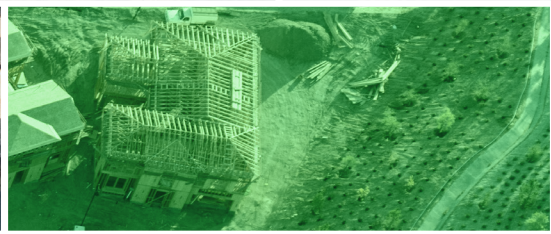
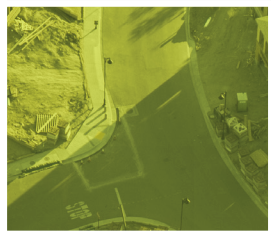


RESIDENTIAL SURFACE DRAINAGE



Lot Grading Guidelines



Residential surface drainage is the method of directing rainwater and runoff away from your home and property to prevent flooding, erosion and potential damage to your foundation. It involves creating a slope or channels on the ground to guide water away from your house towards a suitable drainage point, such as a storm drain or a lower point on your property.

This guide aims to educate property owners about the importance of lot grading in managing water flow, identifying signs of drainage issues and resolving conflicts with neighbors related to drainage problems.

Property Owner's Responsibility

All property owners are responsible for maintaining the surface drainage and grading on their property. Each property owner must ensure that landscaping work on their property does not negatively impact an existing drainage system or adjacent properties. The City of Brampton does not resolve disputes about surface drainage issues between private properties.

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LOT GRADING MAINTENANCE ON PRIVATE PROPERTY

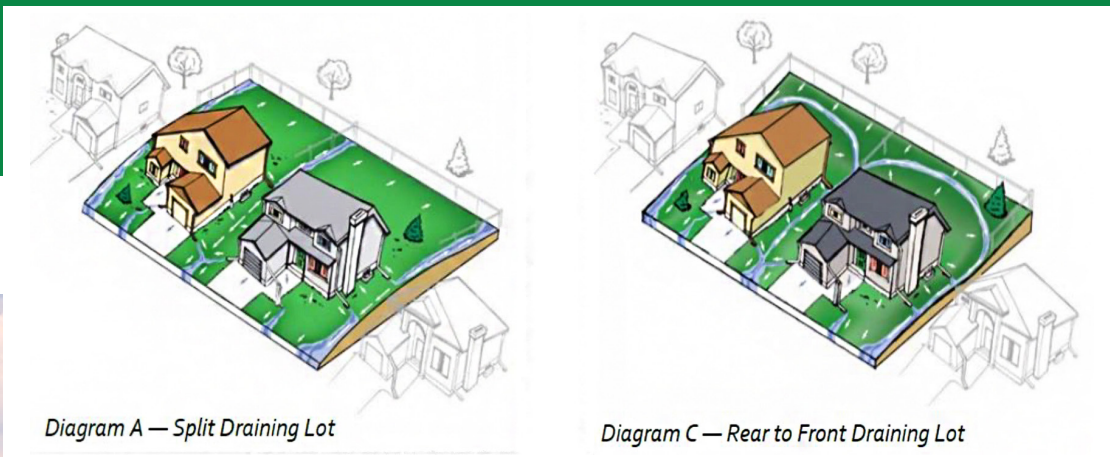
Lot grading slopes the ground surface to direct the flow of surface water. When it rains, a properly graded property will direct the water flow away from your home and off your lot without causing any damage to your property or your neighbour's. Improper lot grading can result in stagnant ponding, basement dampness, or drainage disputes between neighbours.

“Ponding” occurs when an alteration of grade concentrates the flow of surface water and impairs the drainage leading to collected surface water that remains standing in excess of 48 hours in an area.

Drainage Patterns Established During Development

Your neighbourhood is designed with swales to guide water away from your home's foundation and safely off your property.

Typically, property line swales are shared by adjacent properties and serve to provide surface drainage for both lots. See *Diagram A*. Internal swales may be required when a shared property line swale cannot be achieved. See *Diagram C*.



“Swales” are shallow, sloped channels that convey surface drainage towards a City right-of-way and storm sewer system.

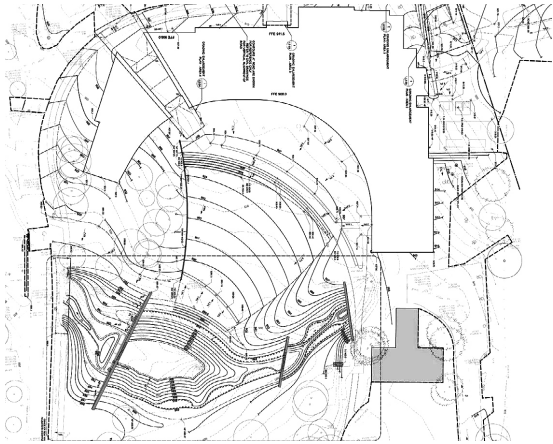
Do not change the grading or slope of a swale, and do not obstruct the water flow by constructing a permanent structure within the swale (e.g. storage shed, raised flower bed, etc.).

Landscaping projects that change the land's surface or grade could interfere with the swales and may significantly affect the way water drains. The City of Brampton encourages homeowners to seek professional advice from a professional engineer, reputable landscaper or foundation drainage expert prior to undertaking residential landscaping activities that might change the level of your land. It is an offence to block an approved drainage channel or interfere with a City storm water management facility.

When it rains, you should be able to determine whether a swale draining your property is blocked, restricted or settled, if there is ponding. Either one of these conditions can be fixed by removing the blockage or adding soil to the settled area. Consult with your neighbour if the swale is shared between properties.

Lot Grading Plans

Lot grading plans specify design elevations, surface gradients, lot types, swale locations, rear lot catch basins and other drainage information required for lot grading. A lot grading plan establishes the drainage relationship between adjacent properties and its approval is an effective basis for the control of lot grading. There are two typical lot types: Rear to Front and Split Drainage. If a lot grading plan exists for your property, it may be requested from the City of Brampton, however, there may not be a plan available for all properties such as those located in older neighbourhoods.



Foundation grading

When a home is being built, soil is excavated to construct the basement. The soil is then replaced but not compacted, as unsupported foundation walls can't handle the pressure generated by standard compacting techniques. As the soil settles, it can result in the ground sloping toward the home instead of away from it. Additional soil will need to be added to fill the settlement. Use clay – not topsoil – for this purpose.



Eavestroughs and downspouts

Stormwater collected by the eavestroughs flows to the ground through the downspouts. Clean and inspect

eavestroughs regularly to ensure water can move freely without overflows. Add extensions to your downspouts. Downspout extensions move the roof water further away from your home's foundation and decrease the risk of water entering the basement. Extensions should discharge away from your foundation but not at a point where they empty onto your neighbour's property.



Window Wells

Window wells are installed to ensure positive grading. Ideally, water doesn't enter window well openings. However, water that does enter should flow through the drain rock, installed at the time of construction, to the weeping tile system below. Keep window wells free of debris to ensure the system works efficiently.



Catch Basins

Catch basins collect stormwater and direct it into storm systems and rivers. Keep them clear of debris, including leaves, sticks, snow and ice.



DRAINAGE ISSUES ON PRIVATE PROPERTY

Drainage is considered normal when your yard dries out within 48 hours or two days after a rainstorm. A yard with a potential drainage problem usually has ponding water that persists for several days after storms or is always present. Lot grading on private property is the responsibility of the property owner. The City does not provide funding to rectify private surface drainage problems or basement damage related to surface flooding.

“Positive Drainage” means the continuous downward slope on all sides of the parcel from the finished ground surface immediately adjacent to the building to the property line.



Causes of Residential Surface Drainage Problems

Surface drainage problems can develop gradually over time due to factors like settlement. These issues may only become apparent after heavy rain or when snow melts. There are several weather-related occurrences that can cause surface drainage problems on your property or highlight existing issues. This includes poor lot grading or landscaping construction, building a structure within a swale and/or improperly located downspouts or drainage pipes directing the rainfall from your home’s roof toward the foundation.

Avoiding Drainage Problems

Your best defence against surface flooding is to ensure your lot is properly graded and ensure your downspouts and sump pump outlets don’t discharge right beside your foundation or onto the property beside you.

Don’t change the elevation of a swale or build a permanent structure within it (e.g. storage shed, raised flower bed), since this can restrict or disrupt the overland flow, and may have a serious impact not only on your property drainage but on neighbouring properties as well.

What should you do when settlement problems arise on your property?

Drainage problems that are contained on your own property are generally caused by settlement, either in your yard or around your foundation. Both can easily be fixed by maintaining your lot grading and filling in the settlement area to re-establish positive drainage.

I’m having some work done on my property – what should I know?

Before you have your property regraded or landscaped, make sure whoever is doing the work has knowledge of the existing drainage system pattern. Don’t alter that pattern without consulting the City of Brampton.

What should I do if I live in an older area where lot grading plans are not available?

You may live in an older area where lot grading plans are not available. If plans are not available, the homeowner should seek professional advice before doing any work to ensure water flows away from the home.



COMMON ISSUES AND SOLUTIONS

Many issues called into the City of Brampton are common issues that can be easily resolved between neighbours. Property owners should review these scenarios before calling the City of Brampton.

What should you do when problems arise?

When a drainage problem spans between your property and a City owned property, such as water backup in a park, communication with the City of Brampton is important. Property owners should follow these steps:

1. Inspect your drainage to ensure it is not causing or contributing to the issue.
2. Document the issue with pictures and other supporting information.
3. Contact the City of Brampton either by phone or email. When contacting the City, please include information such as your address, photos of the issue, contact information and a brief description of the issue. Our contact information is provided at the end of this document or at www.brampton.ca
4. The City of Brampton will then contact you to better understand the issue and take the necessary steps to alleviate the problem.

What should you do when problems arise between private properties?

When a drainage problem spans over more than one private property, such as a rear or shared side lot swale not properly conveying water, it is important to discuss with the adjacent property owners so maintenance can be coordinated. Adjacent property owners have an equal interest in effective drainage.

If you are not sure what is causing the problem, contact a professional engineer, reputable landscaper or foundation drainage expert. A lot drainage plan may exist for your home can be requested from the City of Brampton. Call 311 to see if one is available for your property.

Where you have made contact with the affected property owners, and communication has not resulted in a satisfactory drainage arrangement, you may contact the City 311 to help identify potential causes, but the City does not get involved in resolving disputes between neighbours. If you are still unable to resolve the matter with your neighbour, you may seek to resolve the matter in a civil court. The City may only take action where there has been a contravention against a City By-law, such as the Site Alteration By-law. Draining is considered normal when your yard dries out within 48 hours or two days after a rainstorm.

Commons Problems Between Private Properties

1. *“My neighbours’ downspout/sump pump outlet is discharging onto my property and causing flooding in my yard”*

Communicate with your neighbour about relocating the outlet to direct the water towards a City right-of-way.

2. *“My neighbour has regraded their lot higher than mine and now there is standing water in my yard”*

Communicate your issue with your neighbour about having the drainage path re-established.

3. *“My neighbour has built a shed in the swale and now there is standing water in my yard”*

Communicate with your neighbour about moving their storage shed away from the property line.

Things to Keep in Mind

1. The property owner is responsible for lot grading, not the City.
2. Your lot grading requires regular maintenance to be able to convey surface water effectively.
3. Communicating with your neighbours will generally work better than increasing tension by involving the City.

The City of Brampton does not resolve disputes about surface drainage issues between private properties.

SITE ALTERATION PERMITS

The Site Alteration By-law creates a regulatory framework for Site Alterations in the City of Brampton.

Site alterations involve activities such as importing, placing, dumping, moving or exporting fill or altering the grade of land. Fill is any type of material placed on land, including but not limited to soil, stone, concrete, asphalt, sod or turf.

A Site Alteration Permit is required for most activities that will alter the grade and/or existing drainage pattern of land through the movement, removal or placement of topsoil, soil, or fill, but generally exclude residential landscaping projects.

If you're not sure if your project requires a Site Alteration Permit, please call 311 or email roads@brampton.ca for information and guidance before you begin planning your project.



CONTACT INFORMATION

Contact Public Works and Engineering

Williams Parkway Operations Centre - 1975 Williams Parkway Brampton, Ontario L6S 6E5

Phone: 905.874.2000

Email roads@brampton.ca

Contact Service Brampton Available 24/7

Dial 3-1-1 (*Within city limits*)

905.874.2000 (*Outside city limits*)

905.874.2130 (*Teletypewriter or Text Telephone*)

Download the 311 Brampton app on Google Play or the App Store

Email 311@brampton.ca

Or visit a Service Brampton location in-person during regular business hours