

STATE VIEWPOINT

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In transportation today we coordinate development of our systems with nearly every organized group in society. We have formalized coordination into complex systems which are unbending and sometimes cast in legal and regulatory stone. Today, as a result, our greatest need is for flexibility.

For the last quarter-century the United States has been engaged in the greatest public works project in the history of man. During this 25-year period, we have built most of the 42,500-mile network in this country called the National System of Interstate and Defense Highways. It has had the greatest impact on the economy of the United States of any single public works project. It has had the largest impact on the lifestyle in the United States in the last 25 years. As great as the Interstate System is, it still relies on a well developed system of primary, secondary, and low-volume roads in order to feed it. It has done something else: It has raised the expectations of the people who use all classes of roads. They now expect the same superior standards used on the Interstate System to be employed in building low-volume roads on the primary and secondary systems. The public expects a much higher level of overall highway service than any nation or government, at any level, can provide. This is one of many vexing problems facing us today.

We definitely need good highway systems at all levels, but frankly we don't need the same high standards for all roads, nor do we need a single uniform standard for all roads in order to serve the people. Each of us has a responsibility in his own jurisdiction to keep foremost in the minds of the citizenry that investments in these road systems must be maintained at a high rate because they are an investment in the basic means of production! Too often, our citizens think of road expenditures as "cost" and not "investment." There is a difference. We need to turn public thinking around so the people support our transportation investments.

Guidelines -- in the form of standards -- are extremely important and we definitely need well thought-out guidelines to make fitting transportation decisions. We need standards which provide roadways that can be maintained efficiently. We need standards which minimize the vulnerability to tort liability and insurance claims. We need standards which help revitalize existing low-volume roads and, finally, we need standards which provide guidelines for accommodating new development. In the United States especially, many of the new roadway developments are made by private investors which are then turned over to some local jurisdiction. We need minimum standards to guide such private investors in order to prevent sub-standard developments and to prevent their becoming a burden on local governments later on.

Throughout the world, those charged with the administration of low-volume roads might not be highly skilled technically, but, generally, they are very practical people. They understand the relationship between a road, and the economy of their jurisdiction and the understanding of that relationship is essential. They might not be familiar with, or care about, functional classification; however, they will know what kind and what level of service is needed for the people they serve!

In the United States, with proper guidance provided by a minimum standard designed for low-volume roads, responsible administrators can exercise proper judgment in investing the limited dollars available for these roads so as to maximize the transportation improvements that are needed for their jurisdiction. Today standards range from the high-volume interstate or freeway to a very low-volume standard such as we use in Idaho to share state-raised revenues with local jurisdictions. That standard is simple; the road must be graded and drained. Even with this minimum requirement, we get complaints about the standard. Perhaps it is too high. We have one county that has a road which was made first by cattle, then by wagons, and finally by automobiles and trucks. The road has never been improved and yet the county commissioners in that county want credit for it to increase their allocation based on improved road mileage. We say, "We can't give money to you because the road isn't graded and drained." They say, "But if you don't give us the money, the road will never be graded and drained." Which comes first? We need in this county, and perhaps in every jurisdiction, a source of development money. Again, the problem comes back to transportation providers informing people about the need for continued investment in our basic means of production!

Perhaps one of the most difficult things we face in living with the high standards which we try to impose upon ourselves can be illustrated by comparing the land forms of Idaho and Iowa. In Iowa, the roadway lines are almost a perfect grid -- they follow the section lines. I am sure you noticed the nice geometric patterns when you came in on the airline! A uniform design is easily followed in those areas, of course; but we have different problems in the West. If you follow those Iowa section lines west, eventually you will run into the mountains where you can no longer follow a straight line. We must follow the rivers! Often, we have mountains which are almost vertical on one side of the road and rivers on the other. With current environmental constraints, we are not able either to fill into the stream or cut into the mountains. We are faced with a dilemma, -- do we pave this 20-foot road between the river and the mountain, or do we continue to maintain it as a graveled road? The user would rather have it paved regardless of the width, even though they drive 14-foot bunks with logs down that 20-foot pavement! We believe that, in our sparsely populated western states, some changes in roadway standards are necessary. We think that some reasonable departure from standards should be allowed in some instances.

Incidentally, a short time ago, a bridge in northern Idaho was hit by one of those large logging trucks. Traffic was stopped as our crews were repairing it. A lady who was stopped phoned me and said she wanted the two men who were working on that bridge fired immediately for using such atrocious language in her presence. I called the District Engineer and asked for a verbatim statement of what those two gentlemen had said that so incensed this lady. He contacted the workmen and the workmen sent back this letter which said: "Jim and I were fixing a damaged girder and Jim was throwing red-hot rivets up to me and I was catching them in a pail. He threw one up and I missed the pail so I caught it in my

bare hands, but I immediately got rid of it and hollered, 'Look out below, Jim,' but he didn't hear me and the rivet went down his shirt and into his trousers and he looked up at me and said 'for heaven's sakes, Joe, please try to be more careful.'"

Now, I am sure that those from other countries never get letters from ladies nor phone calls from irate citizens telling them how to run their departments. It could be a uniquely American story. But I think not.

Those of us here charged with the administration of low-volume roads can use standards as a defense in what is becoming a real problem in the United States -- "lawsuit-happy" citizens. We are becoming more and more involved in lawsuits at every level of government. Good standards can help us. Without a documented basis for construction -- no matter how minimal -- court battles become more difficult and an adverse court decision can result in jeopardizing the already short supply of funds available for low-volume roads.

There is no doubt that we need some kind of identifiable standards, but those standards should be flexible and allow local knowledge to prevail. Local conditions should temper the general rules whether they are promulgated by the federal gov-

ernment, AASHTO, the state, or by other jurisdictions. The local authority must be allowed sufficient latitude to adjust standards to local conditions, so long as we are definitely improving the safety of that facility.

Many times we look at the standards and say, "Well, if we can't meet the standards we'll do nothing." In so doing we deprive the road user of safety improvements. For example, a decision might be made to not improve a road from a safety level of 2 to 7 on a scale of 10, because we can't reach the ideal of 10. Obviously, that is not a reasonable, logical solution to the problem. We should move as rapidly as we can to make everyone of our facilities safer, and our safety standards should be designed to allow us to do that!

Standards for low-volume roads must be viewed as guides -- not maximums, nor minimums. They must be adaptable to the many changing circumstances and needs as interpreted by knowledgeable public officials working with the local road jurisdictions.

Good low-volume roads don't cost -- they pay.

For the farmer or the factory they are an investment in production.

Thank you very much.

COUNTY VIEWPOINT

Howard E. Schwark, Kankakee County, Illinois

Attempts have been made by many persons to define a low-volume road. When discussing low-volume roads today we still find a rather broad spread in traffic volumes making a precise definition nearly impossible. This is understandable when considering the vast differences that can be found in traffic volumes as you move about the world. A low-volume road in an urbanizing area, for example, may have a traffic count that exceeds the traffic count on what may be considered a high-volume road in open country. A low-volume road classification in any given location is basically relative to the traffic volume on the balance of the roads within the location under consideration. This classification, with some exception, is the road classification that is under the jurisdiction of local agencies and is their responsibility to construct and maintain. For this reason it is obvious that counties do have an interest in low-volume roads.

The evolution in development of our total transportation system from the early paths and trails laid out many years ago to accommodate man and horse and wagon to the present system of paved roadways which converted these paths and trails into an integrated transportation system that can accommodate motor vehicles has taken place in a relatively short period of time, most of it within this century. Even though the early pioneers of our road system recognized that all-weather travel for motor vehicles required some reinforcement of the earth roadways with logs, flagstones, bricks and other innovative materials to make the roads passable during inclement weather it has been only in recent years that we have seen dramatic progress in the use of concrete, asphalt and steel as materials to provide a network of surfaced highways for the motorist.

What does this have to do with counties' interest in low-volume roads? I feel this relatively rapid change from paths or trails to the present highway system and the phenomenal progress in road building technique has a direct relationship to and has a considerable effect on the low-volume road system.

In the beginning of the development of our transportation system virtually all of our roads were low-volume roads by today's standards. We would have to make some exceptions and not include the interstate, tollways, bypasses and other roads constructed on new alignments. There was not always the millions of cars and trucks using the highways as there is today. Traffic escalated from a few motorized vehicles in the early part of this century to the present high volumes as the demand for more and more vehicles by the public developed. There became a need to provide a highway facility of higher standards to accommodate these vehicles. The paths or trails were gradually transformed into highways which were improved by upgrading the surfaces improving the geometrics, etc., all of which required the expenditure of more and more funds. As traffic continued to increase, some of these low-volume roads were becoming high-volume collectors and primary routes. It soon became too costly for local governments to construct and maintain these roads. The motorist was traveling long distances which required some continuity in routing so he could find the way to reach his destination. Local governments sought help from their respective states for financial aid and in addition requested them to take over part of the system of highways for purposes of constructing and maintaining them as state marked routes. The need for continuity on a national basis arose as traffic and the length of trips increased, eventually resulting in the federal government aiding states in a federally-marked system designed for transcontinental travel. A good example of the progression in changing roles is the first transcontinental highway in the United States. It was called the "Lincoln Highway" and it was conceived in 1912. After twenty years of construction with what we could now call primitive tools it was finally completed and stretched from New York to San Francisco, a distance of 3,385 miles. A little over 40 years later a project