



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

# **Clark Township** **Union 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 20 to 118 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 house shown thus*
- Fire apparatus designated by symbols thus:*
- Pumping engine and hose car
  - Hose car
  - Booster tank or tanks on above

## CLARK TOWNSHIP, UNION COUNTY, NEW JERSEY.

Population — 1940 Census — 2,083.

**IN GENERAL:** Located on the main line of the Lehigh Valley Railroad between Rahway and Westfield. A residential and farming community with five small industries employing about 300. Area 4.6 square miles. Elevations range from 20 to 118 feet. Main roads concrete and macadam, others dirt and gravel in fair to poor condition. No unusual conditions which might interfere with the response of fire apparatus.

**WATER SUPPLY:** Water for domestic and fire protection purposes is furnished by the Elizabethtown Water Company Consolidated, which serves the portion of the township adjacent to Rahway, and by the Plainfield-Union Water Company which furnishes the portion of the township adjacent to Westfield. For details as to organization, supply works, distribution system, and appurtenances see reports with Maps Nos. 343 and 124. **Elizabethtown Water Company Consolidated—Distribution System:** Supply to Clark Township is from a 36-inch transmission main from the Raritan-Millstone Pumping Station, with emergency connections to the Robinson's Branch Pumping Station of the Middlesex Water Company and the Plainfield-Union Water Company distribution system. Distribution system consists mainly of dead end 6-inch lines supplying hydrants. **Consumption:** The average and maximum daily pumpage in the entire territory served during 1946 was 6,462 and 8,567 million gallons in addition to which an average daily rate of 11.87 m.g.d. was purchased mainly from other company owned sources. On December 31, 1946 there were 20,644 services in the entire territory served, of which 421 were in Clark Township. Services are 100% metered. **Pipe:** Cast iron, tar coated, bell and spigot joint, laid with about a 3½-foot cover. Total length, 54,300 feet; 43.5% 36-inch and 56.5% 6-inch. No trouble reported from frozen mains, electrolysis, or tuberculation. **Gate Valves:** There are 50 valves of Rensselaer and Smith makes set with iron boxes and man-holes to grade. Direction of operation is uniform. Valves are inspected continuously. **Hydrants:** There are 32 hydrants of Corey make of standard type with two 2½-inch and one 4½-inch outlets and 6-inch gated branches. Hose outlets are of two types, National Standard and 3 inches outside diameter with 8 threads per inch. Steamer outlet threads are National Standard. Hydrants are inspected twice a year. Those operated during resurvey were found to be in fair condition. **Pressures:** Readings taken at 5 hydrants widely distributed showed pressures ranging from 54 to 78 pounds with an average of 64 pounds. **Fire Flow Tests:** Probable supply available for fire protection purposes was measured on March 18, 1942 by means of Pitot tube. Location of hydrant, discharge in gallons per minute, pressure before flow, and pressure during flow were as follows:

Prospect St. and Haliday St., 285—62—5.  
Westfield Ave. 500 ft. N/W of Madison Hill Rd., 770—67—7.  
Acken Dr. E and Fairview Rd., 500—54—13.  
Madison Hill Rd. and Wendel Pl., 625—61—17.  
Autumn Ave. and Hillside Ave., 575—78—60.

**Plainfield-Union Water Company System—Distribution System:** Supply to Clark Township is through a 6-inch extension of the Westfield distribution system and a 16-inch transmission main from the Park Avenue Pumping Station. Arterial system is generally poor with numerous 6-inch dead end lines supplying hydrants. There is a closed emergency connection with the Elizabethtown distribution system. **Consumption:** The average and maximum daily consumption in the entire territory served (37,208 services) during 1946 was 10.35 and 11.2 m.g.d. On December 31, 1946 there were 413 services in Clark Township, practically all of which were metered. **Pipe:** Cast iron, tar coated, bell and spigot joint, laid with a 3½-foot cover. Total length, 27,400 feet; 93.1% 6-inch and 6.9% 12-inch. No trouble reported from frozen mains, electrolysis, or tuberculation. **Gate Valves:** There are 41 of Wood make set with iron boxes to grade. Direction of operation is uniform. No regular inspection. **Hydrants:** There are 35 of Wood and Corey makes of standard type with two 2½-inch and one 4½-inch outlets and 6-inch gated branches. Hose outlets are 3-inch outside diameter and have 8 threads per inch. Steamer outlet threads are National

Standard. Hydrants are inspected twice a year. Those operated during resurvey were found to be in good condition. **Pressures:** Readings taken at 3 hydrants widely distributed showed pressures ranging from 78 to 86 pounds with an average of 81 pounds. **Fire Flow Tests:** Probable supply available for fire protection purposes was measured by means of Pitot tube. Location of hydrant, discharge in gallons per minute, pressure before flow, and pressure during flow were as follows:

Picton St. and Central Ave., 1,210—78—18.  
Westfield Ave. and Brant Ave., 700—80—19.  
Raritan Rd. and Rahway Ave., 640—86—19.

**FIRE DEPARTMENT:** A volunteer organization of one company under full control of the township and under the supervision of the director of public safety. Township appropriated \$2,500 for the support of the department in 1947. Apparatus and equipment owned by township, fire house by company. Total active membership 34, of whom an average of 14 are available during the day and 30 during the night. There are a chief and assistant chief, 3 deputy chiefs, a foreman, and assistant foreman who are elected annually by the company and confirmed by the commission. **Company—Clark Township Fire Company No. 1:** Located on Central Avenue northwest of Brant Avenue. Building is a 2-story cement block and frame structure with a wood shingle roof, concrete apparatus floor, steam heat, electric lights, and telephone. **Equipment:** A 1929 American La France 600-g.p.m. triple combination pumping engine carrying a 60-gallon booster tank, 250 feet of booster hose, 1,600 feet of 2½-inch hose, one 30-foot extension ladder, 1 short ladder, and fair minor equipment. A 1938 International 100-g.p.m. booster and hose car carrying a 380-gallon booster tank, 250 feet of booster hose, 300 feet of 1½-inch hose, 450 feet of 2½-inch hose, 2 short ladders, 2 gas masks, 1 salvage cover, and some minor equipment. **Hose:** All 2½-inch hose is C.R.L. with National Standard screw couplings. It is tested twice a year at 200 pounds pressure, shifted at fires and drills, and dried on apparatus floor. There is a total supply of 2,600 feet of 2½-inch hose, of which 1,600 feet is over 5 years old and 500 feet is held in reserve. **Operations:** Department governed by company by-laws and township ordinances. Chief has control of apparatus at all times and of men at fires and drills. He can not suspend members, but must prefer charges to company. Motors are started weekly. Twenty members of the department drive apparatus. **Drills and Training:** No drills or training. **Fire Methods:** Booster streams used on incipient fires reinforced by engine and hydrant lines with shut-off nozzles where water is available. No heavy stream appliances are provided. **Response to Alarms:** Entire department responds to all alarms in township. Outside aid may be secured from Rahway, Westfield, and Cranford. **Building Inspection:** None by department. **Records and Reports:** Records are kept of all fires and annual reports are submitted to the commission. **Fire Alarms:** Alarms of fire are telephoned through the Rahway Exchange to the Hyatt Manufacturing Division of the General Motors Corporation. Coded signals, indicating section of township fire is in, are sounded from here.

**POLICE DEPARTMENT:** Consists of a part-paid chief, assistant chief, and 13 special officers.

**BUILDING LAWS:** Code adopted August 5, 1924 provides for the annual appointment of a building inspector and requires that plans be submitted before a permit is issued. Code has a few good provisions in regard to chimneys, wall thicknesses, and fire stops, but in general does not conform to the Code of Suggested Ordinances for Small Municipalities as recommended by the National Board of Fire Underwriters. No fire limits are established and combustible roof coverings are allowed throughout the township.

**FIRE PREVENTION LAWS:** No municipal regulations. State laws adequately cover the storage and shipment of explosives, the transportation of flammables, and the construction of motion picture booths. They also restrict the discharge of fireworks to responsible bonded parties.

**ZONING ORDINANCE:** Adopted August 3, 1937.