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

Town of Irvington
Essex County, New Jersey

JUNE 15, 1934

KEY

PROTECTED FIRE ZONE: Shown in Green.

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

Elevations range from 70 to 217 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:

(Y) *Automobile combination pumper and hose car*

(H) *Hose car* (L) *Ladder truck*

(A) (C) *Automobile apparatus*

(C) *Chemical tank or tanks on above*

Superseding Map No. 12 of June 15, 1929 Please destroy old issue

TOWN OF IRVINGTON, ESSEX COUNTY, NEW JERSEY

Population - 1930 Census - 56,733

IN GENERAL: Located adjoining Newark on the southwest. Town is mainly residential; there are about 125 factories employing about 10,000; mercantile values are relatively low for a municipality of this population. Area 3.4 square miles, of which about three-fourths is built on; elevations range from 70 to 217 ft. above mean sea level. Roads mainly improved. Transportation afforded by bus and trolley lines; branch freight spurs serve manufacturing district. Grade crossings reported as never having interfered with the response of fire apparatus.

WATER SUPPLY: Supply works and distribution system owned and operated by the Commonwealth Water Company, a subsidiary of the American Water Works and Electric Co. Inc. For detailed information on the supply works, see report with Commonwealth Water Company Map No. 245. Company is well organized with a competent superintendent and adequate operating staff. Fire alarms do not sound in company's quarters; no provisions for regular response to fires; however, men and equipped emergency truck are available at all times. Records generally complete. **Supply Works:** Irvington is supplied from the Low Service by the Canoe Brook pumping station only, but in an emergency the Baltusrol pumping station, with a capacity of about 5,000,000 gals. per day, could help supply Irvington. The Canoe Brook supply is from a well field with a capacity of over 10,000,000 gals. per day, and from a 750 million gallon reservoir supplied by Canoe Brook in time of freshet. Pumps at the Canoe Brook Station have a combined capacity of 20,500,000 gals. per day, although the failure of one valve in the pump discharge piping would decrease the pumping capacity materially. **Elevated Storage:** Total elevated storage amounts to 8,419,650 gals. Elevated storage on the Low Service and the West Orange High Service consists of the West Orange standpipes, the West Orange Reservoir and the Wyoming Reservoir; their combined capacities amount to 8,122,150 gals. **Consumption:** For the year of 1933 the average daily pumpage into the Low Service amounted to 6.50 million gals., and the maximum daily pumpage amounted to 9.558 million gals. The average daily consumption in Irvington is estimated to be about 2.25 million gals. **Distribution System:** See map. Irvington system in one service. **Pipe:** All cast iron, tar coated, bell and spigot joint, A.W.W.A., Class "B", laid with a 4-ft. cover. Total length in Irvington, 322,600 ft.; 4.3% 4-in., 77.7% 6-in., 9.4% 8-in., 5.7% 12-in., 2.9% 16-in. **Gate Valves:** 632 on Irvington system; with a few exceptions all open to the right. Valves 16-in. and larger are set in iron boxes to grade. There are no records of the number of different sized valves other than as shown on the general distribution map. Valves are inspected annually; condition fair. **Hydrants:** 705 in Irvington, of 4 different makes; about 50% have 4-in. barrels and branches and two 2½-in. outlets; rest have 6-in. barrels and branches and two 2½-in. outlets and one steamer outlet; about 40% have gated branches. The hydrants are inspected yearly and are in good condition. **Pressures:** Static pressures range from 77 to 115, with an average of 87.8 lbs. per sq. in. **Fire Flow Tests:** Probable supply available for fire protection purposes was measured on June 24, 1931 with additional tests on Mar. 20, 1934 by means of Pitot tubes. Location of hydrant, discharge in gallons per minute, pressure with hydrants closed and pressure with hydrants flowing were as follows:

Springfield and Clinton Aves., 3152--100--66.
Coit St. and Chestnut Ave., 1470--115--75.
Coit St. and Lyons Ave., 1880--110--59.
Grove St. and Smalley Ter., 1040--80--43.
Allen St. and Lenox Ave., 2560--111--39.
Springfield Ave. & 43d St., 1380--90--32
Lindsly Ave. & Bull Ter., 1740--111--67.
Coit St. & Olsen Pl., 1520--92--21.5.
Clinton Ave. & Grove St., 2145--87.5--46.
Springfield Ave. & 21st St., 1650--80.5--19.
19th Ave. & 21st St., 1170--81--59.
16th Ave. opp. 22d St., 1070--77--45.

FIRE DEPARTMENT: A full-paid department on the 2-platoon basis, under the supervision of the Director of Public Safety. Total membership, 72 including a chief, 2 deputy chiefs, 8 captains, 1 lieutenant and 62 men. The chief is appointed by the Board of Commissioners for an indefinite term, with removal for cause only; present incumbent was appointed chief in 1925 and has been a member of the department for 24 years. One deputy chief is a graduate of the New York Fire School. Candidates for appointment must be between 21 and 35 years of age and pass mental and physical examinations; appointees are on probation for a period of from 60 to 90 days. Appropriation for 1934 amounts to $168,000. **Headquarters Fire Station:** Located on Washington, between Springfield and Clinton Aves. It is a 2-story brick building, with slate roof, concrete apparatus floor, steam heat and hose tower. Spare hose, 3,000 ft.; 1 engine, 1 hose, 1 truck and chief's car in station. **Engine Co. No. 6:** One 1926 American La France 750 gal. pumper, carrying 1,100 ft. of 2½-in. hose, a turret nozzle, 2 short ladders and good minor equipment. Company strength, 4 men. **Hose Co. No. 3:** One 1923 Reo hose car carrying one 35-gal. chemical tank, 150 ft. of chemical hose, 850 ft. of 2½-in. hose, 2 short ladders and good minor equipment. Company strength, 5 men. **Ladder Co. No. 2:** One 1923 American La France 75 ft. aerial ladder truck carrying 10 ladders totaling 306 ft. and good minor equipment, including deluge set, salvage covers, ladder pipe and life net. Company strength, 3 or 4 men. Chief's car is a 6-cylinder roadster, carrying hand extinguishers and salvage covers. **Coit St. Fire Station:** Located on Coit St., between Lyons and Nye Aves. It is a 2-story brick building with slate roof on main portion, slag on addition, concrete apparatus floor, steam heat and hose tower. Spare hose, 2000 ft. One engine company. **Engine Co. No. 2:** One 1920 American La France 600 gal. pumper carrying one 35-gal. chemical tank, 200 ft. of chemical hose, 1100 ft. of 2½-in. hose, 2 short ladders and good minor equipment. Company strength, 4 men. **Engine Co. No. 1:** Held in reserve at this station. It is a 1913 American La France 750 gal. pumper carrying one 35-gal. chemical tank, 250 ft. of chemical hose, 1200 ft. of 2½-in. hose, 2 short ladders and some minor equipment. **Durand Place Fire Station:** Located at Durand Pl. and Wagner Pl. It is a 2-story, semi-fireproof, brick building with slate roof, concrete apparatus floor, steam heat, combination drill and hose tower in rear. Spare hose, 2000 ft. One ladder, one engine and deputy chief's car. **Ladder Co. No. 1:** One 1914 American La France 50-ft. city service ladder truck, carrying 9 ladders totaling 221 ft. and good minor equipment. Company strength, 5 men. **Engine Co. No. 5:** One 1926 American La France 750 gal. pumper, carrying one 35-gal. chemical tank, 200 ft. of chemical hose, 1100 ft. of 2½-in. hose, 2 short ladders and good minor equipment. Company strength, 5 men. Deputy chief's car, a 6-cylinder 2-passenger coupe, is at this station. An automobile equipped with a 2,000-watt gasoline motor generator set and searchlights and operated by Superintendent of Fire Alarm is installed. **Grove St. Fire Station:** Located on Grove St. and 18th Ave. It is a 2-story semi-fireproof brick building with slate roof, concrete apparatus floor, steam heat, combination drill and hose tower in rear. Spare hose, 1200 ft. **Engine Co. No. 4:** One 1928 American La France 1000 gal. pumper, carrying one 35-gal. chemical tank, 250 ft. of chemical hose, 1600 ft. of 2½-in. hose, 2 short ladders and good minor equipment. Company strength, 5 men. **Hose:** All 2½-in. hose is C.R.L. with 8-thread-per-inch screw couplings. In addition to the 6,950 ft. of hose on apparatus there is 8200 ft. in reserve. Hose tested quarterly at 250 lbs. Washed and dried after use; shifted every 2 weeks if not used. **Operations:** Department governed under city ordinance; rules and regulations are printed in booklet form and are distributed. Chief may suspend members until charges may be preferred. One deputy chief has charge of drills; other deputy chief keeps records. Repairs to apparatus made by town mechanic, who is subject to call at all times. Motors are turned over as each shift goes on duty. **Drills and Training:** Under one deputy chief. Company drills in use of equipment and apparatus and drill tower practice held daily in summer. Each company drills weekly. **Response to Alarms:** Response to telephone and box alarms is the same; with telephone alarms location is telephoned to each company. On first alarms one ladder and two engine companies respond; second alarms call two engine and one ladder companies additional. Off-shift men may be called on extra-alarm fires; no special means of notification. Outside aid may be secured from Newark, the Oranges and other towns. **Fire Methods:** First company in uses chemical stream and second lays in with water line; when fire is showing on arrival all companies lay in with water line. Ladder companies ventilate and use salvage appliances. **Building Inspection:** The Bureau of Combustibles, consisting of one man, aided by a fireman assigned to light duty, make inspections; records of conditions found are kept. **Reports and Records:** Complete records in permanent form are being kept under the supervision of a deputy chief. **Fire Alarm System:** Under supervision of Director of Public Safety, in charge of Superintendent. One regular assistant and equipped truck provided. Headquarters located on ground floor of semi-fireproof Durand Pl. fire station. Building is unexposed; fire extinguisher in apparatus floor. Equipment consists of a 12-circuit slate protector board with 3 amp. and 1/2 amp. fuses and vacuum type lightning arresters, a 12-circuit slate operating board, with the usual devices, and a 10-circuit repeater with contacts for 4-alarm circuits. Two sets of batteries of 100 cells each located in room in basement; 3 windows. Batteries mounted on glass rails on porcelain knobs on iron racks. They are charged on alternate days by one of two motor-generator sets supplied by independent power circuit from meter board. There are 6 box and 2 alarm circuits of No. 10 triple braid weatherproofed copper wire; 70% overhead. Total length, 40 miles; mounted on poles of joint occupancy, some with high tension; about 75% are below power lines. There are 126 non-interfering boxes in service and 331 phantom locations have been designated. Boxes mounted on available poles; red bands on poles, no red lights; shells grounded. Boxes inspected monthly; test tap from one box on each circuit weekly. Two gongs are on an alarm circuit and one punch register on a box circuit at Coit St. station and fire headquarters; at Durand Pl. station 4 gongs on an alarm circuit and 1 gong, punch register and time stamp on box circuit; 1 gong on alarm circuit at police headquarters and at police traffic booth. Fire department telephone switchboard, with 3 trunks from exchange and 2 lines to each fire station and 1 to police headquarters, is located in Durand Pl. fire station; constant watch maintained.

POLICE DEPARTMENT: Consists of chief and 66 uniformed men. Two automobile patrols and several squad cars and motorcycles are in service. A police signaling system with 40 4-call boxes has been installed. Patrol car with 2 patrolmen responds to all alarms of fire.

BUILDING LAWS: Laws enacted in 1909 and later amended provide for the appointment of a building inspector with the usual duties, require the filing of plans and the securing of permits. Construction requirements are inadequate in some respects; heights and floor areas are not restricted; required wall thicknesses are sub-standard, as is the thickness of masonry between ends of beams entering walls from opposite sides. No fire limits are established. A revised building code is being prepared.

EXPLOSIVES AND FLAMMABLES: An ordinance adopted in 1927 provides for a Bureau of Fire Prevention, under the supervision of the Director of Public Safety, and, to a limited extent, the regulation of fire hazards. The Bureau consists of one man, aided by a fireman assigned to light duty. The Bureau is required to make an investigation of all fires and to inspect at least 4 times yearly all especially hazardous manufacturing processes, storages and installations, all private fire protection equipment, and all apartment houses and public buildings, except dwellings. The Director is empowered to require the correction of conditions which cause special fire hazards, life hazards or endanger nearby buildings. An ordinance adopted in 1916 requires that a permit be secured from the Director of Public Safety to manufacture, keep, store, sell or handle explosives and flammables, but does not provide regulations for his guidance. A complete combustible code was under consideration at time of inspection.