100 percent consensus on the name of the item. Some States do not even call this a guardrail. They identify it as a guiderail, because they do not want to imply that this installation will guard and will preserve life. New York State calls this a guiderail.

I do not want to introduce another subject for discussion, but some of the remarks seem to imply an inherent weakness of a round post and, of course as a structural engineer, I do not entirely agree. There is difficulty in using a round post for installation simply because of blocking out the rail, but the form of the post does not mean it is deficient in strength. You can provide any strength that you would need in a round post. That is a kind of side comment.

I do not want to appear to defend the practices that we saw which were easily identified as being deficient, but I think that most of the panel members will agree that all of these projcts that we observed required a minimum construction period of 18 months to possibly 3 years, so that many of the standards that were used in the contract plans were standards that were certainly old, possibly 2 or 3 and maybe 6 or 8 years old, because there is a normal timelag in the development of standards.

As I mentioned before, guardrail is an item that is generally installed by use of State standards. In the photographs we saw of the recently completed projects, and when you observe projects under construction, you can see improvements. This is, I think, a tribute to the highway departments that were responsible, in that they recognize that there is room for improvement. I think all of us can see that improvement.

Mr. CONSTANDY. Did you see something else, that some of them yet fail to understand why they put a guardrail in?

Mr. WILKES. I would agree.

Mr. CONSTANDY. With the upgraded standard, in one case, the guardrail was improved at the approach end but it still leaves you going into the pier and dead at the other end. I think while it is necessary to recognize there is a continual process of evolution in the upgrading of standards for these facilities, and we have certainly seen examples of that, it is more a question of the time it takes to do it. Mr. Ricker?

Mr. RICKER. I pretty much agree with what the other panel members have said. I would point out that most of these pictures showed a growing knowledge of the design of guardrail. Some of them are using the washer, some are bending down the ends, and so on.

The other thing that seemed to be typical of them is they are applied to fixed objects. A guardrail has been used for many years for the second purpose here, on steep, high embankments, and has served the purpose. This is a sort of new art, putting in short sections to protect fixed objects, and everybody is learning or has been learning over the past 10 years, as Mr. Huff said.

I think just about now we know what we should be doing. It is fine, the sort of publicity which these hearings will bring about, which I am sure will sharpen everybody's wits a little bit, to get it in the right place and proper advanced position. This has happened in my State within the last 5 years or so. The criticisms I had of guardrail placement, particularly when it was not long enough or did not begin soon enough to protect a steep embankment, I do not find that complaint any more. It is being done correctly now. I think this will come.