you noticed on the plans going through plans checking? Please discuss with me or reply by e-mail. Thanks, Jay.

Subject: Masonry Drainage Structures

Date: Wed, 21 Aug 2002 09:40:24 -0400

From: "Dennis Jernigan, P.E." <dwjernigan@dot.state.nc.us>

Organization: North Carolina Department of Transportation

To: "Jay A. Bennett PE" <jbennett@dot.state.nc.us>

Jay,

Does Roadway Design or Hydraulics determine whether masonry drainage structures in curb and gutter/shoulder berm gutter/expressway gutter are traffic bearing? There seems to be some amount of inconsistency in the traffic bearing determination. You and I spoke at the Engineer's Conference earlier this year and you indicated that boxes within four feet of the travel lane should be traffic bearing. I finished a project a while back where the front edges of the boxes in shoulder berm gutter on a -Y- line at a bridge were at the edge of the travel lane and neither the boxes nor the grates and frames were traffic bearing (by the plans). I have the project info for that one but I have also heard about projects where the plans called for traffic bearing boxes with non-traffic bearing grates and frames and vice versa and other projects like the one I mentioned where neither the boxes nor the grates and frames were designated to be traffic bearing. What are your thoughts and is this a Hydraulics issue? Thanks. dj

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