



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

Red Bank Borough
Monmouth County, N. J.

FEBRUARY 15, 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 6 to 169 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:
 - (V) Pumping engine and hose car
 - (A) Ambulance, Squad or Auxiliary car
 - (L) Ladder truck
 - (B) Booster tank or tanks on above
 - (C) Chemical tank or tanks on above



BOROUGH OF RED BANK, MONMOUTH COUNTY, NEW JERSEY.

Population—Census of 1930 was 11,624.

IN GENERAL: Located on the N. Y. and L. B. R. R. about 5 miles northwest of Long Branch. A trading, manufacturing and residential community with a large number of commuters and about 35 plants employing around 1,500 persons. Area about 16 square miles; elevations range from 0 to 169 feet. Streets mostly paved in good condition. Railroad crossings at grade do not interfere with response of apparatus to mercantile section.

WATER SUPPLY: Borough owns supply works and distribution system and supplies water for domestic and fire protection purposes to the borough and a few consumers outside the borough. The system is in charge of a competent superintendent who is a civil engineer of many years experience. There are 3 plant engineers, 3 maintenance men, 2 meter readers and one clerk. Ample transportation facilities are provided. Employees answer alarms of fire and superintendent starts pumps immediately. He has a telephone in his home from police switchboard, also one at pumping station. There is also a tapper in superintendent's home and at pumping station. Records good. **Supply Works:** Supply is obtained from three wells widely separated and is pumped through pressure filters to reservoir or distribution system. **Pumping Stations—Chestnut Street Station:** One 20-inch well 292 feet deep, yield about 400 g.p.m. Station is one-story concrete block with composition roof, gas radiator for heat, electric lights and telephone in nearby office. **Equipment:** One Layne-New York deep well pump driven by a 50 h.p. G. E. electric motor. This station normally discharges through a 10-inch line to filters at the reservoir, but can discharge directly to the distribution system in case of fire. **Pearl Street Station:** Located at Pearl Street south of Bergen Place in a concrete block building, concrete roof, stove, electric lights and telephone. One 20-inch well 700 feet deep, yield about 650 g.p.m., but usually operated at 475 g.p.m. **Equipment:** One Fairbanks-Morse deep well pump, driven by a 40-h.p. G. E. electric motor, discharges to aeration chamber and two 300-g.p.m. pressure filters. Water is re-pumped by 500-g.p.m. Fairbanks-Morse centrifugal pump driven by a 25-h.p. G. E. electric motor directly into the distribution system. **Marion Street Station:** Located on Marion Street near Harrison Avenue in a one-story concrete block building, composition roof, electric lights and gas steam radiator for heat. A 20-inch well 295 feet deep, yield 500 g.p.m. **Equipment:** A Layne-New York deep well pump driven by a 50 h.p. G. E. electric motor; pump discharges through an 8-inch line to filter house at reservoir, or directly into system. **Filter House:** Located at reservoir in brick building with concrete floor and roof, steam heat and telephone. Man in attendance during day. **Equipment:** Aerating tank on roof for removal of iron. Water flows from aerator to three 0.5 m.g.d. pressure filters, thence by gravity to reservoir adjoining. Filters can be by-passed if necessary. **Reservoir:** Brick lined, located as shown on map. Capacity 1,300,000 gallons with overflow at elevation 131. **Consumption:** Average and maximum daily consumption during 1937 was 0.71 and 1.06 m.g.d. On December 31, 1937 there were 3,386 services all of which are metered. **Distribution System:** In one service; see map. **Pipe:** All cast iron tar coated with bell and spigot joint, laid with 3/4- to 5-foot cover. No trouble from frozen mains or electrolysis. Total length 137,100 feet; 29.95% 4-inch, 46.50% 6-inch, 14.65% 8-inch, 8.90% 10-inch. **Gate Valves:** 214 on the system of various makes set with iron boxes at grade. Part turn right to open and are so marked. Valve records are being brought up to date. There is no periodic inspection, but it is planned to inspect valves annually when present location work is completed. Fire department notified when valves affecting hydrant supply are operated. **Hydrants:** 201 of Corey, Mathews, Ludlow, Smith, Galvin and Eddy makes. 182 have two 2 1/2- and one 4 1/2-inch outlets, 6 have three 2 1/2-inch outlets and the remainder have two 2 1/2-inch outlets. All have 6-inch barrel, 25 have 6-inch branch and the remainder have 4-inch branch and 94 have gated branch. Hydrants are inspected twice annually. Those operated during this inspection were in good condition. **Pressures:** Recording gauge at Chestnut Street Station shows normal pressure of 45 pounds with drops to 35 and 40 pounds during periods of heavy consumption. Readings taken at 11 hydrants showed pressures ranging from 44 to 56 pounds with an average of 45 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:

Without Pumps Operating:
 Broad and Mechanic Sts., 1,650—44—13
 Monmouth St and Maple Ave., 1,380—47—21
 With All Pumping Stations Operating to Distribution System:
 Broad and Mechanic Sts., 2,400—47—24
 Monmouth St and Maple Ave., 1,980—51—33
 Riverside and Bridge Ave., 620—56—51
 West Front St and Rector Pl., 1,380—56—43
 Shrewsbury Ave. and Bank St., 960—50—22
 Madison Ave. and South St., 680—48—33
 High and Front Sts., 620—46—36
 Spring St and Linden Pl., 1,540—44—41
 Maple Ave. and Leroy Pl., 1,120—45—40

FIRE DEPARTMENT: Volunteer organization under full control of the borough. Borough owns Relief, Independent and Liberty Companies' houses and all apparatus and equipment, other three houses are company owned. Chief and two deputy chiefs are elected annually by the company and confirmed by the Mayor and Council. Each company elects a captain and two lieutenants annually. Total membership 215 of whom about 105 are available at all times. Applicants for membership must be 21 to 35 years of age and pass a medical examination. Appropriation for 1937 was \$11,500. **Companies—Liberty Hose Company No. 2:** Membership 35. Located on White Street between Broad Street and Maple Avenue in two-story brick building with brick floor, slate roof, steam heat, electric lights and telephone. The repair shop is located in a brick annex. **Equipment:** A 1918 750-

g.p.m. American La France engine equipped with a 40-gallon chemical tank, 200 feet of chemical hose, 1,000 feet of 2 1/2-inch hose, two short ladders and generally good minor equipment. **Relief Engine Company No. 1:** 35 members. Located on Drummond Place near Monmouth Street in a 2-story brick building with concrete floor, tar and gravel roof, steam heat, electric lights and telephone. **Equipment:** A 1928 1,000 g.p.m. American La France engine equipped with 85-gallon booster tank, 200 feet of booster hose, 1,000 feet of 2 1/2-inch hose, two short ladders and generally good minor equipment. **Navasink Hook and Ladder Company No. 1:** Membership 38. Located on Mechanic Street near Broad Street in a two-story brick building with tar and gravel roof, concrete floor, steam heat, electric lights and telephone. **Equipment:** A 1936 American La France 75-foot spring raised aerial ladder truck carrying 8 other ladders totaling 180 feet, a ladder pipe and generally good minor equipment. **Independent Engine Company No. 2:** Membership 27. Located on Mechanic Street opposite Globe Court in a two-story brick building with brick floor, metal roof, steam heat, electric lights and telephone. **Equipment:** A 1927 1,000-g.p.m. American La France engine equipped with an 85-gallon booster tank, 250 feet of booster hose, 1,000 feet of 2 1/2-inch hose, two short ladders and generally good minor equipment. **West Side Hose Company No. 1:** Membership 39. Located on Leighton Avenue near Newman Springs Road in a two-story brick building with composition roof, concrete floor, electric lights, steam heat, telephone and siren on roof. **Equipment:** A 1922 500 g.p.m. American La France engine equipped with a 40-gallon chemical tank, 250 feet of chemical hose, 1,000 feet of 2 1/2-inch hose, two short ladders and generally good minor equipment. **Union Hose Company No. 1:** Membership 40. Located on Shrewsbury Avenue between Leonard and Herbert Streets in a two-story brick building with tin roof, concrete floor, steam heat, electric lights and telephone. **Equipment:** A 1920 American La France hose and chemical car equipped with two 40-gallon chemical tanks, 250 feet of chemical hose, 1,000 feet of 2 1/2-inch hose and generally good minor equipment. **Hose:** All 2 1/2-inch hose is C.R.L. with National Standard screw couplings. It is tested at drills twice a year at 250 pounds. There are no hose drying facilities. There is 1,500 feet of 2 1/2-inch hose in reserve. **Operations:** Department governed by borough ordinance and company by-laws. Chief has control of apparatus at all times and of men at fires and drills. He may suspend members pending trial by Mayor and Council. Each company has 6 men trained to act as drivers and operators. **Drills and Training:** Drills held on an average of every two months with additional drills as needed. Companies are drilled in the use of ladders, laying hose and operation of engines. **Response to Alarms:** On box alarms and all alarms for fires in buildings the entire department responds. For small fires not in buildings one piece of apparatus responds. Outside aid may be secured from Fair Haven, Eatontown, Shrewsbury and Long Branch. **Fire Methods:** Chemical or booster streams supported by engine lines used on all fires. Engines always connected to hydrants. **Building Inspections:** The three chief officers make monthly inspection of the mercantile and manufacturing districts for fire hazards. **Fire Alarms:** System is part of the fire department and is maintained by fire alarm superintendent who also maintains police signaling system. Headquarters is located in cut-off section of Liberty Fire House on White Street. Room is brick, separated from shop by fire door, windows are plain glass set in wood sash. System is of Game-well make with a single overhead circuit in 4 loops. There is a four-circuit slate operating board with the usual switches and meters for operation. Current is supplied by 66 cells of storage battery mounted on glass rails, on porcelain knobs on iron racks in operating room and floating on the line with 4 oxide film rectifiers. Wiring in headquarters is in conduit. There are 33 boxes on 4 loops; 21 are plain non-interfering and 12 are of modern succession type. All boxes have indicating lights; no regular box test, but continuous inspection is made. Regular tests will be made for current, voltage and grounds. Circuits are No. 10 hard drawn copper, triple braided, weatherproof. They are carried on utility poles below power wires. Lightning arresters and fuses provided for entering circuits and 3-ampere fuses provided on battery rack and operating board. There is a break wheel transmitter at police headquarters with wheels for each box and additional wheels for special signals. Each fire station, water works and officials' residences are connected to police telephone switchboard. There is a tower bell at Liberty Fire House, a diaphone at Union Fire House, an electric siren at West Side Fire House, and a diaphone at Marion Street Pumping Station. There is a visual indicator and gong at each fire house, register and gong at police station, 15 bells in homes of various officials and members, and two gongs in the business district.

POLICE DEPARTMENT: Consists of a chief, deputy chief, sergeant, lieutenant, 2 captains and 14 patrolmen working in 8-hour shifts. There are 17 police signaling boxes over which men report hourly during day and every half hour during night. There are also 32 police call lights which are used to recall patrolmen. Four police radio cars are provided. Patrolmen respond to alarms of fire and report unauthorized building construction.

BUILDING LAWS: Code adopted February 5, 1924 provides for a building inspector and establishes fire limits. A new code closely following the code recommended by the National Board of Fire Underwriters is now being compiled.

EXPLOSIVES AND FLAMMABLES: An ordinance establishing a fire prevention bureau consisting of the chiefs and ex-chiefs of the fire department was adopted February 2, 1937. Zoning ordinance prohibits manufacturing of certain hazardous materials in borough. Present fire prevention code is not comprehensive enough and does not conform to the Fire Prevention Code as recommended by the National Board of Fire Underwriters. State laws restrict the use of fireworks to only responsible bonded parties.