

3 9999 06544 670 8

Public Document

*State*  
No. 142

6457.35

The Commonwealth of Massachusetts

---

ANNUAL REPORT  
OF THE  
DIVISION OF METROPOLITAN  
PLANNING  
FOR THE  
YEAR ENDING NOVEMBER 30  
1938



# The Commonwealth of Massachusetts

*To the Honorable Senate and House of Representatives in General Court Assembled:*

The Division of Metropolitan Planning herewith respectfully submits its annual report for the year ending November 30, 1938:

Last year, this Division, in its annual report, recommended a long-term program of highway and parkway projects to be carried out over a six-year period. This long-term planning was not undertaken to encourage excessive public works expenditures but was done for the purpose of guiding normal investment in highways to achieve better and much needed transportation services.

We considered the following points in presenting this program:

1. Every project should serve a definite social need.
2. Projects should be economically sound (their costs proportionate to their benefits).
3. Projects should be in agreement and coordinate with city, regional and state plans and should be an integral part of a comprehensive plan.
4. Projects should be considered in relation to other needed public improvements to insure a program of balanced expenditures.
5. Projects should be undertaken when material prices are low and when labor is plentiful.
6. Projects should be constructed in such order that the greatest benefit may be obtained as quickly as possible; that is, in order of their greatest urgency.

It is still the opinion of the Division that the time has come to begin to carry out an orderly and progressive program of highway and parkway improvements in the Metropolitan District, and we are again presenting in our recommendations a total of nineteen projects which we believe will materially improve the traffic situation whenever funds are available to carry out their construction.

The following is a list of recommended projects:

## THE CIRCUMFERENTIAL HIGHWAYS.

1. It was evident from the beginning of the Division's studies that a main Circumferential Highway on approximately a ten-mile radius was needed. Such a highway is now partially completed and heavily traveled. This route, known as Route No. 128, now extends from Hingham on the south, northerly and westerly as far as the Worcester Turnpike near the Wellesley-Newton line. It should be extended from its easterly terminus north-easterly through Hingham to the present highway leading to Nantasket. At its westerly terminus it should be extended northerly and easterly to the Newburyport Turnpike in Lynnfield. Such a route will intersect substantially all of the main highways leading into the city and greatly assist the traffic both of the district and the State.

2. A part of the Circumferential Highway southerly of the Blue Hills is a parkway, and therefore not used for commercial traffic. For this reason there is need of a commercial route or by-pass passing through Randolph southerly of Route No. 128 and of the Blue Hills Reservation. When constructed it will become a part of Circumferential No. 128.

3. An Inner Circumferential route that is much needed is the so-called Milton-Quincy Highway, an east and west all-purpose highway extending from Reedsdale Road in Milton to the new Fore River bridge in Quincy. It will by-pass much of the South Shore traffic around Quincy, and will enable it to select less congested routes into Boston.

#### RADIAL HIGHWAYS.

4. The so-called Watertown-Newton-Waltham Highway, extending from Galen Street, Watertown, to Weston Street, Waltham. This route was first designed as a parkway. Further study shows that it should be built as an all-purpose route.

5. The new Concord Highway now terminates at the Alewife Brook Parkway in Cambridge. It should be extended easterly to a point near Porter Square, where a number of routes are available for access to Boston. The Concord Highway is really the gateway to the Mohawk Trail, and is daily becoming a more important and more traveled route.

6. The Department of Public Works plans, in co-operation with the State of Connecticut, to construct a new highway leading from New York to Boston. It will enter the district in Walpole and when completed should shorten the running time between New York and Boston by an hour, at the same time carrying traffic through a non-congested section of both States. The Division recommends the construction of the portion of this route lying in the district.

7. The American Legion Highway should be extended from its present terminus at Cummins Highway southwesterly to Washington Street at or near its intersection with the West Roxbury Parkway. This intersection was part of the original project, and the money now invested in the American Legion Highway will be of little use until the extension is made.

8. A new highway is required which will follow in part the old Middlesex Turnpike and leave the Concord Highway in the town of Lexington and go in a general northerly direction to a point near Lowell, where connections may be made to the main highways to the Merrimack Valley. Part of this route lies in the district and is recommended.

9. A fine highway has now been constructed from the Newburyport Turnpike to Day Square in East Boston. It should be extended along the general route of Bremen Street, or some other suitable street, to the entrance of the Sumner Tunnel.

10. A very necessary improvement is the widening of Dorchester Avenue from Old Colony Avenue to Fort Point Channel. This is now a bottleneck for the heavy traffic that enters Boston by the Old Colony Parkway. We note with satisfaction that the city of Boston has repaved this section of Dorchester Avenue, but the avenue is far too narrow to carry its traffic, and should be widened as soon as funds are available.

11. A bridge across the Charles River at Gerry's Landing is recommended. This would connect the parkways on the north and south sides of the river and permit the heavy parkway traffic now using the Alewife Brook Parkway and Fresh Pond Parkway to enter Boston without passing through Harvard Square or without using the crowded Lars Anderson bridge.

12. An extension of Memorial Drive on the Cambridge side of the Charles River to Arsenal Street in Watertown is recommended. This will complete the parkway system along the northerly side of the Charles River from the Dam to Watertown.

#### CIRCLES AND GRADE SEPARATIONS.

13. At the intersection of the Northern Artery and Prison Point Viaduct, at the Cambridge end of the Charles River Dam, a traffic circle.

14. At the intersection of the Northern Artery and Washington Street in Somerville, an overpass.

15. At the intersection of Washington Street and Boylston Street (Worcester Turnpike) in Brookline Village, an underpass.

16. At the intersection of Washington Street and Arborway in Forest Hills in Boston, an underpass.

17. At the intersection of Park Drive, Riverway and Boylston Street in Boston, a traffic circle.

18. At the intersection of Commonwealth Avenue and Cottage Farm bridge in Boston, an overpass.

19. At the intersection of the Revere Beach Parkway with Broadway and Main Street in Everett, a by-pass.

The following table lists the above-mentioned projects, gives their estimated costs, and indicates the classification to which they belong. Those which are listed as highway projects should, in our judgment, be paid for entirely from the Highway Fund. Those listed as parkway and city projects should be paid for with at least 50 per cent from the Highway Fund.

#### HIGHWAY CONSTRUCTION PROJECTS.

*To be Built by the Department of Public Works.*

|  |              |
|--|--------------|
| 1. Circumferential Highway . . . . .   | \$5,700,000  |
| 2. Commercial by-pass south of the Blue Hills . . . . .  | 1,300,000    |
| 3. Inner Circumferential or Milton-Quincy Highway . . . . .  | 1,400,000    |
| 4. Watertown-Newton-Waltham Highway . . . . .  | 1,600,000    |
| 5. Easterly extension of Concord Highway . . . . .   | 1,000,000    |
| 6. Portion in district of New York Highway . . . . .   | 575,000      |
| 7. Extension of American Legion Highway to Washington Street . . . . .                                     | 500,000      |
| 8. Extension of Middlesex Turnpike . . . . .   | 500,000      |
| 9. Extension of Turnpike from Day Square to East Boston Tunnel . . . . .                                   | 1,000,000    |
| 10. Dorchester Avenue widening . . . . .   | 450,000      |
| 13. Circle at intersection of Northern Artery and Prison Point Viaduct . . . . .                           | 350,000      |
| 14. Grade separation at intersection of Northern Artery and Washington Street, Somerville . . . . .        | 400,000      |
| 15. Grade separation at intersection of Washington Street and Boylston Street, Brookline Village . . . . . | 800,000      |
|  | \$15,575,000 |

## PARKWAY PROJECTS.

*To be Built by Metropolitan District Commission.*

|  |           |           |
|--|-----------|-----------|
| 11. Gerry's Landing bridge and connections   | \$400,000 |           |
| 12. Memorial Drive extension to Arsenal Street . . . . .   | 275,000   |           |
| 19. Grade separations and traffic circles, Revere Beach Parkway, Broadway and Main Street, Everett . . . . . | 600,000   |           |
|  | <hr/>     | 1,275,000 |

## CITY PROJECTS.

*To be Built by the City of Boston.*

|  |           |                          |
|--|-----------|--------------------------|
| 16. Grade separation, Arborway and Washington Street, Forest Hills, Boston .   | \$500,000 |                          |
| 17. Traffic circle, Boylston Street, Park Drive and Riverway, Boston . . . . . | 250,000   |                          |
| 18. Grade separation, Commonwealth Avenue and Cottage Farm bridge, Boston .    | 500,000   |                          |
|  | <hr/>     | \$1,250,000              |
| Grand total . . . . .  |           | <hr/> <hr/> \$18,100,000 |

The Division recommends an annual appropriation which, together with any funds received from the Federal government, shall approximate \$3,000,000 each year for a period of six years, the money to be expended each year by the Department of Public Works and/or the Metropolitan District Commission, and/or the city of Boston.

An additional radial route into Boston, to relieve the already heavily congested Old Colony Parkway and the Forest Hills-Jamaicaway routes, and to facilitate the direct entrance to the heart of the city of traffic from points in the district and State south of Boston, is needed. From Mattapan northerly Blue Hill Avenue heads directly toward the business center of the city, and as far as Grove Hall, near Franklin Park, its width is 120 feet. Northerly of Grove Hall the Blue Hill Avenue-Hampden Street direct route narrows to widths varying from 60 feet to as little as 45 feet as far as Massachusetts Avenue, and it is wholly unsuited for arterial traffic. It would be desirable to construct a connection from the wide portion of Blue Hill Avenue at Grove Hall to the junction of Massachusetts Avenue and Albany Street. This project would cost several million dollars, and is not included because of doubt as to the apportionment of its cost. Albany Street, from Massachusetts Avenue to Broadway, is 80 feet in width, and should serve for some time as part of this radial route from the south.

From Albany Street, at Broadway, a connection is needed around the congested downtown business district to the newly widened Cross Street at or near its intersection with Clinton Street in order to connect with the Sumner Tunnel and points north and east.

Last year this problem was studied by a special commission, of which General Edward L. Logan was chairman. It recommended an elevated highway from the intersection of Albany Street and Broadway over the tracks of the Boston & Albany yards to the southerly end of Atlantic

Avenue, and thence using the elevated structure on Atlantic Avenue and Commercial Street to a point on Commercial Street near the Charlestown bridge. The report was referred to the next General Court, partly because of a doubt as to whether the Boston Elevated Railway desired to abandon this section of its elevated system, and partly because of a conflict of views as to whether the elevated structure should be removed or should be used as a highway. We are thoroughly convinced that the experience of New York and other large cities proves that an elevated highway is the most feasible means of carrying heavy traffic around congested areas, and the logical route for such a highway in Boston is obviously, in part, the route chosen by the special commission. However, the Division of Metropolitan Planning feels that the terminus of the elevated roadway should be at a point in Cross Street near the Sumner Tunnel entrance, and not at the Charlestown bridge.

Our studies of the problem indicate that the most satisfactory method of supplying this much-needed circumferential elevated highway is to remove the entire elevated structure comprising the Atlantic Avenue loop, including the structures on Castle Street, Harrison Avenue, Beach Street, Atlantic Avenue and Commercial Street, and to construct a new elevated highway which shall begin, as suggested by the special commission of last year, at or near the intersection of Broadway and Albany Street, thence proceeding across the yards of the Boston & Albany Railroad and along Atlantic Avenue to a point near Clinton Street, where connection would be made through a widened Clinton Street to Cross Street. However, if Cross Street should be extended southerly from its present terminus, at Clinton Street, across State Street to Fort Hill Square, the elevated highway might leave Atlantic Avenue in the vicinity of Broad Street and follow Cross Street to the tunnel, thus eliminating entirely any elevated structure in that portion of Atlantic Avenue where traffic congestion is most serious. Possibly this roadway could be supported on a single post structure built in the middle of Atlantic Avenue, thus removing the present objectionable posts which interfere with traffic and substituting for them a line of central supports which would properly divide the traffic moving in different directions. Since the special commission's report was made a year ago, the Elevated Railway has abandoned train service on Atlantic Avenue, and we should hope that the company would now be willing to convey the structure to the city of Boston for a nominal consideration. We are now making a more careful study of the entire problem.

When the city of Boston can afford to do so, it would be most desirable to widen Rutherford Avenue from City Square, Charlestown, to Sullivan Square. This is one of the main arteries into Boston. We have not included it in our program because it is very distinctly a city project.

We have laid out a comprehensive six-year program because of our belief that the need not only of the motorist but of the businessman of the Metropolitan District requires a real solution of the highway problem. Such a solution can be reached only by building, step by step, successive links in a well-considered long-range program. The Federal government has recognized the need of long-range, advance planning of public works by the passage of the Employment Stabilization Act of 1931. An important feature of this act is the requirement that Federal departments and other agencies having charge of construction shall "prepare a six-year advance plan with estimates showing projects allotted to each year," with the further provision that the six-year program be kept up

to date by annual revision and extension. We believe that the application of this principle to the highway problems of the Metropolitan District will result in wiser and more economical expenditure of public moneys, and at the same time speed relief from traffic congestion.

There may be objection to the expenditure of \$3,000,000 for the construction of projects within the Metropolitan District. The answer is that fully 50 per cent of the automobiles of the State are registered from the Metropolitan District, and that more than 50 per cent of the gasoline is purchased within that district. When the outstanding highway bond issues are paid for, and when it is no longer necessary to allocate so large a portion of the Highway Fund for general purposes, there should be available for construction purposes at least \$10,000,000, and to appropriate less than one third of that sum for projects in a district that pays in half of the fund does not seem to this Division to be excessive.

The recommendations herein contained are the results of factual studies by the Division, and are presented for adoption by the General Court at such times and under such conditions as, in the exercise of legislative discretion, may appear desirable and necessary.

#### RAPID TRANSIT.

The Huntington Avenue Subway now under construction from Copley Square to a point west of Gainsborough Street is about one-third completed. In our 1936 and 1937 reports we commented upon this improvement. The total length of this subway extension, upon completion, will be approximately 4200 feet.

On May 10, 1938, the Special Commission which was authorized by Chapter 73 of the Resolves of 1937 to investigate the Boston, Revere Beach & Lynn Railroad situation filed its report. This Division was glad to assist the Commission by furnishing plans and engineering and operating data. Although no solution of the railroad's problems has as yet been arrived at, the Division has continued its interest in the hope that some satisfactory result eventually may be obtained.

#### STATUS OF HIGHWAYS AND PARKWAYS IN THE METROPOLITAN DISTRICT PROJECTS COMPLETED OR UNDER CONSTRUCTION.

Reconstruction of the Newburyport Turnpike from Felton Street in Saugus to a point in Lynnfield near the Peabody line was completed in December.

An overpass of full cloverleaf design has been completed at the intersection of Route 128 and Andover Street in Peabody. This new highway is soon to be extended as far as the Beverly line.

The new double-barrelled highway along the southerly shore of the Neponset River from Blue Hill Avenue in Milton westerly through the southern part of the Hyde Park district has been completed almost to the Milton line. This is a well-built and very attractive highway but it will be of little value until it is extended westerly to the Providence Highway and the Circumferential Highway. It will eventually tie in with the proposed freeway to New York when that major artery is constructed.

The overpass carrying the Riverway over Huntington Avenue near the Boston-Brookline line was opened May 27, 1938, after the completion of the reconstruction of the southerly approach.

A new traffic circle has been completed by the Boston Park Department at the intersection of Morton Street and the Franklin Park entrance, just east of Forest Hills.

The grade separation at South Braintree was opened to traffic July 27, 1938.

The reconstruction of Warren Bridge between Boston and Charlestown has been completed.

Atlantic Avenue in Boston is being repaved.

Some improvements have been made in Blue Hill Avenue near Mattapan Square.

The underpass carrying Commonwealth Avenue under Massachusetts Avenue was opened to traffic January 27, 1938.

A traffic circle at the intersection of Centre Street and the West Roxbury Parkway is under construction.

Work has been started on the Old Colony Parkway to by-pass Columbia Circle.

Work has begun at the Cambridge end of the Cottage Farm Bridge where a circle for rotary traffic and an overpass to carry the traffic of Memorial Drive over the intersection are under construction.

#### CHANGES IN PERSONNEL.

On March 24, 1938, Mr. Daniel P. McGillicuddy succeeded Mr. John F. McDonald as the representative of the Boston Transit Department on the Board.

On October 5, 1938, The Governor appointed Mr. James D. Henderson as Chairman of the Board and, the terms of the two other Governor's appointees having expired, he reappointed Mr. Frederic H. Fay for another term and appointed Mr. Frederick J. Mahoney to succeed Mr. Wilson Marsh.

On October 13, 1938, General Hale was appointed Director of the new Division of Waterways of the Department of Public Works. On October 19, 1938, Mr. Paul C. Ryan was designated to succeed him on this Board as the representative of the Department of Public Works.

General Hale has been a member of this Board since its creation in 1923. In fact, he is the only commissioner who has served all these years. He was a very valuable member because of his many years of experience in highway matters, and his advice and assistance were always very helpful.

#### SPECIAL STUDIES.

A great deal of thought and effort has been given to the Atlantic Avenue situation in Boston, including the traffic in the downtown area, removal of the old elevated structure, and the need for an elevated viaduct to facilitate movement of vehicles from the south to the Sumner Tunnel and other northern gateways.

A Special Commission, which was authorized by Chapter 22 of the Resolves of 1937 to investigate relative to the removal of the Atlantic



Avenue elevated structure, filed its report, H1775, on March 16, 1938. This Division cooperated with the Commission by furnishing engineering data and plans for its use.

The Blue Hill Avenue extension into Boston, sometimes called the Blue Hill Radial Highway, has been studied as there is no question as to the need for an adequate route into Boston from the south.

Some study and research has been given to the subject of parking meters. This parking problem is daily growing more serious, not only in Boston, but in every city and town in the District and some solution must eventually be found and put into operation if our street traffic is to be able to move with any efficiency.

Many other studies have been made as the necessity has arisen for traffic relief. Many difficult intersections have been studied and many requests have been received from various cities and towns for assistance in solving their local problems.

Rapid transit studies or reviews of previous investigations have been requested by those interested in solving their transportation problems.

The maps have been brought up to date and the statistical data that has been in such demand is being revised to be correct as of January 1, 1939.

A traffic map has been prepared on which are indicated not only the numbered highway routes but also every intersection designated where traffic lights, overpasses, underpasses, or traffic circles have been erected or constructed.

A land use map has been prepared, showing in color all open spaces with use and ownership designated. These maps have attracted a great deal of interest and are on display at the office of the Division.

#### STATISTICS.

The rising curves of registration of motor vehicles and gasoline consumption were arrested in 1938, when there was a 6 per cent reduction in registration; although there was only a 7/10 of 1 per cent reduction in gasoline consumption. The number of drivers' licenses, however, continued to increase. Here are the figures:

#### STATE MOTOR VEHICLE REGISTRATIONS, CALENDAR YEARS.

|                                   | 1937             | 1938             |
|-----------------------------------|------------------|------------------|
| Pleasure vehicles . . . . .       | 954,762          | 892,936          |
| Commercial vehicles . . . . .     | 119,167          | 115,841          |
| Buses . . . . .                   | 4,917            | 4,738            |
| Motorcycles . . . . .             | 1,169            | 765              |
|                                   | <u>1,080,015</u> | <u>1,014,280</u> |
| Trailers . . . . .                | 11,311           | 13,122           |
|                                   | <u>1,091,326</u> | <u>1,027,402</u> |
| Total Drivers' Licenses . . . . . | 1,178,934        | 1,195,315        |

STATE GASOLINE CONSUMPTION  
CALENDAR YEAR 1938

|                     | TAXABLE GALLONS | PERCENT |
|---------------------|-----------------|---------|
| January . . . . .   | 43,195,198      | 6.28    |
| February . . . . .  | 40,573,896      | 5.90    |
| March . . . . .     | 52,467,394      | 7.63    |
| April . . . . .     | 51,966,060      | 7.56    |
| May . . . . .       | 59,848,642      | 8.71    |
| June . . . . .      | 62,853,451      | 9.14    |
| July . . . . .      | 65,397,811      | 9.50    |
| August . . . . .    | 70,964,659      | 10.32   |
| September . . . . . | 62,616,502      | 9.11    |
| October . . . . .   | 62,723,790      | 9.12    |
| November . . . . .  | 57,988,982      | 8.43    |
| December . . . . .  | 56,895,180      | 8.27    |
|                     | 687,491,565     |         |

Total receipts from Gasoline Tax . . . . . \$20,624,746.95

FATALITIES.

There were 622 motor deaths in the State in 1938, or 159 less than in 1937. This is a decrease of 20.3% and is at the rate of 7½ deaths per 100,000,000 miles of driving.

FINANCIAL STATEMENT

APPROPRIATION AND EXPENDITURES  
FISCAL YEAR ENDING NOVEMBER 30, 1938

|                            |             |
|----------------------------|-------------|
| Appropriation . . . . .    | \$19,900.00 |
| Expenditures . . . . .     | 19,896.52   |
| Balance reverted . . . . . | \$ 3.48     |

Financial Statement Verified.  
Approved.

GEO. E. MURPHY,  
*Comptroller.*

Respectfully submitted,  
DIVISION OF METROPOLITAN PLANNING  
By

JAMES D. HENDERSON, *Chairman*  
FREDERIC H. FAY, *Vice Chairman*  
FREDERICK J. MAHONY,  
RICHARD K. HALE  
RICHARD D. GRANT  
WILLIAM F. ROGERS  
DANIEL P. MCGILLICUDDY,

HENRY I. HARRIMAN, *Director.*



