

# Memorandum

## Department of Public Works



**TO:** Michael O. Geisel, P.E.  
City Administrator

**FROM:** James A. Eckrich, P.E. *JAE*  
Public Works Dir. / City Engineer

**DATE:** September 18, 2019

**RE:** Water on Sidewalks

The front yards of Residential Subdivisions in the City of Chesterfield are generally designed and graded to drain from the house to the street, where water is collected in a curb and gutter system and transported to a nearby curb inlet (storm sewer). For subdivisions containing sidewalk, water must necessarily travel over the sidewalk and through the tree lawn in order to reach the street.

Private yards slope toward the street at varying grades. The tree lawn is generally designed for a slope of four percent between the edge of sidewalk to the top of curb. The sidewalk generally contains a cross slope of one to two percent. While a higher cross slope is desirable for drainage purposes, a cross slope of more than two percent is a violation of the Americans with Disabilities Act (ADA).

As subdivisions mature some areas settle and the ground shifts. Additionally, in many cases vegetation grows higher and more dense as subdivisions age. This often causes problems at the tree lawn, where raised ground or thick strands of grass prevent the water on the sidewalk from draining to the street. The result is water on the sidewalk ponding for varying periods of time.

Primarily due to the very wet year we have experienced, the City has recently received myriad requests to address problems related to water on sidewalk. In many cases, there is a legitimate problem with the sidewalk which can be addressed by replacing sections of sidewalk. However, in other cases there is no real problem with the sidewalk and no hazard to the public (i.e. algae / slippery sidewalk).

Public Works Staff is recommending the attached policy to clarify that ponding water on the sidewalk within 48 hours of a rain event should be considered normal, and no action will be taken by the City. In cases where water ponds longer than 48 hours and creates a public nuisance of some kind (i.e. ice or slick algae) the City will investigate the problem to determine whether corrective action can or should be

taken by the City. If necessary, the City will address problems by: replacing sidewalk which does not slope toward the street; replacing sidewalk which has settled creating a low area allowing ponding water; re-grading the tree lawn to allow drainage from the sidewalk to the street.

The Policy also clarifies that residents are responsible for ensuring that conditions of their property are not contributing to any nuisance on the sidewalk. This includes maintaining the grass within the tree lawn in such a manner that it allows water to travel from the sidewalk to the street. Additionally, as required by Code, all drains routed toward the sidewalk must discharge at least ten feet from the property line AND must not create a public nuisance. If a nuisance is created by a private drain, that nuisance must be abated by the property owner, if possible. The City Staff will work with residents to offer alternatives to eliminate or minimize the nuisance.

In cases where water on the sidewalk is creating a significant and consistent sidewalk hazard, and there is no means for the property owner to reasonably reduce or eliminate the hazard, the City will design a capital project to correct the problem, the construction of which will be subject to City Council approval.

**Action Recommended**

This matter should be forwarded to the Planning and Public Works Committee of City Council. If recommended for approval, the attached Policy should be forwarded to the full City Council for adoption.

Please forward to PPW Committee for review and recommendation.

 2019-9-18

**CITY OF CHESTERFIELD  
POLICY STATEMENT**

<b>PUBLIC WORKS</b>		<b>NO.</b>	41
<b>SUBJECT</b>	Water on Sidewalks	<b>INDEX</b>	PW
<b>DATE ISSUED</b>	TBD	<b>DATE REVISED</b>	

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**POLICY**

The front yards of Residential Subdivisions in the City of Chesterfield are generally designed and graded to drain from the house to the street, where water is collected in a curb and gutter system and transported to a nearby curb inlet (storm sewer). For subdivisions containing sidewalk, water must necessarily travel over the sidewalk and through the tree lawn in order to reach the street.

Private yards slope toward the street at varying grades. The tree lawn is generally designed for a slope of four percent between the edge of sidewalk to the top of curb. The sidewalk generally contains a cross slope of one to two percent. While a higher cross slope is desirable for drainage purposes, a cross slope of more than two percent is a violation of the Americans with Disabilities Act (ADA).

As subdivisions mature some areas will settle and the ground will shift. Additionally, in many cases vegetation grows higher and more dense as subdivisions age. This can cause problems at the tree lawn, where raised ground or thick strands of grass prevent the water on the sidewalk from draining to the street. The result is water on the sidewalk ponding for varying periods of time.

Ponding water on the sidewalk within 48 hours of a rain event shall be considered normal, and no action will be taken by the City. In cases where water ponds longer than 48 hours and creates a public nuisance of some kind (i.e. ice or slick algae) the City will investigate the problem to determine whether corrective action can or should be taken by the City. Specific remedies may include, but are not limited to: replacement of sidewalk slabs which do not slope toward the street; replacement of sidewalk slabs which have settled creating a low area where ponding occurs; re-grading of the tree lawn to allow drainage from the sidewalk to the street; other actions which will, in the opinion of the City Engineer, eliminate or reduce the nuisance.

Residents shall be responsible for ensuring that conditions of their property are not contributing to any nuisance on the sidewalk. This includes maintaining the grass within the tree lawn in such a manner that it allows water to travel from the sidewalk to the street. Additionally, all drains routed toward the sidewalk must discharge at least ten feet from the property line AND must not create a public

nuisance. If a nuisance is created by a private drain, that nuisance must be abated by the property owner by any and all reasonable means, including re-routing sump pumps to rear yards or other drainage channels, when appropriate. In these cases the City's Engineering Division will work with the property owner to offer alternatives to eliminate or minimize the nuisance.

In instances where water on the sidewalk is creating a significant and consistent sidewalk hazard, and there is no means for the property owner to reasonably reduce or eliminate the hazard, the City will design a Capital Project to correct the problem, the construction of which will be subject to City Council approval.

**RECOMMENDED BY:**

\_\_\_\_\_  
**Department Head/Council Committee (if applicable)**

\_\_\_\_\_  
**Date**

**APPROVED BY:**

\_\_\_\_\_  
**City Administrator**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**City Council (if applicable)**

\_\_\_\_\_  
**Date**