



other new projects which are a natural development.

Changes in vehicles affect the roads over which the vehicles operate both as to the efficiency of the highways as traffic arteries, and also as to safety for vehicles and pedestrians. Chief among the developments in vehicles is the increase in speed. Higher vehicle speeds have made it necessary to redesign many features of our highways to eliminate traffic hazards and to meet other requirements of increased speed. The elimination of traffic hazards was directed in the National Industrial Recovery Act on projects such as the widening of narrow roadways and bridges, the separation of grades at crossings, the reconstruction of existing railroad grade crossings, the building of footpaths, the replacement of unsafe bridges, the construction of routes to avoid congested areas, or any other construction which will provide safer traffic facilities or definitely eliminate existing hazards to pedestrian or vehicle traffic.

#### SCOPE OF FEDERAL-AID WORK WIDENED

The entrance of the Government into new fields of highway improvement in city street construction and the building of secondary roads is a significant departure from Federal highway policies established in past years. It accents the necessity of state-wide planning of highway facilities. The high percentage of traffic that is of municipal origin and also the traffic on city streets contribute in a large measure to the annual highway income and major routes within cities should be brought up to adequate standards. In the planning of secondary roads, a proper relation must be maintained between such roads and the major highway system, and an annual income for their further improvement must be assured. There is also a distinct trend toward the control of secondary or feeder roads by the state highway departments. This simplification of highway administration has been stimulated by the requirements of the National Industrial Recovery Act.

A new and far-reaching development of the coming year will be the connection of highways with railroads as supplementary services. Railroads were built upon the presumption that highways would deliver freight to stations established along the route, an essential service in railroad operation. Changes in vehicles on the highways made possible a wider field of service and placed motor vehicles in competition with railroads in some cases. It seems probable that some unprofitable railroad mileage could be abandoned with profit and also some little-used highways. Coordination of highways not only with railroads but also with air and water facilities is contemplated in studies now in progress by Federal agencies.

Highway maintenance under Federal-aid laws has been obligatory as necessary for the protection of the large investment in improved highways. a means of keeping the highway departments actively engaged as well-organized and smoothly-functioning agencies for public works in the relief of unemployment. Highway maintenance can readily be expanded, especially on works that are in the nature of improvement. In addition to the repair of road surfaces, there is a great need on all highways for such work as widening shoulders and the inside of curves, laying tile drains and cobble gutters, building guard walls and right-of-way fences, and tree planting and other such landscape work. New emphasis has been placed on the landscaping of a reasonable mileage of wide right-of-way for are no longer content to build roads and to neglect their appearance.

#### LABOR POLICY

The marked changes inaugurated in connection with the employment of labor under the NIRA will continue in the work of the coming year. Most of the Federal aid work under construction is being accomplished on contract as in past years. Under the regulations adopted to control the work, the use of day labor hired directly by the highway authorities is permitted. Existing county or municipal organizations may be utilized but the responsibility for such day labor work rests with the state highway departments. Labor used on all classes of public works highways is obtained through local employment agencies designated by the United States Employment Service to prepare employment lists for both skilled and unskilled labor. Minimum wage rates are prescribed in all contracts for road construction and similar wage rates are used for day labor employed directly by the highway authorities. A 30-hour week is provided for in construction agreements or contracts with the use of the 130-hour month in special cases.

#### CONCLUSION

The coming year will see a larger measure of effort to meet both municipal and rural highway needs, to accomplish roadside beautification on wider rights-of-way, to eliminate traffic hazards, to coordinate transportation facilities, and to develop other new and necessary highway projects to the end that unemployment will be relieved and the highway system of the country will be consolidated and improved. The National Industrial Recovery Act has established new criteria for highway work which have opened new fields for service.

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### Construction Lagging by \$14,000,000,000

*The Federal Administration, through careful research, has determined that construction during 1934 and 1935 can absorb this vast sum in employment and the production of capital goods. Of this sum, the construction of express highways will use \$1,000,000,000; water and sewage works \$1,650,000,000; housing, \$4,533,000,000; public buildings, \$136,000,000; railways and terminals, \$2,000,000,000; and grade crossing elimination, \$2,400,000,000. The other items completing the total are educational facilities, recreational facilities, and industrial and commercial construction and modernization. In this study full recognition has been given to the fact that employment in the capital goods industries has declined 75 per cent and that stagnated construction has been a contributing factor to this decline in employment.*

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