

"The 1970 Federal-aid Highway Act"

By Francis E. Turner, Federal Highway Administrator

(EDITOR'S NOTE: John Montgomery, director of highways, attended the annual Mississippi Valley Conference of State Highway Officials at Chicago on March 11 and 12.

During the conference speeches were presented by Francis Turner, Federal Highway Administrator, A. E. Johnson, executive vice-president of AASHO, both of Washington, and R. L. Peyton, of Topeka, assistant director of highways and a member of the executive committee of the Highway Research Board.

In view of the knowledge that these three men have about national highway affairs, Mr. Montgomery felt that the papers should be shared with all highway employees.)

In the evolution of our national highway program, the Federal-aid Highway Act of 1970 will take its place as benchmark legislation.

It merits this description because it affirms in many practical ways the concerns and the priorities of our time. It looks from this vantage point with a sound plan for the future. And in so doing it provides those of us who manage the highway program with new support and new opportunities to serve our fellow citizens.

We have been administering a program whose foundations were laid in the 1956 legislation. But we have not been constrained by blind adherence to a set of plans and specifications drawn up in 1956. On the contrary, we have approved some very significant change orders along the way. America has been changing these past 15 years and so have we. To use the broadest description, it is the quality of life that has increasingly concerned our fellow citizens. And I believe we in the highway program have been quick to respond to these emerging concerns—not just with agreeable rhetoric but with meaningful action.

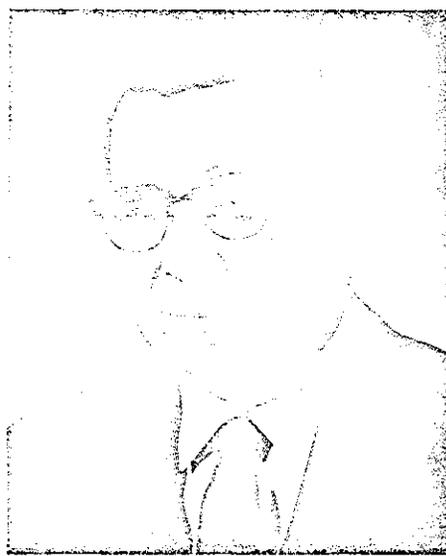
Policy Changes

Last year, as this legislation was being considered, I testified before the Senate Subcommittee on Roads, and I offered this observation:

"I would point out that many of the things that we are looking at today that we consider to have been mis-

takes in the program are largely things that we did under a different policy. We have changes in our policy, we have changes in our personnel.

"I would point out to you that a little over 10 years ago I sat before this same committee in this same witness chair, and was berated rather heavily, along with other highway officials, as to the high cost of this particular program, and the emphasis then was on cost, do it cheaper, cut out fringe things, keep the cost down.



Francis E. Turner

"The policy has changed. The people have changed. This is progress, and we have made those changes. We changed our policy, we changed our procedures, we changed our points of emphasis. I believe we are working now in harmony with the policy and legislation that is before us, and I would hope that we would be allowed to continue to administer the program and get the job done in the way that you are asking us to do."

I believe the 1970 Act does give us very substantial support in doing the job ahead.

This Act embraces the broadened concept of the highway program that has been growing over the past decade.

It is concerned with the social responsibilities of the highway program—with safety, with the environment, and with other human values.

It is particularly responsive to the problems arising from the continuing urbanization of our country.

It takes the long view, setting forth necessary steps for the orderly development of the continuing strong highway program we must have to meet the growing transportation needs of the Nation.

Future Programs

Let's take the last point first—that of formulating policies for the future of the program.

First, the Act looks to the conclusion of the Interstate System construction program launched in 1956. It provides for removal from the system by July 1, 1973, of those segments whose construction is not assured, and the reallocation of this mileage. It sets a deadline of July 1, 1973, for submission of all Interstate System plans, specifications and estimates.

It extends Interstate authorizations through fiscal year 1976, but leaves a final additional authorization to be enacted at a later date, while requiring a final cost estimate to be submitted in 1974. It assures continued funding by extending the Trust Fund five years to October 1, 1977.

Next, looking to the future of the regular Federal-aid program, it directs the Secretary of Transportation to make recommendations in 1972 for the functional realignment of the Federal-aid systems, based on studies made in cooperation with the State highway departments and local governments. Also in 1972, the Secretary is to make recommendations for a continuing Federal-aid highway program for the period 1976 to 1990.

In addition the Act provides for a reduced State matching requirement, by setting up a 70-30 Federal-State funding ratio beginning in fiscal 1974.

Meanwhile, the Act extends the ABC and rural supplement authorizations at their current level through fiscal 1973.

Again, looking to long-range needs, the Act provides for establishment in the Federal Highway Administration of a National Highway Institute to assure a future supply of trained manpower for the Federal-aid highway program. The Institute will be developed in cooperation with the State highway departments and will be open to Federal, State and local highway employees.

It is noteworthy that this provision includes local employees. This is one of several instances where the Act specifically attempts to strengthen the participation of local government in the Federal-aid highway program.

New Features

Now let us turn to the new features the Act provides in our operating programs. It is here that we see reflected the concerns—shared by highway officials and the public's representatives in the Congress—over the problems of urbanization, the environment, and human values. It is here that we highway officials are given a mandate to do something about these concerns.

Urban growth has been one of the most remarkable processes of our century, and very likely will continue to be in the remainder of the century. About 70 percent of Americans now live in urban areas, and 80 percent will within another decade or two.

Urban living is made possible, among other things, by transportation, by the daily, hourly movement of goods and people. And the adequacy and efficiency of the transportation available to our urban areas has much to do with the quality of life in those areas.

Today, these urban areas are overwhelmingly dependent on highway transportation. And there is every reason to believe they will continue to be for the rest of this century.

If they are going to continue to grow, so must highway transportation. The challenge to the highway

official is to get the most efficiency possible out of the urban highway system with the resources available to him.

The Federal interest in this challenge has grown over the years as urbanization has proceeded. In the forties, the primary and secondary systems were extended into urban areas. In the fifties, urban freeways were incorporated into the Interstate System. In the early sixties, the urban transportation planning requirement became law, thus providing a necessary foundation for decision-making on which we can call today. And in the late sixties, Federal aid was made available for traffic operations improvements—the TOPICS program.

The 1970 Highway Act adds several new dimensions to the Federal interest in urban transportation. Combining it with existing programs, plus companion legislation for urban mass transportation assistance, we get a comprehensive set of tools to deal with urban transportation problems.

These tools include an active, ongoing planning process; the Interstate program to provide the larger urban areas with a limited network of high capacity freeways; ABC funds to improve a limited number of major arterials, and the TOPICS program to increase the capacity and safety of major street systems beyond the ABC routes.

Mass Transit Planning

Now, the 1970 Act provides for creation of a new Federal-aid urban highway system, and authorization to use Federal-aid funds for highway-related improvements to serve bus transit. And the mass transit legislation provides funds to purchase new buses and operating equipment through UMTA.

The Federal-aid urban system will consist of arterial routes other than those now on the primary and secondary systems in urban areas of 50,000 and more population. The routes are to be selected cooperatively by local officials and State highway officials, who are to be guided by the urban transportation planning process

in determining which routes will best serve the goals and objectives of the community. The Secretary is to report to Congress in 1972 on the designated system and its cost of construction. This system should materially assist the urban areas in meeting their transportation demands.

Of course, one of the major problems large cities have today is that of rush hour traffic congestion. This is what most people have in mind when they complain of the transportation crisis. In the context of the overall transportation needs of our urban areas the rush hour traffic is a relatively small portion of total transportation movement—since trips to and from the downtown comprise only five to 15 percent of total urban trips. But it is a problem when transportation corridors to and from downtown become overtaxed under peak hour loads.

From Cars to Buses

In all but a handful of cities the only practical solution to this problem is to divert commuters from private autos to higher capacity vehicles, namely buses and car pools, and thereby increase the people-moving capacity of our urban highways. And this is the only solution that can be applied in the immediate future—in a matter of a year or two.

If rubber-tired mass transportation is to succeed in luring commuters out of their cars it will have to provide fast, convenient and comfortable service. The highway program can offer a major assist in bringing this about, by providing preferential treatment for buses—and car pools—in moving rush hour traffic.

The 1970 legislation specifically authorizes this type of assistance by making Federal-aid funds available for the construction of exclusive bus lanes on freeways, bus roadways, traffic signals and other control devices to give buses preferential treatment, bus passenger loading areas and facilities, including shelters, and fringe and transportation corridor parking facilities to serve bus and other public mass transportation passengers.

In addition, fringe and corridor parking facilities can be constructed with Federal-aid urban system funds.

Improvement of bus transit is not a unilateral endeavor, of course. It is a joint venture that requires cooperation of all levels of government. It requires cooperation at the Federal level between the Federal Highway Administration and the Urban Mass Transportation Administration, and we in turn must cooperate with State and local officials and transit operators if we are to get the necessary assurance that transit-related highway projects will be effectively utilized.

Nevertheless, I believe we have a real opportunity here, and I would urge State officials to examine their opportunities carefully as we prepare the report Congress has directed on the need for additional highway facilities or the adjustment of existing facilities to accommodate highway public transportation.

In addition to the new aids it provides for urban areas, the 1970 Act also shows concern for the problems of over-urbanization. It offers a demonstration program which would use highway improvement to help check the migration from rural areas and small towns to overcrowded cities.

Economic Growth Centers

The Act provides for a new program of economic growth center development highways to be funded at \$50 million a year, although an appropriation still is required before any funds will be available. The Secretary is authorized to make grants for demonstration projects that would lead to the development of economic growth centers in places of 100,000 population or less. The approach is similar to that of the present Appalachian road program, and projects must be on the Federal-aid primary systems. The Federal Government can pay 100 percent of the cost of engineering and economic surveys and can sweeten by 20% the traditional 50% matching. It is emphasized that the demonstration projects must involve regular Federal-aid funding.

This program, with its objective of

improving living conditions and the quality of the environment, could prove a significant example of the use of the highway program for social progress.

Another outstanding example in the 1970 Act is the expansion of the relocation assistance program—the forerunner of the Uniform Relocation Assistance and Real Property Acquisition Act of 1970, which has now superseded our legislation.

As you know, these laws have expanded relocation assistance benefits to include compensation for increased interest rates on replacement housing, and to authorize the construction or acquisition of replacement housing where none is otherwise available.

Relocation Program

This relocation program is delivering real social and environmental benefits by ensuring that all persons displaced by highway construction find decent, safe and sanitary housing, including those who previously lived in substandard units.

Yet another example of social responsibility can be found in the 1970 Act's provisions authorizing establishment of training programs for highway construction workers — on an equal opportunity basis.

There has long been an awareness in the highway program of the potential impact of highway improvements on economic, social and environmental values. We have studied these impacts for years and shaped our procedures accordingly. We devote a substantial portion of highway resources to environmental improvement, and were doing so long before it became a popular issue.

Our policies have changed over time to reflect the greater emphasis that the public expects in this area. Now, the 1970 Act continues this developing process by requiring the establishment of guidelines by 1972 to assure full consideration of possible adverse economic, social and environmental effects of proposed projects and the costs of eliminating or minimizing them.

The Act also requires development

of standards for highway noise levels and guidelines to assure that future projects are consistent with applicable air quality standards.

Congress also made new money available in the 1970 Act to revive the billboard control and junkyard control programs of the Highway Beautification Act of 1965, and it created a commission to report back within a year with recommendations on how to make these programs more effective.

Meanwhile, as you know, Secretary Volpe has lifted the moratorium on the penalty provisions of the Beautification Act and has called upon all States that have not yet done so to get the necessary legislation and agreements with FHWA to enforce billboard control.

I am personally hopeful that we will soon see some visible improvement in our roadside environment as a result of the Secretary's initiative. And I am sure our motorists will welcome it.

Another major concern in the 1970 Act is highway safety. The Act transformed the National Highway Safety Bureau into the National Highway Traffic Safety Administration. And it accepted Trust Fund responsibility for financing two-thirds of the cost of the grant and research programs authorized by the Highway Safety Act of 1966—that is, for State and community highway safety programs.

The Federal Highway Administration retains responsibility for these State and community safety standards having to do with the highway element. It also retains the Bureau of Motor Carrier Safety, with its regulations for trucks and buses.

I can assure you that this division of safety responsibility will in no way diminish the high priority we put on safety across the board in FHWA programs. That goes for our highway safety standards, for the spot improvement program, for the clear roadside program as well as for our involvement in the State and community programs. These programs are yielding

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"Past and Prologue: First Fifty Years"

By R. L. Peyton, Executive Committee, Highway Research Board

In January of this year the Highway Research Board celebrated its fiftieth anniversary during its Annual Meeting in Washington. For nearly thirty of these years, I have been associated with the Board in some capacity. At the request of the Board's Director, in my present capacity as a member of the Executive Committee, I was asked to appear here today and relate to you a brief history of the Board and its accomplishments during the past fifty years.

At the National Archives Building in Washington, there is an inscription on the pedestal underneath a female figure which reads: "What is past is prologue." You will recognize the language of Shakespeare from "The Tempest." The Bard wrote those lines less than 400 years ago. Yet, the English language has changed so much that if he were here today, he could comprehend little more than half our current vocabulary. He knew what he was talking about. The past of our language itself was merely prologue to modern English.

The past stands like a rock, unchanging and unchangeable. It is the strength and authority of the past which inexorably thrusts the present upon us. With imagination, the past can give us the wings of the future, and it is a truism that we must understand the past in order to avoid repeating our mistakes in the future.

It is appropriate, I believe, to examine the first 50 years of the Highway Research Board in relation to world development and our country's history. I say this, because scientific investigation, as mankind's most intricately organized and highly disciplined mode of thought, penetrates every sphere of social activity and every aspect of human life. As engineers and administrators, I believe you will agree. To view the development of any scientific enterprise as a single isolated progression, is, however, to ignore a major purpose of all

scientific endeavor, which is to solve human problems.

Highway research did not begin with the Highway Research Board. When the Board was created, the United States boasted of a surfaced road system; but it barely equalled that of the Roman Empire.

Romans First

We know that the Romans did make use of research. Much of their technology was based on Greek, Chaldean, Egyptian and Etruscan discoveries. The Romans were the first to use roads as an instrument of na-



R. L. Peyton

tional policy, and their success in taking much of the world from its rightful owners emphasizes and confirms the value of roads in facilitating national purpose, no matter how dubious that purpose may be.

It remained for the Saracens to bring the Arabic numbering system into the mainstream of Western thought, making possible the refinement of mathematics so necessary to technical research. And while Europe in the Middle Ages continued to travel on the decaying Roman roads, the Incas of South America were busy building 10,000 miles of magnificent paved roads.

Perhaps the greatest flurry of thorough scientific research into highway came next in Eighteenth Century France. The French, however, continued to borrow heavily from the Roman techniques, as did the British and Americans.

We Americans, as a nation, are rather unique in that historical context. We came to a continent that wasn't supposed to be here and traveled to our inland destinations in Colonial times without any way to get there. We simply struck out through the woods and let the roads come later, when somebody could get around to building them.

The first road maps in the country weren't compiled until 1789, when our total road system was no better than that used by the Germanic tribes of the Fifth Century. There were some grandiose plans in the early 1800's, but limited construction. In 1900 the United States had a magnificent total of 141 miles of paved roads in rural areas.

The 20th Century

But, as the Twentieth Century moved on, industrialization was storming through Western society. We're all familiar with the way in which the advent of the automobile revolutionized our way of life and spurred the development of a genuine highway system. Alvin Toffler, in his extraordinary book *Future Shock*, says that the typical American of 1914 traveled about 340 miles a year with the aid of a horse or by mechanical means. Counting walking, he moved a total of some 88,560 miles in a lifetime. Today, the typical American covers three million miles in a lifetime. One mile 60 years ago equals 35 miles today. We have, for practical purposes, succeeded in annihilating distance. In the lifetimes of most of us here, we have witnessed—and been part of—an historic decline in the significance of place to human

life, with profound cultural and psychological consequences.

In 1916, President Woodrow Wilson created the National Research Council as an agency of the National Academy of Sciences in recognition of the technological horizon coming into view. That was also the year in which the Federal-state partnership in highway development was introduced, to be perfected in principle by the landmark Federal-Aid Highway Act of 1921.

Technological innovation was moving at such an intense pace, and public demand for mobility was so massive, that transportation experts both in and out of government saw a clear need to devise a mechanism for producing adequate information for planning.

The Highway Research Board was that mechanism, and its particular history is substantial and well documented. In terms of the automotive age, it has quite a long history. In the total framework of science, it is still in its infancy, along with the rest of transportation research. Its contributions over the years have been manifold and are outlined in the HRB history entitled, "Past and Prologue." Copies are available here today. A complete history of the Highway Research Board may be secured from their Washington office.

The World in 1921

Let's look at the achievements of the Highway Research Board from the perspective of those who were there to launch it. Imagine, if you will, or remember if you can, what the world was like in January 1921.

What Harvey Firestone, Jr. has called the "peripatetic century" was beginning to gallop along. Europe was still struggling from the ravages of World War I, and the League of Nations was in its death throes. American expatriates were gathering in Paris, and in Munich an obscure Austrian named Adolph Hitler was making speeches to which few people listened.

Here at home, Woodrow Wilson

was about to turn the reins of government over to Warren G. Harding. The Boston Red Sox had just traded George Herman Ruth to New York; the following summer, the Babe would hit 59 home runs.

In the world of science, the Nobel Prize in physics went to a young German scientist named Albert Einstein for developing the photoelectric cell, or so-called "electric eye." This man dreamed about mathematical theories which were to lead to nuclear fission.

Nine million motor vehicles were on the roads, with several million bicycles, wagons, saddle horses, droves of sheep and cattle, and pedestrians.

Many of us traveling in those days were relieved and amazed when we encountered a graveled road surface, after plowing through mud and dust on dirt roads. To us at that time a graveled road was an ultra-modern highway.

In those days, roads weren't identified by numbers and were seldom marked at all. You could use one of the famous "Official Automobile Blue Books" put out by the Triple A, and follow such directions as "take left fork to four corners beyond red barn, turn right and then left at tall elm." In the 1920's we had the Lincoln Highway, the Dixie Highway, the Old Spanish Trail and literally hundreds of other routes with equally colorful names, but no systematic numbering system, permitting planned travel along logically connecting routes.

But there were signs of progress on the horizon. Anston Marsten, Dean of the Engineering Department at Iowa State College, sent out a call for a national highway research program. Another Iowan, Thomas H. MacDonald, a former student of Dean Marsten, became chief of the bureau of public roads in 1919. These two men were to become prime movers in forming the Highway Research Board, along with Dr. C. A. Adams of Harvard University, Chairman of the Division of Engineering of the National Research Council.

First Board Meeting

In October 1920, Dr. Adams asked for a meeting of government and private highway officials to form a General Advisory Board on Highway Research, which would bring together highway research efforts, organize them and give them form, direction and national purpose. The meeting was held in New York City, November 11, 1920 with 35 delegates attending, and the Highway Research Board was created.

HRB and AASHO

The American Association of State Highway Officials officially welcomed the fledgling organization, and an intimate, enduring relationship began. The Bureau of Public Roads made \$2,000 available to get the work started.

Anston Marston was elected chairman and Alfred D. Flinn, vice chairman of the Research Council's Division of Engineering, was named interim director for the Board's formative period.

In February 1921, the first Executive Committee of the Advisory Board on Highway Research came into being. The Board set up offices in the National Research Council Building in Washington. First Annual Meeting of HRB was in January 1922, in New York City and 30 people registered.

At the 50th meeting this year, 3,000 persons registered.

By the time of the 1924 meeting, the Board was operating out of two rooms in the National Academy of Sciences Building at 2101 Constitution Avenue. By 1929, there were eleven standing committees of the Board, with many more envisioned. This led to the creation of six departments—Administration and Finance, Transportation, Highway Design, Materials and Construction, Maintenance, and Traffic, a structural streamlining that remained in effect for many years.

The Board's close working relationship with AASHO was solidifying. In 1935, a joint highway research census was arranged and by the end of 1936, more than 1,500 research

projects were inventoried by the Board.

During World War II, a series of "Wartime Bulletins" was published on highway technology affected by the wartime situation. Annual meetings were held outside Washington to relieve the wartime congestion. As a matter of fact, the 1944 meeting was cancelled at the request of the Federal Government. Its proceedings were published, however, and contained a report on origin and destination survey techniques by a young traffic engineer named D. Grant Mickle. He was chairman of the Board's Executive Committee in 1970.

In 1945, the Research Correlation Service was started. This was one of the most important functions the Board has ever undertaken. It was always a central doctrine that the Board should collect and analyze highway research information from whatever source, and disseminate this information to those agencies and groups who could best utilize it. The Research Correlation Service provided a formal structure for this service for the state highway departments and the Bureau of Public Roads. It continues to bridge the gap between information production and demand from the field for highway research.

The war was over, and the Board made another important innovation, this time not on paper but in flesh and blood. In January 1946, Bill Carey was hired as Executive Assistant to Research Correlation Service Director Roy Crum. Carey now is the Board's Executive Director.

Post War Period

The end of the war also brought a surge of highway travel. Gasoline was no longer rationed, and the relief from the long years of enforced limitation on travel opened up the floodgates. Everybody wanted to go everywhere, and by car. It was necessary to step up scientific road testing, and the '50s were boom years for the Board in that respect.

The Maryland Road Test in 1950 saw eight heavily loaded trucks driven

night and day for six months over a section of U. S. 301. That was also the decade of the WASHIO Road Test and the massive AASHIO Road Test in Illinois. The Board was testing wind stresses on bridges, investigating business parking, turnpike design, and examining a host of other technical subjects. The Board's invaluable studies of highway law led to the formulation in 1963 of the Department of Legal Studies, recognizing that complex legal machinery is an essential tool of highway building and operation.

Since 1962, the Board has operated a National Cooperative Highway Research Program and since 1964 an automated information storage and retrieval system.

The Department of Transportation was formed by the Federal Government in 1966, underscoring the need for increased research into all transportation modes. In 1967, an updated, expanded statement of the Board's purpose, scope and function was approved, which ultimately led to the recent landmark reorganization of our committees into three groups.

Where We Are Today

History touches only highlights of the Board's 50 years. The many important projects initiated by the Board over the years, and the contributions to a better highway system cannot all be catalogued in this short time. Now we ask ourselves, where does all this activity put us today?

In the past, our contributions to highway development were primarily in the physical and fiscal areas. We identified the resources needed to move people and goods, the types of roads that would best meet the needs, and the financial capabilities of the user in relation to those needs. Improvements in highway design, traffic control, and accident prevention were all a part of this activity and will continue to be.

More than this, the first 50 years taught us that finding the truth is not enough. Without application, discovery of a truth, although intellectually valuable, does little to improve the

human condition. We have not made startling progress in shortening the time between the conception of an idea and its practical use. When I was a young man, eight and nine foot traffic lanes were standard; but there was research into the advantages of 12 and 13 foot lanes. But only recently have those wider lanes become reality. The benefits of current research must not lag so far behind in the future.

Language Barriers

Two stumbling blocks have been the technical and foreign language barriers. Research results must be reported in an understandable, useful manner. A lack of liaison may be another obstacle. The research must be distributed to those who can use it. Greater use of the Highway Research Board by agencies and organizations who can benefit by our work will help eliminate these problems.

A major problem has been the literal flood of written technical material in the modern world. The U. S. Government alone generates over half a million reports, articles, books and papers every year. Worldwide, some 60 million pages of scientific and technical literature are published each year. With this overwhelming volume of material to be digested, we can ill afford duplicative or redundant research; we can't go on researching the wheel forever. The problem is not so much in quantity as in quality.

We have also learned that in this shrinking world, national boundaries must be eliminated in the search for better transportation. The Highway Research Board is gradually removing international barriers. At our last annual meeting, 171 participants from 15 foreign countries were on hand, a most encouraging development.

Pure physical science is only a part of our concern. We must insure that the application of our research does not result in human loss, whether in the social, environmental or economic fields.

We have been accused of all sorts of callousness and indifference. As

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planned use purposes. Residential sections and types could be the kind people want extending from the single family house to the highrise.

Starting from scratch with the new city concept, not only could the street and highway pattern be laid out and constructed as needed and with the rights-of-way for their ultimate need, but also public utilities could be designed and efficiently placed underground in joint use tunnels and conduits adequate for the ultimate planned growth of the city to prevent having to dig them up from time to time for enlarging capacity, and maintenance would also be simplified.

Pedestrian and vehicular traffic could be easily separated, which is almost impossible in existing cities. Other transportation modes, such as rail transit, could be planned and stage construction undertaken, so that in the future houses would not have to be torn down and people relocated, nor disturb already established utilities. The actual installation of the transit system could go in at a later time.

It is a challenging concept, but not impossible to achieve. It would, however, rival the planning, coordination and cooperation that we have seen demonstrated in the lunar space program. It would call on many disciplines and require superb administration and communications.

We do know that we are going to need more cities, or keep adding to the present ones to where they are going to grow and grow, with central city and transportation problems mounting.

One of the matters that would have to receive full consideration would be planning to adequately care for the needs of all income levels, especially as it refers to residences, but an over-reaction and an overenthusiasm to solve many of the nation's serious human problems in planning a new city could definitely damage or destroy the concept or the effort.

If a new cities program could be launched in the 1970's, the State highway department is one of the few

established and proven agencies that could play a major role in the program, and it would be the ultimate of the concept of the provision now included in the Federal-aid Highway Act of 1970, to which reference has already been made.

The highway portion of a new cities program would have to be one of the very first operations. Besides completing the Interstate System and modernizing the obsolete sections of our other road systems which cannot be delayed too long, I hope your role in the 1970's might also include some leadership and activity in a new cities program for growing America.

Another major role that the highway departments must assume is launching an effective public information program, and not a conventional public relations activity. They are quite different and we must have an informed public in order for you to do your job.

Past and Prologue

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scientists and engineers, we find these accusations distasteful. But, gentlemen, I, for one, am not going to run and hide. And I don't think you will. On occasion, we may have rationalized some environmental pollution and social injustice by accepting these things as the inevitable price of progress; the insignificant residue of technological improvement. And yet, I have never known a scientist or engineer who did not regard his primary mission as helping to solve the problems of mankind.

Eric Sevareid recently said that it is clear that the chief cause of problems are solutions. Those of you who have read Charles Reich's *The Greening of America*, whether you agree with it or not, will admit to a new social consciousness in America which did not exist as recently as 20 years ago. Solutions simply can no longer be allowed to create problems.

The recent reorganization of the Highway Research Board permits a broadening of our interests to meet this new social consciousness head-

on. We are part and parcel of our society, reflecting its hopes and ambitions, its desires and aspirations, as well as its shortcomings.

In the future, as in the past, the continued viability of all HRB functions will depend upon the active support of all the states, the Federal Highway Administration, and organizations such as AASHO. We will also continue our interaction with the National Academy of Engineering, the National Research Council, and the Division of Engineering as a team effort within the National Academy of Sciences.

Fortune Magazine recently reprinted a statement that bears consideration here: "The improvement in city conditions by the general adoption of the motor car can hardly be overestimated. Streets clean, dustless and odorless, with light rubber-tired vehicles moving swiftly and noiselessly over their smooth expanse, would eliminate a greater part of the nervousness, distraction, and strain of modern metropolitan life." That was taken from the July 1899 edition of *Scientific American*.

It has been said that a good leader inspires other men with confidence in him; a great leader inspires them with confidence in themselves. As leaders in the transportation community, you will, I am sure, engender confidence in the future of American transportation as you have in the past.

The past is, truly, prologue to a future of splendor and hope. As Charles Kettering said, "The future will be greater than the most fantastic story you can ever write. You will always underrate it."

Federal Highway Act

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tangible payoffs in saving lives and preventing injuries, and we mean to increase their effectiveness.

Bridge Inspection

The 1970 Act adds a new safety responsibility for the Federal-aid highway program. It requires an inventory of all bridges on the Federal-aid

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Dorothy Boyer underwent surgery March 25 in St. Francis hospital.

Our department enjoyed three birthday treats in February. Alice Burton celebrated on February 3, Don Troughton on Valentine's Day and Harry Wiley on February 16.

Richard McKinney also treated us with coffee and cake in honor of his new grandson, Richard Allen, who was born February 17. The baby's parents are his daughter and son-in-law, Mr. and Mrs. Mike Thorp, who have another son, Michael Scott. Mike is presently stationed in Long Beach, California with the U. S. Navy.

Mrs. Leland (Peggy) Houchins is convalescing after receiving a cracked pelvis in a two-car accident February 13. Leland escaped injury.

Alice Burton's son, Stephen, underwent minor surgery March 1.

Safety

By Phyllis Flickinger

Our sympathy is extended to the Bill Krietemeyer family in the death of Mrs. Krietemeyer's father, Grover "Doc" Ault, who passed on January 31. Sympathy is also extended to John Ortega, Safety Consultant, whose father, Victorio M. Ortega, died February 21.

We are all happy to see Alice Boden, Steno II with Urban, back to work after a battle with pneumonia.

Bruce Yates, Weighmaster II in Garden City, retired the latter part of March after 16 years of services. Mr. Yates headed the portable scale operation in Division Six.

Safety Consultants Jim Cowan, Bill Law, John Ortega and Paul Taylor, presented a defensive driving course for driver education instructors at Wichita, March 5-6 and 12-13. They also presented two multi-media Red Cross courses the latter part of February to the first and fourth divisions.

Congratulations to Randy Lewis, Illustrator, and wife, Sue, whose daughter, Jennifer Beth, was born January 16.

Dennis Newton, Traffic Recorder, and Harold Pellegrino, Asst. Director, were in Houston to see Kansas Uni-

versity play basketball at the Astrodome. Pellegrino and wife also visited son, Kent.

Gladys Johnson, Clerk III, and husband, Dick, visited her mother and sister in Bloomington, Ill., in March.

Joseph Christ, Weighmaster I, recently joined the Olathe staff.

Christina Martinez, Permit Clerk, Newton, became Christina Flores after her marriage to Raul Flores on March 27.

Perl Fisher, Tony Basile, Bill Krietemeyer, Ken Gudenkauf and Phil Rogers attended Missouri Valley Section Traffic Institute in Wichita in March.

Phil Rogers, CE I, became an associate urban traffic engineer in April.

Darren Lee was born February 28 to Shirley Whiteside, CS II and husband, Darrel. Shirley will return to work in May.

Phyllis Flickinger, Clerk III, resigned April 1. Linda Lentz replaces Phyllis. Wilma Crabtree is the new Highlights reporter.

Secondary Roads

By Bera Silver

Raymond Olson was in Chicago for the Mississippi Valley Conference March 10-13. Ray was accompanied at the group meeting for Secondary Roads by county engineers, Virgil Holdredge and W. R. Sachse.

Charles Carpenter attended the annual Regional AASHO bridge committee meeting in Chicago in April.

Cindy Heinen attended the fourth national Junior Volunteer conference in conjunction with the 1971 US national council conference in Washington, D. C., in March. She was a member of the 71 planning committee for the conference. In Washington, a wreath-laying ceremony at the Tomb of the Unknown Soldier in Arlington Cemetery was a highlight. Cindy also visited for a week with her brother in Virginia and toured Monticello and Appomattox.

We welcome Glen M. Koontz as the new head of Secondary Roads. George Eggen has headed the department since W. E. Alison's retirement.

Camping Can Be Carefree

(Continued from page 4)

placed in cottage cheese cartons or other throw away containers.

These are three good meals requiring very little water, limited on-site cooking time and even less time for dishwashing. The utensils can be washed and scalded in a one-pound coffee can of water. (This we will take up in a later issue.)

When you leave clean your campsite. You may want to go back again!

Region Five Meeting

(Continued from page 10)

the Federal Highway Administration people from each state, there will be about 60 persons in attendance. The meeting will be at the Downtown Holiday Inn.

Federal Highway Act

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systems over waters and other topographical barriers, and makes new funding available to begin the replacement of the worst of them. Bridges are to be classified according to their serviceability, safety and essentiality for public use, and then assigned a priority for replacement. To get this program underway, \$250 million is authorized for the next two years. Federal funds can pay 75 percent of the replacement costs.

There are many other details to the 1970 legislation. I have tried to review the highlights and to show that this Act, and the highway program, are in step with the times, and are proceeding soundly to meet the long-range needs of the Nation—not only its transportation needs, but the many social and economic objectives which our vital highway program serves.

The Federal-aid Highway Act of 1970 is a law worthy of a great public works program—a program that harnesses the cooperative efforts of all levels of government for the benefit of all Americans.