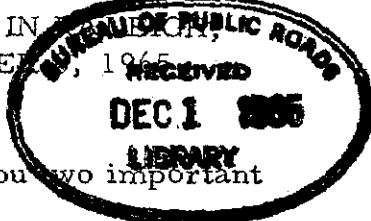


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REMARKS BY F. C. TURNER, CHIEF ENGINEER, U. S. BUREAU OF PUBLIC ROADS, DELIVERED AT THE MEETING OF THE SOUTHEASTERN ASSOCIATION OF STATE HIGHWAY OFFICIALS IN NORTH CAROLINA, MONDAY, NOVEMBER 8, 1965



I appreciate this opportunity to discuss with you two important current aspects of the highway program that concern all of us -- safety and beauty.

As highway officials, you are well aware that the promotion of both highway safety and beautification have long been objectives of the program, and that substantial advances have been made on both fronts.

Mounting concern over highway accidents is reflected in the unprecedented number of bills dealing with highway safety introduced in both houses of Congress during recent months.

By far the most significant Federal highway safety legislation enacted to date is the new section 135 of the basic highway act, dealing with highway safety.

Commonly referred to as the Baldwin Amendment, section 135 states that after December 31, 1967, each State should have a highway safety program, approved by the Secretary of Commerce, designed to reduce deaths, injuries and property damage resulting from accidents on highways of the Federal-aid system.

The law further states that State highway safety programs should be in accordance with uniform standards approved by the Secretary and that they should include, but not be limited to, provisions for an effective

accident records system, and measures calculated to improve driver performance, vehicle safety, highway design and maintenance, traffic control, and surveillance of traffic for detection and correction of high or potentially high accident locations.

This legislation was enacted only about two months ago, and the necessary guidelines for development and administration of the highway safety standards are being prepared at this time. In signing the new law, President Johnson said: "This legislation provides the tools for a coordinated attack on highway accidents. . . . The approach provided is in keeping with the traditional Federal-State relationship through which the Federal-aid highway program has operated so successfully. It recognizes the primary responsibility of the States for highway safety and at the same time acknowledges the Federal Government's responsibility to lead and coordinate."

For a good many years we have been studying existing standards and recommended measures for improving highway safety. Many of these have been developed by the various national associations of State and local officials and by the professional societies. Certainly we shall call upon the most competent sources of knowledge, wherever they are, for resolution of the technical and administrative problems in setting meaningful highway safety standards.

Many of our highway safety programs to date have been guided largely by professional judgments and logical but sometimes untested assumptions simply because no other course was available to us. While the urgency of the situation demands that we apply quickly the best knowledge and judgment available to us, we must at the same time avoid the advance of national standards too rapidly in areas of uncertainty. This is simply to suggest that the initial standards when approved will be those which can be advanced at this time with assurance as to their soundness.

The death and accident toll of our highways is indeed appalling and demands of us a major effort for its reduction. With annual highway deaths now at the 48,000 mark, we in the highway field must employ every resource at our command to save every individual life that it is within our power to do.

Through research and the pooling of our experience we have learned that highway improvements are an effective weapon in the battle against traffic accidents. Many critics will generalize that the irresponsible driver is the sole cause and that if he could be persuaded or forced to drive carefully, the accident toll would drop. He has been warned, cajoled, and berated, but with less than satisfactory results -- nonetheless this part of the safety effort must continue for there is no doubt that better driving would cause a substantial drop in the toll.

also  
However, we know/that when highways are designed and built to  
eliminate the physical factors that contribute to accidents, the death rate  
will drop.

The Interstate Highway System has effectively tested this  
statement and proved it/valid. We know now that when this beautifully  
designed, controlled-access system is completed, it will be responsible  
for saving the lives of 8,000 persons annually because of its built-in  
safety features. In this 1965 year alone, the system already constructed  
will spare 3,500 persons who otherwise would have died on conventional  
roads, that have been replaced by the 20,000 miles of Interstate System  
already in use.

The Interstate fatality rate should lay to rest the fallacious belief  
that only the driver is responsible for all traffic accidents, either  
because he is habitually accident-prone or because he fails to exercise  
sufficient care. A study by the Bureau of Public Roads shows that the  
Interstate fatality rate is currently 2.8 deaths per 100 million miles,  
while the rate on older highways replaced in the same corridor is 9.7.  
national average  
The/rate on all roads was 5.7 last year. This means that the same driver  
stands a two to three times better chance of remaining alive when he  
drives on an Interstate route.

I don't mean even to imply that there cannot be any improvement  
in driving practices, or that the vehicle may not be a contributing factor

in accidents, for we are all aware that the three areas -- the driver, the vehicle, and the highway -- must each be given further attention in the attack on accidents.

However, as highway people we should concentrate on our <sup>own</sup> field of special competency and direct responsibility and do everything within our capabilities to reduce the horrifying toll. The Interstate System, designed for safety, efficiency, capacity, and attractiveness, attests to the fact that we are on the right path.

But all roads have not yet been built to Interstate standards and obviously cannot be improved to those standards in any reasonable period of time. We must remember that the Interstate System of highways constitutes only a little more than 1 percent of the 3.6 million miles of roads and streets in the Nation, and will carry only 1/4 of all traffic, leaving the big load still to be carried by the other systems.

Then it follows logically, that we must take whatever steps are otherwise possible to make our other roads into safer roads for motorists at the fastest possible rate.

About 20 months ago, there was launched a safety spot improvement program aimed at eliminating hazards found at highway locations with high accident experience. As you know, the Bureau of Public Roads has urged State highway departments to allocate a substantial portion of their primary and secondary road funds to implement this program.

Since this program got under way, 42 States have programmed 418 safety projects costing \$93 million, including more than \$45 million in Federal-aid funds. I am fully aware that the States have been carrying out such spot improvements with varying degrees of emphasis for many years with their own funds, and that the statistics I have just given do not fully represent the total effort in this direction.

A start has thus been made, but, frankly, the Bureau of Public Roads is disappointed at the progress. The program offers a wonderful opportunity for highway people to strike an effective blow for safety. It is a proven means of saving lives, and I feel that it should be carried through on a crash basis.

We in the Bureau consider it to be one of the most important objectives ever undertaken by the Federal-aid highway program and far too important to permit it to languish for any reason. We cannot in good conscience or in the proper discharge of our responsibility tolerate a lackadaisical approach when we know that as more hazards are eliminated, more lives will be saved.

We are urging that each State inventory all existing hazardous locations on all Federal-aid highways, and then systematically schedule the improvement of each of these spots on a priority basis with all of them to be corrected within the next four years. We must get more projects under way faster. Time is of the essence because we are dealing with human lives.

There is no valid reason why by September 1969 all of these hazardous conditions cannot be corrected or improved in some substantial degree.

The Bureau has radically simplified its procedures and greatly liberalized its criteria in an effort to expedite the program. It is essential that this program now receive the priority attention it deserves, even though that may mean deferring other desired general improvements.

Of course, spot improvements cost money, but they pay for themselves many times over in lives saved and in reduced accident costs. I feel compelled to state that a lethargic attitude towards a program of such urgency is indefensible. We have a responsibility, which cannot be ignored, to provide the motorist with the safest traveling conditions possible. If we are to fulfill that responsibility, we must accelerate the spot improvement program.

To accomplish this purpose we have already directed our field offices of the Bureau to require a satisfactory showing that provision is being made for the correction of all high accident potential locations during the next four years, before approval is given to other programs of projects using Federal-aid funds. We do not care whether the safety spot improvement needs are financed from State funds or through Federal aid funding -- only that there be such a program. If no State funds are

applied, then it will be necessary to program first, enough of the Federal-aid funds to accomplish the needed spot improvement work during a four year period. After provision has been made for such safety improvement work then -- and only then -- will the Bureau's field offices hereafter /give approval to the use of Federal-aid apportionments for other proposed projects.

You will readily see that an inventory on a systemwide basis is needed immediately of all necessary work of this character, and that a system of determining relative priorities of these needs with respect to each other must then be developed. Federal-aid funding is available to assist in this inventory operation if needed. We have so advised you in the past and the authorization is still available to meet any of your requests.

We are keenly aware, State by State, of the effort already under way, in the so-called spot improvement program and know that all States have long given varying amounts of high priority to this kind of an effort. We believe, however, it is time to make a concentrated nationwide attack in the highway safety direction through a planned and intensified effort aimed at eliminating on a systematic basis every potential hazard that is within the highway designers capability to so do.

We know full well that this effort will not eliminate all accidents and highway fatalities, because a large number will continue to occur from or a combination of causes. reasons associated primarily with the driver or the vehicle. We know for



example that the available data seem to indicate that at least half -- perhaps considerably more -- of all highway accidents and fatalities involve a driver or pedestrian whose vision, perception, or judgment have been critically impaired from alcohol consumption. We're not going to make any really substantial/<sup>further</sup> reduction in the highway fatality and accident toll until society and the individual member thereof are both ready to recognize this as the major single cause of our appalling death toll and to do something about it other than a mere viewing with alarm and appropriate anguish. Despite the fact that the individual should be made responsible for proper personal discipline in this area, we as highway officials can and must do whatever we can to protect all drivers -- either from themselves -- or others. We must try to make our highway designs in such a way as to compensate for and neutralize the erring drivers' mistake -- so that the error will not be anything more than a driving error, if at all possible to do so.

The spot improvement program will be helpful in this regard and this is its purpose. I hope you have recognized that the Bureau is deadly serious about pushing the spot improvement program and that we are prepared to use for this purpose every avenue open to us. We feel strongly that the end result fully justifies this means to that end.

At the outset I said highway beautification was also of prime concern to highway people. Beautification and safety are closely related, even though sometimes this is not immediately obvious. It is not by mere

chance that our beautiful Interstate highways also are our safest. The fact is that many of the features that make the Interstate safe also make it beautiful.

Rather than being competitive with each other as some think, the design features for safety and beauty are generally interchangeable with and complement each other. Trees properly retained in the median area will both improve attractiveness and inhibit headlight glare. Easy alignment and curvature are employed in design both for aesthetics and to relieve monotony, driver fatigue, drowsiness, and thus, a possible accident.

Proper landscaping and plantings with low growing bushes along the roadside enhance appearance, and at the same time, frequently serve to lessen damage to vehicle and driver if a car should leave the roadway and run into them. If the same vehicle hit a large tree or a heavy signpost, the outcome could be disastrous.

Rounded slopes, an accepted element of beauty in design, also contribute to easy maintenance of roadside, while also minimizing erosion and making for a safe roadway.

Rest areas, wayside parks and scenic overlooks are desirable adjuncts to highway beauty, but they also contribute to safety by offering the traveler a chance to rest and refresh himself. It is not by a mere play on words that we officially describe these features in our policy books as "Roadside Safety Rest Areas."

What I am saying is that good design for beauty is good design for safety, and, obversely, good design for safety is also good design for beauty. Thus the inter-play between highway beautification and safety should be sufficient reason for highway builders to accept current proposals for making our roads more attractive.

I know that as highway officials you have long been aware of the desirability of incorporating aesthetics into highway construction. The many park-like highways now in use are evidence that you want attractive highways and that you have the know-how to build them that way.

Unfortunately, the general public fails to understand the distinction between the highway and the roadside, inside of, and outside of the right-of-way fence, and too often highway builders are blamed for ugliness over which they have had no control. We all know highways that were beautiful when built, but before long were flanked outside the right-of-way boundary line, by billboards, junkyards, and other man-made clutter, brought into being in most cases by the <sup>very</sup> presence of the road itself.

This criticism directed against highway people in most instances is unwarranted. They also, have long deplored the junkyards, the garish structures and the general unsightliness dumped on the roadside outside the right-of-way, but they were legally or financially helpless to do much about it. The expenditure of any highway money outside of highway property lines has been prohibited by law -- and still is in many States.

The situation, however, has been altered by the highway beautification legislation sponsored by President Johnson and recently enacted by Congress. Regulation of billboard clutter has been strengthened, and control of unattractive waste materials areas has been imposed. At the same time money can be spent to improve, protect and enhance the roadside adjacent to the right-of-way, when States also provide necessary State legislation.

This money, as you know, will not come from the Highway Trust Fund, and its expenditure will in no way slow down or impede highway construction. Whatever hesitancy therefore there might have been in the past to spend our scarce construction money for beautification, when the need for highway improvements was so urgent, should now disappear.

Admittedly, our energies and attention as highway builders have been devoted almost exclusively to the job of merely getting needed roads built. Because of the limited money available for road construction, the dollars have had to be stretched to get the most physical improvement possible because it has been our judgment that in so doing we were expending them in the way that provided the greatest public benefit.

But the scope and direction of the highway program have expanded tremendously, even though the basic philosophy that highways are built to serve people remains unchanged. We are still building roads as economically as possible and we are as concerned as ever with giving the highway user a dollar's value for every one of his tax dollars we spend.

The recent beautification legislation is only one example of the many additional factors which must now be evaluated in the planning, routing, design, and construction of highways, and we are concerned not only with the appearance of highways and adjacent roadsides, but with the effect highways have on neighborhoods traversed and the people living therein. We must be sure that our highways give appropriate weight and recognition to social and cultural values and that they serve the best interests of the public for whom they are built.

As the highway officials responsible to the public for the management of their huge investment in the public business of providing highway transportation facilities, I am confident that we are keenly aware of the job which our customers want done and that we are giving them the best return for their dollars that can be provided. I'm proud as I know most of you are, to be a part of the profession which you and I share here today.