












KEY

- PROTECTED FIRE ZONE:** Shown in Green.
NOTE.—For description of fire protection, etc., see other side.
- Elevations range from 40 to 126 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
 -  Ladder truck
 -  Booster tank or tanks on above

THE FIRE PROTECTION ORGANIZATION OF N. J.

ENGINEERING DEPARTMENT
 NEWARK 2, N. J.

**Fair Lawn Borough
 Bergen County, New Jersey**

MARCH 31, 1947

FAIR LAWN BOROUGH, BERGEN COUNTY, NEW JERSEY.

Including Columbia Heights, Fair Lawn Center, Radburn, and Warren Point.

Population—1940 Census—8017. 1946 Local Estimate—16,000.

IN GENERAL: Located on the east bank of the Passaic River opposite the City of Paterson on the Erie Railroad about 2 1/2 miles north of Jersey City. It is a rapidly developing residential area with 6 small industries employing about 60. One textile industry employs about 70 and one large textile finishing and dyeing plant converted to aircraft engine manufacturing during the war will probably revert to its original use. Area about 5.3 square miles. Elevations range from 40 to 126 feet. Main thoroughfares and streets in developed portions are improved, but were in only fair condition at time of inspection, due to disruption resulting from sanitary sewer construction. Three railroad crossings at grade and traffic congestion on Route 4 through the minor mercantile area could effect delays in the response and operations of the fire department.

WATER SUPPLY: The Borough of Fair Lawn owns and operates the supply works and distribution system and appurtenances, supplying water for domestic and fire protection purposes to the Borough of Fair Lawn only. **Organization:** The system is under the control of the mayor and council and is in charge of a competent supervisor who serves as day pumping station operator assisted by an experienced foreman with 2 additional pump operators working in 8-hour shifts, 3 maintenance men, and 3 laborers. Employees are subject to appointment and indefinite terms under State Civil Service requirements. Major extensions and improvements are made under contract and additional laborers are hired as needed. Clerical office is located in the municipal building and operating office is at the pumping station. The supervisor responds to pumping station on alarms of fire and the foreman responds with repair equipment on call. Records are fairly complete and include distribution system maps and plans and operating data, but are incomplete as regards inspection and maintenance data. **Supply Works:** Built in 1929 and subsequently supplemented by additional well works. Supply is obtained by low lift deep well pumps from 7 artesian wells 12 inches in diameter from 300 to 500 feet deep, and from one 10-inch and one 12-inch deep well respectively 420 and 405 feet deep, which discharge directly to the distribution system. The low lift deep wells designated as Nos. 1 to 7, located in the well field to the west of the pumping station, yield from 130 to 350 gallons per minute with a combined simultaneous yield of 1,200 gallons per minute. The high lift deep wells designated as Nos. 8 and 9 are installed respectively on Willow Street between Lyncrest and Summit Avenues and on George Street between Berdan and Hopper Avenues and have respective capacities of 235 and 385 gallons per minute. Wells are equipped with American Well Works Company deep well turbines powered by motors ranging from 10 to 50 h.p., housed in small area 1-story brick and concrete buildings and are equipped with Venturi meters and standard automatic controls. The low lift pumps discharge to a ground reservoir whence the water is pumped to the distribution system, while the high lift deep wells discharge directly to the distribution system with an elevated tank acting as an equalizer and providing storage. **Pumping Station:** Located at Romaine Avenue and Cadmus Place as shown on map. Building is a 1-story brick structure with concrete floor and roof, plain glass windows, steam heat, and electric lights. Housekeeping is excellent. Hand extinguishers are provided and exposure from nearby frame buildings is slight. Elevation of floor about 80 feet. **Equipment:** Three American Well Works Company high lift centrifugal pumps consisting of one 250-g.p.m. two-stage unit, one 500-g.p.m. single stage unit and one 750-g.p.m. single stage unit driven respectively by 25-h.p., 40-h.p., and 50-h.p. G. E. electric motors. Actual capacities of these units under existing operating conditions is in excess of their rated capacities to the extent that they may be considered as being 300-g.p.m., 600-g.p.m., and 900-g.p.m. units. Control switches, Venturi meters, and pressure gauges are well installed on operating board at pumping station. **Distribution System:** In one service consisting of 16-inch and 12-inch arteries with 8-inch secondary arteries completely looped and gridironed with 6-inch and 8-inch mains in the developed areas; see map. **Reservoir:** Located at pumping station, is of concrete construction in two sections each 25 x 50 x 14 feet, with a total capacity of 214,000 gallons. **Elevated Tank:** Located at pumping station as shown on map. It is a cylindrical steel tank with a hemispherical bottom on a 152-foot steel tower, with a capacity of 306,000 gallons and a normal minimum daily storage of about 200,000 gallons. Elevation of base 80. Elevation of overflow 260. **Consumption:** The average and maximum daily pumpage during the 12-month period ending September 30, 1946 was 0.806 and 1.859 million gallons. At time of inspection there were approximately 4,350 services, all of which are metered. **Pipe:** All pipe is cast iron, tar coated, bell and spigot joint, Class "B," laid with about 4-foot cover. Total length 272,500 feet; 4.4% 16-inch, 9.9% 12-inch, 0.1% 10-inch, 17.8% 8-inch, 65.7% 6-inch, and 2.1% 4-inch. No trouble reported from frozen mains or electrolysis except that some freezing of service and small mains has been experienced in the Lyncrest Manor Section, which system was formerly privately owned. **Gate Valves:** There are 783 on the system of Eddy make set with boxes at grade. Direction of operation is uniform and records of locations are compiled. Valves at time of inspection were not subject to regular inspection and were operated only as necessitated by routine system maintenance. At time of inspection two valves were found to be in inoperative condition. **Hydrants:** There are 525 on the system of standard type mainly of Ludlow make with some of Eddy, Mathews, Darling, and Corey makes. Practically all have one 4 1/2-inch and two 2 1/2-inch outlets and 6-inch gated branches. Hydrant outlet threads are National Standard. Hydrants are normally inspected twice annually, but maintenance has been somewhat neglected due to shortage of help during the war period and those operated at time of inspection showed need of improved maintenance and service. **Pressures:** Direct reading and recording gauges in pumping station show 75 pounds with tank full and at time of inspection showed 71 pounds at two p. m. Readings taken at 9 well distributed hydrants showed pressures ranging from 63 to 92 pounds with an average of 78 pounds. **Fire Flow Tests:** Probable supply available for fire protection purposes was measured on November 12, 1946 by means of Pitot tube. Location of hydrant, discharge in gallons per minute, pressure before flow, and pressure during flow were as follows:

Fair Lawn Ave. and George St., 2,620—74—61.
 River Rd and Maple Ave., 1,420—90—82
 Heights Ave and Harristown Rd., 960—72—43.
 Maple and Elm Aves., 900—72—20
 Plaza Rd. and Fair Lawn Ave., 2,120—63—43.
 Fair Lawn Ave. 220 ft. W. of Saddle River Rd., 760—78—70.
 Tunbridge Rd. and Sycamore Dr., 860—83—14.*
 Midland Ave. and Ellington Rd., 960—79—50
 Morlot Ave. and W. "D" St., 1,000—92—21.

*Flow restricted at this location due to partially closed valve on Saddle River Rd. at Brookside Ave.

FIRE DEPARTMENT: A volunteer organization of 4 companies under the control of the borough which owns apparatus and equipment and appropriated \$9,736 for the support of the department during 1946. Houses are owned by the separate companies. Total active membership is 105, of whom a minimum of about 16 are available at all times from the 4 companies. Officers include a chief, and deputy chief, and for each company a captain, first lieutenant, and second lieutenant. Officers are elected annually by the company, subject to the approval of the mayor and council. **Companies—Company No. 1:** Located in Fair Lawn on River Road south of Fair Lawn Avenue in a one-story concrete block building with wood floor, composition shingle on wood roof, steam heat, electric lights, hose rack, outside telephone, and siren on roof. **Equipment:** A 1930 American La France 500-g.p.m. triple combination pumping engine carrying a 100-gallon booster tank, 200 feet of booster hose, 1,100 feet of 2 1/2-inch hose, 300 feet of 1 1/2-inch hose, 2 short ladders, and fair minor equipment. A 1930 American La France 50-foot city service ladder truck carrying 9 ladders ranging from 12 to 50 feet and totaling 231 feet, a 1,500-watt portable electric generator and 4 flood lights, 2 all-service gas masks, 3 salvage covers, and good minor equipment. **Company No. 2:** 25 members. Located in the Columbia Heights section at Heights and Loretto Avenues in a one-story frame building with composition roof, wood floor, electric lights, steam heat, hose tower, outside telephone, and siren on roof. **Equipment:** A 1930 American La France 500-g.p.m. triple combination pumping engine carrying a 100-gallon booster tank, 200 feet of booster hose, 950 feet of 2 1/2-inch hose, 250 feet of 1 1/2-inch hose, 2 short ladders, 2 all-service gas masks, and fair minor equipment. **Company No. 3:** 25 members. Located in the Warren Point section at Plaza Road and Rosalie Street in a one-story cinder block building with composition shingle on wood roof, concrete floor, steam heat, electric lights, hose tower, outside telephone, and siren on roof. **Equipment:** A 1929 American La France 600-g.p.m. triple combination pumping engine carrying a 100-gallon booster tank, 150 feet of booster hose, 1,000 feet of 2 1/2-inch hose, 400 feet of 1 1/2-inch hose, 2 short ladders, 2 salvage covers, and good minor equipment. **Company No. 4:** 25 members. Located in the Radburn section on Radburn Road at High Street in a one-story frame building with composition on wood roof, concrete apparatus floor, steam heat, electric lights, hose tower, and siren on nearby pole. **Equipment:** A 1935 Ahrens-Fox 500-g.p.m. triple combination pumping engine carrying a 100-gallon booster tank, 200 feet of booster hose, 1,000 feet of 2 1/2-inch hose, 200 feet of 1 1/2-inch hose, 2 short ladders, 2 all-service gas masks, 4 salvage covers, a distributor nozzle, and good minor equipment. Service tests conducted on pumping engines indicated that pumps of Companies No. 2 and No. 3 were in poor condition and in need of overhauling. **Hose:** All 2 1/2-inch hose is C.R.L. with National Standard screw couplings. Each company is provided with adapters for New York type hose threads. Hose is shifted monthly, tested annually at 200 pounds pressure, and dried on rack at Company No. 1 and in towers at other companies. About 2,500 feet of hose is over 5 years old and department is provided with 1,550 feet of reserve 2 1/2-inch hose. **Operations:** Department is governed by borough ordinance and company by-laws. Motors are started semi-weekly and all members may drive apparatus. **Drills and Training:** Each company drills about semi-monthly with drills totaling 20 per year. Drills consist of hose laying, pump operation, some ladder work, and use of minor equipment. Department drills are held annually under the supervision of the chief officers. **Fire Methods:** Booster lines are used on incipient fires reinforced by hydrant and engine lines with shut-off nozzles. Department is provided with 6 gas masks, 9 salvage covers, and one distributor nozzle. A portable deluge set is on order, but there are no other heavy stream or salvage appliances provided. **Response to Alarms:** Borough is divided into 4 sections, each section being covered by one of four fire companies. If the fire is known to be a brush or automobile fire, the company, in whose section the fire is located, responds. If fire is known to be a building fire, all four companies are called. Outside aid may be secured from the paid department of Paterson and from the volunteer departments of East Paterson, Hawthorne, and Glen Rock. **Building Inspection:** Company officers assisted by certain of their men make quarterly inspections of schools and mercantile buildings in their district. Company No. 3 maintains records of inspections, but at the present time other companies do not keep inspection records. **Records and Reports:** Each company keeps fairly complete records of fires and drills and submits reports to the chief who in turn makes an annual report of the department's activities to the mayor and council. **Fire Alarms:** Alarms of fire are telephoned through the fire resistive local telephone exchange to the police desk in the municipal building where there is 24-hour duty maintained. If fire is of small nature police sound siren at the house of the company in whose district the fire is located, by means of switch at the police desk. If fire is known to be a building fire, police sound all four company sirens by means of a code wheel transmitter sounding an air horn on the roof of the municipal building. In addition to the sirens located at the four fire houses, four other sirens are located throughout the borough.

POLICE DEPARTMENT: Consists of a chief, captain, 3 sergeants, and 10 patrolmen who work in 8-hour shifts and maintain 24-hour duty at the police desk in the municipal building. Police switchboard contains 5 trunk lines, 2 of which are reserved for fire alarms. Police are provided with 3 patrol cars equipped with three-way radios tuned to the police department's own radio transmitter, one detective's car and one ambulance. Police respond to all alarms of fire and report unauthorized building construction to the building inspector.

BUILDING LAWS: Code adopted April 8, 1929 provides for the annual appointment of a building inspector and requires that plans and specifications be submitted and permit obtained for building operations. Code has some good structural provisions, but fire limits are not outlined and wood shingled roofing is permitted throughout the borough. In general the code is not sufficiently comprehensive from a fire prevention standpoint.

FIRE PREVENTION LAWS: Fire prevention ordinance adopted September 22, 1936 provides for a fire prevention bureau consisting of the fire chief and 4 officers of the fire department, authorizes inspections of buildings and investigations of fires and requires permits for the use and handling of flammable materials. Code is not sufficiently comprehensive from a fire prevention standpoint except that reference is made to the use of the regulations of the National Board of Fire Underwriters as a standard. 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 December 12, 1933 and subsequently amended.