Mr. Beaton. Oh, yes. We have old standards in existence in our own State. There is a problem, of course, of availability of funds to correct and replace and update the highway system insofar as all of its features are concerned, and this is one of them that we updated

and corrected as fast as we could. But you just cannot keep up with it.

Mr. Blatnik. For instance, you found the 24-inch height to be inadequate. Yet I understand many of our guardrails now in existence

are only 20 inches; is that correct?

Mr. Beaton. We don't have any in our State. This may be true. Mr. Blatnik. But there are quite a few at 24-inch height which you found to be inadequate in your tests?

Mr. Beaton. Right.

Mr. Blatnik. Those are to be replaced by the 27-inch guardrail, with the additional improvements, such as closer spacing of the posts, and your rub rail.

Is that cost borne entirely by the State? Is there any cost of replace-

ment of guardrail shared by the Federal funds?

Mr. Beaton. I think it would depend upon the project. I am sure that there are on certain highways, Federal highways, I am sure there could be a portion of the money. I am not an authority on the financing. I do not know.

Mr. Blatnik. Mr. Beaton, we certainly thank you again, very very much, for a most impressive contribution to our hearings.

Mr. Beaton. Thank you, sir. Mr. Blatnik. From the New York Department of Public Works we have George McAlpin, deputy chief engineer for technical services, and Malcolm D. Graham, director, bureau of physical research.

Before you gentlemen sit down, would you please raise your right hands. Do you solemnly swear that the testimony you are about to give before this subcommittee will be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. McAlpin. I do.

Mr. Graham. I do. Mr. Blatnik. For the record, and purposes of identification to the committee members, will you please give your full name and official title or capacity to the reporter?

TESTIMONY OF GEORGE MCALPIN, DEPUTY CHIEF ENGINEER FOR TECHNICAL SERVICES, AND MALCOLM D. GRAHAM, DIRECTOR, BUREAU OF PHYSICAL RESEARCH, NEW YORK DEPARTMENT OF PUBLIC WORKS, ALBANY, N.Y.

Mr. McAlpin. I am George W. McAlpin, Deputy Chief Engineer, New York State Department of Public Works.

Mr. Graham. I am Malcolm D. Graham, Director, Bureau of Physi-

cal Research, New York State Department of Public Works.

Mr. Blatnik. May I at the outset welcome you gentlemen and thank you for laying over 24 to 48 hours to be available at the committee's convenience. The hearings ran longer than we expected and the session yesterday also was called earlier than expected.

Mr. W. May. Mr. Chairman, we are interested in New York's research and development of new concepts in highway barrier design.

Mr. McAlpin, will you begin?