

Federal-Aid Highway Programs for 1986 and Beyond

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[Editor's Note—Mr. Clements' presentation at the Purdue Road School was not prepared as a formal paper. His remarks, however, covered much of the subject matter included in his following compilation from a speech Patrick C. Ross, Vice Chairman of HUF, made at the November 8, 1984, Annual Meeting of the Highway Users Federation and from comments made by Frank Turner, retired FHWA, administrator.]

Last year at Road School, we looked at some of the sweeping social and economic changes which are shaping a new America. Important questions were raised about how road transportation is going to have to adjust to new realities as people and jobs disperse over wide geographic areas. Emerging problems were highlighted in highway finance and traffic safety, problems which call for new solutions.

During 1984, the Highway Users Federation for Safety and Mobility (HUFSA) spread the word on how a growing, changing population and economy are putting new demands on our highway system. And we're not alone. The American Association of State Highway and Transportation Officials (AASHTO) established a task force to investigate these trends and its work will be completed within a month. The Federal Highway Administration (FHWA) has a group working on it, and others in both industry and government are looking into these emerging problem areas. The federation is now part of a broad coalition of technical and professional organizations looking into the future of highway transportation.

While our search for answers goes on, there are some basic requirements that must be met if highways are to serve the needs of American business. In the coming months, the federation will be representing our interests in meeting these needs.

That's a tough job. Our businesses vary widely. Our transportation needs are complex, and go far beyond highways alone. How can the federation represent the private sector's highway interests unless we in the business world set forth some of the basics of what we're looking for?

That's just what I'd like to do now—spell out some of the ABC's of what the highway program ought to do for us.

First, we want a highway program that's forward looking, not just a fix-up program. We need a program that recognizes the changing shape of American commerce. The constant shifting and movements in our facilities and centers of commerce demand that our highway systems match those changes. Widely scattered facilities rely more and more on highways to move people, products and supplies. Any road program that doesn't reflect this will be inadequate.

For example, no national program is aimed at helping the suburbs, but business can't ignore the problem of worsening suburban traffic congestion. A forward looking highway program will recognize that suburbs are not bedrooms stuck onto cities, but are important business centers, which are growing now and will continue to grow. More than half the jobs of all metropolitan area residents are now in the suburbs and beyond. Yet the transportation needs of these areas aren't getting the attention they deserve.

We also want a non-political highway program. It's high time that Congress gave the Federal-Aid Highway Program back to the people who pay for it, rather than using it for political purposes. The Ninety-Eighth Congress, which adjourned last December, couldn't even agree on a simple Interstate cost estimate because of all the special interest highway projects tacked onto it. This political selfishness locked up \$7 ½ billion on Interstate Construction funds and left us the losers, even though we've already paid the user fees. Something is basically wrong with the federal-aid process we used to like so much.

We in industry want to see the federal-state partnership that worked so well for half a century clearly redefined in upcoming legislation so that the partnership helps, not hinders, road improvement. We want a federal-state partnership that is every bit as productive as it used to be—one in which it is clearly the states' job to design and build roads, and it is the federal government's job to set goals and criteria based on the national interest in high quality major road systems. The entire federal-state partnership was a system designed to put limited highway dollars to work on our most important road systems in an orderly and expeditious manner. That partnership has been eroded in the past few years, as Congress has become enmeshed in what is basically the state's job of project selection.

Congress ought to reaffirm its support for the Federal-Aid Highway Program as a national service, not a money-spending technique. The next major legislation should restrain Congress from using the national highway program as a lever for unrelated legislation. Only when Congress returns to its role of keeping the highway program on track will we in industry be able to provide our enthusiastic support for the Federal-Aid Highway Program.

We also need an updated picture of where the Federal-Aid Highway Program ought to be focused. What are the big targets for the rest of the century? The two things we will always be short of are time and money. The Interstate System is already behind schedule and the roads we need today will not be in place for some time, even under the best of circumstances. We will never have all the money needed for all our roads, because public tolerance for new tax burdens is limited, along with industry's ability to absorb higher costs of doing business. Therefore, it is vitally important that the big dollars go to the most important roads. We have to define what those roads are, since it is clear we can't afford to go out and redo everything at once. There has to be a common agreement on exactly what's at the top of the highway shopping list.

We want the federal government to concentrate on the limited road mileage of truly national importance. Only that way will business and the public get the biggest bang for the buck in our user fees. The best example of what I'm talking about here is the Interstate System, which is 1% of our road mileage carrying 20% of our traffic. In the movement of goods, it is far more important than those percentages suggest.

But we want the Interstate Highway System to fulfill its promise—forever. The corporate world likes the Interstate. Its promise has been largely met in physical terms, with 96% of the system now built. But in service terms, we've been shortchanged. There are many places on the Interstate where traffic congestion, weight limits, or safety problems keep it from delivering the kind of coast-to-coast service we all had in mind back in 1956.

Two things any industry craves are stability and predictability. We need an Interstate System that remains stable in its physical condition and predictable in service. We want a reasonable guarantee that the system will meet our high standards of quality service 20 years down the road. It would have been impossible to build public support for the Interstate back in 1956 if President Eisenhower had said, "and ladies and gentlemen, by the mid-1980's, 50% of the urban Interstate will be congested during peak hours." But that's where we really are. Yogi Berra once said, "It's not over 'til it's over", and it's not over as far as we're concerned.

We also want—and will work for—a traffic safety program that pulls all the stops out. There are many good things to be done for highway safety. A handful of them are absolutely essential if we mean to knuckle down. If we want to make real strides in safety over the next few years, we'll have to stop being timid.

On highways themselves, decades of experience show that we really do know how to build safety in and danger out. We want safety to have an equal footing in the planning, scheduling and design of road work.

In terms of motorist behavior, we'd like to see more state and federal

support for seat belt use. Belts are a proven resource in saving lives and reducing injuries that most people literally sit on. Industry knows it and is moving aggressively to make seat belt use a fact of corporate life. We want the full faith and backing of our state and federal governments in getting more belt use. Where New York, New Jersey, Illinois, Michigan, and Missouri led, 46 states should follow and quickly.

And we want the same total commitment to the other politically difficult steps. Enforced maximum speed limit laws, comprehensive drunk driving laws, and motorcycle helmet laws are not matters of debate with us. They are part of the package we call highway transportation.

We know the cost of traffic crashes to business. Valued workers and family members are tragically lost. When an employee is killed in a traffic accident, the cost to the employer is typically around \$120,000. In 1980 alone, social security survivor benefits to the relatives of motor vehicle fatalities totaled over \$643 million. Such payments inevitably work to drive up social security taxes. One of business' major expenses. So it's clear that business has an economic, as well as humanitarian, self-interest in traffic safety.

Finally, we have seen a decade and a half of policy-making on energy, the environment, taxes and other issues which ignores highway transportation as basic to a growing, vital economy. We want national policies that treat highway transportation fairly on all these issues. We want reasonable assurance of available and affordable energy supplies for highway transportation. We are not lulled by plentiful, reasonably priced motor fuel at the moment. The impact of energy on transportation is so profound that the federation will do all in its power to encourage more domestic oil production as our most reliable energy source. At the same time, we will fight off recurring attempts to whipsaw highway-dependent businesses with unfair energy taxes. When government councils consider these issues, the needs of transportation always seem to come last. We in business don't want that to continue. We do want highway transportation interests reflected in every major policy decision that affects us.

Those are key targets for the federation and you in the coming months, and other related issues will be emerging as time goes on. We will take them as they come, keeping these major targets clearly in sight.

Looking back over the 75-year history of the modern highway movement in the United States, it is clear the progress was made because administrators, politicians, businessmen and the public agreed in principle on certain specific goals. We may not have agreed on all the details of how to do it, but we agreed to get the farmer out of the mud, and we did. We agreed on a road system that would take us from coast to coast without a stoplight, and we did that, too.

Today's goals are no longer so simply put, but it is important that

we spell out very clearly what we want from our highway transportation system.

We look to HUFSA, DOT and AASHTO to chart our course towards these objectives because there simply are no other organizations capable of doing it. Its ability to form coalitions as needed, to draw on the resources of our individual industries, and to advance our mutual interests credibly and reliably, give it truly unique credentials.

We look forward to working towards these goals with our staff and federation affiliates throughout the country in the coming months. The federation always has been upbeat and forward looking. I'm sure it will build on its many strengths in the future. Following are some comments made by F.C. Turner, Federal Highway Administrator, RET., concerning the trucking industry.

WE NEED TO REDESIGN TRUCKS TO FIT THE HIGHWAY

It is essential that we stretch our income by lengthening the service life of pavements and bridges already in service and those to be built in the future. As a way to do this, I urge our trucker friends to work with the highway authorities in a new concept which I feel can be good for both sides of the table. And if the proposal I make won't do that, then I hope that someone will put forward a better one because we must find a truck use and cost allocation plan which will be less damaging to the road systems than the present one.

I propose that we completely change directions by making vehicles that will fit our road systems, rather than continuing our efforts to make the highway fit any and all vehicles. Specifically, I propose:

(1) that by 1990 we reduce legal single axle loadings to a maximum of 15,000 lbs. and tandem axles to 25,000 lbs.;

(2) that we allow longer lengths; and

(3) that gross weights be raised to perhaps as much as 112,000 lbs; thus permitting a truck unit to carry about half again the present maximum pay load, while simultaneously reducing the road damage from that heavier vehicle by 50% or more.

It is an accumulation of many high individual axle loadings which are causing our worst road damages. The damage factor increases exponentially with increased axle loadings so that a 25% decrease in axle loads will produce a much larger percentage decrease in damage. The Illinois test road data conclusively show us that a single axle 20K loading produces 1 1/2 times the damage done by the same axle at 18K. Likewise, a 15-K single axle does only half the damage of the 18-K loading. Thus a 25% reduction in loading produces a 65% reduction in damage. For tandem axles, a 34K loading does almost twice the damage of a single 18K axle and four times as much damage as a 15K single axle.

A 112,000-lb gross weight spread over more axles can be made to

cause only half as much road damage as our present conventional 18-wheelers are doing, with an 80,000-lb GVW. A redesigned tractor-double-bottom configuration using tandem, instead of single axles, could increase the payload per unit from about 50,000 to 75,000 lbs, while reducing the total road damage factor from 4.1 to 2.4. Thus the ratio of payload to damage factor in the new vehicle unit could be increased in the order of about 3 to 1 in favor of the new configuration. The net effect of this would be to permit substantial reduction in the cost allocation factors assignable to heavy truck units, and bring them down into a politically reachable level with benefit to both truckers and the highway authorities.

Obviously, there would continue to be problems with some special vehicle configurations such as tankers, mixers, and dump trucks, some of which could be helped by adoption of more tridem axles like other countries use. But where axle loadings are not brought down to conform to the indicated maximums, properly controlled special permits, and annual registration fees equaling the higher damage factor would have to be assigned.

In addition to truck vehicular modifications, I urge that we give increased consideration to diverting more truck movements to railroad piggy-back facilities. Also, it is time to provide for diversion of high volumes of trucks in congested and heavy mixed traffic areas onto exclusive truck roadways in order to increase safety and capacity, by reducing traffic friction. With some forward looking and imaginative thinking I expect that railroads themselves could profitably convert some presently marginal trackage and right-of-way into all-truck tollways.