



*Gordon Woods Homeowners' Association*

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**Our City Stormwater infrastructure may  
be in peril...**

**and may need a new source of  
tax revenue to fix it.**

**Every major City and Town owns and maintains an infrastructure that exists above and below ground. Quite frequently, it is taken for granted as being an integral part of our cultural domain and is a necessity to maintain our community's standard of living.**

**The obvious are those things that we see and use on a daily basis,**

**streets, sidewalks, street lighting, traffic signs and lights, curbs .....**

**The less obvious we take for granted as we often are not aware of its existence**

**Our stormwater infrastructure is one of those assets we use on a daily basis that make our community lifestyle a comfortable one. The assets will often include ....**

**stormwater sewers, ditches and ponds,  
catch basins, bridges, diversion structures,  
streams, rivers and creeks**

# Some Interesting Facts About Our Stormwater Assets

**2,000 km storm sewers**

**48,000 catch basins**

**28,000 stormwater manholes**

**1,000 outlets to receiving waters**

**100 km diversion structures (trunk sewers)**

**250 km ditches/storm water swales**

**Estimated Useful Life**

**100 Years**

**Closing Net Book**

**Value (2011)**

**\$534 Million**

**Replacement Value (2011)**

**\$1.6 Billion**

## **57 SWM Facilities (Hard and Soft Components)**

**Estimated Useful Life 25 – 50 years**

**Average Network Age 19 years**

**Closing Net Book Value (2011) \$26 Million**

**Total Replacement Value (2011) \$76 Million**

## **200 km Watercourses, streams, Rivers and Creeks (31 in total)**

**Estimated Useful Life 25 – 50 years**

**Average Network Age 19 years**

**Closing Net Book Value (2011) \$21 Million**

**Total Replacement Value (2011) \$58 Million**

## **Storm Water Assets Summary**

<b>Total Closing Net Book Value (2011)</b>	<b>\$ 581 Million</b>
<b>Total Replacement Value (2011)</b>	<b>\$ 1.70 Billion</b>

# The alarming news is this ....

**Our City needs funding to complete today's Service Level (2012 Programme), in the amount ...**

Capital Cost	\$8,030,000
Operations & Maintenance	<u>\$6,620,000</u>
Total Programme Cost	\$14,650,000

**The Funding Source Reserves amounts to ....**

\$5,930,000

**Leaving a shortfall \$8,720,000**



# **The shortfall could be made up in a number of ways...**

- 1. Cut back on present City services**
- 2. Implement property tax increase across the board**
- 3. Establish even higher developmental charges**
- 4. Establish new user fees**
- 5. Do nothing**
- 6. Borrow money from traditional loan sources**

## **What we do know is this ....**

**1. Present Capital funds must be allocated to projects for which they have been collected**

**-that means there are no available funds for new growth-related projects for the period 2011 to 2018**

**2. Capital funds do not cover  
Operations and Maintenance costs**

**3. Collection of Developmental Charges is declining as the City is nearly 'built-out'**

# The available options are ...

- 1. Cut back on present City services**
  - could happen but not very likely
- 2. Implement property tax increase across the board**
  - is an option but not very likely
- 3. Establish even higher developmental charges**
  - is not an option
- 4. Establish new user fees**
- 5. Do nothing**
  - is not an option
- 6. Borrow money from traditional loan sources**

# The only remaining option ...

## 4. Establish new user fees

This is now a distinct possibility

## 6. Borrow money from traditional loan sources

This is now a distinct possibility

# **How Much Funding Does Our City Need?**

**That depends largely on what we have to  
say !!**

**The City has two options at its disposal**

# OPTION 1

## A financing approach using City funds and borrowed funds

For a traditional home located in Gordon Woods **Cost/Annum**

<b>Status Quo (Debt Financed)</b>	<b>\$8,720,000</b>	<b>\$36.02</b>
<b>Status Quo (Pay-as-you-go)</b>	<b>\$14,650,000</b>	<b>\$63.92</b>
<b>Interim Basis</b>	<b>\$26,610,000</b>	<b>\$116.20</b>
<b>Sustainable Basis</b>	<b>\$39,490,000</b>	<b>\$172.42</b>

### Note:

1. Rate assumes 92% collection based on 340,000 Tiered billing units

# Some Other Examples

<b>Brooks Drive</b>	<b>27.84</b>	<b>46.80</b>	<b>85.08</b>	<b>126.24</b>
<b>Robin Drive</b>	<b>27.84</b>	<b>46.80</b>	<b>85.08</b>	<b>126.24</b>
<b>Homelands Drive</b>	<b>27.84</b>	<b>46.80</b>	<b>85.08</b>	<b>126.24</b>
<b>Sherobee Road</b>	<b>6.38</b>	<b>10.72</b>	<b>19.49</b>	<b>28.92</b>
<b>Goreway Drive</b>	<b>5.09</b>	<b>8.55</b>	<b>15.55</b>	<b>23.07</b>
<b>Shopping Mall</b>	<b>14,452</b>	<b>24,294</b>	<b>44,166</b>	<b>65,530</b>
<b>Grocery Store</b>	<b>4,050</b>	<b>6,809</b>	<b>12,376</b>	<b>18,366</b>

# OPTION 2

## A tax increase

For a traditional home located in Gordon Woods

**Cost/Annum**

Status Quo (Debt Financed)	\$8,720,000	\$38.02
Status Quo (Pay-as-you-go)	\$14,650,000	\$63.92
Interim Basis	\$26,610,000	\$116.20
Sustainable Basis	\$39,490,000	\$172.42

Note:

1. Rate assumes 92% collection based on 340,000 Tiered billing units



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**How does the City come up with these numbers?**

**We have been informed the City is looking at two concepts for gauging these rates ....**

# Concept 1.

**What is the water absorption factor of your property?**

The City is interested in knowing the surface area of a property which is impervious to natural storm water drainage

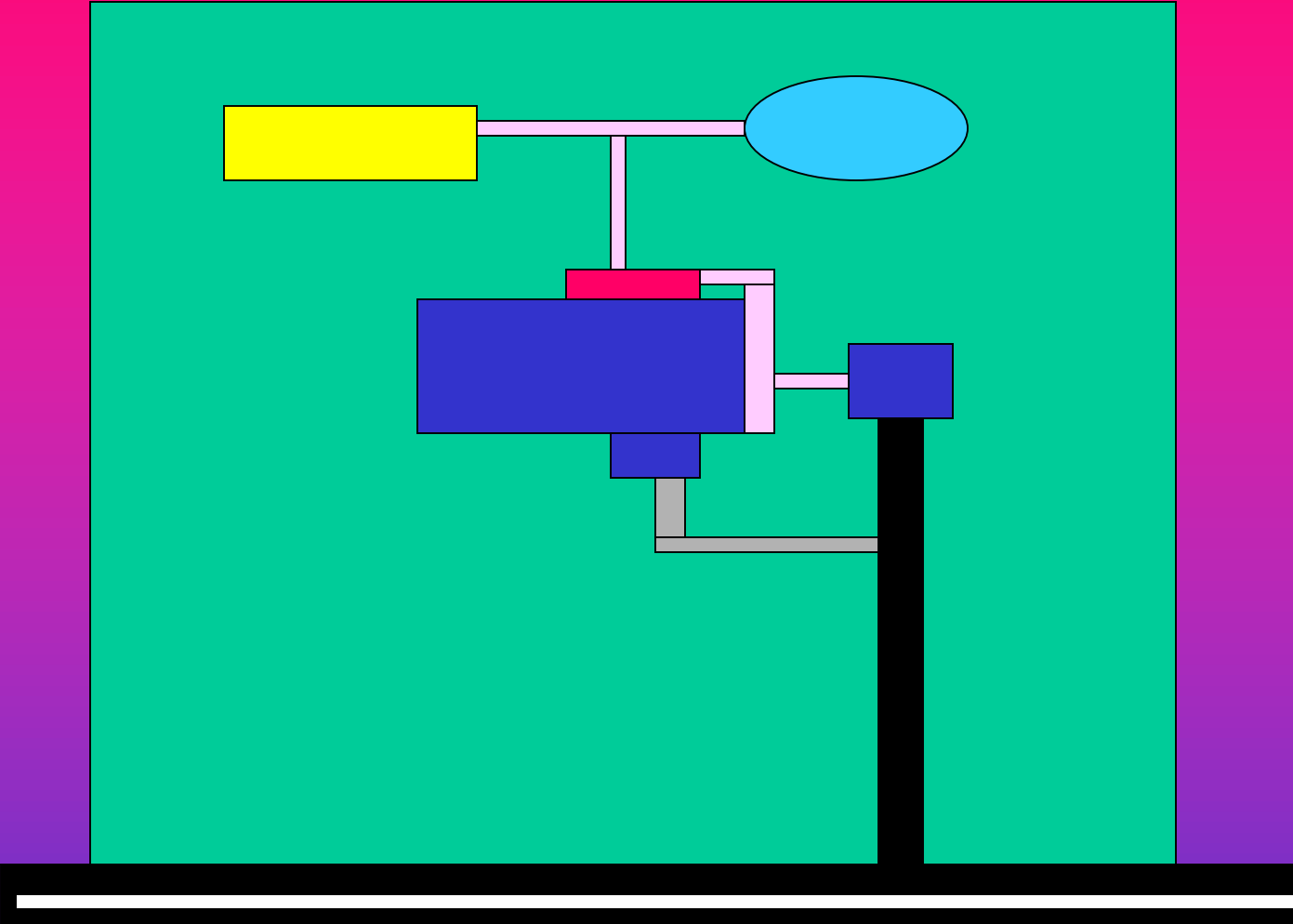
That means any surface that causes water to run off the property rather than into the surface area is subject to review

In other words the **pad-print** surface of any item on the property that is impervious is on the radar screen

**Lot Size 200' x 200'**

**40,000 sq.ft or 4,000 square metres**

**0.92 of an acre**



# ERU rating of the property (Equivalent Residential Unit)

**House - 3000**

**Garage - 288**

**Deck - 300**

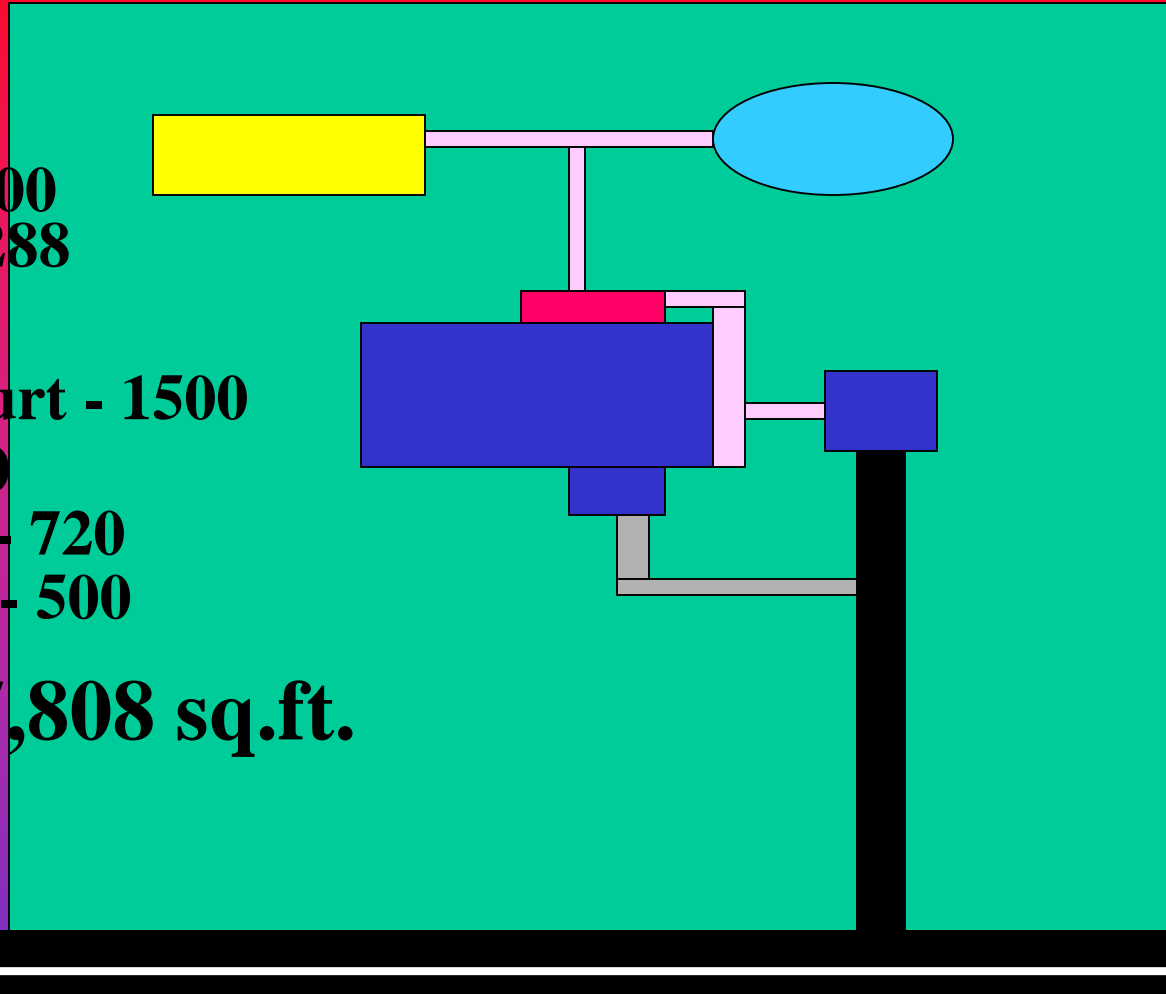
**Tennis Court - 1500**

**Pool - 1500**

**Driveway - 720**

**Sidewalks - 500**

**Total - 7,808 sq.ft.**



**Concept 1. Has some good ideas but it does not take into account external factors such as,**

**The type of land the dwellings are sitting on**

**-Sand?**

**-Clay?**

**-Gravel?**

**-Rock?**

**The type and size of the foliage on the property**

**-forest canopy?**

**-shrubbery?**

**-sloping vs flat?**

**-natural marshlands?**



**Gordon Woods is situated on Yellow Sand, the best form of natural water absorption material there is....**

**An acre of natural woodland or forest absorbs enough water in a single year to fill 11 Olympic size and class pools**

**Gordon Woods is the smallest contributor to the storm water problem for these two primary reasons**

**That in itself warrants a special tax exemption for Gordon Woods residents.**

## Concept 2.

**What is the size of your dwelling  
or place of business?**

**The City prepared a 600 single-family detached dwelling sampling**

**that was evenly distributed across all wards and range of assessed value**

**Here was what they found ....**

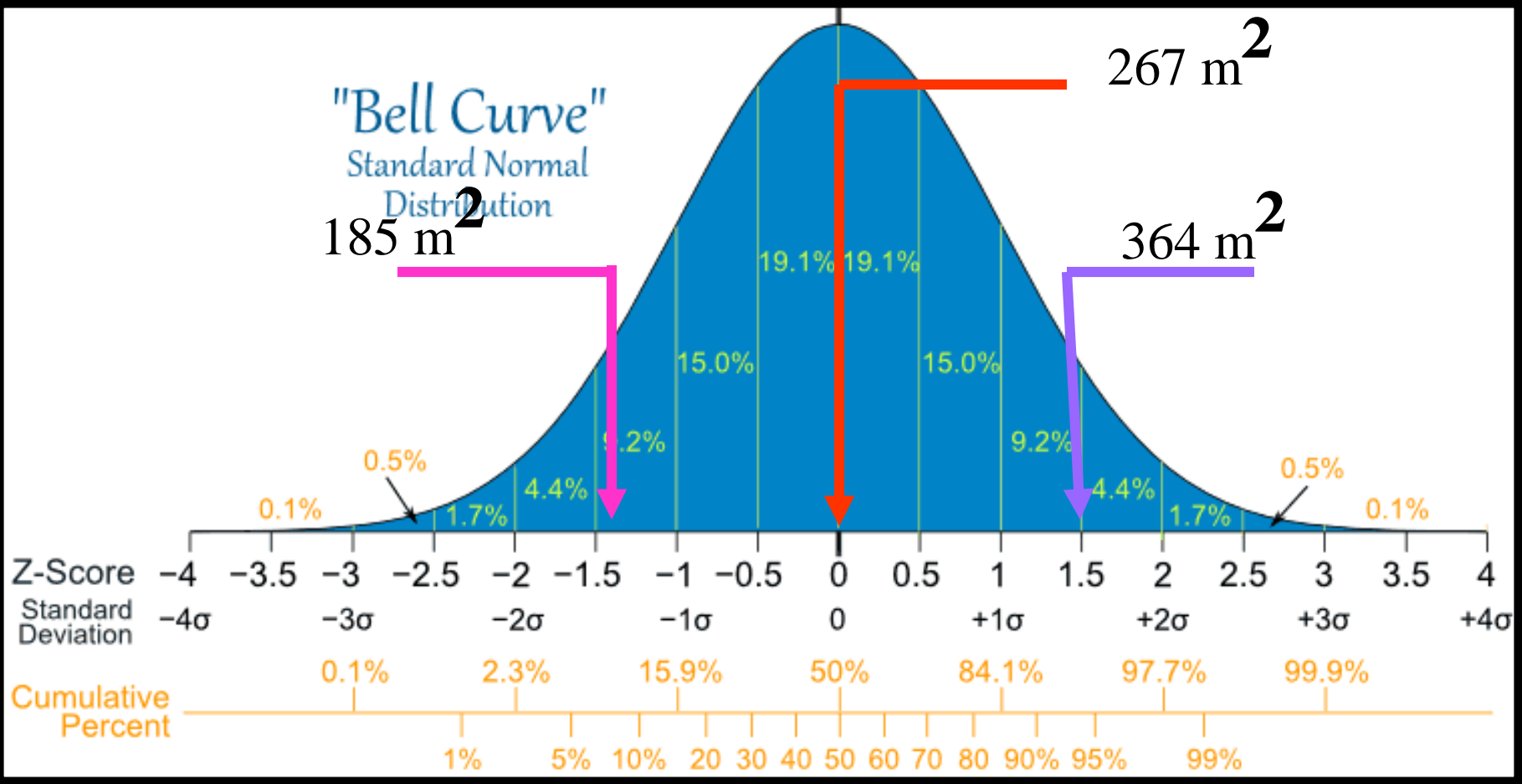
**The Average Single Family Unit  
size is 267 m<sup>2</sup> or 2670 ft<sup>2</sup>**

"Bell Curve"  
Standard Normal  
Distribution

185 m<sup>2</sup>

267 m<sup>2</sup>

364 m<sup>2</sup>





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# **The FOUR most important types of DIRT found in Gordon Woods**

## **1. TOPSOIL**

**Loaded with organisms, thus rich black soil  
improves water absorption and adds  
micronutrients**



# The **FOUR** most important types of **DIRT** found in Gordon Woods

## 2. **PEATMOSS**

**Technically called sphagnum, peat moss is harvested from peat bogs where woody plant materials have decayed over many years, has a high moisture absorption capability**

# **The FOUR most important types of DIRT found in Gordon Woods**

## **3. SAND**

**THE GRANULAR MATERIAL, MADE OF  
FINELY CRUSHED MINERAL MATTER AND  
STONE, CAN IMPROVE THE DRAINAGE OF  
COMPACTED SOIL**

# **The FOUR most important types of DIRT found in Gordon Woods**

## **4. COMPOST**

**Consisting of decayed plant material, organic content provides nutrients for new growth and absorbs surface water**

# **Infiltration Rates by Soil Type Under Saturated Soil Conditions**

**The RETC Code for Quantifying the Hydraulic  
Factors of Unsaturated Soils (Dec. 1991),  
van Genuchten, M.T. Leji, S.R. Rawles et al.**

<b>Soil Type</b>	<b>Infiltration in./hr.</b>
<b>Sand</b>	<b>8.27</b>
<b>Loamy Sand</b>	<b>2.4</b>
<b>Loam</b>	<b>1.02</b>
<b>Silt Loam</b>	<b>0.27</b>

**Soil Type**

**Infiltration in./hr.**

**Sandy Clay Loam**

**0.17**

**Silt**

**0.1**

**Clay Loam**

**0.09**

**Silty Clay Loam**

**0.06**

**Soil Type**

**Infiltration in./hr.**

**Sandy Clay**

**0.05**

**Silty Clay**

**0.04**

**Clay**

**0.02**





