

## Background

Angular planes have historically been used by planners, architects and urban designers as one of the tools to address the interface between existing low-rise neighbourhoods and proposed mid to high-rise development proposals. Significant building heights and massing can create overlook conditions, shadow impacts and elevated wind conditions on the abutting low-rise properties.

With only a few site exceptions, angular planes were removed from City's Zoning By-law in 2007 and were replaced with step back provisions in the **RA1** to **RA5** (Apartment) zones.

Angular planes were also expanded to more urban contexts in the early 2000s as a recognized planning tool within the GTA. They were incorporated into the Official Plan, Local Area Plan policies and Zoning By-law regulations (in some cases) in addition to guidelines along corridors and high-density sites in low rise residential neighbourhoods to minimize impacts.

Buildings that fit within the specified angular planes make the contrast of heights less impactful between different heights and building sizes by providing transition, and mitigating overlook, shadow and wind conditions.

Angular planes, like any planning tool, are not without implications. They often create challenges for the mid to high-rise developments in terms of floor plan efficiency, added construction complexity mechanical and waterproofing systems. Since floor sizes are different on each level, this also creates unnecessarily large amounts of different unit interior layouts that are more costly and challenging to market.

Issue Identified	Image of issue	Background
Podiums -Developers have indicated a concern with the City always requiring podiums for tall buildings. They would like to ensure there is flexibility in designing towers and how they fit along the street	Podium V Alexandre	Mississauga is a windy city due to its location in the GTA near the escarpment and Lake Ontario. Podiums help create a barrier for wind washing down tall buildings. Mississauga City Hall is a good example of a building creating an uncomfortable pedestrian environment. On the east side of the building that doesn't have a podium, the wind generated by the built environment is uncomfortable for pedestrians on windy days. Podiums can help create a more human-scaled, pedestrian-friendly base for buildings while reducing the visual impact of tall towers. They can also be a tool for improving the street-level experience, making the building's footprint more appealing and accessible to the community.
frontage. -There was also an expressed concern with onerous podium to tower setbacks.		As well, podiums fill the voids between buildings. If an applicant were to propose three towers on a block without a connecting podium, it will likely create a more detached and isolated living condition. Podiums also provide opportunities for retail and commercial uses along street frontages, which help activate the street.

Issue Identified	Image of issue	Background
Floor plate size -Some developers have expressed concerns that floor plate sizes specified in the City's Zoning By- law are too restrictive and that larger floor plates make better and more flexible units.	<image/>	Towers with larger floor plate sizes tend to create "wall" effects on the ground and make pedestrians feel "boxed in". The City already has added permission in the proposed <b>RA6</b> and <b>RA7</b> (Urban Apartment Zones) for floor plates to be 1000 sq m when under 12 storeys. These zones are currently under appeal. The increase in floor plate size for taller buildings over approximately 40 storeys is to accommodate a larger number of elevator banks within the floor plate and to address the proportionality of buildings. Slender towers maintain appropriate densities while allowing sky views between buildings.

	Background
Pedestrian Wind Comfort and Safety Study -Developers have expressed concerns with current Terms of Reference for Pedestrian Wind StudiesSecondary concern with respect to not being able to use vegetation to mitigate wind conditions. Interpret to the second are contracted as a second areacte	Pedestrian Wind Comfort and Safety Studies are conducted to predict, assess and, where necessary, mitigate the impact of wind conditions by modifying site and building designs. Section <b>19.4.5</b> of Mississauga Official Plan identifies Wind Studies as a requirement for a complete application. Pedestrian Wind Comfort and Safety Studies are conducted by professional engineers who specialize in and can demonstrate extensive experience in dealing with wind and microclimate issues in the built environment. These studies predict anticipated wind conditions resulting from new developments as well as recommend mitigative measures to reduce the amount of wind in areas that would subject pedestrians to uncomfortable or dangerous conditions. The City's standard Terms of Reference requires that the wind condition of a site meet the requirements for the intended use. For example: if an applicant is proposing a patio, then the wind condition should be conducive to sitting. If the predicted condition is for standing, then the applicant <u>can</u> use vegetation as a mitigative measure. Where <b>extreme wind</b> conditions create unsafe situations and/or uncomfortable wind conditions are predicted, soft landscaping (e.g. trees, shrubs, etc.) <b>will not</b> be considered as acceptable wind mitigation. The strongest winds mostly happen during the winter seasons when deciduous trees and shrub have already lost their leaves and cannot act as screens to slow down wind. Most trees cannot mitigate wind efficiently without fully developed foliage, which even with low wind and good soil will take years, even decades, to develop. Hard landscaping (e.g. architectural features, screens, etc.) are required in these situations. The Term of Reference for Pedestrian Wind Comfort and Safety Studies was completed by a consultant (RWDI) that was approved on September 10, 2014 via Council Resolution 0167-2014

Standards for       Section 19.4.5, of Mississauga Official Plan idention         Shadow Studies       Section 19.4.5, of Mississauga Official Plan idention         -Developers have       Section 19.4.5, of Mississauga Official Plan idention	5
expressed a concern with the Standards for Shadow Studies Terms of ReferenceShadow studies are too restrictive and favour the rear yards of detached and other low-rise dwellings and sidewalks	nd height of a cause undue shade es, including building open spaces, public oublic realm. on the existing and erence was Sun & Shadow

Issue Identified	Image of issue	Background
40% Landscape		Zoning By-law 0225-2007 contains a requirement in the <b>RA1</b> to <b>RA5</b>
Area -The development industry has expressed concern that the minimum landscape requirement of 40% of a site for high-rise developments is excessive, especially on smaller sites	University of the second secon	(Apartment) zones which requires that all sites have a minimum 40% landscape area. The "tower in the park" developments, which were developed from the 1950's to 1980's, were intended to ensure adequate landscaped setbacks to adjoining lands, provide outdoor amenity, and reduce visual impact especially on adjoining low-rise neighbourhoods. However, as the city becomes more urban and sites denser, this requirement for landscape area on a site becomes counter intuitive to the goal. The new <b>RA6</b> and <b>RA7</b> (Urban Apartment Zones) that were recently introduced into the City's Zoning By-law (under appeal) better reflect a more urban environment and is more consistent with the form of apartments being built recently These new zones do not have a minimum landscape area requirement.

Issue Identified	Image of issue	Background
-Developers would like the opportunity to decide if balconies are warranted. According to one developer, approximately 59% of purchasers would rather have a Juliet balcony and slightly larger suites rather than a balcony.		The City does not have zone regulations that require balconies nor is there any other legislation that requires them. Balconies are not always economical from a sustainability perspective. Balcony slabs are hard to insulate compared to wall assemblies. They become thermal bridges where heat can transfer in and out faster than in other parts of a building envelop. This can cause substantial heat loss in winter and add cooling load to air conditioning system in the summer. The City is seeing a trend where rental apartments proposals are eliminating balconies from their designs to reduce construction, maintenance and heating/cooling costs.

## **APPENDIX 2**

Shafts and Vents         -Underground air shafts and vents are required though the Ontario Building Code to vent underground and enclosed parking garages.       These vents are often placed along property lines where they are most economic and functional.         -Developers have expressed an interest in staff not commenting on their location.       Vents located next to the public realm can limit activity, intended uses and/or landscaping treatments along the property edge.

Issue Identified	Image of issue	Background
Issue Identified Region of Peel – Garbage Collection -Some concerns were raised by the development industry regarding loading and garbage collection areas being excessive in size and difficult to achieve	<image/>	Background Waste collection falls under the jurisdiction of the Region of Peel. The Region has minimum design standards that they require to be implemented in all new developments. Due to the size of the trucks and their associated turning radii, loading and garbage areas for both high-rise and low-rise developments become large and bulky.



Issue Identified	Image of issue	Background
Mississauga Fire Route By-law -A concern was raised that the Mississauga Fire Route By- law was too restrictive	Back in to Back in to Burn around 90 m 107 m to access the last ent ploormop	<ul> <li>The previous Mississauga Fire Route By-law (1036-81) required that fire routes to be designed so that fire trucks did not have to back up more than 90 m. While this issue is not an urban design issue, urban design staff often assisted applicants to resolve noncompliance by suggesting site design modifications.</li> <li>Following the Fire Division's recommendation, By- law 1036-81 was repealed and replaced with By-law 0216-2023. The new By-law is consistent with the Ontario Building Code and other municipalities in the GTA. As such, this concern is no longer an issue.</li> </ul>
Green Development Standards 2024 The new Green Development Standards are expensive and onerous	Green Development Standards are underway. Have your say.	The Green Development Standards were recently updated and received Council approval in April 2024. This update was an action item identified in the Climate Change Master Plan. The new GDS was completed by SSG (Sustainability Solutions Group) who was the consultant for a number of GTA municipalities. The City's new GDS is now consistent with these same municipalities. The new GDS Standards will come into effect March 31, 2025 and will be phased in as outlined in the May 2023 report to PDC. The Climate Action Group is currently developing a financial incentive program to encourage compliance.

Issue Identified	Image of issue	Background
Mississauga Urban Design Advisory Panel (MUDAP) -Some developers have expressed concerns with having to attend MUDAP as part of a complete application submission and the expense of the submission requirements		The Urban Design Advisory Panel was established in 2007. Its purpose was to provide staff and applicants with independent and professional advice on development proposals. The Panel consists of professional architects, landscape architects, engineers, planners and urban designers. Panel comments are most beneficial in the earliest stages of the development design so that changes can be made, if required, as early in the design process as possible. Applicants are strongly encouraged to attend a MUDAP panel. Applications that are in intensification areas such as the downtown, Node and Corridors, or are significantly more intense than the context in which they are planned are required to go to the Mississauga Urban Design Advisory Panel

Issue Identified	Image of issue	Background
Streetscape Feasibility Study -Some developers have expressed concerns with		As the City becomes more urban, it also becomes more complex in terms of positioning large developments within existing infrastructure. In 2016, City Council approved a report that identified the areas in the City where an amended boulevard treatment (curb to face of building is required in urban areas) would be required with any new development.
respect to the provision and complexity of Streetscape Feasibility Studies and that		The design of services and utilities supporting new developments include electricity, water, sanitary, natural gas, telecommunications and improved streetscape is, at a minimum, a 2-step process. Existing infrastructure needs to coexist with proposed infrastructure needed to support proposed and future developments.
the review process should be simplified		Developer benefits of providing a detailed Streetscape Feasibility Study:
be simplified		1. <b>Clarifies Expectations Early:</b> The requirement for the study is noted during the Development Application Review Committee (DARC) meeting. Applicants are provided with Terms of Reference and staff contacts to answer any questions that arise.
		2. <b>Streamlines the OZ Approval Process:</b> The study helps avoid processing delays by ensuring that critical issues such as building setbacks, boulevard treatment, and utility conflicts are addressed upfront.
		3. <b>Provides Clear Design Criteria:</b> The study outlines well- defined criteria (e.g., 2 m trench for the street tree corridor, 0.75 m setback from the curb) that guide the designers, engineers and planners. This reduces ambiguity, making it easier for consultants to design compliant and effective streetscape solutions.

Issue Identified	Image of issue	Background
PUCC – Public Utility Coordinating Committee		The Public Utility Co-ordinating Committee (PUCC) is the group of utilities operating within Mississauga that collectively address utility installation requirements and streamline the provision of "Municipal Consent"
-PUCC was identified as overly complex and extended processing		"Municipal Consent" is the legislative authority that the City uses to control <u>all</u> works within the City ROW. It gives Utility companies permission to install or move utilities. It is also needed whenever a road needs to be excavated.
timelines		<ul> <li>Meeting the Legal Requirements of the City: <ul> <li>The impact on the surrounding neighborhood is controlled through pedestrian and vehicular traffic restrictions outlined in a Construction Management Plan</li> <li>PUCC / ROP permits set out the timing and physical extent of the work, and the strict enforcement of the City's Noise and relevant bylaws.</li> <li>Protection of the surface infrastructure is achieved through the pavement cut repair standards established by the City.</li> <li>Protection of the underground infrastructure is achieved through drawing and construction standards established by the City, circulation of drawings for planned construction to all affected stakeholders and adherence to minimum clearances and depths.</li> </ul> </li> <li>Benefits to the Developer:</li> <li>Ensures Compliance with Regulations: PUCC approval ensures that municipal laws and regulatory standards are met, avoiding legal issues, penalties, or project shutdowns.</li> <li>Early Conflict Resolution: Developers can identify and address potential conflicts before construction begins. This proactive approach helps prevent costly redesigns and/or construction delays.</li> </ul>

Issue Identified	Image of issue	Background -
PUCC -		How the City uses the PUCC Process to coordinate large,
Continued	State     Market       State     Market	<ul> <li>complex infill developments:</li> <li>Through the Engineering Submission Process, consultants working on large developments are required to coordinate all the proposed servicing alignments (wet and dry) supplied by the third-party utilities and to place the information in one drawing set.</li> <li>These drawings are then circulated by <b>PUCC</b> to confirm that all requirements are coordinated for the project (rather than each utility responding separately in an uncoordinated fashion).</li> </ul>
Issue Identified	Cross Section through a Typical City Street (26.0m ROW) - Prefered Condition	Background
Restrict site		Section 41(e) (site plan approval) of the <i>Planning Act</i> specifically
-Some developed -Some developers have expressed the concern that Urban Design matters should be restricted to the property being developed.	Development within subject property Off-site works	<ul> <li>Section 4 ((e) (site plan approval) of the Planning Act specifically allows municipalities to review and approve:</li> <li>"(e) the sustainable design elements on any adjoining highway under a municipality's jurisdiction, including without limitation trees, shrubs, hedges, plantings or other ground cover, permeable paving materials, street furniture, curb ramps, waste and recycling containers and bicycle parking facilities, if an official plan and a by-law passed under subsection (2) that both contain provisions relating to such matters are in effect in the municipality;"</li> <li>In most cases, large developments do have an impact on the adjoining public realm to a greater or lesser degree. Those impacts need to be assessed and mitigated by the proponent responsible for the impact. City staff have and will continue to work with applicants to identify and resolve any identified issues with the goal of improving the interface between new developments and the public realm.</li> </ul>

Issue Identified	Image of issue	Background
Site Works Securities -Some developers have suggested concern with the City requirement to post securities to ensure site works are constructed / installed in accordance with approved plans or agreements on private property.		<ul> <li>Securities (often in the form of letter of credit or deposit) are taken through site plan applications to ensure that site works of the site plan are fulfilled, particularly regarding construction and infrastructure improvements. These securities serve as a safeguard for municipalities to ensure that developers or property owners:</li> <li>Complete Required Works: Developers are required to complete construction or installation of roads, utilities, landscaping, or other infrastructure (e.g., sidewalks, lighting, stormwater management) according to approved plans.</li> <li>Maintain Quality Standards: The securities help ensure that work is done according to specified standards and that it is completed in a timely manner.</li> <li>Fix Deficiencies: If the developer fails to complete the required works or there's damage to municipal infrastructure (e.g., roads, curbs), the municipality can use the securities to cover the costs of fixing these issues.</li> <li>Address Future Maintenance: Sometimes, securities are used to cover the cost of any required maintenance or repair of new infrastructure until it is formally transferred to the municipality.</li> <li>Provide a Financial Backstop: If the developer goes bankrupt or is otherwise unable to complete the project, the securities act as a financial guarantee, allowing the municipality to ensure the work is completed without additional costs to taxpayers.</li> </ul>

Issue Identified	Image of issue	Background
Landscape Plan Implementation -Developers have a concern that City staff should not dictate specific plants and material.		Landscape Plan approval is a part of the Site Plan application process to ensure that an acceptable level of site works are provided by the proponent as part of their proposed development. Staff review landscape plans to ensure they are in compliance with the City requirements for replacement planting and enhancements to sites from the public realm. Applicants do not always follow the plan requirements. When this is done, the Landscape Architects reviews the plans to ensure they meet City objectives and meet sustainability features and makes suggested changes.