



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

**North Caldwell Borough**  
**Essex County, New Jersey**

FEBRUARY 29, 1952

- 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 160 to 691 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
  - Ⓜ Ambulance, Squad or Auxiliary car
  - Ⓢ Booster tank or tanks on above

## NORTH CALDWELL BOROUGH, ESSEX COUNTY, NEW JERSEY.

Population — 1940 Census — 1,572

**IN GENERAL:** Located in the northwesterly portion of the county adjoining Caldwell on the south and the Singac section of Little Falls Township on the north. A rural residential community with some farming and no industries. Area is about 2.9 square miles. Elevations range from 160 to 691 feet. Main roads are macadam with other roads mainly improved in fair to poor condition. There are no railroad crossings, and a few steep grades are said not to interfere with the response of fire apparatus.

**WATER SUPPLY:** The borough owns the distribution system and purchases water for domestic and fire protection purposes through a 6-inch meter from West Caldwell, which in turn purchases its water from Essex Fells. Two small sections in the extreme southerly corner of the borough are supplied through meters, one being connected to the Caldwell distribution system and one to the Essex Fells distribution system. For a detailed description of the supply works see report and map No. 440 on Water Supply of Essex Fells and Environs. The borough distribution system is under the direct control of the borough council with a member of the council as chairman of the water committee. A part-time borough plumber maintains system and makes minor repairs. Major repairs and extensions are handled by a contractor under the supervision of the borough engineer. Records are incomplete and consist primarily of consumption data. **Distribution System:** In one service consisting of 10-inch and 8-inch arteries supplied through a 6-inch meter and 6-inch artery from West Caldwell. There is no gridiron and there are numerous long dead end branches. **Consumption:** The average and maximum daily consumption during 1945 within the borough is estimated at 0.048 and 0.073 m.g.d. respectively. There are 190 services in the borough, all of which are metered. **Pipe:** All pipe is cast iron, tar coated, bell and spigot joint, laid with about a 4-foot cover. Total length 33,200 feet; 32.8% 10-inch, 27.7% 8-inch, and 39.5% 6-inch. No trouble has been reported from freezing or electrolysis. **Gate Valves:** There are 46 in the borough of Wood make set with iron boxes at grade. Direction of operation is uniform. There is no regular system of valve inspection. **Hydrants:** There are 53 in the borough of Mathews make of standard type with 6-inch gated branches. About 75% of the hydrants have one 4½-inch and two 2½-inch outlets and the remainder have two 2½-inch outlets. Small outlets have 3-inch outside diameter with 8 threads per inch. Large outlets are National Standard Hydrants are inspected about twice annually by the volunteer firemen. At time of inspection those operated were found to be in fair to poor condition. **Pressures:** Readings taken at 8 well distributed locations showed pressures ranging from 39 to 113 pounds with an average of 68 pounds. **Fire Flow Tests:** Probable supply available for fire protection purposes was measured on September 6, 1946 by means of Pitot tube. Location of hydrant, discharge in gallons per minute, pressure before flow, and pressure during flow were as follows:

Bloomfield Ave. 700 ft. E. of Mountain Ave., 570—84—25.

Mountain Ave. opposite Pine Pl., 200—43—3.

Grandview Pl. 550 ft. S. of Beechwood Rd., 410—113—14.

S Hamilton Dr. and Woodland Ave., 290—90—\*.

Gould Ave., 650 ft. S/E of Central Ave., 490—85—24 \*\*

Estella Ave. 450 ft. N/E of Roosevelt Blvd., 140—39—5.

Mountain Ave. 100 ft. N. of Forest Ave., 250—47—9.

Ferndale Ave 700 ft. S/W of Glenview Ave., 180—46—5.

\*No reading taken

\*\*Maximum capacity available for extended periods at this location: 375 g.p.m.

**FIRE DEPARTMENT:** A volunteer organization of one company under the control of the borough which owns

house, apparatus, and equipment and makes an annual appropriation for the support of the department. Total active membership 14 men, of whom a minimum of about 12 are available at all times. Officers include a chief, assistant chief, captain, and lieutenant, who are elected annually by the company with election being confirmed by the borough council. **Company—North Caldwell Volunteer Fire Company No. 1:** Located in municipal building on Gould Avenue between Central Avenue and Mountain Avenue. Building is a 2-story joisted brick building with composition on wood roof, concrete apparatus floor, steam heat, electric lights, and telephone in adjoining police headquarters. **Equipment:** A 1930 American La France 1,000-g.p.m. triple combination pumping engine carrying an 80-gallon booster tank, 175 feet of booster hose, 1,200 feet of 2½-inch hose, 500 feet of 1½-inch hose, 2 short ladders, 2 all-service gas masks, and fairly good minor equipment. A 1929 Ford auxiliary truck carrying a 600-watt portable electric generator, 2 flood lights, 1 spot light, 2 short ladders, and meager minor equipment. In reserve there is a 500-g.p.m. O.C.D. trailer pump. **Hose:** All 2½-inch hose is C.R.L. with New York type screw couplings. It is tested semi-annually at about 120 pounds pressure, shifted at tests, and repacked wet. There is a reserve supply of 500 feet of 2½-inch hose and 200 feet of 1½-inch hose, and all of the hose is over 5 years old. **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. Six men are appointed as regular drivers and motors are started daily. **Drills and Training:** Monthly drills are held under the supervision of the chief officers and consist of hose laying, occasional pump operation, and use of minor equipment. **Fire Methods:** Booster lines are used on small fires reinforced by hydrant or engine lines with shut-off nozzles. There are 2 all-service gas masks provided but the department is almost totally lacking in salvage equipment and heavy stream appliances. **Response to Alarms:** Both pieces of apparatus respond to all alarms within the borough and outside aid may be secured from the volunteer departments of the neighboring municipalities. **Building Inspection:** No inspections are made within the borough. **Records and Reports:** Fairly complete records are kept of all fires and drills and chief makes a quarterly report and an annual report to the mayor and council. **Fire Alarms:** Alarms of fire are telephoned through the Caldwell Telephone Exchange to the police desk in the municipal building where there is someone on duty at all times. Police sound alarm on siren mounted on steel tower at the nearby public school.

**POLICE DEPARTMENT:** Consists of a chief, 1 patrolman, 1 special, 2 special reserves, 10 specials on call, and 15 marshals. Regular men operate in 12-hour and 14-hour shifts and maintain 24-hour duty at the police desk. Department is provided with one trunk telephone line and a patrol car with two-way short wave radio. Police respond to all alarms of fire, the man on duty serving as driver of one of the two pieces of apparatus. They also report unauthorized building construction to the building inspector.

**BUILDING LAWS:** Code adopted July 8, 1936 has some good features regarding chimneys, fire stops, and protection of openings in fire walls, but does not establish fire limits nor restrict the use of wood shingled roofing, and is not sufficiently comprehensive from a fire protection standpoint.

**FIRE PREVENTION LAWS:** No municipal regulations. 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 July 9, 1930 and amended in 1946.