

# Mississauga Green Development Standards Update

Environmental Action Committee

October 3rd, 2023



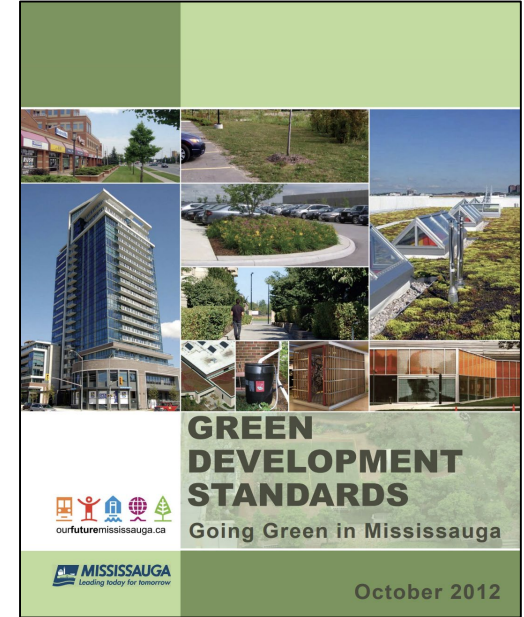
# Land Acknowledgement

*We acknowledge the lands which constitute the present-day City of Mississauga as being part of the Treaty and Traditional Territory of the Mississaugas of the Credit First Nation, The Haudenosaunee Confederacy, the Huron-Wendat and Wyandot Nations. We recognize these peoples and their ancestors as peoples who inhabited these lands since time immemorial. The City of Mississauga is home to many global Indigenous Peoples.*

*As a municipality, the City of Mississauga is actively working towards reconciliation by confronting our past and our present, providing space for Indigenous peoples within their territory, to recognize and uphold their Treaty Rights and to support Indigenous Peoples. We formally recognize the Anishinaabe origins of our name and continue to make Mississauga a safe space for all Indigenous peoples.*

# Current GDS 2012

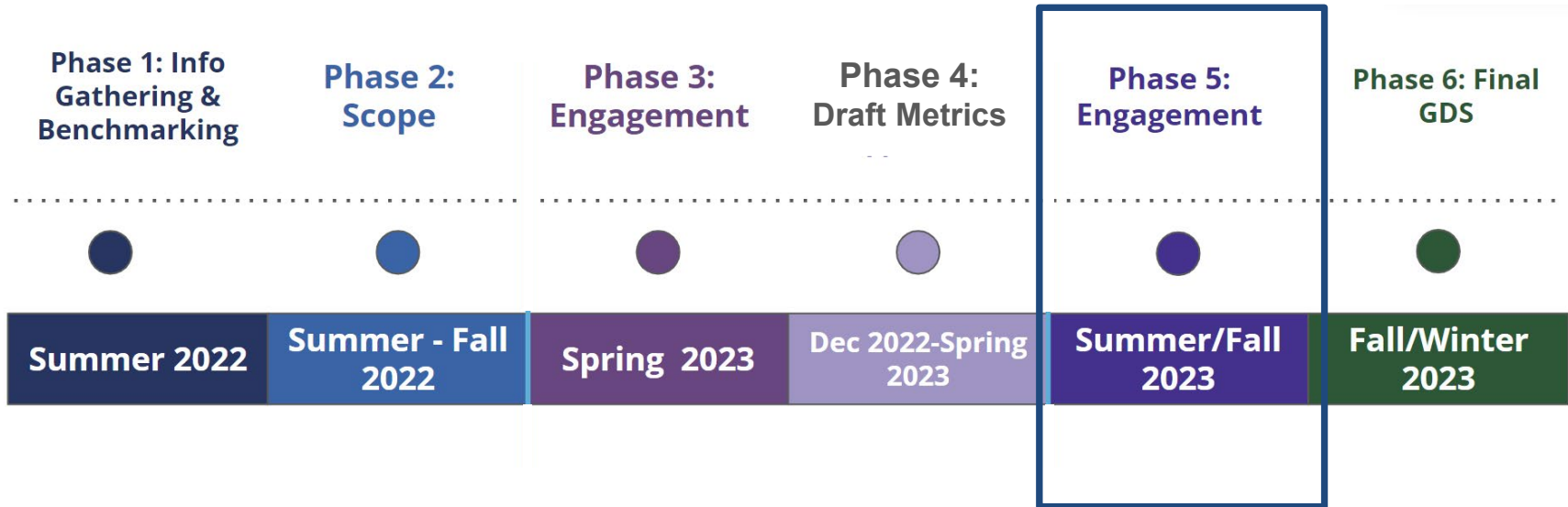
- New private developments under the Planning Act
- Although successful, it does not address GHG emissions and building resilience
- Climate Change Action Plan, Action 3.1 – states - update the GDS with energy and resilient building design



## GDS 2012

# Project Timelines

Update since the April 5<sup>th</sup> EAC meeting



# What We Heard

## Region, CA's and TAF

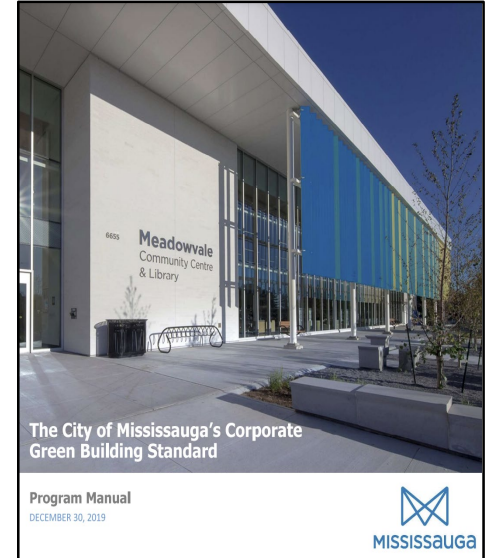
- **Alignment with other municipality GDS's a positive**
- **Tiered approach gives developers time to anticipate future metrics**
- Expand stormwater metrics
- Consider co-benefits with health outcomes
- Peer to peer meetings/information is critical for success
- Ensure flexibility while meeting main objectives



**Climate Change  
Action Plan**

# What We Heard - ICI Developers

- Tailor metrics to industrial building
- Building envelope (energy) metrics are expensive
- Toronto's GDS is clear and provides roadmap ahead
- Landscaping/stormwater metrics minimal opportunities
- Provide alternatives for difficult metrics
- The renewal energy metric, i.e., solar panels, is a complex target with roof space and maintenance issues



**Mississauga Corporate  
Green Building**

# What We Heard - Residential Developers

- Podium roof space given the metrics will be challenging
- Ensure a simple application process with easy documentation
- Flexibility in metrics/trade-offs/alternative options
- The GDS adds cost and this may impact project margins
- The TGS has shifted the industry to be more environmental
- The building industry needs more time to get to net-zero building
- Thicker insulated exterior walls equals less interior space
- Reduce parking rates to reduce environmental impact



**Northshore Residences**

# What We Heard - Indigenous Speakers

The Land Sustains Us | Indigenous Perspectives on Development (May 24)

- **We must consider all plant and animal species, not just humans**
- **Our responsibility as their relations is to speak up for their interests before ours, because we're all connected.** The environmental movement is a personal and professional commitment
- We must not stop, but rather continue to listen and learn
- We do this work for future generations
- To incorporate Indigenous perspectives, need time to reflect and work on Indigenous timelines which conflicts with working within a legislative framework
- Indigenous professionals are tired, but tirelessly committed. Non-indigenous need to do the work and to get educated on the Indigenous perspective.

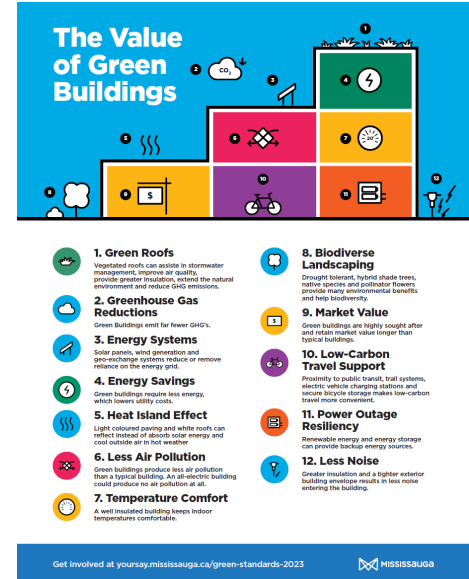




# What We Heard

## Youth – MYAC and Future Majority

- Youth perspective should be heard as they will inherit the planet
- Encouraging transit, cycling and other modes of low-carbon travel should be considered
- Extreme weather events are seen as normal
- Learning about climate change is important
- Encourage them to think beyond their day-to-day activities



## MGDS Poster

# GDS Phase 5 Engagement: 'YourSay' Mississauga

## Resident and Industry Survey:

### GDS Survey for the Community

Please complete this survey if you have ties to Mississauga, live in the City, work in Mississauga, visit the area, or go to school here.

Take the survey

### GDS Survey for Industry

Please complete this survey if you are a member of the development or construction industry, a consultant working for the industry, or an interested party (utility, non-profit organization, renewable energy provider, etc.).

Take the survey

120 respondents (Sept. 25, 2023)

- 8 Industry
- 112 residents

## Ranked climate impacts that are most important to the community:

1. Reduced building embodied carbon (e.g. building materials that contribute less GHG emissions in their production, lower impact materials, and/or recycled materials)
2. Reduced construction waste
3. Improved waste sorting infrastructure
4. Provide on site electric vehicle charging infrastructure
5. Provide on site secure long-term bicycle storage
6. Provide onsite secure short-term bicycle storage

# GDS Phase 5 Engagement: 'YourSay' Mississauga

- Mandatory Tier 1 Drafts Metrics (2024 - 2027)
- Tier 2 Voluntary with Incentives (2027 - 2029)
- Tier 3 Voluntary with Incentives (2030) Near Net-Zero

| DRAFT - CITY OF MISSISSAUGA UPDATED GREEN DEVELOPMENT STANDARDS  |   |  |  | MISSISSAUGA   |
|--|---|--|--|---|
| RESIDENTIAL BUILDINGS (LOW RISE ≤ 4 STOREYS w/ Minimum 10 Units) |   |  |  |   |
|  | TIER 1 MANDATORY REQUIREMENTS (2024-2027)   | TIER 2 VOLUNTARY REQUIREMENTS (2027-2029)  | TIER 3 VOLUNTARY REQUIREMENTS (2030)   | SUBMISSION REQUIREMENTS   |
| THEME 1: ENERGY AND BUILDING PERFORMANCE                         |   |  |  |   |
| EB1: Energy Performance  | Design, construct and label the building(s) to achieve at least ENERGY STAR® for New Homes, version 17.1 or R-2000 requirements | Design and construct the building in accordance with the CHBA Net Zero-Ready Home Labelling Program  | Design and construct the building in accordance with the CHBA Net Zero Home Labelling Program or Passive House Standards.  | Energy Star Certification Report<br>A Terms of Reference will be available.   |
| THEME 2: CLIMATE IMPACTS   |   |  |  |   |
| CH1: Embodied Carbon   | Conduct a Materials Emissions Assessment to measure A1-A3, stage emissions for all structural, enclosure and major finishes.    | Conduct a Materials Emissions Assessment to measure A1-A3, stage emissions for all structural, enclosure and major finishes.<br>The report must demonstrate an emissions | Conduct a Materials Emissions Assessment to measure A1-A3, stage emissions for all structural, enclosure and major finishes.<br>The report must demonstrate an emissions | Using BEAM (Building Emissions Accounting Materials tool or an equivalent tool conduct a Life Cycle Assessment (LCA) and report carbon footprint as the LCA impact measure 'global warming potential' (GWP) in kilograms of carbon dioxide equivalent (CO2e). |

# GDS Phase 5 Engagement: 'YourSay' Mississauga

**Draft Metrics** – four building categorizes:

- Residential Buildings (Medium to High), Residential Buildings (Low Rise), Institutional and Commercial Buildings, and Industrial Buildings.
- 12,805 views of the metrics (Sept. 25, 2023)

## 20 Comments on the metrics including:

- **50% of energy coming from renewables is again fairly large ask** as it really dependant on building type and location more than anything else. Need to offer exclusions for technical feasibility out of buildings control - like if building is shaded, solar PV/thermal may not make sense
- Tier 1 should state that buildings above certain size must **enroll into Energy Star** (just follow provincial regulation on this).
- **Reduce irrigation water consumption by 20%** using a combination of treatment measure for re-use of greywater and blackwater (e.g. rain barrels, cisterns, green roofs, filtration ponds) - The 20% reduction is already readily achievable on many developed and could be implemented in the 2024-2027 period.

# Next Steps

- Resident and industry comments 'Your Say' website welcome until October 4<sup>th</sup>
- Re-engage with Residential/ICI developers, youth/Future Majority, Indigenous Nations, interested individuals
- Meet with Councillors/Leadership Team in October/November
- Final Metrics with report to PDC for approval in December 2023



**Transparent Solar Panels**

# Thank You