

CHAPTER NINE

MOVING GOODS AND PEOPLE Major Streets and Highways

The ever growing motor vehicle travel has resulted in increasing traffic congestion with the greatest distress evidenced in the Chartiers Valley. The use of the motor vehicle passenger car, truck and bus is of such a significant part of economic life of the Planning Area that inability to move safely and efficiently results in anguish, inconvenience and economic loss. Relief of traffic congestion in the Chartiers Valley is most urgent and should be accorded high priority. The new Washington-Warrendale Expressway when built, will do much to relieve this congestion.

However, this traffic congestion will be relieved only by a broad attack in all areas in which the movement of goods and people are important. The suburban and rural areas are distressed by the lack of adequate highway improvements. In these more open areas, efforts should be made to design and construct roads suitable for modern automobile traffic and to reserve rights-of-way for future traffic needs.

While the possibilities are limited in Canonsburg and Houston for new major thoroughfares, except as related to the new expressway, portions of these older communities where redevelopment of blight is feasible should be studied with a master plan for circulation and future land use in mind.

Local programs which may be staged simultaneously with the construction of the Expressway are:

1. Off-street parking projects assisted by urban renewal action to clear away blight and substandard conditions near the downtown shopping districts.
2. Improved traffic control plans such as one-way streets and elimination of on-street parking to make full use of the street for traffic flow.
3. The layout and construction of new approach roads to the traffic interchanges of the expressway in locations where new industrial districts can be created.

MAJOR HIGHWAYS

The responsibility for interstate, primary and secondary highways in Pennsylvania is established with the Pennsylvania Department of Highways. Such Highways form the major network of the circulation of regional and local traffic. Thus improvement of the major access highways to communities depend on the Department of Highways for engineering studies, construction and maintenance. This includes the arterial and collector roads shown on Plate 17, Major Thoroughfares.

In the rural areas, many of the State Routes and Legislative Routes noted on Plate 17 are narrow blacktop roads with many curves and steep grades. The two traffic lanes on these roads, generally 8 or 9 feet in width, are inadequate for the present and future use as major arterial and collector routes.

Within the rights-of-way of the State Routes, much can be done to improve visual conditions through enforcement of existing provisions regulating overhanging signs and permanent and temporary signs that encroach upon the roadway. Further improvements could be accomplished through maintenance programs that would keep shoulders, berms, gutters, and street signs in good repair. A new policy to reduce the steep roadside slopes to an appropriate contour would cut annual maintenance cost tremendously, greatly improve the appearance of the roadside while reducing safety hazards.

In cases where private drives access on other than state routes, design standards can be enforced by the municipality. The location and standards for private drive access when necessary to be on state routes can be controlled by the State Highway department.

The setback of buildings and structures, if any, beyond the legal state highway right-of-way is usually controlled by local regulation. Historically, the encroachment on the highway by building structures and signs began with the old narrow right-of-way of 33 feet with no setback regulations. The wide rights-of-way of our modern highways need the added protection of adequate setback regulations, otherwise the same mistakes shall be repeated again as traffic volumes increase and developments crowd the roadside.

The Pennsylvania Department of Highways has established a new planning section to work with local and regional planning commissions to cope with the problems of location planning so as to avoid, as much as is practical, new highways from cutting up residential neighborhoods, industrial districts and other use areas. Coordinated advance planning by both local and state agencies shall be encouraged through this new planning section in the Highway Department so that the new highways shall aid communities to develop an orderly pattern of growth, reduce congestion and permit the highways to move traffic.

FUNCTION OF EXISTING HIGHWAYS

For the purpose of determining the future of the existing highway system, a classification system has been developed as illustrated on Plate 17, Major Thoroughfares.

Arterial Roads - Arterial Roads are generally those of a primary nature, usually a continuous route and carrying a major volume of through traffic. U. S. Route 19 and Pennsylvania Routes 18 and 31 are classified as Arterial Roads.

Collector Roads - Collector Roads carry through and local traffic as it collects from local streets and travels between neighborhoods and communities. Collector Roads include major highways and streets. Most Collector Roads are under the jurisdiction of the State.

Local Roads and Streets - These roads and streets are designed primarily for local access to residential or business properties. Generally, these local roads and streets are the responsibility of the Borough and Township Officials.

To aid in appraising the adequacy of these existing roads and streets, the following table has been prepared from design standards of the Pennsylvania Department of Highways. Approximately 1500 cars per hour per lane can be accommodated by a limited access highway as compared with 700 to 800 cars per hour per lane for a typical city street. The capacity of a highway can be increased by additional traffic lanes; however, the increase is not proportionate. One additional lane going the same direction will carry approximately 75% as much traffic as a single lane. When a third lane is added the additional traffic capacity is estimated of about 50% that of a single lane.

Other factors to be considered are alignment, grades, berms, intersections, and other features which introduce hazards to the flow of traffic. Narrow traffic lanes and berms are characteristics of the major thoroughfare system in the Planning Area.

TABLE
PROPOSED DIMENSIONS - TRAFFIC AND PARKING LANES
Major and Local Thoroughfares

	Number Lanes	Traffic Lanes	Parking Lanes	Berm	Right of Way
ARTERIAL					
Expressway with Medial Strip	4	12		12	95'-170'
Major Rural Highway	2-4	12		10	80'-120'
Major Street with Parking	2-4	12	11	12	80'-120'
COLLECTOR					
Major Street with Parking	2-4	12	10	12	80'-120'
Major Rural Highway	2	12		10	60'-80'
LOCAL					
Local Street with Parking	2	12	8	10	50'-60'
Local Rural Highway	2	12		8	50'

TRAFFIC FLOW

Plate 18 titled - Traffic Flow provides a diagram of the pattern of traffic flow in and through the Planning Area. The weight of the line is increased where the traffic volumes increases. As indicated on the Traffic Flow Map, Truck Traffic represents about 15% of the total volumes throughout the Planning Area. This data was prepared with the facilities and under the supervision of the Pennsylvania Department of Highways.

A heavy volume of through traffic travels U.S. Route 19. This is traffic to and from Pittsburgh, Washington and the major arterial routes that intersect in these cities. Pennsylvania Route 519 is heavily travelled from the traffic interchange on U.S. Route 19 into Canonsburg and northeastward where it becomes East Pike Street. West Pike Street or Legislative Route 62094 probably represents the most seriously congested major street in the Planning Area. This major street collects traffic from major industrial and residential areas in Canonsburg, Houston and Chartiers Townships.

THE FUTURE ROADS

While not a heavy traffic route, Pennsylvania Route 980 offers a potential as Belt Route in the future metropolitan network of the Pittsburgh Area. Attention should be directed to Legislative Route 62090 from the traffic interchange on Route 19 into Houston and Legislative Route 62188 westward in the Chartiers Run Valley towards McConnells Mills, Westland and beyond to the Burgettstown Area.

This route is likely to become very important as an access road to the Washington-Warrendale Expressway interchange which is proposed to the east of Houston. The Chartiers Valley offers a potential industrial site if highway improvements are staged in a manner as to provide adequate vehicular access. In this respect, Legislative Routes 62191 and 62192 are also possible locations for traffic interchanges with the Expressway. All of these roads are totally inadequate for present needs and shall require reconstruction on the basis of modern standards to meet this future need.

Further consideration should be given to a traffic interchange point to the north of the Planning Area between Mayview State Hospital and Cecil Hills. The fastest growing neighborhoods are in Peters Township from where most of the labor force travel to employment centers in Pittsburgh. An access road from U.S. route 19 to the Expressway appears feasible in the vicinity of Boyce Road in Upper St. Clair Township. Like the other access roads discussed above, Boyce Road would have to be reconstructed with possibly a traffic interchange at U.S. Route 19.

WASHINGTON-WARRENDALE EXPRESSWAY

With the aid of the new Federal Aid Highway Bill, the pattern of highway development will assume new standards in the interest of safety and increased traffic capacity.

It is contemplated that the Greater Canonsburg Area will be located on the Washington-Warrendale Expressway. The tentative location of this new arterial route is shown on Plate 18. The pattern of future community development, influenced by the new highway standards, should gradually work towards removal of the harmful effects of heavy traffic travelling through communities in addition to increasing the capacity of the highways.

Depending on traffic demands, the Expressway will be four lanes - each lane will be at least twelve feet in width. Shoulders will be at least 10 feet; center strips in rural areas will be a minimum of 36 feet wide. To provide a margin of safety, the Expressway will be designed to 50 MPH in urban areas to 70 MPH in open country. This super road will go through the Chartiers Valley to give people relief from dangerous congestion caused by through traffic. The Expressway will be of "Controlled Access" design. That means there will be no intersections. No railroad crossings. Not even driveways. This safety design is expected to save thousands of lives. When the expressway crosses aState Highway....either an underpass or over pass will be built, eliminating a dangerous intersection.

To get on and off the Expressway....Access Roads will merge with through traffic by means of a speed-change lane. Access points will be placed where traffic requires them. But for safety's sake, interchange points will be at a minimum.

Access roads will lead to....Existing Highways and Main Streets....not built to modern standards, and which go through towns, containing dangerous intersections and curves. Roads of this type will have to be rebuilt. Existing U.S. Route 19 and Pike Street become service roads to the Expressway, offering gasoline stations, restaurants, stores, and motels - none of which are permitted direct access to the Expressway.

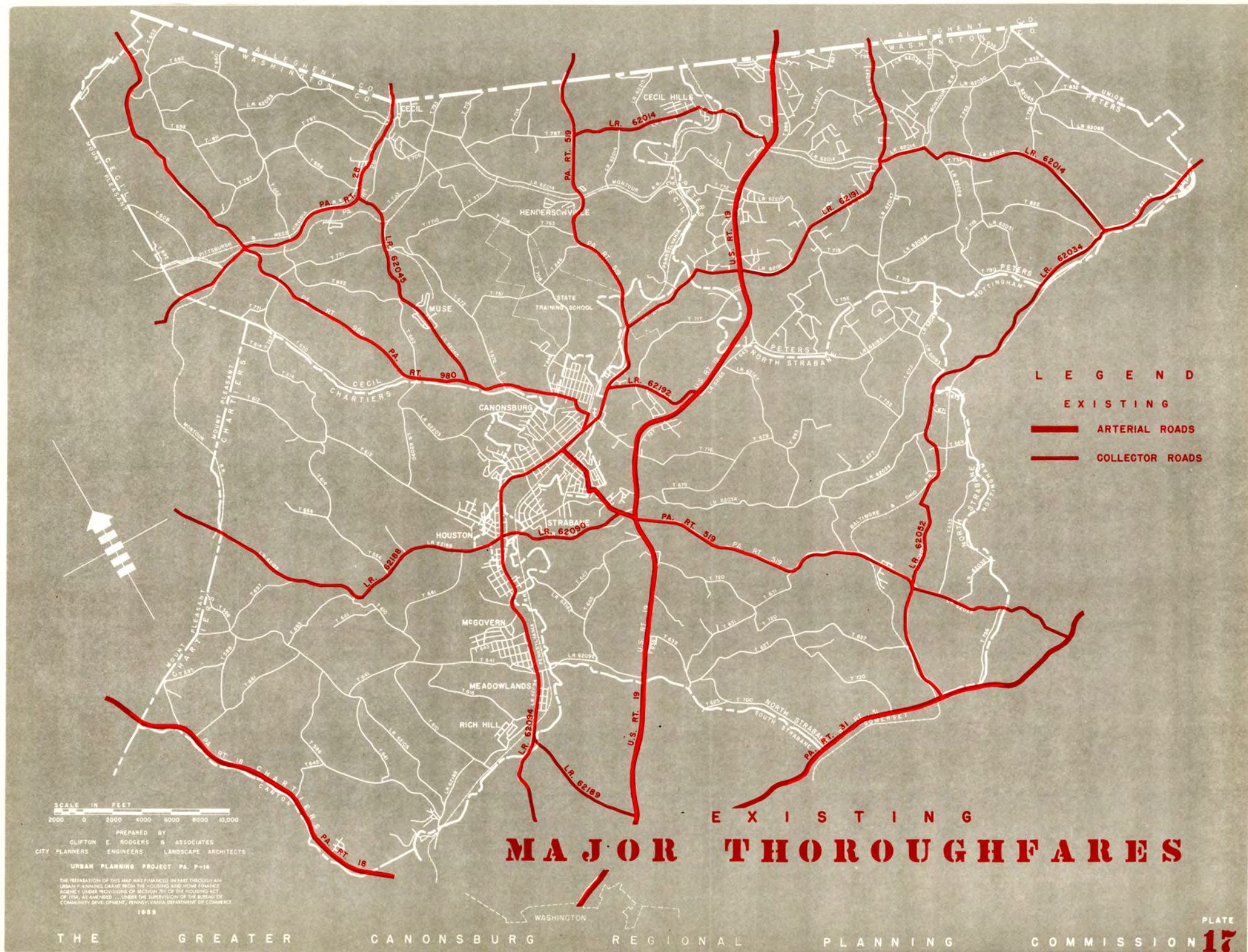
BELT HIGHWAY

Another part of the new system of highways is theBelt Highways....to take through traffic around Pittsburgh and congested centers. Motorists would have their choice of switching to a Belt Highway or following the Expressway. This new pattern of highways is one of the influences that will change the economy of the Planning Area as well as its physical layout....and necessitates local planning along with the continuous effort of the State to maintain a modern highway system. The network of Belt Highways should be planned along with interchange points on the Expressway and major industrial center so as to disperse traffic as quickly as possible in all directions.

REGIONAL PLAN

The establishment of a policy on right-of-way widths, other cross section elements, alignment and grades to a system of proposed major thoroughfares distinguishing between new arterial collector and local thoroughfares adequate for transportation and communication facilities should be considered by the Regional Planning Commission and the member municipalities as part of a Major Thoroughfare Plan for the Pittsburgh Metropolitan Area. The Regional Planning Commission and the Planning Commissions' of the member municipalities should encourage the placing of right-of-way widths and alignment on the official plan of each community in accordance with the Major Thoroughfare Plan developed for the region.

This network of major thoroughfares would become the framework for the future development of the whole area. The Expressway would be used for the movement of high speed traffic and would not be lined by strip development of commerce and industry which would retard the flow of vehicles. Pike Street and U.S. Route 19 would move traffic from the residential, commercial and industrial areas to interchanges on the Expressway for quick dispersal to all parts of the Planning Area. The local communities through subdivision control and zoning could prevent the developments from encroaching on existing and proposed rights-of-way of major thoroughfares and thus save many dollars in condemnation procedures when future widenings and new locations shall be necessary. Thus the Major Thoroughfare Plan would become an active and creative instrument through which all the communities could cooperate to guide the orderly development of the Planning Area as well as their individual municipalities.



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PREPARED BY
CLIFTON E. RODGERS & ASSOCIATES
CITY PLANNERS ENGINEERS LANDSCAPE ARCHITECTS

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