



KEY

PROTECTED FIRE ZONE: Shown in Green.

NOTE.—For description of fire protection, etc., see other side.

Elevations range from 50 to 130 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:

⊙ Automobile combination pumper and hose car

○ Ladders on above

⊙ Booster tank or tanks on above

Schedule Rating Office of New Jersey
ENGINEERING DEPARTMENT
NEWARK, N. J.

Borough of Garwood
Union County, New Jersey

NOVEMBER 30, 1936

November 30, 1936.

BOROUGH OF GARWOOD, UNION COUNTY, NEW JERSEY

Population—Census of 1930 was 3,370.

IN GENERAL: A manufacturing community on the C. R. R. of N. J. east of Westfield. There are about 20 industries employing about 1,000. Transportation to neighboring communities is afforded by the railroad and bus lines. Area about 0.7 square miles. Elevations range from 70 to 104 ft. Main roads concrete, others macadam and gravel in fair to good condition. One grade crossing may delay the response of fire apparatus.

WATER SUPPLY: Water is furnished for domestic and fire protection purposes by the Plainfield Union Water Co. (See report with Map No. 124). Garwood is supplied by two 12-in. mains from the Netherwood Station and by one 12-in. main from the Jerusalem Rd. reservoir. **Consumption:** The average and maximum daily consumption in the entire territory served (25,076 consumers) during 1935 was 6.73 and 8.88 m.g.d. There were 693 metered services in Garwood on October 1, 1936. **Distribution System:** In one service; see map. **Pipe:** Cast iron, tar coated, bell and spigot joint laid with a 3-ft. cover. No trouble from frozen mains or electrolysis. Total length excluding the 12-in. transmission mains is 29,066 ft. of 6-in. **Gate Valves:** 57 of various makes; all open to right; set in iron boxes at grade. No regular valve inspection. Fire department notified when valves affecting hydrant supply are operated. **Hydrants:** 64 of Corey, Smith and Wood makes; 52 have two 2½-in. outlets, 60 have 4-in. barrels and 60 have 4-in. valves. Hydrants inspected annually. Those operated during inspection were found to be in good condition. **Pressures:** Readings taken at 4 hydrants widely distributed showed pressures ranging from 68 to 76 pounds with an average of 72 pounds. **Fire Flow Tests:** Probable supply available for fire protection purposes was measured by means of Pitot tube on April 11, 1933 and July 11, 1934. Location of hydrant, discharge in gallons per minute, pressure before flow and pressure during flow were as follows:

April 11, 1933:

Center and Hazel, 1,130—69—47.

Center and Willow, 2,150—76—26.

July 11, 1934:

North and Oak, 2,140—76—63.

Walnut and Third, 1,330—68—50.5.

FIRE DEPARTMENT: A volunteer organization under control of the Board of Fire Commissioners. Borough owns house, apparatus and equipment and appropriated \$3,600 in 1935 for the support of the department. Chief and assistant chief appointed annually by borough; foreman and assistant foreman elected annually by companies. There are 50 men in the department of whom about 30 are available at all times. **Companies:** All companies located in municipal building at Center St. and South Ave. Building is a 2-story joisted brick structure, with slag roof, concrete apparatus floor, steam heat, electric lights, telephone and gong. **Apparatus:** A 1922 350 g.p.m. Reo engine with a 35-gallon booster tank, 2 short ladders, 200 ft. of booster hose, 750

ft. of 2½-in. hose and poor minor equipment. A 1930 Sea-grave combination 750 g.p.m. engine and city service ladder truck carrying a 100 gallon booster tank, 200 ft. of booster hose, 750 ft. of 2½-in. hose, ladders ranging from 16 to 50 ft., totaling 193 ft. and good minor equipment. **Hose:** All 2½-in. hose is C.R.L. with New York Standard screw couplings. It is shifted only at fires and drills, tested at 250 pounds and dried on apparatus floor. **Operations:** Department is governed by borough ordinance and company by-laws. Chief has control of apparatus at all times and of men at fires and drills. He can not suspend members, but can prefer charges to Mayor and Council. Motors turned over twice a week. Twelve men appointed as drivers. **Drills and Training:** Drills held 8 times a year in favorable weather consist of use of equipment, hose laying and ladder raising. **Fire Methods:** Booster lines used on small fires reinforced with engine and hydrant lines with shut-off nozzles. Engine always hooks up. No heavy stream appliances or salvage equipment. **Response to Alarms:** Entire department responds to all alarms. Outside aid may be received from Cranford and Westfield. **Building Inspection:** Chief makes a monthly report to Council giving condition of apparatus, recommendations for purchase of equipment, and record of fires. Records incomplete. **Fire Alarm System:** System is under the supervision of fire department. It is maintained by two members of the fire company who devote their spare time to the system. They have had no previous fire alarm experience. Headquarters apparatus is of the automatic type, located in a closet in fire house and consists of a single circuit Mohawk charging board. There is no circuit protection. Current is supplied by a battery of 15 cells mounted on glass racks on a wood stand and floating on a Mohawk rectifier protected by a 10 ampere fuse. There is a Mohawk generator set in reserve. System is one circuit carrying all boxes, alarm instrument and Star whistle at Aluminum Company's plant. Wire is No. 10 hard drawn copper with triple braided weatherproof insulation located above wires on utility company poles. Inside wiring is not in conduit. There are 12 non-interfering boxes of Gamewell, Star and Loper makes mounted on utility company poles with red indicating bands and blue indicating lights. Boxes are not grounded. Boxes inspected during survey were found to be in good condition. Boxes tested monthly and circuit daily. No records of tests. Alarms may be telephoned to fire house or to police station where there is usually someone on duty during the day and are sounded on fire alarm box in front of fire station.

POLICE DEPARTMENT: Chief, sergeant and lieutenant work in 8-hour shifts. One car and one motorcycle provided.

BUILDING LAWS: Code adopted September 26, 1916 establishes fire limits and has a few good provisions in regard to chimneys 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.

EXPLOSIVES AND FLAMMABLES: No regulations.