

PLANNING FOR THE APPALACHIAN HIGHWAY SYSTEM

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The Appalachian Region has long been plagued with a lack of adequate accessibility. The barrier-effect of the mountain chain has retarded the development of transportation facilities, which has been a primary factor in the underdevelopment of the Region.

As stated in the Report by the President's Appalachian Regional Commission entitled Appalachia, "Developmental activity in Appalachia cannot proceed until the regional isolation has been overcome. Its cities and towns, its areas of natural wealth and its area of recreation and industrial potential must be penetrated by a transportation network which provided access to and from the rest of the Nation and within the Region itself."

Highways provide a very important part of the transportation network. The bulk of personal travel and much of the movement of goods are provided by highways. Even where goods are moved by other transportation facilities, most of the terminal deliveries are performed on highways.

The Interstate Highway System is the backbone network which will make the Region more accessible. This system is the first system, exclusive of toll highways, that will provide high speed traffic facilities into and through the Region. The 41,000 mile Interstate Highway System was established to connect as direct as practicable, the principal metropolitan areas, cities and industrial centers. This direct routing between major population areas obviously leaves many areas without adequate access to this system.

In recognition of this deficiency, Section 201 of the Appalachian Regional Development Act of 1965 provides for the construction of an Appalachian Development Highway System of up to 2350 miles and 1000 miles of local access roads. To implement this construction, Congress authorized an appropriation of \$840,000,000 for the Federal assistance which could be applied up to 70% of the costs. \$200 Million was approved as the initial budget for the highway program for fiscal years 1965 and 1966. The Development highways would be added to the Federal-Aid Primary System upon completion, and would be maintained by the State.

The Appalachian Regional Commission established by the Act, composed of one Federal member and a member from each State, were charged with recommending to the Secretary of Commerce "(1) the general corridor location and termini of the development highways, (2) the designation of local access roads to be constructed, (3) priorities for construction of the local access roads and of the major segments of the development highways, and (4) other criteria for the program authorized by this section." The Secretary has the authority to approve in whole or in part such recommendations. The provisions of Title 23, United States Code, that are applicable to Federal-aid primary highways, and which the Secretary determine are not inconsistent with the Act, apply to the Appalachian Development Highway System and the local access roads.

The measure of reasonable access to a major highway is a unit of time. It has been found in many areas that drivers will travel longer distances to use a major traffic facility as long as the overall time of travel is nearly the same as that of the alternate lower speed route. In order to determine the accessibility afforded by the Interstate Highway System, a driving time of 30 minutes was used to represent a reasonable time of influence to use the Interstate route versus an alternate route. This would represent a distance of approximately 25 miles along the highways which interchange with the Interstate system assuming a driving speed of 50 miles per hour on these routes. Where physical barriers exist such as lakes, mountain ridges, rivers, etc., the distance is reduced to reflect these barriers. When these distances are plotted as a time contour on a map, the area within these lines on each side of the Interstate Route represents the area of accessibility of the Interstate System. This map (Figure 1) also shows those areas which do not have reasonable access to the Interstate System. It is in these areas that the Appalachian Development Highway System should be provided in order to increase the accessibility of these areas for potential development.

In 1963, the President's Appalachian Regional Commission (PARC) established a Highway and Transportation Team. The Sub-team on Highways recommended a system of Developmental Highways to serve the area which did not have a good accessibility to the Interstate System. Subsequent to that time, the Interstate System was revised in some areas. Also, the State Highway Departments, other State agencies, various associations or groups and others had suggested other corridors be considered.

A planning study was initiated in January, 1965. E. S. Preston and Associates, Ltd., under contract with the Bureau of Public Roads, were retained to conduct this study in order that the Appalachian Regional Commission could make the required recommendations to the Secretary of Commerce and get the highway program underway as soon as possible. In conjunction with the highway planning, Litton Industries were retained to determine the economic potential of the Region.

Meetings were held with officials in each State early in March, 1965, to discuss the proposed Development System and local access roads. Criteria for the proposed highways was discussed and the State Highway Departments were requested to furnish the pertinent design and cost information on all alternate corridors that the Governor's representatives and/or the State Highway Department wished to be considered. This information was assembled and tabulated for analysis.

In April an interim report was issued, recommending criteria and the corridors and termini for the initial portion of the Development Highway System. Also "quick start" highway projects were recommended that could be placed under contract in 1965. These were projects within the recommended corridors where location studies had been completed and where plans and right-of-way acquisition were well underway with other Federal-aid or State funds.

On May 12, 1965, the Appalachian Regional Commission adopted resolutions recommending criteria for the Development Highway System and local access roads, recommended the allocation of \$35 Million Federal funds for local access roads, designating the portion to be made available for each State and recommended approval of 992.5 miles as the initial corridors. (Fig. 2) These recommendations were approved by the Secretary of Commerce.

On the basis of applying 70% Federal funds for construction of the Appalachian Highways, it was apparent that the funds would not be adequate to construct facilities adequate to accommodate projected 1990 traffic. If the full mileage authorized by the Act is constructed, the funds available for the development highways would average approximately \$489,000 per mile (total cost) and the 1000 miles of local access roads would average \$50,000 per mile (total cost).

At a meeting attended by the State Highway Departments, the Bureau of Public Roads and the Appalachian Regional Commission staff, it was the consensus that the most miles possible should be built within the available funds. It was agreed that the facilities should be designed to accommodate 1990 traffic requirements, with elements of construction deferred that are not required for 1975 traffic. In many locations two-lane pavement would be constructed on four-lane right of way, deferring the additional directional pavement lanes, grade separations, etc., for future construction, where these are required for 1990.

The cost estimates were revised, however, in many cases the estimates were not made on the basis of final location for the facility resulting from engineering studies. This highway program is different from other Federal-aid programs in that a definite amount of funds are included in the Act to build the system, whereas other programs are based upon an allocation each year on a continuing basis or, in the case of the Interstate System, the

funds are allocated on the basis of need with periodic cost estimates to determine the remaining need to build the System.

Since firm cost estimates must be available in order to allocate funds to each State for constructing the system, an Implementation Plan was formulated so as not to delay the highway program. This Plan recommended the following procedure be followed:

- (1) Select corridors for the Appalachian Development Highway System that will provide the greatest economic benefits and recommend prompt approval of the corridors and termini.
- (2) The length of construction, as presently recommended by the various States, should be established as the mileage eligible for construction on the recommended corridors.
- (3) Authorize construction of all projects within the selected corridors that are presently scheduled to be placed under contract prior to June 30, 1966.
- (4) Administrative procedures should be established to provide for route planning and location studies to be conducted prior to authorization for the development of detailed construction plans, right-of-way acquisition and construction contracts.
- (5) Request the states to conduct route planning and location studies to:
 - (a) Develop a uniform rating of the adequacy of existing highways which generally traverse the corridors; and,
 - (b) Determine the most acceptable route locations where new construction is required.

On July 14, 1965, the Appalachian Regional Commission adopted the recommendations of the Implementation Plan. The resolution adopted recommended a Development Highway System (Figure 3) which included approximately 2220 miles designated eligible for construction; recommended additional construction projects for the balance of fiscal year 1966; and allocated the remaining 1966 fiscal year Federal funds to the States to permit the other portions of the Implementation Plan to be carried out. These recommendations were approved by the Secretary of Commerce.

The Bureau of Public Roads developed a manual for uniformly rating the adequacy of existing highways traversing the corridors. The States began the rating survey the latter part of September and are scheduled to complete this survey the early part of November. The Bureau of Public Roads have

also developed a manual for estimating the cost of the Appalachian Development Highway System. This cost estimating is just now getting underway.

After analysis of the adequacy ratings and firm cost estimates based on the location to be used for constructing the highways, the remaining Federal funds, authorized by the Act, can be allocated to the States.

The Act, in defining the Appalachian Region, authorized and directed a study be made to consider the inclusion of the contiguous counties in New York State into the Region. After study and consultation with officials of the State of New York, the Appalachian Regional Commission, on August 18, 1965, adopted a resolution to invite the Governor of New York to accept inclusion of the 13 contiguous counties into the Region and to participate in all programs except the highway program. A study was to be made of the highway needs of the Region in order to make a recommendation to Congress of the needs and additional funds required to fulfill these needs. We are currently gathering data to determine these needs. A map (Figure 4) showing the accessibility to the Interstate Highway System indicates the southern tier New York counties and northern Pennsylvania counties are not adequately served. Corridors recommended by the States of New York and Pennsylvania (Figure 5) are being analyzed to determine the need for additional funds to serve this area of the Region. The State Highway Departments are currently rating the existing highways in these corridors so that these ratings will be developed during the same time period as the highways being rated in the presently approved corridors. This will assist in making a determination of needs on the same basis used in the allocation of funds in the remainder of the Region.

Development in the Region, as well as the other programs included in the Act, are keyed to the highway program. It is desirable that the highways be completed at the earliest possible date in order that all the programs may be effective in achieving the stated purpose of the Act "to assist the Region in meeting its special problems, to promote its economic development, and to establish a framework of joint Federal and State efforts toward providing the basic facilities essential to its growth and attacking its common problems and meeting its common needs on a coordinated and concerted regional basis."

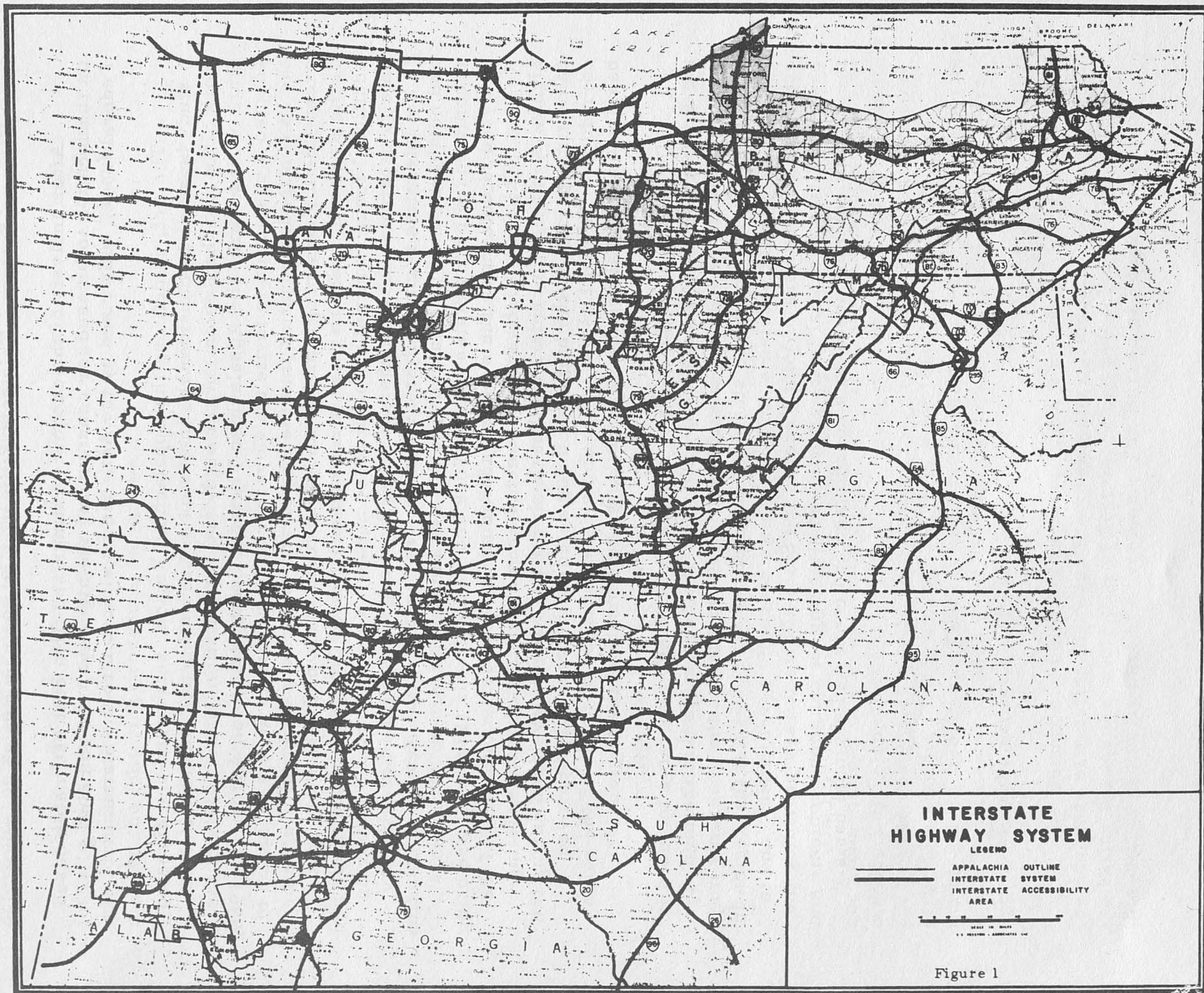


Figure 1

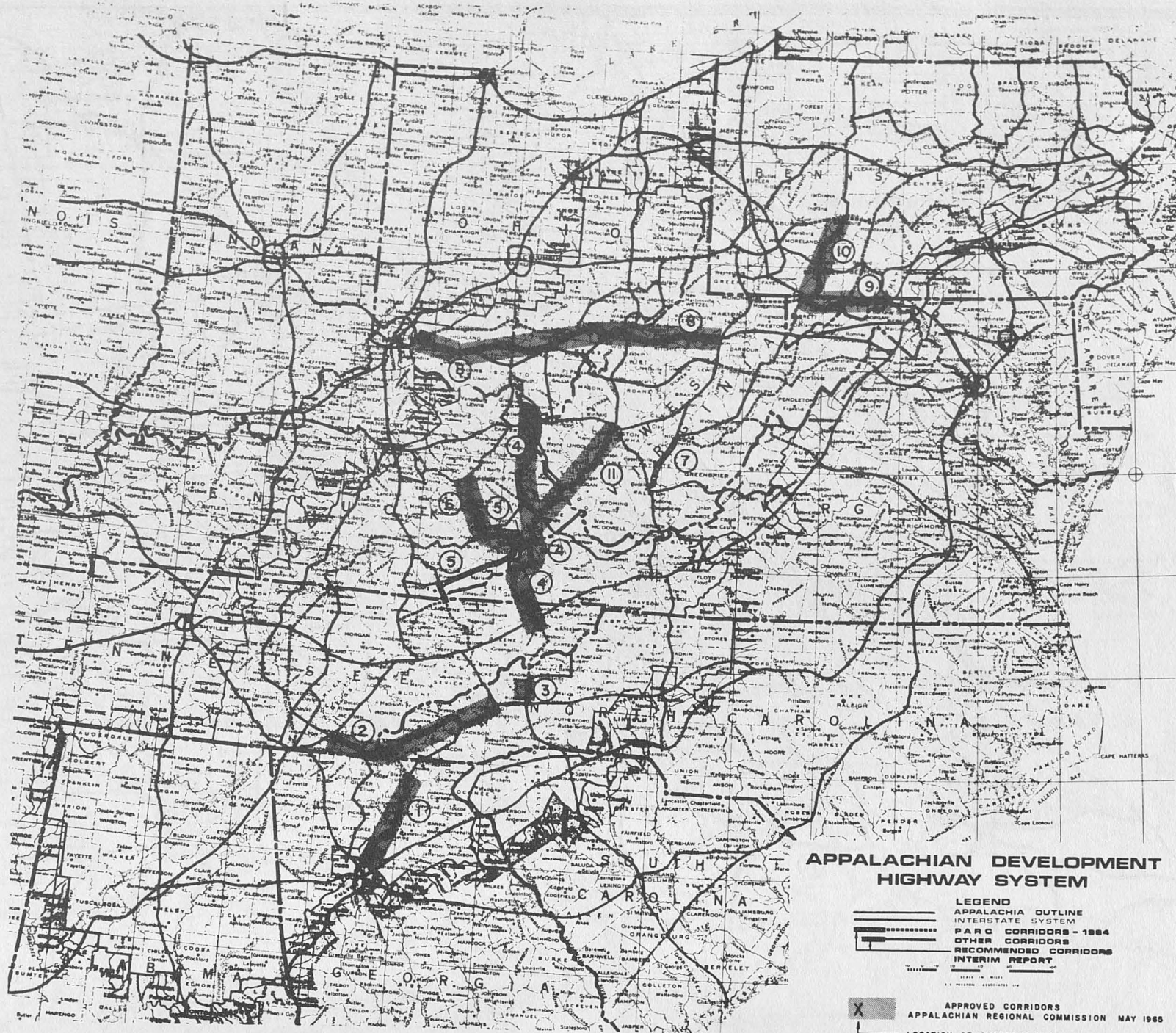
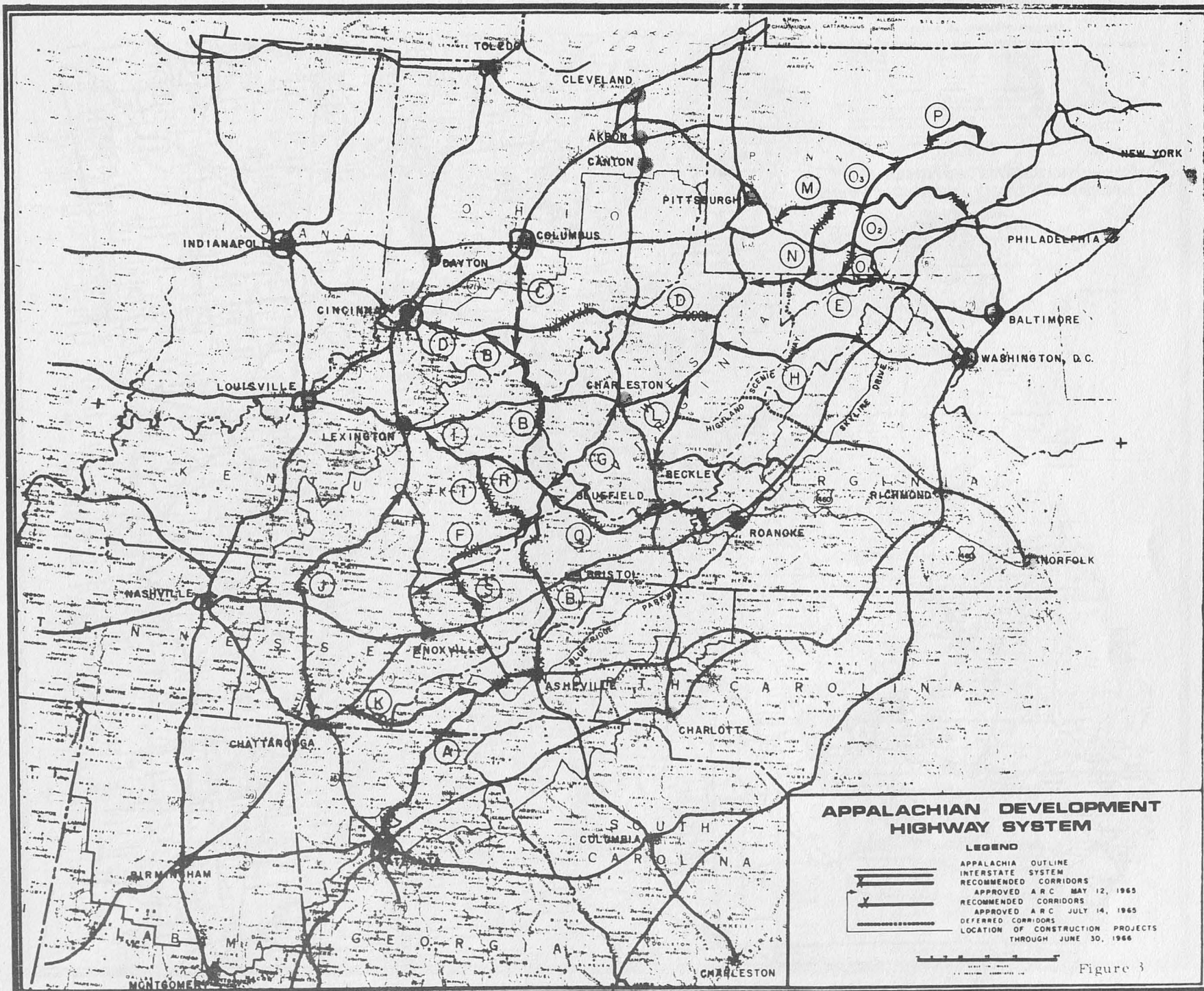


Figure 2








**APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM**

- LEGEND**
- APPALACHIA OUTLINE
 - INTERSTATE SYSTEM
 - RECOMMENDED CORRIDORS
 - APPROVED A R C MAY 12, 1965
 - RECOMMENDED CORRIDORS
 - APPROVED A R C JULY 14, 1965
 - DEFERRED CORRIDORS
 - LOCATION OF CONSTRUCTION PROJECTS THROUGH JUNE 30, 1966

Figure 3

LEGEND

-  Appalachian Outline
-  Interstate System
-  Approved Corridors
-  Corridors Under Study
-  Interstate Accessibility Area

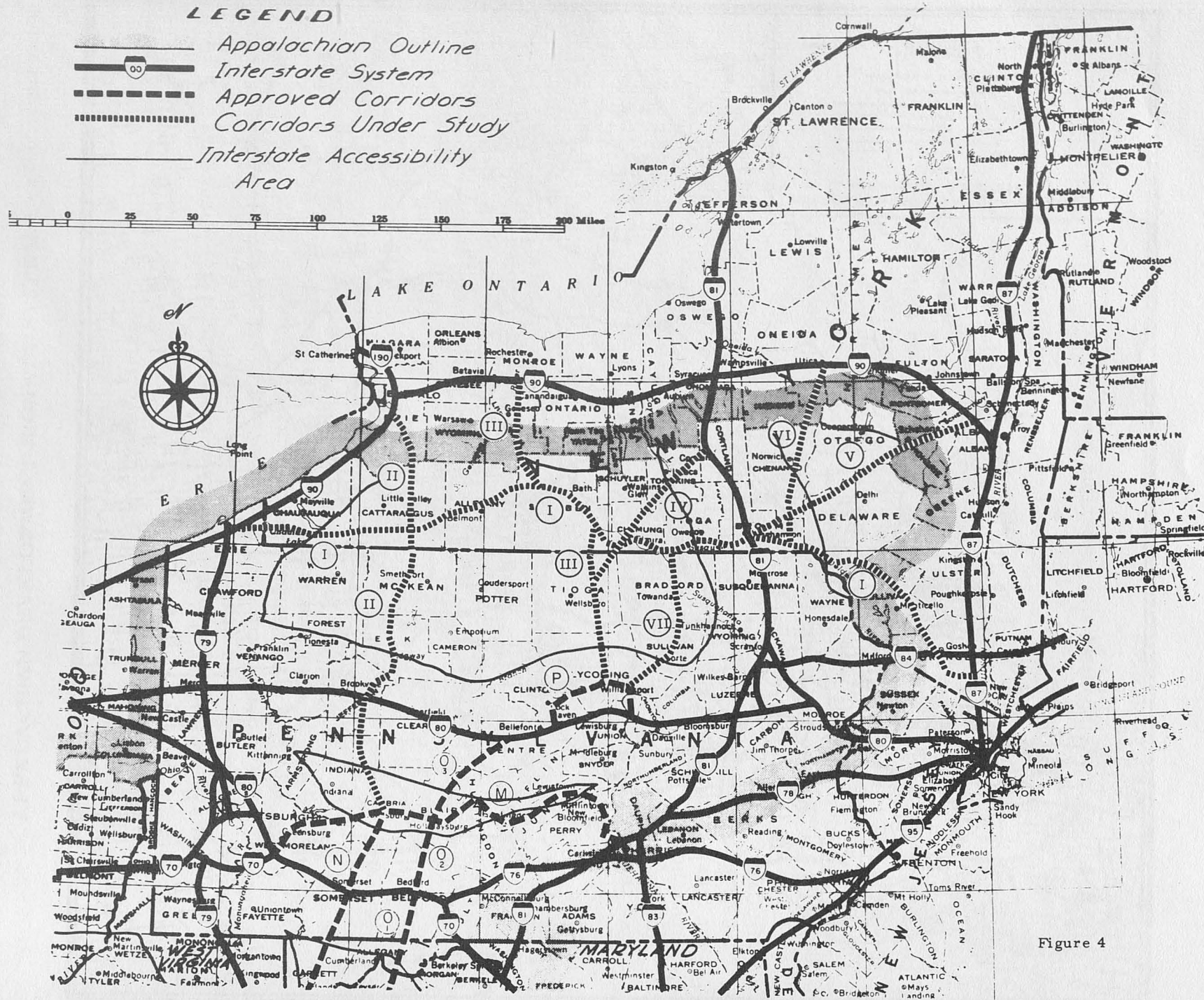
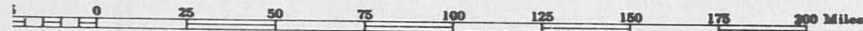


Figure 4

