Memorandum

To	Gigi Li, Lisa Chen, and Ilan Treiger
From	Daryl Abbs (Watson) Gary Scandlan (Independent Policy Advisor)
Date	March 4, 2024
Re:	Response to BILD Letter Dated February 8, 2024

Fax ☐ Courier ☐ Mail ☐ Email ☐

The City of Richmond Hill released their Development Charges (D.C.) background study on December 22, 2023.

On February 8, 2024, the City of Richmond Hill received a letter from BILD which provides comments which respect to the proposed charges and includes a memorandum from Keleher Planning and Economic Consulting (KPEC) which poses a number of questions.

This memorandum provides our responses to the questions set out in the KPEC memorandum.

Questions and Responses

1. Can a list of projects comprising the City's DC Commitments (totalling $49.15 million as per Table 4-2) be provided to ensure no double counting with the projects included in the DC study's capital project listing?

   The adjustments to the reserve balances include the following and are provided as Attachment 1 to this memo:

   - Outstanding commitments for existing projects. These are not included in the D.C. list of future capital projects
   - Mid-year funding adjustments related to existing Projects.
   - Funding returns upon closing of capital projects
   - City contributions as a result of Servicing Agreements.

   All of these adjustments to the reserves above **do not** include any projects that are in the D.C. capital project listing. All adjustments are related to projects from 2022 or earlier.

   It is noted that after further investigation certain reserve fund adjustments were allocated to the incorrect service. In addition, a negative adjustment of $1.69

million was incorrectly applied to the engineering service. This update will be reflected in the addendum report. The following table provides for the revised Table 4-2:

Service	Balance December 31,2022 - Before Adjustments	Adjustments	Balance December 31,2022 - After Adjustments
Engineering Services	75,599,069	(36,586,629)	$39,012,440
Fire Protection Services	610,474	(1,668,359)	($1,057,885)
Public Works	1,610,591	(938,290)	$672,302
Parks and Recreation Services	44,878,330	(7,005,224)	$37,873,106
Library Services	3,139,969	(1,255,123)	$1,884,846
Total	**$125,838,433**	**($47,453,625)**	**$78,384,809**

Public Works

2. What is the basis for the 10% BTE deduction for the "North Operations Yard Expansion and Retrofit" project? What proportion of the costs are related to the 'retrofit' versus the expansion?

   The retrofit and expansion assumes that the expansion would add approximately 4,500 square feet to the facility. This would provide for approximately two additional bays and office space/storage space. The costs associated with the expansion of the existing facility accounts for 90% of the cost estimate, whereas 10% of the cost estimate is related to retrofitting the existing facility.

3. The 2021 DC Study included $785,000 for "Various Vehicles", which has been increased to $5.52 million in the 2023 DC Study – what is the rationale for the 600% increase in need for vehicles? The amount included in the Public Works DC is over and above the $6.03 million in "Various Vehicles" included in the Parks & Recreation DC (which was only $1.11 million in the 2019 DC Study).

   The capital costs are based on an assumption that the fleet will grow by 20% over the forecast period, which aligns with the 10-year growth in population. Conversely, the total provision included would provide for 37 additional new vehicles over the next 10 years, which also represents a 20% increase in the quantum of fleet provided today.

4. What is the basis for the replacement cost for the Truck Wash facility increasing from $190/sf in the 2019 DC Study to $770/sf in the 2023 DC Study?

   This was an error in the previous study. A truck wash is more similar to a maintenance facility than a storage building. As such the replacement cost aligns with that of the maintenance facilities in the listing.

Parks and Recreation

5. What are the "Other Deductions" for the various parkland development projects?

   These deductions are related to the component of the capital costs related to ineligible works that are funded through the Community Benefits Charge (C.B.C.). The other deduction reflects the gross capital cost of the project component that is ineligible.

6. What is meant by projects that include the label of "Park Enhancements", such as project #1, 2, 5, 6, etc. What works are proposed to be done in a park enhancement?

   Enhancements relate to upgrading of existing facilities, such as adding new equipment or AODA surfacing to playgrounds, or adding new passive or active park elements as per direction in the 2022 Parks Plan.

7. Can a breakdown of costs included in the $39.2 million David Dunlap Observatory Park, and a rationale for the 23% BTE allocation made?

   The costs include the following:

   - Multi-use path
   - New DDO Parkette
   - New washroom and playground
   - Picnic area and covered pavilions
   - Sports courts and clubhouse
   - New boardwalks
   - Improvements to internal pathways/roads
   - Skating trail and pavilion/washroom

   Note: costs included in the CBC have not been included.

   The BTE deduction is based on the proportion of projects that are related to the restoration of existing trails/roads within the park, landscaping, etc.

8. What is included in the $233 million cost for the North Leslie Community Centre?

   The costs are based on a new facility to be constructed with 179,000 sq.ft. Based on the $1,300/sq.ft. cost identified in the service standard, the total cost estimate is $233 million.

   As per the Recreation and Culture Master Plan, in order to maintain current established service levels, the North Leslie Community Centre would include the following features/amenities:

- Indoor aquatic facility. The City's standard aquatic facility template is recommended, which consists of a 25-metre rectangular tank with six to eight lanes and a separate tot-teaching tank to ensure use by all ages and abilities. Other components to be contemplated include water play features, sauna, warm-water therapeutic pool, viewing area, universal change rooms, adult change tables, and washrooms.

- NHL arena ice pads – up to 2 indoor NHL sized ice pads are to be included along with amenities such as dressing rooms, viewing/seating areas etc.

- Full size gymnasium. A template similar to that found at the Oak Ridges Community Centre & Pool should be used with college-size dimensions, dividing walls, storage and other supporting amenities.

- Fitness centre which should include space for equipment, an adjoining aerobic room, and indoor track.

- Up to four new multi-purpose spaces. The multi-purpose spaces should be built with flexibility in mind, with consideration given to a variety of sizes and amenities to accommodate a broad range of activities and functions. Amenities that should be considered include wood sprung floors, mirrors, dividing walls, storage space, kitchens, and other features.

- A dedicated youth space and adult 55+ space is to be included.

9. What is the basis for the 8% BTE deduction for "Russell Tilt Park Revitalization"?

   This was an error in the calculation. The BTE deduction should be 40% to reflect the proportion of costs related to new amenities relative to the repair and replacement of existing amenities.

   The identified error in the calculation will be corrected. Changes to the Development Charge rate resulting from the correction of the identified error will be made in the addendum of the Development Charge Background Study.

10. There are numerous park projects listed as "Local Parks" (projects 15, 18, 19, 22, etc.) – are these costs exclusive of types of costs classified as local costs under the City's local service policies?

    Yes

11. The LOS analysis shows "Passive Open Space" with a development cost of $1,117,000/acre, which is higher than the development costs for Local Parks ($404,000/acre), Community Parks ($362,000/acre) and Destination Parks ($353,000 to $888,000/acre).

Can the City provide a detailed breakdown for how the $1,117,000/acre cost for Passive Open Space was calculated? By comparison, the cost/acre in the 2019 DC Study was $493,700, making the 2023 DC Study values a 126% increase. This cost increase is substantially higher than the increases seen in other parkland development categories, which range from 2% to 45% increases since the 2019 DC Study.

Passive open space has a higher value because the cost may include pathways, bridges, boardwalks, creek work, culverts, bank stabilization, etc. When applied to small work areas, this results in high per acre costs. In addition, please note that there has been a significant increase in costs since our previous D.C. study, which has a significant impact on the cost per acre/m2.

12. What is the basis for the substantial increase in replacement costs for the Recreation Facilities listed on page B-10 compared to the 2019 DC Study, as summarized and sampled in the table below – many of the changes to building value range upwards of 180% or higher, while values that include land value range from a decline of 62% to moderate increases of 6%, 15% and 43%, suggesting that underlying land values have declined significantly.

    The facility values are based on analysis of data from a variety of sources. This includes but not limited to usage of third-party market research publications, such as the 2023 Gordian RS Means Yardstick for Costing, and the 2023 Altus Group Canadian Cost Guide. In addition, staff benchmarked several municipalities to estimate the replacement costs of similar quality of facilities. Lastly, staff used its own internal expertise, and knowledge of historical and recent costs of similar assets delivered by the City.

    In the 2019 study, costs such as furniture, fixtures, equipment, parking, landscaping, soft costs, etc. were included with the values for land to arrive at the all-in replacement cost (i.e., these costs were not included in the per sq.ft. cost for the building only). In the 2023 study, all of the aforementioned costs are now included in the building cost and the “bump-ups” to provide for the all-in replacement costs only include land.

13. The LOS inventory for Recreation Facilities includes three meeting rooms from condominium buildings, including Signature Tao (8763 Bayview), Xpressions Condo (9471 Yonge) and The Beverly Hills Condo (9251 Yonge) – what is the basis for including these in the LOS inventory – does the City own or lease these spaces?

    The City owns the meeting rooms identified above and have been acquired through Section 37 agreements of the *Planning Act* (prior to C.B.C. enactment). This space has been constructed and dedicated to the City for recreational use, and therefore can be included in the recreation service standard. The cost

included in the service standard represents renovation to the facility only, and excludes the cost of the unit.

Library

14. When does the City anticipate having a Library Master Plan completed to identify the specific growth related capital needs?

    The Library Master Plan is completed in its draft form and was approved by the Library Master Plan Steering Committee. The Richmond Hill Library Board is expected to endorse the Plan in Q2 of 2024.

15. The 2019 DC Study identified $12.3 million in capital costs for a "Central Library Addition" and $8.7 million for a Richmond Hill Centre Branch, with each having a BTE allocation, and the latter having a PPB allocation for a net amount included in the DC of $12.7 million. By contrast, the 2023 DC Study provides no specifics, and includes $44.0 million in the DC rate calculations.

    Assuming that the same library projects are embedded in the 2023 DC Study and similar deductions would apply, have the project costs for the Central Library Addition and Centre Branch increased by 246% since 2019?

    The cost identified is a provisional cost related to growth-related needs only. This cost estimate is based on information provided by the Library Master Plan consultants. The cost estimate includes the above projects in the 2019 study, in addition to others. These details would be provided in the master plan, however, the costs included in the D.C. relate to the growth-portion only (i.e. any costs related to replacement or renovation of an existing space are not captured here).

Roads

16. Why has the cost of the Highway 404 Overpass north of 16th Avenue increased from $2.3 million in the 2019 DC Study (project #32) to $22.8 million in the 2023 DC Study (project #32)?

    In the 2019 DC, the cost for Highway 404 Overpass north of 16th Avenue includes Project #31 for construction ($14,880,400) and Project #32 for land ($2,301,800). The total cost for this overpass in 2019 DC was $17,182,200.

    The cost for the Highway 404 overpass north of 16th was updated in alignment with the approved 2022 York Region DC Study which estimates the total cost to be $68,584,000. The City's portion is 1/3 of this total cost.

17. What is the basis for the increase in Land Acquisition from $26.9 million in the 2019 DC Study to $135 million in the 2023 DC Study?

In the 2019 DC, the Provision for Land Purchases (Project #47, $26,879,300) does not include those land acquisition costs which were captured separately under each project (e.g., land cost of $9.2 million for Project #20).

In the 2023 DC, the total Land Acquisition cost is listed as one-line item for road projects, i.e., land costs were removed from each project and sum up as the total Land Acquisition cost based on the latest unit rates from the 2023 Antec Land Rate Study Report.

18. Do any of the projects from #1 to 20 include land acquisition assumptions in the project costs?

    No. Please see our response for Comment No 17.

19. Can the City provide details on the recent trends in land acquisition costs incurred by the City over the past 5 years?

    Richmond Hill engaged a third-party consultant, Antec Appraisal Group, to prepare a 2023 Land Rate Study. This study was utilized to estimate the land values associated with capital projects (as required) included in the 2024 Development Charges Background Study. Attachment 2, is an extract from the 2023 Land Rate Study, which demonstrates the estimate land value by area and type of development used in the DC Background Study. Note that the study was dated to June 31, 2023 in which market conditions were not as favorable to the anticipated future land value, as a result this land study is a conservative estimate of land values within the boundaries of Richmond Hill.

20. Can the City provide details on the quantity of land conveyed to the City via Planning Act dedication over the past 5 years?

    We seek clarification with respect to this question. This is a very broad request given there are a number of site plan/subdivision agreements which provide for a variety of Planning Act dedications. This is a large request and we would seek to narrow down the question in order to understand what land dedications are specifically requested.

21. What costs are included in the $78 million in “AT Bridges” included in projects 39 to 49?

    The cost was based on the City's available construction cost estimate for a pedestrian and cycling bridge over CN Rail done in 2023.

22. What is the nature of “York Region Boulevard Improvements” which are included at a cost of $107.1 million?

    The City is responsible for AT infrastructure and illumination upgrades along York Region’s corridors. The projects under this category were developed by the City

based on the York Region 2022 TMP Study. City staff reviewed each project with reference to existing conditions, EAs, D.C.s, and the TMP to determine the required AT and illumination improvements in terms of Sidewalks, Bicycle Facilities, and Illumination.

23. What is the difference between project #38 “Sidewalks on Collector Roads” with a cost of $20.3 million and the $10.5 million “Sidewalk Program” (project #53)?

    The “Sidewalks on Collector Roads” (Project #38, $20.3 million) are for existing collector roadway segments where sidewalk and illumination are not available. The “Sidewalk Program” (Project #53, $10.5 million) is for sidewalk infill projects delivered by the City, on public right-of-way, in order to facilitate key connections throughout the network and increase sustainable transportation mode share.

24. What is the basis for the value assigned to collector roads, which have increased from 172% to 181% since the 2019 DC Study, while arterial roads and industrial collector roads have increased 59% to 61%?

    The 2023 value ($/km) includes the updated road construction benchmark costs and Right-of-Way property value.

    The road construction benchmark costs represent the cost for a curb-to-curb construction, which were estimated on a per kilometre basis using the unit prices for basic construction items, plus other infrastructure items within the Right-of-Way (ROW) such as multi-usage path (MUP), bicycle facilities, sidewalks, illumination, landscaping, etc.

    Unit prices for basic construction items were developed based on recent construction tender data provided by the City between 2016 and 2022, with an annual construction price index of 9.9% applied to historical prices.

    The Right-of-Way property value for each road type was estimated considering:

    - Adjacent Land Use’ for each roadway segment derived from City’s EAM database
    - Verified existing ROW for each roadway segment based on City’s EAM database
    - The latest unit rates for different land use types (per the 2023 Land Use Rate Study).

    The rise in roadway value is primarily attributed to increased unit prices for basic construction items and higher land use rates for various land use types. The difference in percent increases between industrial, arterial and collector roads is due to multiple reasons. Land cost/km for arterial and industrial collector are generally lower than collector roads, since collector roads generally serve

residential areas which have higher land use rates. Also, the ROW for arterial roads in the City can be constrained in some areas such as in the Village section (as low as 20m).

25. Can a breakdown be provided that shows the proportion of the LOS inventory values per km of road that relate to underlying land value?

    See breakdown below:

Description	2023 Land cost (per CL km)	2023 Value ($/km)	2023 Value ($/km) - Including Land
2 Lane Collector	$30,501,000	$6,668,000	$37,200,000
4 Lane Collector	$35,163,000	$7,764,000	$42,900,000
Industrial Collector	$18,388,000	$8,124,000	$26,500,000
Arterial	$24,016,000	$7,861,000	$31,900,000

26. Understanding that the project costs are fully allocated to PPB and BTE, can details for the five "Structures" projects be provided to understand what is included in the $60 million cost for each?

    The costs for rail crossing grade separations were estimated based on 'Rail Crossing Grade Separation Prioritization Study - 2016' conducted for the City of Richmond Hill and adjusted to 2023 values.

27. What is the rationale for the 0% BTE applied to the two Highway Overpass projects - #32 north of 16th Avenue and #33 north of Major Mackenzie, given that each would appear to provide a key link for already established communities on both the east and west sides of Highway 404?

    Both the highway overpass projects are growth-driven. The 0% BTE allocation is similar to the new road/ road extension projects, as they are needed for the future development. It should be noted that BTE – is not a measure of usability – simply because the Highway Overpass will also be used by the existing population does not give rise to a BTE. The service level is an important indicator which show that the future level of services are expected to deteriorate with the future development. The project need is arising due to the Growth.

    It is important to note that the Highway Overpass has been included in several of the past D.C. studies (2009, 2014, and 2019) with 0% BTE allocation, carried forward from previous versions, and growth has been approved with the expectation for these projects.

The BTE allocation for these projects also aligns with York Region's 2022 DC Study.

28. The Intersection Improvement projects appear to have two types of projects – some at $799,500 per intersection (projects 21 and 22) and others at $520,000 per intersection (projects 23, 24, and 25). What is the reason for the difference in project costing?

    Project #21 and #22 are for intersections with geometric improvements (e.g., additional turning lanes).

    Project #23-#25 are for intersections with traffic signal improvements (e.g., installing new traffic signals).

29. What is the rationale for the 20% BTE applied to both the East Beaver Creek Road and West Beaver Creek Road segments (each from Leslie to Highway 7)? What is the nature of these projects?

    Both projects are road widening projects with 20% BTE. The BTE allocation was estimated based on the road resurfacing cost for the existing road compared to the total construction cost of the widening.

Water/Wastewater

30. In Table 5-4, can an explanation be provided for how the value in the "Existing Pipe Related to BTE" column is greater than 100%?

    This was an error in the calculation. The formula in the table calculates the remaining life of the existing pipe based on the year of installation and the expected useful life of the pipe. In these cases, the pipes have exceeded their useful lives, which resulted in a negative remaining useful life. These negative amounts should have been overridden to be zero. This error will be adjusted in an addendum report.

31. In Table 5-4, can an explanation be provided for how the value in the "% of Pipe Cost Related to Upsizing" be a negative value (-35%) for project WW-10?

    See response below – the error in the unit costing led to a negative value for the percentage. This error will be adjusted in an addendum report.

32. How is the cost per metre of the new 600mm pipe WW-10 less than the cost for the 450mm pipe?

    We have discovered an error and the unit price for the 600mm pipe for WW-10 will be increased from $2,101 to $3,283 per meter. With this change the cost of the 600mm pipe will be greater that the cost of the 450mm pipe. This will be revised in the addendum report.

33. Can the detailed information regarding expected useful life and year of replacement data used to calculate the amounts in the column titled "Total Cost of Existing Pipe" be provided for both Tables 5-4 and 5-5?

    This is provided as Attachment 3, however, as noted in the responses above to 30 and 31, there are a couple of projects past their useful lives. These formulas have been adjusted and will be reflected in the Addendum report.

34. The costing for 250mm pipes in Table 5-5 varies from $4,240/m (project W6.2), $2,961/m (project W7.1), $2,765/m (W9.1). Similarly, the costs for the 150mm pipes vary from $1,368/m to $2,102/m. What is the rationale for the variable unit costs?

    The variation in units costs reflect that a portion of these projects require a horizontal directional drilling method of installation.

35. What is the difference between projects 11.2 and 11.3, both of which are 300mm watermains, each located on "Yonge Street East Side north of Clarissa Dr." – is the one that is 'new' twinning the one that is being replaced? A similar issue appears in projects 14.1/14.2/14.3.'

    Project 11.2 is for a new 300mm watermain and Project 11.3 is for replacement of a 150mm watermain with a 300mm watermain. Project 14.1 is for replacement of a 150mm watermain with a 300mm watermain, Project 14.2 is for a new 300mm watermain, and Project 14.3 is for replacement of a 150mm watermain with a 300mm watermain.

Population, Household and Employment Forecasts

36. The forecast PPU based on Schedule 7 show the calculated 25-year historic average, which is then adjusted, resulting in a 25-year forecast of PPUs by unit type. The effect of these adjustments is fairly minimal and was also limited in its effect in the 2019 DC Study for all unit types. However, for apartment units in the 2023 DC Study, the adjustment is significant – can the rationale for the scale of the adjustment be provided?

    For the purposes of the 2023 D.C. Background Study growth forecast, new housing unit P.P.U.s are based on 2021 custom Census data for the City of Richmond Hill by housing type, as identified in Appendix A - Schedule 7 of the City of Richmond Hill DCBS. The total calculated P.P.U.s are based on a 20-year average P.P.U. adjusted for historical P.P.U. trends by dwelling type in accordance with Statistics Canada Census data.

    As part of the 2023 D.C. Background Study Watson also undertook a comprehensive assessment of the City's key demographic and socio-economic trends, and housing development opportunities to inform housing occupancy

trends. The analysis identified that the City will experience continued growth in non-Census-family and one-person households associated with both older seniors as well as young urban professionals. These demographics are expected to be occupied largely in high-density housing forms. These trends are anticipated to place downward pressure on the average number of people per household. These results also informed the high-density unit new unit P.P.U.

Attachment 1
Reserve Fund Commitment Details

Engineering	Adjustment ($)
Viva Next BRT Yonge Street	(112,887)
New North - South Road EA	(391,755)
Oxford / Direzze Trail - Design	(187,081)
Addison Extension EA	(470,500)
Elgin Mills Grade Seperation Prelim Study	(200,000)
Red Maple Rd. EA	(164,569)
Flood Remediation Project	(2,184,082)
Bethesda Sideroad Reconstruction (Road)	(492,108)
Hwy 404 MBC-N of 16-Land Acquisition	(5,433,712)
Traffic Signal - W Beaver Creek Rd & Wes	(195,044)
Hwy 404 MBC-N of 16-EA & Design	(16,258,367)
Hwy404 MBC-N of Elgin Mills/Major Mac	(1,009,413)
Garden Avenue EA (Yonge to Bayview)	(541,000)
UMESP San Improv Proj WW-2-Yonge St	(882,900)
UMESP Water and Sanitary Improvements	(2,434,400)
2023 Pedestrian Crossings PXO	(114,757)
Garden Ave. EA - Yonge to Bayview	500,000
Geometric Improvement - Valleymede Dr and Highway 7	(350,000)
Traffic Signal Red Maple S of High Tech	(1,600,000)
Urban MESP Update Study	(600,000)
Transportation DC Study Update	(100,000)
Transportation Master Plan Update	(600,000)
Traffic Safety and Operations Study Update	(200,000)
Transportation Demand Management Strategy	(210,000)
Official Plan Part 2	(324,000)
16th Ave./Red Maple Staircase	(127,500)
Yonge & Bernard - Servicing Agreement (L03-19005)	(1,333,056)
UMESP Sanitary Improvement Project WW-14	(530,249)
Viva Next BRT Yonge St	115,887
Other Adjustments	(155,136)
Sub-Total Reserve Fund Adjustment	**(36,586,629)**
Fire	**Adjustment ($)**
Land for Station VII	(1,500,000)
Other Adjustments	(168,359)
Sub-Total Reserve Fund Adjustment	**(1,668,359)**
Public Works	**Adjustment ($)**
Operation Centre Master Plan I	(548,960)
3 Ton Stake Truck with Salter	(108,200)
Single - Axle Truck with Plow Blade and W	(390,800)
Sidewalk machines - Fleet	(152,300)
Operation Centre Master Plan	248,960
Other Adjustments	13,011
Sub-Total Reserve Fund Adjustment	**(938,289)**

Attachment 1 (Cont'd)

Parks and Recreation	Adjustment ($)
Ed Sackfield - Commissioning / Closing Out	(2,072,856)
Oxford/Direzze Trail - Design	(149,863)
Lake Wilcox Youth Area	(123,632)
RH David Dunlap Observatory Park	(1,294,922)
Private Charles Hill Park	(103,291)
Dove Park	(1,754,840)
Bridgeview Park	(305,351)
Harding Park Revitalization	(155,958)
Great Lands Interim Local Park – D and C	(130,652)
Soccer Dome - Feasibility Study	(150,000)
Community Space - Xpression Condos	(787,500)
Other Adjustments	23,640
Sub-Total Reserve Fund Adjustment	**(7,005,224)**
Library	**Adjustment ($)**
Collection Development	(619,344)
2022 Digital Strategy Support	(138,153)
Library	(225,000)
Ed S. - Commissioning / Closing Out	(189,388)
Oak Ridges Library - commissioning	174,077
Other Adjustments	(257,315)
Sub-Total Reserve Fund Adjustment	**(1,255,123)**
Total Reserve Fund Adjustments	**(49,154,223)**

Attachment 2
Excerpt from Antec Land Rate Study

2023 Land Rates

Based on our market research and analysis, it is our opinion that the land rates for the described land use categories tabled below, as of June 31, 2023, is estimated as follows:

Land Use Category	Low ($/ac)	High ($ac)	2023 Land Rate
Residential Low Rise			
Richmond Hill "Outside" ORA	$3,500,000 / ac	$4,500,000 / ac	$4,000,000 / ac
Oak Ridges Area	$3,000,000 / ac	$4,000,000 / ac	$3,500,000 / ac
Residential Serviced Lots			
Richmond Hill "Outside" ORA	$25,000 / front ft.	$27,000 / front ft.	$26,000 / front ft.
Oak Ridges Area	$21,500 / front ft.	$22,500 / front ft.	$22,000 / front ft.
Residential Townhouse Land			
Richmond Hill "Outside" ORA	$6,000,000 / ac	$7,000,000 / ac	$6,500,000 / ac
Oak Ridges Area	$5,500,000 / ac	$6,500,000 / ac	$6,000,000 / ac
Residential High-Rise Land			
Yonge/Carrville/16th Ave KDA	$260/psf	$300/psf	$280/psf
Yonge Street Corridor - South	$300/psf	$350/psf	$325/psf
Yonge Street Corridor - North	$160/psf	$170/psf	$165/psf
Outside Yonge Street Corridor	$190/psf	$210/psf	$200/psf
Yonge/Bernard KDA	$115/psf	$125/psf	$120/psf
Industrial / Employment Land			
Leslie/404 Industrial Corridor	$2,750,000 / ac	$3,250,000 / ac	$3,000,000 / ac
Commercial / Retail Land			
Richmond Hill	$2,500,000 / ac	$3,000,000 / ac	$2,750,000 / ac

Attachment 3
U.M.E.S.P. Costing Details

U.M.E.S.P. Project #	Anticipated Timing as per MESP	Description	Location	From	To	Existing Pipe Size (mm)	New Pipe Size (mm)	Year of Install of Existing Pipe Size	Useful Life of Existing Pipe (Years)	Remaining Life of Existing	Length (m)	Cost (2023$)	Cost/m of Existing Pipe	Cost/m of New Pipe	Difference in Cost/m of pipe	Total Cost of Existing Pipe 2023$	Exisitng Benefit of Existing Pipe 2023$	% of pipe cost related to upsizing/new	$ of pipe cost related to upsizing/ new	$ of pipe cost related to existing	$ of Existing Pipe related to BTE for DC	$ of Existing Pipe related to Growth
WW-1	2041	Sewer Upgrade	King Road and Shomberg Road	on King Street	on Schomberg Road	250	375	1988	75	40	208	$855,092	$2,553	$3,009	$456	$532,129	$248,327	15%	$129,559	$725,533	$338,582	$386,951
WW-1	Post 2051	Sewer Upgrade	King Road and Shomberg Road	on King Street	on Schomberg Road	250	300	1988	75	40	262	$810,031	$2,553	$2,590	$36	$668,480	$311,958	1%	$11,409	$798,622	$372,690	$425,932
WW-2	2041	New Pipe	Yonge Street	Muirhead Crescent	Jefferson Sideroad		450	new			559	$2,444,174			$0	$0	$0	100%	$2,444,174	$0	$0	$0
WW-3	2041	New Pipe	Yonge Street north of Harris Avenue	on Yonge Street	Harris Avenue		250	new			145	$581,355			$0	$0	$0	100%	$581,355	$0	$0	$0
WW-3	Post 2051	Sewer Upgrade	Grange Drive and townwood Drive	on Grange Drive	on Townwood Drive	250	300	2004	75	56	369	$1,145,080	$2,553	$2,590	$36	$942,205	$238,692	1%	$16,128	$1,128,952	$286,001	$842,951
WW-4	2041	New Pipe	Yonge Street	NA	NA		250	new			121	$381,896			$0	$0	$0	100%	$381,896	$0	$0	$0
WW-5	2041	New Pipe	Yonge Street	NA	NA		250	new			49	$205,766			$0	$0	$0	100%	$205,766	$0	$0	$0
WW-6	2041	New Pipe	Yonge Street	NA	NA		300	new			115	$401,508			$0	$0	$0	100%	$401,508	$0	$0	$0
WW-7	2041	Sewer Upgrade	Industrial Road and Beechy Drive	Yonge Street/Industrial Road	Beechy Drive/Newkirk Road	250	375	1965	75	17	816	$3,090,110	$2,553	$3,009	$456	$2,084,086	$1,611,693	15%	$468,198	$2,621,912	$2,027,612	$594,300
WW-8	2041	Sewer Upgrade	Yonge Street	Levendale Road	Dunlop Street	300	450	1935	75	0	197	$629,633	$2,590	$2,827	$237	$510,465	$510,465	8%	$52,808	$576,825	$576,825	$0
WW-8	2041	Sewer Upgrade	Yonge Street	Levendale Road	Dunlop Street	300	525	1935	75	0	230	$828,454	$2,590	$3,192	$602	$594,895	$594,895	19%	$156,223	$672,231	$672,231	$0
WW-8	Post 2051	Sewer Upgrade	Yonge Street	Levendale Road	Dunlop Street	300	375	1935	75	0	109	$369,983	$2,590	$3,009	$419	$281,779	$281,779	14%	$51,573	$318,410	$318,410	$0
WW-8	Post 2051	Sewer Upgrade	Yonge Street	Levendale Road	Dunlop Street	300	450	1935	75	0	58	$184,961	$2,590	$2,827	$237	$149,954	$149,954	8%	$15,513	$169,448	$169,448	$0
WW-9	Post 2041	Sewer Upgrade	Wright Street	Hall Street	Yonge Street	250	375	1935	75	0	175	$595,442	$2,553	$3,009	$456	$447,101	$447,101	15%	$90,218	$505,224	$505,224	$0
WW-9	Post 2051	Sewer Upgrade	Wright Street	Hall Street	Yonge Street	250	375	1935	75	0	91	$310,133	$2,553	$3,009	$456	$232,870	$232,870	15%	$46,990	$263,143	$263,143	$0
WW-10	2041	Sewer Upgrade	Dunlop Street and Church Street	Yonge Street	Centre Street East	375	600	1973	75	25	120	$442,746	$3,009	$3,283	$274	$359,619	$239,746	8%	$36,896	$405,851	$270,567	$135,284
WW-10	2041	Sewer Upgrade	Dunlop Street and Church Street	Yonge Street	Centre Street East	450	600	1973	75	25	225	$833,576	$2,827	$3,283	$456	$635,222	$423,482	14%	$115,774	$717,802	$478,534	$239,267
WW-11	2041	Sewer Upgrade	Centre Street East and Pugsley Avenue	Church Street	Major Mackenzie Drive East	300	525	1979	75	31	380	$1,357,603	$2,590	$3,192	$602	$984,154	$577,370	19%	$256,005	$1,101,598	$646,271	$455,327
WW-11	Post 2041	Sewer Upgrade	Centre Street East and Pugsley Avenue	Church Street	Major Mackenzie Drive East	450	600	1979	75	31	68	$238,247	$2,827	$3,283	$456	$192,235	$112,778	14%	$33,090	$205,157	$120,359	$84,798
WW-11	Post 2051	Sewer Upgrade	Centre Street East and Pugsley Avenue	Church Street	Major Mackenzie Drive East	450	600	1979	75	31	399	$1,393,934	$2,827	$3,283	$456	$1,127,965	$661,739	14%	$193,602	$1,200,332	$704,195	$496,137
WW-12	2041	Sewer Upgrade	Major Mackenzie Drive East	Bayview Avenue	Essex Avenue	375	525	1975	75	27	300	$1,083,446	$3,009	$3,192	$182	$904,013	$578,569	6%	$61,911	$1,021,535	$653,782	$367,753
WW-12	Post 2051	Sewer Upgrade	Major Mackenzie Drive East	Bayview Avenue	Essex Avenue	250	300	1975	75	27	233	$681,889	$2,553	$2,590	$36	$594,942	$380,763	1%	$9,604	$672,285	$430,262	$242,023
WW-12	Post 2051	Sewer Upgrade	Major Mackenzie Drive East	Bayview Avenue	Essex Avenue	250	375	1975	75	27	84	$284,969	$2,553	$3,009	$456	$213,975	$136,944	15%	$43,177	$241,792	$154,747	$87,045
WW-12	Post 2051	Sewer Upgrade	Major Mackenzie Drive East	Bayview Avenue	Essex Avenue	375	450	1975	75	27	223	$712,690	$2,572	$2,827	$255	$573,733	$367,189	9%	$64,372	$648,318	$414,924	$233,394
WW-13	2041	Sewer Upgrade	Addison Street, May Avennue, Weldrick Road West and Springhead Gardens	Addison Street	Kitsilano Crescent	250	375	1973	75	25	94	$348,714	$2,553	$3,009	$456	$240,020	$160,013	15%	$52,835	$295,879	$197,252	$98,626
WW-13	2041	Sewer Upgrade	Addison Street, May Avennue, Weldrick Road West and Springhead Gardens	Addison Street	Kitsilano Crescent	300	450	1973	75	25	452	$1,442,950	$2,590	$2,827	$237	$1,169,848	$779,899	8%	$121,022	$1,321,928	$881,286	$440,643
WW-13	2041	Sewer Upgrade	Addison Street, May Avennue, Weldrick Road West and Springhead Gardens	Addison Street	Kitsilano Crescent	375	525	1973	75	25	176	$714,982	$3,009	$3,192	$182	$529,949	$353,299	6%	$40,856	$674,126	$449,417	$224,709
WW-13	2051	Sewer Upgrade	Addison Street, May Avennue, Weldrick Road West and Springhead Gardens	Addison Street	Kitsilano Crescent	250	375	1973	75	25	78	$288,988	$2,553	$3,009	$456	$198,910	$132,607	15%	$43,786	$245,202	$245,202	$0

Attachment 3 (Cont'd)
U.M.E.S.P. Costing Details

U.M.E.S.P. Project #	Anticipated Timing as per MESP	Description	Location	From	To	Existing Pipe Size (mm)	New Pipe Size (mm)	Year of Install of Existing Pipe Size	Useful Life of Existing Pipe (Years)	Remaining Life of Existing	Length (m)	Cost (2023$)	Cost/m of Existing Pipe	Cost/m of New Pipe	Difference in Cost/m of pipe	Total Cost of Existing Pipe 2023$	Exisitng Benefit of Existing Pipe 2023$	% of pipe cost related to upsizing/new	$ of pipe cost related to upsizing/ new	$ of pipe cost related to existing	$ of Existing Pipe related to BTE for DC	$ of Existing Pipe related to Growth
WW-14	2041	New Pipe	Addison Street, Yonge Street, palmer Avenue	Addison Street	Harding Blvd		375	new			462	$1,800,114			$0	$0	$0	100%	$1,800,114	$0	$0	$0
WW-15	Post 2051	Sewer Upgrade	Cedar Avenue	Fox Run Crescent	on Cedar Avenue	200	300	1974	75	26	288	$841,679	$1,678	$2,590	$912	$482,578	$315,284	35%	$296,366	$545,313	$545,313	$0
WW-16	Post 2051	Sewer Upgrade	Baif Boulevard	Yonge Street	Springhead Gardens	250	375	1973	75	25	273	$929,379	$2,553	$3,009	$456	$697,844	$465,230	15%	$140,815	$788,564	$788,564	$0
WW-16	Post 2051	Sewer Upgrade	Baif Boulevard	Yonge Street	Springhead Gardens	300	375	1973	75	25	69	$235,320	$2,590	$3,009	$419	$179,220	$119,480	14%	$32,802	$202,518	$202,518	$0
WW-17	Post 2051	Sewer Upgrade	Carrville Road	Yonge Street	Duncombe Lane	300	375	1977	75	29	976	$3,320,329	$2,590	$3,009	$419	$2,528,757	$1,550,971	14%	$462,834	$2,857,495	$2,857,495	$0
WW-18	2041	New Pipe	Dalemount Gate	Yonge Street	Ellesmere Street		300	new			33	$148,879			$0	$0	$0	100%	$148,879	$0	$0	$0
WW-18	Post 2051	Sewer Upgrade	Dalemount Gate	Yonge Street	Ellesmere Street	250	300	1997	75	49	46	$158,796	$2,553	$2,590	$36	$117,456	$40,718	1%	$2,237	$156,559	$156,559	$0
WW-19	Post 2051	New Pipe	Yonge Street, High Tech Road and Red Maple Road	Yonge Street	Red Maple Road			new			1,071	$5,997,674			$0	$0	$0	100%	$5,997,674	$0	$0	$0
WW-20	Post 2051	Sewer Upgrade	East Beaver Creek Road	York Blvd	East Pearce St	250	300	1982	75	43	114	$332,457	$2,553	$2,590	$36	$290,066	$123,762	1%	$4,682	$327,775	$139,850	$187,924
WW-20	Post 2051	Sewer Upgrade	East Beaver Creek Road	York Blvd	East Pearce St	300	450	1982	75	43	251	$983,263	$2,590	$3,465	$875	$650,318	$277,469	25%	$248,403	$734,860	$313,540	$421,320
Grand Total												**$41,148,532**							**$15,365,008**	**$25,783,524**	**$18,606,362**	**$7,177,162**