



The Fire Insurance Rating  
Organization of N. J.  
ENGINEERING DEPARTMENT  
NEWARK 2, N. J.

**Livingston Township**  
Essex County, New Jersey

FEBRUARY 15, 1946

- KEY**
- PROTECTED FIRE ZONE: Shown in Green.
- For description of fire protection, etc., see other side.
- Elevations range from 170 to 584 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 that:
- ① Automobile combination jumper and hose car
  - ② Ambulance, Squad or Auxiliary car
  - ③ Booster tank or tanks on above

Superseding Map No. 354 as of December 15, 1933. Please destroy old issue.

February 15, 1946.

## LIVINGSTON TOWNSHIP, ESSEX COUNTY, NEW JERSEY.

Population—1940 Census—4,972.

**IN GENERAL:** Located on the Passaic River in the extreme southwestern portion of the county. It is a rapidly growing suburban residential community with little or no manufacturing. Area 14 square miles. Elevations range from 170 to 584 feet. Roads are concrete or macadam in fair to good condition. There are no railroad crossings, but some severe grades in the eastern part of the township could effect delays in the response of fire apparatus.

**WATER SUPPLY:** Township owns and operates the distribution system supplying water for domestic and fire protection purposes to the township only. The entire supply is purchased from the Commonwealth Water Company. For details on supply works, pumping stations, storage facilities, and distribution system of this company see report with Map No. 245. About 90% of the Livingston system is supplied directly from the Canoe Brook Pumping Station on the low service through about one mile of 12-inch main in Millburn connected to a 24-inch transmission main from the Canoe Brook Pumping Station. Supply is through a 6-inch meter with 12-inch bypass on East Hobart Gap Road at the Millburn Township limits. Balance of system is in two small sections adjoining West Orange at about elevation 330 and is supplied from the West Orange High Service through two separate 6-inch meters with bypasses. Distribution system was designed and installed in 1927 under the supervision of a consulting engineer. The water department is under the control of the township committee, and the system is in charge of a superintendent appointed annually. Service connections and repairs are made by the superintendent and two employees. Office is in municipal building with yard and shop nearby. The superintendent is provided with a car and the department with a repair truck. Alarms are not received, but one of the employees is a member of the fire department and responds to all alarms with repair truck. Records are incomplete and not up to date. **Distribution System:** In two services, supplied by one low service and two high service metered connections. Gridiron is very irregular and there are numerous long unsupported dead end branches. The entire low service in Livingston depends on one long 12-inch artery. A high percentage of the system consists of 6-inch mains with some 8-inch supporting mains; see map. **Consumption:** The average daily consumption during the 12-month period ending December 20th, 1944 on the low and high services respectively was 0.2965 m.g.d. and 0.0108 m.g.d. The estimated maximum daily consumption on low and high services is respectively 0.445 m.g.d. and 0.016 m.g.d. At time of inspection there were 2,007 services, all of which are metered. **Pipe:** All pipe is cast iron, tar coated; approximately 10,000 feet is bell and spigot joint and the balance is Universal Joint, all laid in a minimum 4.5-foot trench. Total length, 228,750 feet; 2.9% 12-inch, 13.4% 8-inch, 78.3% 6-inch, and 5.4% 4-inch. No trouble has been reported from frozen mains or electrolysis. **Gate Valves:** There are 493 of Darling and Eddy makes set with boxes at or near grade. About 97% of the valves open counter-clockwise. There are no regular inspections of valves. **Hydrants:** There are 339 in the township, two of which are Columbia make and the balance are Eddy or Darling makes. All are of standard type with two 2½-inch and one 4½-inch outlets. Twelve hydrants have 4-inch branches and the balance have 6-inch branches. About 13 hydrant branches are ungated. All outlets have National Standard threads. Hydrants are inspected annually and after use. At time of inspection hydrants were found to be in good condition. **Pressures:** Readings taken at 13 well distributed hydrants on both the low and high services showed pressures ranging from 26 to 115 pounds with an average of 79 pounds. **Fire Flow Tests:** Probable supply available for fire protection purposes was measured on October 3d, 1945 by means of Pitot tube. Location of hydrant, discharge in gallons per minute, pressure before flow, and pressure during flow were as follows:

**Low Service—**

- E Mt Pleasant and N. Livingston Aves., 540—53—11.
- N Livingston Ave 750 ft S of Locust Ave., 470—69—9.
- McCall and Sykes Aves., 280—43—2.
- W. Mt. Pleasant Ave 300 ft W. of Hillside Ave., 340—26—1.
- Beaufort Ave. 500 ft S. of Township Limits, 340—80—4.
- W Mt Pleasant Ave 500 ft. E of Passaic River, 590—115—19.
- Baker Rd 1,900 ft. W of Walnut St., 480—80—8.
- W. Hobart Gap Rd 400 ft. W. of Hillside Ave., 730—96—25.
- Passaic Ave and Dickinson La., 390—115—6.
- E Hobart Gap Rd 500 ft. N. of South Orange Ave., 1,740—90—46.
- S. Livingston and E Northfield Aves., 1,380—86—34.

**High Service—**

- E. Cedar St. 800 ft. N. of E. Northfield Ave., 620—105—22.
- E Mt. Pleasant Ave 1,000 ft. W. of West Orange Line, 310—66—12.

**FIRE DEPARTMENT:** A volunteer organization of three companies under the control of the township which owns house and equipment and the apparatus with the exception of the rescue car which is owned by the companies. The township appropriated \$4,110 for the support of the department in 1945. Total active membership 20, of whom a minimum of 10 are available at all times. Officers include a chief, first and second assistant chiefs, 2 captains, and 3 lieutenants. All but the chief are elected annually by the companies and confirmed by the township committee. Chief is appointed for an indefinite term and is employed on a part-time basis. **Companies:** All companies are located on S. Livingston Avenue at Oak Street. Building is 2½ stories of brick and stucco faced concrete block with composition roof, concrete apparatus floor, steam heat, electric lights, hose rack, drill tower, telephone, and siren on roof. **Engine Company No. 1:** 6 members. **Equipment:** A 1936 Ford-Darley 500 g.p.m. triple combination pumping engine with a front mounted Champion pump, a 150-gallon booster tank, 400 feet of booster hose, 200 feet of 1½-inch hose, 1,000 feet of 2½-inch hose, 2 short ladders, and good minor equipment. **Engine Company No. 2:** 8 members. **Equipment:** A 1928 Mack 750-g.p.m. triple combination pumping engine with a 100-gallon booster tank, 300 feet of booster hose, 200 feet of 1½-inch hose, 1,200 feet of 2½-inch hose, 2 short ladders, one 45-foot extension ladder, and good minor equipment. **Rescue Company No. 1:** 5 members. **Equipment:** A 1929 Packard rescue truck with a 1,000-watt electric generator, 4 flood lights, 8 salvage covers, and fair minor equipment. In addition a 1937 La Salle ambulance is provided and a 1928 Chevrolet hose car with some civilian defense hose and equipment is held in reserve. **Hose:** All 2½-inch hose is C.R.L. with National Standard screw couplings. It is dried on hose rack, shifted semi-annually, and tested once yearly at 200 pounds pressure. The reserve supply amounts to 1,750 feet of 2½-inch and 400 feet of 1½-inch hose. About 1,750 feet of 2½-inch hose is over 7 years old, 1,000 feet is between 5 and 7 years, and the balance of 1,200 feet under 5 years old. **Operations:** Department is governed by township ordinance and company by-laws. Chief has control of apparatus at all times and of men at fires and drills and may suspend members pending a hearing before the township committee. Motors are started weekly. All members may drive apparatus and operate Ford pump, and 7 operators are appointed to operate the Mack pump. **Drills and Training:** Department drills are held 3 times a month under the supervision of the chief officers. They consist of pump operation, hose laying, and ladder and rescue work on a 33-foot open drill tower at department headquarters. **Fire Methods:** Booster lines and hand extinguishers are used on small fires reinforced with two 1½-inch lines laid to 2½-inch hydrant or engine lines. Four all-service masks and 8 salvage covers are carried, but no other salvage or heavy stream appliances are provided. **Response to Alarms:** Engine Company No. 1 and Rescue Company No. 1 respond to all alarms in the township. Engine Company No. 2 responds only to house fires and is held in reserve in the event of a second fire. Outside aid may be secured from West Orange, Millburn, and Roseland. **Building Inspection:** Chief as head of the fire prevention bureau makes a semi-annual inspection of all premises and buildings with the exception of dwellings. A monthly report is made to the township committee. **Records and Reports:** Chief keeps fairly complete records of all alarms and drills, and makes monthly and annual report to the township committee. **Fire Alarms:** Alarms of fire are telephoned to police headquarters in the rear of fire headquarters. Alarms are sounded on 3 sirens, located throughout the township, by means of control switches at the police desk or at the fire house. No location codes are used. Sirens are tested daily.

**POLICE DEPARTMENT:** Consists of chief, lieutenant, 3 sergeants, 4 regular and 3 special patrolmen. In addition 3 members of the fire department are deputized to serve at fires until the arrival of police. Twenty-four hour duty is maintained at the police desk. Department is provided with 3 patrol cars equipped with two-way short wave radios. There are 3 call boxes in the township and 3 trunk lines at police desk. Police respond to all alarms and report unauthorized building construction to the building inspector.

**BUILDING LAWS:** Building code recommended by the National Board of Fire Underwriters was adopted by reference on July 16th, 1945.

**FIRE PREVENTION LAWS:** Code adopted December 17th, 1934 provides for the fire chief to be head of the fire prevention bureau and requires inspections 3 times yearly of all premises and buildings other than dwellings. Ordinance closely follows the Code of Suggested Ordinances for Small Municipalities, of the National Board of Fire Underwriters. State laws adequately cover the storage and shipment of explosives and flammables and the construction of motion picture booths. They also restrict the discharge of fireworks to responsible bonded parties.

**ZONING ORDINANCE:** Adopted January 21st, 1929.