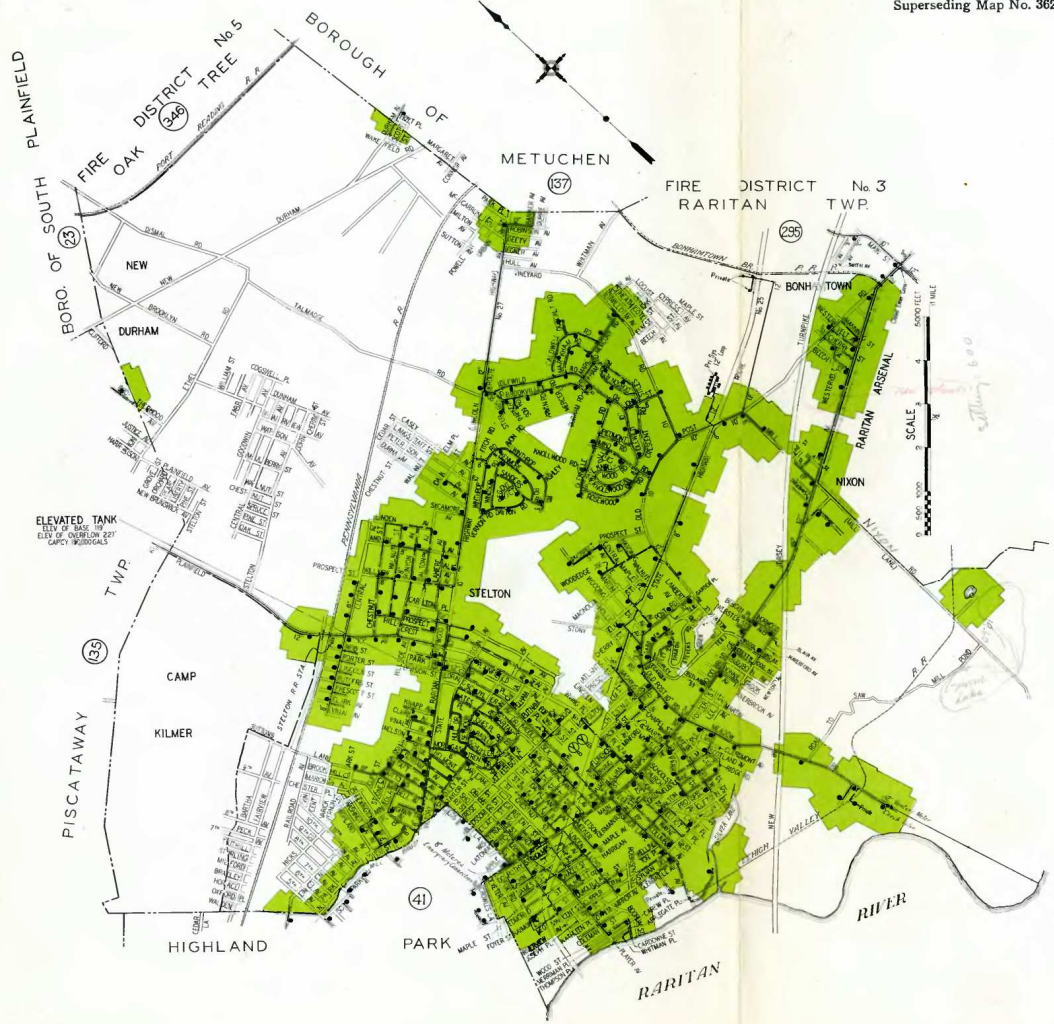


Superseding Map No. 362 of October 31, 1946. Please destroy old issue.



THE FIRE INSURANCE RATING ORGANIZATION OF N. J.  
ENGINEERING DEPARTMENT  
NEWARK 2, N. J.

**Raritan Township  
Fire District No. 1  
Middlesex County, New Jersey**

JUNE 30, 1951

- KEY**
- PROTECTED FIRE ZONE: Shown in Green.
  - Note.—Fire protection report on file in Engineering Department of F. I. R. O. of N. J.
  - Elevations range from 0 to 120 feet above mean sea level.
  - Water mains 8 inches and larger in diameter
  - Water mains 6 inches in diameter
  - Water mains 4 inches in diameter
  - Fire hydrants shown thus
  - Gate valves shown thus
  - Fire houses shown thus
  - Fire apparatus designated by symbols thus:
  - ⊙ Pumping engine and hose car
  - ⊕ Booster tank or tanks on above

October 31, 1946.

## RARITAN TOWNSHIP, MIDDLESEX COUNTY, NEW JERSEY. FIRE DISTRICT No. 1.

Including Bonhamtown, Lindenau, Nixon, Piscatawaytown, and Stelton.

Population Estimated to be 4,500.

**IN GENERAL:** Located on the Raritan River and the Pennsylvania, Lehigh Valley, and Port Reading Railroads north and east of Highland Park. It is a scattered residential and farming community with about 6 plants employing 600. Area of mapped portion about 11 square miles. Elevations range from 0 to 120 feet. Main roads are concrete or macadam in good condition, with others of dirt or gravel in fair to poor condition. Railroad grade crossings are said not to have interfered with the response of fire apparatus.

**WATER SUPPLY:** The township owns and operates the distribution system and purchases water from Perth Amboy for domestic and fire protection purposes. The department is in charge of a water superintendent who serves a four-year term under the township committee. The present incumbent has held office for seventeen years. He has a foreman, 4 laborers, 1 meter man, and 2 office employees. Department is provided with three  $\frac{1}{2}$ -ton pick-up trucks and has a yard and shop with a small amount of spare parts. Records consist of a good map of the distribution system, which at time of inspection had not been brought up to date, and a card file of valves, which also was incomplete.

**Supply Works:** Water is obtained through a 16-inch transmission main from the Runyon Pumping Station of the Perth Amboy water system. The line is equipped with a 12-inch Venturi meter and a 16-inch check valve. In addition there is an 8-inch meter connected to Highland Park and a 12-inch un-metered emergency connection with the Middlesex Water Company's line to Raritan Arsenal.

**Distribution System:** In one service consisting chiefly of 6-inch and 8-inch mains poorly gridironed. See map.

**Elevated Tank:** Located at Third Street and Jefferson Boulevard. It is steel, 28 feet 8 inches in diameter and 26 feet 4 inches high with hemispherical bottom on an 82-foot steel tower. Elevation of base 119 feet. Elevation of overflow 227 feet. Capacity 150,000 gallons.

**Consumption:** The average daily consumption during 1945 was 414,660 gallons. The maximum daily consumption was 567,000 gallons. On July 31st, 1946 there were 1,292 services, all of which were metered.

**Pipe:** Pipe is cast iron, tar coated, bell and spigot joint, with the exception of 660 feet of Universal joint and 1,450 feet of 6-inch Transite pipe, and is laid with a cover of 4 feet to the center line. Total length, exclusive of 4,114 feet of transmission main, 160,795 feet; 4.7% 16-inch, 10.9% 12-inch, 9.6% 10-inch, 18.9% 8-inch, 47.6% 6-inch, and 8.3% 4-inch. No trouble was reported from freezing or electrolysis.

**Gate Valves:** There are 266 on the system mostly of Ludlow make with a few various makes set with iron boxes at grade. Direction of operation is uniform. Valves are inspected about annually.

**Hydrants:** There are 173 of Ludlow make of standard type. All have one  $\frac{1}{2}$ -inch and two  $\frac{3}{4}$ -inch outlets and 6-inch gated branches. Outlets have National Standard threads. Hydrants are inspected twice annually. At time of inspection those operated were in good condition.

**Pressures:** A recording gauge at the fire house showed pressures varying between 43 and 50 pounds. A direct reading gauge at the water department office showed a static pressure of 43 pounds. Readings taken at 6 well distributed locations on the system showed pressures ranging from 37 to 61 pounds with an average of 47 $\frac{1}{2}$  pounds.

**Fire Flow Tests:** Probable supply available for fire protection purposes was measured on August 23rd, 1946 by means of Pitot tube. Location of hydrant discharge in gallons per minute, pressure before flow, and pressure during flow were as follows:

Russell and Woodbridge Aves., 850—41—36.

Player Ave and Wood St., 480—61—51.

Central and Prescott Aves., 620—56—45.

Paterson Ave and Lincoln Highway, 620—37—8.

Route No 25 1,000 ft W of Old Post Rd., 870—45—15.

Westervelt and Woodbridge Aves., 1,160—45—24.

**FIRE DEPARTMENT:** A volunteer organization of one company under the control of the fire district which owns house, apparatus, and equipment, and appropriated \$26,530 for the support of the department during 1946. Membership consists of 3 paid men who work in 8-hour shifts, 1 paid relief man and 41 volunteers, of whom a minimum of about

15 are available at all times. Officers include a chief, assistant chief, 2 marshals, and 2 foremen who are elected for a 1-year term with the rotation system of advancement in force.

**Company—Raritan Engine Company No. 1:** Located on Plainfield Avenue north of Woodbridge Avenue in a 2 $\frac{1}{2}$ -story joisted brick building with slate roof, concrete apparatus floor, hot air heat, electric lights, telephone, hose tower, and air horn in cupola on roof.

**Equipment:** A 1924 Mack 500-g p.m. triple combination pumping engine carrying a 155-gallon booster tank, 200 feet of booster hose, 1,200 feet of 2 $\frac{1}{2}$ -inch hose, 300 feet of 1 $\frac{1}{2}$ -inch hose, 2 short ladders, and fair minor equipment. A 1938 Pirsch-Ford 500-g p.m. triple combination pumping engine carrying a 200-gallon booster tank, 150 feet of booster hose, 800 feet of 2 $\frac{1}{2}$ -inch hose, 300 feet of 1 $\frac{1}{2}$ -inch hose, 3 short ladders, a 1,250-watt portable electric generator, 3 portable lights, 2 salvage covers, and good minor equipment.

**Hose:** All 2 $\frac{1}{2}$ -inch hose is C.R.L. with National Standard screw couplings. It is dried in hose tower, tested three times a year at about 200 pounds pressure and shifted after fires and at tests. About 20% of the total supply is over 5 years old and there is a reserve supply of 2,500 feet of 2 $\frac{1}{2}$ -inch hose and 800 feet of 1 $\frac{1}{2}$ -inch hose located in the fire house.

**Operations:** Department is governed by its own by-laws. Chief has control of apparatus at all times and of men at fires and drills. Motors are started twice daily. There are 3 paid drivers, 3 relief drivers on call, and 3 volunteer drivers.

**Drills and Training:** Department does not hold regular drills, but during the summer it holds 6 mock pumping exercises and about 3 times a year drills are held at which time pumps are operated at draft.

**Fire Methods:** Booster lines are used on incipient fires reinforced by hydrant and engine lines with shut-off nozzles. Department is provided with two salvage covers, but is totally lacking in gas masks and heavy stream appliances.

**Response to Alarms:** The Ford pumping engine responds to all brush and automobile fires and if alarm is known to be a building fire, both pieces of apparatus respond within the fire district. Outside aid may be secured from New Brunswick and Highland Park.

**Building Inspection:** Chief makes a semi-annual inspection of garages and industrial establishments, but no records of inspections are maintained, and no inspections are made of schools and stores.

**Records and Reports:** Chief maintains fairly complete records of fires and drills and submits a monthly report to the Board of Fire Commissioners of the fire district.

**Fire Alarms:** There is no public fire alarm system. Alarms are telephoned through the New Brunswick telephone exchange to the fire house where there is someone on duty at all times. District is divided into 15 sections and a coded signal is sounded on the air horn by means of a breakwheel transmitter giving the section in which the fire is located. Air horn is tested daily by time signal.

**POLICE DEPARTMENT:** Consists of a chief, 3 lieutenants, and 15 patrolmen who work in 8-hour shifts and maintain 24-hour duty at the police desk in the municipal building at Plainfield and Woodbridge Avenues. Department is provided with a chief's car and 3 patrol cars equipped with two-way short-wave radios, 2 telephone trunk lines to the New Brunswick telephone exchange, and 1 to the Metuchen telephone exchange. Police respond to alarms of fire if known to be building fires. They report unauthorized construction to the building inspector.

**BUILDING LAWS:** Code adopted March 18th, 1927 provides for the appointment of a building inspector. Code is quite extensive, but does not establish fire limits nor provide restrictions of area, height, or wall thicknesses, and provision for protection of openings in walls is poor. Code permits wood shingled roofing on all buildings under 4 stories in height.

**FIRE PREVENTION LAWS:** There is no fire prevention ordinance. A section of the building code deals with the accumulation of combustibles, but enforcement is poor.

**ZONING ORDINANCE:** None.