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PARKWAY

for the

MISSISSIPPI



A Report to the Congress

by the
Bureau of Public Roads
Department of Commerce
and the
National Park Service
Department of the Interior

ACKNOWLEDGMENTS

Appreciation is expressed for the assistance and counsel furnished by many interested organizations and individuals during the period of the survey. The Mississippi River Parkway Planning Commission, Corps of Engineers, Mississippi River Commission, Fish and Wildlife Service, State park and historical organizations, State highway departments and city engineers, State and local historical societies, and chambers of commerce—all contributed materially to assembling the data required for this report.

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LETTER OF TRANSMITTAL

Washington, D. C., November 28, 1951.

Hon. Sam Rayburn,

Speaker of the House of Representatives,

Washington 25, D. C.

My Dear Mr. Speaker: We are pleased to transmit herewith a report on the feasibility of developing a Mississippi River Parkway. This report was prepared in accordance with the act approved August 24, 1949 (Public Law 262, 81st Cong.), which instructed the Bureau of Public Roads and the National Park Service of our respective Departments to undertake the survey of such a roadway to follow generally the course of the Mississippi River from its source in Minnesota to the Gulf of Mexico.

In addition to this short-form report a technical volume is being assembled to make available the considerable engineering, land planning, and other supporting data which led to the conclusions reported herein. The basic elements of an improvement plan are, however, presented in this volume.

Secretary of Commerce.

Secretary of the Interior.

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River of monumental moods.

SUMMARY LETTER AND RECOMMENDATIONS

Hon. OSCAR CHAPMAN, Secretary of the Interior.

Hon. Charles Sawyer, Secretary of Commerce.

DEAR SIRS: We transmit a report on the proposed Mississippi River Parkway. Set forth therein is a possible plan for a modified type of parkway development to be undertaken by the 10 river States with Federal aid and designed expressly for tourist travel and to conserve and develop the recreational resources of the region.

The road length of the Mississippi River from its source at Lake Itasca in Minnesota to the Gulf of Mexico is about 2,000 miles. However, the study involved nearly 10,000 miles of reconnaissance by aerial survey methods and included analysis of existing highways on both banks of the river as well as the projection of new roadways on both banks. This wide coverage of possibilities for parkway location was necessary in order to weigh the cost of each against the others and to determine the comparative advantages of various combinations of these lines. In reporting on the bill which authorized the survey, the congressional committees stated: "The survey would determine the feasibility of establishing such a parkway, the extent to which portions of existing highways and roadways could be used, possibilities for development and administration in cooperation with the State highway departments, and estimates of cost."

There is today no continuous system of adequate highways following closely along the Mississippi River. Large parts of the scenic and historic waterway are therefore beyond the view of the traveler by highway. Here, as elsewhere, certain roads are unsafe and crowded. Others have come close to meeting the demands of traffic under step-by-step improvement programs of State highway departments. Congested urban areas, widely spaced in the valley, require multilane highways; but for the most part the Mississippi River area is a rural countryside, and existing two-lane highways, if improved to parkway standards, will suffice for the present.

The proposal for a Mississippi River Parkway originated with people in the valley and has been under discussion for more than a decade. Experience with various parkways and freeways in America has proved the soundness from a traffic standpoint of a road within a controlled right-ofway. With control of access provided, a much greater volume of traffic can be moved in comfort and safety than where such control is not provided. The benefits of a parkway and its wayside parks to popular recreation and for the conservation of scenery and history are well known. The 35,000,000 people of the 10 valley States alone create a potential demand for recreational travel to scenes of rural beauty and places of historic and cultural interest. Many such places exist along the river, but relatively few are now conserved as public properties developed for the people's enjoyment.

The several objectives of a parkway, such as the improvement of highway communication between populous centers and the conservation and development of recreational and inspirational resources, are eminently worth while. The problem is to find an economical means of achieving them. The wholesale construction of a new parkway on an entirely new right-of-way would be very costly; but it appears entirely feasible to accomplish a conversion of existing river roads to parkway quality at reasonable cost.

If an entirely new parkway were to be built on either bank of the river from Lake Itasca to the vicinity of New Orleans, it would cost \$770,-000,000. If, south of St. Paul, the parkway were built along both banks of the river, it would cost a total of \$1,450,000,000. In either case a newbuilt parkway would parallel existing public roads, and in most places foreseeable traffic does not warrant duplication of road facilities. Furthermore, existing roads often pre-empt the favorable location. Thus, in many places, a new parkway might be forced to a position of second choice. These conditions and the large cost of all-new construction indicate that it would be a better plan for suitable highways and bridges which exist to be incorporated into the route, converted to parkway standards, and interconnected where necessary by sections of new construction. Such a course would, in time, produce a continuous parkway development of relatively high value in proportion to cost.

Since the existing roads are necessary to the economy of various localities, it is apparent that such a parkway plan should be developed by the States and continue under the administration of State highway departments. The needed road construction, reconstruction, or improvement can undoubtedly be done with regular apportionments under the Federal-Aid Highway Act, or by the States under their own programs, or by both means. The existing roads will be gradually improved whether there is a parkway or not. The roadway itself need not aspire to become a superhighway in the popular sense, though it may function in part for this purpose. Pavements can be widened as needed, but two-lane roads with control of access should presently serve except in the vicinity of five or six of the larger metropolitan areas. The progressive development of a parkway requires only a determination that the selected route shall be improved in a superior manner and that it shall be dedicated to recreational purposes as well as the moving of traffic. The essential features of any parkway are roadside land control and partial or full control of access. These things establish the

parklike character and that higher degree of safety and comfort which marks parkway travel. The diversion of truck traffic may be programed where alternate parallel routes exist or when traffic volumes require it. As an important means to conservation and to prevent the growth of undesirable roadside industries along the way, purchase of scenic easements or reservations is recommended as a more economical approach than outright purchase of expensive farm lands. Lands of submarginal character, such as the faces of river bluffs and swamps, are often best used as park lands and should be purchased outright.

Essentially this program of additional treatment which would convert the selected route into a parkway type of development is a new field of activity for most of the States. Legislative authority may be required to designate a controlled access facility of this kind and to purchase parkway lands. It is in this field also that to make the project feasible the States would require additional monetary aid from the Federal Government in order to avoid the disproportionate use of State-wide highway monies for a particular project.

In order to determine the probable cost of providing these parkway features on the route to be selected, estimates of cost on a number of sample sections have been made. Exclusive of roadway construction and reconstruction cost, we have estimated that it will cost approximately \$81,000,000 to convert a single selected route to parkway quality. The route shown herein through the 10 States, which crosses and recrosses the river on existing bridges, was selected for estimate purposes only. A number of feasible alternates are also shown for further consideration.

The possibility of financing the parkway as a toll facility was considered. A toll road, by its nature, would necessarily be a project on an entirely new right-of-way. A toll road in the valley would parallel existing road facilities which are reasonably adequate. Experience with modern toll roads is limited and confined to a few

projects of limited length, none of which is yet fully proved as a financial success. From that experience it can be deduced that two conditions must prevail before toll roads are practicable. These are: (a) A very inadequate existing highway between populous centers, and (b) the impossibility of effecting the essential road improvement in reasonable time by other financial means. Since neither of these conditions is found for the largest part of the Mississippi River route, the financing of a parkway as a toll facility is judged unnecessary and impracticable.

The survey has indicated that there would be much value in a parkway development along the

Mississippi River. The development would directly benefit 10 States which comprise a large central section of the country, but the Mississippi River possesses national interest and a parkway along it would have national significance. It appears doubtful that such a development would be undertaken by the 10 river States unless real interest is shown in the project by the Federal Government. We believe the parkway development is feasible under the cooperative plan described herein, and we recommend that consideration be given to legislation which would provide Federal aid to accomplish it.

Sincerely yours,

Commissioner, Bureau of Public Roads.

October 30, 1951

9. E. Demaray

Director, National Park Service.

October 30, 1951



"The Mississippi drains the vast territory from the Rockies to the Alleghenies and from Canada to the Gulf".

The River

In a statistical way many superlative statements can be made about the Mississippi River. Length, area drained, flowage, navigation, and other factors place it among the foremost geographic features of the earth. Draining the vast territory from the Rockies to the Alleghenies and from Canada to the Gulf of Mexico, the Mississippi River Valley has been termed "the most desirable dwelling place for civilized man upon our globe." Richly endowed by nature with a livable climate, sufficient rainfall, fertile soil, navigable waters, water power, coal, oil, gas, timber, the ores of many metals, and a natural outlet to the sea, it supports a large population rid of the specter of hunger and privation which threatens much of the world. Many of the seaboard areas along the Atlantic coast have the advantage of early establishment, and on the Pacific coast the advantage of rapid expansion in recent times. But with recent developments, some of the preeminence of the East and the West seems likely to pass to this great interior region. At any rate, the vital importance to the human race of the Mississippi Valley is beyond dispute.

The River's Varied Facets

In the 2,552 miles of its course, the river washes a land so varied in its uses, its cultures, its origins, as to defy simple description. The source of the river and its upper reaches is a land of sparkling streams and clear-water lakes of glacial origin. The central valley was once a great interior sea connected to Lake Michigan and covering the prairies of Illinois, Indiana, Wisconsin, and Iowa. This sea broke away to the south and much of the lower val-

ley, from Cairo down, is of the river's own making, a drama which is still being played at the delta.

The natural vegetation of the valley ranges through eight botanical or climatic zones from the pines of the North to the palms of the South. In the river's waters thrive the northern pike and the walleye, yet also the sea trout and the oyster. The river is a major flyway of migratory waterfowl. Along the upper banks are the moose and caribou, once in great numbers; on the watery flats of the delta alligators drowse in the southern sun.

Civilizations Ancient and Modern

Human life and cultures existed along the Mississippi long before recorded history, and archeologists have brought to light the story of fascinating peoples—mound builders, painters of the great rock bluffs, potters, agrarians. Much of the later history of the valley—though it took place when modern man was carefully writing of his own times—is still scarcely understood by the people, for it was a remote frontier history of Indians, exploration, fur trapping, and lumbering and was, perhaps, less easily grasped than the more obvious history that was in the making on the eastern seaboard.

The River and the Nation's Destiny

Many of the events which have helped to decide our Nation's destiny have occurred on the banks of this great inland waterway, and several of the processes which have shaped our national character saw their most significant development in its valley. This is evident when one considers the simple fact





Source of the river, Lake Itasca.

Mouth of the Mississippi, Gulf of Mexico.

that temporary stoppage of traffic at the river's mouth inspired intrigue of trans-Atlantic scope and forced the issue of the Louisiana Purchase, perhaps our first step toward building a great Nation from the small independent country we had become, somewhat tentatively, at the close of the Revolution.

The part of the river in the War between the States and in the colorful steamboating years of the last century, and the story of man's battle to bridle it and control its floods are chapters better known. For more than 300 years after its discovery the river itself was a most important highway of travel. It carries today more commerce than ever, though a little less picturesquely than in the days of log raft and stern-wheeler. Its potentialities for the future are unlimited.

The valley landscape has changed greatly since early times. Now the Mississippi drainage basin, comprising 31 States and part of Canada, diversified in agriculture and in industry, could, unaided, clothe and feed this Nation. In Minneapolis—St. Paul, St. Louis, Memphis, New Orleans, and scores of other cities and river towns along the banks center manufacturing, refining, merchandising, shipping. Stretching endlessly back are the pastures and the fields of grain and cotton. The barn and silo, the grain bin, and the cotton gin take proprietory charge of the modern landscape.

Natural Interest

Despite the busy affairs of men along its banks, the river has many distinct features of natural beauty. It may not rival in grandeur a Yosemite or a Grand Canyon, yet there are beautiful scenic passages with a quality of their own in the rainbow lakes, the bluffs, the baldcypress swamps.

One stands in awe of this mighty river when, swollen, swirling, and muddy, it shows its ruthless power; ruffled by a whipping wind it presents a picture of restless motion; contained and contented at the foot of its levees and tawny-colored in a summer sun, it seems to cast a drowsy spell upon its country-side. The Father of Waters is indeed a river of many moods.

For nearly all Americans, "Life on the Mississippi" has a nostalgic appeal, but the memories evoked in the minds of most of us are those received from schoolbooks and romantic literature.

The ordinary citizen, seeking to experience at first hand a bit of this storied river life, finds that comparatively little has been done to preserve and develop this traditional American scene; nor is it reasonably accessible, for today there is no modern marked highway which is continuous along either side of the river, and many of the finest parts can be reached only afoot or from the water.

The Project

The proposal for a Mississippi River Parkway originated with the people in the valley nearly 20 years ago and has since been studied by a 100-man Mississippi River Parkway Planning Commission composed of appointees of the Governors of the 10 river States. This group has outlined a project of exceeding attraction to the tourist and, therefore, of economic importance directly and indirectly to the people of the river States. In addition, some of the commissioners have pointed out that a north-south midcontinent travelway would have practical value as a relief route in times of flood or military necessity. . It would afford interconnection between the several important east-west highways. This planning group has studied other parkways and has been instrumental in the passage of legislation by several of the States which would enable them to participate to varying degrees in the development of such a parkway.

The Commission has cooperated with the Bureau of Public Roads and the National Park Service in the study herein reported and has rendered valuable assistance in the work.

The Growth of Parkways

A number of parkways have been developed in this country, some of which have been planned and constructed jointly by the Federal Government and the States. They have generally been popular roads, pleasing in appearance, efficient, and relatively safe in operation. These thoroughly insulated roadways for passenger cars have especially proved themselves in the urban and suburban plan. Thruways, freeways, and turnpikes, as specialized roads are variously called today, all borrow from parkway experience. The parkway idea has also been adapted to the conservation of mountain scenery for the benefit of the tourist, and to the conservation of historic trails and traces. None of these existing projects traverses a country comparable in scale or character to the Mississippi Valley; and, though the Mississippi River road may build partly upon ideas developed elsewhere, it cannot correctly be seen simply as a replica of earlier parkways. The opportunity here lies in the elasticity of parkway concepts or techniques.







Aerial photograph.

Engineers, photographs and maps—companions of survey.

Magnitude of the Survey

The survey was notable for the multiplicity of problems that had to be solved because of its large size. The region of reconnaissance along its 2,552-mile river length constituted: (1) A band of topography 15 to more than 25 miles wide on each side of the river from its headwaters to the Gulf; (2) the large area lying within the "fish hook" section of the river north of St. Paul; (3) the area between Crowley's Ridge and the river; (4) the area between Pine Bluff, Ark., and the river in the region of the Arkansas and White Rivers; (5) the area between Alexandria, La., and the river in the region of the Black and Red Rivers; and (6) the area between Bayou Lafourche and the river—a total of nearly 90,000 square miles.

Aerial photography, the most modern method of highway reconnaissance, was employed in order to complete the survey in the time allotted. Over 22,000 aerial photographs, at a scale of 1:20,000, were examined. Nearly 10,000 miles of feasible alternate routes for the parkway were determined by use of the photographs. With the photographs in hand, these routes were also examined in the field by the highway engineers, landscape architects, historian, parkway planner,

and naturalist. Opportunity was thus afforded for comparison of these possible routes and various combinations thereof, and for selection of the most feasible and advantageous.

A reconnaissance survey is broad or general in character. With \$250,000 appropriated and 10,000 miles to be studied, it is notable that only \$25 per mile was available for the Mississippi River Parkway investigation. Consequently, the routes shown on the maps herein represent not a center line or a pavement, but a broad band of topography a mile or more wide within which it is considered feasible to locate and design a parkway.

Diversified Features

Along the Mississippi River there is a well-occupied, highly fertile, partially industrialized valley composed not only of historic sites and numerous natural scenes such as rivers, lakes, bluffs, and wildwoods, but of field, farmhouse and barn, man-made dam and lock and levee, fishing boat and barge. These are the diversified features to be preserved and interpreted for the public enjoyment. Accordingly, the plan needs to be varied and resourceful.

Various Plans Considered

A number of solutions were studied after evaluation of basic data, in order to comply with the "objective of determining the desirability of authorizing the construction of the parkway or any portion thereof," as called for in the act authorizing the survey.

The first approach was to select a general route for an all-new parkway on both sides of the river from New Orleans to Minneapolis, and a single route from Minneapolis to the headwaters at Lake Itasca. The cost of such a project is estimated at \$1,450,000,000. By selecting a single route which would cross and recross the river on existing bridges the total cost might be reduced to \$770,000,000.

The traffic on a parkway of this length, as on any long road, would be composed of a few people going great distances and a larger number of people traveling comparatively short distances. Few people would daily set out to travel from New Orleans to St. Louis or from New Orleans to Minneapolis. This travel of itself would not be sufficient to justify the construction of an entirely new road. Economic warrant for the construction of such a road would necessarily rest upon the assumption that it would be used by a considerably larger volume of traffic of the shorter ranges. But, for much of the length of the river the new parkway would closely parallel existing roads which, except in the vicinity of the larger centers of population, are reasonably adequate for the present traffic. The provision of an alternate parkway route would result in some generation of new traffic over and beyond the normal increase to be expected from year to year. It is considered doubtful, however, that the total future increase to be expected would be sufficient to justify maintenance of the duplicate facilities which construction of a parkway on an entirely new location for the whole length of the river would involve.

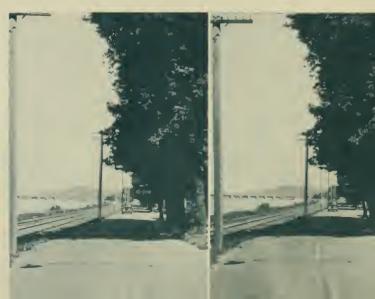
Another approach contemplated the construction of several shorter but disjointed parkway sections. These developments would be distributed selectively through the valley in such manner as to afford samples of the more interesting landscape. Such spot projects would be reached by traveling the existing highways. This plan was discarded as being necessarily partial to certain communities in its application and as lacking the continuity which would develop the possibilities of multiple use attaching to a through-route development.

Similarly, it was judged that the simple expedient of marking existing highways on one or both banks of the river would fail to produce a worthwhile result since continuous pavements do not exist on favorable location in proximity to the river. The feasible solution was therefore judged to lie somewhere between the extremes and to partake of portions of each of these plans.

Note: To examine a stereogram, look at the left photograph with your left eye and the right one with your right eye. To make this easy, place a 10-inch card between your eyes from your face to the line between the pair of photographs of the stereogram. By this means, you are prevented from looking first at one photograph and then the other. With the card in place, look into the distance—like seeing through the paper—until the three-dimensional picture is seen beyond the pages of the book.

Stereograms of Tight Places in Route Reconnaissance













Roads . Today



The Recommended Plan

Under the plan recommended for consideration a Mississippi River Parkway could be developed and administered by the highway departments of the valley States in cooperation with the Federal Government. The program would be carried out in successive stages over a period of years according to a comprehensive plan to be adopted by the various States and approved by the Federal Government.

Existing Highways To Be Used and Coupled With New Construction

Development would start from a system of carefully selected existing highways which would be officially designated "Mississippi River Parkway" as soon as minimum land controls had been acquired and agreements reached as to the physical improvement program for the future. The gradual improvement of these existing highways would be advanced concurrently with the construction of necessary connecting links of parkway on new location. These new sections of parkway would be built where the traffic, scenic, historic, or engineering considerations indicated that a new development would be desirable and useful.

Engineering Standards

Engineering standards on the existing highways vary. Those roads which could be selected for conversion to parkway are those susceptible of improvement at reasonable cost and occupying favorable positions along the river. Where these conditions do not prevail, new construction would be relied upon to secure continuity in direction, in proximity to the river, and in parklike quality. It

is estimated that 40 percent or more of the route would ultimately require construction on new location. Design standards should be generally uniform but gaged to the requirements of traffic. In some sections two lanes would suffice; in the more populous areas four lanes, divided, or perhaps even six lanes, would be required. Alinement and grade should be sufficiently good to permit safe travel at reasonable rates of speed. The standards adopted by the American Association of State Highway Officials for interstate highways are considered generally suitable for the project. The motor vehicle laws current in each of the States would govern traffic.

The Reconnaissance Survey Maps

The accompanying location maps are wholly tentative. Under the recommended program the highway department of each State would have the primary responsibility for developing the final location with Federal concurrence. Engineering studies during the survey were, however, carried further than the maps indicate and included numerous alternates in each State. This was necessary in order that reconnaissance estimates could be intelligently compared.

Shown in solid line on the maps is a parkway route traversing parts of the 10 river States, 2,000 miles long, crossing and recrossing the river by means of existing river bridges or new structures already proposed for construction by the States. The route was selected for estimate purposes because of its scenery, history, and practicability of construction, but represents no more than a reconnaissance investigation, subject to change if and when more complete surveys are made.

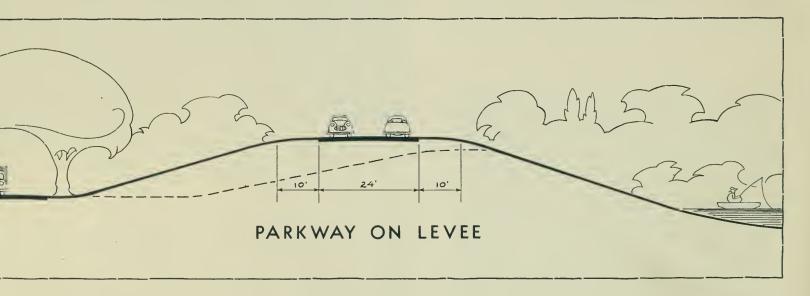
If the parkway development is undertaken some single route should be agreed upon by the States and concurred in by the Federal Government as the initial development of a Mississippi River Parkway. However, there are portions of the river where concentrations of population and a multiplicity of attractions may justify the development of the parkway on both banks, a course which would have the further advantage of providing convenient loop drives.

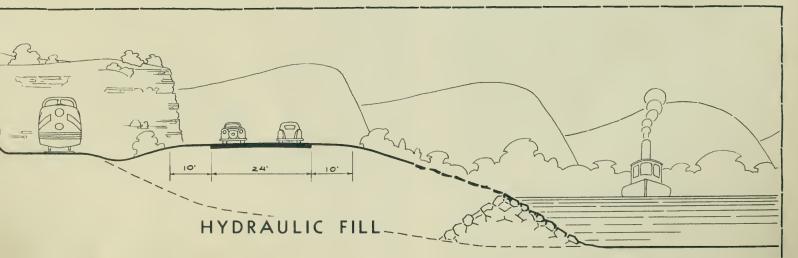
The dashed route on the east bank in combination with the solid route on the east bank totals 1,900 miles and indicates a possible ultimate development. Its costs as such are not included in the financing discussed in this report. The combination solid and dashed line wholly on the west bank similarly depicts a feasible route for ultimate development by the States, or the States and the Federal Government, as may become warranted on that bank.

Some of the recreational parks, forests, wildlife areas, and historic sites, existing and proposed, are also shown on the maps.

Bypassing the Towns and Cities

The negotiation of a proper way through or around the towns and cities would be perhaps the most specialized design problem of such a parkway. The collaboration of municipal planning agencies would need to be sought in order to weigh the influences of a parkway development upon the city plans. In some instances there would be choice from among such possibilities as: (a) A bypass inward from the river, (b) a waterfront improvement, (c) a utilization of existing highways through the congested areas. The latter two alternatives would generally imply participation of the municipality in the costs. Redevelopment of waterfront areas might be justified, not only to obtain the best and most interesting location for a parkway; but for the attendant benefit to the towns and cities. The tentative locations in the vicinity of towns and cities shown on accompanying maps were selected for estimate purposes only and do not represent necessarily the solution of the problem in any particular instance.



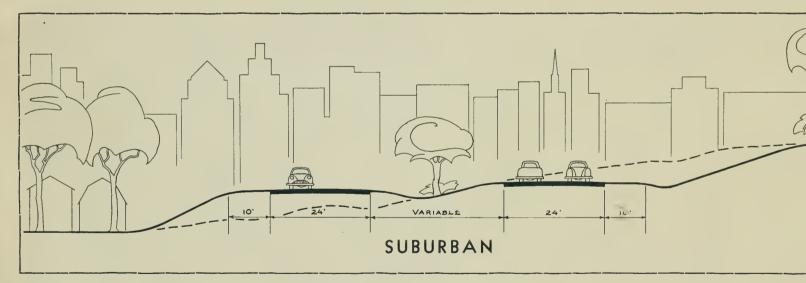


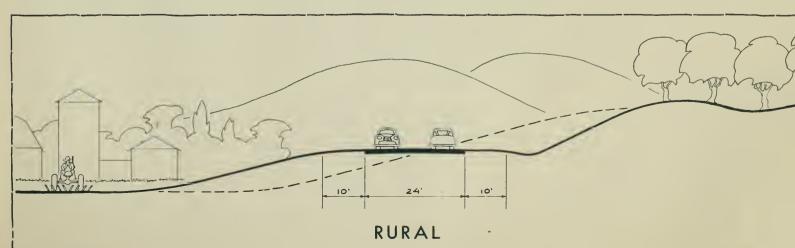
Unusual Construction Features

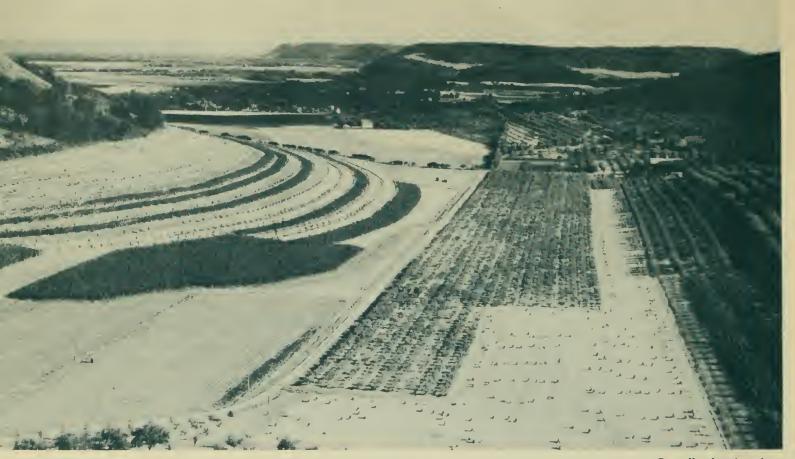
A road from source to mouth would span great range of climate, traverse varying geologic structure and cope with transverse streams and waterways. There appears, however, no insurmountable problem.

Certain conditions peculiar to the Mississippi River region will require collaborative planning between governmental agencies having responsibility for the river and those responsible for developing the parkway. Channel maintenance by dredging, especially in the upper river, is productive of a large volume of granular material. This material is suitable for road building and can be obtained at moderate cost. In determining the possible parkway routes and in estimating costs, the use of dredged material has been contemplated. Such use would be limited to sections where the river overflow area would not be unduly constricted by highway embankment. Any widening or deepening of the channel in the upper river might be dovetailed economically with parkway construction along some sections of the river.

A unique man-made feature of the river is the levee, which has scarcely been utilized for highway purposes, probably because highway construction preceded the building of the great levees of today. The levees now afford height above the river flats, and from the levee tops views over the river and the hinterland are remarkably enhanced. Certain sections of existing levees offer an advantageous location for two lanes of a parkway. Those selected as a place for the parkway could be widened and made higher as needed. The additional fill, the paved surface acting as a roof, and the improved accessibility of the levee should be beneficial in the maintenance of the levee in time of flood. The opportunity of using the levees exists largely through rural areas where two lanes of parkway are thought to be sufficient for the traffic of the immediate future. When four lanes become necessary, the second pair of lanes could be located in a parallel position on the land side of the levee. Levee sections considered unsuitable for parkway location include: (1) Those which are circuitous or nondirectional,







Breadbasket farming.

(2) those which because of surface or subsurface conditions might be endangered by the weights or shock of roadway traffic, and (3) those located where there is indication that changes in the river course will require the building of setback levees in the near future.

Wider Land Controls Needed

The essence of the parkway concept is to provide a parklike corridor which insulates the motor road from uncontrolled development along the roadsides. A several-sided program of land control would be needed for a parkway under this plan. The first step would be the widening of existing rights-of-way, or the purchase of new rights-of-way, to a basic width of 220 feet where a two-lane highway would be adequate, and 250 feet where four lanes might

be needed. This is similar to the standard adopted for the National System of Interstate Highways and would be adequate for present and future pavement, shoulders, slopes, guard rails, and other physical features of the roadway proper. Laws permitting limitation of access to the parkway would be applied in the acquisition of right-of-way, thus giving effect to recognized utilization and design principles. The State highway department under such laws would control access and roadside development and prevent usage detrimental to the capacity and safety of the road.

It would be necessary to protect the quality of the landscape as seen from the proposed parkway. Marginal strips of wildwood, bluff faces, swamps, and islands would be acquired outright and added to the right-of-way. Such lands are generally inexpensive and are best preserved for public purposes. Many of these areas should remain permanently undeveloped in order to provide refuge for wildlife, to further conservation of the soil, and to give man a bit of unspoiled breathing space.

Outright purchase of the farm scene, widespread through the valley, would be unnecessary. Instead, scenic easements or reservations would be sought, averaging 300 feet wide, along both sides of the construction right-of-way. There would be purchased from the owner only his right to convert a certain part of his farm land to residential or commercial uses. While he could not add new houses or erect billboards, paralleling pole lines, or other structures, he would continue to exercise all other privileges of ownership and in no way would be restricted in his agricultural pursuits. Neither would the public have any right to enter upon these lands for any purpose. This method of scenic conservation should result in large savings over outright purchase, retire less farm land from the tax rolls, and attach the pastoral views permanently to the parkway without cost to the public for maintenance.

The acquisition of historic sites and scenic and recreational waysides is a companion step in the land control program.

A drawing showing average widths of land controls proposed for the Mississippi River Parkway is shown on page 11.

Early Control of Land Imperative

Many of the roadsides along the Mississippi River are today relatively clean of ribbon development, yet it can be predicted that when tourists come in greater numbers speculators will buy up frontage and ribbon development will begin unless land controls have become operative. It is imperative, therefore, to precede designation of the parkway route or any improvement work by acquisition of land controls as a preventative first step.

Memphis waterfront.





Overpass, George Washington Memorial Parkway

Bilateral Plan for Trucks

Most parkways are restricted to passenger automobiles. Advantages accrue not only in the convenience and safety of the parkway, but the truck on the alternate route is relieved to a large extent of passenger traffic.

New sections of roadway built for the Mississippi River Parkway should not be open to trucks from the outset. This limitation would be practicable because new parkway sections would generally parallel existing highways, which could continue to carry the truck traffic. No private access to the parkway pavements should exist in these sections, and public entrances should be posted "No commercial traffic."

Where the parkway appropriates existing highways, however, a bilateral plan of development must be worked out in order to provide an alternate way for trucks. Such traffic separation would be costly if complete and immediate diversion were attempted, but it can be planned realistically and gradually accomplished. Fortunately, few of the river roads carry a substantial volume of through trucks. The principal commercial truck routes lie across rather than along the river, partly because the river itself is a competing freightway. In many sections provision would have to be made only for such farm trucks as originate in the local country-

side. Long-distance hauling could be regulated until continued improvements in the other roads made equitable the prohibition of all trucks on the parkway.

As a beginning, States might enforce the authority where it exists, as in Minnesota and Wisconsin, to limit trucking during the periods of heaviest passenger car usage, during the daylight hours of summer week ends, for example. Improvement of routes onto which to shunt the trucks could be given high priority in programing whenever truck usage threatens the capacity or the safety of the parkway. Parallel roads for trucks would not then be an unwarranted duplication. Bilateral development should be based on a proper plan gaged to the total transportation requirement.

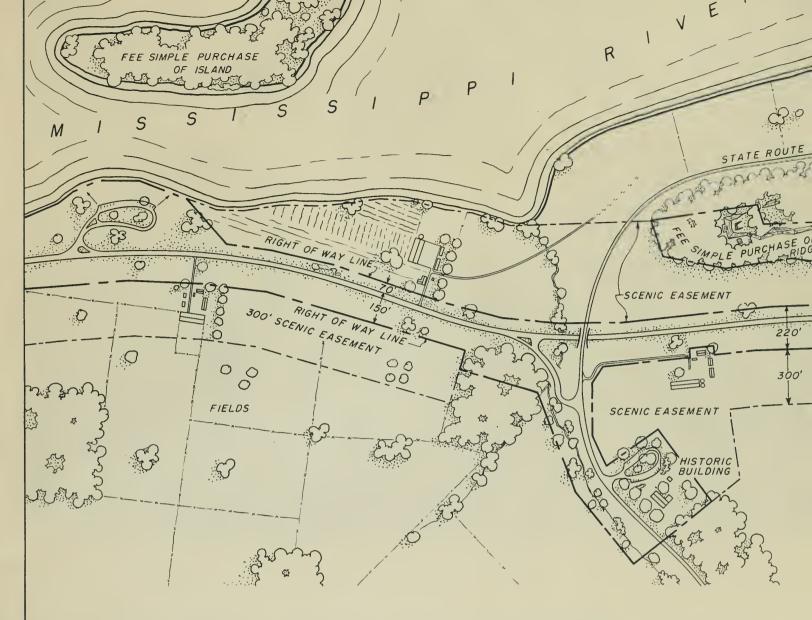
Safety Through Grade-Crossing Elimination

The elimination of hazardous crossings would be vitally important in building an exemplary motor road along the Mississippi River. The vacation traveler is primarily concerned with sightsceing and is therefore less alert for local danger points. The goal should be to make the entire parkway a "limited access" facility as soon as is reasonably feasible.

It would be desirable at the outset to eliminate all crossings at grade of roads, however minor, as is usually done in parkway design for busy urban and suburban areas, but the cost of bridge and underpass construction makes this goal impracticable in some rural areas. Many lesser roads carry few vehicles; and the improvement of conditions at intersections, longer sight distances, and warning signs should accomplish much in the direction of safety.

Clean-up of Existing Roadsides

The techniques described herein are in part an expeditious method of attaching parkway attributes to highways which exist. By and large, those stretches of existing highways which are recommended for incorporation in the route are



PARKWAY LAND CONTROLS IN RURAL AREAS

HYPOTHETICAL DRAWING TO ILLUSTRATE VARIABILITY
OF PARKWAY LAND TAKINGS SO AS TO PROVIDE:

- I- A DEVELOPMENT WIDTH OF 220 FEET WITH SPACE FOR WIDENING OF PAVEMENT IF NECESSARY IN THE FUTURE.
- 2- CONTROL OVER THE SIGHTLINESS OF RURAL SCENERY BY MEANS OF EASEMENTS, SO THAT LANDS COULD CONTINUE IN PRESENT OWNERSHIP AND REMAIN IN USE AS FARMS.
- 3- OUTRIGHT PURCHASE OF OCCASIONAL HISTORIC SITES WOODED ISLANDS, SWAMPS, BLUFF FACES, AND MARGINAL LANDS.



George Washington Memorial Parkway.

those favorably located, relatively clean of ribbon development, and affording the best alinement and scenic values. Offensive dumps, billboards, and an occasional accretion of unsightly structures would require clean-up, a policy which presupposes negotiation with the owner of the property. In many cases pride or self-interest could be depended upon to impel the owner to undertake the clean-up. In other instances restrictive agreements could be negotiated short of outright land purchase. But many unsightly properties would have to be included in right-of-way taking lines as part of the public improvement program. Permanent zoning regulations have proved successful in many localities and may be a necessary auxiliary step.

Billboards and other advertising signs exist legally on some portions of existing highways which would be incorporated into the parkway. The elimination of advertising signs now legally in place would entail settlement with the landowner and the advertising agency on some equitable basis. A new approach to the billboard problem as regards essential tourist information is set forth herein.

Telephone, telegraph, and power lines have historically paralleled the highways. Minimizing their prominence in the landscape would be a parkway objective. It would be necessary to shift certain objectionable lines to less conspicuous positions. In certain cases, two or more lines could be combined to run on the less scenic side of the parkway



Upper river bluffs.

rather than on both sides. Parkway land controls would prohibit location of new pole lines paralleling the parkway, and crossings should be at right angle or placed underground.

Planting

Restraint should be used in all planting. Only in the urban areas need buffer plantings of a formal type be used. Through planning and maintenance practices, natural regeneration of woody plant materials would be encouraged. This should follow after proper grading and grass seeding in order to naturalize construction scars and screen other objectionable sights. In greatest part, the parkway would traverse either farm land or wooded country, and thus the informal planting of local native

plants would be the artistic as well as the economical practice.

Pastoral Scenes

In the pastoral setting the canvas is large. The composition is the farm scene, one of open field against woodlot. Continuous ribbon planting, especially of tall-growing plants, would obscure this pastoral scene in a most artificial manner. No such planting is recommended but only such use of selected species as would enframe vistas of interest, help to break up or screen the unsightly, afford a spot of shade, or add an occasional focal point of color or interest. Native trees and shrubs, those which are indigenous and therefore adapted to the climate, soil, and site, would be fitting material.









Natural Interest



Woodlands

The wildwoods along the parkway offer a large opportunity in two important directions. First, public control would permit conservation of plant and animal life which now exists there and would protect these wooded lands from commercial cutting, fire, and vandalism. It would afford added protection and permit better management of the fish and wildlife resources of the valley.

Second, the wildwoods provide the proper places in which to bring back to their favorite habitats a host of trees, shrubs, and flowers which have all but disappeared in each of the natural plant associations, once a glory of the valley's eight climatic zones. Scientific introduction of the now rare but once common species would result in a self-maintaining natural landscape of significant value to popular education. This part of the proposed landscape program might be dovetailed with the arborway proposal of Dr. Harlan P. Kelsey. A statement in the second volume of this report by Dr. Kelsey, noted horticulturist of Boston, Massachusetts, and consultant to this survey, describes how, in its broadest aspects, a Mississippi River Parkway might grow toward the ideal of a great midcontinent botanical museum.

History and Recreation

A parkway for tourists is an instrument of conservation through its running band of land controls, but it should also be seen as a way between the outstanding historic sites, parks, and scenic areas of the region traversed. A Mississippi River Parkway would connect many such places, since the river courses a land rich in human associations and with varied topographic features. Natural lakes, blue and shore-lined with the white paper birch; river banks, which the modern Tom Sawyers and Huck Finns of all ages have found best for fishing or just relaxing; bluffs commanding views of river and countryside; lotus beds and the haunts of migratory birds; reaches of woods on the river's edge and on the islands; forest reservations on the landward borders: Indian mounds, the mute relics of ancient cultures of the prehistoric past; backwater bayous and salt grass swamps; old forts and battlefields; fur trappers' places and camps of the lumberers; old houses of the North and of the South and of the central valley, in Spanish, French, Swedish, Cornish, and yet other architectural styles; old boats and showboats and boating places on and off the levees; historic bridges and the dams and floodways of the river's modern development; spots where



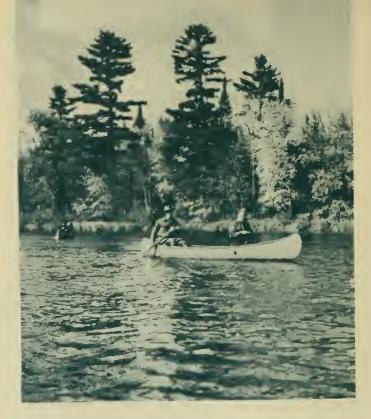
Scenic Features











Recreation



the tales and legends of the river were told over a fence or beneath a live oak tree; the many interesting towns and cities—all these are, and increasingly will be, the very destinations of tourist travel.

Not all of the worth-while places which this survey has inventoried could be placed directly on the path of the parkway traveler, but key places have importantly figured in this first determination of a parkway route. Many of them are parks already in public ownership. Others are controlled by historical societies or semipublic trusts. Simple agreements should suffice to insure their continued protection. Early agreement concerning those which remain in private hands would be important, as they would become attractive for exploitation immediately after designation of a tourist route.

Recreational Developments

Many interesting places along the parkway remain undeveloped. In the variation of type and kind lies the greatest appeal, for they are prime exhibits of characteristic countryside. Their size may vary from an acre or less to several thousand acres. Along the proposed parkway physical development of the wayside areas would often be limited to a pull-off or parking area to which the visitor might withdraw with safety and in some detachment enjoy the qualities of the river scene or read a story out of history. Development of some of the larger areas should provide for active recreation—camping, picnicking, swimming, fishing, boating-and should afford opportunity to view interesting parts of the countryside more intimately by foot and horseback. These camping and picnicking areas need not necessarily be located directly on the river banks. Ofttimes locations along the streams and lakes back from the river offer more varied and adaptable sites for recreational development.

Combination areas for day and night use where the visitor might camp and picnic would be provided, perhaps at 100-mile intervals; and picnic or day-use facilities should also be provided at similar or perhaps lesser intervals.

Tourist Accommodations

However attractive any countryside, the pleasure of touring it is closely bound to the strictly physical aspects of the trip, to wholesome food, clean lodging and rest rooms, and courteous and complete motorcar service.

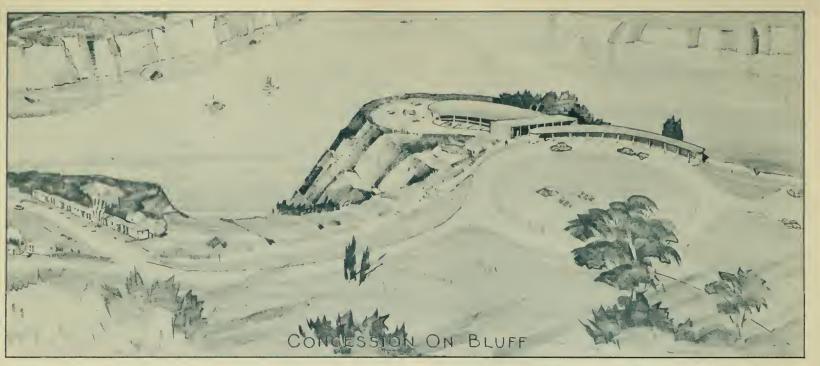
Quality services should be available at moderate rates and at carefully planned intervals. Facilities would comprise:

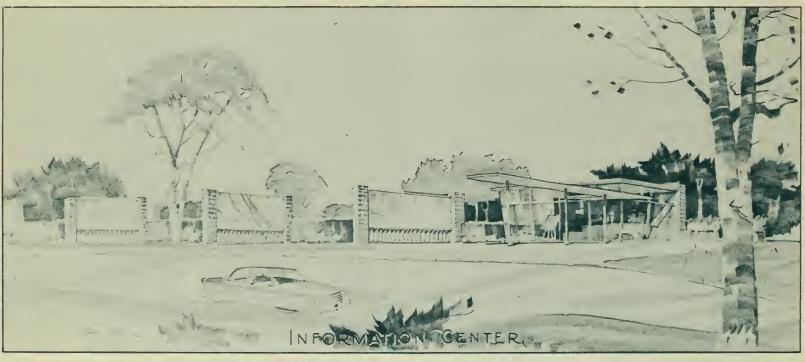
- 1. Those which now exist along the route and are already available but which may require improvement and enlargement, including accommodations in numerous towns and cities. The latter will figure importantly in location studies of a parkway and become part of the parkway in use. Feeder roads would be developed where they do not exist.
- 2. Those new developments which should be established in new locations as increased parkway visitation warrants.
- 3. Those which would be created within the scenic or historic parks. Here special attention would be given to the picturesque and colorful to aid the tourist in experiencing the river countryside.

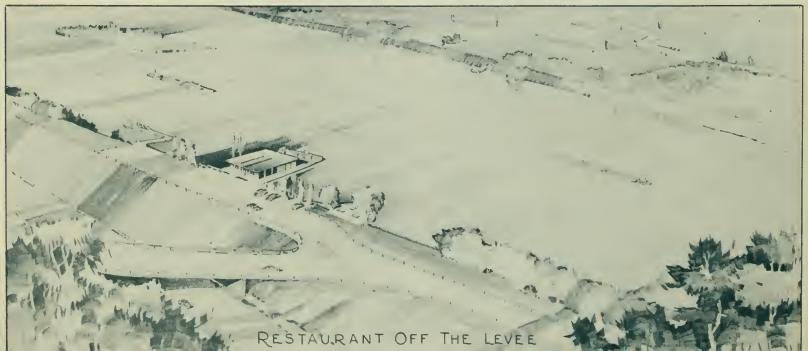
Among the most logical locations for the construction of needed new facilities would be the four corners of principal intersections of the parkway and major crossing highways. At these locations services would cater to both traffic streams. But points of traffic interchange are of particular concern to the highway departments which are responsible for the safety and convenience of travelers. Hence, adequate public control of key locations is essential to proper planning for development jointly by the concessioner and State officials. State ownership of key lands for development is recommended.

Tourist Information

To know where one is and where one is going is essential to pleasant travel. Travel information is supplied today through various media, especially maps, pamphlets, and road signs. Special guidebooks could be provided giving the parkway visitor







general touring information as well as topical information concerning the entire Mississippi River Parkway.

Billboards are used to tell tourists of accommodations in the towns and cities. In lieu of billboards on the Mississippi River Parkway there could be provided public information areas on the approaches to urban zones. The highway authorities could provide parking areas safely to the side of the main travel lanes where appropriate informational bulletins and advertising matter could be arranged in an orderly and pleasing manner on parkway lands zoned for the purpose. The space would be geared to the needs of the tourist for information about accommodations of all sorts and would be leased to recognized advertising agencies under strict supervision of the States or local chambers of commerce. At the larger information centers near metropolitan areas there could be an attendant present during busy hours of the tourist season who would function as a travel agent. He could be in communication by telephone with the city so that travelers could be assured of reservations and proper directions to reach various places of accommodation or entertainment within the city without loss of time and unnecessary searching in the congested areas. It is believed that such a plan would prevent much needless wandering of strangers in urban districts. Such facilities should be made self-supporting.

Interpretive Program

There is yet a wider field of activity among the specialized functions of a parkway organization which should extend to all parts of the development. This is the interpretive function by which, through every ingenious method, the parkway takes the visitor by the hand, as it were, and tells him what he is seeing, explains what he is experiencing. Where this educational side is well-developed, a parkway journey of whatever length can be free of monotony, pleasurable, and profitable. A colorful region will become real

which might otherwise prove bleak and incomprehensible. A part of the interpretive program could be accomplished by parkway-wide devices such as a guidebook related to mileage from starting points. The greater part of the job, however, would be accomplished through the installation of signs, markers, and roadside exhibits. These would begin with minor signs such as those identifying lakes, bridges, or streams by name and giving elevations above sea level or other interesting facts. Tales and legends can be told by simple signs or informational bulletins at pull-off or parking areas where there is a fine view or spot of interest.

The broader interpretive opportunities of the Mississippi River Parkway are large indeed, and the program would need to be scaled to a vast sweep of varied content correlated through the length of the 10 States. There would, for instance, be the opportunity of explaining along the roadside in simple, easily understood terms the geological forces which have shaped the present landscape, the sand hills, the bluffs, and the alluvial bottom lands. There would be the need to portray the vital role the Mississippi has played in the pageant of American history, to make clear the influence of the river upon the society in which we live. The story of the Mississippi should be divided into broad topics or themes, such as exploration, settlement, transportation, and literature. Coordinated roadside exhibits, located on actual historic sites, would unfold these themes. The stories of events would be told at the spots upon which they occurred, the lives of men at the houses in which they dwelt, and the tales of books in the places where they were written. Thus the traveler would absorb the topics chapter by chapter, mile by mile, as he rolled up or down the parkway.

History is human activity today as well as yesterday. Hence the dam and lock in operation, the cheese factory, the cotton gin, and the sugar refinery are among the things that will arouse tourist interest. Access to such places should be arranged, parking areas provided, and the tourist welcomed to visit.









History



In the infoldment of the character of a countryside, by means of travel over a parkway, the minor history of local tale and legend must not be overlooked. This is a colorful part of the river's lore.

An Evaluation—Tangible Costs

Under a plan as outlined much of the Mississippi River Parkway could be designated as a part of the Federal-aid highway system and so become eligible for Federal-aid highway funds provided regularly to aid the States and which must be matched by them. Such funds, according to existing laws, can be applied to planning, surveys, purchase of normal rights-of-way, and to construction of all necessary features of a highway.

In the years ahead, whether there is an integrated parkway plan or not, existing highways along the Mississippi River will be straightened, widened, and otherwise improved under the Federal-aid plan. In many places the present pavements will become obsolete and require relocation and new construction. It is difficult to predict the costs of these improvements through the years because they must be gaged, inevitably, to the demands of traffic patterns now unknown. A judgment of the costs of these physical improvements

to the roadway proper over a 10-year period is, however, tabulated in volume II of this report.

These costs for the physical improvements of the roadways themselves are those which must be borne eventually and inevitably as traffic increases. The actual costs of the proposed parkway program are those costs which would be over and beyond those which must be borne by the States and the Federal Government in any event.

The additional parts of this program which would add parkway value to the river highways include some of the controlled access features, the control of roadside development, the restoration of natural beauty, and the development of recreational and historic sites. Unquestionably, much of the mileage embraced in the proposed route will, as traffic grows, require the acquisition of controlled access features in order to handle the traffic whether a parkway project is undertaken or not. These parkway elements would need to be financed largely out of funds over and above funds now available for highway improvement in these States.

It is estimated that it would cost approximately \$81,000,000 to provide these parkway features upon a selected route. Since a great deal of work is involved in negotiating for the lands and rights



Legend



in lands, a process which forms a large part of any parkway project, it would seem reasonable to anticipate that approximately 10 years should be allowed to carry out the entire program.

Intangible Values

The foregoing pages have set forth a possible program of parkway development which is thought to be practical in basic techniques and capable of producing ultimately an efficient motorway and a pleasant one. But it should be clear to those who must judge, that the success of the project as a tourist facility and as a means to the conservation of an American scene will be dependent upon the art and imagination carried into the execution of the work in every telling way.

The plan has the high purpose of revealing to the visitor and interpreting for him a complex and fascinating part of our country, and surely its most significant feature is the Mississippi River itself. In the broadest sense the problem is to bring about a true meeting of the parkway and the river. This tie could be joined by various means. The parkway location, now tentative, could court the river and river views in every subtle way. There should be places at frequent interval where one might stop on the river's edge to watch it, to picnic, and to play.

Thus the visitor could motor along the river, cross and recross its bridges, stop along its banks, fish in the river and tributary waters.

Over and above these things, it will remain for the travel industry to develop through its own enterprise many subsidiary features and hospitable services. Ferryboats at important points could carry passengers from car parking areas on one side of the river to points of interest on the opposite bank. Packet steamboat trips of varying length could be developed. Side trips into the tributaries of the river, especially the bayous, and organized fishing trips into the lake regions of the North and the Gulf country of the South could be available and part of the total parkway experience. Rejuvenation of the showboat, now all but gone, might well come in the wake of increased tourist travel. It might become a first regional theater of national significance.

Thus such a program as that set forth in this volume would have both practical and cultural aspects. It is a plan by which an important link in the Nation's highways could be transformed into a multiple-use artery, more efficient, comfortable, and safe; but equally important, it is a plan which would give the Mississippi River—scenic, historic, romantic—back to the people.

Rural Scenes







River Life











The River against the bluffs.



How the parkway might look if built here.

