

Balanced Transportation



The Federal Highway Chief Outlines His Views On The Factors Essential To A Truly Balanced Transportation System

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ONE OF THE PHRASES repeated often today is the need for "balanced transportation."

Unfortunately, as with most catch phrases, it is being used more and more loosely—and more and more inaccurately. To some, "balanced transportation" simply means to build mass transit systems—usually rail—and to halt all highway construction. To some others it seems to mean that highway funds should be taken away from highways to build these rail mass transit systems.

Let us get into clear focus what balanced transportation is all about—and what it is *not* about. What balanced transportation does *not* mean is to spend exactly the same number of dollars on each of the several transportation modes. In fact, to do so

would insure the very imbalance in our transportation system which critics of the highway program deplore. This would either cause duplicative systems which we cannot afford, or it would only partially meet the needs of each of the complementing modes.

What it is. What balanced transportation *does* mean is that each mode is utilized in those amounts that will achieve an over-all system in which all elements complement — rather than duplicate or compete—with one another. A balanced transportation system must be designed to meet the *total* transportation needs of urban areas, and should do this in a way that will provide the most efficient, effective and economic service attainable.

A balanced transportation system must provide flexibility of travel from

any place in an urban area to any other place. It must be designed not only for the morning and evening rush hours, but for 24 hour usage during every 365 days—and nights—of every year. It must be designed not only for those who commute to jobs in the central business district but at the same time for those who commute in the reverse direction, and in even larger measure, for all the residents of the metropolitan area, and for all of the nonwork trips—because such trips far outnumber the work trips.

Vital To All. It must provide, too, for the movement of all those goods and service vehicles vital to all residents of an urban area, whether they be commuters, stay-at-homes, shoppers, or totally dependent shut-ins.

In brief, then, a balanced transportation system must give full weight to the individual preferences and needs of all the residents of an urban area—while at the same time being responsive to the over-all goals, objectives, needs and fiscal capability of the community.

The Best Blend. Prudent funding decisions regarding such a system must be guided by what mixture of modes will provide the most efficient, effective, satisfactory and economic blend of service. If such decisions are made on any other basis—such as by an arbitrary and equal division of money between two or more modes—the inevitable result will be an uneconomic and unbalanced system and a misuse of the public investment.

Regarding rail rapid transit, in that handful of large cities where a need for it is obvious and where it is financially feasible it can make a very definite contribution to the over-all program. It can play an important role in a few urban areas' transportation schemes—but only a few.

Rail No Panacea. However, to assume—as some erroneously do—that construction of a rail rapid transit system will be the immediate and easy panacea to all of every city's transportation needs would be a costly disaster.

Think, for example, of New York City, which has the most extensive subway system on the North American continent. Even with such a large and costly facility, New York cannot exist without its streets and freeways. Even with these great masses of people which the subway daily moves, the streets still are crowded with cars, trucks, and buses—and the city has great need for better streets and more freeways. The New York subway does its part—the part it was intended to do—but it cannot come anywhere near to handling New York's total transportation needs of either people or goods and services. While nine out of ten of the center city workers reach their jobs by transit, at some time during the day a majority of them will use a taxi or bus—and *all* of them are serviced by trucks operating on the street system and only on the street system.

The same principles hold true for our other cities.

There seems to be a popular misconception regarding mass transit—that it and "rail" are synonymous.

Of course they are not.

Mess Transit By Bus. Good mass transit can be—and is being—provided by buses on modern streets and freeways—and I believe that this is the

real wave of the 70's insofar as mass transit is concerned. It is the only readily available mode that we can realistically expect to obtain within the next 20 years or more.

The reason is that, at most, there are only about 10 of the largest cities in this country where rail rapid transit systems could practically be implemented. Simple economics dictate that conclusion—along with the fact that rail transit is adaptable only when a city has certain definite characteristics, such as densely crowded population corridors of 60 to 70,000 persons per square mile.

So for practical purposes, when we talk about rapid transit, we really are talking about *bus* transit.

Several bus rapid transit demonstration programs are now in progress around the country, and the one that has probably received the most national publicity is the exclusive bus lane on Shirley Highway (I-95) in Washington's northern Virginia suburban area. This facility speeds commuter buses into the heart of downtown Washington, providing bus riders a time savings of up to 30 minutes over other commuters in passenger cars.

The other programs—such as that on I-495 between the New Jersey Turnpike and the Lincoln Tunnel, and the so-called "Blue Streak" program in Seattle—are equally as successful.

And more are on the way. (See **HIGHWAY USER**, May, 1971.)

New Tools. Some new tools are available to us now to assist in solving the urban transportation needs—because the 1970 Federal Aid Highway Act has supplied us with them to implement bus rapid transit facilities. For example, if studies show that construction of an exclusive busway would move more people more expeditiously and practically than construction of a proposed highway project, then the funds that would have been used for the highway project can be used to build the busway, instead.

This program under the Highway Act, when coupled with 1970 legislation for our sister agency, the Urban Mass Transportation Association, to acquire modern buses, can jointly provide any city with a balanced, flexible, and readily available transportation system.

Freeways. Freeways, of course, by their very nature provide a capability for rapid transportation. The average speed on freeways is between 46 and 60 miles per hour—as compared with 15 to 40 miles per hour on major arterial streets and 15 to 30 miles per

hour on minor streets. I believe most will agree that, except during the worst of the rush hour congestion, freeways are even now getting people to many destinations quite quickly.

Most Trips Not Downtown. Almost always overlooked by transportation critics is the fact that the movement of people in an urban area involves much more than the rush hour movement of commuters to and from the central business district only. The fact is that there are many who travel our metropolitan areas—at all hours of day and night—who rarely, if ever, go downtown. Surprisingly, 85 to 95 per cent of all metropolitan area trips *do not* go downtown. These are the trips made by people who travel at right angles to the radial transportation corridors which lead into the center city, plus those who travel *around* entirely within the suburban areas. They do this, of course, by street and highway—because it is the preferred way, and reality shows that it will continue to be the only way for a long time to come. In a balanced transportation plan, these residents of the metropolitan area must be served no less than the center-city commuters.

By no means is a city's entire work force centered in the downtown area of a metropolitan area. In most of our cities, the downtowns are growing at a slower rate than the area as a whole. In a few cases the center city is actually declining.

I think it would be manifestly impossible to provide either rail—or bus transit facilities to handle all or even a majority of such widely dispersed movements, simply because of the almost infinite number of combinations of trip origin, destination, route, and timing.

Up to this point, I have been discussing the question of moving *people* in metropolitan areas—admittedly a very important problem. But there is far more to a balanced transportation program than that—a lot more.

Goods Movements. Consider truck traffic, which is essential to the economic life of a city. It has been said—and correctly—that in the movement of goods, no matter what mode of *intercity* transport is used, trucks almost exclusively originate and terminate all cargo. It is by means of these trucks that the stores in the city—and the surrounding suburbs as well—receive all that infinite variety of goods essential to the life of an urban area: the food, the clothing, the housing materials, and appliances, and medicines, and newspapers, ad infinitum. None of these commodities could practically

be shipped by any existing or proposed mass transit. Only highways and streets can do this essential job.

Emergency Services. Think, too, of all the innumerable services so vital to the life of a community which are utterly dependent on highways—and which in no conceivable way could be performed by any kind of mass transit. These are the everyday things we all pretty much take for granted.

Consider, for instance, the ambulance, which in an emergency can mean the difference between life and death. It can travel only by highway.

Think of the fire truck, which can save a home or a place of business—if modern streets and freeways are available to help speed its trip and get it there in time. And then there is the police car, which quickly provides protection or assistance when you need it. The garbage truck removes refuse by using the street system. The repair truck brings the plumber, the electrician, the carpenter, the TV repairman, to home or business, via the street and highway network. All these vehicles are intended only for street travel.

When people need groceries they get in their cars, drive to the supermarket and load up a week or two weeks' supply using city streets. If they go to the drug store, the movies, a concert, a sporting event, their church, or take the kids to school—the chances are they go by car and use the highway network.

In fact, no one can imagine the ordinary, everyday life of our cities *without* highways. Complete chaos—even death would be the inevitable result in a very short period of time.

I think the relative importance of good highways in an urban area is

quite obvious. They simply are irreplaceable—because there is nothing with which to replace them.

I know, of course, that some people, who for one reason or another seem to hate highways and automobiles, wish they would just go away, to be replaced by some hazy form of Utopia where there would—in their dream world—be no traffic problems.

But wishing won't make it so. The traffic problem will not disappear unless the people also disappear. So our task is to work out the best way to live *with* motor vehicles and quit wasting our time wishing they would go away. We must get on with the job of improving the environmental qualities

and safety characteristics of our vehicles and devise the best ways to make them meet our many urgent transportation needs.

Of course, not just the cities are dependent on highways. The fact is, 95 per cent of *all* travel in this country is by highway.

Highways Taken For Granted. It is a curious irony that highways are such a vital part of our national life and they—and the contributions they make—have come to be so taken for granted by the public.

In the Federal Highway Administration we have projections which tell us that the population of a medium large city is likely to increase by as much

as 50 per cent by 1990—less than 20 years from now. During the same period, the daily vehicle miles traveled in the metropolitan area will also increase by 100 per cent—but transit trips will account for only five per cent of the total movement.

We Better Keep On. Think about that for a moment. I believe it becomes obvious why we had better keep on with the job of providing the highway and street facilities that are going to be needed in less than two decades. Because if we don't plan and begin now, our cities are going to face staggering transportation problems that cannot then be solved.

Let us get this whole question of

balanced transportation clearly in focus. While we are providing needed mass transit facilities in cities—both rail and bus—let us not lose sight of what these facilities can—and very importantly—what they *cannot* do; what they are *intended* to do and what they are *not* intended to do; what they are designed for and what they are *not* designed for.

Above all, let us not be lulled into believing that any amount of mass transit facilities will completely eliminate the need for a lot of new and improved highways, or that some presently unavailable scheme can interchangeably provide the services and movement of goods that realistically

only highways and streets and motor vehicles today can do.

By all means let us not make the mistake of taking our vitally needed funds away from highways to help finance some other transportation idea unless—*unless*—capable study shows that this will provide more *total* transportation and increased service at lesser total cost.

More funds are needed to accomplish our mass transportation goals—and highway people will readily agree that they are—so by all means let us try to find these funds. But not at the expense of the highway program with its equally compelling or perhaps more compelling needs.

In Balance. Let us make certain that the balanced transportation that we need and are striving for is kept in balance by providing for all of the parts needed to make up the whole machine. Let us look ahead to the time when our highway system and mass transportation systems fully complement one another in all our major cities—and when each plays the role for which it is most capable. This means a continued street and highway improvement program as now being planned plus a substantially augmented bus mass transit system operating on that highway and street network, plus some measure of traffic, parking and working hours controls. Such a combination, now attainable under present funding and statutory authorizations can solve urban transportation needs for the rest of the century.

This is a balanced transportation program.

You know what happens when something is not in balance.

It falls.

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