

ORDINANCE NO. 183

CITY OF LACEY

AN ORDINANCE REQUIRING INSTALLATION OF WATER MAINS AND FIRE HYDRANTS IN ALL AREAS OF THE CITY OF LACEY; DEFINING THE TECHNICAL REQUIREMENTS THEREOF; PROVIDING PENALTIES OF NON COMPLIANCE; AND PROVIDING FOR AN EFFECTIVE DATE.

THE CITY COUNCIL OF THE CITY OF LACEY DOES ORDAIN AS FOLLOWS:

Section 1. Definition. That the definitions set out herein are a part of this ordinance. That whenever the following terms are used in this ordinance, they shall have the meaning as defined.

(a) "Fire Department" shall mean Thurston County Fire District No. 3, a municipal corporation, which agency is under contract to provide fire protection and inspection and other related services to the City of Lacey.

(b) "Approving authority" shall mean the Fire Chief.

(c) "Fire Chief" shall mean the Fire Chief of Thurston County Fire District No. 3, a municipal corporation.

(d) "Public Hydrant" shall mean a fire hydrant so situated and maintained so as to provide water for fire fighting purposes with restrictions for its use limited to certain designated property or properties. The location is such that it is readily accessible for immediate use of the Fire Department for other than private property.

(e) "Private Hydrant" shall mean any hydrant other than a public hydrant.

1st Reading 11/5/70

2nd ✓ 4/25/71

1. The first reading is on page 10.

2. The second reading is on page 11.

3. The third reading is on page 12.

4. The fourth reading is on page 13.

5. The fifth reading is on page 14.

6. The sixth reading is on page 15.

7. The seventh reading is on page 16.

8. The eighth reading is on page 17.

9. The ninth reading is on page 18.

10. The tenth reading is on page 19.

11. The eleventh reading is on page 20.

12. The twelfth reading is on page 21.

13. The thirteenth reading is on page 22.

14. The fourteenth reading is on page 23.

15. The fifteenth reading is on page 24.

(f) "Commercial and industrial properties" shall include, but not necessarily be limited to, stores, retail and wholesale, warehouses, service stations, manufacturing facilities, garages, theaters, hotels, motels, restaurants, bars and taverns, banks, show rooms, barber shops and beauty shops.

(g) "Institutional properties" shall include, but is not necessarily limited to: places of worship, schools, public and private hospitals, nursing homes, lodges and fraternal orders, unless the structure contains a function of a commercial or industrial nature.

(h) "Residential properties" are those intended solely for the purpose of human habitation. Whenever the words "single family dwelling" are used herein it shall also include the structure known as a "duplex", namely, a two-family dwelling. A residence constructed and equipped for occupancy by more than two families shall be defined as a multi-family dwelling or high density dwelling, the terms being identical in meaning.

(i) "Flush type hydrant" shall mean a hydrant installed entirely below grade.

(j) "Fire Flow" shall mean the amount of water required to extinguish a fire.

## Section 2.

(a) The formula for fire flow shall not be limited to 5000 GPM. The Fire Chief shall determine the requirements for

fire flow using the following criteria as a guide.

	<u>FORMULA</u>	<u>GPM REQUIRED</u>
1. Ground area building (A)	$A/1000 \div 10$	_____
2. Height in Stories (H)	$500 \times (H-1)$	_____
3. Exposure to and from building	Determined by judgment of Fire Chief	_____
TOTAL	_____	_____
4. Credit for fireproof or semi-fireproof construction	not in excess of $1/3 (1+2+3)$	_____
BALANCE	_____	_____
5. Credit for non-hazardous	not in excess of $1/4 (1+2+3)$	_____
BALANCE	_____	_____
6. Credit for automatic sprinklers and other protective equipment	Determined by judgment of Fire Chief	_____
BALANCE	_____	_____
TOTAL	_____	_____
7. In no case, shall the quantity be less than the number of fire engines responding on first alarm times 500.		

(b) Required residual pressure: The required quantity shall be available at a residual pressure in the mains, figured for ground elevation of not less than 20 pounds, except where the building is equipped with automatic sprinklers dependent upon the distribution mains for supply, in which case the required fire flow shall be available at a residual pressure which will correspond to 15 pounds on the top line of the sprinklers.

(c) Water mains shall be sized to provide flows to accommodate hydrant flows as stated in 2 (a) and (b) above. Minimum main size shall be 6 inches where hydrants are included in the water distribution system. Approval of the plans for the distribution system by the Fire Chief and the City Engineer and submission to the fire underwriters shall be required. Where main sizes larger than 6 inches are required for the distribution system, the cost of oversizing may be negotiated by the City with the owner of the property to be served.

Section 3. The lead from the service main to the hydrant shall be no less than six (6) inches in diameter. Any hydrant leads over fifty (50) feet in length from the service main to the hydrant shall be no less than eight (8) inches in diameter. The provisions of this section shall apply without exception and regardless of the size of the service main.

Section 4. At least one (1) fire hydrant shall be installed at all intersections in all areas except single family residential unless otherwise specified by the Fire Chief. If the distance between intersections is over 400 feet, then one hydrant shall be placed between.

Section 5. Fire hydrants shall be installed in single family residential areas so that the distance between them shall not be more than 600 feet and shall be installed at street intersections unless otherwise specified by the Fire Chief. If intersections are over 700 feet apart an additional hydrant will be

placed in between so as not to be more than 600 feet from the hydrants on either side. In addition to the spacing requirements set forth above, hydrants located in cul-de-sac and dead-end areas either by design, topographic or man-made feature which prohibits straight line distance measurement, shall be located to serve no more than 120,000 square feet. No dead-end main shall be longer than 1200 feet.

Section 6. The installation of fire hydrants in accordance with this ordinance shall be required of the owner and/or developer of any future business, commercial, institutional, or industrial facility, dwelling, development, or subdivision and nothing contained herein shall be construed as requiring the replacement of existing fire hydrants except as provided by Section 15 hereof.

Section 7. The installation of private hydrants, as defined herein, shall be limited to those cases where the number of public hydrants installed under the distance provisions of the ordinance shall be insufficient in number. Private hydrants shall meet City requirements for public hydrants and shall be installed and located as designated by the Fire Chief. The City of Lacey shall have the right to go upon the premises and use the private hydrant for public purposes, including testing, flushing and emergency uses.

Section 8. The installation of flush type hydrants is prohibited.

Section 9. There shall be a foot-valve installed

between the service main and the hydrant sufficient to permit the repair and replacement of the hydrant without disruption of water service. The type and style shall be determined by the approving authority. The location of all such valves installed shall be properly and accurately marked on identifiable plans or drawings, two copies of which shall be furnished to the Fire Chief. This valve shall be furnished with a standard valve box.

Section 10. Buildings having required fire flow of less than 2500 GPM (other than buildings of fire resistive construction) can have fire hydrants on one side of the building only, yet there shall never be less than two (2) fire hydrants available for any building larger than 500 square feet of ground area. Location of hydrants protecting buildings requiring fire flows larger than 2500 GPM shall be determined by the Fire Chief.

Section 11. Standard hydrants shall have two (2) two and one-half ( $2\frac{1}{2}$ ) inch outlets and one (1) four and one-half ( $4\frac{1}{2}$ ) inch pumper port outlet. All outlet ports shall be national standard thread. The valve opening shall be no less than five and one-quarter ( $5\frac{1}{4}$ ) inches. The hydrants shall have a positive and automatic barrel drain and shall be of the "safety" or break away style; i.e., when accidentally broken off, water will not flow.

Section 12. Fire hydrants shall be installed to meet sound engineering practices and shall be approved by the City Engineer who shall also approve the selection and use of all pipes, fittings and valves.

Section 13. Hydrants shall stand plumb, be set to the established grade with the lowest outlet of the hydrant no less than eighteen (18) inches above the grade and no less than thirty-six (36) inches of clear area about the hydrant for clearance of the hydrant wrench on both outlets and on the control valve. The pumper port shall face the street. Where the street cannot be clearly defined or recognized, the port shall face the most likely route of approach and location of the fire truck while pumping, to be determined by the Fire Chief.

Section 14. Where needed, the Fire Chief will require hydrants to be protected by two or more posts, each eight (8) inches in diameter by five (5) feet in height made of either reinforced concrete or steel with their location to meet the provisions of Section 11.

Section 15. If there presently exist fire hydrants which do not conform to the requirements of this ordinance, such hydrants when and if replaced shall be replaced with hydrants which do conform to the standards defined herein. This does not preclude a requirement by proper authority that a deficient hydrant must be replaced should structural conditions of the area change to require a hydrant or hydrants of larger flow capacity.

Section 16. No one shall plant any vegetation, erect any structure, or perform any action which results in obstructing the view of a hydrant for a distance of fifty (50) feet, or more.

Section 17. The passage of this ordinance is necessary for the protection of the health, safety and welfare of the



citizens of the City of Lacey, Washington. No building permits shall be issued for erection of any building or structure until reasonable proof of intent to comply with this ordinance is indicated and the approving authority is satisfied that hydrants are to be and/or can be installed to comply with this ordinance.

Section 18. Any sprinkler system being installed shall be done at the expense of the property owner or his agent, including connections to the City of Lacey's water supply. Before any water line attachment is made, plans must be approved by the City of Lacey Building Inspector, City Engineer and Fire Chief. If the sprinkler system has an approved water flow alarm which connects to the Lacey Fire Department alarm center, no meter shall be necessary. No domestic water shall be used from any <sup>sprinklered system.</sup> ~~system otherwise metered.~~

Section 19. All fire hydrants to be installed shall be obtained from the City of Lacey at a price equaling the cost to the City, plus fifteen (15%) per cent. The installation of the fire hydrant may be accomplished by the developer or a recognized contractor or by payment to the City of Lacey and all installations shall be approved by the City Engineer and the Fire Chief.

Section 20. Following the installation of fire hydrants, all piping valves and hydrants shall be treated with chlorine as prescribed by law for installation of any facility on a potable water system.

Section 21. Any person violating this ordinance shall be guilty of a misdemeanor and, upon conviction, may be punished by a fine of five hundred (\$500.00) dollars or by imprisonment in the City Jail for a period not to exceed six (6) months, or by both such fine and imprisonment.

Section 22. Notwithstanding the penal provisions of this ordinance, any installation or condition allowed to exist in violation of this ordinance is hereby declared to be a public nuisance and shall be abated in the manner provided by law and the nuisance ordinances of the City of Lacey.

Section 23. If any clause, paragraph or section of this ordinance shall be declared invalid by a court of law, such adjudication shall not affect any other clause, paragraph or section contained herein.

Section 24. This ordinance shall take effect five (5) days after its passage and publication in the manner prescribed by law.

PASSED BY THE COUNCIL AND APPROVED BY THE MAYOR this  
25<sup>th</sup> day of February, 1971.

*A. J. Homann*  
MAYOR

ATTEST:

*C. P. Kertch*  
CITY CLERK

APPROVED AS TO FORM:

*Kenneth G. Adams*  
CITY ATTORNEY

PASSED: 2-25-71

PUBLISHED: 3-3-71