Architecture&

Reconnecting people to the significance of architecture.

Markham Built Form, Massing and Height Study

DSC Meeting

April 14, 2009

Consulting Team

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Study Purpose.

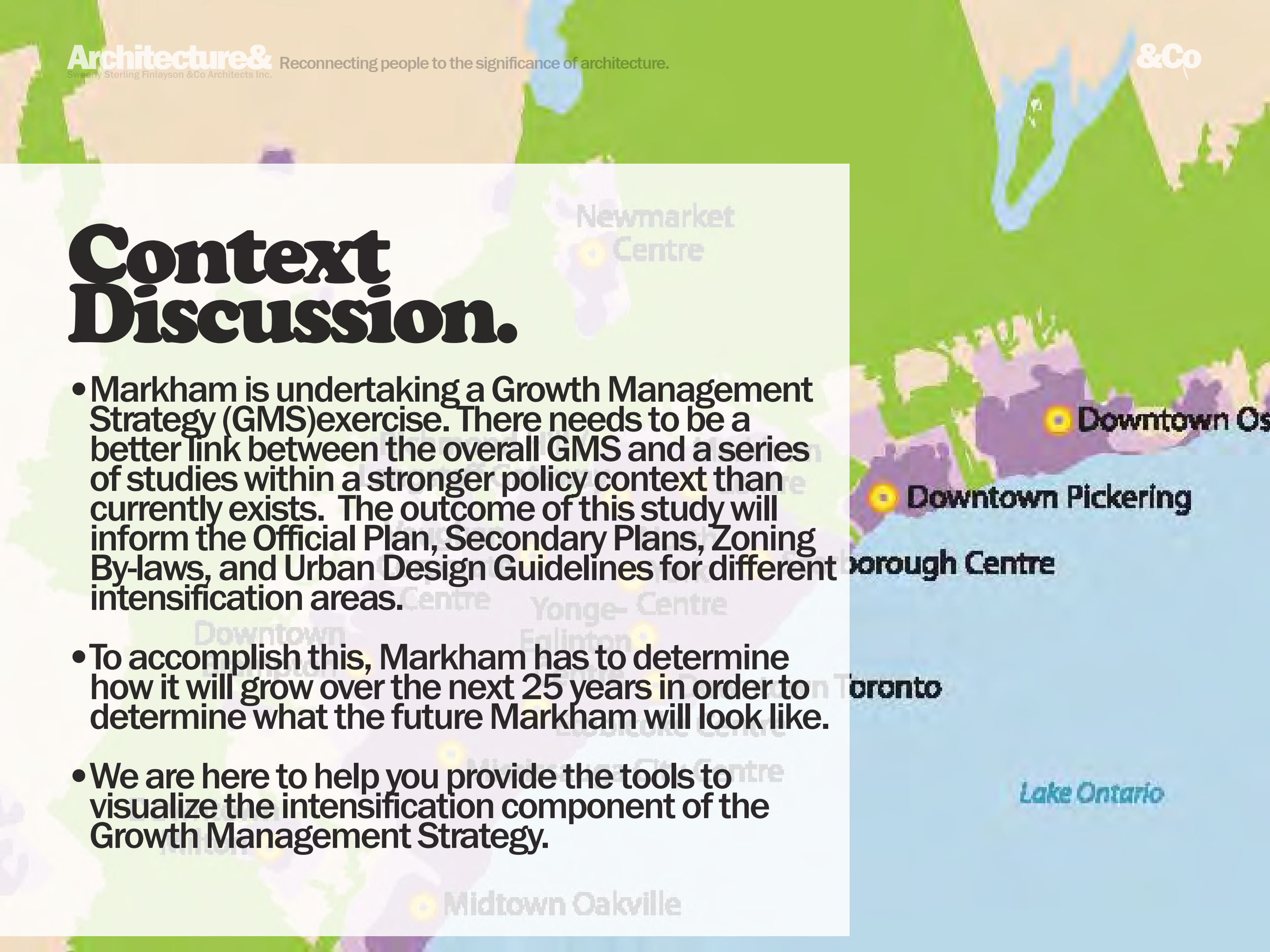
- To provide the tools to help Town Staff and residents understand what built form could result.
- The study will create consistent, predictable, generic built form guidelines for areas that are not currently subject to any planning controls and to form the foundation for future area studies.

Context Discussion.

- Markham is undertaking a Growth Management Strategy (GMS)exercise. There needs to be a better link between the overall GMS and a series of studies within a stronger policy context than currently exists. The outcome of this study will inform the Official Plan, Secondary Plans, Zoning By-laws, and Urban Design Guidelines for different intensification areas.

- To accomplish this, Markham has to determine how it will grow over the next 25 years in order to determine what the future Markham will look like.

- We are here to help you provide the tools to visualize the intensification component of the Growth Management Strategy.



Intensification Hierarchy.

There are four intensification Area types identified.

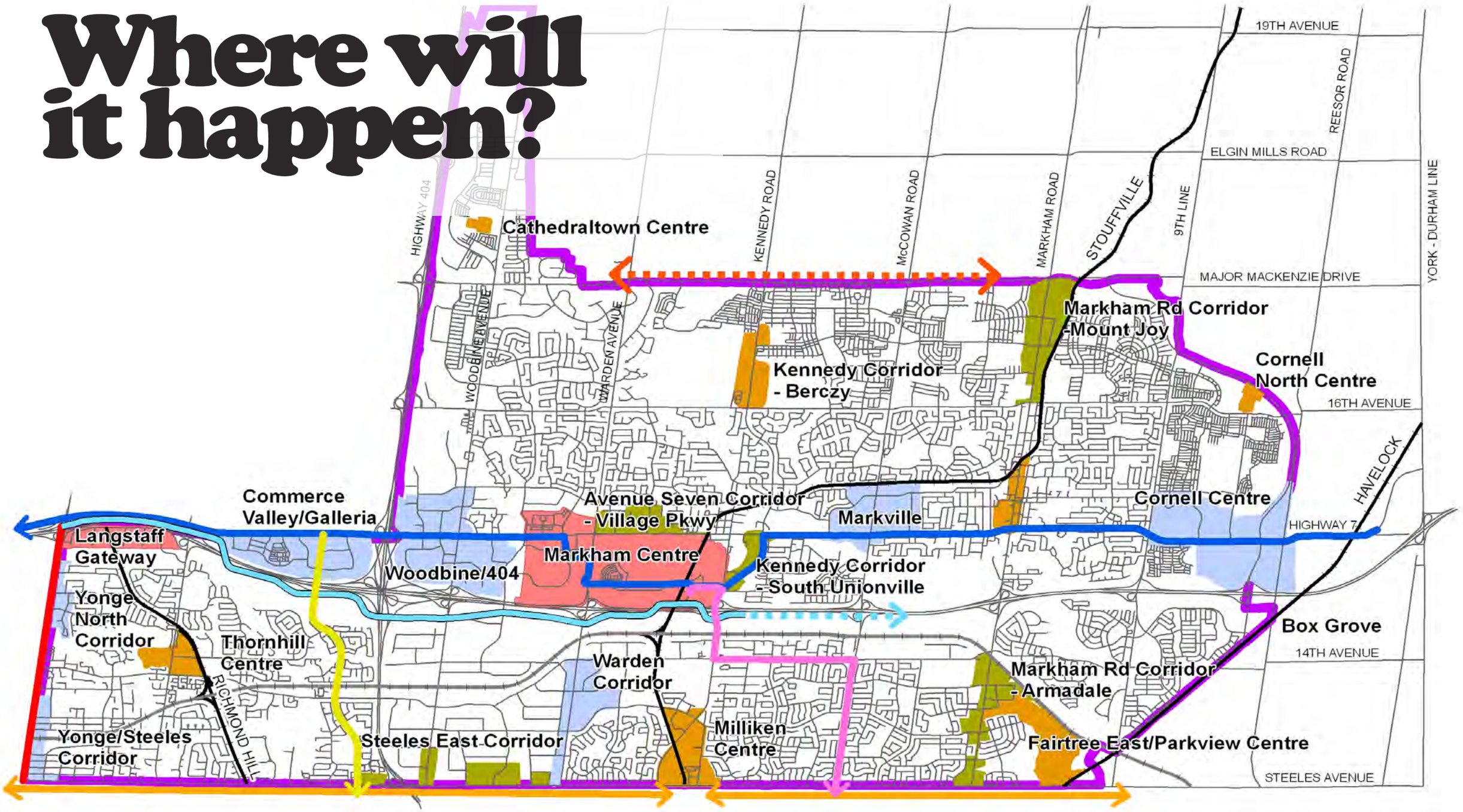
Type 1 - Regional Centre

Type 2 - Key Development Area

Type 3 - Major Corridor

Type 4 - Local Centre and Corridor

Where will it happen?



Intensification & Density Study to-date

-Density Study (Markham and GTA), 2007

-Intensification Analysis, 2008

-Intensification Strategy, 2009

-Avenue Seven Corridor Study

Area Studies and Secondary Plan Review

Markham Centre
Cornell Centre
Langstaff Gateway
Yonge/Steeles

high-rise
residential

3.9 FSI

Toronto
Merton + Mt. Pleasant

Height	11 storeys
Density	469 units/ha (188 units/acre)
Tenure	Condominium
Dwelling Units	375 units (3 buildings)
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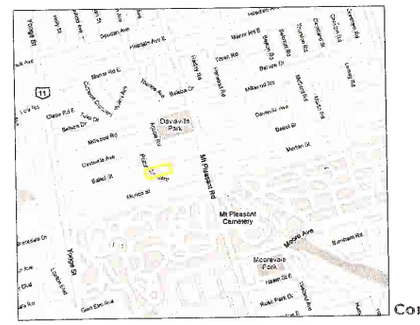


Context map

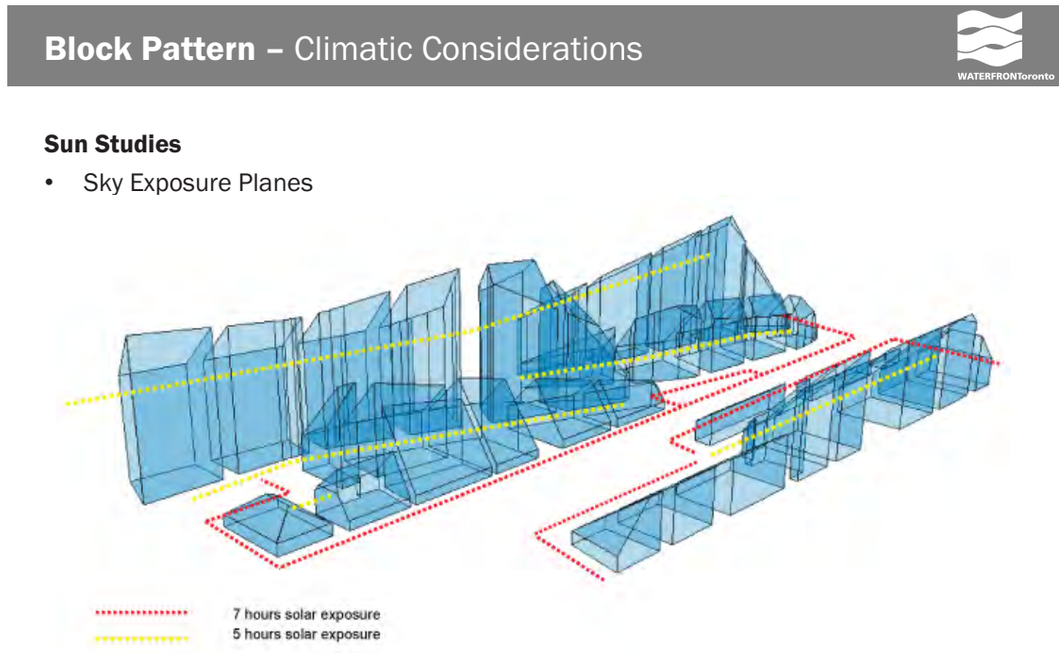
At-grade treatment

Best Practices Inventory

- We have looked into various practices/standards around Toronto, the GTA, and the world

- What methods have been employed, and what lessons have been learned?

- What works and what doesn't?

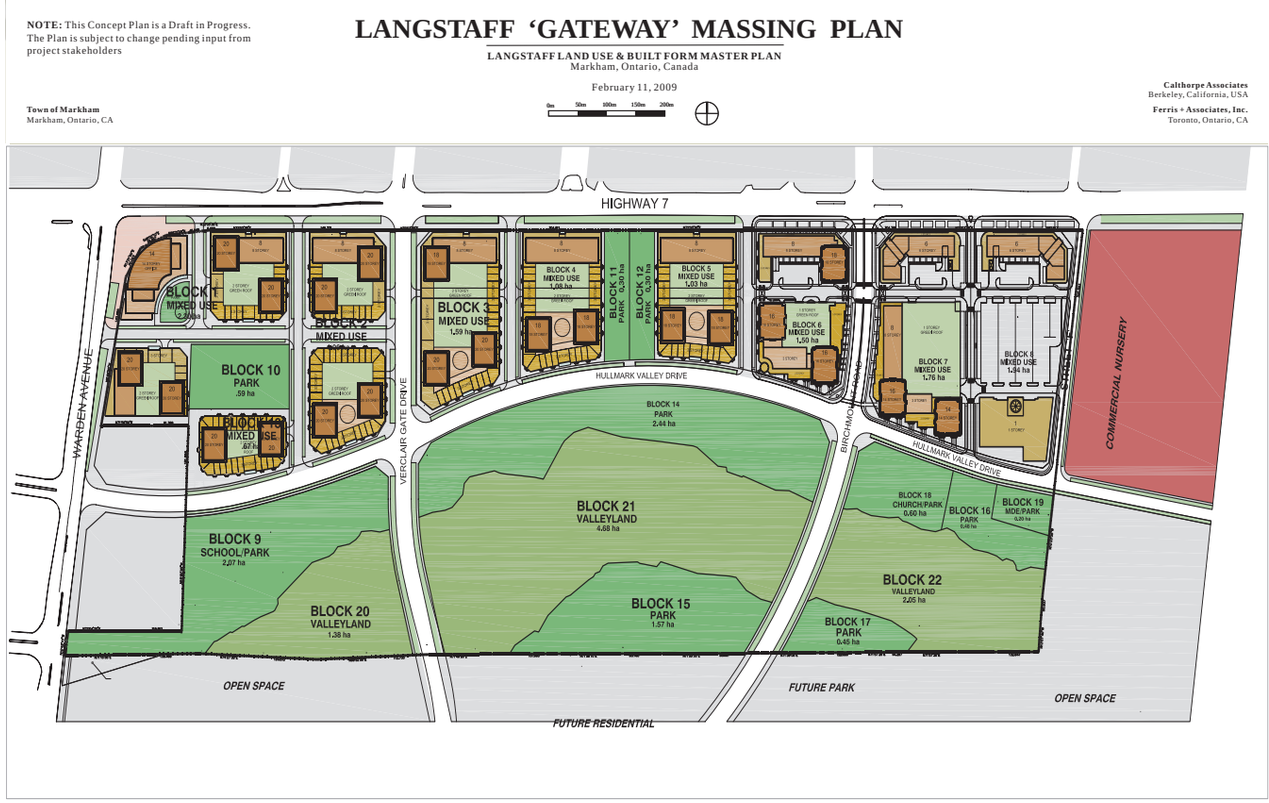


Recent local initiatives that inform our study

Markham Proposals
- Langstaff Proposal
- Times Proposal (Markham Centre)
- Markham Centre Dev Corp
- 7171 Yonge Street

Markham Centre Charette and Results

Yonge Street Corridor Study and Results

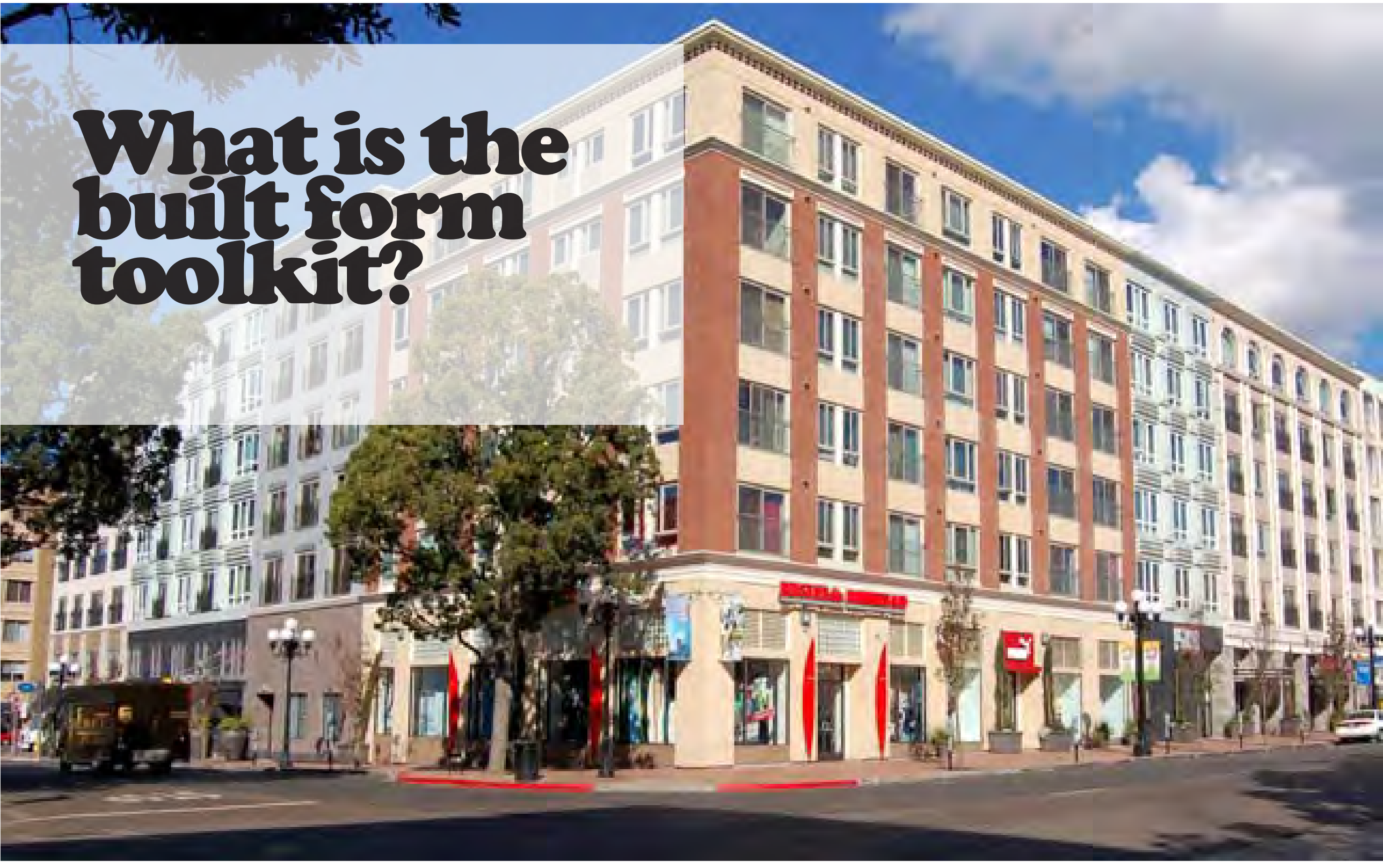


Examples built to-date

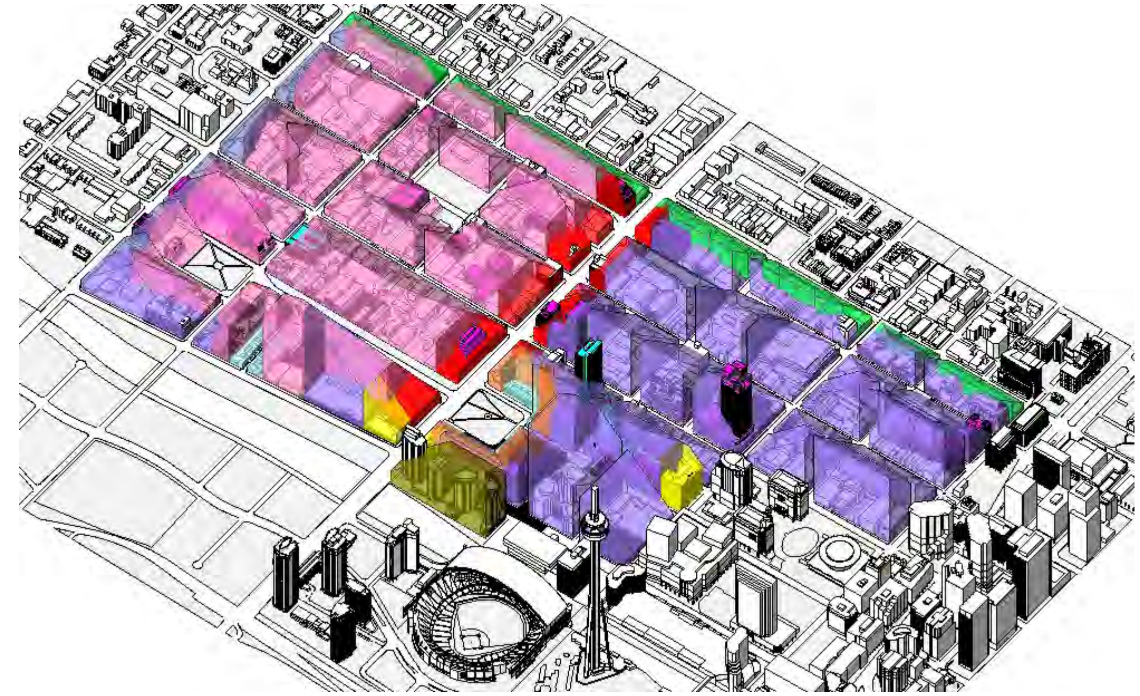
Lessons Learned in Markham?

- Markham Centre (west of Warden)
- Cornell Centre Secondary Plan
- Yonge/Steeles Corridor
- Times Galleria
- Markham Centre-Remington

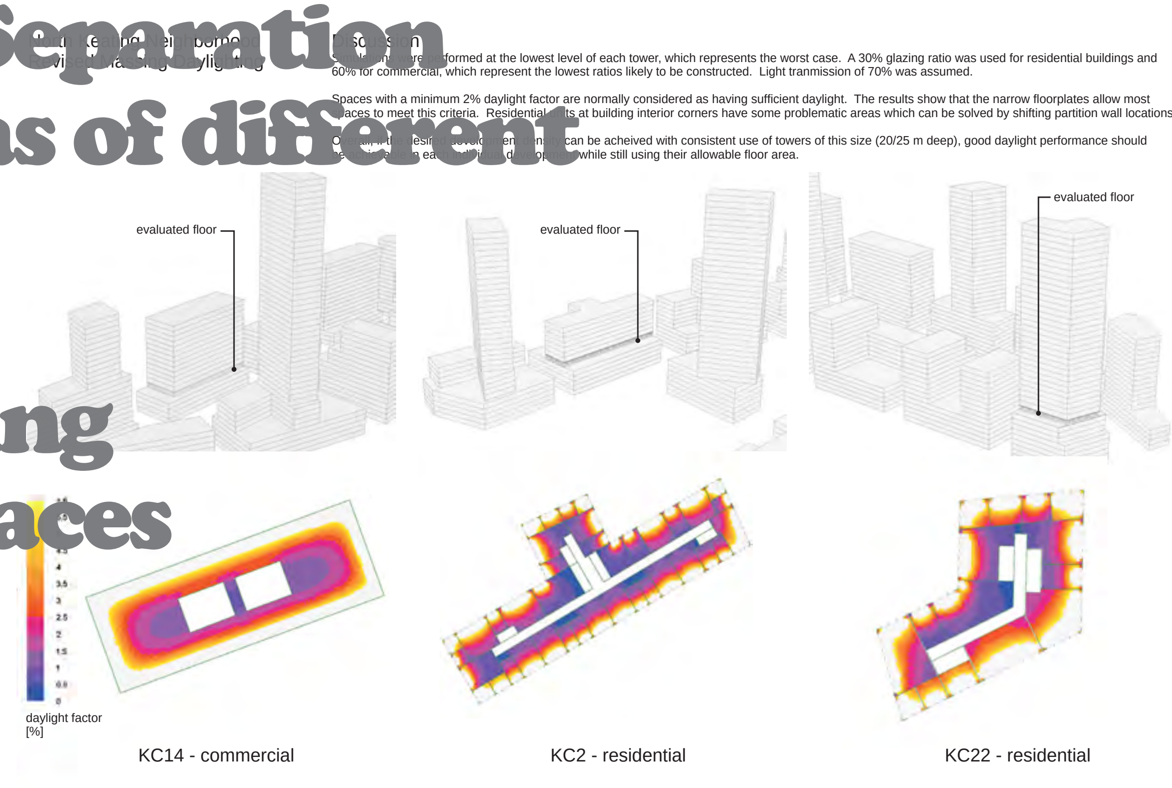
What is the built form toolkit?



Potential Tools



- Built Form Envelopes
- Height Contours
- Microclimate Study (inc. wind effects)
- Appropriate Tall Building Separation
- Transitions Strategies (areas of different form and intensity)
- Sunlight Streets
- Solar Gain Building Modelling
- Sunlight Access to Open Spaces
- Public Realm Treatment
- Other livability criteria


formed at the lowest level of each tower, which represents the worst case. A 30% glazing ratio was used for residential buildings and
60% for commercial, which represent the lowest ratios likely to be constructed. Light tranmission of 70% was assumed.
Spaces with a minimum 2% daylight factor are normally considered as having sufficient daylight. The results show that the narrow floorplates allow most
to meet this criteria. Residential ts at building interior corners have some problematic areas which can be solved by shifting partition wall locations.
can be acheived with consistent use of towers of this size (20/25 m deep), good daylight performance should
while still using their allowable floor area.
evaluated floor
evaluated floor
evaluated floor
daylight factor
[%]
KC14 - commercial
KC2 - residential
KC22 - residential
Transsolar 4 February 2009

What should it look like?

Study Content and Structure.

We are organizing the general "best practices" around five elements.

1 - Built Form

2 - Building Location

3 - Streets and Blocks

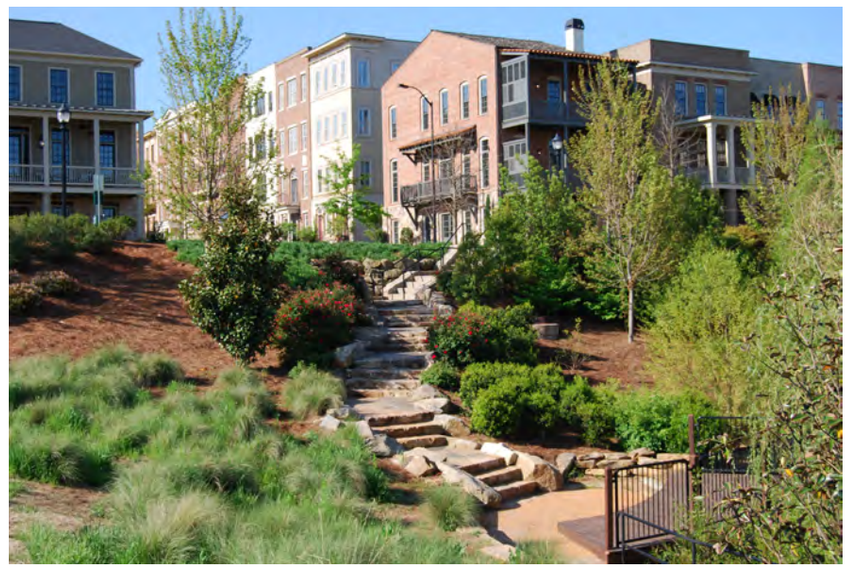
4 - Public Realm

5 - Tools

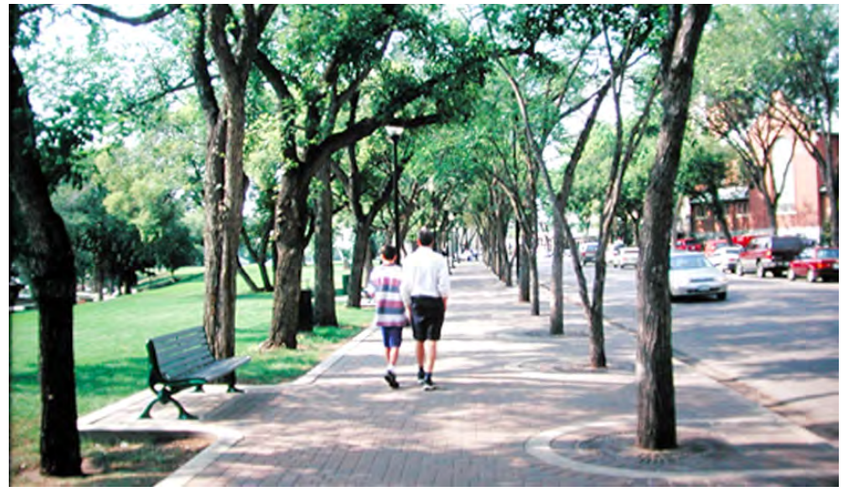
1- Built Form.

- Building types for different uses
- Building Heights (including a variety of heights)
- Design Quality
- Transition in scale, setbacks, heights, building types and relationships

2- Building Location.



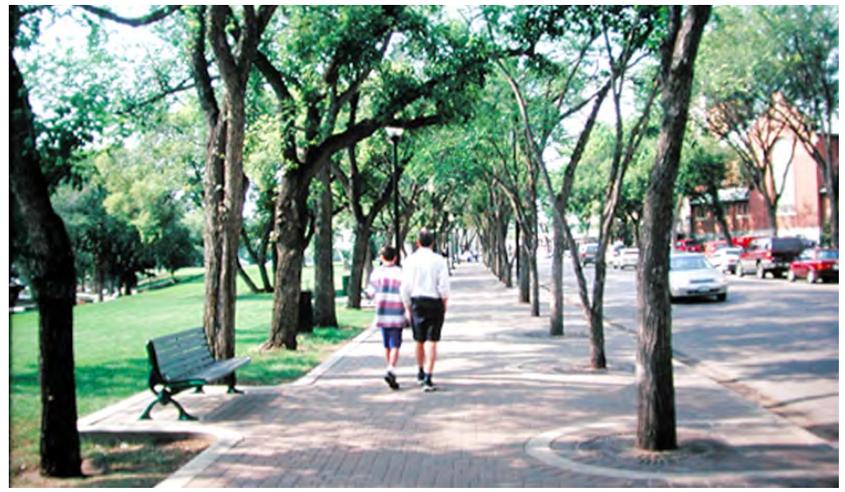
- Parking/Servicing/Utilities
- Setbacks at street
- Use and layout of ground plane
- Coordinating multiple buildings on one site
- Organizing buildings to create usable and valuable open space



3- Streets.

- Walkable Neighbourhoods
- Character and Function
- How do they define adjacent built form?
- Balancing objectives of vehicles vs. pedestrians
- What elements are included?

4- Public Realm.



- What is in the public realm?
- What kinds of open spaces are desired?
- Defining the public realm
- Coordination across private sites

5- Tools.

- What is allowed under the *Planning Act*?
- Providing incentives to development?
- Providing incentives to an enhanced public realm?
- Design Review Panel?

Report Structure.

Sample Guideline Pages

Built Form — Key Principles

Guideline BF.13
Building transition should be provided between high and low density areas.

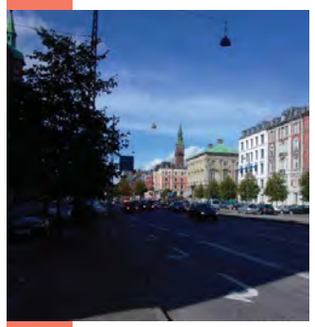
Guideline BF.14
Long built mass should be segmented with breaks to provide street variety, connections, views and opportunity for sunlight, and interest.

Guideline BF.15
Appropriately locate taller buildings away from streets and lower-scaled areas.

DRAFT #01

Building Location — Key Principles

Guideline BL.01
Buildings should generally line up with one another on the street. Consistent setbacks will help create a consistent street edge.



Guideline BL.02
Differentiate entrances by setbacks, landscaping, changes in grade, articulation or structures.

Guideline BL.03
Design facades with windows and doors that support activity and surveillance.

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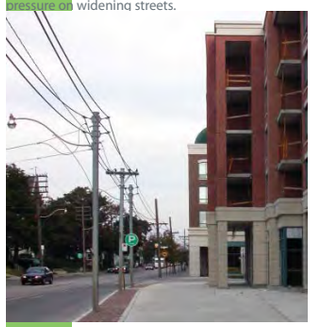
Streets and Blocks — Key Principles

Guideline SB.13
Locate and consolidate utilities and services in street ROW wherever possible. Consolidation leads to minimization of future disruptions, and relieves pressure on widening streets.



Guideline SB.14
Provide sufficient planting space for mature trees. Incorporate advanced technologies in street design to allow for mature trees where planting space is restricted.

Guideline SB.15
Locate transit stops and shelters to integrate with parks, walkways sidewalks and spaces seamlessly.

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Next Steps.

Site testing of various areas anticipated for growth with Markham

Development of appropriate performance standards to measure, control and guide those areas

Internal Workshop (April 29)

DSC Workshop (May 26)

Next Steps.

The final report will articulate consistent and predictatble built-form guidelines for:

- **precinct plans**
- **secondary plans**
- **master plans and development reviews**
- **planning processes already underway**

Draft Report (June 2009)

Final Report (July 2009)