

# Sustainability Metrics: Updates and Uptake to Date

---

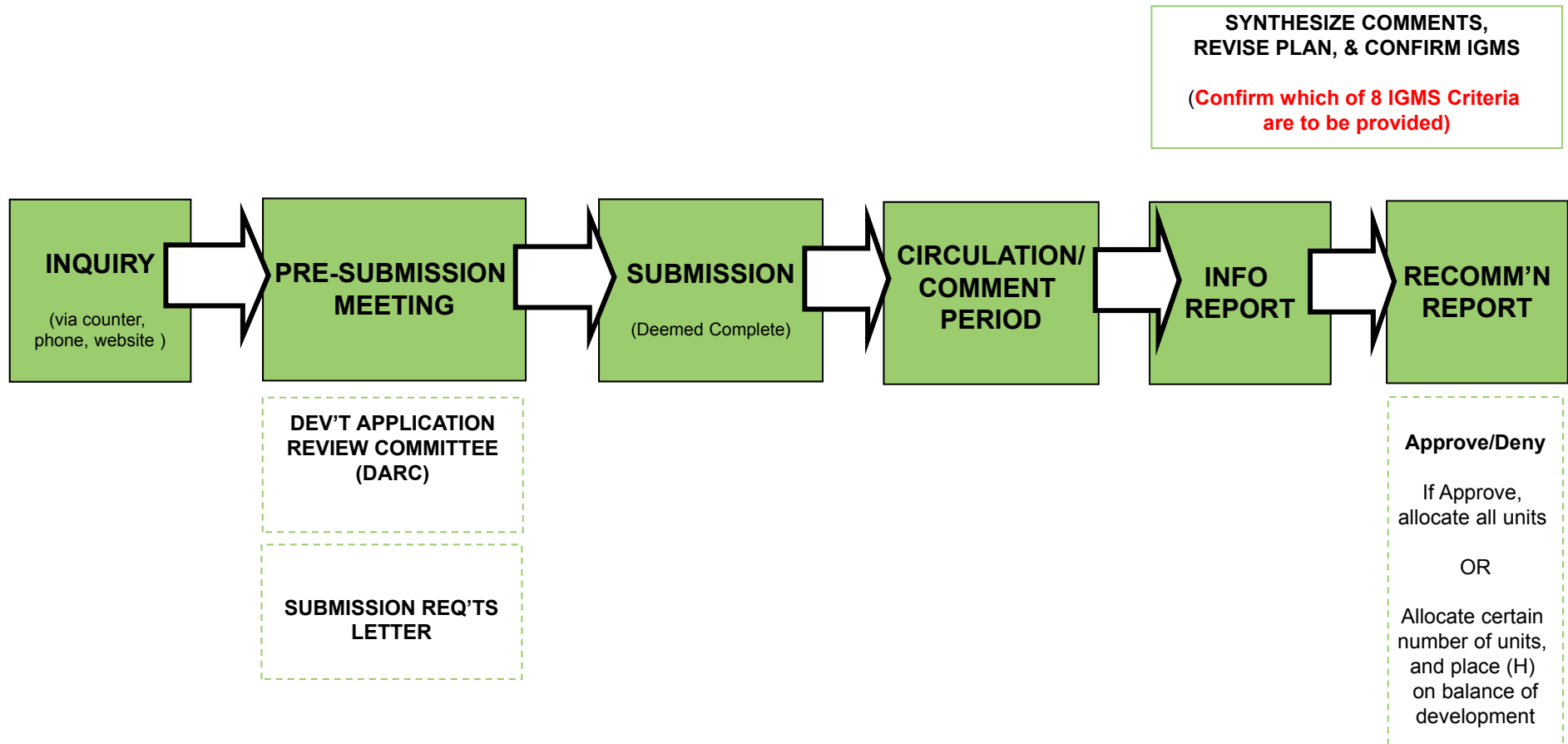
May 19, 2017  
Clean Air Partnership  
Green Development Workshop



Implementing the  
Richmond Hill  
Official Plan

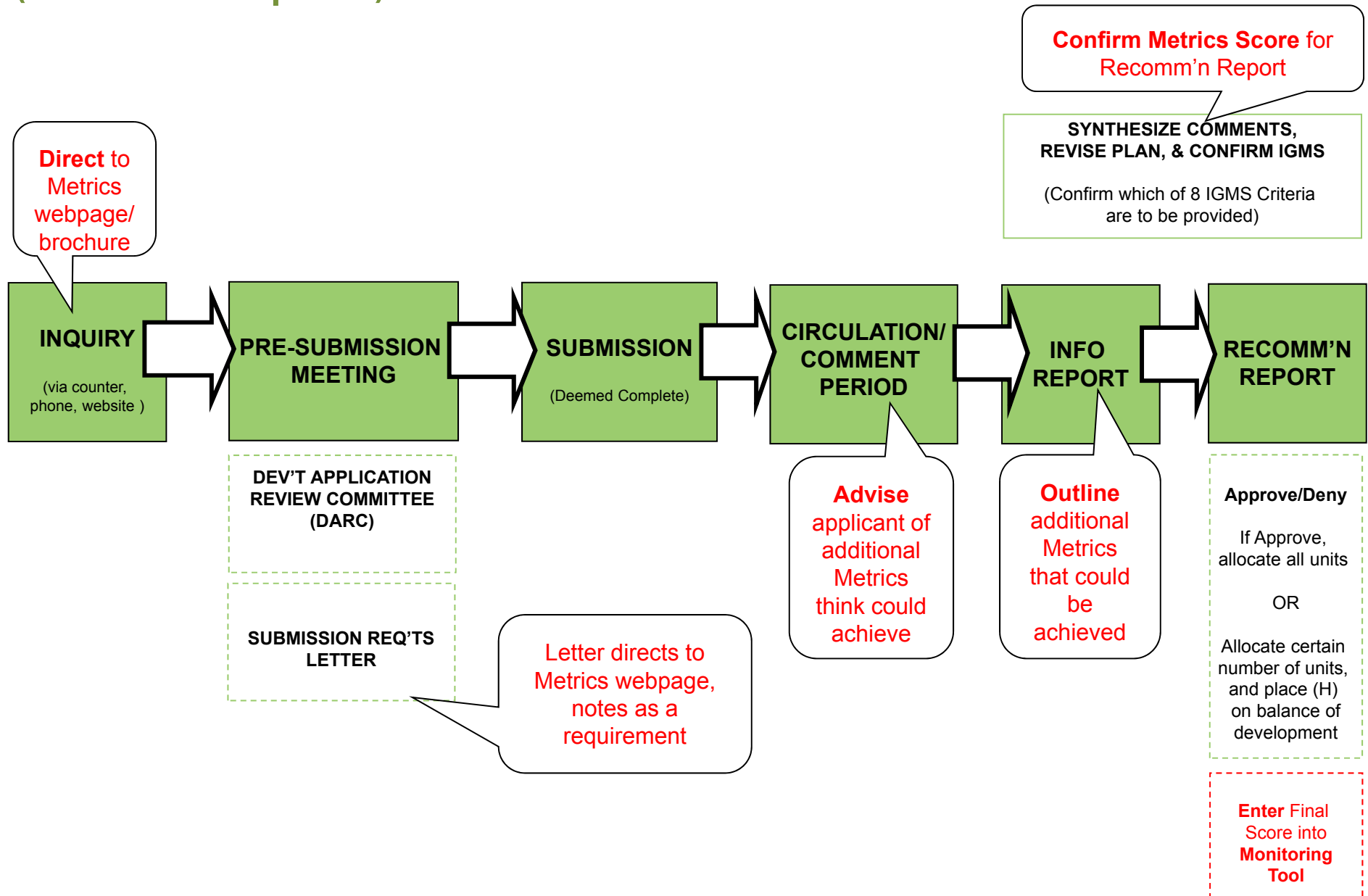
# Background – Previous Process

(used between 2008-2014)



# Background – Integrating Sustainability Metrics

(used March 2014 - present)



# Background – 2014 “Threshold Scores”

(approved by RH Council Feb. 24, 2014)



PERFORMANCE ACHIEVED	THRESHOLD
RH MINIMUM (OP/BY-LAW Requirements)	12- 20 POINTS (Draft Plan) 16-31 POINTS (Site Plan)
<b>GOOD</b> (Required to “Play Ball” in RH)	<b>21-35 POINTS (Draft Plan)</b> <b>32- 45 POINTS (Site Plan)</b>
VERY GOOD	36-55 POINTS (Draft Plan) 46-65 POINTS (Site Plan)
EXCELLENT	+56 POINTS (Draft Plan) +66 POINTS (Site Plan)

# Sustainability Metrics Tool

(Excel tool used to quantify/rank the sustainability performance of draft plan and site plan proposals)



The screenshot displays a complex spreadsheet with multiple tabs and columns. Key sections include 'Project Information', 'Sustainability Metrics', and 'Performance Indicators'. It features various data entry fields, checkboxes, and dropdown menus for tracking different sustainability goals.



**Aspirational**  
targets

**Minimum**  
targets

**Mandatory**  
targets

## Sustainability Metrics Category

## Performance

## Indicators

### Built Environment

- Compact Development
- Land Use Mix & Diversity
- Green Buildings
- Site Accessibility
- Housing Unit Mix
- Landscape and Street Tree Planting/ Preservation

- Natural Green Space
- Parking
- Pedestrian Connections
- Cultural Heritage
- Community Form
- Tree Canopy
- Natural Heritage

### Mobility

- Site Permeability
- Transit Supportive
- Active Transportation
- Walkability
- Street Network / Block

### Natural Environment & Open Space

- Parks
- Stormwater
- Urban Agriculture
- Natural Heritage System
- Soils and Topography

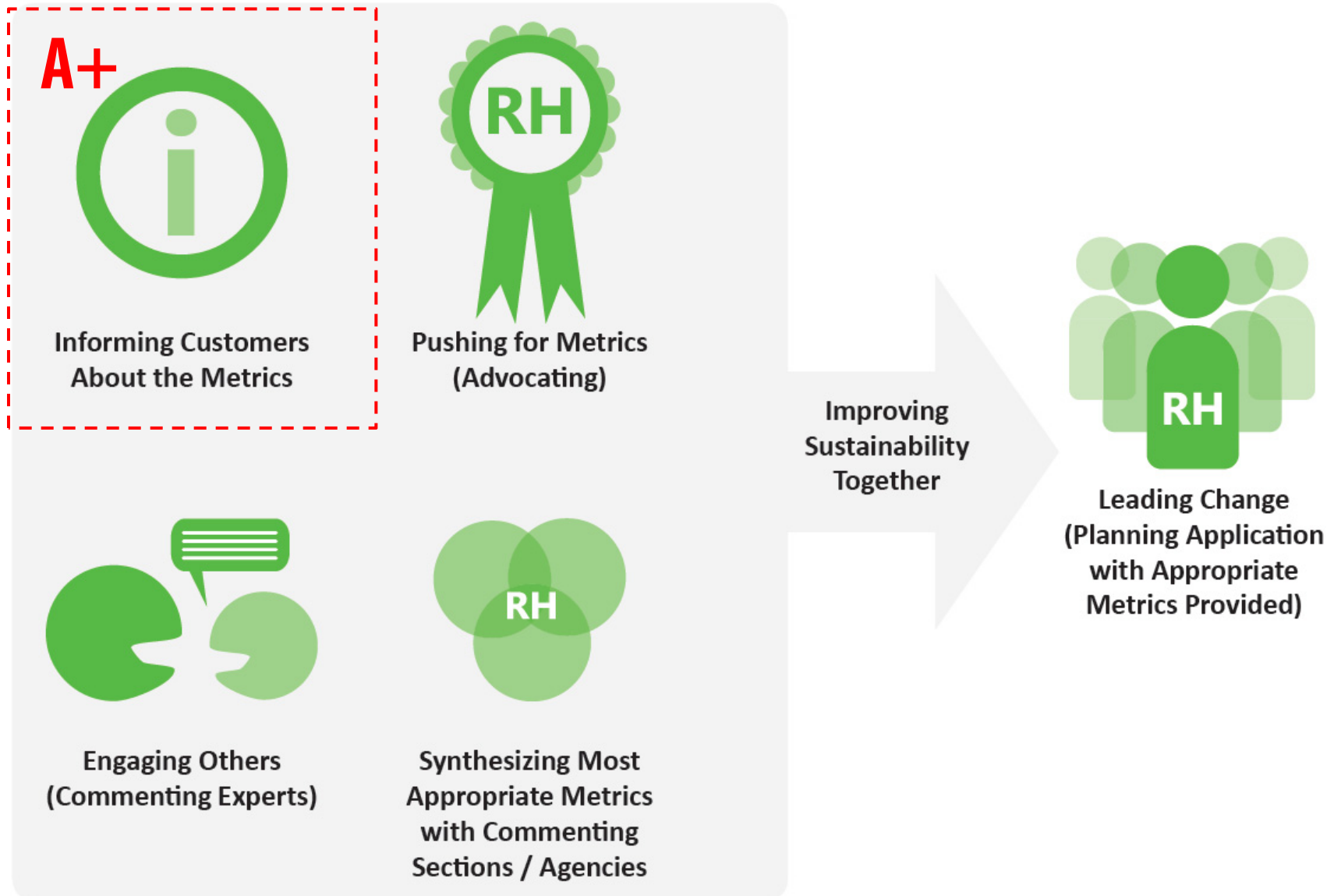
### Infrastructure & Buildings

- Energy Conservation
- Potable Water
- Lighting
- Bird Friendly Design
- Materials & Solid Waste Management
- Heat Island

45 Qualitative Sustainability Metrics

# 2015 Capacity Building Workshop:

## Planner as “Quarterback” & Coordinator with other Divisions

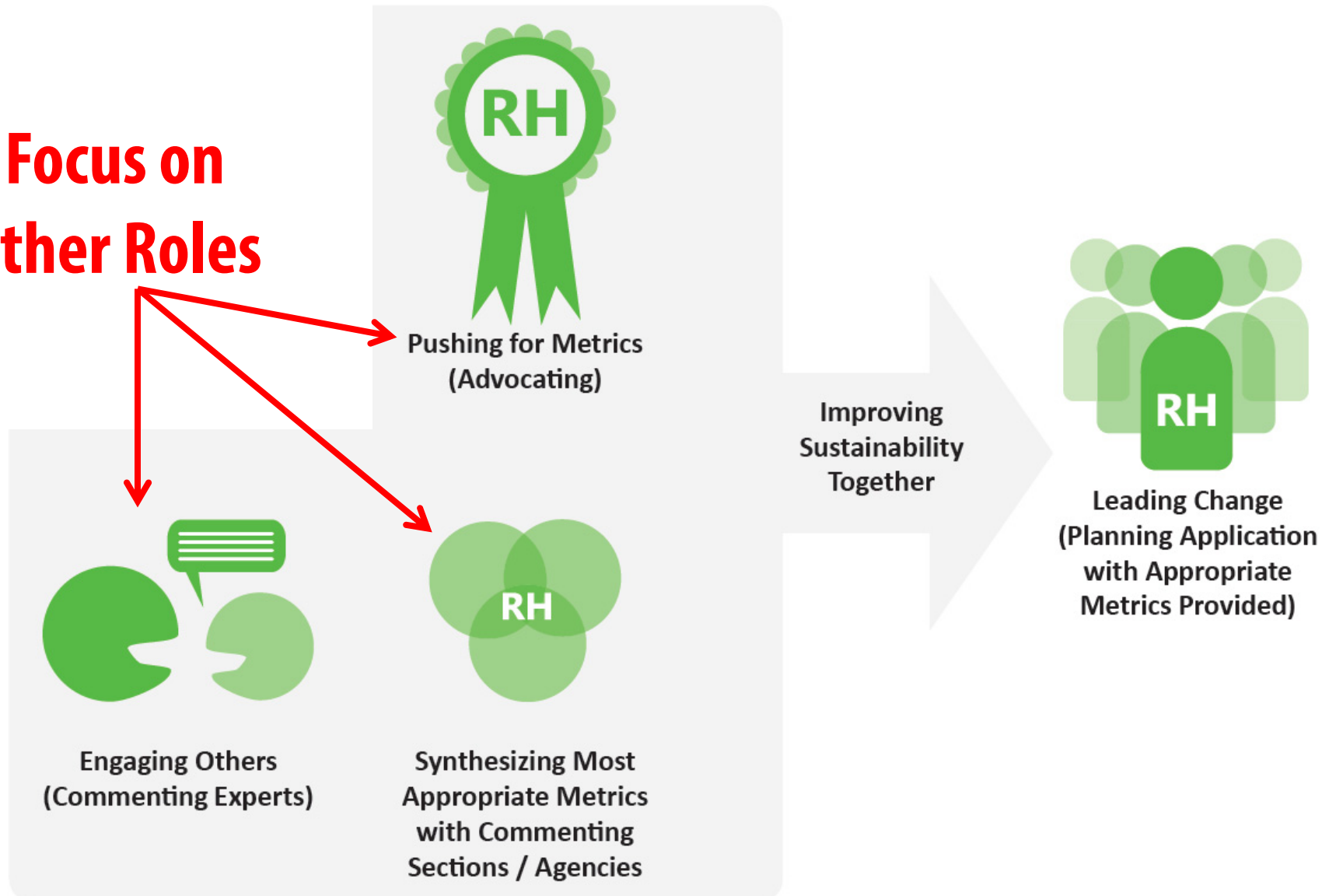


# 2015 Capacity Building Workshop:

## Planner as “Quarterback” & Coordinator with other Divisions



**Focus on  
other Roles**



**UPTAKE TO DATE  
&  
TOP FIVE METRICS**

**FOR 2014 - 2017**

**Sustainability Performance Metrics Tool**

Overall High Scores + Overall Low Scores



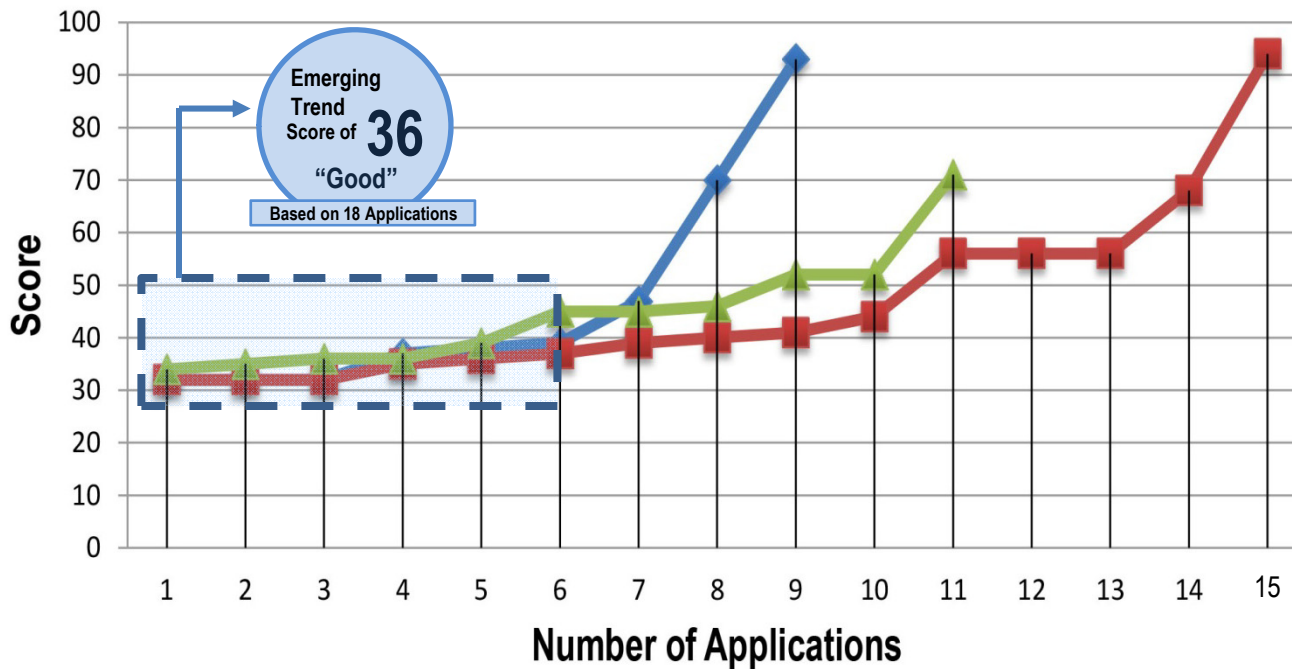


# Sustainability Metrics

## 2014-2016 TRENDS

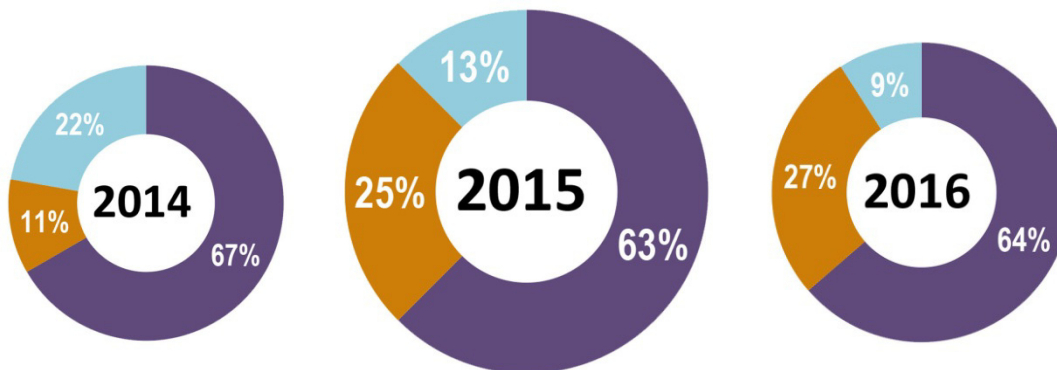
## Site Plans 2014-2016

9 Apps in 2014  
15 Apps in 2015  
11 Apps in 2016



- Values are based on **35** submitted applications
- Number of applications receiving Very Good is increasing
- The median score throughout the years is increasing

	Mean	Median
2014	47	38
2015	46	40
2016	45	45



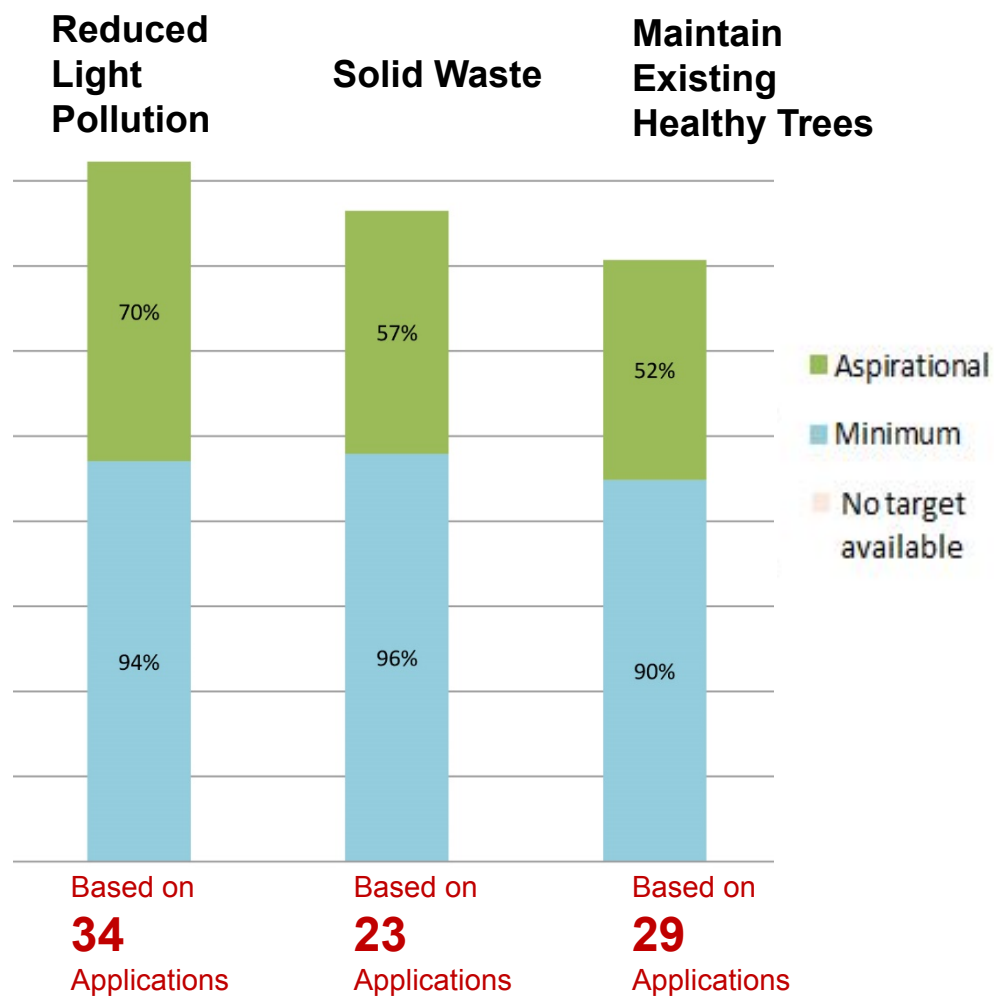
- Good
- Very Good
- Excellent



## Top Five Sustainability Metrics that have the **Highest Uptake**

## Site Plans 2014-2016

Overall 35 Applications



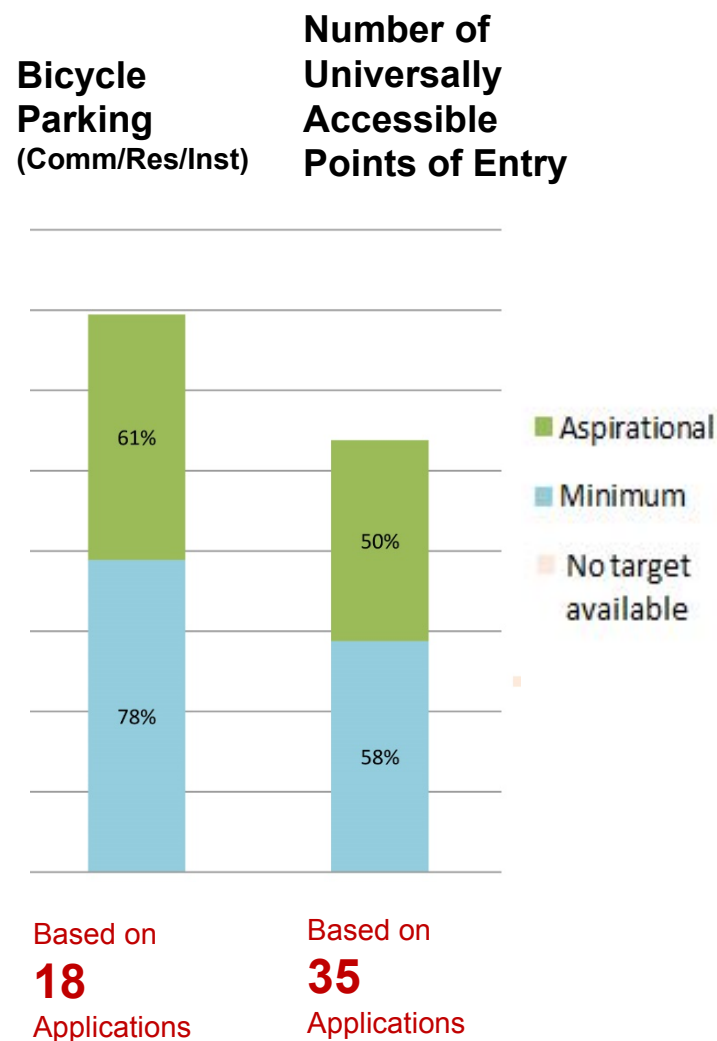
## Top Five Sustainability Metrics that have the **Highest Uptake**



50%+ are achieving their Min & Asp targets

## Site Plans 2014-2016

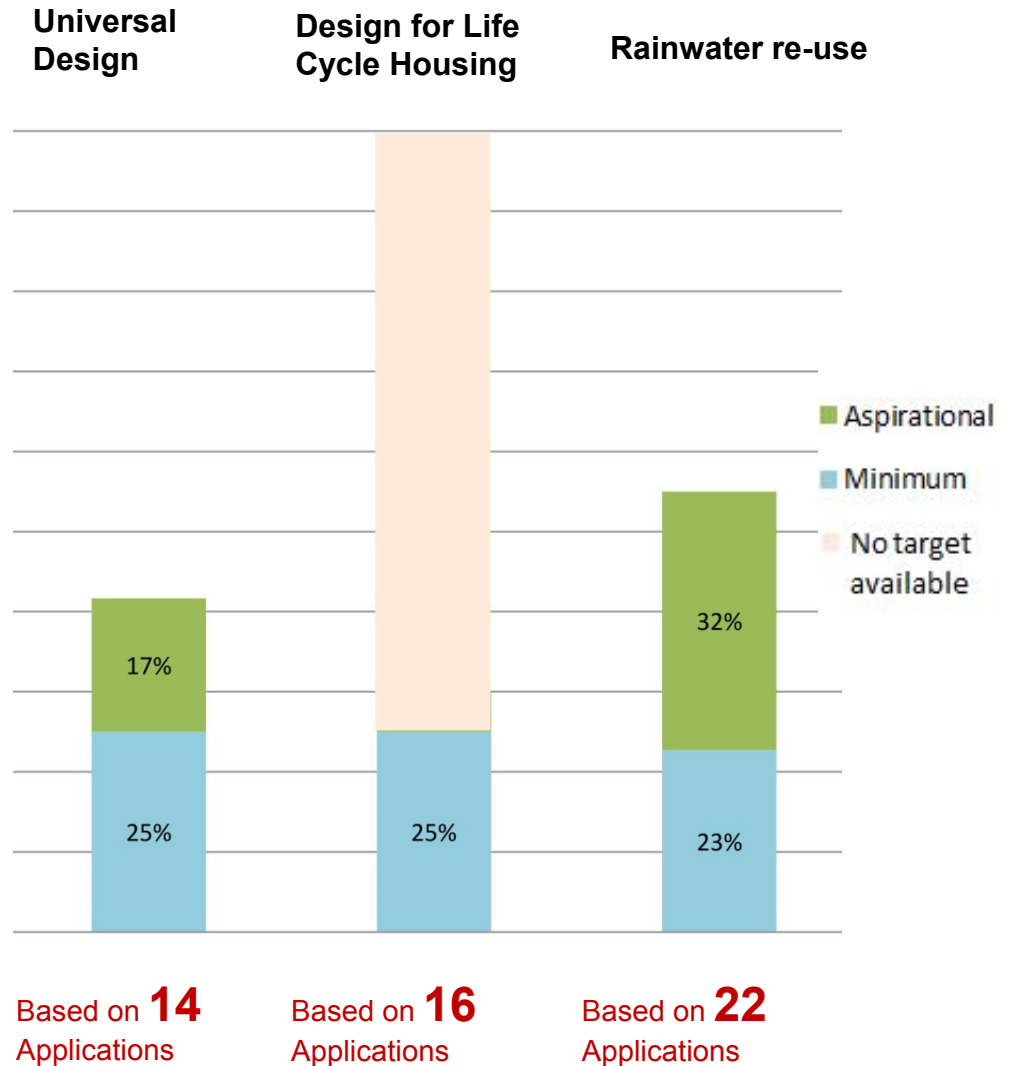
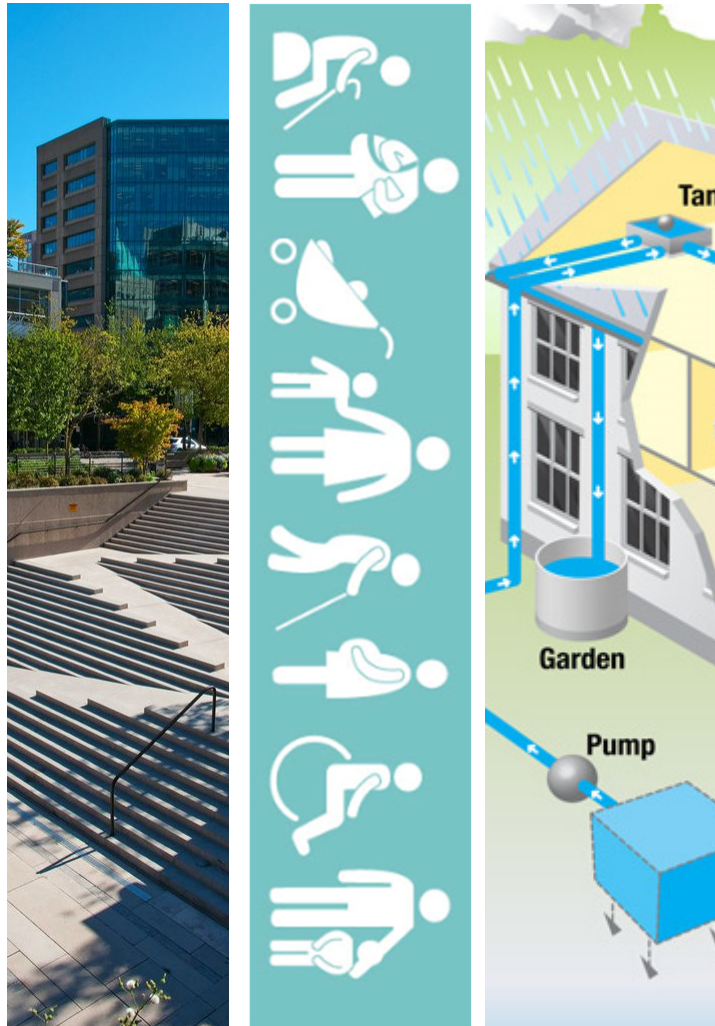
Overall 35 Applications



# Top Five Sustainability Metrics that have the **Lowest Uptake**

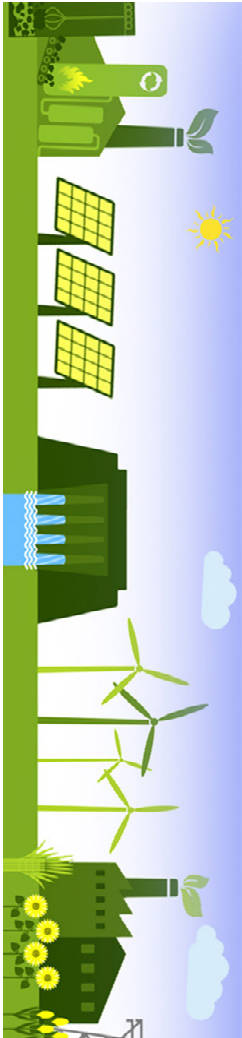
## Site Plans 2014-2016

Overall 35 Applications





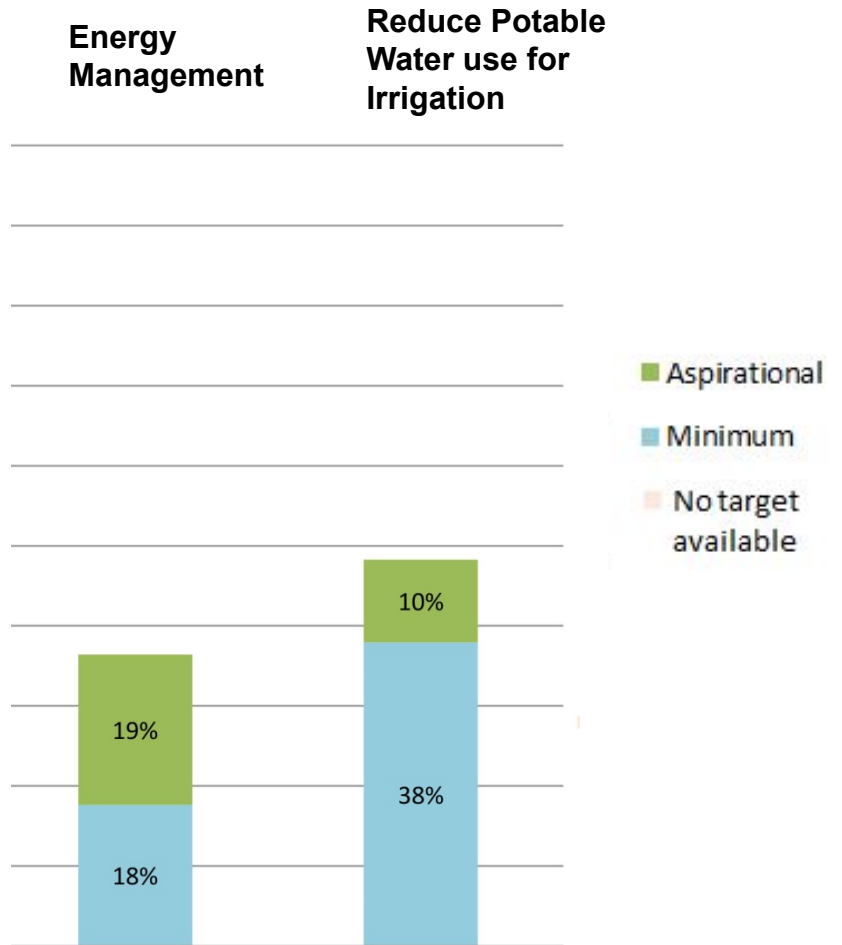
## Top Five Sustainability Metrics that have the **Lowest Uptake**



50%+ are not achieving their Min & Asp targets

## Site Plans 2014-2016

Overall 35 Applications



Based on **34**  
Applications

Based on **29**  
Applications

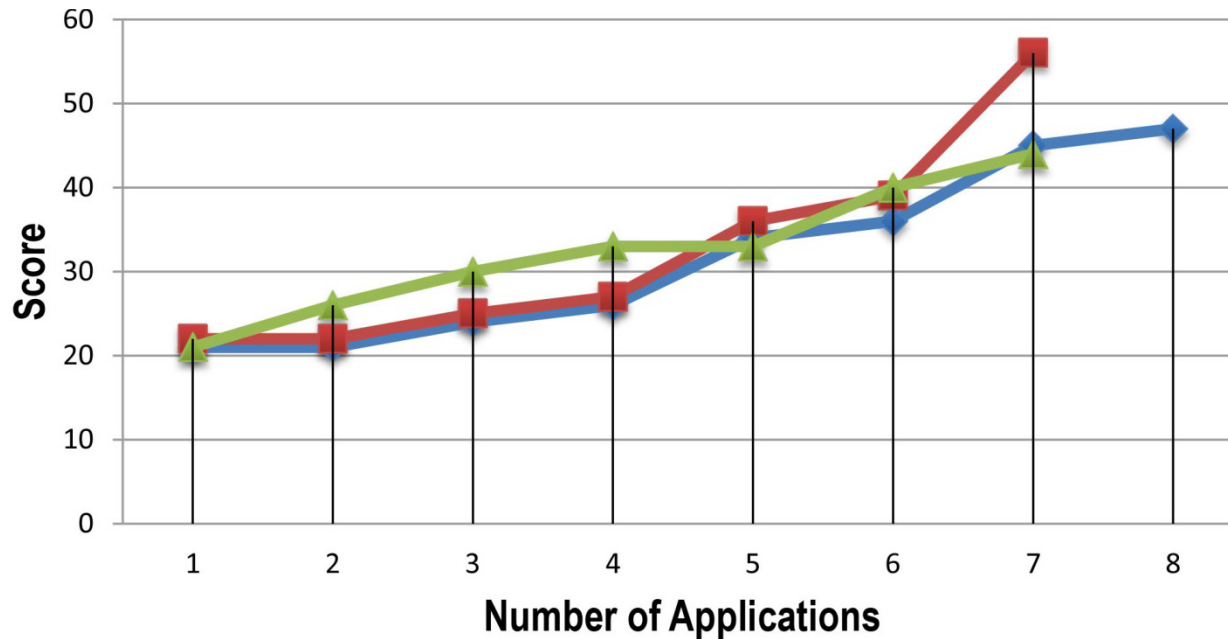


# Sustainability Metrics

## 2014-2016 TRENDS

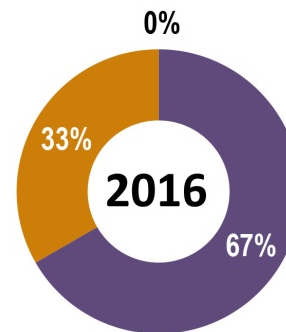
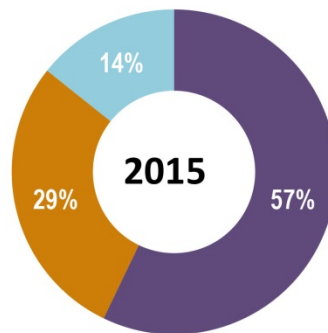
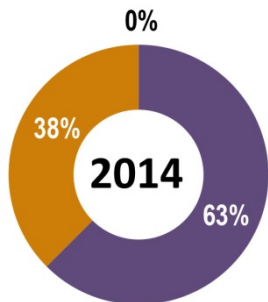
## Draft Plans 2014-2016

8 Apps in 2014  
7 Apps in 2015  
7 Apps in 2016



- Values based on 22 submitted applications
- 2015-16 applications scored on average higher than 2014 applications
- The median score in 2016 was 33 (Good) which was higher than other years

	Mean	Median
2014	32	30
2015	32	27
2016	33	33



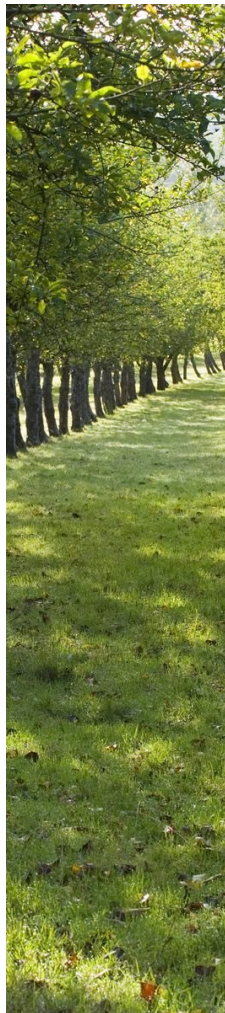
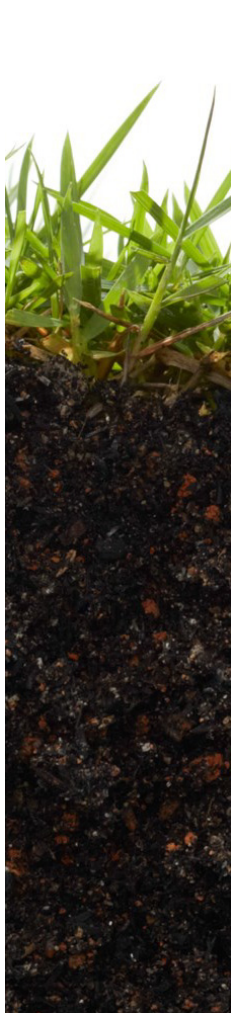
- Good
- Very Good
- Excellent



# Top Five Sustainability Metrics that have the **Highest Uptake**

**Draft Plans 2014-2016**

Overall 22 Applications

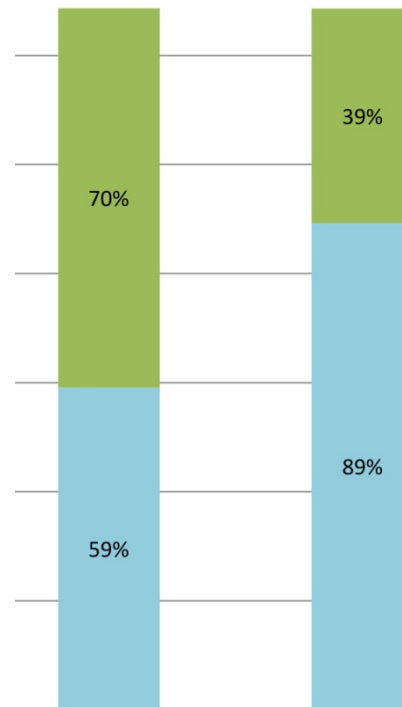


**Restore  
Enhanced  
Soils**



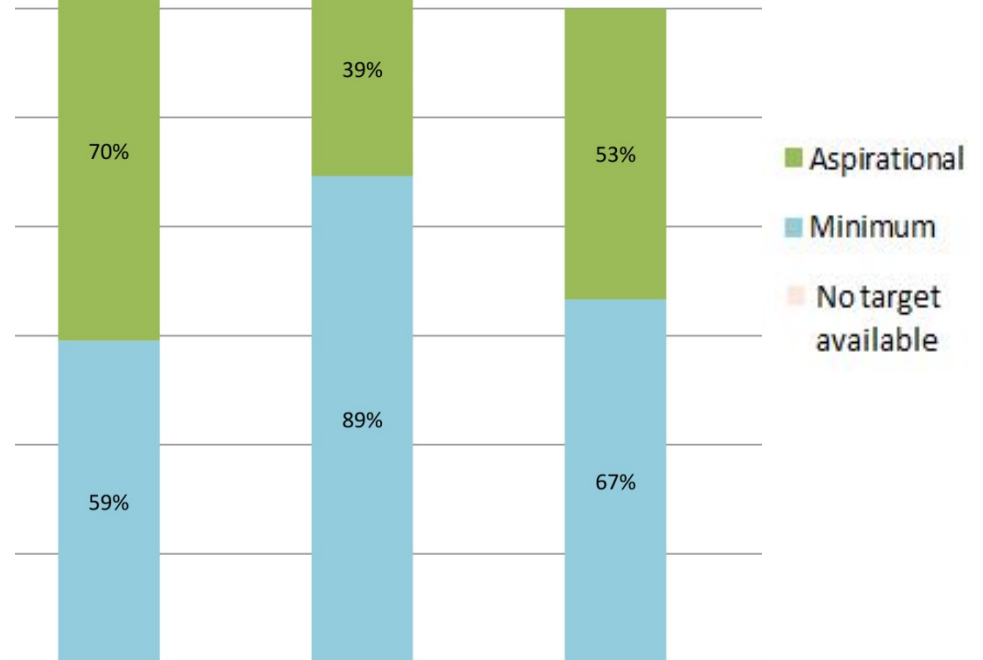
Based on  
**22**  
Applications

**Maintaining  
Existing  
Healthy Trees**



Based on  
**22**  
Applications

**Buildings  
under  
“Green”  
rating system**



Based on  
**15**  
Applications



## Top Five Sustainability Metrics that have the **Highest Uptake**

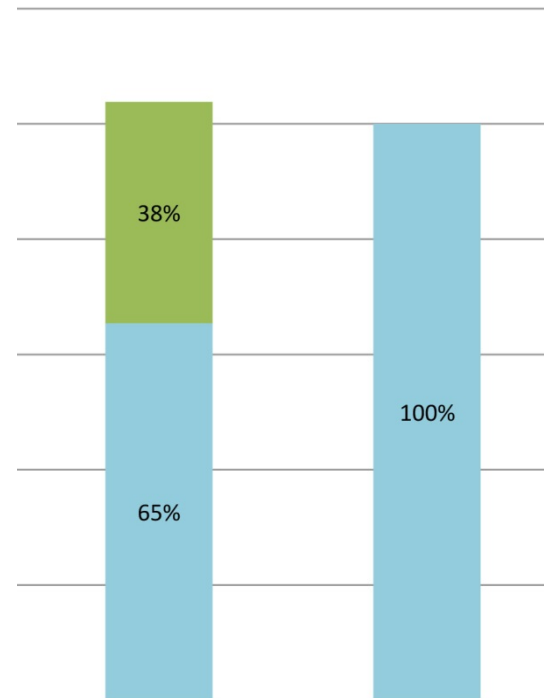
## Draft Plans 2014-2016

Overall 22 Applications



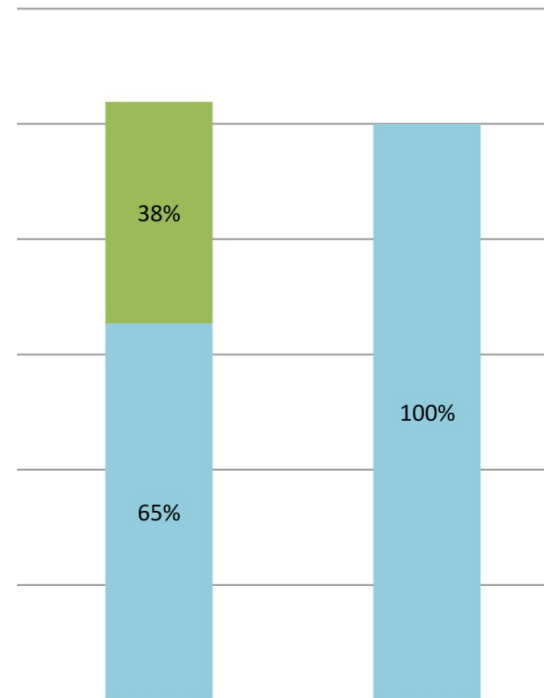
50% + are achieving their Min targets

### Promote Walkable Streets



Based on  
**22**  
Applications

### Reduce Light Pollution



Based on  
**22**  
Applications

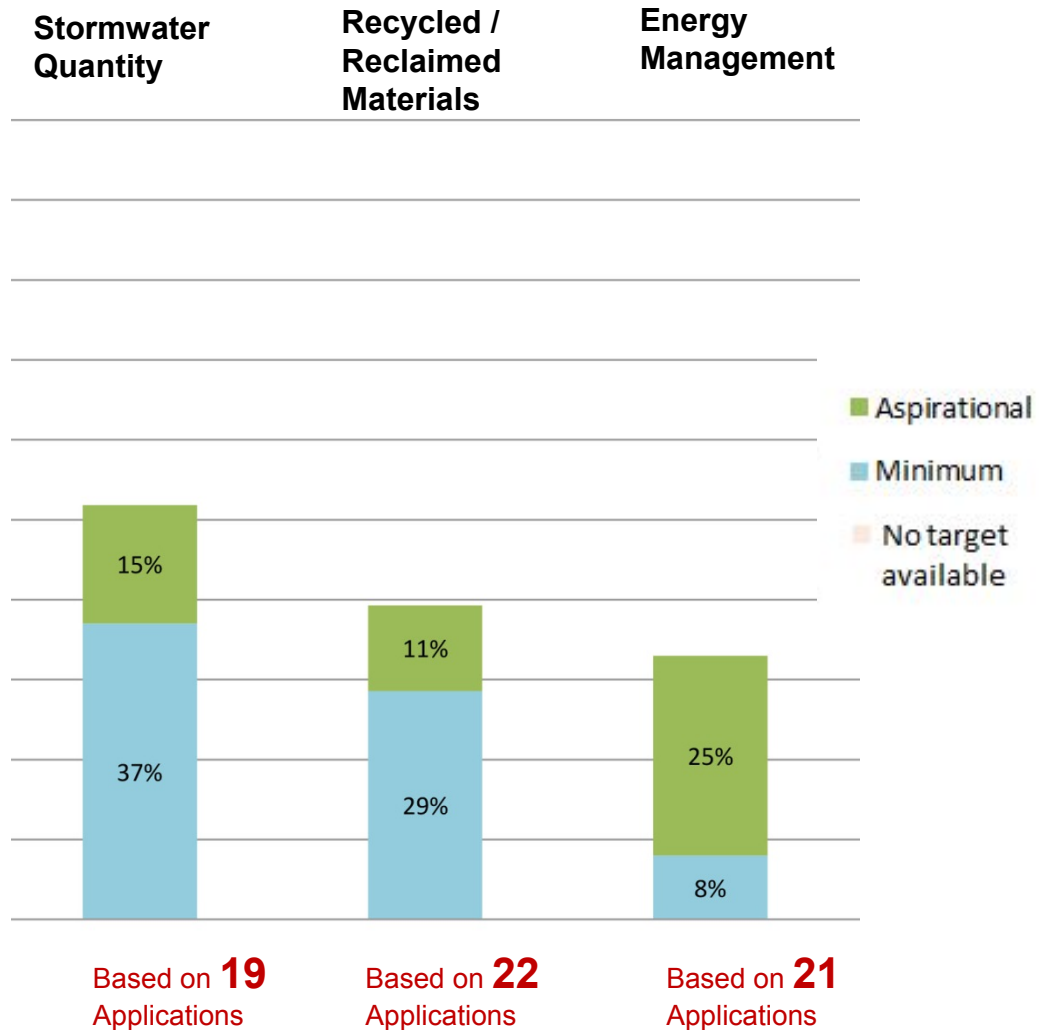
■ Aspirational  
■ Minimum  
■ No target available



# Top Five Sustainability Metrics that have the **Lowest Uptake**

**Draft Plans 2014-2016**

Overall 22 Applications



## Top Five Sustainability Metrics that have the **Lowest Uptake**



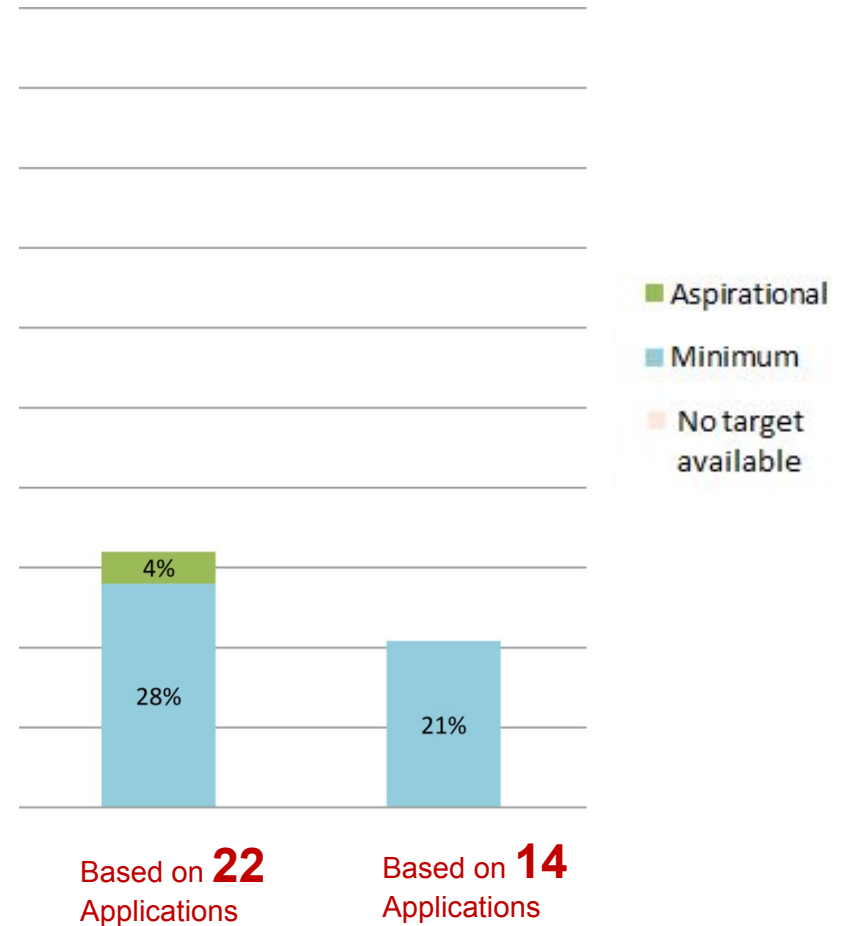
50%+ are not achieving their Min & Asp targets

## Draft Plans 2014-2016

Overall 22 Applications

Building Energy  
Efficiency  
Draft Plan

Number of  
Universally  
Accessible Points



# Site Plan Applications

## How Did We Do?



### TOP 3 'EASY WINS' TO PUSH FOR



% Tree Canopy within Proximity to Building

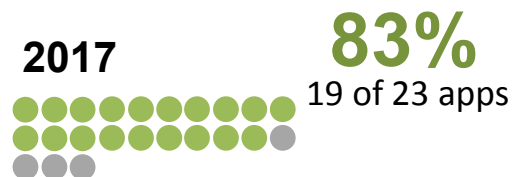
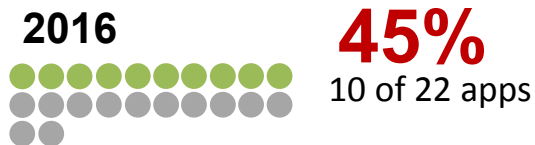


Water Conserving Fixture

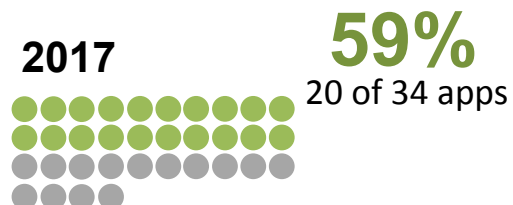


Stormwater Quantity (LID)

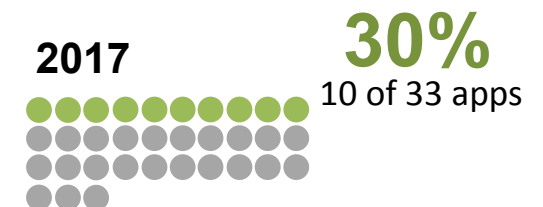
**Minimum Metric:**  
Provide shade for at least 50% of the walkway



**Minimum Metric:**  
10-20% Reduction over baseline fixtures



**Aspirational Metric:**  
Retain 15 mm Rainfall Volume





# Draft Plan Applications

## How Did We Do?



### TOP 3 'EASY WINS' TO PUSH FOR



Promote Walkable Streets

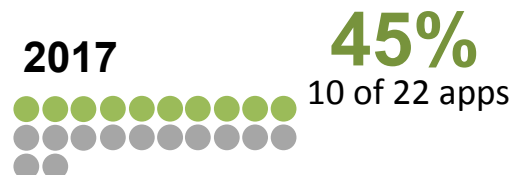


Building Energy Efficiency

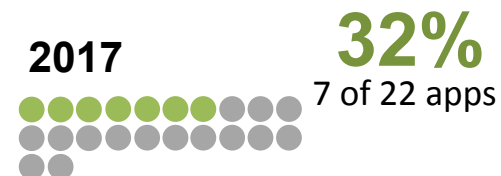


% Canopy Coverage

**Aspiration Metric:**  
Contain Continuous Sidewalks



**Minimum Metric:**  
> 75% achieve EnerGuide 83 or higher



**Aspiration Metric:**  
Tree-lined Streets



# Next Steps

*2017 and beyond*



Implementing the  
Richmond Hill  
Official Plan

# Sustainability Metrics Update/Incentives Project

(initiating fall 2017)



## Should RH adjust our Thresholds to be higher?

(i.e. like Brampton's – approved March 2015 and given the recent TGS Update)

Brampton Thresholds							
	Baseline		Minimum/Bronze		Silver		Aspirational /Gold
	Min	Max	Min	Max	Min	Max	
Site Plan	21	34	35	52	53	69	70+
Block Plan	23	29	30	38	39	48	49+
Draft Plan	21	28	29	39	40	50	51+

Richmond Hill Approved Thresholds							
	Baseline		Minimum/Good		Very Good		Excellent
	Min	Max	Min	Max	Min	Max	
Site Plan	16	31	32	45	46	65	66+
Draft Plan	12	20	21	35	36	55	56+

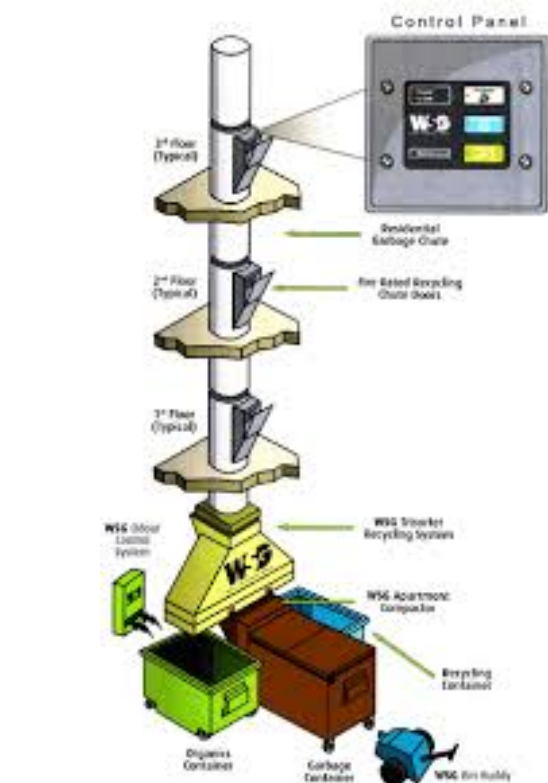
# Waste Dev't Standard Update (re-initiating summer 2017)



## 3-Stream Metric

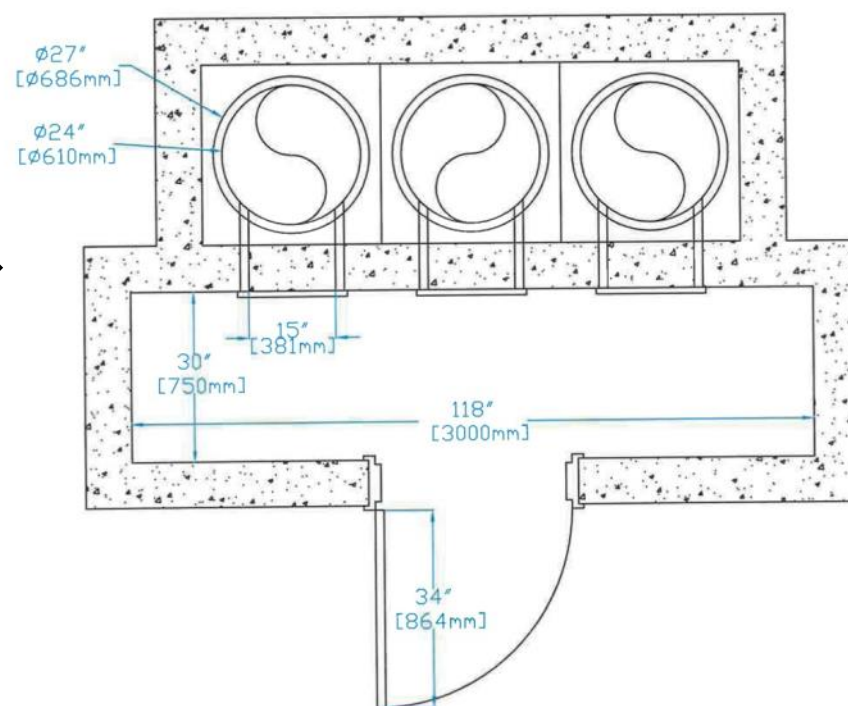
**Minimum Target** – Storage and collection areas for recycling and organic waste are within or attached to the building or deep collection recycling and organic waste storage facilities are provided (1 point). (Single family developments are exempt from minimum requirements).

**Aspirational target** - 3 chute system is provided ( 1 point)



Tri-sorter

(1 chute – generally getting this now)



3 chute system

(less chance for malfunction/  
contamination of waste streams)

# New Sustainability Metrics Webform (under development)

## Current – Excel Chart

RICHMOND HILL SUSTAINABILITY PERFORMANCE METRICS TOOL									
LEGEND:		Mandatory		Non-Mandatory Requirements		User-Defined Inputs		Applicable metrics	
<b>GENERAL INFORMATION</b> Application Date: 31/03/2015 Approval Date: 12 or 18 Mandatory Metrics Are Satisfied 12 or 18 Minimum Points Achieved 12 or 18 Aspirational Points Achieved									
<b>Developer Name:</b> 9183183 Canada Corp <b>Company Name:</b> 9183183 Canada Corp <b>Project Name:</b> 0 KING ROAD <b>Municipality:</b> Richmond Hill <b>Type of Development Site:</b> Intensification <b>Plan Type:</b> Site Plan <b>Type of Development Project:</b> Low Rise (3 floors or lower)				<b>RESULTS POINTS ACHIEVED</b> OVERALL (Application): 29 of 152 OVERALL (Community): 35 of 175 ENERGY (Application): 0 of 46 ENERGY (Community): 0 of 43 WATER (Application): 4 of 29 WATER (Community): 4 of 29 VALUABILITY (Application): 12 of 37 VALUABILITY (Community): 16 of 51 NATURAL SYSTEMS (Application): 4 of 9 NATURAL SYSTEMS (Community): 4 of 9					
<b>BUILT ENVIRONMENT</b> <b>1.A.1 Compact Development: Floor Space Index</b> Will the Municipal Official Plan Floor Space Index (FSI) or Floor Area Ratio requirements be satisfied? Yes - Mandatory									
<b>1.A.2 Land Use Diversity: Mix Proximity to Basic Amenities</b> Will the plan conform to the following relevant minimum density targets? Places to Grow - 50 ppl/jobs/hectare OR York Region - 70 ppl/jobs/hectare OR Targets set within the Municipal Official Plan/Secondary Plan Select - Mandatory									
<b>1.B.1 Land Use Diversity: Mix Proximity to Basic Amenities</b> Please Populate Both Cases For residential-only and mixed use applications, select the existing, planned or approved amenities that will be within 800m walking distance of 50% or more of the Dwelling Units (DUs). For applications that only include ICJ projects, select the existing, planned or approved amenities that will be within a 800m walking distance to the application. (2 Points awarded per amenity with a maximum of 3 amenities considered for points) Grocery Store/Farmer's Market Community/Recreation Centre Pharmacy Library Yes - Up to 6 points, 2 each (M) No -									
For residential-only and mixed use applications, select the existing, planned or approved amenities that will be within 400m walking distance of 75% or more of the Dwelling Units (DUs). For applications that only include ICJ projects, select the existing, planned or approved amenities that will be within a 400m walking distance to the application. (2 Points awarded per amenity with a maximum of 3 amenities considered for points) Grocery Store/Farmer's Market Community/Recreation Centre Pharmacy Library No - Up to 6 points, 2 each (A) No -									
<b>1.B.2 Land Use Diversity: Mix Proximity to Lifestyle Amenities</b> Please Populate All Cases Case 1 - Mandatory Requirement Will all the Municipal Official Plan Requirements be satisfied? Place or worship Daycare Restaurant/Pub Other (Please Specify) Yes - Mandatory No - Yes - Yes - Select -									
<b>1.C.1 Landscape and Street Tree Planting/Preservation - Urban Tree Diversity</b> In an urban area where trees will be planted in a row (i.e. street trees, trees in parks, parking area, etc.), will tree species alternate every two trees, or in accordance with approved municipal standards? Select - Mandatory									
<b>1.C.2 Landscape and Street Tree Planting/Preservation - Maintain Existing Healthy Trees</b> Are there any trees on site? Has an Arborist's Report been generated that identifies and evaluates where on-site healthy mature trees will be protected (in-situ or moved) or removed? When healthy mature trees are removed, will new trees be provided on site (or as determined by the municipality) to mitigate the lost canopy coverage? (does not include street trees) Will 75% of the healthy mature trees greater than 20cm DBH be preserved in situ on site? Yes - Qualifier Yes - Mandatory Yes - 2 Points (M) Select - 3 points (A)									
<b>1.C.3 Landscape and Street Tree Planting/Preservation - Soil Quantity and Quality</b> Will Municipal Tree Planting Standards be satisfied? All pits, trenches and/or planting beds within the application will have a topsoil layer greater than 60cm with an organic matter content of 10% to 15% by dry weight and a pH of 6.0 to 8.0. The subsoil will have a total uncompacted soil depth of 80 cm. There will be minimum soil volume of 30 cubic meters per tree. Yes - Mandatory Yes - 2 Points (M)									
<b>1.D.1 Green Buildings - Buildings Designed and/or Certified Under an Accredited Green Rating System</b> Are there more than five buildings in this development phase of the application? Have all municipal buildings over 500m2 been designed to LEED Silver or equivalent? How many buildings will be certified under third party Green Standards? (2 Points if One or More) What percentage of buildings will be certified under third party Green Standards? (2 Points if 50-75%, 4 Points if 76-100%. Site must have 5 or more buildings.) 7 100% Please Select Applicable Certification Standards Select - Qualifier N/A - Mandatory Energy Star - 2 Points (M) Energy Star - Up to 4 Points (A)									
<b>1.E.1 On-Accessibly: Universal Design</b> Have 10% of multi-residential units been designed to provide a barrier-free path of travel from the suite entrance door to the doorway of at least one bedroom at the same level, and at least one bathroom in accordance with OBC? No - Mandatory 10% - Up to 2 points (M and A)									
<b>1.E.2 Are Accessibility: A System of Elements Available from Entry to Buildings and Sites</b> Will 100% of Primary Entrances be Universally Accessible? Will 100% of Emergency Exits be Universally Accessible? Will 100% of the remaining entries/exits be Accessible? No - Mandatory No - 1 Point (M) No - 1 Point (A)									
<b>1.F.1 Housing Unit Mix - Design for Life Cycle Housing - Site Plan</b> Input the percentage of housing types within the application that will fall under the following categories (based on % of Gross Floor Area (GFA)). All totals under each category (Ownership, Accommodation, Housing Type) should each add up to 100%. Ownership: Affordable/Low Income 0%, Market 100% Housing Type: Attached 0%, Detached 0%, Townhomes/Stacked 100%, Mid-Hi-Rise 0% Live Work 0%, Secondary Suite 0%, Mixed Use 0%, 1 Bedroom/Studio 0% Up to 7 Points (M), 0 points for SFU/Other									



## Future – Webform (in process)

Built Environment	
Mobility	
All fields marked with an * are required to submit the form.	
Mobility	
2.B.1 Street Networks/Blocks - Block Perimeter/Length	
Verify the following statement, 75% of block perimeters do not exceed 550m and 75% of block lengths do not exceed 250m.	Please select: 2 Points (M)
Verify the following statement, 100% of block perimeters do not exceed 550m and 100% of block lengths do not exceed 250m.	Please select: 2 Points (A)
Is the site within 800m walking distance to an existing or planned commuter rail, light rail, bus rapid transit or subway with frequent service? Alternatively, is the site within 400m walking distance to 1 or more bus stops with frequent service? (This Minimum Target must be met in order to earn Aspirational Points)	Please select: 3 Points (M)
Is the site within 400m walking distance to an existing or planned commuter rail, light rail, bus rapid transit, or subway with frequent service? Alternatively, is the site within 200m walking distance to 1 or more bus stops with frequent service?	Please select: 3 Points (A)
2.D.1 Active Transportation - Proximity to Cycle Network	
Does the development plan include any anticipated or existing trails or cycling networks?	Please select: Qualifier
2.E.1 Walkability - Promote Walkable Streets	
Are all sidewalks in accordance with applicable Municipal Standards? Sidewalks must be at least 1.5 m in width.	Please select: Mandatory
What percentage of streets have continuous sidewalks, or equivalent provisions, provided on both sides of streets? (at least 75% = 2 points, 100% = 4 points) (Must meet minimum target of 75% to earn aspirational points)	Please select: Up to 4 points (M and A)
Have pedestrian amenities been provided to further encourage walkable streets?	Please select: 2 points (A)
Please list pedestrian amenities provided:	
<input type="checkbox"/> Wind Breaks <input type="checkbox"/> Seating <input type="checkbox"/> Pedestrian Oriented Lighting <input type="checkbox"/> Wide Sidewalks (Urban Areas) <input type="checkbox"/> Shading Other (Please Specify)	
Natural Environment and Open Space	
Infrastructure and Buildings	
Submit	



# Looking forward:

Helping others to “Regionalize” Green Development Standards

Today



**BRAMPTON**  
Flower City



## MUNICIPALITIES with Consistent Sustainability Metrics

Future

## GTA AREA with Consistent Sustainability Metrics?

