

**ANNUAL  
REPORT  
OF THE  
DEPARTMENT OF  
PUBLIC WORKS  
THE FISCAL YEAR 1962--1963  
PROVIDENCE . RHODE ISLAND**

December 31, 1963

DEPARTMENT OF PUBLIC WORKSOFFICE OF THE DIRECTOR

The Honorable Walter H. Reynolds,  
Mayor of the City of Providence,  
City Hall, Providence, R. I.

Dear Sir:

The following Annual Report, made in accordance with the provisions of Section 46 of Chapter 832 of the Public Laws of the State of Rhode Island, January Session, 1940, covers the work performed during the year ending September 30, 1963 by the various Divisions of the Department of Public Works. Appended to this report and to be considered as a part thereof, are the reports of the following Divisions of this Department:

Business Management  
Construction and Maintenance  
Public Service Engineer

Engineering Office  
Sanitation  
Harbor

Contract work on the following named projects was completed during the year:

"The removal of one hundred and fifty-two elm trees on City streets affected by Dutch Elm Disease" by E. W. Cerio Tree Service.

"The removal of one hundred and twenty-eight elm trees on private property affected by Dutch Elm Disease" by E. W. Cerio Tree Service.

"Building of Sewers in Sundry Streets" by the V. F. Capaldi Const. Corp.

"Building of Sewers in Sundry Streets" by the Fanning & Doorley Const. Co. Inc.

"Furnishing and installing 2300 volt switchboard at the Sewage Pumping Station" by the Coken Company.

"Bulkhead Extension at the Municipal Dock" by the M. A. Gammino Const. Co.

"Furnishing and installing a system of Overfire Air Jets in Garbage Incinerator Unit No. 2" by the Johnson and Maylor Company, Inc.

"Public Works Highway Storage Bins and Conveying Equipment" by Conveyors, Inc.

"Construction of Public Works Office Building and Garage" by Joseph P. Flynn.

Highway construction and reconstruction consisted of the construction with Asphaltic Concrete on a penetrated stone base of 26,143 square yards of pavement by contract, the resurfacing with Sheet Asphalt and Asphaltic Concrete of 103,869 square yards of pavement by contract; and repairs to and surfacing with Asphaltic Concrete of 175,823 square yards of pavement by the Public Works Highway Forces.

New sewer construction, by contract, consisted of the building of 0.5636 miles of sanitary sewers together with drains to curb and drainage structures.

This Department has rendered assistance to various City Departments and outside agencies, including the Park, Recreation, Public Welfare, Traffic Engineering, Redevelopment, Public Safety, Water and Health Departments.

Our relations have been very cordial with the local office of the Federal Bureau Public Roads, headed by Mr. Joseph Westell, the State Department of Public Works, headed by Mr. Angelo A. Marcello; the U.S. Army Corps of Engineers; the Providence Redevelopment Agency; and the consulting Engineers on the North-South Freeway, Louisquisset Pike, Red Bridge, Hartford Avenue Redevelopment, and Fox Point Hurricane Barrier Projects and we appreciate the many courtesies and cooperation extended us.

I am very grateful for and appreciative of the splendid cooperation extended me by the City Council Committee on Public Works, comprised of Chairman Ralph Matera, Edward J. Loughran, Salvatore A. Beatini, Thomas L. Payne and Charles A. Kilvert.

I also wish to express my thanks and appreciation to other City Departments for the cooperation extended to this Department.

The successful operation of the Department is due to the untiring efforts of the Deputy Director, Division and Section Heads and their respective staffs, and my sincere thanks go to them for jobs well done.

Contract work on the following named projects is in progress:

Construction of Highways in sundry streets by Narragansett Improvement Company (1962 Contract).

Construction of Highways in sundry streets by Narragansett Improvement Company (1963 Contract).

Surfacing or reconstruction of highways by Narragansett Improvement Company (1962 Contract)

Surfacing or reconstruction of highways by M. A. Gammino Construction Company (1963 Contract).

Building sewers in sundry streets by Fanning & Doorley Construction Company.

Building sewers in sundry streets by Edward F. Capaldi, Inc.

Construction of additional facilities at the Sewage Disposal Plant by the Hart Engineering Company.

Construction of Sludge Incinerator by Ayers, Hagan and Booth, Inc.

Construction of Sludge Incinerator by Nichols Engineering and Research Corp.

### RECOMMENDATIONS.

The underside of the bridge in the Memorial, Market and Crawford Square areas should be repaired, scraped and painted.

The iron fence on the bridge at Market Square, between Westminster Street and Exchange Place should be replaced.

The furnace and combustion chamber of Garbage Incinerator Unit No. 2 should be relined.

The electric crane in Unit No. 1, which has been in service twenty-five years, should be overhauled. This work should be done under the supervision of an engineer from the Harnischfeger Corporation.

The flashing around the brick smoke stack in Unit No. 2 should be replaced.

The defective pre-heater tubes in Garbage Incinerator Boilers No. 1, 2, 3 and 4 should be replaced. Also, a number of tubes in both condensers should be replaced.

Consideration should be given to the installation of a warning system for the detection of radio active isotopes at a location in the sewer system which would allow ample time to protect personnel at the Sewage Disposal Plant from radio activity.

A number of ventilators should be installed in the roof of Plant No. 1, the smoke at times is very bad and the working conditions of the hoppermen and cranemen are not good. This condition should be relieved for it is a health hazard, and the ventilators should exhaust the smoke.

The doors in front of both garbage pits should be renewed.

Arrangements for annual inspection of turbines is necessary through manufacture representative. This has not been done for four years.

A new water jacket should be installed in Plant No. 1, around charging grate.

Shelter of some kind against radio active fallout should be provided at the Sewage Disposal Works with supplies of water, food and bedding for a maximum of 32 employees.

Replace roadway on Charles Street Bridge and paint.

Replace north section of roadway, caplogs and drive new piles of Smith Street Bridge.

Paint all Bridges.

Inspect and perform necessary work on bumpers at Crawford Street Bridge.

Crib walk at Point Street needs extensive repairs.

Relocate Bridge Maintenance Section from Harbor Masters Building at Point Street to Highway Building.

Iron fencing and grating needs repairing and painting at Point Street Bridge.

Concrete sections of Gen. Edwards Memorial Viaduct require repairing and under-section of steel work should be painted. Expansion joints need repairing.

Sidewalks on the following bridges should be completely rebuilt-- Glenbridge Avenue and West River Street.

Leland Street Footbridge should be rebuilt. The floating dock at the Harbor Master's Wharf at Point and South Water Streets is completely gone and a new one should be built.

Recommend that one of the six road graders be replaced. Two of these require extensive repairs and the stepped-up replacement plan should continue so as to cut down the cost of operation. One grader was replaced during the past year.

Merino Park Footbridge should be completely rebuilt. The piles are in very bad condition.

A maintenance gang of one foreman and six men should be set up for the construction and maintenance division to maintain the buildings of the Public Works Department; such as, The Storage and Transit Sheds at Fields Point, Fields Point Dock Office, Harbor Master's Building, House and Building at the Red Bridge, Brick Buildings at Sewer Syphon on India Street and Globe Street, Incinerator Buildings, Incinerator Garage, Sewer Maintenance Building, Highway Buildings, Forestry Buildings, and Railroad tracks at Fields Point, the Washington Park Pumping Station, the Reservoir Avenue Pumping Station and the Ernest Street Pumping Station.

There are many items that should be maintained or repaired at the present time. Some of this work has or is presently being accomplished by the Bridge Maintenance Gang and the Carpenters and Masons for the Sewer Shops and Stores and the Construction and Maintenance Shops and Stores; but it could be better accomplished by assigning a definite responsibility for this work.

Television Pictures should be taken of the following sewers to definitely determine whether or not the constant sinking of the roads on these streets are caused by fractures in the Sewers.

- (1) Elwood Sanitary Sewer across Allens Avenue. This can only be done by closing down the pumping station and drawing the liquid from the detritors at the treatment plant.
- (2) Storm sewer across Smith Street at Richter Street.
- (3) Sanitary Sewer across Smith Street at Richter Street.

IN CITY COUNCIL

MAR 19 1964

READ:  
WHEREUPON IT IS ORDERED THAT  
THE SAME BE RECEIVED.

*Vincent Vespa*  
CLERK

Respectfully Submitted,  
*Robert B. Strong*  
Robert B. Strong  
Director of Public Works

BUSINESS MANAGEMENT OFFICE

Mr Robert B. Strong  
Director of Public Works  
City Hall  
Providence, Rhode Island

Dear Sir:

I respectfully submit the Annual Report of the Business Management Office of the Department of Public Works for the Fiscal Year ended September 30, 1963.

STATEMENT OF REVENUE - ESTIMATED AND ACTUAL

|  | <u>Budget<br/>Estimate</u> | <u>Net Actual<br/>Revenue</u> | <u>Budget<br/>Excess</u> | <u>Comparison<br/>Deficiency</u> |
|--|----------------------------|-------------------------------|--------------------------|----------------------------------|
| Business and Non-Business:               |                            |                               |                          |                                  |
| Licenses:                                |                            |                               |                          |                                  |
| Sidewalk Contractors                     | 600.00                     | 530.00                        |                          | 70.00                            |
| Highway Privileges                       | 1,200.00                   | 1,030.00                      |                          | 170.00                           |
| Total Business and Non-Business Licenses | \$ 1,800.00                | \$ 1,560.00                   |                          | \$ 240.00                        |
| Special Assessments:                     |                            |                               |                          |                                  |
| Sewers                                   | 25,000.00                  | 16,367.32                     |                          | 8,632.68                         |
| Total Special Assessments                | \$ 25,000.00               | \$ 16,367.32                  |                          | \$ 8,632.68                      |
| Departmental Revenue:                    |                            |                               |                          |                                  |
| Administration                           |                            | 5.25                          | 5.25                     |                                  |
| Engineering Office                       |                            | 18.00                         | 18.00                    |                                  |
| Sewage Pumping Station                   |                            | 10.64                         | 10.64                    |                                  |
| Sewage Disposal                          | 133,000.00                 | 145,925.07                    | 12,925.07                |                                  |
| Garbage Collection and Disposal          | 24,000.00                  | 3,944.95                      |                          | 20,055.05                        |
| Refuse Collection and Disposal           |                            | 215.00                        | 215.00                   |                                  |
| Highways                                 | 23,000.00                  | 29,428.34                     | 6,428.34                 |                                  |
| Bridge Maintenance                       |                            | 65.22                         | 65.22                    |                                  |
| Forestry                                 |                            | 665.74                        | 665.74                   |                                  |
| Sewer Construction and Maintenance       | 1,500.00                   | 153.20                        |                          | 1,346.80                         |
| Street Lighting                          |                            | 101.58                        | 101.58                   |                                  |
| Municipal Docks                          | 277,000.00                 | 293,367.94                    | 16,367.94                |                                  |
| Draw Bridges                             |                            | 32.87                         | 32.87                    |                                  |
| Harbor Master                            |                            | 8.44                          | 8.44                     |                                  |
| Family and Business Relocation Service   |                            | 65.16                         | 65.16                    |                                  |
| Total Departmental Revenue               | \$458,500.00               | \$474,007.40                  | \$36,909.25              | \$21,401.85                      |
| Total Statement                          | \$485,300.00               | \$491,934.72                  | \$36,909.25              | \$30,274.53                      |

STATEMENT OF EXPENDITURES

FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 1963

|                                       | PERSONAL<br>SERVICES | SERVICES<br>OTHER THAN<br>PERSONAL | MATERIALS<br>AND<br>SUPPLIES | SPECIAL<br>ITEMS | EQUIPMENT<br>OUTLAY | OTHER STRUC-<br>TURES AND<br>IMPROVEMENTS | TOTAL          |
|---------------------------------------|----------------------|------------------------------------|------------------------------|------------------|---------------------|---|----------------|
| General Administration                | 20,637.09            | 4,739.02                           | 71.37                        |                  | 622.18              |   | 26,069.66      |
| Business Management                   | 31,737.61            | 445.65                             | 575.40                       |                  |                     |   | 32,758.66      |
| Engineering Office                    | 160,219.38           | 6,507.33                           | 979.50                       |                  | 190.51              |   | 167,896.72     |
| Sanitation Division                   |                      |                                    |                              |                  |                     |   |                |
| Sanitation Administration             | 13,374.16            | 682.45                             | 21.03                        |                  |                     |   | 14,077.64      |
| Street Cleaning                       | 357,685.43           | 79,650.78                          | 2,464.48                     |                  | 1,690.00            |   | 441,490.69     |
| Sewage Pumping Station                | 71,217.60            | 1,784.57                           | 3,772.80                     |                  |                     |   | 76,774.97      |
| Sewage Disposal                       | 272,718.76           | 201,663.24                         | 155,972.57                   |                  | 994.00              | 260,000.00                                | 891,348.57     |
| Garbage Collection & Disposal         | 632,594.62           | 117,098.54                         | 18,763.23                    | 5,087.98         |                     |   | 773,544.37     |
| Refuse Collection & Disposal          | 94,248.88            | 31,682.20                          | 53.46                        |                  |                     |   | 125,984.54     |
| Construction and Maintenance Division |                      |                                    |                              |                  |                     |   |                |
| Construction & Maintenance Admin.     | 7,884.00             | 818.20                             | 3.58                         |                  |                     |   | 8,705.78       |
| Highway                               | 716,967.49           | 160,705.07                         | 130,093.78                   |                  | 386.25              |   | 1,008,152.59   |
| Bridge Maintenance                    | 50,316.33            | 6,573.75                           | 14,853.48                    |                  | 175.00              |   | 71,918.56      |
| Sidewalk and Curbing                  | 19,541.17            | 3,952.61                           | 1,048.82                     |                  |                     |   | 24,542.60      |
| Forestry                              | 75,424.37            | 19,988.28                          | 3,413.69                     |                  | 251.37              |   | 99,077.71      |
| Snow Removal                          | 98,042.14            | 58,829.08                          | 60,967.28                    |                  |                     |   | 217,838.50     |
| Sewer Construction and Maintenance    |                      |                                    |                              |                  |                     | 125,000.00                                | 528,897.30     |
| Public Buildings                      | 319,378.69           | 65,054.10                          | 19,271.63                    |                  | 192.88              |   | 96,879.39      |
| Draw Bridges Operation                | 89,554.07            | 4,817.08                           | 658.51                       | 47.24            | 1,802.49            |   | 51,795.44      |
| Municipal Dock                        | 50,419.92            | 918.98                             | 456.54                       |                  |                     |   | 62,509.34      |
| Harbor Master                         | 32,950.99            | 27,348.90                          | 2,209.45                     |                  |                     |   | 3,989.98       |
| Street Lighting                       | 3,828.16             | 125.67                             | 36.15                        |                  |                     |   | 498,432.08     |
| Division of Relocation                | 5,428.80             | 493,003.28                         |                              |                  |                     |   | 52,448.74      |
|                                       | 45,270.89            | 6,649.48                           | 493.36                       |                  | 35.01               |   |                |
| Total-Public Works Activities         | \$3,169,440.55       | \$1,293,038.26                     | \$416,180.11                 | \$5,135.22       | \$6,339.69          | \$385,000.00                              | \$5,275,133.83 |

THE FOLLOWING SERVICES WERE ALSO RENDERED BY THIS DEPARTMENT

APPLICATIONS RECEIVED

|   |           |
|---|-----------|
| For Altering Curb Openings for Driveways    | 51        |
| Construction of Curb Openings for Driveways | 244       |
| Curbing Resets                              | <u>79</u> |
| Total Applications                          | 374       |

LICENSES ISSUED

|  |          |
|--|----------|
| Newspaper Stands                                     | 8        |
| Push Carts   | 6        |
| Sidewalk Stands                                      | 34       |
| Drain Layers Licenses                                | 8        |
| Drain Layers Licenses (Limited to Sprinkler Systems) | <u>2</u> |
| Total Licenses                                       | 58       |

PERMITS ISSUED

|  |            |
|--|------------|
| Public Utilities                       | 146        |
| Blasting                               | 6          |
| For Moving Cumbersome Equipment, etc.  | 1          |
| Street Openings (Water Supply Board)   | 218        |
| Original Permits for Sewer Connections | 202        |
| Extension of House Drains              | 275        |
| Sidewalk Openings for Water Service    | 32         |
| Street Openings (Other)                | <u>220</u> |
| Total Permits                          | 1100       |

Respectfully submitted,

Benjamin Cianciarulo

Business Management Office



## ENGINEERING OFFICE

Mr. Robert B. Strong  
Director of Public Works  
City Hall, Providence, R. I.

Dear Sir:

Following is the Annual Report covering various activities of the Engineering Office for the Fiscal Year ending September 30, 1963.

### EXPENDITURES

|        |                              |                     |
|--------|------------------------------|---------------------|
| Item 0 | Personal Services            | \$160,219.38        |
| Item 1 | Services Other Than Personal | 6,507.33            |
| Item 2 | Materials and Supplies       | 979.50              |
| Item 5 | Equipment                    | 190.51              |
|        |                              | <u>\$167,896.72</u> |

### STREET LINE AND CITY PROPERTY SECTION

#### Notices of Intention to Build

There were 234 notices of Intention to Build filed in this office during the Fiscal Year. Fifty of these were not required for various reasons. In response to the remaining 184 notices, the Street Lines were marked on the ground as requested for specified locations.

Field surveys on the 8 streets accepted as Public Highways by the City Council were made and the lay-out maps were drawn for office use and for the official records of the City Clerk.

Information pertaining to street lines, including records of street lay-outs, widenings, abandonments, alignment changes and name changes was furnished to Engineering Firms and Title Companies throughout the year.

Street Lines were marked out on the ground for the construction of new sewers when requested by the Sewer Section of the Engineering Office.

Street Line information was furnished Engineers for the State of Rhode Island, Department of Public Roads in conjunction with their work on the North-South Freeway.

The following streets were received by the City Council under various forms governing the acceptance of streets during the year:

| <u>NAME</u>   | <u>BETWEEN POINTS</u>  | <u>LENGTH IN FEET</u> |
|---------------|--|-----------------------|
| Atkins Street | Regent Avenue to its northerly termination                         | 292.14                |
| Bel Air Drive | Woonasquatucket Avenue to a point 160' ft. west of Herschel Street | 537.55                |

|                    |  |         |
|--------------------|--|---------|
| Christopher Street | Charles Street to Windmill Street                                  | 1022.15 |
| Collyer Street     | Cemetery Street to Matilda Street                                  | 789.00  |
| Klondike Street    | Herschel Street to a point 197.80' ft. westerly                    | 197.80  |
| Parente Street     | Smart Street to its northerly termination                          | 164.00  |
| Poe Street         | Seymour Street to Public Street                                    | 1841.52 |
| Ridgeway Avenue    | From a point 234.2' ft. East of Manton Avenue to Hill Crest Avenue | 563.63  |
|                    | Total feet (or 1.0242 miles)                                       | 5407.79 |

The following streets were abandoned during the year:

#### RECEIVED STREETS ABANDONED

| <u>NAME</u>                                  | <u>BETWEEN POINTS</u>                                | <u>LENGTH IN FEET</u> |
|--|--|-----------------------|
| Captain J. Carleton Davis Memorial Boulevard | North of Olney Street                                | -----                 |
| Codding Street                               | Cranston Street to Lester Street                     | 160.00                |
| Field Street                                 | Davis Street to State Street                         | 200.60                |
| Knight Street                                | Cranston Street to a point 528.76' ft. northwesterly | 528.76                |
| Pond Street                                  | Freeway line to a point 86.07' ft. southeasterly     | 86.07                 |
|  |  | <u>975.43</u>         |

#### UNRECEIVED STREETS ABANDONED

|                |  |               |
|----------------|--|---------------|
| Hayden Street  | Washington Street to Fountain Street         | 220.50        |
| Legg Street    | Swift Street to DePinedo Street              | 160.00        |
| Martha Street  | Hayden Street to Beverly Street              | 79.95         |
| Merrill Street | Aborn Street to its southerly termination    | 232.28        |
| Ragosta Street | Di Pippo Street to its northerly termination | 120.00        |
|                | Total length in feet                         | <u>812.73</u> |

The approximate length of streets platted but not received is 43.531 miles.

The net addition during the year added to the previous total makes the length of Received Streets at the end of the Fiscal Year 1963 (Measured along property lines) 368.946 miles.

In addition to the total of Received Streets there are 3.21 miles of roadway in the Governor Dennis J. Roberts Expressway.

The following streets, all recently platted, have been added to the list of Unreceived Streets:

|                  |   |
|------------------|---|
| Jacqueline Drive | Legion Memorial Drive to Neutaconkanut Road |
| Roda Drive       | Lecia Drive to Neutaconkanut Road           |
| Aurelia Drive    | Lecia Drive to Neutaconkanut Road           |
| Lecia Drive      | Jacqueline Drive to Sunset Avenue           |

City Property Plans and Surveys were made covering the following projects:

|                                    |   |
|------------------------------------|---|
| Canal Street                       | Locations for Law Department                                    |
| Wickenden Street                   | Cross section and Utilities                                     |
| Ives Street                        | " " " "   |
| Tockwotten Park                    | " " " "   |
| Fields Point                       | Proposed renewal of Sun Oil Lease                               |
| Salmon Street                      | Proposed Abandonment  |
| Merrill Street=                    | Proposed Abandonment  |
| Legg Street                        | Proposed Abandonment  |
| Service Road #6                    | Proposed Sale   |
| Fields Point                       | Proposed lease (Addition to Fields Point Manufacturing Company) |
| Lakeview Drive to Service Road #10 | Proposed easement for sewer                                     |
| Miner Street                       | Proposed Abandonment  |
| Codding Street                     | Proposed Abandonment  |
| Knight Street                      | Proposed Abandonment  |
| Paul Street                        | Proposed Abandonment  |
| Aldrich Street                     | Zoning Change   |
| Kinsley Avenue                     | 12" Standard steel guard rail                                   |
| Sales & Cahill Streets             | Proposed Sale   |
| Pleasant Valley Parkway            | Rosebank Avenue to Justice Street                               |
| Shipyards Street                   | Location of fence at Brewster Co. Lease                         |
| Nathan Bishop Jr. High School      | Cross Section   |
| Fountain Street                    | Old Bus Station Site  |
| Clarkson Street                    | Proposed Easement   |
| Compton Street                     | (portion of lot #9) Proposed Sale                               |
| Wickenden Street                   | Proposed Sale   |
| Chester Avenue                     | Proposed Sale   |
| Langdon Street                     | Radius Plan   |
| Service Road #3                    | NE cor. Dike Street (Proposed Sale)                             |
| Cranston and Broad Streets         | (Proposed conveyance)   |
| Fields Point                       | Anna H. Mann Estate to Redevelopment Agency                     |
| Fields Point                       | Proposed Road   |
| City Line                          | Proposed Bituminous Macadam Pavement                            |
|                                    | Providence and Pawtucket (Location of Drive-in Theatre)         |
| Wendell Street                     | Condemnation of Tax Lot   |
| Rosedale Street                    | Condemnation of Tax Lot   |
| Broadway                           | Proposed Sale (Olneyville Square Comfort Station Site)          |
| Ellery Street                      | Cross Section and Utilities                                     |
| Old Road                           | Cemetery Lots   |
| Roger Williams Park                | Elevation and location of Japanese Gardens                      |

|                          |  |
|--------------------------|--|
| Lippitt Hill Project     | Zoning Change  |
| Chaffee Street           | Proposed Lease of Fire Station Site  |
| Fields Point             | Proposed Sewers, Roads and Railroad Sidings  |
| Washington Street        | Proposed Parking Garage, Elevations, Sewers,<br>Gas, Water and Telephone Line Locations  |
| Aborn Street             | Same as above  |
| Fountain Street          | Same as above  |
| Beverly Street           | Same as above  |
| Captain J. Carleton      |  |
| Davis Memorial Boulevard | Proposed Abandonment   |
| Fields Point             | Proposed addition of Plumb Bituminous<br>Distributors Lease                              |
| Blackstone Boulevard     | Zoning Change  |
| Central Classical        |  |
| Project                  | Zoning Change  |
| Hartford Avenue          | Zoning Change  |
| Fields Point             | Proposed Lease (G. E. Wilson Co.)  |
| Robin Brook Sewer        | Proposed Lease   |
| North Burial Ground      | Proposed Sale of Land (North Ave.)   |
| Proposed Highway         | 199' ft. N. of Murray Street to Nancy Street (Land<br>to be deeded for Highway Purposes) |
| Webster Avenue           | Zoning Change  |
| Chalkstone Avenue        | Zoning Change  |
| Irving Avenue            | Zoning Change  |
| Wright Street            | Zoning Change  |
| Branch Avenue            | Radius Plan  |
| Grosvenor Avenue         | Zoning Change  |

New plans were drawn during the year to assist the City Council in consideration of proposed changes in the Zoning Maps as petitioned by various persons. The following amendments were approved:

Blackstone Boulevard  
 Bridgham Street  
 Broad Street  
 Captain J. Carleton Davis Memorial Boulevard  
 Chalkstone Avenue  
 Cranston Street  
 Dorchester Avenue  
 Doyle Avenue  
 Grosvenor Avenue  
 Hartford Avenue  
 Hope Street  
 Irving Avenue  
 Olney Street  
 Webster Avenue  
 Westminster Street  
 Wright Street

Descriptions of the above approved changes were drafted and furnished the Zoning Office for incorporation in the Ordinances.

The following plans were drawn for amendments to the Zoning Ordinance that failed of passage:

Aldrich Street  
 Branch Avenue  
 Chalkstone Avenue

Chapman Street  
 Clarence Street  
 Curtis Street  
 Dearborn Street  
 DePinedo Street  
 Friendship Street  
 Hartford Avenue  
 Hyacinth Street  
 Killingly Street  
 Mt. Pleasant Avenue  
 Owen Street  
 Pavilion Avenue  
 Prairie Avenue  
 Ravenswood Avenue  
 Roanoke Street  
 Shiloh Street  
 Stanfield Street  
 Swift Street  
 Veazie Street  
 Windmill Street  
 Wright Street

The following plans were drawn for the Official Files of the City Clerk:

|                   |   |
|-------------------|---|
| Vale Street       | Proposed Abandonment (Portion)  |
| West River Street | Proposed Abandonment (Portion)  |
| Oakwood Avenue    | Northerly line of Freedom Road 200' ft. southerly                     |
| Halton Street     | Potters Avenue to Huntington Avenue                                   |
| Lawn Street       | Bolton Avenue to Glover Street  |
| Wardlaw Avenue    | River Avenue westerly to portion already received                     |
| Salvan Street     | Land to be deeded for highway purposes                                |
| Danforth Street   | Portion to be Abandoned   |
| Elk Street        | Proposed Abandonment  |
| Miner Street      | Proposed Abandonment  |
| Bingham Street    | Land required for Highway Purposes                                    |
| Cornwall Street   | Southerly line of Berkshire Street to Longmont Street                 |
| Waterman Street   | Land deeded for Highway purpose                                       |
| Dora Street       | Atwood Street to Cumerford Street                                     |
| Ophelia Street    | Hartford Avenue to a point 120' ft. south of Thornton Street          |
| Joseph Street     | Lubec Street Northerly and westerly to a point 300' ft. west of angle |
| Eugene Street     | Springfield Street to Ophelia Street                                  |
| Quarry Street     | Charles Street to Easterly termination                                |
| Gridley Street    | Ledge Street to Bismark Street  |
| Canonchet Street  | Winthrop Avenue to Standish Avenue                                    |
| Rushmore Avenue   | Ada Avenue to northerly line Almira Street                            |
| Dresser Street    | Melissa Street to easterly line of Flower Street                      |
| Diaz Street       | Proposed Abandonment  |
| Tingley Street    | Proposed Abandonment  |
| St. Thomas Street | Fruit Hill Avenue to Taranto Street                                   |

|                   |   |
|-------------------|---|
| Windmill Street   | Proposed Abandonment  |
| Windmill Street   | Portion declared Public Highway   |
| Wardlaw Avenue    | Land required for Highway Purpose   |
| Stonellaw Avenue  | Land required for Highway Purpose   |
| Chapman Street    | Proposed Abandonment (Portion)  |
| Toronto Avenue    | Proposed Abandonment (Portion)  |
| Georgia Avenue    | Proposed Abandonment (Portion)  |
| Carolina Avenue   | Proposed Abandonment (Portion)  |
| Appian Street     | North line Corina Street west of Appian Street<br>to North line of Corina Street East of<br>Appian Street |
| Newcomb Street    | Coggeshall Street to Forsyth Street   |
| West River Street | Proposed Abandonment (Portion)  |
| Imperial Place    | Land required for Highway Purposes  |
| Smart Street      | Proposed Abandonment  |
| Belmont Avenue    | Portion to be abandoned   |
| Sixth Street      | Proposed Abandonment  |
| Niagara Street    | Land required for Highway Purposes  |
| Rodman Street     | Land required for Highway Purposes  |
| Niagara Street    | Land to be deeded for Highway Purposes  |
| Fones Alley       | Proposed Abandonment  |
| Smart Street      | Job Street 200' ft. Westerly  |

The following plans of Street Lines were drawn for General Office Use.

|                       |  |
|-----------------------|--|
| Cornwall Street       | Southerly line Berkshire Street to Longmont Street   |
| Syracuse Street       | Laurel Hill Avenue to its termination  |
| Dorothy Avenue        | Langdon Street to the westerly line of Robin<br>Brook Sewer Land   |
| Hilary Drive          | Smith Street southwesterly and southeasterly to<br>Plat division Line of John Rao Jr. Plat and<br>Academy Park and the southwesterly 32' ft. of<br>Hilary Drive from Plat Line to Cathedral Avenue |
| HillCrest Avenue      | Freedom Road to Ada Avenue   |
| Wriston Drive         | Cole Avenue to its westerly termination  |
| Barbour Drive         | Wriston Drive to Faunce Drive  |
| Maxcy Drive           | Barbour Drive to Faunce Drive  |
| Faunce Drive          | Cole Avenue westerly and southerly to its<br>termination   |
| Woonasquatucket River | Location of fences from Park Street to Eagle Street  |
| Leslie Drive          | Mt. Pleasant Avenue to Mt. Pleasant Avenue   |
| Compton Street        | Mt. Pleasant Avenue to Smith Street  |
| Dora Street           | Atwood Street to Cumerford Street  |
| Canonchet Street      | Winthrop Avenue to Standish Avenue   |
| Cornwall Street       | Southerly line of Longmont Street to the Northerly<br>Line of Cheshire Street  |
| Quarry Street         | Charles Street to Easterly termination   |
| Ada Avenue            | Brushill Road to HillCrest Avenue  |
| Rushmore Avenue       | Ada Avenue to the northerly line of Almira Street  |
| Berkshire Street      | Salina Street to Cornwall Street   |
| Ophelia Street        | Hartford Avenue to a point 120' ft. South of<br>Thornton Street  |
| Tappan Street         | Hawkins Street to a point 254.05' southerly  |
| Eugene Street         | Springfield Street to Ophelia Street   |

|                |   |
|----------------|---|
| Joseph Street  | Lubec Street northerly and westerly to a point 300' ft. west of angle |
| Salvan Street  | Fruit Hill Avenue to City Line  |
| Gridley Street | Ledge Street to Bismark Street  |
| Joseph Street  | Northerly and westerly to a point 300' ft. west of angle              |
| Smart Street   | 200' west of Job Street to Windmill Street                            |

#### NORTH BURIAL GROUND

During the year 53 deeds to lots conveyed by the City and 51 certificates of Perpetual Care have been drawn. Descriptions of the lots were furnished the Superintendent. Field Surveys were made and lots staked out on the ground when requested. Elevations were taken and surveys were made for the development of two sections at the request of the Superintendent.

#### GENERAL

During the year the following work of a special nature was completed:

Location surveys were made to assist the Police Department in prosecuting license violations.

Title research work was made on various parcels of land in the City's interest.

Street Lines were reestablished, buildings located and plans made for various streets.

Surveys were made for leases of City-owned land at Fields Point.

Various street locations were given to assist the Narragansett Electric Co. and the Telephone Co. in setting new poles.

Surveys were made and plans drawn for proposed street widenings.

A survey and cross section was made and plans drawn for proposed swimming pool at Wickenden and Ives Streets.

A survey was made for proposed new leases at Fields Point.

A survey was made for location of shore line at Fields Point.

Several plans were drawn to assist the City Clerk's Office in accordance with City Council Ordinances.

Maps were made and charts prepared for Snow Removal Routes.

Measurements were taken and plans made for Public Buildings Department for Sidewalk Construction Estimates.

Measurements were taken and plans drawn to assist the Police Department in accident and murder cases.

The Annual Chart showing the incidence of certain contagious diseases was prepared for the use of the Health Department.

The Annual Tabulation of all real estate owned by the City, showing the several classifications according to usage, including current valuations furnished by the City Assessors was prepared and given to the City Controller for inclusion in the Controller's Annual Report.

Resolutions were drafted for the City Council, covering all actions relating to the acceptance and abandonment of streets, defining grades and grading and curbing streets.

Plats presented for record have been compared for the Recorder of Deeds Office and Plats for recording have been furnished the Recorder's Office under the provisions of Chapter 987 and 2118 of the Public Laws.

Descriptions of land taken by condemnation for Highways and Park purposes and for incorporation in deeds of land purchased or sold, leases and rights-of-way to and from the City, the methods by which various properties were acquired, the purpose of original purchase and present status were furnished to the Law Department and other assistance rendered as requested.

Engineering assistance was given to the Public Buildings Division, Police Department, City Plan Commission, Traffic Division, Board of Canvassers, City Clerk's Office, Tax Assessor's Office, Redevelopment Agency, Water Department and Building Inspection Division, from time to time.

Elevations were taken and grades designed and marked for new pavement on Pleasant Valley Parkway from Justice Street to Rosebank Avenue.

Surveys were made for leases of City-owned land at Fields Point.

A survey was made for Portland Cement Company lease at Fields Point.

A survey and cross section was made and plans were drawn for proposed swimming pool at Tockwotten Park.

A survey and cross section was made and plans were drawn for proposed basketball court and tennis courts at Dexter Training Grounds.

A survey was made and plans were drawn for Warehouse Road at Fields Point.

A survey and cross section were made and plans were drawn for proposed basketball court at Regent Avenue Playground.



A survey and cross section was made and plans were drawn for proposed basketball court at Smith Street Playground.

A survey and cross section was made and plans were drawn for proposed basketball court at Clarence Street Playground.

Elevations were taken at Central High School for Public Buildings Department.

A survey was made and plans were drawn for proposed swimming pool at Neutaconkanut Park.

A survey and cross section was made and plans were drawn for proposed basketball court at Nathan Bishop School.

A survey was made on Harrison Street for the City-owned Dexter Donation Property.

Plans were drawn for new guard rails along Woonasquatucket River from Gaspee Street to Eagle Street; grades were marked and construction on above project was supervised by this Department.

Location and topographic surveys were made and plans drawn showing roads, bridges, paths, trees, etc. of the Japanese Gardens at Roger Williams Park.

A survey was made on Blackstone Boulevard for the City-owned Smith Estate Property.

During the year extensive work was done for the Board of Canvassers & Registration on the proposed Redistricting of the City of Providence into new State Representative Districts based on the 1960 Census. New maps were drawn and descriptions were made for presentation to the State Representatives for their study.

A survey was made of surplus property at the U. S. Coast Guard Station at Point Judith, R. I. for the Recreation Department for proposed purchase of land adjacent to their present summer camp site. A plan of the area was drawn and a description made to accompany the request of purchase from the U. S. Government.

## HIGHWAY SECTION

Work performed in general is as follows:

ESTIMATES. of the cost of making improvements, consisting of driveways, furnishing and setting curbing, relaying pavements in driveways, changing curb as desired by 130 individuals or corporations, were furnished the Director of Public Works

BUILDING NOTICES. Grades either proposed, defined or established have been marked on the ground for parties intending to build on ten streets covering twelve applications.

CURBING. Lines and grades have been marked out for resetting curbing and paving gutters in portions of streets as requested.

PROFILES. Profiles of sundry streets, approximately 0.705 miles have been made for the purpose of defining grades. The contours of the center and side lines are shown at fifty foot stations, also the levels of the sills and ground lines of the houses adjoining the streets. The profile plans include plan views with property lines and houses shown.

STREET GRADING. Abutting owners: Grades in sundry streets have been marked out at intervals of about fifty feet for street grading or for the benefit of individuals owning abutting property.

ASSESSMENTS. The Highway Section computes Assessments for curbing and grading.

Plans and Specifications, engineering field work and inspection were furnished for the construction or the reconstruction of the following streets by the Construction and Maintenance Division, Highway Section.

| <u>STREET</u>     | <u>TYPE-BITUMINOUS CONCRETE</u>                | <u>SQ. YDS.</u> |
|-------------------|--|-----------------|
| Aldine Street     | Chalkstone Avenue to south curb of Almira Ave. | 1,901           |
| Althea Street     | Cranston Street to Union Avenue                | 3,270           |
| Althea Street     | Union Avenue to Service Road                   | 1,733           |
| Atlantic Avenue   | Broad Street to Melrose Street                 | 5,830           |
| Barbara Street    | Glenbridge Ave. to west line of Bowlet St.     | 760             |
| Beaufort Street   | Mt. Pleasant Avenue to Lynch Street            | 2,477           |
| Benevolent Street | Benefit Street to Brown Street                 | 1,952           |
| Benevolent Street | Thayer Street to Hope Street                   | 2,035           |
| Chatham Street    | Silver Spring Street to Branch Avenue          | 2,384           |
| Clarendon Avenue  | Cole Avenue to Slater Avenue                   | 1,483           |
| Cloud Street      | Unit Street to Lucy Street                     | 549             |
| Crown Street      | What Cheer Avenue to City Line                 | 1,083           |
| Dixon Street      | Elmwood Avenue to Stamford Avenue              | 1,089           |
| Dover Street      | Academy Avenue to Leah Street                  | 7,836           |
| Evergreen Street  | North Main Street to Ivy Street                | 4,715           |
| Flora Street      | Chatham Street to Branch Avenue                | 1,212           |
| Gallatin Street   | Broad Street to Elmwood Avenue                 | 9,712           |
| George Street     | Brook Street to Governor Street                | 3,456           |
| Greeley Street    | Charles Street to Russo Street                 | 432             |
| Hamilton Street   | Atlantic Avenue to Adelaide Avenue             | 667             |
| Hamlin Street     | Elmwood Avenue to Roger Williams Park          | 1,818           |
| Harlam Street     | Lowell Avenue to Mercy Street                  | 1,112           |
| Hobart Avenue     | Lloyd Avenue to President Avenue               | 963             |
| Hopedale Road     | Pleasant Street to Mt. Hope Avenue             | 874             |

|                      |  |         |
|----------------------|--|---------|
| Houston Street       | Broad Street to Gordon Avenue                  | 1,640   |
| Hudson Street        | Parade Street to Service Road                  | 6,468   |
| Judith Street        | Sterling Avenue to Magnolia Street             | 1,461   |
| Lenox Avenue         | Broad Street to Melrose Street                 | 6,602   |
| Leo Avenue           | Charles Street to City Line                    | 1,275   |
| Linwood Avenue       | Union Avenue to Cranston Street                | 4,067   |
| Lydia Street         | Candace Street to Douglas Avenue               | 1,689   |
| Marvin Street        | Messer Street to McDonough Street              | 1,175   |
| Massie Avenue        | Broad Street to Baxter Street                  | 1,564   |
| McDonough Street     | Marvin Street to Service Road                  | 83      |
| Meeting Street       | Congdon Street to Prospect Street              | 1,499   |
| Mercy Street         | Intersection at Harlam Street and Sibyl Street | 197     |
| Metropolitan Road    | Standish Avenue to Mt. Pleasant Avenue         | 1,298   |
| Montgomery Avenue    | Cyr Street to Roger Williams Park              | 803     |
| Monticello Street    | Russo Street to Opper Street                   | 1,669   |
| Norwich Avenue       | Broad Street to Baxter Street                  | 1,677   |
| Ogden Street         | Hope Street to Lorimer Avenue                  | 1,805   |
| Opper Street         | Nahant Street to Social Street                 | 904     |
| Pemberton Street     | Roanoke Street to Armington Avenue             | 5,114   |
| Pratt Street         | Olney Street to south line of Bowen Street     | 4,850   |
| Princeton Avenue     | Elmwood Avenue to Bucklin Street               | 1,709   |
| Roanoke Street       | Academy Avenue to Leah Street                  | 6,209   |
| Rosedale Street      | Messer Street to Service Road                  | 3,958   |
| Rugby Street         | Wyatt Street to Pavilion Avenue                | 5,361   |
| Ruskin Street        | Gallatin Street to Lenox Avenue                | 1,254   |
| Sheldon Street       | Benefit Street to Hope Street                  | 3,746   |
| Silver Lake Avenue   | Murray Street to Ethan Street                  | 1,240   |
| Sorrento Street      | Union Avenue to Wadsworth Street               | 4,490   |
| South Court Street   | Congdon Street to Benefit Street               | 816     |
| Staniford Street     | Blackstone Street to Public Street             | 3,009   |
| Sterling Avenue      | Terrace Avenue to Judith Street                | 7,930   |
| Summit Avenue        | Rochambeau Avenue to Seventh Street            | 6,923   |
| Thurston Street      | Elmwood Avenue to Stamford Avenue              | 1,089   |
| Top Street           | Chace Avenue to Tenth Street                   | 1,653   |
| Trenton Street       | Gano Street to Governor Street                 | 3,383   |
| Waverly Street       | Union Avenue to Service Road                   | 1,854   |
| West Clifford Street | Point Street to Myrtle Street                  | 4,387   |
| What Cheer Avenue    | Laurel Hill Avenue to Pocasset Avenue          | 2,109   |
| Wheaton Street       | South Court Street to Bowen Street             | 819     |
| Whitmarsh Street     | Broad Street to Elmwood Avenue                 | 3,400   |
| Williams Street      | Benefit Street to Hope Street                  | 4,294   |
| Willow Street        | Messer Street to Ellery Street                 | 1,085   |
| Winsor Street        | Smith Street to Orms Street                    | 738     |
| Total                |  | 176,639 |

SPECIAL HIGHWAY RECONSTRUCTION BY CITY OF PROVIDENCE UNDER CONTRACT

By Narragansett Improvement Company

| STREET  | TYPE                | SQ. YDS. |
|---|---------------------|----------|
| College Street, South Water Street to Benefit St.   | Bituminous Concrete | 2,209    |
| Delaine Street, Manton Avenue to Harris Avenue      | Bituminous Concrete | 5,344    |
| Gaspee Street, Railroad Street to West Exchange St. | Sheet Asphalt       | 3,405    |
| Hope Street, Angell Street to Lloyd Avenue          | Bituminous Concrete | 5,499    |
| Jewett Street, Holden Street to Valley Street       | Bituminous Concrete | 7,292    |
| Oakland Avenue, Chad Brown Street to Eaton Street   | Bituminous Concrete | 2,743    |
| Regent Avenue, Academy Avenue to Harold Street      | Bituminous Concrete | 4,071    |

| <u>STREET</u>                                  | <u>TYPE</u>   | <u>SQ. YDS.</u> |
|--|---------------|-----------------|
| Smith Street, Richter Street to Ruggles Street | Sheet Asphalt | 2,294           |

#### STREET INTERSECTIONS.

|  |                     |        |
|--|---------------------|--------|
| Chalkstone Avenue at Mt. Pleasant Avenue                 | Sheet Asphalt       | 628    |
| Charles Street at Branch Avenue                          | Sheet Asphalt       | 1,511  |
| Charles Street at Silver Spring Street                   | Sheet Asphalt       | 877    |
| Elmwood Avenue at Adelaide Avenue                        | Sheet Asphalt       | 565    |
| Elmwood Avenue at Roger Williams Avenue                  | Sheet Asphalt       | 1,444  |
| LaSalle Square   | Sheet Asphalt       | 2,383  |
| Mt. Pleasant Avenue at Leslie Drive                      | Bituminous Concrete | 312    |
| North Main Street at Thomas Street                       |                     | 673    |
| Total under contract to Narragansett Improvement Company |                     | 41,250 |

By M. A. Gammino Construction Company

|   |                     |        |
|---|---------------------|--------|
| Angell Street, So. Angell Street to point west of<br>Taber Avenue | Sheet Asphalt       | 4,824  |
| Brook Street, Waterman Street to Geo. M. Cohan<br>Boulevard       | Bituminous Concrete | 11,625 |
| Eddy Street, Point Street to point north of<br>Tallman Lane       | Sheet Asphalt       | 4,488  |
| Huxley Avenue, Eaton Street to Admiral Street                     | Bituminous Concrete | 6,476  |
| Pavilion Avenue, Prairie Avenue to Eddy Street                    | Bituminous Concrete | 5,728  |
| Point Street At Eddy Street                                       | Bituminous Concrete | 288    |
| Potters Avenue Bucklin Street to Brattle Street                   | Bituminous Concrete | 7,858  |
| Public Street, Eddy Street to Broad Street                        | Bituminous Concrete | 11,939 |
| Randall Street, Charles Street to No. Main Street                 | Bituminous Concrete | 4,822  |
| Rhodes Street, Eddy Street to Plain Street                        | Bituminous Concrete | 2,880  |
| Washington Row, Exchange Place to Westminster St.                 | Sheet Asphalt       | 875    |
| Total under contract to M. A. Gammino Construction Company        |                     | 61,803 |

#### RECAPITULATION

|  |         |
|--|---------|
| By Narragansett Improvement Company            | 41,250  |
| By M. A. Gammino Construction Company          | 61,803  |
| Total for streets reconstructed under contract | 103,053 |

Plans and Specifications, engineering field work and inspection were furnished for the grading, curbing, and construction of the following streets.

By Narragansett Improvement Company

| <u>STREET</u>      | <u>TYPE-BITUMINOUS CONCRETE</u>  | <u>SQ. YDS.</u> |
|--------------------|--|-----------------|
| Ada Avenue         | Brush Hill Road to Hill Crest Avenue   | 481             |
| Avon Street        | Anthony Avenue to easterly termination   | 692             |
| Christopher Street | Charles Street to Windmill Street  | 2,364           |
| Collyer Street     | Cemetery Street to point 130 ft. south of<br>Matilda Street                          | 2,312           |
| Dorothy Avenue     | Langdon Street to Robin Brook Sewer  | 1,419           |
| Faunce Drive       | Cole Avenue to Termination   | 2,337           |
| Hill Crest Avenue  | Freedom Road to Ada Avenue   | 2,623           |
| Lehigh Street      | Allens Avenue to Poe Street  | 1,308           |
| Leslie Drive       | Mt. Pleasant Avenue, southeasterly, southerly<br>and westerly to Mt. Pleasant Avenue | 2,087           |
| Longwood Avenue    | North line of Kentland Avenue to City Line   | 701             |

| <u>STREET</u>  | <u>TYPE-BITUMINOUS CONCRETE</u>    | <u>SQ. YDS.</u> |
|--|------------------------------------|-----------------|
| Marcy Drive  | Barbour Drive to Faunce Drive      | 885             |
| Parente Street   | Smart Street to Termination        | 461             |
| Poe Street   | Public Street to Lehigh Street     | 6,583           |
| Royal Avenue   | Gentian Avenue to City Line        | 941             |
| Savings Street   | Detroit Avenue to Sassafras Street | 949             |
| Total under contract to Narragansett Improvement Company |                                    | 26,113          |

Construction was in progress in the following streets on September 30, 1963

Atwells Avenue, Giles Place to Valley Street  
 Bath Street, Chalkstone Avenue to Promenade Street  
 Belair Drive, Woonasquatucket Avenue, to a point 160 ft. west of Herschel Street.  
 Brighton Street, Courtland Street to Vinton Street  
 Daniel Avenue, Pocasset Avenue to Plainfield Street  
 Fairview Street, Pemberton Street to Lucy Street  
 Greeley Street, Hagan Street to a point 80 ft. south of Alaska Street  
 Greeley Street, Aventine Avenue west to Angle  
 Hazael Street, Admiral Street to Douglas Avenue  
 Hillview Avenue, Bradley Street to Admiral Street  
 Klondike Street, Herschel Street to a point 197 ft. westerly  
 Knight Street, Broadway to Atwells Avenue  
 Lucy Street, Cloud Street to Almira Street  
 Messer Street, Westminster Street to Cranston Street  
 Parnell Street, Atwells Avenue to Cloud Street  
 Ridgeway Avenue, Hill Crest Avenue to a point 243.2 ft. east of Manton Avenue  
 River Avenue, Hymer Street to Admiral Street  
 Union Avenue, Messer Street to 40 ft. west of Linwood Avenue  
 West Exchange Street, Atwells Avenue to a point 65.0 ft. west of Acorn Street

Following is a list of unimproved streets ordered built by City Council Resolution, construction of which has not commenced:

| <u>Street</u>  |  | <u>Curb<br/>Ordered</u> | <u>Length<br/>In Feet</u> |
|----------------|--|-------------------------|---------------------------|
| Atkins Street  | Regent Ave. to its Northerly Termination                     | Sept. 23, 1963          | 300                       |
| Crary Street   | Allens Ave. to east line unnamed street                      | Dec. 5, 1940            | 276                       |
| Cutler Street  | Newark Street to Atwells Avenue                              | Aug. 7, 1952            | 206                       |
| Greeley Street | 80 ft. south of Alaska St. to Robin<br>Brook Sewer           | July 9, 1962            | 682                       |
| Joy Street     | River Avenue to Westerly Termination                         | Dec. 6, 1954            | 400                       |
| Redwood Drive  | City Line at Longwood Avenue to City<br>Line at Royal Avenue | May 6, 1960             | 301                       |
| Trainor Street | Acorn Street to De Pasquale Avenue                           | June 20, 1935           | 249                       |
| Platted Street | Crary Street to Globe Street                                 | Dec. 5, 1940            | 117                       |
| Total          |  |                         | 2,531                     |

PETITIONS TO HAVE GRADE DEFINED

| <u>DATE</u>   | <u>STREET AND LOCATION</u>   |
|---------------|--|
| Jan. 20, 1955 | Adie Street, from Atwells Avenue to Cedar Street                           |
| Feb. 17, 1955 | Ophelia Street, from a point 120 ft. S. of Thornton Street to<br>Wolfe St. |
| June 2, 1955  | Aumond Street, from Edgewood Blvd. to City Line                            |
| July 7, 1955  | Vespucci Street, from Douglas Avenue to Fernando Street                    |
| Sept. 1, 1955 | Quenn Street, from Laurel Hill Avenue to its northerly termination         |
| Nov. 3, 1955  | Hymer Street, from Crandall Street to Seamans Street                       |

## DATE

STREET AND LOCATION

|               |  |
|---------------|--|
| Dec. 1, 1955  | Derry Street, from Oregon Street to Geoffreys Court                                |
| May 3, 1956   | Stukely Street, from Hartford Avenue to #41 Stukely Street                         |
| May 3, 1956   | Westmore Street, from Niantic Avenue to Lakeview Avenue                            |
| June 7, 1956  | Monticello Street, from Opper Street to Robin Brook Sewer                          |
| Aug. 2, 1956  | Libia Street, from Farmington Avenue to its Termination                            |
| Sept. 6, 1956 | Minnesota Street, from Woodward Road to its Termination                            |
| Feb. 7, 1957  | Maria Street, from Killingly Street to City Line                                   |
| Apr. 18, 1957 | Stella Street, from Barbara Street to Termination                                  |
| May 16, 1957  | Corsica Street, from Fruit Hill Avenue to Genoa Street                             |
| May 16, 1957  | Genoa Street, from Fruit Hill Avenue to Taranto Street                             |
| July 11, 1957 | Hillard Street, from Manton Avenue to Pelham Street                                |
| July 11, 1957 | Cowper Court, from Messer Street to Termination                                    |
| Oct. 3, 1957  | Duke Street, from Orms Street to Smith Street                                      |
| Dec. 19, 1957 | King Philip Street, from Barbara Street to Grimwood Street                         |
| May 1, 1958   | York Street, from North Main Street to Steele Street                               |
| July 3, 1958  | Proctor Place, from Doyle Avenue to Termination                                    |
| Aug. 7, 1958  | Sedan Street, from Argol Street to Termination                                     |
| Sept. 4, 1958 | Yorktown Place, from Linton Street to Termination                                  |
| Nov. 6, 1958  | Myra Street, Killingly Street to Boundry Avenue                                    |
| Feb. 19, 1959 | Deerfield Terrace, from Alger Avenue to Termination                                |
| Mar. 5, 1959  | Sibley Street, from Crescent Street to West Termination                            |
| Apr. 2, 1959  | Nye Street, from Ida Street to Merino Street                                       |
| Apr. 16, 1959 | Stella Street, from Barbara Street to Grimwood Street                              |
| July 2, 1959  | Batterson Street, from Walsh Street to Bullock Avenue                              |
| July 2, 1959  | Bullock Avenue, from Batterson Street to City Line                                 |
| July 2, 1959  | Hennessey Street, from Saint Thomas Street to Bullock Avenue                       |
| July 2, 1959  | Rowley Street, from Batterson Street to Hennessey Street                           |
| July 2, 1959  | Triggs Street, from Walsh Street to Bullock Avenue                                 |
| July 2, 1959  | Walsh Street, from Batterson Street to Hennessey Street                            |
| Mar. 3, 1960  | Wayland Avenue, from Pitman Street to its southerly termination                    |
| Mar. 3, 1960  | Togansett Road, from Niantic Avenue to Lakeview Drive                              |
| Mar. 3, 1960  | Unnamed Gangway from Peter Street to Ledge Street                                  |
| Sept. 1, 1960 | Owen Street, from Manton Avenue to King Street                                     |
| Feb. 16, 1961 | East George Street, Gano Street to Butler Avenue                                   |
| Apr. 20, 1961 | Haswell Street, Eddy Street to Easterly Termination                                |
| May 18, 1961  | Shaw Street, Langdon Street to Lakeside Street                                     |
| Aug. 10, 1961 | Celia Street, Hartford Avenue to northerly Termination                             |
| Aug. 10, 1961 | Lakeside Street, Shaw Street to Everson Street                                     |
| Aug. 10, 1961 | Dorothy Avenue, west line Robin Brook Sewer to Charles Street                      |
| Jan. 18, 1962 | Dipippo Street, Killingly Street to its Termination                                |
| Feb. 15, 1962 | Shaw Street, Easterly Line of Lakeside St. westerly to its<br>westerly Termination |
| Mar. 1, 1962  | Unnamed Gangway east of Havanna St. westerly to the City Line                      |
| June 7, 1962  | Dakota Street, Woodward Road to Termination  |
| Aug. 2, 1962  | Cavallatti Street, Farmington Avenue to its Termination                            |
| Aug. 2, 1962  | Collyer Street, Matilda Street to the City Line                                    |
| May 16, 1963  | Spokane Street, Charles Street to its easterly Termination                         |
| Aug. 8, 1963  | Stillwater Avenue, Brightwood Avenue to City Line                                  |

PETITIONED FOR CURBING AND GRADING

## DATE

STREET AND LOCATION

|               |   |
|---------------|---|
| Feb. 17, 1955 | Ophelia Street, from a pt. 120 ft. S. of Thornton Street to<br>Wolfe Street |
| May 5, 1955   | Park Row, from Edgewood Boulevard southerly to Cranston City Line           |
| June 2, 1955  | Aumond Street, from Edgewood Boulevard to City Line                         |

## DATE

STREET AND LOCATION

|                |  |
|----------------|--|
| July 7, 1955   | Vespucci Street, from Douglas Avenue to Fernando Street                            |
| Sept. 1, 1955  | Queen Street, from Laurel Hill Avenue to its Northerly Termination.                |
| Nov. 3, 1955   | Hymer Street, from Crandall Street to Seamans Street                               |
| Dec. 1, 1955   | Derry Street, from Oregon Street to Geoffreys Court                                |
| May 3, 1956    | Stukely Street, from Hartford Avenue to #41 Stukely Street                         |
| May 3, 1956    | Westmore Street, from Niantic Avenue to Lakeview Drive                             |
| Aug. 2, 1956   | Libia Street, from Farmington Avenue to its Termination                            |
| Nov. 15, 1956  | Burton Street, from Bingham Street to Termination                                  |
| Feb. 7, 1957   | Maria Street, from Killingly Street to City Line                                   |
| May 2, 1957    | Hagan Street, from Charles Street to Langdon Street                                |
| July 11, 1957  | Hillard Street, from Manton Avenue to Pelham Street                                |
| July 11, 1957  | Cowper Court, from Messer Street to Termination                                    |
| Aug. 15, 1957  | Grotto Avenue, from Upton Avenue to portion already received                       |
| Oct. 3, 1957   | Duke Street, from Orms Street to Smith Street                                      |
| Dec. 10, 1957  | King Philip Street, from Barbara Street to Grimwood Street                         |
| Feb. 20, 1958  | Carver Court, from 53 Pleasant Street to Termination                               |
| May 1, 1958    | York Street, from North Main Street to Steele Street                               |
| July 3, 1958   | Proctor Place, from Doyle Avenue to Termination                                    |
| Sept. 4, 1958  | Yorktown Place, from Linton Street to Termination                                  |
| Sept. 18, 1958 | Tappan Street, from angle to Admiral Street  |
| Nov. 6, 1958   | Myra Street, from Killingly Street to Boundary Avenue                              |
| Mar. 5, 1959   | Sibley Street, from Crescent Street to west Termination                            |
| Apr. 16, 1959  | Stella Street, from Barbara Street to Grimwood Street                              |
| July 2, 1959   | Batterson Street, from Walsh Street to Bullock Avenue                              |
| July 2, 1959   | Bullock Avenue, from Batterson Street to City Line                                 |
| July 2, 1959   | Hennessey Street, from Saint Thomas Street to Bullock Avenue                       |
| July 2, 1959   | Rowley Street, from Batterson Street to Hennessey Street                           |
| July 2, 1959   | Triggs Street, from Walsh Street to Bullock Avenue                                 |
| July 2, 1959   | Walsh Street, from Batterson Street to Hennessey Street                            |
| Mar. 3, 1960   | Wayland Avenue, from Pitman Street to its southerly termination                    |
| Mar. 3, 1960   | Togansett Road from Niantic Avenue to Lakeview Drive                               |
| Mar. 3, 1960   | Unnamed Gangway, from Peter Street to Ledge Street                                 |
| Oct. 20, 1960  | Clarkson Street, Admiral Street to Termination                                     |
| Feb. 16, 1961  | East George Street, Gano Street to Butler Avenue                                   |
| Apr. 20, 1961  | Haswell Street, Eddy Street to easterly Termination                                |
| May 18, 1961   | Shaw Street, Langdon Street to Lakeside Street                                     |
| Aug. 10, 1961  | Celia Street, Hartford Avenue to northerly Termination                             |
| Aug. 10, 1961  | Lakeside Street, Shaw Street to Everson Street                                     |
| Aug. 10, 1961  | Dorothy Avenue, west line Robin Brook Sewer to Charles Street                      |
| Aug. 10, 1961  | Genoa Street, Fruit Hill Avenue to Taranto Street                                  |
| Aug. 10, 1961  | Corsica Street, Fruit Hill Avenue to Genoa Street                                  |
| Jan 18, 1962   | DiPippo Street, Killingly Street to its northerly Termination                      |
| Feb. 15, 1962  | Shaw Street, easterly line of Lakeside Street westerly to its westerly Termination |
| Mar. 1, 1962   | Unnamed Gangway, East Havanna Street westerly to the City Line                     |
| Aug. 2, 1962   | Cavallatti Street, Farmington Avenue to its Termination                            |
| Aug. 2, 1962   | Collyer Street, Matilda Street to City Line  |
| May 16, 1963   | Spokane Street, Charles Street to its easterly Termination                         |
| Aug. 8, 1963   | Hylestead Street, Pavilion Avenue to Termination                                   |
| Aug. 8, 1963   | Stillwater Avenue, Brightwood Avenue to City Line                                  |

SUMMARY TO OCTOBER 1, 1963

The following table shows type of pavement, lengths and areas

| TYPES OF PAVEMENT                | LENGTHS<br>MILES | AREA<br>SQUARE YARDS |
|----------------------------------|------------------|----------------------|
| Reinforced Concrete              | 0.17             | 3,101.0              |
| Bituminous Concrete (Curbed)     | 170.16           | 2,885,784.1          |
| Bituminous Concrete (Not Curbed) | 6.36             | 111,946.0            |
| Sheet Asphalt (Curbed)           | 62.42            | 1,547,135.5          |
| Sheet Asphalt (Not Curbed)       | 0.30             | 4,195.0              |
| Bituminous Macadam (Curbed)      | 119.44           | 1,827,885.0          |
| Bituminous Macadam (Not Curbed)  | 2.59             | 41,138.0             |
| Asphalt Blocks                   | 0.12             | 958.0                |
| Brick                            | 0.02             | 197.2                |
| Cobble                           | 0.12             | 765.9                |
| Granite Blocks                   | 2.80             | 43,539.5             |
| Waterbound Macadam (Curbed)      | 2.12             | 36,564.0             |
| Waterbound Macadam (Not Curbed)  | 0.58             | 6,237.0              |
|                                  | <u>367.80</u>    | <u>6,509,446.2</u>   |
| Received (Not Improved)          | 1.60             |                      |
| TOTAL                            | <u>368.80</u>    |                      |

The following work has been completed during the year - namely:

|                                   |                      |
|-----------------------------------|----------------------|
| Streets paved with new material   | 96,208 Linear Feet   |
| Bituminous Concrete Pavement Laid | 281,868 Square Yards |
| Sheet Asphalt Pavement Laid       | 23,967 Square Yards  |



## SEWER AND STRUCTURAL SECTION

The duties of this section consists of the preparation of studies, plans, specifications and estimates of proposed sanitary and storm sewers, preparation of studies, plans, specifications and estimates of proposed miscellaneous structures and the field engineering and inspection work of all above projects in progress and the computation of final payments to contractors.

All records on the above are filed for future reference and all field record books are filed in fire-proof cabinets. Plans are made on cloth-mounted drawing paper of all sewer construction and all house drainage connections are platted on these plans.

Field measurements were made in sewers periodically, in order to compute the sewage flow from North Providence.

A contract for sewers in various streets by the V. F. Capaldi Const. Corp. dated May 31, 1962, was completed October 9, 1962. Final cost equalled \$49,158.01.

The streets involved are as follows with the completion dates noted.

| <u>COMPLETION DATES</u> | <u>DESCRIPTION</u>  |
|-------------------------|---|
| Nov. 24, 1962           | Josephine Street (Now Belair Drive) from near Woonasquatucket Avenue to Woonasquatucket River Trunk Sewer.  |
| Sept. 28, 1962          | Ridgeway Avenue from present sewer 230 feet east of Manton Avenue to Hillcrest Avenue.  |
| July 18, 1962           | Blackstone Boulevard from (House #261) approximately 60 feet north of Magellan Street to Magellan Street and in Magellan Street easterly to present sewer in Magellan Street. |
| Oct. 9, 1962            | Celia Street from approximately 700 feet north of Hartford Avenue to Hartford Avenue.   |
| June 26, 1962           | Katharine Street from approximately 80 feet north of Delaine Street to Delaine Street.  |

A contract for sewers in various streets by the Fanning & Doorley Const. Co., dated September 24, 1962 is now in construction. The streets involved are as follows with the completion dates noted. The value of the work done to date equals \$69,383.85.

| <u>COMPLETION DATES</u> | <u>DESCRIPTION</u>  |
|-------------------------|---|
| Aug. 27, 1963           | Lakeview Drive from Togansett Road to Swanton Street and from Northerly termination to Swanton Street |
| Aug. 16, 1963           | Niantic Avenue from Westmore Street to Swanton Street   |
| Aug. 23, 1963           | Swanton Street from Lakeview Drive to Niantic Avenue  |
| June 6, 1963            | Tobyhanna Street from near Niantic Avenue to Lakeview Drive   |
| Aug. 12, 1963           | Togansett Road from near Niantic Avenue to Lakeview Drive   |
|                         | Truth Street from its termination to Nellie Street.   |

A contract for sewers in various streets by the Fanning & Doorley Const. Co. dated July 12, 1963 is now in construction. The streets involved are as follows with the completion dates noted. The value of the work done to date equals \$22,760.00.

COMPLETION DATEDESCRIPTION

Lakeview Drive from Togansett Road southerly to proposed Right of Way and southerly in proposed Right of Way to Service Road #10 and easterly in Service Road #10 to Reservoir Avenue.

Swan Street from near Eddy Street easterly to proposed Right of Way and southerly in proposed Right of Way to Mutual Street.

Westmore Street from near Niantic Avenue to Lakeview Drive.

Following are lists of streets for which sewer plans were made for submission to the Public Works Committee of the City Council:

List No.1

Sewers ordered built by the City Council which are not constructed as of September 30, 1963 exclusive of those contracted for:

City Council  
Resolution  
and Year.

LOCATION

|          |   |
|----------|---|
| 229 1940 | Bucklin Street, from near Potters Avenue to Greenwich Street. |
| 440 1940 | Niantic Avenue, from near Cranston Street to Akerman Street.  |
| 293 1951 | White Street, from Powell Street to Collyer Street.           |

List No.2

Sewers petitioned for and referred to the Public Works Committee for further action, from October 1, 1951 to September 30, 1963.

|                |   |
|----------------|---|
| Oct. 2, 1952   | Okie Street, from its westerly termination to Bath Street.  |
| Apr. 16, 1953  | Myra Street, from near Boundary Avenue to Killingly Street.   |
| July 1, 1954   | Bullock Avenue, from City Line to Dunbar Street   |
| Sept. 2, 1954  | Groton Street, from Durfee Street to Powhattan Street.  |
| July 7, 1955   | Vespucci Street, from Fernando Street to Douglas Avenue.  |
| Sept. 1, 1955  | Queen Street, from its northerly termination to Cleveland Street.   |
| Nov. 3, 1955   | Hymers Street, from near Seamans Street to Crandall Street.   |
| Dec. 1, 1955   | Derry Street, from near Geoffreys Court to Oregon Street.   |
| May 3, 1956    | Stukeley Street, from its northerly termination to Hartford Avenue.   |
| Aug. 2, 1956   | Libia Street, from the City Line to Farmington Avenue.  |
| Feb. 7, 1957   | Maria Street, from Killingly Street to the City Line.   |
| June 6, 1957   | Cowper Court, from its termination to Messer Street.  |
| Sept. 4, 1958  | Yorktown Place, from its termination to Linton Street.  |
| July 2, 1959   | Hennessey Street, from Bullock Avenue to St. Thomas Street.   |
| Aug. 6, 1959   | Como Street, from its Northerly Termination to Ledge Street.  |
| Mar. 3, 1960   | Wayland Avenue, from East George Street to southerly termination.   |
| Mar. 3, 1960   | Unnamed Gangway from Peter Street to Ledge Street.  |
| Feb. 16, 1961  | East George Street from near Wayland Avenue to Butler Avenue and in Butler Avenue from East George Street to Pitman Street. |
| Feb. 16, 1961  | Howe Street, from Niantic Avenue to Lakeview Drive.   |
|                | Jordan Street, from Westmore Street to Reservoir Avenue.  |
| Apr. 20, 1961  | Haswell Street from approximately 300 feet east of Eddy Street to Eddy Street.  |
| Aug. 10, 1961  | Genoa Avenue from near Taranto Street to Fruit Hill Avenue.   |
| Aug. 10, 1961  | Corsica Street from near Genoa Avenue to Fruit Hill Avenue.   |
| Sept. 21, 1961 | Gage Street from near Samoset Avenue to Victoria Street   |
| Jan. 18, 1962  | DiPippo Street from its northerly termination to Killingly Street.  |

Mar. 1, 1962 Unnamed Gangway east of Havana Street westerly to City Line.  
 Aug. 2, 1962 Cavallatti Street from its southerly termination to Farmington Avenue.  
 Sept. 6, 1962 Joseph Street from its westerly termination to Havana Street then southerly in Havana Street to present sewer in Lubec Street.  
 May 2, 1963 Atkins Street from northerly termination to Regent Avenue  
 May 2, 1963 Clarkson Street from near Admiral Street to its easterly termination and northerly in Right of Way to Suffolk Street.  
 Aug. 8, 1963 Stillwater Avenue from near City Line to Brightwood Avenue.

SEWER ASSESSMENTS: Sewer Assessments as provided by authority of Chapter 870 of the Public Laws of the State of Rhode Island of 1901 are certified for payment by the Director of Public Works to the City Collector. Special working plans are made and areas and amounts are computed by this office and filed for permanent record.

SEWER SYSTEM STATISTICS: In order to make complete the Providence Sewer System Statistics up to the end of the Fiscal Year of September 30, 1963 the following extracts from previous reports are herein included and the mileage figures changed to the new totals.

The City is divided into four main drainage areas bounding on the Providence, Woonasquatucket, Moshassuck and Seekonk Rivers.

Combined sewers, discharging both crude sewage and storm water into rivers, were constructed in these areas between the years 1871 and 1890 to a total length of 62.7 miles.

"A" In 1890 a new method of handling sewage flow was devised and was called the improved sewer system. From 1890 to 1904, 28.1511 miles of this system was constructed with sizes varying from 6 in. to 110 in. in diameter. This system included the intersecting sewers, designed for the collection of sewage flow from older sewers which heretofore discharged into rivers, which helped toward the elimination of sewage pollution of river and harbor waters. Due to later revisions in construction the length of the improved sewer system equaled as of September 30, 1963-52.7878 miles. (Increase this year 0.5636 miles)

"B" In 1872 the first storm sewer construction was started and as of September 30, 1963 a total of 86.5273 miles of sewers for storm water only, have been constructed and discharged into the nearest available pond or stream. (No change)

"C" The total length of the so-called regular combined sewers as of September 30, 1963 equals 323.7018 miles. (No change)

The total length (A+B+C) of all types and sizes of sewers maintained by the Sewer Division of the Public Works Department as of September 30, 1963 equals 463.0169 miles. (Increase this year 0.9319 miles)

Included in this mileage are approximately 20,145 manholes, also there are approximately 4695 inlets and 11,885 basins for collecting surface water and trapping debris before entrance into the sewers.

The normal or dry weather flow of sewage is collected and conveyed to the Sewage Treatment Plant at Fields Point. Tide Gates are installed at river outfalls to prevent tidewater or river water from entering the sewers.

The sewage from the Washington Park and Fields Point Districts, drains into a small pumping station equipped with two automatic electrically driven pumps, located on City Land at Fields Point just South of New York Avenue and from there is pumped through a cast-iron force main directly to the Sewage Disposal Plant.

A part of the sewage from the West Elmwood Districts drain into a small pumping station, equipped with two automatic electrically driven pumps, located on City Land at Reservoir Avenue and Pontiac Avenue and from there, drains into the Rutherglen Avenue gravity flow sewer.

A comparatively high level sewer collects sewage from the Elmwood and South Providence Districts and flows through gravity sewers, directly to the Sewage Disposal Plant.

Generally, with the exceptions as outlined in previous paragraphs, low level sewers collect the sewage from the remainder of the City Districts, with most of the East Side sewage flowing through an inverted syphon sewer under the Providence River at India Street, and then the sewage flows by gravity to the large pumping station at Ernest Street. At the pumping station the sewage is lifted approximately 27 feet to the high level sewer in Ernest Street and flows by Gravity to the Sewage Disposal Plant.

SEWAGE FOR YEAR FROM CRANSTON, JOHNSTON AND NORTH PROVIDENCE. By special acts of the Rhode Island Legislature, parts of Cranston sewage, and all the North Providence and Johnston sewage are allowed to enter the City of Providence Sewer System for disposal and treatment. Sewage costs are billed quarterly and the following shows the amounts billed in our fiscal year 1961-1962.

RECEIVED FROM CRANSTON. (Narragansett Brewing Company) contract dated June 1, 1955 - terms \$57.00 per million gallons 108,080,000 gallons metered and billed for \$6,160.56.

RECEIVED FROM JOHNSTON. Contract dated March 9, 1956 - terms \$57.00 per million gallons, 512,967,600 gallons, metered, estimated and billed for \$29,239.15.

RECEIVED FROM NORTH PROVIDENCE. Flow measured and computed to equal 2,850,893,090 gallons. New contract dated September 8, 1959, terms \$100,000.00 annually. Average daily flow equals 7,810,666 gallons.

PRIVATE DRAINS. In co-operation with the office of the Sanitary Engineer, a complete record is made of all sewage drainage installations in private houses. These records and record plans are made and filed by the Sewer Section of the Public Works Engineering Office and contain valuable information of interest to property owners, title searches, etc. All new work is covered by field inspection and must comply with the City Ordinances as to workmanship and materials and the work must be done by Licensed Plumbers or Drain Layers who must prove their qualifications before being issued permits by the Director of Public Works.

In the January Session of the State Legislature - Chapter 1661 - 1945, there was enacted by the General Assembly an Act to simplify the present system of Licensing Master and Journeymen Plumbers for the protection of Public Health. Sec. 8 (reads as follows) "Nothing in this Act shall prohibit any City or Town from granting a License to any person as a Drain Layer to engage in the business of Laying of Drains and Cesspools" (with the provision, that it is not required by the Holder of a State License).

For the calendar year of 1963 the Director of Public Works issued Licenses to eight Drain Layers and two special for Sprinkler System Licenses. No list of Licensed Plumbers was received from State Authorities. There was approximately 3000 Titles investigated for encumbrances of drainage facilities by Title Company investigators, and 3000 sketches of present drainage installations given to interested parties. (Owners, Plumbers and Drain Layers.)

MISCELLANEOUS WORK. During the year Specifications were written up, stencils cut and checked and the Bids were tabulated for the following:

| <u>BIDS SUBMITTED</u> | <u>DESCRIPTIONS</u>                            | <u>ORDERED BY</u> |
|-----------------------|--|-------------------|
| Oct. 2, 1962          | One (1) 4 C.Y. Dump Truck (30,000#) with winch | Forestry Div.     |
| Oct. 23, 1962         | Screened Sand for Ice Control                  | Highway Div.      |
| Oct. 30, 1962         | Two (2) 4 wheel Drive Pick-up Trucks           | Highway Div.      |
| Nov. 7, 1962          | Twenty-two (22) Reversible Snow Plows          | Highway Div.      |
| Nov. 13, 1962         | One (1) 6 C.Y. Dump Truck (36,000#)            | Highway Div.      |
| Nov. 13, 1962         | Seven (7) 4 C.Y. Dump Trucks (30,000#)         | Highway Div.      |
| Dec. 11, 1962         | Four (4) 16 C.Y. Garbage & Refuse Trucks       | Sanitation Div.   |
| Dec. 18, 1962         | One (1) Front End Loader                       | Highway Div.      |
| Dec. 26, 1962         | Diesel Fuel Oil Grade No. 2                    | Highway Div.      |
| Dec. 26, 1962         | Removal of 128 Diseased Elm Trees              | Forestry Div.     |
| Jan. 2, 1963          | Four (4) Reversible Snow Plows                 | Highway Div.      |
| Jan. 8, 1963          | One (1) Heavy Duty Wrecker Truck               | Highway Div.      |
| Jan. 22, 1963         | Removal of 152 Diseased Elm Trees              | Forestry Div.     |
| Feb. 26, 1963         | One (1) 3 C.Y. Dump Truck (15,000#)            | Sewer Div.        |
| Mar. 5, 1963          | One (1) Power Sprayer                          | Forestry Div.     |
| Mar. 12, 1963         | One (1) 3/4 Ton Pick-up Truck                  | Sewer Div.        |
| Apr. 25, 1963         | 6600 ± Linear Feet Galvanized Guard Rail       | Highway Div.      |
| June 4, 1963          | One (1) Utility Truck (14,000#)                | Sewer Div.        |
| July 16, 1963         | One (1) 4 C.Y. Dump Truck (30,000#)            | Sanitation Div.   |
| July 16, 1963         | Two (2) 16 C.Y. Garbage and Refuse Trucks      | Sanitation Div.   |
| July 30, 1963         | Two (2) 4 1/2 C.Y. Street Sweeper              | Highway Div.      |
| Mar. 12, 1963         | One (1) Bituminous Paver                       | Highway Div.      |

A contract was entered into with the Architectural firm of Kent, Cruise and Aldrick on October 15, 1958 for the "Preparation of Plans and other Architectural Services" for the "Public Works Highway Office Building and Garage" work was completed August 20, 1963 and final cost equalled \$46,632.70.

A contract was entered into with Joseph P. Flynn for building the Public Works Highway Office Building and Garage on May 18, 1959, work was completed June 18, 1963 and final cost equalled \$692,998.04. All Equipment Plans and Construction Plans submitted by the Contractor were approved by this office and the Architectural firm of Kent, Cruise and Aldrich.

A contract was entered into with Conveyors Inc., for building Storage Bins and Conveying Equipment including Appurtenances and Accessories on September 30, 1960, work was completed January 8, 1963 and final cost equalled \$72,236.42. All Equipment Plans and Construction Plans submitted by the Contractor were approved by this office and the Architectural firm of Kent, Cruise and Aldrich.

At Municipal Wharf - a contract was entered into with Fenton G. Keyes Associates on June 10, 1959 for the Plans and Specifications for the southerly extension of the sea wall, work was completed December 28, 1962 and final cost equalled \$80,616.64.

At Municipal Wharf - a contract was entered into with the M. A. Gammino Construction Co. for "The Bulkhead Extension of Municipal Wharf." The contract was dated July 18, 1960, work was completed December 17, 1962 and final cost

equalled \$1,724,492.13.

Added to this contract by the Board of Contract and Supply March 14, 1961 was an additional Fifty (50) foot extension making the total length of the wall 450 feet.

Plans were presented for approval of a Pedestrian and Utility Tunnel under College Street connecting Brown University John Hay Library with new Library on south side of College Street, work started in June, 1963 and was completed in July, 1963. In the course of construction approximated 112 linear feet of 12 inch sewer in College Street had to be relaid to a new grade in order to clear the tunnel. Permission to build the tunnel was granted by City Council Resolution #382 dated July 5, 1962.

Permission was granted to Brown University to abandon the portion of Manning Street between Hope and Brook Streets by City Council Resolution #197 dated March 16, 1962. The sanitary sewer in this section of Manning Street was abandoned, a new sanitary sewer was laid in the westerly sidewalk of Hope Street connecting the Manning Street sewer to the George Street sewer.

Plans and Specifications were made by "Fenton G. Keyes Associates" for the Mashapaug Pond Development and full co-operation was given by this department and any plans submitted were checked over. A contract for this work was awarded to M. A. Gammino Construction Company. The contract was dated August 24, 1962 and was completed September 1, 1963, the final cost equalled \$1,605,782.63.

J. F. White Co. was awarded the contract for construction of a Cooling Water Canal for the Narragansett Electric Co. in connection with the "Fox Point Hurricane Barrier", full cooperation was given by this department and any plans submitted were checked over. A contract for this work was awarded December 30, 1960 and is now completed. The final cost was \$1,320,000.00.

The M. A. Gammino Construction Co. was awarded the contract for construction of the "Fox Point Hurricane Barrier" full co-operation was given by this department in the preparation of the plans, any plans submitted were checked over, periodic conferences and inspections are made. The contract was dated May 23, 1961 for \$8,202,612.00 as of September 30, 1963 the estimated total equalled \$4,062,786.00.

The following Engineers are engaged on this project:  
United States Army Engineers, Boston, Mass. including the Real Estate Division.  
Engineers, Fenton G. Keyes, Associates, Providence, R. I.  
Engineers, Charles A. Maguire & Associates, Providence, R. I.  
Geologist and Engineer, Frank E. Fahlquist, Providence, R. I.

Many conferences were held in connection with the Providence Freeways, with the Public Works Department of the State of Rhode Island in regard to the disposal of storm waters from the various highways and all sewer sizes and connections to the City sewers were approved. Some of this work is now in construction.

The various projects are named as follows with the Engineers engaged in the preparation of the Plans and Specifications.

"Interstate Route 95", Charles A. Maguire & Associates, Providence, R.I.  
"Route 6 Expressway", Edwards and Kelsey, Providence, R. I.

All plans made in connection with the sewer basins and inlets required for drainage of new or rebuilt streets were made in this office.

This Division has made studies, prepared preliminary plans, conferred with other City Departments, and consulted with the State Department of Public Works, the Federal Public Roads Administration, and the contract Engineers and Architects, preparing plans and specifications for all Public Works Projects in the City.

Plans submitted by Architects, Private Engineers, the various utilities and Contractors were checked over, revised and approved for sidewalk slabs, vaults, bridge crossings and duct installations under or over streets and sidewalks.

Cost accounts, budgets, inventories, sick leaves, vacations, employee data entrances, and terminations were reported to the Finance Department. Payrolls and requisitions were made up and delivery slips forwarded.

Respectfully submitted,

Richard E. Pezzullo  
Chief of the Engineering Office.

## CONSTRUCTION & MAINTENANCE DIVISION

Mr. Robert B. Strong  
Director of Public Works  
City Hall, Providence, R. I.

Dear Sir:

Following is the annual report covering activities of the Construction and Maintenance Division for the year ending September 30, 1963. This division consists of the Construction and Maintenance Administration and the following Sections: Highway, Bridge Maintenance, Draw Bridge Operation, Sidewalk and Curbing, Forestry, Snow Removal, Sewer Construction and Maintenance, Public Buildings, Street Lighting, Construction and Maintenance Shops and Stores, and Sewer Construction and Maintenance Shops and Stores.

The expenditures of the administration section were as follows:

|        |                              |             |
|--------|------------------------------|-------------|
| Item 0 | Personal Services            | \$7,884.00  |
| Item 1 | Services other than Personal | 818.20      |
| Item 2 | Materials & Supplies         | <u>3.58</u> |
|        | Total                        | \$8,705.78  |

### HIGHWAY SECTION

The main duty of this section is the Maintenance of approximately 340 miles of paved streets, including the repairing, patching, sealcoating, surfacing, re-surfacing or reconstruction of highways and the setting, resetting or replacing of granite curbing. This section also constructs new highways when ordered and performs miscellaneous jobs for other sections of the Department of Public Works as well as for other city departments.

### EXPENDITURES

|        |                              |               |
|--------|------------------------------|---------------|
| Item 0 | Personal Services            | \$716,967.49  |
| Item 1 | Services other than Personal | 160,705.07    |
| Item 2 | Materials and Supplies       | 130,093.78    |
| Item 5 | Equipment                    | <u>386.25</u> |

|       |                |
|-------|----------------|
| Total | \$1,008,152.59 |
|-------|----------------|

|         |           |
|---------|-----------|
| Revenue | 29,428.34 |
|---------|-----------|

### DRIVEWAYS & CURBING

|                              |     |                         |      |
|------------------------------|-----|-------------------------|------|
| Driveways Altered (Narrowed) | 2   | 2' Circular Corners Set | 438  |
| Driveways Constructed        | 256 | S.B. Corners Set        | 64   |
| Driveways Widened            | 40  | Curbs Set & Reset       | 5782 |
| Driveways Closed             | 12  | Driveways Relogated     | 22   |



RECEIVED STREETS REPAIRED AND SURFACED OR RESURFACED

1962 - 1963  
Total A C Tonage

|                   |                                |             |
|-------------------|--------------------------------|-------------|
| Barbara Street    | Glenbridge Ave. to Ophelia     | 106.75 Tons |
| What Cheer Ave.   | Laurel Hill to Pocasset        | 191.45 "    |
| Crown Street      | What Cheer Ave. to City Line   | 109. "      |
| Sterling Ave.     | Terrace Ave. to Judith         | 756.75 "    |
| Judith Street     | Sterling to Magnolia St.       | 148. "      |
| Harlam Street     | Sibyl St. to Lowell Ave.       | 96. "       |
| Linwood Ave.      | Union Ave. to Cranston St.     | 400. "      |
| Waverly Street    | Huntington Ave. to Union St.   | 156. "      |
| Sorrento Street   | Union Ave. to Wadsworth St.    | 480. "      |
| Marvin Street     | Messer St. to Huntington Ave.  | 96. "       |
| Althea Street     | Union Ave. to Cranston St.     | 347.10 "    |
| Willow Street     | Ellery St. to Messer St.       | 96. "       |
| Rosedale St.      | Messer to Huntington Ave.      | 372. "      |
| Princeton Ave.    | Bucklin to Elmwood Ave.        | 156. "      |
| Hudson Street     | Parade to Huntington Ave.      | 586. "      |
| Whitmarsh Street  | Broad to Elmwood Ave.          | 420. "      |
| West Clifford St. | Mytle to Point Street          | 384. "      |
| Meeting St.       | Congdon to Prospect            | 156. "      |
| Atlantic Ave.     | Broad to Melrose               | 660. "      |
| Lenox Ave.        | Broad to Melrose               | 764. "      |
| So. Court St.     | Congdon to Benefit Sts.        | 96. "       |
| Pratt Street      | Bowen to Olney Sts.            | 545.05 "    |
| Hamilton Street   | Atlantic Ave. to Adelaidd Ave. | 352. "      |
| Massie Ave.       | Broad St. to Baxter St.        | 144. "      |
| Houston Street    | Broad St. to Gordon Ave.       | 156. "      |
| Wheaton Street    | So. Court St. to Bowen         | 85.25 "     |
| Staniford Street  | Blackstone to Public St.       | 329. "      |
| George Street     | Brook St. to Governor St.      | 360. "      |
| Rugby Street      | Wyatt to Pavilion Ave.         | 552. "      |
| Althea Street     | Union Ave. to Huntington Ave.  | 100. "      |
| Norwich Ave.      | Baxter to Broad                | 132. "      |
| Benevolent St.    | Benefit to Brown               | 372. "      |
|                   | Thayer to Governor             |             |
| Montgomery Ave.   | Cyr. St. to Roger Wms. Park    | 104. "      |
| Gallatin Street   | Broad to Elmwood Ave.          | 940. "      |
| Ruskin Street     | Gallatin St. to Lenox Ave.     | 120. "      |
| Hamlin Street     | Elmwood to Roger Wms. Park     | 216. "      |
| Thurston Street   | Elmwood to Roger Wms. Park     | 168. "      |
| Dixon Street      | Elmwood to Roger Wms. Park     | 120. "      |
| Sheldon Street    | Benefit to Hope                | 447.55 "    |
| Hopedale Road     | Pleasant to Mt. Hope Ave.      | 66.10 "     |
| Williams Street   | Benefit to Hope                | 326.85 "    |
| Silver Lake Ave.  | Murray St. to Union Ave.       | 157.25 "    |
| Trenton Street    | Governor to Gano               | 351.50 "    |
| Clarendon Street  | Cole to Slater Aves.           | 161.60 "    |
| Summit Ave.       | Rochambeau to Seventh St.      | 716.05 "    |
| Hobart Ave.       | Lloyd Ave. to President Ave.   | 96.85 "     |
| Top Street        | Entire Length                  | 145.55 "    |
| Ogden Street      | Hope to Lorimer                | 157.40 "    |
| Evergreen Street  | North Main to Ivy              | 436.35 "    |
| Lydia Street      | Gandace to Douglas             | 162.55 "    |
| Winsor Street     | Francis to Orms                | 72.55 "     |

|                   |                               |             |
|-------------------|-------------------------------|-------------|
| Monticello Street | Russo to Opper                | 132.85 Tons |
| Leo Ave.          | Charles St. Easterly          | 132.90 "    |
| Flora Street      | Chatham to Branch             | 121.05 "    |
| Opper Street      | Nahant to Social              | 84.80 "     |
| Greeley St.       | Charles to Russo              | 36.30 "     |
| Chatham Street    | Silver Spring to Branch       | 217.60 "    |
| Pemberton St.     | Roanoke to Armington          | 596. "      |
| Roanoke St.       | Academy to Leah St.           | 703.40 "    |
| Dover Street      | Academy to Leah St.           | 851.40 "    |
| Lynch Street      | Manton to Atwells Ave.        | 85.40 "     |
| Metropolitan Rd.  | Standish to Mt. Pleasant Ave. | 215.35 "    |
| Beaufort Street   | Mt. Pleasant to Lynch         | 305.25 "    |
| Aldine Street     | Chalkstone Ave. to Almira     | 182.70 "    |

RECEIVED STREETS STARTED 1961-62 COMPLETED 1962-63

|                |                               |               |
|----------------|-------------------------------|---------------|
| Winthrop Ave.  | Chalkstone Ave. to Cannonchet | 169.00 Tonage |
| Gentian Ave.   | Texas Ave. to City Line       | 625.30 "      |
| Almira Street  | Imera to Aldine               | 207.15 "      |
| Kentland Ave.  | Admiral to Gentian            | 386.80 "      |
| Sparrow Street | Oakland to Ruggles St.        | 84.65 "       |
| Ruggles Street | Smith to Chad Brown           | 247.40 "      |
| Oxford Street  | Ocean to Prairie Ave.         | 246.00 "      |

RECEIVED STREETS STARTED 1962-63 INCOMPLETE SEPTEMBER 30, 1963

|                       |                     |               |
|-----------------------|---------------------|---------------|
| Hazael Street         | Admiral to Douglas  | 384.30 Tonage |
| Hillview Ave.         | Bradley to Admiral  | 183. "        |
| River Ave.            | Hymen to Admiral    | 290.65 "      |
| Parnell Street        | Entire Length       | 89.05 "       |
| Fairview Street       | Entire Length       | 73.50 "       |
| Pleasant Valley Pkwy. | Rosebank to Justice | 1144.85 "     |
| Lucy Street           | Parnell to Almira   | 134.20 "      |

UNRECEIVED STREETS REPAIRED AND SURFACED OR RESURFACED  
1962 - 1963

Total A. C. Tonage

|                   |                              |          |
|-------------------|------------------------------|----------|
| Adams Street      | Knight St. to Piedmont St.   | 64. Tons |
| Dakota Street     | Woodward Rd. to Dead End     | 240. "   |
| Squanto Street    | Woodward Rd. to Wanskuck Co. | 60. "    |
| Newport Street    | Woodward Rd. to Wanskuck Co. | 84. "    |
| Iowa Street       | Woodward Rd. to Dead End     | 136. "   |
| Minnesota Street  | Woodward Rd. to Dead End     | 156. "   |
| Groton Street     | Durfee to Powhatan St.       | 242.95 " |
| Alexander Street  | Santiago to End              | 96. "    |
| Nye Street        | Ida to Petteys Ave.          | 206. "   |
| Queen Street      | Cleveland to Playground      | 56.80 "  |
| Sevier Street     | Plainfield to Mercy          | 24. "    |
| Kitchner Street   | Killingly to City Line       | 60. "    |
| Ida to Nye Street | Dead End                     | 31.5 "   |
| Hale Street       | Bowdoin to Putnam            | 39.55 "  |
| Peter Lane        |                              | 75.10 "  |
| Murphy Street     | Entire Length                | 43.85 "  |
| Cutler Street     | Atwells Ave. north to Newark | 98.30 "  |
| Goulding Street   | Transit to Wickenden St.     | 25. "    |
| Maxons Lane       | John to Arnold               | 37.95 "  |
| Cloud Street      | Unit to Parnell              | 50.90 "  |

UNRECEIVED STREETS STARTED 1962 - 63  
INCOMPLETE SEPTEMBER 30, 1963

|                  |                             |               |
|------------------|-----------------------------|---------------|
| Brinkley Street  |                             | 211.65 Tonage |
| McClellan Street |                             | 125.65 "      |
| Dale Street      | Atwells Ave. to W. Exchange | 71.10 "       |

PATCHING AND REPAIRING SUNDRY STREETS

Patching materials used for temporary repairs were purchased from private vendors. Approximately 340 miles of highway were maintained during the fiscal year. Materials used on general patching and repairing were as follows:

|  |                           |
|--|---------------------------|
| Ready Mixed Concrete ... 45.5 Cu. Yds. | Crushed Stone -----       |
| A. C. Mix.....1763.10 Tons             | Kerosene .....1232. Gals. |
| Crushed Gravel..... 202.63 Tons        | Sand..... 211 Tons        |

Materials used on surfacing and resurfacing were as follows:

|                       |                |
|-----------------------|----------------|
| A. C. Mix.....        | 21,913.70 Tons |
| Cement.....           | 73 Bags        |
| Crushed Stone 2"..... | 155.98 Tons    |
| Kerosene.....         | 8,618 Gallons  |
| Sand.....             | 103,44 Tons    |

Materials used in repairing sidewalks due to damage caused by tree roots and by removing trees with Dutch Elm disease were as follows:

|                    |        |      |
|--------------------|--------|------|
| Cement.....        | 1127   | Bags |
| Gravel 1-1/2"..... | 352.27 | Tons |
| Sand.....          | 684.63 | Tons |
| A. C. Mix.....     | 815.50 | Tons |

MISCELLANEOUS WORK

During the past year the Highway Section performed services for the Engineering Division, Bridge Maintenance, Draw Bridges, Harbor Master, Sidewalk and Curbing, Forestry, Public Buildings, Sewer Maintenance, Sewage Disposal, Garbage Incinerator, Municipal Wharf, City Sergeant and the Park, Recreation, Health, Welfare, Police & Fire Department, Chapin Hospital, Rhode Island Hospital, Municipal Garage and Traffic Engineering. And, a list of the work performed is as follows:

1. Hauling fill for Fields Point and Manton Avenue dumps.
2. Resurfaced road and truck parking area at new Tuna Building on Municipal Dock.
3. Graded dumps at Fields Point, Gano Street, Mount Pleasant Avenue, Smith Street, Manton Avenue and Hartford Avenue.
4. Resurfaced roadways in Roger Williams Park, Chapin Hospital and Pleasant Valley Parkway.
5. Erected and removed bandstands for Columbus Day, Armistice Day and Labor Day Celebrations, also for various Veterans and Civic Organizations for dedications and memorials.

6. Assisted in the decorations for the City of Providence for Christmas and Fourth of July celebrations.
7. Set up and removed equipment at the various voting places in the City of Providence for the Board of Canvassers.
8. Removed rubbish from City Hall.
9. Worked on the removal of large sand hill on leased land by the Sun Oil Company at Fields Point.
10. Moved and put in storage the personal belonging and furniture of many families evicted by the courts and being helped by the Welfare Department.
11. Cleaned River Bank along Promenade Street.
12. Performed Permanent Maintenance on the following streets: Elmwood Avenue, Smith Street, Broad Street, Branch Avenue, Angel Street.

#### LAWNS AND GRASS PLANTS MAINTAINED

|                   |                               |
|-------------------|-------------------------------|
| Cohan Boulevard   | Eight St. & Lorimer Ave.      |
| Oakland Avenue    | Slater Ave. and Goldsmith St. |
| Kinsley Avenue    | Sewer Disposal Grounds        |
| North Main Street | Eddy St. and Ship Street      |
| Franklin Square   | Market Square                 |
| Elmgrove Avenue   | Cemetery Street               |
| Chad Brown Street | Pitman Street                 |
| Atwells Avenue    | Gov. Roberts Expressway       |

#### BRIDGE MAINTENANCE SECTION

This section is responsible for the repair and maintenance of all city-owned bridges. The expenditures of the section were as follows:

|        |                              |             |
|--------|------------------------------|-------------|
| Item 0 | Personal Services            | \$50,316.33 |
| Item 1 | Services other than Personal | 6,573.75    |
| Item 2 | Materials and Supplies       | 14,853.48   |
| Item 5 | Equipment                    | 175.00      |
| Total  |                              | \$71,918.56 |

|         |       |
|---------|-------|
| Revenue | 65.22 |
|---------|-------|

There are 60 city-owned bridges, of which the following 31 required work this year.

|                         |  |
|-------------------------|--|
| Point Street Bridge     | Merino Park-Foot Bridge                    |
| Red Bridge              | Merino Bridge-Glenbridge Avenue            |
| Dyer Street Bridge      | Manton Avenue Bridge-City Line-Manton Ave. |
| Weybosset Bridge        | Smith Street Bridge                        |
| Washington Row Bridge   | Pettis Street Bridge                       |
| Canal Street Bridge     | Cemetery Street                            |
| Promenade Street Bridge | Charles Street R.R.                        |
| Gaspee Street Bridge    | Veazie Street                              |
| Park Street Bridge      | Adelaide Avenue Foot Bridge--over R.R.     |
| Leland St. Foot Bridge  | Roger Williams Avenue--Railroad Bridge     |
| Acorn Street Bridge     | Gen. Edwards Memorial Viaduct              |
| Atwells Avenue Bridge   | Gov. Roberts Expressway--Harris Ave.       |
| Delaine Street Bridge   | Gov. Roberts Expressway-Plainfield St.     |

Gov. Roberts Expressway - Hartford Ave.  
Gov. Roberts Expressway-Westminster St.  
Gov. Roberts Expressway-Broadway  
Gov. Roberts Expressway-Huntington  
Harris Ave. Ramp.

The following work was also done:

1. Repaired sidewalks on the following bridges: Point, Red, Glenbridge Avenue, Roger Williams, Smith, Park Cemetery, Acorn and Leland.
2. Repaired roadways on the following bridges: Cemetery, Smith, Acorn, Park and Gen. Edwards Memorial Viaduct.
3. Repaired the following footbridges: Merino Park, Leland and Adelaide.
4. Painted railings on Gov. Roberts Expressway.
5. Trimmed steel deck of red bridge.
6. Repaired expansion plates Gov. Roberts Expressway and Gaspee Street.
7. Repaired and painted guard rails on Gov. Roberts Expressway and Woodward Road.
8. Replaced wooden beams under north sidewalk and rebuilt sidewalk of Delaine Street Bridge.
9. Installed new sub-deck, top-deck and sidewalk. Repaired or replaced stringers, piles and caplogs on Park Street Bridge.
10. Painted the following bridges: Delaine, Atwells, Acorn, under sidewalk on Adelaide Ave. foot bridge.
11. Repaired fences on Nash Lane Bridge (Pettis) Leland Street and Pleasant Valley Parkway.
12. Worked with Forestry Section to plant some 200-250 trees along Broad St. and other streets.
13. Rebuilt wall at incinerator and replaced bumpers at unloading stations.
14. Inspected underside of Market Square with Seaboard Construction Co.
15. Cleaned River along Promenade and Kinsley Ave. from Francis Street to Eagle Street.
16. Replaced wood sub-deck, reinforced roadway beams and painted Atwells Ave. Bridge.
17. Prepared Point Street Bridge for opening and cleaned engine room walls and machinery.
18. Worked on railroad switches at Fields Point.
19. Repaired expansion joints on Reservoir Ave. R. R. Bridge.

### SIDEWALK & CURBING SECTION

This section is responsible for the condition of all sidewalks in the City. It serves notices on property owners for the repair, construction or reconstruction of sidewalks; inspects all sidewalks work; makes temporary minor repairs to sidewalks; and is responsible for the posting and maintenance of street signs and memorial square signs.

The expenditures of this Section were as follows:

|        |                              |                    |
|--------|------------------------------|--------------------|
| Item 0 | Personal Services            | \$19,541.17        |
| Item 1 | Services other than personal | 3,952.61           |
| Item 2 | Materials & Supplies         | 1,048.82           |
|        | Total                        | <u>\$24,542.60</u> |

|                                |           |
|--------------------------------|-----------|
| Revenue:                       |           |
| Sidewalk Contractor's Licenses | \$ 530.00 |

The operations of this Section were as follows:

|   |        |
|---|--------|
| Sidewalk Contractor's Licenses Issued                         | 53     |
| Notices served to build or repair                             | 395    |
| Built or repaired   | 128    |
| Permits to build or repair                                    | 568    |
| Sewer openings inspected                                      | 149    |
| Construction of curb openings for driveways inspected         | 265    |
| Memorial Sq. Signs repaired & relettered                      | 24     |
| Sidewalks damaged due to tree roots inspected                 | 492    |
| Sidewalks inspected after installation of new water services. | 166    |
| Streets abandoned by Council and signs erected                | 10     |
| Washout depressions inspected and repaired                    | 259    |
| Sidewalk Claims Investigated                                  | 46     |
| Street Signs repainted and relettered                         | 50     |
| Street names changed by Council and new signs erected         | 4      |
| Pole openings inspected                                       | 140    |
| Total Lin. Ft. of Bituminous sidewalks built                  | 27,077 |
| Total Lin. Ft. of cement sidewalks built                      | 11,991 |

This section replaced 1170 defective street signs with new black and white metal signs.

This section also made a survey of all sidewalk conditions in conjunction with the road resurfacing program on the following streets:

|                   |                 |                |
|-------------------|-----------------|----------------|
| Atwells Ave.      | Daniel Ave.     | Potters Ave.   |
| Angell St.        | Eddy St.        | Public St.     |
| Bath St.          | Knight St.      | Randall St.    |
| Brook St.         | Messer St.      | Union Ave.     |
| Brighton St.      | Pavilion Ave.   | Washington Row |
| West Exchange St. | What Cheer Ave. | Rhodes St.     |

### FORESTRY SECTION

This Section is responsible for the planting, care, maintenance and removal of trees and shrubbery within the limits of the highways:

### EXPENDITURES

|        |                              |               |
|--------|------------------------------|---------------|
| Item 0 | Personal Services            | \$75,424.37   |
| Item 1 | Services other than personal | 19,988.28     |
| Item 2 | Materials and Supplies       | 3,413.69      |
| Item 5 | Capital Outlay               | <u>251.37</u> |

|       |             |
|-------|-------------|
| Total | \$99,077.71 |
|-------|-------------|

Revenue: \$ 665.74.

Less than one percent of the trees on our streets are diseased or in poor condition. The diseased trees are being removed and replaced by trees from the nursery. This program of demolition and replacement, the so called "Dutch Elm Program", is closely coordinated with the oversll program for the control of this disease being pursued by State of Rhode Island Department of Agriculture and Conservation.

Three hundred and forty-three (343) diseased Elm trees were condemned and removed this year. One hundred and fifty-two of these trees were on City streets and one hundred and twenty-eight (128) on private property. The Forestry Section removed sixty-three (63) trees and the remainder was taken down under private contract.

The following is a recapitulation of the Dutch Elm trees removed:

|                                |            |
|--------------------------------|------------|
| Forestry Department            | 63         |
| E. W. Cerio (City Streets)     | 152        |
| E. W. Cerio (Private Property) | <u>128</u> |
| Total                          | 343        |

The Nursery at Roger Williams Park consists of Maidenhair trees, London Plane, Mountain Ash, Western Catalpa, Pin Oak, Locust and Maples. The cultivation and growth of these trees are progressing well. These trees are being used to replace the diseased trees which were removed and, also, to increase the shade trees on our City streets. At present there are 107 trees in the Nursery.

|                         |       |
|-------------------------|-------|
| Number of trees pruned  | 8,633 |
| Number of trees removed | 1,106 |
| Number of trees sprayed | 3,201 |
| Number of trees planted | 1,365 |

### SNOW REMOVAL

#### Expenditures

|        |                              |                  |
|--------|------------------------------|------------------|
| Item 0 | Personal Services            | \$98,042.14      |
| Item 1 | Services other than Personal | 58,829.08        |
| Item 2 | Materials & Supplies         | <u>60,967.28</u> |

|       |              |
|-------|--------------|
| Total | \$217,838.50 |
|-------|--------------|

Snow Removal is primarily a function of the Highway Section. All the Ice Control (Sanding, Salting, Etc.) is accomplished by this Section. The plowing is performed in the following manner.

Zone 1-2-3-8-10  
 Zone 4-5-6-9-13  
 Zone 7  
 Zone 11-12

By the Incinerator Trucks  
 By the Highway Trucks  
 By the Forestry Trucks  
 By the Sewer Trucks

Thirteen main routes of the City are plowed in tandem by hired trucks working under the supervision of Zone Supervisors. All hills and main highways are sprayed with Salt.

For the Fiscal Year 1962-63 the City had 14 snow storms. The first on October 25, 1962, and the last on March 24th, 1963 with a total of 28.4 inches. During this period the following work was completed:

|   |                |
|---|----------------|
| Sanding Streets   | 15,748 miles   |
| Plowing Streets   | 9,133 miles    |
| Removal of Snow (Business Area, Churches and Funeral Homes) | 1,320 Cu. Yds. |

The following materials were used during the year:

|      |              |
|------|--------------|
| Sand | 7493.35 Tons |
| Salt | 3,500 Tons   |

The following Equipment was hired from private contractors:

|        |    |       |     |
|--------|----|-------|-----|
| Trucks | 76 | Hours | 640 |
|--------|----|-------|-----|

#### SEWER CONSTRUCTION & MAINTENANCE SECTION

This Section is responsible for the inspection, Maintenance, Cleaning, Repairing, Construction and reconstruction of the Sewers and Sewer Appurtenances; such as, Manholes, Catch Basins, Inlets, etc., of the Sewer System.

#### EXPENDITURES

|                                     |              |
|-------------------------------------|--------------|
| Item 0 Personal Services            | \$319,378.69 |
| Item 1 Services other than Personal | 65,054.10    |
| Item 2 Materials and Supplies       | 19,271.63    |
| Item 5 Capital Outlay               | 192.88       |
| Total                               | \$403,897.30 |

#### MAINTENANCE AND CONSTRUCTION WORK PERFORMED

|   |    |
|---|----|
| Manholes rebuilt and repaired               | 35 |
| Defective or broken manhole covers replaced | 45 |
| Chutes repaired or rebuilt                  | 50 |
| Catch Basin Covers replaced                 | 60 |
| Catch Basins repaired or remodeled          | 52 |
| Broken gutter grates replaced               | 25 |
| Broken inlet stones replaced                | 75 |
| Traps replaced and/or repaired              | 25 |
| Manhole frames replaced and/or repaired     | 28 |
| Catch Basin frames replaced or reset        | 24 |
| Manhole covers and frames reset             | 75 |
| Sewer Lines and Connections repaired        | 40 |
| Manholes cleaned by hand                    | 46 |
| New catch basins built                      | 15 |



|                         |    |
|-------------------------|----|
| Standpipes rebuilt      | 0  |
| New manholes built      | 5  |
| New gutter grates built | 10 |

Basins, Gutter Grates and Sumps Cleaned: Deposits  
Removed, Lines Flushed, and Complaints Received

|  |             |          |
|--|-------------|----------|
| Basin Inspections                      | 18,521      |          |
| 8931 Catch Basins Cleaned              | 16,940.52   | Cu. Yds. |
| 280 Sumps Cleaned                      | 1112        | Cu. Yds. |
| 793 Gutter Grates Cleaned              | 471.6       | Cu. Yds. |
| 1500 Complaints Received               | All Cleared |          |
| Sewer Lines Flushed                    | 38,525      | Feet     |
| 289 Open Drains Cleaned                | 1,273       | Feet     |
| Gasoline Drainage Location Inspections | 11          |          |

Following is a Resume of Private Drain Inspections made in  
Conjunction with private construction & alterations:

|   |    |
|---|----|
| Street Openings for Private Drain Connections                                     | 45 |
| Inspection and Record Sketches for Private Drain<br>Construction and Alterations: |    |

|          |                |     |
|----------|----------------|-----|
| Original | 202 Extensions | 275 |
|----------|----------------|-----|

WORK PERFORMED IN CONJUNCTION WITH HIGHWAY SECTION

|                               |     |
|-------------------------------|-----|
| Catch Basins brought to grade | 36  |
| Manholes brought to grade     | 304 |

SPECIAL WORK

Received a call to inspect sewer line on Bogman Street. We found in two different locations, one opposite 91 Bogman Street and one opposite 52 Bogman Street. 12" V.C. Pipes had to be replaced. Excavated trench in each section 12' long, 3' wide and 13' deep. This job was back filled and completed.

Greeley Street, build two new catch basins and raised to new grade five manholes.

North East Corner of Point and Eddy Streets, installed flap gate.

Revamped catch basin in driveways at 76 Farragut Avenue, and also at 84 Ledge Street. This work was done free of cost to the tax payers.

Barbara Street, flush 300' and removed 8 yds. of dirt.

Valley Street, flush approximately 200' and removed 6 yds. of dirt.

South Water Street was flushed for 400' and 32 yds. of sand removed.

Massachusetts Avenue, flushed approximately 200 yds. and removed about 7 yds. of dirt.

Vermont Avenue, flushed about 250' and removed approximately 9 yds. of sand.

Elm and Eddy Streets, rebuilt new manhole that was damaged by Water Works.

Hudson and Ellery Streets, North East Corner, build new basins and connected to manhole.

Manton Avenue dump - Laid 160 ft. of 36 in. pipe and built 2 manholes in the Manton Avenue dump extending out toward the river. This job is partially completed.

Replaced 40 ft. of 8" Sanitary line on Plain and Bowen Streets.

Repaired broken connection to manhole on Cedar Street.

Installed 2 new Catch Basins and connected same into sewer main and raised 12 manholes.

Raised Manholes and Catch Basins to Grade on Christopher Street.

Raised Manholes on Spokane and Star Streets.

Hamilton Street and Congress Avenue, North East Corner, dug up basin connection that was full of roots and replaced with new pipe.

Received many calls from the Police in regards to cleaning out catch basins where they felt goods were deposited.

Traps and chutes throughout the year were cleaned, but no records are kept. This amounts to several hundreds.

In connection with regular work, we inspected and flushed sewer lines at many other locations.

General - Received and attended to many calls for the removal of objects from Catch Basins; such as keys, watches, dead and live animals, etc., some of these requests having come to us from the Police Department.

In connection with our regular daily work, we examined and cleaned and flushed sewer lines at many different locations.

Records are not kept of the exact number of traps and chutes cleaned through the year, but the number of such examinations and cleanings run into the thousands.

#### PUBLIC BUILDING SECTION

This Section is responsible for the preparation of plans and specifications for the Construction, Maintenance, Remodeling and repair of all Public Buildings owned by the City. A Drafting Room where plans and specifications are prepared and a shops and stores room are located in the West End of the Municipal Garage Building on Ernest Street. The building trades workers employed by the Section use the shop for fabricating some of the wood and metal fixtures used in the renovation and repair of the buildings. Employees of this Section supervise the various construction projects.

### EXPENDITURES

|        |                              |             |
|--------|------------------------------|-------------|
| Item 0 | Personal Services            | \$89,554.07 |
| Item 1 | Services other than Personal | 4,817.08    |
| Item 2 | Materials and Supplies       | 658.51      |
| Item 3 | Special Items                | 47.24       |
| Item 5 | Equipment Outlay             | 1,802.49    |
| Total  |                              | \$96,879.39 |

During the year we supervised the construction of

Camden Avenue School  
Danforth Street Recreation Center  
Triggs Memorial Park Clubhouse  
Fox Point Little League Field  
Tockwotton Park Swimming Pool

This included supervision of supplementary details, inspection at the site, writing specifications for equipment where necessary, etc.

This Division prepared plans and specifications where necessary and supervised the work to be done at the following schools:

Asa Messer  
Beacon Avenue School  
Berkshire Street  
Broad Street  
Broad Street  
Central High  
Classical High  
Edmund Flynn  
Edmund Flynn  
Fox Point Elementary  
Gilbert Stuart Jr. High

John Howland  
Joslin Street  
Joslin Street  
Lexington Avenue  
Mount Pleasant High  
Mount Pleasant High  
Mount Pleasant High  
Mount Pleasant High  
Nathan Bishop Jr. High  
Nathan Bishop Jr. High  
Nathaniel Greene Jr. High  
Nathaniel Greene Jr. High  
Nathaniel Greene Jr. High  
Nelson Street  
Oliver H. Perry Jr. High

Ralph Street  
Sisson Street

Temple Street

Boiler Burner Installation  
Exterior Painting  
Roofing and Sheet Metal Work  
Cornice Repairs  
Roofing and Sheet Metal Work  
Plastering  
Plastering  
Exhaust Fan and Hood and Ceiling Repairs  
Paving and Site Improvements  
Acoustic Ceiling and Misc. Repairs  
Installation of Fire Alarm Bells in  
Boys' Shower Room  
Retubing of Boiler  
Retaining Wall  
Repairs to Boiler  
Yard Paving  
Limestone and Masonry Treatment  
Heating Coil Installation  
New Boiler Feed Lines  
New Hot Water Tank  
Retubing Boiler  
Copper Flashing repairs  
Retubing Boilers  
New Tile Floor - Cafeteria  
Boiler Repairs  
Modernizing Toilets  
Traps, Valves and Misc. Repairs to  
Heating System  
Masonry Treatment  
Retaining Wall, Fence, Yard Paving and  
Sidewalks  
Electrical Repairs and new Electrical  
Installation

Schools (Cont.)

|                         |                                     |
|-------------------------|-------------------------------------|
| Veazie Street           | Repairs to Copper Flashing          |
| Veazie Street           | Skylights, Roof and Masonry Repairs |
| Vineyard Street         | Electrical repairs                  |
| Vineyard Street         | Roofing and Sheet Metal Work        |
| George J. West Jr. High | Painting and Decorating Auditorium  |

Work done for the School Department by Public Building forces:

|                  |  |
|------------------|--|
| Branch Avenue    | Interior Painting  |
| Lexington Avenue | Interior and Exterior Painting and<br>Painting of Fire Escapes |
| Sisson Street    | Interior Painting  |
| Nelson Street    | Plumbing Alterations   |

Work done by this Division for other departments:

Prepared specifications and drawing and supervised work of fire damage repairs at the Nathan Bishop Junior High School.

for Bureau of Police and Fire:

|                       |                                |
|-----------------------|--------------------------------|
| Headquarters Building | Relocating Emergency Generator |
| " "                   | Retubing No. 3 Boiler          |
| " "                   | Misc. Plumbing Repairs         |
| " "                   | Installation of Floor Tile     |
| " "                   | Painting of Boiler Room        |

Fire Stations:

|                       |                               |
|-----------------------|-------------------------------|
| Rochambeau Avenue     | Installation of Gasoline Tank |
| Academy Avenue        | " " " "                       |
| Mount Pleasant Avenue | " " " "                       |
| Rochambeau Avenue     | Roof Repairs                  |
| Academy Avenue        | " "                           |
| Humboldt Avenue       | " "                           |
| Point Street          | " "                           |
| Admiral Street        | " "                           |
| Messer Street         | " "                           |
| Brook Street          | " "                           |
| Atwells Avenue        | Unit Heater Installation      |
| Admiral Street        | " " "                         |

and Miscellaneous plumbing, heating and electrical repairs.

For Bath Houses and Comfort Stations:

Weybosset Street Comfort Station - Installation of Boiler Burner

Miscellaneous plumbing, heating, electrical, carpentry and roof repairs at the bath houses and comfort stations.

Work done for the City Sergeant's Department including writing specifications where necessary:

City Hall:

Installation of new Electrical Fixtures in the following offices:

Board of Canvassers  
Public Works Office  
License Bureau  
Purchasing Department  
Public Buildings  
City Plan  
State Auditors  
Printing Shop

and installation of electrical outlets in Controller's Office

Floor repairs and new floor tile installation in:

Finance Office  
City Clerk's  
Purchasing  
Collectors

also: Board of Canvassers - Painting and Plastering

|                     |                      |
|---------------------|----------------------|
| Board of Canvassers | Repairs to Vault     |
| Probate Court       | Plastering           |
| License Bureau      | Painting             |
| City Clerk's        | New Aluminum Windows |

and miscellaneous roof repairs at City Hall and at Annex at Fountain Street.

Also: New Lighting and Heating for X-Ray Room for Health Department - Fountain Street

For Charles V. Chapin Hospital:

Supervised drawing of specifications and plans and supervision of the work for

Installation of Sprinkler System; also

|                         |  |
|-------------------------|--|
| Administration Building | Roof Repairs   |
| Lippitt Building        | " "  |
| East Building           | New Skylights and Masonry repairs                        |
| Ambulance Garage        | New Slide-Up Doors                                       |
| Hindle Building         | Installation of new wiring                               |
| Psychopathic Ward       | Installation of Steam Traps and Misc.<br>Heating Repairs |

for Park Department:

Supervised drawing of specifications and plans and supervision of the work for

Repairs and Renovations at the Bird House; also

supervision of work of electrical installation of Christmas Display and rewiring of Maintenance Building at Triggs Park.

for General Public Assistance:

Provided at the Bellevue Avenue District individual offices on the second floor for consulting services including electrical, plumbing, heating, carpentry work and also roof repairs.

for the Public Works Department:

Storage Shed, Municipal Wharf      Installation of new Slide-Up doors and  
Copper Flashing and Masonry Repairs

This Division wrote specifications for and supervised the work of demolition of structures at Aborn, Washington, Beverly and Fountain Streets and at Fountain, Worcester and Eddy Streets and paving for this area.

for North Burial Ground:

|                        |  |
|------------------------|--|
| Office Building        | Boiler Burner Installation                           |
| " "                    | Rewiring of Electrical System                        |
| Superintendent's House | Extensive plumbing, electrical and<br>Carpentry work |

and also painting of fence.

for Providence Civil Defense:

|                   |                                     |
|-------------------|-------------------------------------|
| Oxford Street     | Roofing and Sheet Metal Work        |
| " "               | Heating Repairs                     |
| " "               | Electrical repairs                  |
| Chad Brown Street | Electrical Repairs and Installation |

for Recreation Department:

Construction of Sayles Street Playground  
Construction of Outdoor Basketball Courts at:

|                      |                         |
|----------------------|-------------------------|
|                      | Columbia Park           |
|                      | Knight and Tell Streets |
|                      | Smith Street            |
|                      | Regent Avenue           |
|                      | Clarence Street         |
|                      | Dexter Street           |
| Chain Link Fences at |                         |
|                      | Joslin St. Rec. Field   |
|                      | Howell Street           |
|                      | Danforth St. Rec. Field |

Plumbing and Heating Alterations at

|                         |
|-------------------------|
| Collyer Park Playground |
| Sackett Street "        |
| Camp and Cypress        |
| Hopkins Park            |
| Dudley Street           |
| Joslin Street           |

Roof repairs at

Merino Park  
Mount Pleasant

Junior Police Camp at Point Judith:

Rebuilding toilet rooms at the three barracks including all necessary plumbing, heating, carpentry and electrical work.

Other work done by this Department or under our supervision and inspection:

Old Hope High - Veterans Administration Building:

Installation of Snow Guards  
Resurfacing of Driveways  
Roof and gutter repairs

Demolition of Structures at

Candace Street  
Hunter Street  
Thurbers Avenue  
Wickenden Street (Fire Station)

Installation of concrete sidewalk at Old Road Cemetery

Classical Central Education Center:

Directed, in conjunction with Prof. Walter F. Bogner, F.A.I.A., of the Graduate School of Design of Harvard University who acted as Professional Adviser, the architectural competition which included handling of correspondence between the competitors and the professional adviser, obtaining of borings, conferences with Prof. Bogner, representatives of the School Department, the Redevelopment Agency and key personnel of the City.

This office also did preliminary work for the construction of the Lippitt Hill School and the Lippitt Hill Playground and has been in frequent consultation with representatives of the School Department, the Recreation Department and City officials

Work under construction and being done under the supervision of this Division during the fiscal year ending September 30, 1963 amounts to approximately two million six hundred thousand (\$2,600,000.00) dollars.

We have started planning for construction work to be done in the near future in the amount of ten million six hundred thousand (\$10,600,000.00) dollars.

## DRAW BRIDGE OPERATION SECTION

This Section is responsible for the operation of the two draw bridges (Point Street Bridge and Red Bridge) owned and operated by the City of Providence. The men in this section also performed the housekeeping and preventative maintenance duties (greasing, oiling, shoveling snow, etc.) required to keep these bridges in operation. The repair and heavy maintenance work required on these bridges is performed by the Bridge Maintenance Section. This section also operated Point Street Bridge for the 2 openings which were made for the contractor of the Hurricane Barrier.

### EXPENDITURES

|        |                              |               |
|--------|------------------------------|---------------|
| Item 0 | Personal Services            | \$50,419.92   |
| Item 1 | Services other than Personal | 918.98        |
| Item 2 | Materials and Supplies       | <u>456.54</u> |
|        | Total                        | \$51,795.44   |
|        | Revenue                      | 32.87         |

Point Street Bridge was placed on a limited opening basis on May 10, 1958. The operating personnel and the electric power meter were removed at that time. Requests to have the bridge opening for water traffic must be made 24 hours in advance so that an operating crew can be obtained and a power meter installed. The Bridge has made 2 openings during this fiscal year. Both openings were made in the month of September 1963.



The following table shows the number and type of craft passing through Red Bridge by months for the fiscal year. It also shows the totals of vessels and openings and average time for openings for the fiscal year immediately preceding.

SUMMARY OF OPERATIONS FOR YEAR ENDING SEPTEMBER 30, 1963      SUMMARY OF OPERATIONS FOR YEAR ENDING SEPT. 30, 1962

RED BRIDGE

|           | Steamers | Tugs | Sail Boats | Barges | Miscellaneous | Total No. of Vessels<br>year 1962-63 | Total Openings 62-63 | Average time opening<br>to close of gates (Min.) | Total No. of Vessels<br>year 1961-62 | Total Openings 61-62 | Average time of opening<br>to close of gates (Min.) 61-62 |
|-----------|----------|------|------------|--------|---------------|--------------------------------------|----------------------|--|--------------------------------------|----------------------|---|
| October   | 24       | 10   | 4          | 2      | 1             | 41                                   | 35                   | 5.45   | 59                                   | 43                   | 4.65  |
| November  | 22       | 18   |            | 10     | 1             | 51                                   | 39                   | 5.40   | 33                                   | 23                   | 5.09  |
| December  | 22       | 17   |            | 9      |               | 48                                   | 27                   | 5.29   | 54                                   | 37                   | 5.05  |
| January   | 28       | 14   |            | 12     |               | 54                                   | 43                   | 5.37   | 67                                   | 51                   | 4.31  |
| February  | 18       | 19   |            | 11     | 2             | 50                                   | 38                   | 5.45   | 40                                   | 30                   | 4.67  |
| March     | 20       | 14   |            | 9      | 1             | 44                                   | 35                   | 4.88   | 46                                   | 31                   | 4.58  |
| April     | 16       | 18   |            | 13     |               | 47                                   | 34                   | 5.02   | 33                                   | 27                   | 4.74  |
| May       | 29       | 17   |            | 9      | 9             | 64                                   | 50                   | 5.07   | 64                                   | 45                   | 4.56  |
| June      | 14       | 18   | 4          | 11     | 17            | 64                                   | 51                   | 5.54   | 56                                   | 35                   | 5.05  |
| July      | 23       | 4    |            | 3      | 21            | 51                                   | 46                   | 5.01   | 40                                   | 33                   | 4.42  |
| August    | 11       | 12   |            | 12     | 16            | 51                                   | 41                   | 5.06   | 51                                   | 34                   | 5.47  |
| September | 18       | 59   |            | 38     | 9             | 124                                  | 75                   | 5.01   | 43                                   | 30                   | 6.00  |
|           | 245      | 220  | 8          | 139    | 77            | 689                                  | 514                  |  | 586                                  | 419                  |   |

The following table shows the total number of craft passing through the Drawbridges beginning the year 1907:

From 1907 to 1928, inclusive, years ending December 31.

Year 1929 includes 9 months only, and ends September 30.

From 1930 to date, years end September 30.

| YEAR    | POINT<br>STREET<br>BRIDGE | RED<br>BRIDGE | YEAR    | POINT<br>STREET<br>BRIDGE | RED<br>BRIDGE |
|---------|---------------------------|---------------|---------|---------------------------|---------------|
| 1907    | 25,949                    | 2,632         | 1934-35 | 1,307                     | 2,454         |
| 1908    | 21,767                    | 4,852         | 1935-36 | 1,468                     | 2,150         |
| 1909    | 17,218                    | 6,914         | 1936-37 | 1,368                     | 2,130         |
| 1910    | 17,125                    | 2,927         | 1937-38 | 1,136                     | 1,913         |
| 1911    | 20,078                    | 3,293         | 1938-39 | 1,676                     | 2,187         |
| 1912    | 21,519                    | 3,021         | 1939-40 | 1,299                     | 3,431         |
| 1913    | 15,311                    | 3,734         | 1940-41 | 1,066                     | 2,420         |
| 1914    | 13,364                    | 2,491         | 1941-42 | 1,205                     | 1,722         |
| 1915    | 14,409                    | 2,755         | 1942-43 | 1,263                     | 1,087         |
| 1916    | 11,638                    | 3,368         | 1943-44 | 1,487                     | 2,262         |
| 1917    | 9,704                     | 3,273         | 1944-45 | 1,233                     | 1,319         |
| 1918    | 6,894                     | 2,680         | 1945-46 | 1,078                     | 1,828         |
| 1919    | 7,123                     | 3,467         | 1946-47 | 936                       | 1,640         |
| 1920    | 6,950                     | 4,451         | 1947-48 | 1,010                     | 1,541         |
| 1921    | 6,067                     | 2,001         | 1948-49 | 666                       | 2,130         |
| 1922    | 5,307                     | 2,958         | 1949-50 | 638                       | 1,609         |
| 1923    | 5,476                     | 5,134         | 1950-51 | 371                       | 1,973         |
| 1924    | 4,858                     | 2,035         | 1951-52 | 125                       | 1,628         |
| 1925    | 4,939                     | 1,942         | 1952-53 | 202                       | 1,752         |
| 1926    | 5,198                     | 2,415         | 1953-54 | 51                        | 2,787         |
| 1927    | 4,700                     | 2,934         | 1954-55 | 883                       | 1,313         |
| 1928    | 4,679                     | 3,912         | 1955-56 | 141                       | 1,536         |
| 1929    | 4,068                     | 3,623         | 1956-57 | 16                        | 1,189         |
| 1929-30 | 3,210                     | 2,738         | 1957-58 | 9                         | 1,076         |
| 1930-31 | 3,243                     | 2,742         | 1958-59 | 6                         | 1,021         |
| 1931-32 | 1,197                     | 1,900         | 1959-60 | 0                         | 758           |
| 1932-33 | 1,327                     | 2,787         | 1960-61 | 212                       | 586           |
| 1933-34 | 1,990                     | 3,750         | 1961-62 | 104                       | 614           |
|         |                           |               | 1962-63 | 2                         | 689           |

| BRIDGE | GREATEST NUMBER OF OPENINGS<br>IN ANY ONE DAY |           | DAILY AVERAGE NUMBER OF<br>OPENINGS FOR THE YEAR |           |
|--------|---|-----------|--|-----------|
|        | 1961-1962                                     | 1962-1963 | 1961-1962  | 1962-1963 |
| Red    | 10  | 6         | 1.57   | 1.17      |
| Point  | 4   | 1         | -----  | -----     |

# STREET LIGHTING SECTION

## Street Lighting Costs

The total expenditures for the fiscal year ending September 30, 1963, for street, bridge, subway, and park lighting bills, contracted in the months stated, less all credits for outage, have been as follows:

1962-1963 Appropriation --- \$509,128.00

### INCANDESCENTS AND MERCURY

|           | <u>Total Bill</u>   | <u>Less Outage</u> | <u>Net Cost</u>   |
|-----------|---------------------|--------------------|-------------------|
| 1962      |                     |                    |                   |
| October   | 40,155.38           | 149.54             | 40,005.84         |
| November  | 40,234.26           | 205.62             | 40,028.64         |
| December  | 40,789.64           | 246.98             | 40,542.66         |
| 1963      |                     |                    |                   |
| January   | 40,855.33           | 223.93             | 40,631.40         |
| February  | 40,952.11           | 173.83             | 40,778.28         |
| March     | 41,044.30           | 188.70             | 40,855.60         |
| April     | 41,128.86           | 139.54             | 40,989.32         |
| May       | 41,209.11           | 73.60              | 41,135.51         |
| June      | 41,343.24           | 70.76              | 41,272.48         |
| July      | 41,771.37           | 79.34              | 41,692.03         |
| August    | 41,678.38           | 78.83              | 41,599.55         |
| September | 41,773.81           | 133.07             | 41,640.74         |
|           | <u>\$492,935.79</u> | <u>\$1,763.74</u>  | <u>491,172.05</u> |

# SCHEDULES OF STREET LIGHTING DATA

|                | <u>O.H. A.N.</u>     |             | <u>1000 cp.</u>    |                 | <u>O.H. A.N.</u>    |             |
|----------------|----------------------|-------------|--------------------|-----------------|---------------------|-------------|
|                | <u>600 cp.</u>       | <u>A.N.</u> | <u>U.G.</u>        | <u>A.N.</u>     | <u>U.G.</u>         | <u>A.N.</u> |
| Oct. 1, 1962   | 29                   |             | 280                |                 | 26                  |             |
| Sept. 30, 1963 | 29                   |             | 158                |                 | 26                  |             |
| Changes        | 0                    |             | 122                |                 | 0                   |             |
|                |                      |             |                    |                 |                     |             |
| Oct. 1, 1962   | <u>Mer. 7000 Lu.</u> |             | <u>Merc. 2 Lt.</u> |                 | <u>Sodium Light</u> |             |
| Sept. 30, 1963 | 118                  |             | A.H. U.G.          | Merc. Vap. O.H. | U.G. U.G.           | A.N.        |
| Changes        | 173                  |             | 8                  | 2093            | 1474                | 21          |
|                | 55                   |             | 12                 | 2091            | 1687                | 21          |
|                |                      |             | 4                  | 2               | 213                 | 0           |

|                | <u>100 cp. U.G.</u> |             | <u>100 cp. O.H.</u> |             | <u>Merc. Vap.</u>  |                | <u>A.N. O.H. H.N.</u> |           |
|----------------|---------------------|-------------|---------------------|-------------|--------------------|----------------|-----------------------|-----------|
|                | <u>A.N.</u>         | <u>U.G.</u> | <u>A.N.</u>         | <u>H.N.</u> | <u>24 Hr. U.G.</u> | <u>250 cp.</u> | <u>17</u>             | <u>12</u> |
| Oct. 1, 1962   | 138                 | 227         | 7748-B              | 9           | 44                 | 507            | 17                    | 12        |
| Sept. 30, 1963 | 158                 | 227         | 7766                | 9           | 44                 | 512            | 17                    |           |
| Changes        | 20                  | 0           | 18                  | 0           | 0                  | 5              | 0                     |           |

|   | Sept. 30, 1962 | Sept. 30, 1963 | Changes |
|---|----------------|----------------|---------|
| Total number equivalent single incandescent lights            | 8996           | 8896           | 100     |
| Total number mercury lights 21,000, 15,000 15000c & 7,000 Lu. | 3697           | 3963           | 266     |
| Total number equivalent single sodium lights                  | 21             | 21             | 0       |

From May 1 to October 14, inclusive, the H.N. lights burn one extra hour until 1 A.M.

The United Transit Company is charged for ½ the cost of the 15,000c lumen U.G. mercury which is located at the Thayer Street entrance to the tunnel.

B-includes 8 lights on Montgomery Avenue for which Cranston pays \$7.00 per light per annum

These Charges shown for the United Transit Company and the City of Cranston are billed by the City Controllers Office.

# STREET LIGHTING UNIT COSTS

Under the provisions of terms and conditions for street lights this being the so called "Fuel Clause", the cost of the street lights for the year beginning October 1, 1962, depended upon the cost of fuel for the year ending July 31, 1963. This cost averaged \$9.79 per standard net ton. This is \$0.96 below the base price of \$10.75. All base prices shown in the rate schedule will therefore be decreased by an amount obtained by multiplying the decrease per ten cent variation by 9. A tabulation showing the unit prices for the year beginning October 1, 1963, is as follows:

|                                    | Annual<br>Decrease<br>per 10¢<br>Decrease<br>in cost of<br>fuel below<br>\$10.75 base | No. of<br>10¢ below<br>\$10.75 base<br>Fuel Price | Decrease<br>to<br>Base<br>Price | Annual<br>Base<br>Price | Net<br>Price |
|------------------------------------|---|---|---------------------------------|-------------------------|--------------|
| <b>Incandescent 100 cp.</b>        |   |   |                                 |                         |              |
| U. G. All night                    | .021  | 9   | .19                             | 29.12                   | 28.93        |
| U. G. Single, ½ Night              | .009  | "   | .08                             | 25.11                   | 25.03        |
| Aerial Single, A.N.                | .021  | "   | .19                             | 16.09                   | 15.90        |
| Aerial Single, ½ Night             | .009  | "   | .08                             | 10.40                   | 10.32        |
| <b>Miscellaneous</b>               |   |   |                                 |                         |              |
| 250 C.P. U.G. A.N.                 | .043  | "   | .39                             | 52.19                   | 51.80        |
| 250 C.P. Aerial, A.N.              | .043  | "   | .39                             | 32.19                   | 31.80        |
| 1000 C.P. Aerial, A.N.             | .132  | "   | 1.19                            | 72.51                   | 71.32        |
| 1000 C.P. U.G. A.N.                | .132  | "   | 1.19                            | 92.51                   | 91.32        |
| 1000 C.P. U.G. ½ Night             | .072  | "   | .65                             | 72.39                   | 71.74        |
| 250 C.P. U.G. ½ Night              | .024  | "   | .22                             | 43.74                   | 43.52        |
| 10,000 Lu. Sodium, U.G.            | .049  | "   | .44                             | 87.22                   | 86.78        |
| 10,000 Lu. Sodium, O.H.            | .049  | "   | .44                             | 67.22                   | 66.78        |
| 600 C.P. Incandescent. O.H.        | .088  | "   | .79                             | 53.57                   | 52.78        |
| 600 C.P. Incandescent, U.G.        | .088  | "   | .79                             | 73.57                   | 72.78        |
| 15,000 Lu. Mercury, O.H.           | .097  | "   | .87                             | 71.95                   | 71.08        |
| 15,000 Lu. Mercury, U.G.           | .097  | "   | .87                             | 91.95                   | 91.08        |
| 15,000 Lu. Mercury, U.G. 2 Lt.     | .194  | "   | 1.75                            | 165.90                  | 164.15       |
| 15,000 Lu. Merc. Underpasses 24Hr. | .282  | "   | 2.54                            | 123.16                  | 120.62       |
| 21,000 Lu. O.H.                    | ----  | -   | ----                            | 94.00                   | 94.00        |
| 21,000 Lu. U.G.                    | ----  | -   | ----                            | 114.00                  | 114.00       |
| 6,800 Lu. O.H. Mercury             | ----  | -   | ----                            | 55.00                   | 55.00        |
| 6,800 Lu. U.G. Mercury             | ----  | -   | ----                            | 75.00                   | 75.00        |
| 21,000 Lu. U.G. 2 Lt.              | ----  | -   | ----                            | 208.00                  | 208.00       |
| 15,000 C. Lu. O.H.                 |   |   |                                 | 77.00                   | 77.00        |
| 15,000 C. Lu. U.G.                 |   |   |                                 | 97.00                   | 97.00        |
| 15,000 C. Lu. U.G. 2 Lt.           |   |   |                                 | 174.00                  | 174.00       |
| 15,000 C. Lu. Underpasses 24 hr.   |   |   |                                 | 123.00                  | 123.00       |

## Notes:

15,000c Mercury Vapor means a 21,000 Lumen Mercury Vapor Lamp installed in an existing 15,000 Lumen Mercury Vapor Luminaire. No new installations.

The rates which are affected by fuel costs are:  
General Service Rate D, Power Rate F., Power Rate G.

# NARRAGANSETT ELECTRIC COMPANY FUEL COSTS

The amount determined under the proceeding provisions shall be increased or decreased by .000005 per kilowatt hour for each \$.01 increase or decrease in cost of fuel, as defined in the Company's terms and conditions, above or below \$10.75 per net ton. The cost of fuel for any month shall affect the price of electricity billed in the second month following such month.

The cost of fuel by month was as follows:

|      |                 |        |
|------|-----------------|--------|
| 1962 | September ..... | 9.759* |
|      | October.....    | 9.775  |
|      | November.....   | 9.727  |
|      | December.....   | 9.73   |
| 1963 | January.....    | 9.806  |
|      | February.....   | 9.909  |
|      | March.....      | 10.054 |
|      | April.....      | 9.682  |
|      | May.....        | 9.645  |
|      | June.....       | 9.612  |
|      | July.....       | 9.738  |
|      | August.....     | 9.719  |

The above figures show that the average price per ton for the year was 9.79 per ton

\* Standard net ton

The number of lamps and globes reported as broken on street lights during the years 1961-1962-1963, is as follows:

| <u>INCANDESCENT</u> | <u>LIGHTS BROKEN</u> | <u>MERC. GLOBES</u> |
|---------------------|----------------------|---------------------|
| 1961-1962           | 6083                 | 114                 |
| 1962-1963           | 5458                 | 95                  |

MAIL PARKING DECK LIGHTS  
1 Francis Street

The Mall Parking Deck Lights are charged to the general Street Lighting account. However, they will not show on the schedule because they are on a separately metered circuit and do not come under the contract price per light unit. They are metered on a "G" Rate, and so much per K.W.

| <u>No. of Lights</u> | <u>Type of Light</u> | <u>Hours of Burning</u>        |
|----------------------|----------------------|--------------------------------|
| 12 U.G.              | 20,000 Lumen M.V.    | 24 Hours                       |
| 14 U.G. A.N.         | 20,000 Lumen M.V.    | Predetermined Ft. Candle Level |
| 18 U.G. A.N.         | 2,500 Lumen Inc.     | Predetermined Ft. Candle Level |

The 10 U.G. A.N. 20,000 Lumen M.V. lights on the top deck are separately metered and charged to the Meyers Brothers Parking System.

MONTHLY CHARGES

| <u>MONTH</u>    | <u>K.W. USED</u> | <u>BILL</u>    |
|-----------------|------------------|----------------|
| October, 1962   | 4900 K.W.        | 94.23          |
| November, 1962  | 5180 K.W.        | 97.17          |
| December, 1962  | 5440 K.W.        | 97.16          |
| January, 1963   | 6200 K.W.        | 113.89         |
| February, 1963  | 6080 K.W.        | 112.51         |
| March, 1963     | 4980 K.W.        | 115.07         |
| April, 1963     | 4280 K.W.        | 94.85          |
| May, 1963       | 2600 K.W.        | 77.58          |
| June, 1963      | 4800 K.W.        | 100.76         |
| July, 1963      | 4720 K.W.        | 99.06          |
| August, 1963    | 3940 K.W.        | 91.06          |
| September, 1963 | 3520 K.W.        | 86.75          |
|                 |                  | <u>1180.09</u> |

SIGN INSPECTION

Signs inspected for overhead wire clearance

339

These signs are inspected for wire clearance as noted in  
The National Safety Code Standard.

NUMBER AND KIND OF STREET LIGHTING UNITS IN SERVICE IN PROVIDENCE

SINCE 1928

MERCURY

SODIUM

INCANDESCENTS

ARCS

Bridge  
Structure  
24 Hr.

| Year | 1929 | 100 cp. | 250 cp. | 1000 cp. | 600 cp. | 1000 cp. | 15000 Lu. | 15000Luc | 7000 Lu. | 21000 |
|------|------|---------|---------|----------|---------|----------|-----------|----------|----------|-------|
| 1928 | 1739 | 8605    | 6       | 48       |         |          |           |          |          |       |
| 1929 | 1749 | 8720    | 9       | 48       |         |          |           |          |          |       |
| 1930 | 1779 | 8704    | 8       | 48       |         |          |           |          |          |       |
| 1931 | 1771 | 8748    | 8       | 78       |         |          |           |          |          |       |
| 1932 | 1758 | 8699    | 8       | 118      |         |          |           |          |          |       |
| 1933 | 1758 | 8702    | 8       | 118      |         |          |           |          |          |       |
| 1934 | 1746 | 8709    | 8       | 130      |         |          |           |          |          |       |
| 1935 | 1746 | 8727    | 8       | 130      |         |          |           |          |          |       |
| 1936 | 1697 | 8691    | 8       | 214      |         |          |           |          |          |       |
| 1937 | 1697 | 8703    | 8       | 214      |         |          |           |          |          |       |
| 1938 | 1628 | 8724    | 8       | 320      |         |          |           |          |          |       |
| 1939 | 1626 | 8735    | 8       | 328      |         |          |           |          |          |       |
| 1940 | 1619 | 8746    | 8       | 331      |         |          |           |          |          |       |
| 1941 | 1513 | 8727    | 8       | 508      | 29      |          |           |          |          |       |
| 1942 | 1513 | 8731    | 8       | 598      | 29      |          |           |          |          |       |
| 1943 | 1513 | 8731    | 8       | 540      | 29      |          |           |          |          |       |
| 1944 | 1499 | 8741    | 8       | 540      | 29      |          |           |          |          |       |
| 1945 | 1485 | 8756    | 8       | 540      | 29      |          |           |          |          |       |
| 1946 | 1364 | 8513    | 8       | 554      | 29      |          |           |          |          |       |
| 1947 | 1264 | 8709    | 8       | 568      | 29      |          |           |          |          |       |
| 1948 | 1199 | 8687    | 8       | 568      | 29      |          |           |          |          |       |
| 1949 | 750  | 8624    | 115     | 586      | 29      |          |           |          |          |       |
| 1950 | 514  | 8701    | 116     | 550      | 29      |          |           |          |          |       |
| 1951 | 298  | 8721    | 162     | 560      | 29      |          |           |          |          |       |
| 1952 | 124  | 8668    | 226     | 565      | 29      |          |           |          |          |       |
| 1953 | 36   | 8671    | 251     | 504      | 29      |          |           |          |          |       |
| 1954 | 0    | 8308    | 314     | 506      | 29      |          |           |          |          |       |
| 1955 | 0    | 8277    | 414     | 449      | 29      |          |           |          |          |       |
| 1956 | 0    | 8228    | 447     | 435      | 29      |          |           |          |          |       |
| 1957 | 0    | 8248    | 489     | 391      | 29      |          |           |          |          |       |

19  
179  
256  
1049  
1556  
1855  
2360  
2802  
3293  
3428  
3476  
3501

C&M 25



NUMBER AND KIND OF STREET LIGHTING UNITS IN SERVICE IN PROVIDENCE (Continued)

| Year   | Bridge<br>Structure<br>24 Hr.<br>Burning | 1520 | 100 cp. | 250 cp. | 3000 cp. | 600 cp. | 1000 cp. | 15000 Lu. | 15000Lac | 7000 Lu. | 21000 |
|--|--|------|---------|---------|----------|---------|----------|-----------|----------|----------|-------|
| 1958   | 44                                       | 0    | 8192    | 484     | 349      | 29      | 25       | 3570      |          |          |       |
| 1959   | 44                                       | 0    | 8236    | 512     | 348      | 29      | 22       | 3593      |          | 7        |       |
| 1960   | 44                                       | 0    | 8244    | 519     | 345      | 29      | 22       | 3623      |          | 42       |       |
| 1961   | 44                                       | 0    | 8212    | 547     | 331      | 29      | 21       | 3607      |          | 88       |       |
| 1962   | 44                                       | 0    | 8122    | 526     | 309      | 29      | 21       | 3567      |          | 118      | 12    |
| 1963   | 44                                       | 0    | 8139    | 541     | 187      | 29      | 21       | 2754      | 825      | 173      | 231   |
| * 15000 Lu. C Means A 21000 Lu. Mercury Vapor Lamp Installed - In An Existing 15000 Lu. Mercury Designed Luminaire |  |      |         |         |          |         |          |           |          |          |       |

CC. 13

C&M 26

### RECAPITULATION

|   |            |
|---|------------|
| Grand Total   | 491,172.05 |
| Total monthly average cost 1961-1962                  | 40,083.85  |
| Total monthly average cost 1962-1963                  | 40,931.00  |
| Increase from previous year of the<br>Monthly Average | 847.15     |
| Total savings in outages                              | 1,763.74   |

| <u>New Street Light Petitions Received</u> | <u>Granted</u> | <u>Rejected</u> | <u>Hold</u> |
|--|----------------|-----------------|-------------|
| 64   | 56             | 3               | 5           |

Utility Pole Petitions Received and Field Checked 167

### SUMMARY

There are now 2754, 15,000 lumen mercury vapor lights in service.

There are now 825 15,000 lumen mercury vapor lights in service.

There are now one hundred and seventy three (173) 7000 lumen mercury

There are now (231) 21,000 lumen mercury vapor lights in service.

The number of 2,500 lumen incandescent lights have been increased by five (5), bringing the total number of this type of light now in use to 541.

There are one hundred and eighty seven (187) 10,000 lumen lights in service in the City that will be replaced with 21,000 lumen mercury vapor lights in the near future.

There are eight thousand one hundred and thirty nine (8139) 1000 lumen lights in service (familiar neighborhood type). There have been 80 lights of this type installed during the past fiscal year, on street light petitions.

### EXPENDITURES

|         |                              |              |
|---------|------------------------------|--------------|
| Item 0. | Personal Services            | \$5,408.00   |
| Item 1. | Services other than personal | \$491,900.05 |

## SHOPS & STORES

The Construction and Maintenance Shops and Stores services completely all sections of the Public Works Department, except the Sanitation Division and the Sewer Construction and Maintenance Sections.

The Sewer Construction and Maintenance Shops and Stores services only the Sewer Construction and Maintenance Section, and the passenger cars rented to the Construction and Maintenance Administration.

All automotive construction and maintenance equipment is furnished to the section requiring its use on a rental basis. These rental payments are shown as receipts in the Revolving Fund which, together with the money received for stock orders and job orders, comprise the money used for defraying the operating costs and the purchase costs for the rental equipment of these sections.

A detailed resume of the activities of each section is as follows:

### CONSTRUCTION AND MAINTENANCE SHOPS AND STORES

This section has no budget allowance. All expenses for labor and materials are paid for with the money received from the equipment rentals, and from stock and job orders, together with the initial capital appropriated.

This section is responsible for procuring, servicing, maintaining and repairing all equipment, materials and supplies required by the following sections and divisions:

|                              |                               |
|------------------------------|-------------------------------|
| Public Works Administration  | Bridge Maintenance Section    |
| Public Service Engineer      | Snow Removal Section          |
| Engineering Office           | Forestry Section              |
| Business Management Office   | Sidewalks and Curbing Section |
| Highway Section              | Public Building Section       |
| Drawbridge Operation Section | Street Cleaning Section       |
| Street Lighting Section      | Family Relocation Service     |

All automotive and mobile or portable construction and maintenance equipment used by the above agencies is obtained from this section and paid for on a rental basis.

A list of the available rental equipment is as follows:

|                                       |                             |
|---------------------------------------|-----------------------------|
| 2 Compressors, Truck Mounted          | 1 Hoist Truck 5000#         |
| 33 Dump Trucks, 4 cu. yds.            | 2 Bulldozers TD 18          |
| 6 Dump Trucks, 3 cu. yds.             | 1 Sky Worker                |
| 5 Dump Trucks, 3 cu. yds.             | 1 Welder, Electric Portable |
| 3 Pickup Trucks, 3/4 Ton              | 2 Shovels, 3/4 cu. yds.     |
| 1 Stake Body Truck, 1 Ton             | 6 Road Graders              |
| 1 Panel Truck, 1/2 Ton                | 2 Mist Sprayers             |
| 1 Express Body Truck 2 1/2 Ton        | 2 Concrete Mixers 3 S       |
| 1 Express Body Truck 1/2-Ton          | 9 Street Sweepers           |
| 3 Cargo Trucks, 6 Ton                 | 9 Snow Loaders              |
| 10 Passenger Cars                     | 5 Lawn Mowers, Power        |
| 7 Air Compressors, Portable           | 19 Tail Gate Spreaders      |
| 1 Trailer 25 Ton Flatbed with Tractor | 80 Snow Plows               |
| 1 Gradall                             | 3 Front End Loaders         |
| 1 Station Wagon                       | 2 Rollers 10-14 Ton Tandem  |

|                            |                        |
|----------------------------|------------------------|
| 2 Hoist Trucks 2500#       | 1 Fork Lift            |
| 1 Roller 8-12 Ton Tandem   | 1 Roller 10-12 Tandem  |
| 1 Roller 10-12 Ton 3 Wheel | 1 Paver, Asphalt       |
| 1 Roller 305 Ton Portable  | 3 Tool Heaters         |
| 3 Walters Snow Fighters    | 5 Generators, Portable |
| 2 Rollers 305 Ton Tandem   | 6 Tool Wagons          |
| 3 Leaf Collectors          |                        |

This equipment is serviced and repaired in the repair shop by personnel of this section.

During the year the following new equipment was purchased by the section and incorporated in the rental pool.

|                          |                 |
|--------------------------|-----------------|
| 2 Dump Trucks 6 Cu.Yds.  | 1 Asphalt Paver |
| 7 Dump Trucks 4 Cu. Yds. | 1 Wrecker Truck |
| 1 Front End Loader       | 2 Snow Throwers |
| 26 New Plows             | 2 Jeeps         |
| 1 Tree Sprayer           | 1 Tool Wagon    |

In addition to the rental equipment in the pool, this section also services, repairs and maintains the following equipment for the sections shown:

|                               |                        |
|-------------------------------|------------------------|
| 1 Fork Lift                   | Automotive Repair Shop |
| 1 Air Compressor              | Paint Shop             |
| 1 Emergency Motor & Generator | Point Street Bridge    |
| 1 Bulldozer TD 9              | City Dump              |
| 2 Buckets, Clamshell          | Incinerator            |
| 4 Buckets, Orange Peel        | Sewer Maint. Section   |
| 1 Roller, 5 Ton Tandem        | Recreation Department. |

The Carpenter Shop, Blacksmith Shop, Paint Shop and Machine Shop facilities were used to perform tasks required by all the sections listed above, as well as other city agencies. The Carpenter Shop, Blacksmith and Machine Shops will be discontinued during the next year.

The Agency pays for the actual cost of the labor and materials used plus a 10% mark-up to take care of the handling charges.

The stock room carries much of the materials, parts and supplies required by the sections of the division. An inventory of \$56,056.00 in materials and supplies and parts was on hand in the stock room on September 30, 1963.

#### SEWER CONSTRUCTION AND MAINTENANCE SHOPS AND STORES

This section has no budget allowance. All operating expenses for labor and materials are paid for with the money received from the equipment rentals and for the stock and job orders together with the initial capital appropriated.

This section is responsible for procuring, servicing, maintaining and repairing all equipment, materials and supplies required by the Construction and Maintenance Administration and the Sewer Construction and Maintenance Section. All automotive and construction equipment used by these sections is obtained from this section on a rental basis.

A list of available rental equipment is as follows:

|                         |                              |
|-------------------------|------------------------------|
| 4 Eductors              | 4 Air Compressors - Portable |
| 3 Derrick Trucks        | 3 Centrifugal Pumps (6 in.)  |
| 4 Passenger Cars        | 1 Centrifugal Pump (4 in.)   |
| 4 Dump Trucks           | 2 Centrifugal Pumps (3 in.)  |
| 2 Cargo Trucks (2 Ton)  | 1 Diaphragm Pump (4 in.)     |
| 1 Pickup Truck          | 1 Centrifugal Pump (1½ in.)  |
| 1 Set of Sewer Wrenches | 1 Sewer Rod Power Driver     |
| 1 Electric Generator    | 1 Diaphragm Pump (3 in.)     |
|                         | 1 Diaphragm Pump (2 in.)     |

This equipment is serviced and repaired in the shops by personnel of this section.

In addition to rental equipment in the pool this section, through its carpenter and blacksmith shops repairs and maintains all tools, sewer gates, etc., for which the Sewer Maintenance Section is responsible. Some work for agencies outside the Sewer Maintenance Section is performed primarily by the carpenter shop.

The work, in either case is paid for by the agency concerned, by paying for the total cost of both labor and materials plus 10% of the total cost. The revenue thus earned is used to defray the cost of operation plus the cost of equipment replacement.

The stock room carries much of the materials, parts and supplies required by the Sewer Maintenance Section.

An inventory of \$19,883.57 in materials and supplies and parts was on hand in the stock room on September 30, 1963.

#### RECOMMENDATIONS

1. Purchase 2-4 Cu. Yd. and 1-10 Cu. Yd. Heavy Duty Dump Trucks for Highway to replace 3 trucks requiring constant repair.
2. Replace roadway on Charles Street Bridge and paint.
3. Replace north section of roadway, caplogs and drive new piles of Smith Street Bridge.
4. Paint all Bridges.
5. Inspect and perform necessary work on bumpers at Crawford Street Bridge.
6. Crib walk at Point Street and Red Bridges need extensive repairs.
7. Relocate Bridge Maintenance Section from Harbor Masters Building at Point Street to Highway Building.
8. Iron fencing and grating needs repairing and painting at Point Street Bridge.
9. Concrete sections of Gen. Edwards Memorial Viaduct require repairing and under-section of steel work should be painted. Expansion joints need repairing.
10. Purchase 1 new Derricle Type Digger for Sewer Department.

11. New fences should be built on the bridge at Market Square between Westminster Street and Exchange Place.

12. Sidewalks on the following bridges should be completely rebuilt -- Glenbridge Avenue, West River Street and Red Bridge.

13. Leland Street Footbridge should be rebuilt. The floating dock at the Harbor Master's Wharf at Point and South Water Streets is completely gone and a new one should be built.

14. The under side of the bridge in Post Office Square, Market Square and Crawford Street areas should be thoroughly scraped and painted. Some of the steel is in deplorable condition. This is a major job.

15. The steel work on the shore spans of Red Bridge is in very poor condition and the whole bridge should be scraped and painted. At present there are 56 wood beams beside each of the rusted beams to assure adequate support. Thirty-two (32) new steel cross braces have been erected in place of the rusted out braces. Many of the horizontal members have been patched by welding pieces of steel to deteriorated steel work. A start has also been made on painting the under structure of the bridge. However, much more repair work is required to assure continuous usage.

16. Recommend that one of the six road graders be replaced. Two of these require extensive repairs and the stepped-up replacement plan should continue so as to cut down the cost of operation. One grader was replaced during the past year.

17. Merino Park Footbridge should be completely rebuilt. The piles are in very bad condition.

18. A maintenance gang of one foreman and six men should be set up for the construction and maintenance division to maintain the buildings of the Public Works Department; such as, The Storage and Transit Sheds at Fields Point, Fields Point Dock Office, Harbor Master's Building, House and Building at the Red Bridge, Brick Buildings at Sewer Syphon on India Street and Globe Street, Incinerator Buildings, Incinerator Garage, Sewer Maintenance Building, Highway Buildings, Forestry Buildings, and Railroad tracks at Fields Point, the Washington Park Pumping Station, the Reservoir Avenue Pumping Station and the Ernest Street Pumping Station.

There are many items that should be maintained or repaired at the present time. Some of this work has or is presently being accomplished by the Bridge Maintenance Gang and the Carpenters and Masons for the Sewer Shops and Stores and the Construction and Maintenance Shops and Stores; but it could be better accomplished by assigning a definite responsibility for this work.

19. Television Pictures should be taken of the following sewers to definitely determine whether or not the constant sinking of the roads on these streets are caused by fractures in the Sewers.

(1) Elmwood Sanitary Sewer across Allens Avenue. This can only be done by closing down the pumping station and drawing the liquid from the detritors at the treatment plant.

(2) Storm sewer across Smith Street at Richter Street.

(3) Sanitary Sewer across Smith Street at Richter Street.

Respectfully submitted,

Peter P. Granieri, Jr.  
Chief, Const. & Maint. Division

## SANITATION DIVISION

Mr. Robert B. Strong  
Director of Public Works  
City Hall, Providence, R. I.

Dear Mr. Strong:

Attached hereto is the Annual Report of the Sanitation Division of the Public Works Department for the Fiscal Year 1962 - 1963.

This Division is divided into the following Sections:

|                             |                               |
|-----------------------------|-------------------------------|
| Sanitation Administration   | Sewage Disposal Works         |
| Street Cleaning             | Refuse Collection & Disposal  |
| Sewage Pumping Station      | Garbage Collection & Disposal |
| Sanitation Shop and Stores. |                               |

The office personnel handles all the necessary clerical work pertaining to the Refuse Collection and Disposal Section, the Sewage Pumping Station Section, the Sanitation Shop and Stores and a portion of the work associated with the Sewage Disposal Works Section and Garbage Collection and Disposal Section.

Condensed records from all Sections are maintained and filed in this office for reference.

The expenditures for this Section for the fiscal year were as follows:

|                                     |              |
|-------------------------------------|--------------|
| ITEM 0 Personal Services            | \$ 13374.16  |
| ITEM 1 Services Other Than Personal | 682.45       |
| ITEM 2 Materials and Supplies       | <u>21.03</u> |
| TOTAL                               | \$ 14077.64  |

### STREET CLEANING SECTION

This Section is responsible for the cleaning of all streets and highways within the City and the maintenance and care of all the trash cans situated both downtown and in the outlying sections of the City.

The streets in the downtown section of the City, bounded by Dyer Street, South Main Street, Washington Row, Union Station, West Exchange Street, Aborn Street, Empire Street, Chestnut Street and Clifford Street are cleaned daily.

The following streets and squares are also cleaned daily:

Broadway from LaSalle Square to Olneyville Square  
Westminster Street from Empire Street to Hoyle Square  
Weybosset Street from Empire Street to Cathedral Square  
Broad Street from Empire Street to Trinity Square  
Atwells Avenue from Aborn Street to Ridge Street  
Pocasset Avenue from Olneyville Square to City Line  
Willard Avenue from Gay Street to Prairie Avenue  
Randall Street from Charles Street to North Main Street



Smith Street from State House to Oakland Avenue  
Douglas Avenue from Admiral Street to Mowry Street  
Plainfield Street from Hartford Avenue to Webster Avenue  
Gay Street from Willard Avenue to Blackstone Street  
North Main Street from College Hill to Mill Street  
Charles Street from Railroad Bridge to City Line  
South Main Street from College Hill to Point Street  
Wickenden Street from East Street to Ives Street  
Ives Street from Wickenden Street to Power Street  
Governor Street from Wickenden Street to Power Street  
Wayland Avenue from Waterman Street to Angell Street  
South Angell Street from Wayland Avenue to Butler Avenue  
Butler Avenue from South Angell Street to Waterman Street  
Angell Street from Butler Avenue to Wayland Avenue  
Hope Street from Langham Road to Sixth Street  
Hartford Avenue from Laurel Hill Avenue to Olneyville Square  
Thayer Street from Brook Street to Waterman Street  
Waterman Street from Thayer Street to Brook Street  
Cranston Street from Dexter Street to City Line  
Potters Avenue from Cranston Street to Dexter Street  
Eagle Park Square                      Olneyville Square

The following streets and squares are also cleaned daily:

|                |                   |
|----------------|-------------------|
| Randall Square | Trinity Square    |
| Wayland Square | Washington Square |

A crew of men with hand brooms and hand push barrels are assigned to the downtown area and the outlying sections of the City to keep these sections free from debris.

All the main arteries in the City were cleaned twice a week. All the streets in the outlying sections were inspected and cleaned by the day and night cleaning crews supplemented by the mechanical sweepers. Additional highway cleaning crews were assigned in cleaning the outlying sections during the spring and fall months.

172 trash cans were emptied four times daily. 40 new cans were purchased to replace broken cans.

Eight mechanical sweepers were in operation, both day and night. Two new mechanical sweepers were purchased to replace two obsolete ones.

Five dual gutter broom sweepers are in service and are capable of cleaning gutters from either side of the sweeper, and are advantageous on one way streets.

Three front end loaders were used to pick up the sweeper dumps and load them in trucks for disposal.

Three large trucks were used in the fall to pick up leaves. These trucks are equipped with Eagan Leaf Collectors and have a capacity of 10 tons. An operator and two laborers are needed for this operation.

An emergency crew was on duty twenty-four hours a day to handle complaints from the general public and to correct conditions outlined in police reports.

A summary of operations for this Section follows:

|                           |        |       |
|---------------------------|--------|-------|
| Hand Broom Sweeping       | 246    | Miles |
| Machine Broom Sweeping    | 15,251 | Miles |
| Beat Patrol               | 10,420 | Miles |
| Hand Broom Disposal       | 2,928  | Tons  |
| Street Container Disposal | 6,714  | Tons  |
| Storm Debris              | 494    | Tons  |
| Miscellaneous Debris      | 311    | Tons  |
| Machine Broom Disposal    | 9,699  | Tons  |

The expenditures for this Section were as follows:

|        |                              |                     |
|--------|------------------------------|---------------------|
| Item 0 | Personal Services            | \$357,685.43        |
| Item 1 | Services other than Personal | 79,650.78           |
| Item 2 | Materials and Supplies       | 2,464.48            |
| Item 5 | Capital Outlay               | 1,690.00            |
|        | Total                        | <u>\$441,490.69</u> |

#### SEWAGE PUMPING STATION

This Section is charged with the operation and maintenance of three Sewage Pumping Stations in the City. The Main Station is located on Ernest Street and handles approximately all of the Sewage flow. One of the smaller stations is situated on Reservoir Avenue near the City line, and the other in Harborside Park, Fields Point.

The main pumping station on Ernest Street has a capacity of two hundred millions of gallons a day. Electric power to operate this station is supplied from the Garbage Incinerator Plant. Provision has been made for stand-by power from the local power company. The two smaller stations operate automatically and the power to operate them is supplied by the local power company. All stations are in operation twenty-four hours per day.

Expenditures for this Section for the fiscal year were as follows:

|        |                              |                 |
|--------|------------------------------|-----------------|
| ITEM 0 | Personal Services            | \$71,217.60     |
| ITEM 1 | Services Other Than Personal | 1,784.57        |
| ITEM 2 | Materials and Supplies       | <u>3,772.80</u> |
|        | Total                        | \$76,774.97     |

#### SEWAGE PUMPING STATION

Total monthly flow, in million gallons, for each station, is as follows:

|          | <u>ERNEST STREET</u><br><u>STATION No. 1</u> | <u>WASHINGTON PARK*</u><br><u>STATION No. 2</u> | <u>RESERVOIR AVENUE*</u><br><u>STATION No. 3</u> | <u>TOTAL</u> |
|----------|--|---|--|--------------|
| 1962     |  |   |  |              |
| October  | 1,821.0                                      | 16.0  | 3.0  | 1,840.0      |
| November | 1,635.0                                      | 16.0  | 3.0  | 1,654.0      |
| December | 1,488.0                                      | 16.0  | 3.0  | 1,507.0      |
| 1963     |  |   |  |              |
| January  | 1,597.0                                      | 16.0  | 3.0  | 1,616.0      |
| February | 1,383.0                                      | 16.0  | 2.0  | 1,401.0      |
| March    | 1,619.0                                      | 16.0  | 2.0  | 1,637.0      |
| April    | 1,336.0                                      | 13.0  | 2.0  | 1,351.0      |
| May      | 1,461.0                                      | 14.0  | 2.0  | 1,477.0      |
| June     | 1,644.0                                      | 16.0  | 2.0  | 1,662.0      |

|           |          |       |      |          |
|-----------|----------|-------|------|----------|
| July      | 1,394.0  | 13.0  | 2.0  | 1,409.0  |
| August    | 1,338.0  | 13.0  | 2.0  | 1,353.0  |
| September | 1,429.0  | 13.0  | 2.0  | 1,444.0  |
| TOTALS    | 18,145.0 | 178.0 | 28.0 | 18,351.0 |

\*Estimated Flow

#### SEWAGE PUMPING STATION

Following is a monthly tabulation of the electrical power from the Garbage Incinerator used at the Ernest Street Station:

| 1962      | K.W.H.    |
|-----------|-----------|
| October   | 5,340.0   |
| November  | 17,700.0  |
| December  | 35,000.0  |
| 1963      |           |
| January   | 37,000.0  |
| February  | 31,400.0  |
| March     | 30,700.0  |
| April     | 24,600.0  |
| May       | 24,400.0  |
| June      | 19,500.0  |
| July      | 20,100.0  |
| August    | 19,500.0  |
| September | 25,300.0  |
| TOTAL     | 290,540.0 |

#### SEWAGE DISPOSAL WORKS

This Section is responsible for the treatment and disposal of all sewage from the City of Providence, Town of North Providence, Town of Johnston, and wastes from the Narragansett Brewing Company, Cranston, R. I. The disposal plant is located in the southeasterly section of the City near the Municipal Dock at Fields Point.

The following tables show the statistics for the Disposal Plant for the Fiscal Year.

Estimated Population Served by the Plant:

|                            |         |
|----------------------------|---------|
| Providence                 | 248,000 |
| Johnston                   | 2,200   |
| North Providence           | 12,000  |
| Total Connected Population | 262,200 |

| Sewage Flow                        | Million Gallons |
|------------------------------------|-----------------|
| Providence                         | 14,879.29       |
| Johnston                           | 512.96          |
| North Providence                   | 2,850.89        |
| Cranston (Narragansett Brewing Co) | 108.80          |
| Total Sewage Flow                  | 18,351.94       |

# SUMMARY OF OPERATIONS

|   |           |            |
|---|-----------|------------|
| Total Flow of Sewage  | 18,351.94 | M.G.       |
| Average Daily Flow  | 44.86     | M.G.       |
| Max. Daily Flow (October 7, 1962)                           | 124.42    | M.G.       |
| Min. Daily Flow (January 1, 1963)                           | 20.00     | M.G.       |
| Total Air Used for Aeration                                 | 20,060.71 | Mil.Cu.Ft. |
| Liquid Chlorine   | 787.50    | Tons       |
| Ferric Chloride Used  | 99.37     | Tons       |
| *Lime (As Kemikal Hydrate)                                  | 1,25      | Tons       |
| Lime as Chemlime Slurry                                     | 810.75    | Tons       |
| Total Lime Used   | 812.00    | Tons       |
| Grit Removals   | 240.5     | Tons       |
| Sludge Incinerated  | 29,107.17 | Tons       |
| Ash Removed from Incinerator                                | 470.29    | Tons       |
| +Fuel Oil Used for Operating Sludge Incinerator<br>(#5 Oil) | 0.00      | Gals.      |
| Fuel Oil Used for Operating Sludge Incinerator<br>(#2 Oil)  | 261,879   | Gals.      |
| Fuel Used for Heating Administration Building<br>(#2 Oil)   | 4,239     | Gals.      |
| Fuel Used for Heating Grit Building (#2 Oil)                | 3,821     | Gals.      |
| Fuel Used for Heating P.S.P.S. (#2 Oil)                     | 4,021     | Gals.      |
| Fuel Used for Heating S.S.P.S. * Chloride Bldg.             | 1,205     | Gals.      |
| Total Gallons #2 Fuel Oil used for heating<br>Purposes      | 13,286    | Gals.      |

Gas used for heating Field Laboratory 127.5 hundred cubic feet.

\* used only in cases to substitute chemlime slurry.

+ #5 oil no longer used in Sludge Incinerator.

Electric power used from the Garbage Incinerator.

|           | K.W.H.  |
|-----------|---------|
| 1962      |         |
| October   | 159400  |
| November  | 152200  |
| December  | 163700  |
| 1963      |         |
| January   | 12800   |
| February  | 126900  |
| March     | 190700  |
| April     | 320700  |
| May       | 338000  |
| June      | 389500  |
| July      | 257000  |
| August    | 300000  |
| September | 331600  |
| TOTAL     | 2742500 |

Expenditures for the year were as follows:

|  |              |
|--|--------------|
| Item 0 Personal Services               | \$272,718.76 |
| Item 1 Services Other Than Personal    | 201,663.24   |
| Item 2 Materials and Supplies          | 155,972.57   |
| Item 5 Capital Outlay Equipment        | 994.00       |
| Item 7 Other Structures & Improvements | 260,000.00   |
| Total                                  | \$891,348.57 |

Supervision by the Engineering Firm of Metcalf & Eddy, through their assigned representative, Mr. Ariel A. Thomas, still continued throughout the Fiscal Year 1962 - 1963.

Recommended improvements to the Sewage Disposal works as made by the Engineers, were approved and construction started on May 23, 1963.

Major improvements and/or additions to be made to the facilities, consist of a new 10-ton Nichols Herroshoff Sludge Incinerator, and standby vacuum filtration equipment capable of replacing the single Komline-Sanderson Filter during maintenance and breakdowns. Other necessary improvements being provided at this time consist of influent gates to the fourth pass of aeration tanks 2-9 inclusive. Spray water lines to cope with foaming in the first pass of aeration tanks, and in the final effluent channels from the aeration tanks to the final clarifiers; a control valve in the return sludge system so that the north and south sections of the secondary treatment facilities can be used independently of each other; a chlorine solution line for chlorinating the raw sewage and the return sludge wet wells when necessary for control of micro organism growth; a new ejector station with more efficient pumps; relocation of existing sewage pumps for improved operation; replacement of the Komline-Sanderson Sludge Pump in the primary pumping station with wemco pumps; waterproofing of the north and south dewatering stations which has been subject to flooding under certain tide conditions; also replacing of the main electrical control panel and equipment in the Filter Building.

The overall general efficiency of treatment showed some improvement during the fiscal year 1962-1963. Satisfactory chlorine control of bacteria was maintained throughout the year. Seasonal removals of B.O.D. and suspended solids were showing improvement over previous years. Overall gains were being achieved until such time as it became necessary to cut down on the available facilities so that they could be turned over to the contractor for construction of new work.

Appreciable savings were made as a result of closer (Laboratory) control of chemicals for sludge conditioning.

During the year, mechanical breakdowns resulting from normal operational wear and tear, were repaired by plant personnel, and several electrical failures of equipment were corrected.

Due credit should be given to Unit 52 of the Forestry Department for their assistance on August 23, 1963 in moving the cutter assembly of No. 1 Barminutor into place. Credit should also be given to Units 49 and 61 of the Sewage Maintenance Division for assistance rendered in cleaning the grit out of the north and south influent channels to the aeration tanks, and the by-pass channels of raw sewage influent to the detriters.

#### GARBAGE COLLECTION AND DISPOSAL

The Garbage Collection and Disposal Section is charged with the collection and disposal of Domestic refuse and the disposal of Commercial refuse. The Domestic refuse is collected by City Trucks and transported to the Incinerator for disposal. All Commercial refuse is transported to the Incinerator in private vehicles. Electric power is generated at the Garbage Incinerator by means of waste heat boilers and Turbo Generators. The power generated is used at the Sewage Disposal Works, Sewage Pumping Station, Highway Department Building, Municipal Garage and the Garbage Incinerator.

A fleet of twenty trucks, with special load packing bodies, is used in making the collection of domestic garbage and combustible household rubbish. Two collections per week are made from all residences in the City. All Automotive Equipment used, is rented from Sanitation Shops and Stores Revolving Fund.

Two Garbage Incinerators, each with a capacity of 160 Tons per day, are situated in the Southeastern Section of the City in the Municipal Dock Area. Only one unit is used at a time, the other is a standby. Each unit has two steamboilers and the steam produced is used to drive auxiliary machinery at the plant, to heat the Incinerating Plant, Sanitation Garage, and some buildings at the Sewage Disposal Works. There are two Turbo-Generators, each with a rating of 1250 K.W. Both the Incinerator and Power Plant are in operation twenty-four hours per day.

The expenditures for this section for the fiscal year were as follows:

|        |                              |              |
|--------|------------------------------|--------------|
| Item 0 | Personal Services            | \$632,594.62 |
| Item 1 | Services other than Personal | 117,098.54   |
| Item 2 | Materials and Supplies       | 18,763.23    |
| Item 3 | Special Items                | 5,087.98     |
| Total  |                              | \$773,544.37 |

#### GARBAGE COLLECTION AND DISPOSAL

During the fiscal year 85,000 gallons of No. 6 fuel oil were used to maintain the steam pressure in times of emergency or mechanical break down. 20,000 gallons of the above amount was purchased because of lack of garbage and refuse due to snow storms.

The following is the K.W.H. furnished the Sewage Disposal Works, the Municipal Garage, the Sewage Pumping Station, the Highway Garage, and Station Power.

| 1962  | Sewage Disposal | Sewage Pumping | Municipal Garage | Highway Garage | Station Power | Total     |
|-------|-----------------|----------------|------------------|----------------|---------------|-----------|
| Oct.  | 159,400         | 5,340          | 11,400           | 11,760         | 101,100       | 289,000   |
| Nov.  | 152,200         | 17,700         | 11,600           | 13,270         | 87,230        | 282,000   |
| Dec.  | 163,700         | 35,000         | 11,800           | 16,830         | 80,670        | 308,000   |
| 1963  |                 |                |                  |                |               |           |
| Jan.  | 12,800          | 37,000         | 12,200           | 18,310         | 82,690        | 163,000   |
| Feb.  | 126,900         | 31,400         | 11,200           | 14,730         | 69,770        | 254,000   |
| Mar.  | 190,700         | 30,700         | 12,200           | 14,350         | 75,050        | 323,000   |
| Apr.  | 320,700         | 24,600         | 9,600            | 9,660          | 73,440        | 438,000   |
| May   | 338,000         | 24,400         | 10,400           | 9,540          | 72,660        | 455,000   |
| June  | 389,500         | 19,500         | 9,200            | 6,910          | 68,890        | 494,000   |
| July  | 257,000         | 20,100         | 9,600            | 4,540          | 77,760        | 369,000   |
| Aug.  | 300,000         | 19,500         | 8,800            | 6,920          | 68,780        | 404,000   |
| Sept. | 331,600         | 25,300         | 10,000           | 9,740          | 66,360        | 443,000   |
| Total | 2,742,500       | 290,540        | 128,000          | 136,560        | 924,400       | 4,222,000 |

### GARBAGE COLLECTION AND DISPOSAL

The following is the total amount of Garbage and Refuse disposed of by this Department from October-1962 to September-1963

| <u>1962</u> | <u>GARBAGE (Tons)</u> | <u>RUBBISH (Tons)</u> |
|-------------|-----------------------|-----------------------|
| October     | 2,879.15              | 2,630.00              |
| November    | 2,596.55              | 2,352.00              |
| December    | 2,588.85              | 2,377.00              |
| <u>1963</u> |                       |                       |
| January     | 2,664.58              | 2,309.00              |
| February    | 2,012.90              | 2,024.50              |
| March       | 2,289.63              | 2,135.00              |
| April       | 2,643.09              | 2,437.50              |
| May         | 2,732.80              | 2,497.00              |
| June        | 2,601.87              | 2,329.50              |
| July        | 2,748.09              | 2,582.50              |
| August      | 2,735.93              | 2,438.50              |
| September   | 2,713.06              | 2,412.00              |
| Total       | <u>31,206.50</u>      | <u>28,524.50</u>      |

Daily average for collection based on 313 working days

99.7 Tons

Daily average for disposal based on 365 working days

163.6 Tons

### TOTAL POWER GENERATED

K.W.H.

|  |        |
|--|--------|
| Average Daily Distributed Load                           | 11,569 |
| Average Daily Distributed Load to Sewage Disposal Works  | 7,516  |
| Average Daily Distributed Load to Sewage Pumping Station | 796    |
| Average Daily Distributed Load to Municipal Garage       | 350    |
| Average Daily Distributed Load to Highway Garage         | 346    |
| Average Daily Distributed Load to Garbage Incinerator    | 2,532  |

The monthly ash totals from the Incinerator during the year were as follows:

| <u>1962</u> | <u>TONS</u>      |
|-------------|------------------|
| October     | 956.00           |
| November    | 946.00           |
| December    | 950.00           |
| <u>1963</u> |                  |
| January     | 985.00           |
| February    | 887.50           |
| March       | 950.00           |
| April       | 965.00           |
| May         | 1010.00          |
| June        | 927.00           |
| July        | 1010.00          |
| August      | 970.00           |
| September   | 995.00           |
| Total       | <u>11,552.00</u> |

Repairs to the brickwork in the Combustion Chamber and Firebox in Plant No. 2 was required on three different occasions.

The first two rows of boiler tubes in Boiler No. 1 were replaced. This work was done by our employees.

It was necessary to install a new 3 H.P. motor on the ash conveyor.

Repairs to the crane in Plant No. 1 were made a number of times during the year.

The blowdown lines of Boilers 1 and 2 were replaced with new ones.

The boiler gates of Boilers 1 and 2 were re-built.

New rubber bushings were installed in all the water pumps.

All broken window glass was replaced and the inside of Plant No. 2 was painted.

A number of nipples were welded on the Super-heater tubes in boilers 1 and 2.

New supports and bearings were installed in the ash handling equipment in Plant No. 1.

Leach Refractories Company was called in on two different occasions to repair arches in the firebox in Plant No. 2.

Three new steam traps were installed in Plant No. 1.

New carbon rings and bearings were installed in the water pumps in Plant No. 1 also new diaphragms.

A new siphon pump was purchased and installed in the cellar of Plant No. 1.

#### REFUSE COLLECTION AND DISPOSAL

The Refuse Collection and Disposal Section is responsible for the collection and disposal of all non-combustible refuse from the residential sections of the city once each month. The City is divided into twenty routes. Six trucks, six drivers and twelve laborers are used in this collection.

All materials collected are disposed of in a sanitary fill land-dump situated on Manton Avenue near the junction of Chalkstone Avenue in the City. This section has a bulldozer with an operator working at this location to maintain a clean disposal area. One laborer is also assigned to the dump. The dump site is open five days a week during the year.

The trucks used are 16 cu. yard load packers and are rented from the Sanitation Shop and Stores Revolving Fund on Terminal Road.

This Section also collects non-combustible refuse from Fire and Police Stations, City Buildings and Public Libraries.



The total cubic yards collected for the year follows:

|           |        |
|-----------|--------|
| 1962      | TOTAL  |
| October   | 3,680  |
| November  | 4,128  |
| December  | 3,696  |
| 1963      |        |
| January   | 3,808  |
| February  | 4,250  |
| March     | 4,068  |
| April     | 4,208  |
| May       | 4,208  |
| June      | 4,272  |
| July      | 3,776  |
| August    | 3,856  |
| September | 4,000  |
| Total     | 47,950 |

Expenditures for this Section for the Fiscal Year were as follows:

|                                     |            |
|-------------------------------------|------------|
| Item 0 Personal Services            | 94,248.88  |
| Item 1 Services Other Than Personal | 31,682.20  |
| Item 2 Materials and Supplies       | 53.46      |
| Total                               | 125,984.54 |

#### SANITATION SHOPS AND STORES

The Shop and Stores is responsible for the servicing and maintenance of all automotive equipment in the Division, with the exception of the Street Cleaning Section.

The equipment is rented out on an hourly rate to each Section. The rental payments are made to the Sanitation Revolving Fund and this fund is used to defray the operating expenses of the Shop and Stores and to purchase new equipment as needed.

A list of the available rental equipment in the Shop and Stores, is as follows:

- 24 Garbage Collection Trucks with Gar-Wood Loadpacker type bodies.
- 8 Refuse Collection Trucks with Loadpacker type bodies.
- 2 Dump Body Trucks.
- 2 Pickup Trucks 1/2 Ton Capacity.
- 5 Passenger Cars.
- 1 Bulldozer.
- 1 Small Air Compressor.

The Garage and Repair Shop, at 100 Terminal Road, in the Fields Point Section of the City, consists of two sections. One section two hundred feet long and one hundred feet wide is used for storage of equipment. The other section, one hundred feet long and one hundred feet wide is used for repair work and storage when necessary.

The repair shop has all modern equipment to carry on the work. A machine shop is part of the repair shop and it is possible for the section to make new parts or repair broken ones for any other section of the Sanitation Division.

This has saved both time and expense during the past year. Heat and power for the entire building is furnished by the Garbage Incinerator close by. As of the end of this fiscal year, the repair shop was discontinued and all repairs to the Sanitation Division equipment will be made at the Highway Department Building.

#### SANITATION DIVISION REVENUE

The revenue for this division during the fiscal year was as follows:

|                                 |                     |
|---------------------------------|---------------------|
| Sewage Pumping Station          | \$ 10.64            |
| Sewage Disposal Section         | 145,925.07          |
| Garbage Collection and Disposal | 3,944.95            |
| Refuse Collection and Disposal  | 215.00              |
| Total                           | <u>\$150,095.66</u> |

#### RECOMMENDATIONS

The electric crane in Plant No. 1 has been in service twenty-seven years. The probably operating life for this crane at this time is limited to approximately 8 months and much of the shafting and gearing is operating with misalignment so that the need is urgent. It is recommended that arrangements be authorized to contract for the overhaul of this crane through the Harnischfeger Corporation with whom special arrangements can be included.

New preheater tubes should be installed in boilers Nos. 1 & 2 replacing only the ones found to be in poor condition.

The flashing around the brick smoke stack in Plant No. 2 is in very bad condition and should be replaced.

A number of ventilators should be installed in the roof of Plant No. 1, the smoke at times is very bad and the working conditions of the hoppermen and cranemen are not good. This condition should be relieved for it is a health hazard, and the ventilators should exhaust the smoke.

The doors in front of both garbage pits should be renewed.

Arrangements for annual inspection of turbines is necessary through manufacture representative. This has not been done for four years.

A new water jacket should be installed in Plant No. 1, around charging grate.

A half ton pick-up truck should be purchased for this department. This plant is open 24 hours a day, 7 days a week and a truck of this type would be very useful.

Immediate consideration should be given to the installation of a warning system for the detection of radio active isotopes to be installed at such a point in the sewage system that ample time will be available for protecting plant personnel from radioactivity. This warning system is not a stand-by requirement incidental to nuclear attack, but a full time necessity required by the increased use of radio isotopes in industry and medicine which could inadvertently find their way into the City Sewage System.

Shelter of some kind against radio active fallout should be provided at the Sewage Disposal Works with supplies of water, food and bedding for a maximum of 32 employees.

Respectfully submitted,

Howard F. Carpenter  
Chief of Sanitation

## HARBOR DIVISION

Mr. Robert B. Strong  
Director of Public Works  
City Hall  
Providence, Rhode Island

Dear Sir:

Following is the Annual Report covering activities of the Harbor Division for the year ending September 30, 1963.

Again we show a healthy increase in both tonnage and revenue.

With the availability of additional land at the south end of the Municipal Wharf the prospects are good for further increase in tonnage and revenue in the very near future.

### REVENUE

|                                 |                      |
|---------------------------------|----------------------|
| Lease of Storage Warehouse..... | \$ 61,778.00         |
| Land.....                       | 88,771.84            |
| Wharfage.....                   | 73,696.74            |
| Trackage.....                   | 6,010.00             |
| Water.....                      | 4,790.11             |
| Dockage.....                    | 23,906.80            |
| Storage.....                    | 30,245.54            |
| Miscellaneous.....              | 4,468.91             |
|                                 | <u>\$ 293,367.94</u> |

### EXPENDITURES

|             |                     |
|-------------|---------------------|
| Item 0..... | \$ 32,950.99        |
| Item 1..... | 27,348.90           |
| Item 2..... | 2,209.45            |
|             | <u>\$ 62,509.34</u> |

The following Cargo was shipped from the Municipal Dock October 1, 1962 to September 30, 1963:

|               |                    |
|---------------|--------------------|
| Gasoline..... | 11.876 Tons        |
| Fuel Oil..... | 21.943 "           |
| Kerosene..... | 2.162 "            |
|               | <u>35.981 Tons</u> |

The following Cargo arrived at Municipal Dock from October 1, 1962 to September 30, 1963:

|                        |              |
|------------------------|--------------|
| Railroad cars          | 3,126 cars   |
| Gasoline               | 367,242 Tons |
| Fuel Oil               | 206,525 Tons |
| Kerosene               | 17,789 Tons  |
| Lubricating Oil        | 12,497 Tons  |
| Lumber 51,942,605 B.F. | 86,571 Tons  |
| Cement                 | 64,272 Tons  |
| Asphalt                | 31,327 Tons  |
| Scrap Iron             | 21,506 Tons  |
| Steel                  | 6,147 Tons   |

Cargo Arrival Continued:

|               |                     |
|---------------|---------------------|
| Fish          | 555 Tons            |
| Chemicals     | 4,897 Tons          |
| Pig Iron      | 8,349 Tons          |
| General Cargo | 3,802 Tons          |
|               | <u>831,479 Tons</u> |

TOTAL TONNAGE

1,109,800 Tons

The following Rigs arrived at the Municipal Dock from October 1, 1962 to September 30, 1963:

80 Steamships  
132 Motor Vessels  
41 Barges

HARBOR ACTIVITIES

TONNAGE SHIPPED

October 1, 1962 to September 30, 1963:

| MONTH | GASOLINE       | FUEL OILS | KEROSENE | DIESEL | CHEMICALS | ASPHALT | SCRAP  | GEN. CARGO |
|-------|----------------|-----------|----------|--------|-----------|---------|--------|------------|
| Oct.  | 51,398         | 25,994    | 7,560    | 248    | 180       | 10,500  | 10,392 |            |
| Nov.  | 38,653         | 51,657    | 2,887    | 2,180  | -         | 2,834   | 887    |            |
| Dec.  | 38,703         | 68,753    | 6,486    | -      | -         | -       | 10,657 |            |
| Jan.  | 39,856         | 89,895    | 6,238    | 1,034  | -         | 6,000   | -      |            |
| Feb.  | 17,074         | 75,782    | 6,605    | 1,635  | -         | 10,666  | 10,524 |            |
| Mar.  | 35,502         | 52,368    | 3,888    | -      | -         | -       | 10,698 |            |
| Apr.  | 36,731         | 32,446    | 3,890    | 1,932  | -         | -       | 10,609 |            |
| May   | 42,300         | 27,104    | 1,292    | 624    | -         | 15,667  | 10,685 |            |
| June  | 40,519         | 29,052    | 1,614    | 1,771  | -         | 5,824   | 2,973  |            |
| July  | 54,467         | 19,282    | 2,041    | 1,751  | -         | -       | 13,771 |            |
| Aug.  | 40,981         | 21,669    | 804      | -      | -         | 14,084  | 7,022  |            |
| Sept. | 32,543         | 27,645    | 3,349    | 907    | -         | 7,500   | -      | 358        |
|       | <u>486,927</u> | 521,647   | 46,654   | 12,082 | 180       | 73,075  | 88,218 | 358        |

TOTAL TONNAGE SHIPPED

1,210,941

TONNAGE RECEIVED

October 1, 1962 to September 30, 1963:

| MONTH | GASOLINE | FUEL OILS | KEROSENE | DIESEL | LUBE OIL | ASPHALT | CHEMICALS |
|-------|----------|-----------|----------|--------|----------|---------|-----------|
| Oct.  | 160,540  | 238,571   | 1,432    | 3,172  | 2,960    | 7,300   | 2,655     |
| Nov.  | 180,308  | 293,955   | 25,419   | 2,866  | 2,995    | -       | 3,375     |
| Dec.  | 169,043  | 449,235   | 99,047   | 2,691  | 2,356    | -       | 800       |
| Jan.  | 233,418  | 763,251   | 29,171   | 1,961  | 1,843    | -       | 800       |
| Feb.  | 150,205  | 451,130   | 25,064   | 4,526  | 1,995    | 2,985   | 1,200     |
| Mar.  | 184,536  | 376,449   | 30,136   | 16,488 | 3,035    | 9,470   | 8,989     |
| Apr.  | 237,995  | 385,338   | 18,894   | 3,104  | 5,268    | 4,184   | -         |
| May   | 195,846  | 261,114   | 19,240   | 10,377 | 6,788    | -       | 1,742     |
| June  | 196,905  | 250,349   | 27,290   | 16,492 | 2,959    | 14,165  | 3,153     |

TONNAGE RECEIVED (continued)

| MONTH | GASOLINE         | FUEL OILS        | KEROSENE       | DIESEL        | LUBE OIL      | ASPHALT       | CHEMICALS     |
|-------|------------------|------------------|----------------|---------------|---------------|---------------|---------------|
| July  | 251,415          | 241,173          | 17,627         | 16,278        | 3,046         | 3,063         | 932           |
| Aug.  | 226,768          | 291,500          | 11,267         | 4,790         | 4,606         | 5,112         | 1,200         |
| Sept. | 203,956          | 184,919          | 29,258         | 2,560         | 5,139         | 22,972        | 815           |
|       | <u>2,390,935</u> | <u>4,186,984</u> | <u>333,845</u> | <u>85,305</u> | <u>42,990</u> | <u>69,251</u> | <u>25,661</u> |

TONNAGE RECEIVED

October 1, 1962 to September 30, 1963:

| MONTH | COAL           | CEMENT         | PIG IRON     | RE RODS      | LUMBER         | STEEL        | TUNA       |
|-------|----------------|----------------|--------------|--------------|----------------|--------------|------------|
| Oct.  | 45,708         | 14,837         | 1,120        | 1,130        | 4,484          |              |            |
| Nov.  | 60,958         | 3,008          |              |              | 1,964          |              |            |
| Dec.  | 73,027         | 8,803          |              |              |                |              |            |
| Jan.  | 36,024         | -              |              |              |                |              |            |
| Feb.  | 22,601         | 2,500          |              |              | 21,893         |              |            |
| Mar.  | 25,004         | -              |              |              | 6,643          |              |            |
| Apr.  | 25,030         | 14,058         |              |              | 8,942          |              |            |
| May   | 49,822         | 18,906         |              |              | 10,086         |              |            |
| June  | 62,161         | 18,502         |              |              | 3,748          |              |            |
| July  | -              | 18,808         | 4,020        |              | 19,450         | 2,374        |            |
| Aug.  | 76,891         | 11,584         | 4,087        |              | 3,168          |              | 198        |
| Sept. | 30,344         | 5,853          |              |              | 6,193          |              | 256        |
|       | <u>507,570</u> | <u>116,859</u> | <u>9,227</u> | <u>1,130</u> | <u>86,571*</u> | <u>2,374</u> | <u>554</u> |

\*(51,942,605 B.F.)

Total Tonnage Received

7,869,289

Total Tonnage Shipped

1,210,941

9,080,230 Total

FOLLOWING RIGS ARRIVED AT THE HARBOR  
FROM OCTOBER 1, 1962 to SEPTEMBER 30, 1963

| MONTH | STEAMSHIPS | MOTOR VESSELS | BARGES     | TUGS       | U. S. N. SUB | U. S. ENG. DREDGE |
|-------|------------|---------------|------------|------------|--------------|-------------------|
| Oct.  | 34         | 61            | 17         | 72         |              |                   |
| Nov.  | 34         | 54            | 19         | 67         |              |                   |
| Dec.  | 43         | 55            | 25         | 78         |              |                   |
| Jan.  | 48         | 74            | 8          | 36         |              |                   |
| Feb.  | 40         | 59            | 14         | 57         |              |                   |
| Mar.  | 40         | 67            | 23         | 66         |              |                   |
| Apr.  | 37         | 52            | 15         | 57         | 1            |                   |
| May   | 35         | 52            | 20         | 57         |              |                   |
| June  | 31         | 52            | 21         | 61         | 1            |                   |
| July  | 32         | 96            | 16         | 57         |              |                   |
| Aug.  | 31         | 84            | 15         | 59         |              |                   |
| Sept. | 28         | 56            | 23         | 58         |              | 1                 |
|       | <u>433</u> | <u>762</u>    | <u>216</u> | <u>725</u> | <u>2</u>     | <u>1</u>          |

Yours very truly,

James J. Fisher,  
Port Agent

PUBLIC SERVICE DIVISION

Mr. Robert B. Strong  
Director of Public Works  
City Hall  
Providence, Rhode Island

Dear Sir:

I respectfully submit the following report for the Public Service Division for the fiscal year 1962-1963.

DATA FOR THE PUBLIC SERVICE ENGINEER  
AS OF SEPTEMBER 30, 1963

THE NARRAGANSETT ELECTRIC COMPANY

|     |     |  |         |
|-----|-----|--|---------|
| 1.  | (a) | Total number of wood poles in city (including those jointly owned, but not including those jointly used, with no ownership.) | 18147   |
|     | (b) | Total number jointly owned poles with N.E.T. & T. Co.  | 13710   |
|     |     | " " " " " " U.E.R. Co.   | 0       |
|     |     | " " " " " " Wes. Un. Tel. Co.  | 0       |
|     |     | " " " " " " Pos. Tel. Co.  | 0       |
|     |     | " " " " " " N.E.T. & U.E.R. (3party)   | 0       |
|     |     | " " " " " " U.E.R. & Wes. Un. Tel. Co.   | 0       |
|     |     | " " " " " " N.E.T. & Wes. Un. Tel. Co.   | 0       |
| 2.  |     | Total number iron poles in city  | 249     |
|     |     | Number of underground street light standards   | 2301    |
|     |     | " " Ornamental are   | 0       |
|     |     | " " Ornamental incandescents (Mercury Vapor)   | 2301    |
|     |     | " " Goose necks  | 0       |
|     |     | " " Ornamental Inc. with U.E.R.  | 0       |
|     |     | " " Iron poles with U.E.R.   | 0       |
|     |     | " " Iron poles with U.E.R. & N. E.T. & T.Co.   | 0       |
|     |     | " " Iron poles with N.E.T. & T.Co.   | 9       |
| 3.  |     | Total number miles conduit (French feet) in city   | 83.64   |
| 4.  |     | " " miles conduit (duct feet) in city  | 690.99  |
| 5.  |     | " " underground cable in city  | 883.10  |
| 6.  |     | " " miles equivalent single underground conductor  | 1250.72 |
| 6.  | (a) | " " aerial cable   | 341.20  |
| 6.  | (b) | " " equivalent single conductor aerial cable   | 894.66  |
| 7.  |     | " " aerial open wire   | 3841.91 |
| 8.  |     | " " service pipes or laterals  | 68.63   |
| 9.  |     | " " commercial transformers in city  | 5890    |
| 10. |     | " " customers supplied directly by U.G. connections  | 24208   |
| 11. |     | " " customers supplied directly by O.H. connection   | 49869   |
| 12. |     | " " meters installed in city   | 74077   |

|     |  |       |
|-----|--|-------|
| 13. | Approximate total number of 16 2 wire 115 V. meters in city    | 33775 |
| 14. | " " " " 16 3 wire 115/230 V. meters in city                    | 34995 |
| 15. | " " " " 16 2 wire 250 V. meters in city                        | 0     |
| 16. | " " " " 16 3 wire 250/500 V. meters in city                    | 0     |
| 17. | " " " " 36 3 wire 115 V. meters in city                        | 15    |
| 18. | " " " " 36 3 wire 250 V. meters in city                        | 235   |
| 19. | Total number of 36 4 wire 120/208 V. meters in city            | 1650  |
| 20. | " " " 16 3 wire 120/208 V. meters in city                      | 2067  |
| 21. | " " " D.C. 2 wire and 3 wire 250 and 250/500 V. meters in city | 55    |
| 22. | Approximate total number of 36 3 wire 575 V. meters in city    | 1285  |

PROVIDENCE GAS COMPANY

Total Gas Services in Providence 37,746

Miles of Main:

|             |           |             |        |
|-------------|-----------|-------------|--------|
| L.P.        | 395 Miles | 3,668 Feet  |        |
| H.P.        | 8 Miles   | 401 Feet    |        |
| Natural Gas | 1 Mile    | 1,800 Feet  |        |
| Total       | 405 Miles | 589 Feet or | 405.14 |

Gas Holders

Number of Meters (Active) 53,658

Decrease in Gas Services 9/30/62 - 9/30/63 147

Increase in Miles of Main " - " 1.6

Decrease in Number of Meters " - " 1,607

NEW ENGLAND TELEPHONE AND TELEGRAPH COMPANY

|  |        |
|--|--------|
| Total number wood poles (including jointly used, but not including those jointly used with no ownership) | 16,903 |
| Total number of jointly used poles with N.E. Co.   | 13,710 |
| Total number of jointly used iron poles with N.E. Co.  | 9      |
| Total number of miles main conduit (trench miles)  | 63.40  |
| Total number of miles U.G. cable   | 292.22 |
| Total number of miles aerial cable   | 267.87 |
| Total wood terminal boxes on poles   | 199    |
| Approximate number of telephones supplied directly by underground or block distribution                  | 48,426 |
| Approximate number of telephones supplied directly by overhead lines on highways                         | 44,491 |

The following additions have been made to the equipment in use by this company during the past year

|  |       |
|--|-------|
| Increase in the number of poles (all headings) | 48    |
| Additional miles of cable - U.G. and aerial    | 43.05 |
| Increase in the number of telephones in use    | 45    |

ESTIMATE

This report covers plant statistics as of September 30, 1963.



WESTERN UNION TELEGRAPH COMPANY

City Plant, Providence, Rhode Island

|   |       |
|---|-------|
| Number of poles                         | None  |
| Number of poles jointly owned           | None  |
| Number of feet of U.G. conduit (tr.ft.) | 276   |
| Number of feet of U.G. conduit          | 922.6 |
| Number of miles of U.G. cable           | .743  |
| Number of miles of wire in U.G.         | 65.12 |

Number of feet of twisted pair:

|  |        |
|--|--------|
| (a) On licensed attachments privileged to purchase the poles of other companies: | 16,200 |
| (b) Across street:   | 820    |
| (c) Over private alleys:   | 280    |
| Manholes owned   | 1      |

TRAFFIC ENGINEERING DEPARTMENT

The following is a list of traffic signal equipment in use by the Traffic Engineering Department of the City of Providence.

|  |        |
|--|--------|
| Total number of traffic signal heads                                     | 1,142  |
| Total number of traffic signal poles                                     | 589    |
| Total number of traffic signal controllers (local)                       | 160    |
| Total number of traffic signal controllers (master)                      | 5      |
| Total number of feet of underground ducts and laterals                   | 64,936 |
| Total number of miles of underground cable                               | 27.3   |
| Total number of miles of aerial cable                                    | 5.3    |
| Total number of miles of equivalent single conductor (underground cable) | 136.9  |
| Total number of miles of equivalent single conductor (aerial cable)      | 26.4   |

The above list of equipment is owned by the Traffic Engineering Department. At the same time we are using duct space and cable belonging to the New England Telephone & Telegraph Company and the City of Providence Fire Department as follows:

|  |        |
|--|--------|
| Total number of feet of duct space belonging to the New England Telephone & Telegraph Company assigned to City use   | 52,530 |
| Total number of feet of duct space belonging to the Fire Department of the City of Providence  | 3,040  |
| Total number of miles of equivalent single conductor underground cable belonging to the City of Providence Fire Department and assigned for Traffic Engineering Department use | 57.6   |

## Inventory - Signal Construction -- Fire Alarm Division - Police Signal System.

September 30, 1963

|                   | Total | Aerial | U.G. | Quick Action | Key | Keyless |
|-------------------|-------|--------|------|--------------|-----|---------|
| Fire Alarm Boxes  | 959   | 584    | 375  | 937          | 9   | 13      |
| City Owned        | 665   | 402    | 263  | 665          | 0   | 0       |
| Privately Owned   | 294   | 182    | 112  | 272          | 9   | 13      |
| Police Call Boxes | 167   | 103    | 64   |              |     |         |

Total Number of all box and cable pedestals

|   |   |   |   |         |
|---|---|---|---|---------|
| " | " | " | Fire Alarm Box Pedestals  | 231     |
| " | " | " | " " " Police Box pedestals                                      | 67      |
| " | " | " | " " " Cable Pedestals Only                                      | 36      |
| " | " | " | " Miles of Underground Cables                                   | 85.15   |
| " | " | " | " " " Parkway Cables  | 1.47    |
| " | " | " | " " " Aerial Cables   | 3.52    |
| " | " | " | " " " Equivalent Single Conductor - Underground                 | 1258.40 |
| " | " | " | " " " " - Aerial  | 129.30  |
| " | " | " | " " " " - Parkway   | 6.42    |
| " | " | " | Footage of all Underground Ducts and Laterals owned by the City | 3445.6  |
| " | " | " | Number of Poles owned by the City                               | 36.     |

**Increase in the number of Fire Alarm Boxes owned by the City**

The above increases are for the current fiscal year.

## STREET LIGHTING SUMMARY

We can again say the high standard of street lighting enjoyed by the citizens on the travelled arteries of the City of Providence has contributed in no small way to the welfare of the pedestrian as well as the motorist in protecting the lives and property of its citizens. The low amount of assault cases on the city streets after dark confirms this fact.

It has increased property valuation and acted as an incentive to property owners to improve their property.

We also feel that our improved street lighting still contributes an important part in enabling the Traffic Engineering Division to gain national recognition for traffic safety on our streets.

We are constantly improving residential lighting, as much as possible where it is feasible, by installing more units to fill in the existing long spacings that were practical years ago when they were installed but where new construction of homes and the full growth of trees have not made those spacings impractical as well as unsafe at night. Possibly, in the future, a controlled tree planting system by our different municipal departments will correct this street light shading by trees in our neighborhoods by recommending the planting of new trees back of the property line and not on the curb line as is presently and formerly done. Many of our cities have resorted to this type of tree planting with excellent results. Some of our existing neighborhood streets are impossible to adequately light at all because of tree foliage grown from trees on both sides of the street extending over the center line of the highways.

Street light breakage has decreased this year by 625, which probably indicates that a weekly copy of the percentage breakage that is mailed to Commissioner Lennon, Colonel Wilding and Colonel Franklin has helped considerably. The redevelopment area still show the greatest amount of breakage.

The Narragansett Electric Company, as per mutual agreement is still in the process of replacing all existing 15000 lumen mercurys to 21000 lumen which is improving the present lighting on our main highways.

This year we are going to relight one of our major streets, namely Elmwood Avenue with new 21000 lumen mercury vapor luminaires to replace the old 10000 lumen incandescents now in service.

The Lippitt Hill area is still in the process of redevelopment and we shall adequately relight this area when it is needed.

The Mashapaug redevelopment area is nearly complete. We have relighted the immediate area of Huntington Avenue with 7000 and 21000 lumen mercurys to be installed on the new streets.

The North-South Freeway from Allens Avenue to Chalkstone Avenue which is called Route #95 is progressing on schedule and we are installing lights as it progresses.

The Central-Classical redevelopment area is still in progress, and we have worked in conjunction with the utility companies in removing and replacing lights as the project develops.

Negotiations were consummated this past year between the Public Service Engineer, Public Works Department and the Narragansett Electric Company, and a new contract or agreement between the utility company and the City of Providence was signed on September 20, 1963.

Field work with the utility companies on pole locations, such as driveways, removals, settings, and underground conduit work, along with our own street light petitions with their necessary field work, as well as sign inspection in regard to overhead line clearance constitutes the bulk of the Public Service Work.

Therefore, it would seem advisable to again recommend to the department that an assistant be added to the Street Lighting Department to maintain and keep up to date the files and outage records so that our department can work in closer proximity and more effectively with both utility companies.

#### PUBLIC SERVICE SUMMARY

The small amount of utility pole petitions received and field checked by this department this year is because neither one of the utility companies had a depreciation survey conducted. The 167 figure represented new and regular maintenance work.

There have not been any gas tests conducted by this division for some time, to check the B. T. U. content of illuminating natural gas, because of the lack of personnel, the inadequate laboratory conditions and the unworkable condition of the two pieces of gas testing equipment.

An added duty of this division is the field inspection and approval of all gas permits and the checking of soil resistivity.

The sign inspections by this division were prompted by some near fatalities in the past, which is now controlled by allowing signs to be only as near high tension wires as the National Safety Code Standard allows and recommends.

This division also field checks, inspects and approves all petitions submitted for the installation of all underground conduit and duct lines installed in Providence by the Narragansett Electric Company, Providence Gas Company, New England Telephone & Telegraph Company, Western Union Telegraph Company, Department of Public Safety and the Traffic Engineering Department.

Christmas decorations have been inspected and approved at Olneyville Square, Mount Pleasant area, Wayland Square, Federal Hill and the Downtown area, sponsored by the various businessmen's associations.

This division also checked and approved all monthly departmental electric and gas bills rendered to all City of Providence departments.

This Department also inspects every new installation request for private lighting by the Narragansett Electric Company for adverse affect on Traffic or homes. These private light sources are either 400 Watt of 1000 Watt floodlight, or private lighting on the sidewalk side of the Utility pole.

Respectfully submitted,

Peter J. Hicks, Jr.  
Public Service Engineer

## FAMILY & BUSINESS RELOCATION SERVICE

Mr. Robert B. Strong  
Director of Public Works  
City Hall  
Providence, Rhode Island

Dear Mr. Strong:

This annual report covers the activity of the Family & Business Relocation Service during the 1962-1963 fiscal year.

During this period of time, many added phases of relocation were adopted in carrying out our responsibility to families, individuals, commercial establishments and the general public.

It is our intention to report all the facts, figures and general information in a detailed manner to avoid any duplication of effort in disseminating this information.

The Relocation Service recorded 15 active projects during the year. At the beginning of this period there were 476 families and individuals within the various project areas. At the end of the year, 108 families remained, therefore, 368 families and individuals were successfully relocated during the entire year.

In the beginning of the year, 131 cases represented our commercial workload; of this number, 88 were successfully relocated and 43 remained on site. As in the past, the programs entailed urban renewal, highway construction and city projects.

An additional undertaking involved the relocation of families from the Bradford House (housing for the elderly) a project held under the auspices of the Providence Housing Authority.

In keeping with past policy and procedure, the Service continued to emphasize the importance of human relations in working out the successful relocation of our site occupants. Greater emphasis was placed on the social and economic factors, in that, many private and public social and welfare agencies were called upon, in a mutual effort, to give added service to our displacees.

Through a detailed program added strides were taken with reference to minority families facing displacement. The activities within this field encompasses the Sub-Committee on Minority Housing, as well as the Urban League of Rhode Island, the Catholic Interracial Council and various neighborhood groups. Closer working procedures were intensified in keeping with the theme of bringing added assistance to our families facing difficult social, health and economic problems.

The dispersal of families and individuals from the various projects, enumerated in this report, continued to remain somewhat static, in that, families and individuals usually relocated within a close geographical area adjacent to the project area.

## ANNUAL EXPENDITURES

Personal Services: \$94,308.16

|              |             |
|--------------|-------------|
| Federal Fund | \$31,436.05 |
| City Fund    | \$62,872.11 |

|                              |             |
|------------------------------|-------------|
| Services Other Than Personal | \$ 6,593.00 |
| Materials and Supplies       | \$ 725.00   |
| Special Items                | \$ 4,000.00 |

Total City Budget: \$74,190.11

## LISTINGS PROCESSED DURING THE YEAR

With the diminishing workload reflected in the state highway program and the large number of residents moving during the early months from the Central Classical Urban Renewal Project, the demand for listings has lessened to some extent.

The number of listings registered with the Service during the year were as follows: total of rental properties 337, total of sales properties 215, with a grand total of 552 properties in both categories.

In view of the fact that the workload decreased, the request for public appeals for housing likewise diminished during the same period of time. It should be pointed out that the various appeals to the community are made at a time when the needs are the greatest. We therefore anticipate that prior to and during the Weybosset Hill Project the public affairs program will be accelerated to meet the demands placed upon the Service.

## RESIDENTIAL DISPLACEMENT

In studying the data compiled relative to residential displacement, various conclusions may be drawn in giving an evaluation of the progress during the past year.

While it is an established fact that the workload has decreased, demands were made on the Service for medium and low priced private housing. As these requirements were being met, the inevitable problem of making available housing of standard quality and within the economic reach of our site occupants still proved to be a major factor.

## COMMERCIAL RELOCATION

There were 88 commercial establishments relocated during the year. We have placed greater emphasis on the frequency of visiting business firms at an earlier date to ascertain their needs.

As in the past, the acute problem is to find business facilities in or near the central core of the downtown area. Oftentimes, small marginal business establishments wished to remain close to the area that is being cleared. This invariably presents an added problem due to a lack of available buildings or land.

Our commercial specialist continued to give full service in seeking new locations, rental and sale properties for our commercial occupants.

With the assistance of local agencies and the Industrial Division of the Providence Redevelopment Agency, good results have been achieved.

#### INTERRACIAL ACTIVITY

While the number of non-white displacees decreased during the past year, greater attention was focused on the problem of finding decent, safe and sanitary housing within the economic reach of our minority families.

Through the efforts of our Intergroup Specialist, an increase in meetings and activities related to other departments was noted during this period.

A specialized service was adopted in focusing greater attention on the various problems facing our minority families.

#### SPECIAL PROGRAM FOR THE ELDERLY

This program is now in its second year and already definite advancement has been made in solving some of the difficult problems involved in the displacement of our elderly residents. The Service profited from our first year's activity in making available service to the aging group.

We are aware of the impact that displacement plays when a person is 65 years of age and over. Frequently, limited income and ill health create serious problems in bringing about the successful relocation of our senior citizens.

We are therefore making a fervent effort to learn as much as possible in order to fulfil our obligations to our senior citizens.

#### SUBMISSION OF FORD FOUNDATION ELDERLY GRANT

In the spring of 1963, the Relocation Service submitted a proposal to the Ford Foundation to conduct a two year study and action program under a \$35,000 grant.

After a series of meetings and conferences, the National Advisory Committee of the Ford Foundation approved the application of the Relocation Service to conduct the study.

If final approval is granted by the Ford Foundation, it is our intention to carry out a detailed study of the 153 elderly residents who have successfully been relocated from the Central Classical project area. Upon completion of the study, a service program shall be developed to make available all resources to meet the needs of the displacees. A final project report will climax the requirements of the study.

It is gratifying to be considered for this type of specialized program and further attests to the fact that our own program for the elderly at local level has demanded national attention.



## RANDALL SQUARE

In the fall of 1962, a preliminary meeting was held at the Providence Redevelopment Agency to make plans for a social diagnostic study and action program to assist the displacees within the Randall Square phase of the East Side Urban Renewal Project.

The plan was drafted and submitted to the regional office of the Urban Renewal Administration in New York. The federal Urban Renewal Administration approved the project as an early social planning function and would be reimbursable for the federal contribution when the City elected to select a formula at a later date.

Taking cognizance of the fact that research and consultation service would play an integral part of the specialized program and through the cooperation of Dr. Sidney Dillick, Executive Director and Mr. Franklin W. Zweig, Staff Consultant of the Research Division of the Rhode Island Council of Community Services, Inc., a plan was developed whereby the Council provided the design and consultation service for the Relocation Service. Also, the Bureau of Information and Referral Service of the Council was placed at the disposal of the Relocation Service.

In February 1963, a presentation was made by the Administrator of the Relocation Service to the Providence Redevelopment Agency members giving full details on the proposed study and action program. Approval was given to proceed and a budget in the amount of \$23,000 was authorized.

The plan was then submitted to the Sub-Committee on Minority Housing of the Citizens' Advisory Committee. The Minority Committee likewise voiced its approval of this early planning function for the Randall Square area.

In March 1963, the interviewing phase of the study began. Over the next two months, all families and individuals were contacted and the information was submitted to the Council for scoring and evaluation. There were several meetings conducted between the Relocation Service, representatives of the Providence Redevelopment Agency and the R. I. Council of Community Services.

In late summer, the actual referral program commenced. In a community effort, some thirty private and public health, welfare and employment agencies are currently working with the Relocation Service in rehabilitating the occupants of the Randall Square area.

It is interesting to point out that it is too early to predict, within a degree of certitude, what the final outcome may be. However, we feel assured that the mere fact we were able to work with the families and individuals some twenty months before the actual condemnation proceedings, greater strides can be achieved in minimizing an early exodus from the area. The transition should be orderly, alleviating hardships when condemnation takes place sometime in 1965.

## FEDERAL AID HIGHWAY ACT

With the passage of the Federal Aid Highway Act by Congress in October of 1962, the wheels were set in motion through the Rhode Island State Department of Public Works to appoint a relocation manager to work with local authorities in the further development of a well-balanced relocation operation.

In essence, this bill meant that for the first time the Federal Government would reimburse local communities who contracted with the State to give certain added relocation service to residents and businesses facing displacement as a result of highway activity.

As part of this program, the relocation payment phase was included in the Highway Act, whereby residents would receive up to \$200 for necessary moving expenses, commercial establishments would receive up to \$3,000 for reasonable moving expenses. This moving payment program was to be administered through the Local Public Agency.

Many months passed without a written Agreement between the State of Rhode Island and the Family & Business Relocation Service. However, the work continued to be carried out pending a working contract with the State.

As of this writing, the Relocation Service has processed claims and given service to residents and commercial establishments involved in the seven projects.

There are many distinct advantages of the Federal Aid Highway Act. For the first time, there is a direct liaison between the local community and the State of Rhode Island in all highway undertakings.

In addition, local communities shall receive reimbursement for technical services administered through this program. Finally, business establishments, for the first time, will receive compensation for moving expenses, which heretofore was denied them.

It is our hope that final contractual service shall be culminated within the next few weeks.

#### SUMMARY

While the facts and figures recorded in the annual report speak for themselves, it may be interesting to note that new areas of approach have been carried out in trying to develop progressive action relative to families and businesses facing displacement in future projects.

Fortunately, the availability of standard housing is adequate to meet the needs of planned future projects. We have noted a continuing exodus from the city into the suburban areas during the past year.

In view of the progress made in the interstate routes and highway projects, it is felt that the completion of highway activities should be reached during the 1964 - 1965 fiscal year.

There is much interest centered around the Community Renewal Program which should be made available during the later part of 1964. The findings and directives of this massive study will, to a great extent, effect future relocation programs.

Finally, the degree of cooperation from the public as well as private and public health agencies gives rise to a closer and more diligent working relationship, effecting the well being of our displacees.

It is hoped that this report, limited as it is, in some way will attest to the experiences denoted during the 1962 - 1963 fiscal year.

# PROGRESS REPORT ON RESIDENTIAL PHASE

FISCAL YEAR 1962 - 1963

| PROJECT  | CONDEMNATION<br>DATE | WORKLOAD<br>10/1/62 | RELOCATED DURING<br>FISCAL YEAR | REMAINING ON SITE<br>9/30/63 |
|--|----------------------|---------------------|---------------------------------|------------------------------|
| <u>URBAN RENEWAL</u><br>Central Classical      | 1/2/62               | 238                 | 234                             | 4                            |
| <u>HIGHWAY CONSTRUCTION</u><br>Eddy to Niagara | 3/16/62              | 8                   | 8                               | Completed                    |
| Elmwood to Cranston City Line                  | 6/6/62               | 1                   | 1                               | Completed                    |
| Promenade to Charles                           | 12/28/62             | 41                  | 41                              | Completed                    |
| Orms to Ashburton                              | 10/9/62              | 7                   | 7                               | Completed                    |
| Douglas to North Davis                         | 11/62                | 1                   | 1                               | Completed                    |
| Charles to Branch                              | 12/12/62             | 2                   | 1                               | 1                            |
| Ambrose to Chalkstone                          | 1/28/63              | 6                   | 6                               | Completed                    |
| Red Bridge                                     | 2/1/63               | 39                  | 21                              | 18                           |
| Branch to Pawt. City Line                      | 3/25/63              | 32                  | 19                              | 13                           |
| Seymour St.                                    | 1/23/63              | 2                   | 0                               | 2                            |
| Orms St.                                       | 12/27/62             | 2                   | 1                               | 1                            |
| Huntington Extension                           | 6/30/63              | 54                  | 20                              | 34                           |
| <u>CITY PROJECTS</u><br>Majestic Parking Site  | 6/30/61              | 4                   | 4                               | Completed                    |
| Bradford House (Housing for Elderly)           | Negotiation          | 39                  | 4                               | 35                           |
| TOTAL F&BR-6                                   |                      | 476                 | 368                             | 108                          |

# REPORT ON RESIDENTIAL CONTACTS

FISCAL YEAR 1962 - 1963

| <u>PROJECTS</u>                          | <u>HOME CONTACT</u> | <u>OFFICE CONTACT</u> | <u>TOTAL</u> |
|--|---------------------|-----------------------|--------------|
| <u>URBAN RENEWAL</u>                     |                     |                       |              |
| Central Classical                        | 725                 | 292                   | 1,017        |
| <u>HIGHWAY CONSTRUCTION</u>              |                     |                       |              |
| Eddy St. to Niagra                       | 47                  | 14                    | 61           |
| Elmwood to Cranston City Line            | 6                   | 0                     | 6            |
| Promenade to Charles                     | 65                  | 20                    | 85           |
| Orms to Ashburton                        | 54                  | 5                     | 59           |
| Douglas to North Davis                   | 4                   | 0                     | 4            |
| Charles to Branch                        | 15                  | 5                     | 20           |
| Ambrose at Chalkstone                    | 38                  | 3                     | 41           |
| Red Bridge                               | 385                 | 147                   | 532          |
| Branch to Pawt. City Line                | 125                 | 16                    | 141          |
| Seymour St.                              | 32                  | 6                     | 38           |
| Orms St.                                 | 19                  | 0                     | 19           |
| Huntington Extension                     | 524                 | 120                   | 644          |
| <u>CITY PROJECTS</u>                     |                     |                       |              |
| Majestic Parking Site                    | 48                  | 9                     | 57           |
| Bradford House (Housing for the Elderly) | 328                 | 75                    | 403          |
| TOTAL                                    | 2,415               | 712                   | 3,127        |

PROGRESS REPORT ON COMMERCIAL PHASE

FISCAL YEAR 1962 - 1963

| PROJECT                              | CONDEMNATION<br>DATE | WORKLOAD<br>10/1/62 | RELOCATED DURING<br>FISCAL YEAR | REMAINING ON SITE<br>9/30/63 |
|--------------------------------------|----------------------|---------------------|---------------------------------|------------------------------|
| URBAN RENEWAL                        |                      |                     |                                 |                              |
| *Central Classical                   | 1/2/62               | 34                  | 29                              | 5                            |
| HIGHWAY CONSTRUCTION                 |                      |                     |                                 |                              |
| Eddy to Niagara                      | 3/16/62              | 8                   | 8                               | Completed                    |
| Niagara to Elmwood                   | 1/19/62              | 2                   | 2                               | Completed                    |
| Promenade to Charles                 | 12/28/61             | 32                  | 32                              | Completed                    |
| Douglas to North Davis               | 11/62                | 1                   | 1                               | Completed                    |
| Charles to Branch                    | 12/12/62             | 5                   | 1                               | 4                            |
| Ambrose to Chalkstone                | 1/28/63              | 5                   | 5                               | Completed                    |
| Route Six (Phase II)                 | 2/63                 | 9                   | 0                               | 9                            |
| Red Bridge                           | 2/4/63               | 8                   | 1                               | 7                            |
| Branch to Pawt. City Line            | 3/25/63              | 1                   | 0                               | 1                            |
| Huntington Extension                 | 6/30/63              | 14                  | 4                               | 10                           |
| CITY PROJECTS                        |                      |                     |                                 |                              |
| Majestic Parking Site                | 6/30/61              | 5                   | 5                               | Completed                    |
| Bradford House (Housing for Elderly) | Negotiation          | 7                   | 0                               | 7                            |
|                                      | TOTAL                | 131                 | 88                              | 43                           |

\*Churches, non-profit organizations, rooming and apartment houses only.

# REPORT ON COMMERCIAL CONTACTS

FISCAL YEAR 1962-1963

| <u>PROJECTS</u>                          | <u>CONTACTS</u> |
|--|-----------------|
| <u>URBAN RENEWAL</u>                     |                 |
| *Central Classical                       | 239             |
| <u>HIGHWAY CONSTRUCTION</u>              |                 |
| Eddy to Niagara                          | 48              |
| Niagara to Elmwood                       | 14              |
| Promenade to Charles                     | 154             |
| Douglas to North Davis                   | 6               |
| Charles to Branch                        | 56              |
| Ambrose at Chalkstone                    | 56              |
| Route Six (Phase II)                     | 93              |
| Red Bridge                               | 79              |
| Branch to Pawt. City Line                | 9               |
| Huntington Extension                     | 103             |
| <u>CITY PROJECTS</u>                     |                 |
| Majestic Parking Site                    | 23              |
| Bradford House (Housing for the Elderly) | <u>33</u>       |
| TOTAL                                    | 913             |

\*Churches, non-profit organizations, rooming and apartment houses only.

TOTAL NUMBER OF REFERRALS MADE  
TO RESIDENTIAL AND COMMERCIAL SITE OCCUPANTS

FISCAL YEAR 1962 - 1963

| <u>PROJECTS</u>                          | <u>RESIDENTIAL</u> | <u>COMMERCIAL</u> |
|--|--------------------|-------------------|
| <u>URBAN RENEWAL</u>                     |                    |                   |
| Central Classical                        | 248                | *7                |
| <u>HIGHWAY CONSTRUCTION</u>              |                    |                   |
| Eddy to Niagara                          | 6                  | 0                 |
| Niagara to Elmwood                       | 0                  | 0                 |
| Elmwood to Cranston City Line            | 0                  | 0                 |
| Promenade to Charles                     | 40                 | 6                 |
| Orms to Ashburton                        | 24                 | 0                 |
| Douglas at North Davis                   | 0                  | 0                 |
| Charles to Branch                        | 17                 | 2                 |
| Ambrose at Chalkstone                    | 16                 | 9                 |
| Route Six (Phase II)                     | 0                  | 32                |
| Red Bridge                               | 42                 | 7                 |
| Branch to Pawt. City Line                | 57                 | 2                 |
| Seymour St.                              | 11                 | 0                 |
| Orms St.                                 | 7                  | 0                 |
| Huntington Extension                     | 56                 | 11                |
| <u>CITY PROJECTS</u>                     |                    |                   |
| Majestic Parking Site                    | 7                  | 3                 |
| Bradford House (Housing for the Elderly) | 29                 | 2                 |
| TOTAL                                    | 560                | 81                |

\*Churches, non-profit organizations, rooming and apartment houses only.

# RECORD OF LISTINGS PROCESSED FOR ALL PROJECTS

FISCAL YEAR 1962 - 1963

| <u>QUARTERLY</u>        | <u>RENTAL PROPERTIES</u> |                             | <u>SALE PROPERTIES</u> |                             | <u>TOTAL</u> |
|-------------------------|--------------------------|-----------------------------|------------------------|-----------------------------|--------------|
|                         | <u>APPROVED</u>          | <u>REJECTED OUT OF CITY</u> | <u>APPROVED</u>        | <u>REJECTED OUT OF CITY</u> |              |
| Oct. 1 - Dec. 31, 1962  | 77                       | 33                          | 11                     | 3                           | 143          |
| Jan. 1 - March 31, 1963 | 42                       | 15                          | 23                     | 7                           | 120          |
| April 1 - June 30, 1963 | 40                       | 38                          | 25                     | 2                           | 138          |
| July 1 - Sept. 30, 1963 | 45                       | 8                           | 53                     | 5                           | 151          |
| TOTAL                   | 204                      | 94                          | 112                    | 17                          | 552          |

|                         |            |
|-------------------------|------------|
| TOTAL RENTAL PROPERTIES | <u>337</u> |
| TOTAL SALE PROPERTIES   | <u>215</u> |
| GRAND TOTAL             | 552        |