

Post-War Planning For Highway Construction

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There are those who hold that in the midst of war it is idle to prepare for peace. There were many who thought it pernicious in the midst of peace to prepare for war. We all know now that the latter was a mistaken view. Perhaps, then it is not too much to hope that the lesson of Pearl Harbor may now be applied in reverse as an exemplar of the tragic consequences of unpreparedness for epochal events sure to come.

Viewed in retrospect, we may wonder that we were so little aware of the inevitability of war; but we remember that our prewar thinking was influenced always by a reasonable hope that war could be avoided. Now - in the midst of the war we failed clearly to foresee - there can be no similar doubt that eventually peace must come; and none but the completely blind can fail to perceive something of the magnitude and difficulty of the many changes that peace will bring.

So, when, in this dark night of highway transportation, one interested in the well being of our highway system and the future of highway transportation, turns his eyes toward "the dawn of peace", he asks not only for "a song to cheer" (though a little cheer now and again would not be taken amiss, thank you!) but also, and more soberly, he asks and he pleads for a timely preparation to deal with the highway problems sure to come. And, particularly he asks for some sign as to the probable part and place of highway construction and automotive

production in the post-war reconstruction - the part and place of highway transportation itself in the post-war world.

I spoke a moment ago of epochal events sure to come. I think all of us must feel a strong sense of the epochal quality of this peace that is so sure to dawn short years or months hence; some premonition of the great magnitude of the change that waits but the firing of the last gun to burst upon us! Yes, in the new world of peace, there will be much change. What change lies in store for highway transportation?

That the highway will occupy in this new era of peace not quite the same place in the mind and habits of the people, in the new economy of the new world, that it has familiarly filled in the years we have known it - that, I think, is a foregone conclusion.

We can not gaze so vacantly into the sky - we can not at the airport so idly view the graceful descent of a great man-made bird, realizing that mere hours since it stood upon the continent's other shore - we can not look so thoughtlessly into the faces of these thousands upon thousands of young men who so jauntily wear their new-won wings upon their breasts, as not to realize that in some way the place of the highway after this war will not be the same as it was in that inter-war period that has filled so large a part of our lives.

Nor, can we fail to appreciate - we, who now perforce, must ride the rails - despite all the delays and all the minor inconveniences that we experience, that there is a new vigor, a new vision, in the management of the railroads of this country that will not permit that great branch of our transportation system to bend too low when this war is done. The railroads are doing a perfectly grand job now, under

the most difficult conditions. They seem to have discovered, of a sudden, that where there's a will there's a way. And we may be sure that they will find a way to a new usefulness in the post-war era - a new usefulness that will in some measure turn the highways of that post-war era from their pre-war courses.

Now, I am not gloomy over these possibilities of change. What I think I see emerging from the mists of the future is to me not a frightening apparition. It is rather a glorious figure, beckoning to a new and fitter task - for the highway itself, for the highway planner and builder. I say a new task. Why, for the highway, it is just its age-old task. It is the task of leading mankind over short distances. But for some of the highway's planners and builders, and - I think I shall add also - for some of the designers and makers and operators of motor vehicles, it is probably going to seem like a new task, and - at first blush, perhaps, a somewhat menial task. And yet, as I see it, it is a task of utmost interest, of grand usefulness.

Have you ever stopped to think what we have been doing while for a hundred years we have been successfully pursuing the possibility of swift movement over long distances? Why, we have allowed our short distances to remain so fouled or to become so cluttered that sometimes we can scarcely move at all. That can mean only one thing. The highway has fallen down on its very own particular job! While it has gone chasing off after some other fellow's job! But let's not blame it on the highway; let's blame it on ourselves - the builders and the users of the highway.

Oh, it's easy to see how we got the idea. We started building pieces of highway for the short trips, and the pieces began to come together, and sooner than we realized it we had a net spread over the whole country on which we could find our way from here - to anywhere. Well we wanted to go - anywhere, just anywhere. And the motor car was there to take us. And the railroads wouldn't, perhaps they couldn't quite meet the challenge. And the airplane hadn't arrived. So we imposed a duty upon the highway that was not the highway's particular duty, and some of us even came to think that a road wasn't a road at all unless it was a transcontinental superhighway!

It's true that by calling him those fancy names we didn't much fool the highway. We've been taking the old fellow's pulse these six years past (when I here say we, I mean the Statewide highway planning surveys) and we find it still quite short. Very few indeed of the vehicles we have counted have been making those transcontinental trips. Only a small percentage have been going outside the State, unless the State was pretty small. In fact, only 5 percent of the trips are for more than fifty miles and 34 percent are by vehicles going less than twenty miles. We've been telling the world about this for some time, but we haven't really been making much impression. Some of our very most important people still can't think of any highway trip shorter than transcontinental or any highway not a super-duper-transcontinental - intercontinental highway.

Well, I believe events of the post-war era will quickly dispose of some of these highway myths. And set the highway builders down to

their real job of making it possible to go from here - across the town, or to the next city, with something of the same facility that we shall be able by then to fly to Chungking.

Now, I realize that what you gentlemen who produce sand and gravel, and make ready-mixed concrete really want to know most of all is - will there be any road business after the war? So let's dispose of that immediate question and hurry back to something that interests the speaker more.

There is going to be a lot of road business after the war. If we are going to save the pieces there will have to be. Our road system will stand just so much of the kind of attention it is getting now - and no more. Scattered all over the sacred soil of these United States there are 3,000,000 miles of rural roads, not to mention some 304,000 miles of city streets. Some 1,469,000 miles of the rural roads and most of the city streets have been "improved"; which means that Man has done something to them. He has perpetrated works upon them; and these works are not one whit different from all the rest of Man's works. They wear out. You can patch them up for just so long; you can "make them do" for a while longer; but one day they just aren't any good any longer. That's the way it is with roads. That's the way it is with all Man's works.

Now it so happens that quite a mileage of those roads and streets have been lying on their respective beds of soil for quite a while - 10, 15, 20 years, maybe more, and they're getting old. These days they aren't even getting a good patching regularly enough. I'm

not going to bore you with statistics. You have your own particular gauges to tell you when work is being done on the highways; and you know that right now, except for "access roads" and a few others that get the blessing of the military and the WFB, there isn't much going on. Well, the longer we keep this up, the more work it is going to take when the restrictions go off to catch up with what we ought to have been doing all the while to put new life into those old roads. There's nothing metaphysical about that. It is just plain, shoemaker's, common sense.

Where the money is coming from - in the beginning - I shall not try to tell you. The motor vehicle may not be up to its usual gold standard. But come from somewhere, it will have to, to save the roads. Probably, also, to employ man. Beyond the shadow of a doubt the old roads, the worn-out roads, after the war, will be rebuilt.

But how?

Well, in the broader sense, that's a part of the discussion I am putting off temporarily, to answer your more immediate business question. But, in a specific sense, there is something that can be said that will answer both questions - rather reassuringly.

At least, not all of the road rebuilding, when it starts, is going to be done without plan or to hurried plans. Thanks to the Defense Highway Act of 1941 there is some work going on right now, some work of surveying and of planning, of the preparation of actual working drawings of well considered road and bridge building that will be started as soon as possible - after the war. The 1941 Act authorized a Federal expenditure of \$10,000,000 for this shelf of plans. It

required the States to match the Federal contribution, and they are doing it. So around \$20,000,000 worth of work is now going into the advance planning of nearly half a billion dollars' worth of roads and bridges, to be built right after the war. That isn't a large fraction of the roads and bridges that will need building and rebuilding after the war. But it is something; and the planning is blueprint planning, and of that kind of planning it stacks up pretty high against anything that is being done right now for any other purpose, or for any other field of construction.

Now let's hurry back to where we left off.

I had suggested the idea that the highway job of the post-war period - a job of utmost interest, I think I said, of grand usefulness - will be the job of fitting our streets and highways for the better performance of their own particular task - the task of leading mankind over short distances. I called that a job of utmost interest, because it is a difficult job; it is a job that hasn't been thought through or worked out, yet. We have made it possible to travel long distances fast. We haven't done much, we are not even sure we know exactly how, to make it possible to travel short distances fast. I called it a job of grand usefulness because there are so many more of us traveling short than long distances, that whatever will ease by even a little the difficulties and delays of short distance travel will add up to tremendous good.

Now, just what do I mean? Do I mean, when I say that we must better fit the highway to its task, that all the roads we have been building these thirty years have somehow been wrongly built?

Certainly not.

The job of fitting the highway to its task consists mainly not in undoing anything we have previously done, but in starting to do things that have never yet been done, and avoiding some of the things we have been urged to do.

Spread out upon a table a map of the improved highways of the United States. Most of those highways as they lie upon the ground are approximately where they should be. Practically every one of them, in practically every mile of its length, lies near some place or places, from and to which people in larger or smaller numbers travel short distances over it. No great part of the entire improved mileage represented has been improved beyond the needs of the local service it must afford.

Now, borrowing from the Statewide highway planning surveys their knowledge of the volume of the traffic that daily uses the roads depicted on the map, do as we have done in the Public Roads Administration. Along the ground lines of each of the roads build up miniature fences or walls, their height at all points proportional to the volume of daily traffic known to pass each point. For most of the distance between the cities and towns as shown on the map the fences will be moderately low; but close, very close to every city and town they swiftly change their fencelike character and mount to such heights as more to resemble church spires, until the city is passed. Many of you, perhaps, have seen the original or a photograph of the map to which I am referring.

If you have not, I hope you will be able to follow me when I say that at practically every place where one of those church spires soars - there is a place where the highway has not been fitted to the performance of its primary task. There, there is a post-war job to do.

The reason?

Well, years ago the rural road builders were directed by law to stop their road building at the city lines. So they did. And they generally built right up to each city line a road of the same kind, same dimensions, same facility as they had built farther out. The City Fathers, busy with their checker board ~~o~~identical streets, could see no difference between those that joined with the main rural roads and those that didn't. But the traffic has made a difference. It has piled up into those church spires along those very routes. Many people, traveling every day, short distances, in and out of the city, have made those church spires of the traffic diagram. And the street and the road they travel are badly misfitted to their task. Further out the road would bear them comfortably on. But they don't want to go on. They want to travel just a short distance.

It is in such places - thousands of them - that we shall need in the post-war period to build our superhighways. Superhighways for short distance travel; not - as we are still mistakenly advised - for transcontinental travel and (error of errors) by-passing all cities! By-pass all cities? Those who offer that advice have not yet heard the tidings the planning surveys are telling: That on every main road approaching a large city from 80 to upward of 90 percent of the traffic counted is bound from, or destined to the city itself.

No, the road builders will not be by-passing the city. The city is the place where the most people want to travel short distances. It is the place where the highway can perform its particular task most grandly, and where it now fails most miserably. It is the place where, in the post-war period, we shall look for a great new cycle of road building to reach its height.

I wish there were time to dwell longer upon the theme of the city; but it is not the real point of my story and I must be moving on. I tarry only long enough to remark that the highway in the past has done some grave disservice to the city. In many ways it has helped, to be sure; but in its clumsiness it has injured, too. It bears a large share of responsibility for the city's decadent areas. It has lured taxpaying homeowners to new homes outside the city boundaries and left the city with the burden of dealing with the areas those taxpayers vacated. It has drawn the edges of the city out into a ragged pattern, difficult and expensive to supply with the services the city expects to give, and it has not done what it might, by providing circumferential connections between the radiating main routes to mitigate the injury.

And may I add further that it is in the city that the highway makes its most intimate connections with the railroads, the airways and waterways, and where in the post-war period the important job of rendering these connections more efficient, and of supplying the highways themselves with long needed adequate terminal facilities, will be principally centered.

Now, for just a passing reference, let me take you from the city end of the highway out where the rural tentacles of the highway system reach into the thousands of little rural communities, tapping the sources of our vast agricultural, mineral and forest wealth. Out there, too, there is occasion to travel a good many short distances, and I am not sure that all has been done that should be, to fit the right roads there to their proper service. I think there may still be a worthwhile job for the post-war period out there. I am not suggesting a surfaced road to every remote farm gate. I am sure that much of the least beneficial work of the past has been work applied in the wrong places at this general level of the road system. What I am suggesting is the advisability, after the war, of reviewing all our so-called "feeder roads," measuring them objectively by scientific criteria which the planning surveys now enable us to apply, and selecting for systematic improvement those which, by the value of their present or potential service, are found to merit the necessary expenditure.

I have emphasized the work there will be to do in the post-war period at the two ends of our highway system - the city end and the rural end. I have done so because I believe it is at these two ends of the system that the great new work remains to be done. In between on the long stretches that we call the Federal-aid and State highways, the principal county roads, there will be plenty of work to do - work of renewal, of modernization, widening, straightening. This is familiar work. Its problems are largely routine problems; all, perhaps, but one - ^{the} problem of right of way. Much modernizing, much widening and straightening, means much new right of way. Neither our laws nor our

routines of right-of-way acquisition are ready to meet the post-war demand. Before that demand comes heavily upon us there is much of a preparatory nature that should be done, new right-of-way laws to pass, better routines of acquisition to devise, possibly new agencies of public land acquisition and control to create.

And this brings me to the point of this story and the closing thought I should like to leave with you.

This war is sure to end. With the peace we shall surely start upon a great new cycle of road building. We shall have to: first, because many of our existing highways will have become obsolete or worn out; and, second, because we shall badly need at the city ends of the system, especially, the new facilities I have suggested to enable large numbers of people to travel short distances fast (express highways) and give them a place to dispose their vehicles when they stop (terminals and off-street parking facilities.)

At the beginning there will probably be made available large sums for highway purposes as part of a general public works employment program. Later the stark necessity of the work itself will require its continuance with all possible speed.

We have a little time before we shall have to start upon this new cycle. We shall need that time to prepare. The highway work we shall have to do in the post-war period will be in many respects different from the familiar work of the past. For its proper performance it will require new understandings, new techniques, new administrative relations, possibly new sources of revenue, none of which has been satisfactorily developed as yet.

I call your attention specifically to a few of the necessary preparatory measures:

The building of express routes and other facilities in and around the cities must be planned in relation to many other elements of ^{the} cities' patterns of development. This calls for joint studies by highway and city planners, studies which are as yet scarcely begun.

Administration of the city express highway construction will make necessary working relationship between city, State, and perhaps Federal authorities, relationships not yet established.

Financing of the city express ways will call for stupendous sums. Where is the money to come from? Property taxes, now virtually the sole resort of the cities will not suffice. Motor vehicle and gasoline tax allotments to cities under most present laws are grossly inadequate, and Federal aid for city expenditure has been pitifully small.

Terminal relationship of highways with railways and airways, particularly need study and planning which they have not even begun to receive.

New laws, techniques, and possibly agencies for right-of-way acquisition need to be planned and established.

The further improvement of feeder roads needs much planning in relation to studies of desirable land use now being conducted by the Department of Agriculture and other agencies.

For prompt beginning a shelf of completed plans will be needed.

These are a few; there are many more preparatory measures that must be taken; in most cases requiring long discussion and agreement, by the public and by various public agencies. Almost alone of these measures the advance planning work provided for by the Defense Highway Act is definitely moving.

Of many of the others there is as yet scarcely the beginning of an appreciation of the need - by the public or by the essential public agencies.

Yet these preparatory measures should be taken well in advance of the undertaking of the large post-war program surely ahead, perhaps very shortly ahead. Failure to do so spells inevitable delays, confusion, waste, frustration. Such failure can be avoided only by timely understanding and action - by the public and by public officials. Such understanding and such action can be promoted by discussion and endorsement by such groups and such meetings as your group and this meeting. I bespeak your ^{very} serious consideration and action. ~~And that is the point of my story.~~

The first and most important essential is a favorable climate of public opinion. That you can aid greatly to create. A climate in which the taking of the many preparatory measures will be seen as ^{an} urgent necessity ~~of~~ not as ^{an} unwarranted diversion from the war effort. A climate which will at least encourage and permit that which is generally not now possible - an expenditure of public funds, unusable for ^{present} construction, for ^{the} detailed planning of future construction. A climate in which it will seem to public officials at Washington, in the States, in cities and counties to be downright, hardheaded, good sense to plan ahead rather than the vague and visionary idea such planning is now lawfully held to be. A climate in which it will at least be possible to hope for a manpower policy that will permit public agencies to hold skilled engineers for a planning effort against the insatiable demands of war. And a climate in which these ^{planning} engineers will be encouraged to approach the job of planning the highway ^{structure} with a new sense of the fitting task of the highway - the task of ^{providing} the movements of men over short distances.