as we go and try to solve it with as little confusion and dislocation of our work as is possible. It will require perseverance and will test our fortitude and challenge our ingenuity.

We have reviewed briefly some of the effects of the war on our procedure and our program. Our organization will rise to every occasion and meet every responsibility.

PLANNING FOR THE POST-WAR PERIOD

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Sixty days ago while we in the United States of North America were giving half-hearted attention to the defense of our country, many of us were thinking of the post-defense period—of what we were going to do if somebody else won the war for us.

Today, when most of us are giving almost whole-hearted attention to the winning of the war, talk of the post-war period doesn’t seem very realistic. I say “almost whole-hearted support” because I believe that most of us as yet have no realization of the size of the task before us, the effort required, or the sacrifices necessary to win the war.

Our first task is to win the war. To that end we must direct all our energies. If we are to plan for a post-war United States of America, we must be sure that we, not somebody else, are in a position to make and carry out those plans.

I think we can and will win this war. It may take a little longer than it would if all of us took it more seriously, but when the showdown comes we will get together and forget all individual profit motives.

And so we don’t want to win the war only to lose the things we fought for.

It isn’t wholly unrealistic to think now of the post-war period, to think of the things we are fighting to preserve. And although we might want to relegate post-war planning into a little corner in the back of our heads, realism tells us that we cannot separate war planning from after-we-have-won-the-war planning. They merge together, and I hope to demonstrate shortly why they are inseparable.

There are at least three aspects of post-war planning. First, there must be some planning for the peace that is to follow the termination of the war. I doubt very much if we are in any position to say what the terms of that peace shall be. If the war ended tomorrow, we wouldn’t know what to do with Messrs. Hitler, Himmler, and Hirohito. We don’t have to bother about Mussolini. We wouldn’t know whether they ought to be shot, interned, or turned over to the Poles for a just
retribution. I have no doubt that the Germans, however, know very definitely what they would do with Messrs. Churchill and De Gaulle if they won the war.

Then there must be planning for the post-war economic development of all the nations of the world. If the war were to end tomorrow, we would have no plans showing how the resources of the various nations could be used in order to provide a suitable standard of living. On the other hand, I have no doubt that if the Axis won the war, Germany would have definite plans for the economic development of what countries remained; and these plans would provide for a standard of living which we might not consider suitable, but which they would consider suitable for an inferior race.

Third, there is the planning necessary for our own country when the war is won: planning which will prevent a depression, planning which will permit the full utilization of our extensive resources, planning which will give us a standard of living higher than anything we have had before, and planning for the kind of nation, for states and cities, and for a mode of living that we have fought to preserve.

And at this point let me define resources. The resources of this nation are not buried in a hole in the ground at Fort Knox, Kentucky. The Germans taught us that. The resources of this nation consist of our land, our water, our power, our minerals, our forests, our machines, our muscles, our minds, and our skills; and with those resources we can create a standard of living higher than has ever been known, and we can use our resources so as not to despoil them, but so as to leave something for our children and for our children's children.

War and Post-War Planning Are Inseparable

Before going further, I must prove that war planning and post-war planning are inseparable. I think it must be obvious to all that the construction of a cantonment which will house 25,000 soldiers adjacent to a community of 1,500 creates not only present problems but a post-war problem. The building of the powder plant at Charlestown employing 10,000 people in a community which previously had a population of 900 has created not only present problems but very marked future problems. When San Diego's population increased almost over night by 30,000, San Diego was left with a post-war planning problem. Let us, however, take one example and examine it specifically—the new Ford bomber plant just outside Ypsilanti, Michigan.

Here is a plan that will employ, it is anticipated, 60,000 persons. It is about 20 miles from the present Ford Motor Company plant. Ypsilanti is a small community that has neither the labor reservoir nor the housing accommodations for so large a plant. It is probable that many of the present
employees of the Ford Motor Company in Dearborn at the River Rouge plant will be employed in the new bomber plant. Many of these employees now live in the City of Detroit. An origin-and-destination survey of people driving to the Ford Motor Company plant in River Rouge from the City of Detroit shows workers scattered over the entire city. They already have a long drive to the present Ford Motor plant. Will they drive an additional 20 miles over highways that today are already congested?

It would appear that very little consideration had been given to the matter of ingress and egress to the plant when it was placed in its present location. As a result, the Michigan State Highway Department has been called upon to prepare an emergency plan for ingress and egress to the bomber plant. These highways are complicated in design, require three-level crossings, and will cost, it is estimated, $4.5 million dollars.

But the principal questions are, Where are the workers going to be housed and how can they reach the new plant? Ypsilanti Township and Washtenaw County have very wisely, in my opinion, decided not to permit any shack development in their areas. They have already noted the disadvantages of uncontrolled growth in several townships north of the City of Detroit. Will the workers at the plant owning homes in the City of Detroit give them up in order that they may build new, permanent homes in the area adjacent to the bomber plant? Assuming that they are willing to do so, and that they can sell their present homes, both of which are questionable, can they get the materials with which to construct new homes?

It is exceedingly doubtful if housing facilities can be provided adjacent to the bomber plant, at least in the early stages of its operation. It is probable, therefore, that the workers will be forced to drive a considerable distance and that this will be the principal solution to the problem. Thus, we have a present defense problem of transporting workers from their homes to their work. I understand that the Ford Motor Company proposes to create a parking lot that will take care of half of the employees of the bomber plant. Existing streets leading from the City of Detroit are wholly inadequate at the present time. Are they to be widened? Are new streets to be constructed? Are the workers to use their own automobiles? This doesn't seem likely in view of their inability to purchase automobile tires. Are they to be moved by mass transportation facilities? Must new transportation facilities be developed?

But that is only part of the picture. The other part of the picture is, What are we going to do with the Ford bomber plant when the war is over? It is my guess that this building will become a permanent structure in the Ford industrial plant. If my guess is correct, it means that we must not only make temporary, but permanent arrangements (a) for the trans-
portation of workers from the City of Detroit, and (b) for the housing of some workers adjacent to the plant.

Certain CIO unions have asked that a community with homes for 10,000 workers be constructed in the Ypsilanti area. I wonder if they realize the implication of such a program. A community of 10,000 working families would probably mean a community of 20,000 families, when you include those in service industries, in shops, stores, garages, gasoline stations, etc. In order to be conservative, let us assume a community of 15,000 families. This represents a city of 60 to 75 thousand persons. A city of that size demanding minimum public facilities in the way of sewers, water, schools, fire protection, police protection, parks and recreation, libraries, etc., will find that it costs money to maintain a community of that size. Even if the bulk of the facilities should be constructed originally through federal grants, it still costs money to maintain a community of that size. If the community has no industries to share the tax burden, the citizens will soon learn that either their taxes will be higher than they can bear or they will have to do without essential public services. A recent survey of Boston shows that 80.5% of the population fails to pay enough taxes to cover the cost of services rendered. It might be far better to expand a community that already has certain basic facilities. It might even be better to provide for the movement of a considerable part of the working population from present homes in the City of Detroit. We know, of course, that distance is not the controlling factor; time is the important factor. It happens that I live 25 miles from the City of Chicago, and when I make that statement to friends they say, “Oh, you are a commuter. I suppose it takes you some time to get into the city.” I then give them my definition of a commuter. He is a person who can travel 25 miles in less time than it takes a city man to travel 5 miles. The travel time from my suburban community to my office is approximately 35 minutes. There is one train that does that trip in the evening in 20 minutes.

In planning for our country, when the war is won, there are several tests which might be applied. What can we afford or what do we need? I choose to use the second test, What do we need?, because in my opinion we can afford, within reason, anything that we need. Ours is not a nation that suffers from a shortage of resources, and we mustn’t permit ourselves to be regulated by the fiction of finance.

**Funds for Post-War Construction**

When the war is over, there will be some people of influence and in high places who will say that there must be immediate extensive retrenchment, that we must cut taxes to the bone, that we must cut out all public expenditures. There isn’t anything we can do when the war is over that will be so damaging as a policy and program of that kind. Actually, we can’t afford to cut expenditures radically when the war is over.
Two months ago we were talking about an annual expenditure for war purposes of 30 billion dollars. Today we are planning to spend over 50 billion dollars for war purposes in the next year. We will probably have a national income of 110 billion dollars. Does anybody believe that we can immediately drop our national income to 60 billion dollars and avoid the worst depression we will have known? The answer seems clear. Publicly or privately we must continue to build things and to spend money in order that our national income may remain at about 100 billion. I for one would be glad to see private programs that would not necessitate any federal expenditures. If private industry can take up the slack, well and good. Private industry will create and manufacture consumer goods, and we haven't had too many of them heretofore. It is my hunch, however, that private industry will not be able to take up the slack immediately and that public expenditures on a very large scale will be required to cushion the shock to carry us through the readjustment period.

I said public expenditures on a very large scale. I don't mean one billion dollars or five billion dollars a year. I mean enough billions of dollars above the income created by private enterprise to maintain our national income at a level of about 100 billion dollars.

Suppose we were to have 25 billion dollars available for public works. What would we do with them? If we had no plans, we would probably use the money to build a few roads here and there, mostly disconnected, mostly not serving the areas where they were really required. We will build a sewer here, a water main there, a new school perhaps where it isn't needed because of declining population, a new park and playground, a small housing project; we will pave a few alleys and we won't be able to find enough important jobs to keep all of our men at work, so we will invent a number of unimportant jobs. That's what we are going to do if we do not have any plans.

We don't have to permit ourselves to get in that condition. We have enough time to prepare plans on a grand scale. One of my criticisms of the present public work reserve is that it is built on too picayune a base, that its sights are too low and that the scale is far too small.

I'll tell you what I think we ought to do when the war is over. We ought to rebuild our cities so that they are fit places for human beings to live in. We ought to eliminate all slums and blighted areas and give to every person who is willing and able to work a decent house to live in, work to do, assurance of security, adequate recreation facilities. And when I say we ought to rebuild our cities, I do not mean that we must merely cut a new street through here or build a new park through there. I mean completely rebuild our cities, wipe out the blighted areas, build housing projects on a scale which we can't
at the moment imagine, put parks and playgrounds adjacent to these housing projects so that people have better living facilities in the central areas adjacent to their places of work than they now have in their suburbs to which they have run for escape. The rebuilding of our cities will require new streets and schools and filtration plants and sewage disposal plants. But each one of these items can't be isolated. It will be part of a big, comprehensive scheme and pattern for living. We will build super-highways, but they won't be isolated projects developed for the purpose of getting people from outside the city into the center. These super-highways will be designed as parts of a program that will help to complete our pattern of the community.

One of the shortcomings of most of our super-highway programs has been that they were isolated projects imposed upon the existing pattern of the community, considered apart from and not as a part of a general transportation program, considered apart from and not as a part of a program for the rebuilding of the community. That kind of super-highway can actually create further damage for an area already blighted. We want only the kind of super-highway that will contribute something to community redevelopment.

And in passing, let me say that I have seen some pretty good schemes for the construction of super-highways that will bring people from the outskirts to the center of the city—thousands of people. But I have not seen a single scheme that has given consideration to the matter of parking or storing those thousands of vehicles when they get to the center of the city.

Rebuilding Transportation Systems

When we rebuild our cities, we are going to rebuild our transportation systems; we are going to get rid of our obsolete types of street cars, our old wooden coaches on elevateds. And when we rebuild our cities, we are going to look at the whole transportation problem because we cannot separate streets from super-highways, subways, elevateds, and from street cars—they are all designed with the purpose of carrying people, and it is people we are interested in. Counting the number of vehicles on the street tells us how many vehicles are using that street, but it provides no real solution to the problem of conveying people from their places of work to their places of residence. People, homes, factories, stores, parks, theatres, auditoriums determine the traffic pattern of a community.

We are going to rebuild our transportation system; we are going to make our highways adequate for the 33 million automobiles now owned in the United States. And although we are going to rebuild and extend our rural highways, it is my opinion
that we are going to give far greater consideration to our highways within metropolitan areas than we have previously given, because that is where the people and the automobiles are.

And we are going to rebuild our railroads. As I stated earlier, I am a suburbanite, and I live 25 miles from the center of the City of Chicago. We have excellent suburban electric service, among the best in the United States. On that same roadbed, however, running through a number of communities, old-fashioned, smoking steam locomotives pound and roar. We don't notice the electric trains, but I have a neighbor whose house rattles, where he has some glass brick, every time a freight train goes by. The worst sections of most of our cities are along the railroads, and there is no reason for that. We have and will have enough electric power, and we can construct enough Diesel engines, to eliminate most of the unsatisfactory aspects of our present, outmoded transportation system. We might even arrange to get our freight cars off friction axles and onto roller bearings. I have a friend who, a few years ago before the development of the streamliner, used to say of the railroads that the only improvement that had been made in 20 years in railroad cars was the installation of a slot for used razor blades.

I have been talking about our cities, but all the replanning and all the rebuilding won't take place there. I have seen rural slums as bad as the worst I have ever seen in the cities. They must be eliminated. The farmer who works as hard as he can is also entitled to a decent home, recreation, and security. Our cut-over lands will be reforested and used in the future on a sustained-yield basis. Our recreational facilities will be expanded so that every family can employ its leisure time in a pleasurable manner. Lands that shouldn't be farmed will be retired from farming because we have enough good land adequately to sustain the nation.

Heretofore we have abused our resources, we have wasted our heritage; but there is enough left to serve as fit foundation for a high, and continuing high, standard of living.

Times change and people change with them. A few years ago most of the industrialists of the United States would have said that I am an idealist, crack-brained, theoretical, and crazy. They would have said of me, "He has never met a payroll and therefore doesn't know what he is talking about." I suppose many industrialists would say the same thing of me today. But times change and men change with the times. I was amazed the other day when I received a publication from the Chamber of Commerce of the United States, and found it the most enlightened piece of literature that has come across my desk from that organization. It was a paper given by David C. Prince, President of the American Institute of Electrical Engineers and Vice-President of the General Electric Company. It was devoted to post-defense readjustments and the part that
private industry might play in such readjustments. In this paper Mr. Prince said:

... it is becoming more and more apparent that by some time in 1943 we will be turning out national output of the order of 110 billions, measured by 1940 dollars.

When we have proved that we can do that, and that we can keep 55 million people busy working about 46 hours a week to do it, there is certainly no justification for us as a nation to be content with the 40 billions of dollars of national output which we had at the bottom of the last depression.

And having proved that we can do it for war purposes, there is no reason why we cannot also do it for peace purposes.

And then he went on to say:

... together these two, a private and a public works reserve, will require, it is estimated, using 1946 as a typical post-war year, approximately 23 billions a year of total construction, including plant equipment.

The reason, as I see it, why the pump-priming of the 30's didn't work was that what was attempted was to do a 25-billion-dollar job with 4 and 5 billions. If you have a pump to prime and you pour water in at a lesser rate than it can leak out through the foot valves, it just never primes, and that is essentially what the condition was that we had during the depression. We didn't realize this because nobody actually got to work, got down to cases, applied a measuring stick to tell just what the magnitude of the problem was.

Not long ago I received a communication from an Indiana statesman which said in part:

Tremendously important problems confront our State today and even more important problems will face us in the future. . . .

All of us realize that the Defense Period with its changes in industry and agriculture presents problems now. We also realize that the post-war period will offer even more serious problems. The employment of men returning from military service, the softening of the economic shock that always has followed a boom period, the wisest use of our agricultural resources and use of newly established industrial plants, maintaining a satisfactory water supply, how to plan for our transportation of the future, are only a few of the obvious problems to which we need to direct our thought and action. Solution of these problems is vital to the welfare and progress of our State.

That understanding statement was made by your Governor, Henry F. Schricker, after he had appointed a State Planning Board.

PLANNING MUST BE ORGANIZED AND FINANCED

Let me say, however, that you cannot expect to do a proper planning job on the state, county, or local level unless you have an organization equipped and financed to do planning. Plans cannot be drawn out of thin air. They can be prepared only after careful study and by a staff trained to do planning. My confidential agents tell me that the organization for county highway planning and development in Indiana leaves much to be desired. There are good men and much good work has been done, but that has been in spite of inadequate organization. The people of Indiana, as I understand it, have not given
to highway officials all the administrative and financial support needed to do a really good job. Nor have the people of Indiana given to your State Planning Board the finances necessary to demonstrate how effective planning can be. Contrast your $2,500 appropriation with the annual appropriation of $50,000 for state planning in other enlightened states.

Let me repeat: you won't get your planning done unless you are willing to pay for it. If, when the war is over and won, you are going to be satisfied with small, piecemeal, unrelated projects, which will on the whole be unsatisfactory and which will fail to take advantage of the opportunities then existing, you can go along without the advantages of planning. But if you want to do a real rebuilding job in the state in its rural and urban areas, you can't waste any more time in getting plans ready.

Today I was reading the proceedings of the regional conference on the Public Work Reserve and came across the following statement made by a representative of the Department of Public Instruction of the State of Michigan:

Some time ago, the State Director called on the Superintendent of Public Instruction and they together planned a meeting for the Public Work Reserve in connection with some members of our Department and we worked out an agreement whereby we would go into this matter on the basis of comprehensive planning, which we thought meant we would take a lot of time. Now here is our problem, as I see it anyway. Michigan probably has about 500 natural community areas that would be able to support some kind of decent school system, but instead of having these 400 or 500 school districts, we have about 6,300 districts. In the planning there has been a haste about getting these prospectuses filed in Washington and on top of that we have now had communication from the Department of Education in Washington asking us again to hurry information as to the school building needs in Michigan. Well, you know what happened. We sent out all these forms and each district imagined they needed a building costing from $100,000 to $1,000,000. The first one that came in was for a district in a declining community. They have indicated a need for a school building for $800,000. The assessed valuation of that district is $400,000. Are we to go along on the basis of taking time and planning comprehensively or are we to immediately fill out the School Building Report for the entire State?

You have your choice—either you can plan a sound program or go without planning and have chaos.

Over in England they are giving very serious consideration to post-war planning for what they hope will be a changed world. The city engineer of Coventry recently started a talk by saying:

Sweet are the uses of adversity. For years we have been trying to rebuild the center of Coventry and were always met with the claim that we couldn't afford it, that the land and buildings were too dear, and now we have only the land—there are no buildings. May we have the wisdom to replan Coventry as it should be.

And another Britisher, F. J. Osborne, in a little pamphlet entitled Overture to Planning said:

I have no doubt at all that town-planning could have been made a popular movement after the last war had not town-planners them-
selves despaired of their own evangel and accepted the good layout of badly-placed housing estates as a substitute. The absence, until almost the end of that war, of any serious discussion of reconstruction problems may have been a contributory factor. At any rate, it is on record that what ought to have been a town-building movement—it was the greatest opportunity that ever occurred in our history, not excepting the coming one—became a housing movement. I was one of the lone voices who said so at the time. It is useless now to cry over spilt suburbs. But it is salutary to remember that great opportunities can be lost by small thinking.

Times change and men change with them. Sometimes times change and men stand still, and because of that we are inclined to forget the important things they did when they were in tune with the times or ahead of them. On March 12, 1927, the President of the United States, in urging the completion of the Great Lakes-St. Lawrence Deep Waterway, said:

There is nothing that so lifts the spirit, the ideals and the faith of a people as confidence in their ability at great undertakings and the proof of this ability through fine achievement.

That was Herbert Hoover in 1927.

We have all the resources, the land, the water, the power, the minerals, the forests, the crops, the muscles, the skills, and the brains to make this a great nation; all we need is to use these resources; all we need is boldness, vision, imagination and courage.

THE EFFECT OF PRIORITIES ON HIGHWAY IMPROVEMENT

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The OPM became a real necessity during 1941. Its origin was very simple: when the demand for certain materials far exceeded the supply and the requirements for defense projects had become critical, then some form of allocation, or priority, had to be given to protect them. The best illustration is the priority on steel. We were told in August that total defense projects, that is, the manufacture of planes, tanks, and other war materials, including the construction of army camps and war industry plants, needed about 45 per cent of the total 1941 steel production. Furthermore, it was very apparent that orders for civilian steel, as it is called, were greatly in excess of the remaining 55 per cent; something had to be done about it. Another more serious situation was the fact that, of the so-called civilian requirements, there were widely varying degrees of necessity. Even the Steel Division of the OPM did not have the situation in hand; it didn’t know what jobber might be hoarding steel for the future; it knew that there might be large shipments of steel for very unimportant projects, and also that certain important near-defense projects