

507 PUBLIC FIRE PROTECTION

507.1 OPERATION OF FIRE HYDRANTS

507.1.1 Public fire hydrants are installed primarily for fire protection. They may also be used by the Des Moines Water Works to flush water mains and by other governmental agencies for street and sewer flushing.

507.1.2 Others may use hydrants by license agreement with the Des Moines Water Works under the conditions and rates established by the Board for such services. Hydrants shall not be used for any other purpose without express permission of the Des Moines Water Works.

507.2 PENALTY FOR UNAUTHORIZED USE

Anyone who shall operate or attempt to operate a fire hydrant without permission of the Des Moines Water Works may be prosecuted as provided by law and outlined in Section 511-Schedule of Charges.

507.3 RELOCATION OF PUBLIC FIRE HYDRANTS

507.3.1 Where an existing public fire hydrant interferes with a property owner's use or proposed use of his property, the hydrant may be relocated at the property owner's expense. Approval from the Fire Protection Authority and the Des Moines Water Works must be obtained prior to any work being done.

507.3.2 Where the grade of an existing street or property is changed at the request of the property owner, such that an existing public fire hydrant will not be at the proper elevation with respect to the ground, the hydrant will be raised or lowered at the expense of the property owner.

507.4 OBSTRUCTION OF HYDRANTS

507.4.1 Nothing shall be erected or planted which shall interfere with the use of a fire hydrant. Sufficient clearance shall be maintained around the hydrant to permit easy connection of hoses and full circle operation of the hydrant using regular hydrant wrenches and hose spanners.

507.4.2 Shrubs, trees, flowers, or weeds shall not be planted nor permitted to grow so as to prevent full view of a fire hydrant from the street.

507.5 PAINTING OF PUBLIC FIRE HYDRANTS

Painting of fire hydrants will be done by the Des Moines Water Works only. The hydrant bonnets are color coded in accordance with National Fire Protection Association (NFPA) standards to show the amount of water that can be discharged out of them.

<u>BONNET COLOR</u>	<u>GPM</u>
Green	1,000 or greater
Orange	500 - 1,000
Red	less than 500

In addition, hydrants on feeder mains shall have caps painted the same color as the bonnet.

507.6 Red banding on hydrants will be done by Des Moines Water Works personnel only. This will show that these are out of service.

507.7 All fire hydrants shall meet Des Moines Water Works specifications with the exception of specifications that conflict with local fire districts for direction open, nozzle / barrel sizes, operating nut size etc. Local fire district specifications take priority. (See table below). (Revised January 2024)

Fire Hydrants		DMWW Windsor Heights Polk County PCRWD#1	Pleasant Hill Russells	Alleman	Ankeny	Cumming	Johnston	Berwick
Open Direction		Clockwise (right)	Counterclockwise (left)	Counterclockwise (left)	Counterclockwise (Left)	Counterclockwise (left)	Counterclockwise (left)	Counterclockwise (left)
Hose Nozzle Diameter		2-1/2 inch	2-1/2 inch	2-1/2 inch	2-1/2 inch	2-1/2 inch	2-1/2 inch	2-1/2 inch
	Outside diameter of male thread	3-1/16	National Standard	National Standard	National Standard	National Standard	National Standard	National Standard
	Diameter at root of male thread	2-7/8	Nozzle Threads	Nozzle Threads	Nozzle Threads	Nozzle Threads	Nozzle Threads	Nozzle Threads
	Threads per inch	7-1/2						7-1/2
	Length of nozzle threads	1 inch						
	Cut off at top of threads	1/4 inch						
Pumper Nozzle Diameter		4-inch	5-inch Storz Adapter	4-1/2 inch	4-1/2 inch	4-1/2 inch	4-1/2 inch	4 - 1/2 inch
	Outside diameter of male thread	4-31/32		National Standard	National Standard	National Standard	National Standard	National Standard
	Diameter at root of male thread	4-19/32		Nozzle Threads	Nozzle Threads	Nozzle Threads	Nozzle Threads	Nozzle Threads
	Threads per inch	4						4
	Length of nozzle threads	1-1/2 inches						
	Cut off at top of threads	1/4 inch						
Point to flat on operating nut		1-3/16	1-3/16	1-1/2	1-1/2	1-1/2	1-1/2	1-1/2
	Shoe diameter	6-inch	6-inch	6-inch	6-inch	6-inch	6-inch	6-inch
	Main valve diameter	4-1/2 inch	4-1/2 inch	5-1/4 inch	5-1/4 inch	5-1/4 inch	5-1/4 inch	5-1/4 inch
Hydrant Isolation Valves								
Open Direction		Clockwise (right)	Counterclockwise (left)	Counterclockwise (left)	Counterclockwise (left)	Counterclockwise (left)	Counterclockwise (left)	Counterclockwise (left)