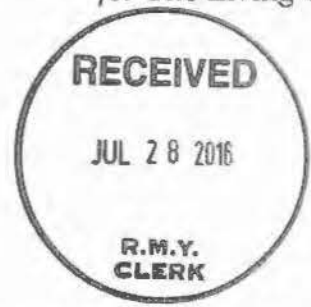


P19

Chief
Executive
Officer



Toronto and Region
Conservation
for The Living City



July 21, 2016

Mr. Denis Kelly
Regional Clerk, Corporate Services
Regional Municipality of York
17250 Yonge Street, P.O. Box 147
Newmarket, ON L3Y 6Z1

Re: Approval of a Project for the Construction of an Administrative Office Building for Toronto and Region Conservation Authority, 5 Shoreham Drive, Toronto (Project)

Dear Mr. Kelly:

At Authority Meeting #5/16, held on June 24 2016, Resolution #A85/16 approved the above-noted Project and directed Toronto and Region Conservation Authority (TRCA) staff to submit formal requests to each of TRCA's member municipalities for approval by their respective Councils of the Project and funding contributions as described in the Project.

TRCA recognizes the challenging financial climate of our member municipalities. There is never a good time to request financial assistance for a headquarters building. However, extensive analysis over many years has shown that the most cost effective solution for TRCA is ownership of its head office rather than to lease commercial space. In order to reduce the amount of additional municipal Project contributions, TRCA is proposing to apply existing funding from within approved capital levy allocations (Major Facilities Project); seek provincial approval in order to contribute land disposition proceeds; and apply for provincial and federal grants.

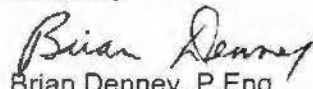
If the Project is to proceed, TRCA will require a Council resolution from each of the participating municipalities that clearly approves the Project and funding contributions therein. This is required to satisfy the terms of bank financing and to secure provincial approval of the Project.

We have enclosed the following documents: Resolution #A85/16 and associated TRCA staff report; and TRCA Head Office Project Executive Summary.

Therefore, we respectfully request that Region staff bring forward a report to Council whereby Council support of the Project will be considered including the provision of funding contributions as described in the Project. TRCA staff welcomes an opportunity to work with Region staff on the structure of the resolution so that we can ensure it meets the bank's requirements.

TRCA staff is available to answer any questions, provide further information and upon request, attend Council meetings to delegate. We thank you in advance for your consideration of TRCA's request. Please contact me at 416-667-6290 (bdenney@trca.on.ca) should you have any questions or require any additional information.

Sincerely,


Brian Denney, P.Eng
Chief Executive Officer

cc: Bill Hughes, Commissioner of Finance and Treasurer, Regional Municipality of York

/Encl.

**Project for the Construction of a Toronto and Region Conservation Authority (TRCA)
Administrative Office at 5 Shoreham Drive (Project)**

Executive Summary – July 19, 2016

Document Purpose

The purpose of this document is to summarize TRCA's analysis of head office accommodation solutions and to support Region of York staff in the drafting of a report to Council that will result in a resolution to consider approval of the Project and required funding contributions.

Supporting Figures and Tables

Table 1: Financial and Benefit Summary of TRCA Head Office Accommodation Options

Table 2: Levy Apportionment by Municipality

Figure 1: Summary of Cumulative Future Value - Build vs. Lease (Bar Chart)

Figure 2: Summary of Cumulative Net Present Value - Build vs. Lease (Bar Chart)

Figure 3: Cumulative Future Value of Cash Flows – Build vs. Lease

Figure 4: Cumulative Net Present Value of Future Cash Flows – Build vs. Lease

Figure 5: Summary of Initial Capital Costs

Figure 6: Sources of Initial Capital Costs

TRCA Office Consolidation Plan

TRCA launched an office consolidation plan in 2015 to transition from eight to three administrative offices by 2021. This Plan assumes a conservative annual growth rate of 3% (TRCA's historic 10 year average is 3.8%), which is commensurate with the average 5.86% annual rate of growth in total TRCA revenues (and expenditures). Based on projected staff growth, TRCA's interim head office at 101 Exchange Avenue will exceed the required capacity by 2021.

Analysis of Build vs. Buy vs. Lease Office Accommodation Options

TRCA has considered three office accommodation options: 1) Build – construction of a new office at the location of our former head office at 5 Shoreham Drive; 2) Buy – purchase and retrofit an existing office building; and 3) Lease – continue to lease office space, which includes continuing operation of our interim head office at 101 Exchange Ave and one of our leased satellite offices, and by 2023 securing additional leased space (Option 3A) or securing a new, larger, leased facility in 2021 (Options 3B, 3C, 3D).

Since our evaluation of options began in 2015, one of the buildings (7777 Weston Road, Vaughan) TRCA was using as part of the Option 2 analysis no longer has sufficient space to meet TRCA requirements. TRCA has eliminated the other building we were considering as part of our evaluation of this option (33 Commerce Valley Drive, Markham). The justification for this decision is that the building is already 25 years old, requiring substantial upfront investment in order to be serviceable to TRCA; and the list price (\$18.5m) and the estimate to retrofit (\$37.5m) this building, exceeds the base building price estimate to build new (\$49.9m). Therefore, the balance of this analysis will now focus on build versus lease.

As part of the financial analysis of the remaining available options, mainly build versus lease, TRCA has outlined the entire cash outlay required from 2015 to 2071 to support our administrative office requirements on a complete life cycle basis. Each office accommodation option will result in 100,000 square feet of office space. Based on our analysis, the cash outlay is less under the build scenario than under the lease options (as presented in **Figure 1** and **Figure 2**). Furthermore, as presented in **Figure 3** (Future Value) **Figure 4** (Net Present Value), cumulative annual payments for the build new option decrease over time while they increase for the lease options. The build new option also has the added

advantage of achieving additional benefits that will not be realized by the alternative lease options, as presented in **Table 1**.

Table 1: Financial and Benefit Summary of TRCA Head Office Accommodation Options

Options	1: Build	3A: Lease Two Buildings at \$17 psf	3B: Lease Building at \$19 psf	3C: Lease Building at \$25 psf	3D: Lease Building at \$30 psf
TOTAL \$	\$198.1m	\$260.4m	\$284.8m	\$333m	\$373.2m
TOTAL \$ Net Present Value	\$97.3m	\$97.6m	\$108m	\$125.8m	\$140.6m
Benefit Ranking	1	2	3	3	3

Notes:

- 1) Benefit Ranking: each option is ranked according to their benefit profile, with 1 having the most associated benefit and 3 having the least degree of benefit. Considerations in the weighting are risks to TRCA over life of project; probability of multiple office relocations; building location; proximity to transit; compatibility with TRCA's consolidation plan; potential ability to influence staff productivity, retention, and satisfaction; utility cost savings; operational costs; maintenance costs and responsibility; asset at end of term; capital outlay; adaptability and efficiency of space; and demonstration of green technologies.
- 2) Option 3A is at the request of City of Toronto, and assumes the current interim head office at 101 Exchange Ave is one of the facilities (this option does not allow for full implementation of TRCA's office consolidation plan).

TRCA has concluded that similar to our municipal partners, a 100% ownership model is the most cost effective solution in the long term. Building at the 5 Shoreham Drive location will allow TRCA to maintain asset-ownership and reduce added cost and risks generally associated with a leasing option (i.e. potential for unfavourable and expensive lease terms; unsuitable working conditions; decreased levels of service delivery; lower workforce productivity; and staff retention). The Shoreham Drive location is beneficial to TRCA operations as it has convenient access to 400 series highways, is relatively central to our area of jurisdiction and is well serviced by transit and regional trail connections. Designing a purpose-built facility will allow TRCA to provide optimal customer service and support; and achieve accommodation standards for staff comparable to our regional and municipal partners, with a positive influence on staff retention. The office design will allow TRCA to consolidate staff, currently in multiple facilities to one central location to realize operational efficiencies by reducing travel time between TRCA offices, and allowing resource and staff sharing. The flexibility of the open concept floor plans will ensure that the office can accommodate growth, and be adapted to meet future staff and program requirements. Finally, since TRCA owns the lands the total project costs are impacted positively.

Designing and constructing a LEED Platinum certified building will result in a high quality building with greater long term value, lower operating costs and allow for public demonstration of corporate sustainability. By utilizing a wood and concrete hybrid structure TRCA can also demonstrate application of the recent changes to the Ontario Building Code to allow six-storey wood structure buildings in Ontario. Wood structure buildings have been proven to be a cost effective solution for mid-rise buildings and have many benefits as wood is a renewable resource, results in lower carbon emissions during production and construction, generates less construction related vehicular traffic, and it supports Ontario jobs, as evidenced by the letter of support from Ontario Wood WORKS! for TRCA's proposed building.

Preferred Solution – Initial Capital Costs

The maximum total Project capital cost is \$70,000,000 including contingency provision (**Figure 5: Summary of Initial Capital Costs**). Subject to budget deliberations, York Region contributions are proposed to be: \$2,249,625 (over 21 years) from within existing approved capital levy allocations to TRCA (Major Facilities Project); and \$10,605,474 (over 33 years – starting in 2017) in additional funding. It is important to highlight that TRCA will require additional funding from the Region, regardless of

whether TRCA continues-to-lease or builds a new office. The Region of York will not realize a cost saving if TRCA continues-to-lease, but will actually incur additional incremental costs greater than in the build new option.

Please refer to **Figure 6: Sources of Initial Capital Costs**; and **Table 2: Levy Apportionment by Municipality**.

Preferred Solution - Operating Costs

By 2022, the operating budget will include a provision of \$2 million per annum for operating costs including interest on borrowing. TRCA has assumed that operating costs and available operating funding from the participating municipalities will grow by an annual average factor of 2%.

Preferred Solution – Interest Costs

Debt servicing during construction is within the \$70,000,000 initial capital costs and is approximately \$870,000. TRCA has assumed provincial funding of \$10,000,000 and availability of cash flow in the amount of approximately \$15,000,000 to reduce the amount of Project debt during the construction phase. Upon substantial completion of the building, debt servicing will be covered through the operating budget, and is estimated to be approximately \$9,740,000.

Financing

TRCA has a preliminary financing proposal from a financial institution, which has quoted a loan interest rate of 3.2%. TRCA is receptive to the possibility of having a participating municipality borrow on its behalf on a cost recovery basis.

Project Delivery Method

TRCA engaged PwC to undertake a financial analysis and review of undertaking the Project via a traditional Design-Bid-Build (DBB) versus a Public Private Partnership (3P). The report concluded that there would be an additional \$27m (net present value) cost in the 3P model. From this analysis, TRCA concluded that there was not sufficient risk associated with the Project to make 3P an optimal solution and therefore proposes to utilize a more conventional process.

Next Steps

TRCA will require a council resolution from each of the participating municipalities that clearly approves the Project and funding contributions. This is required to satisfy the terms of bank financing and to secure provincial approval of the Project.

Figure 1: Summary of Cumulative Future Value - Build vs. Lease

Cost in millions
120

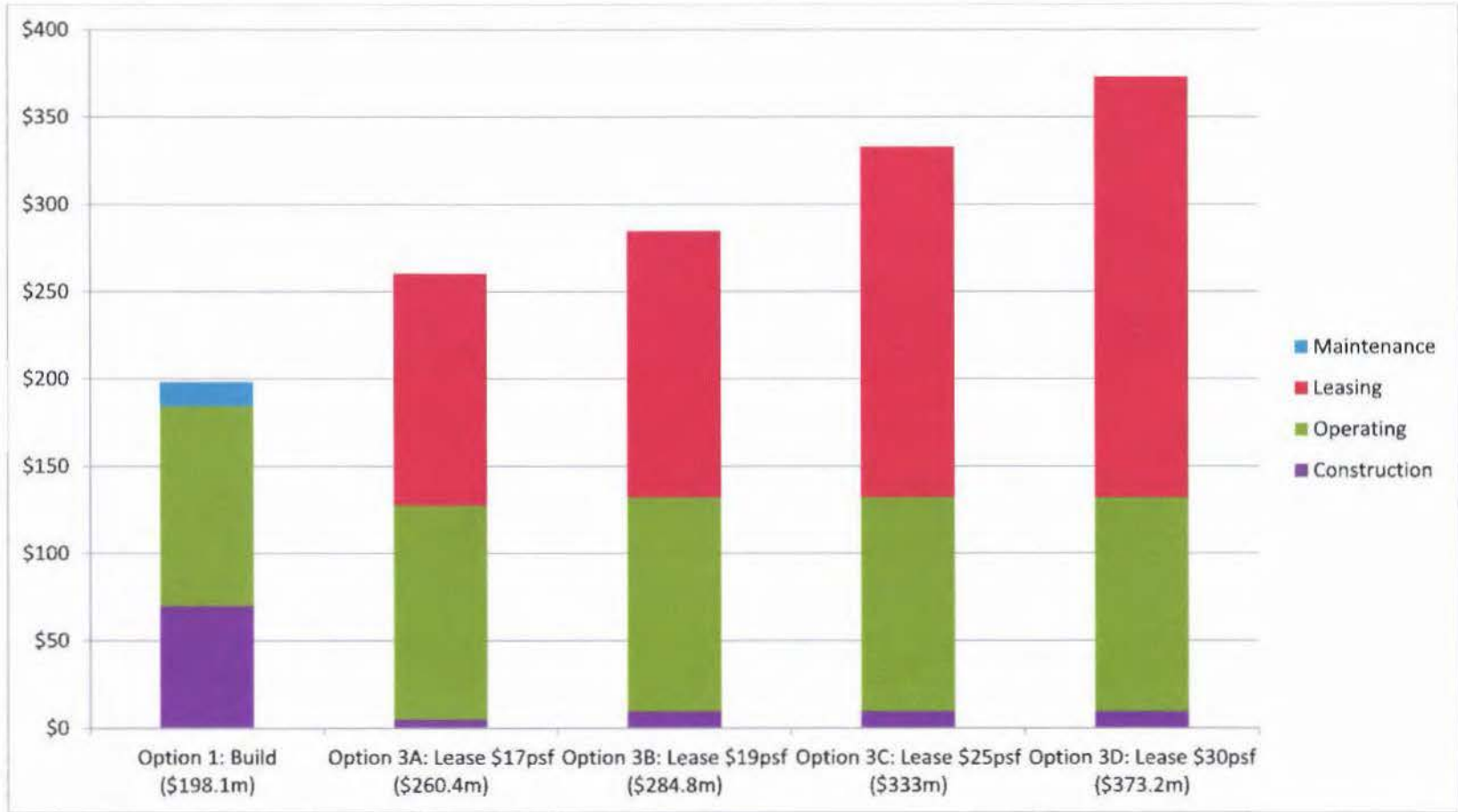
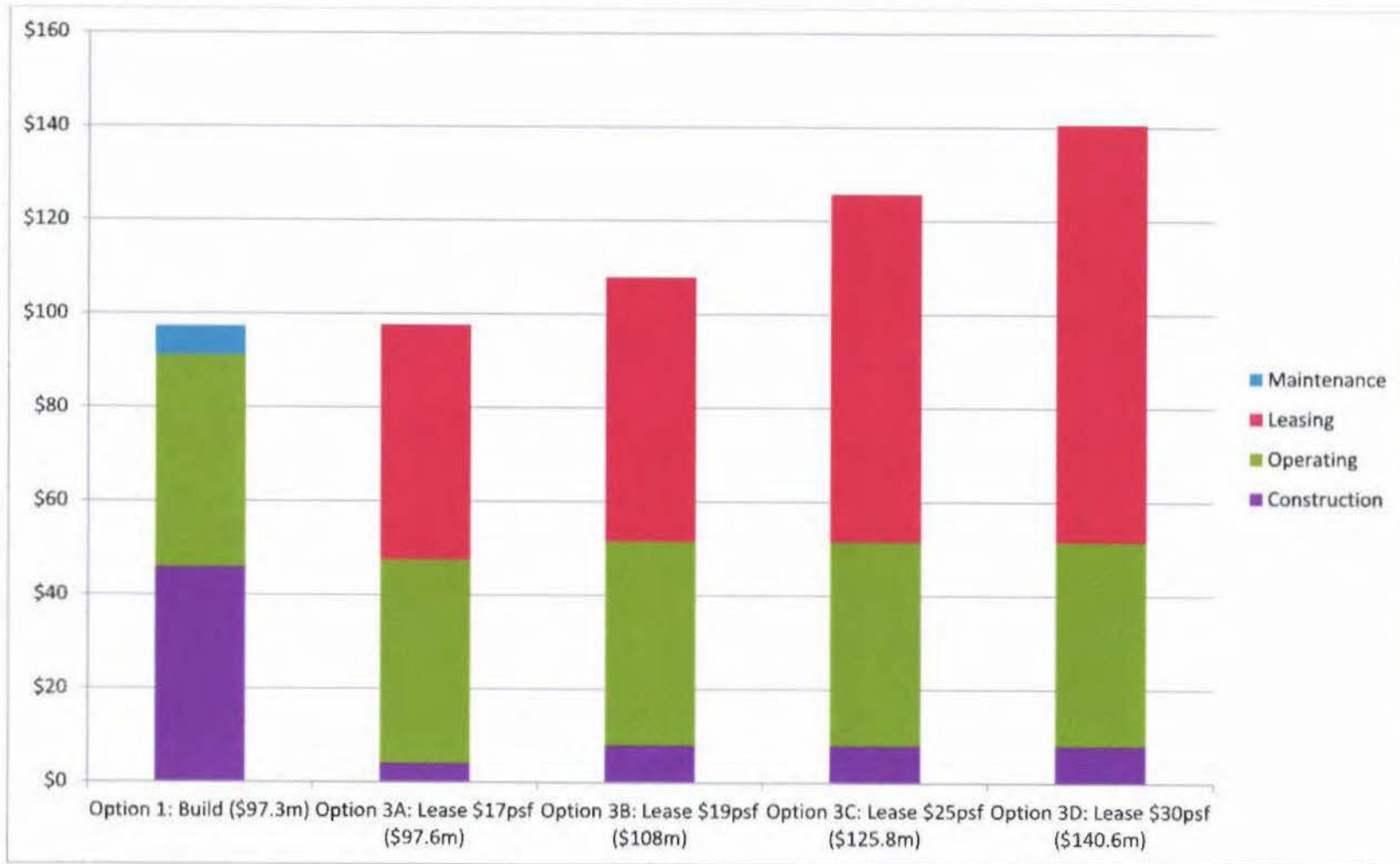


Figure 2: Summary of Cumulative Net Present Value - Build vs. Lease



Cost in millions
21

Figure 3: Cumulative Future Value of Cash Flows – Build vs. Lease



Figure 4: Cumulative Net Present Value of Future Cash Flows – Build vs. Lease

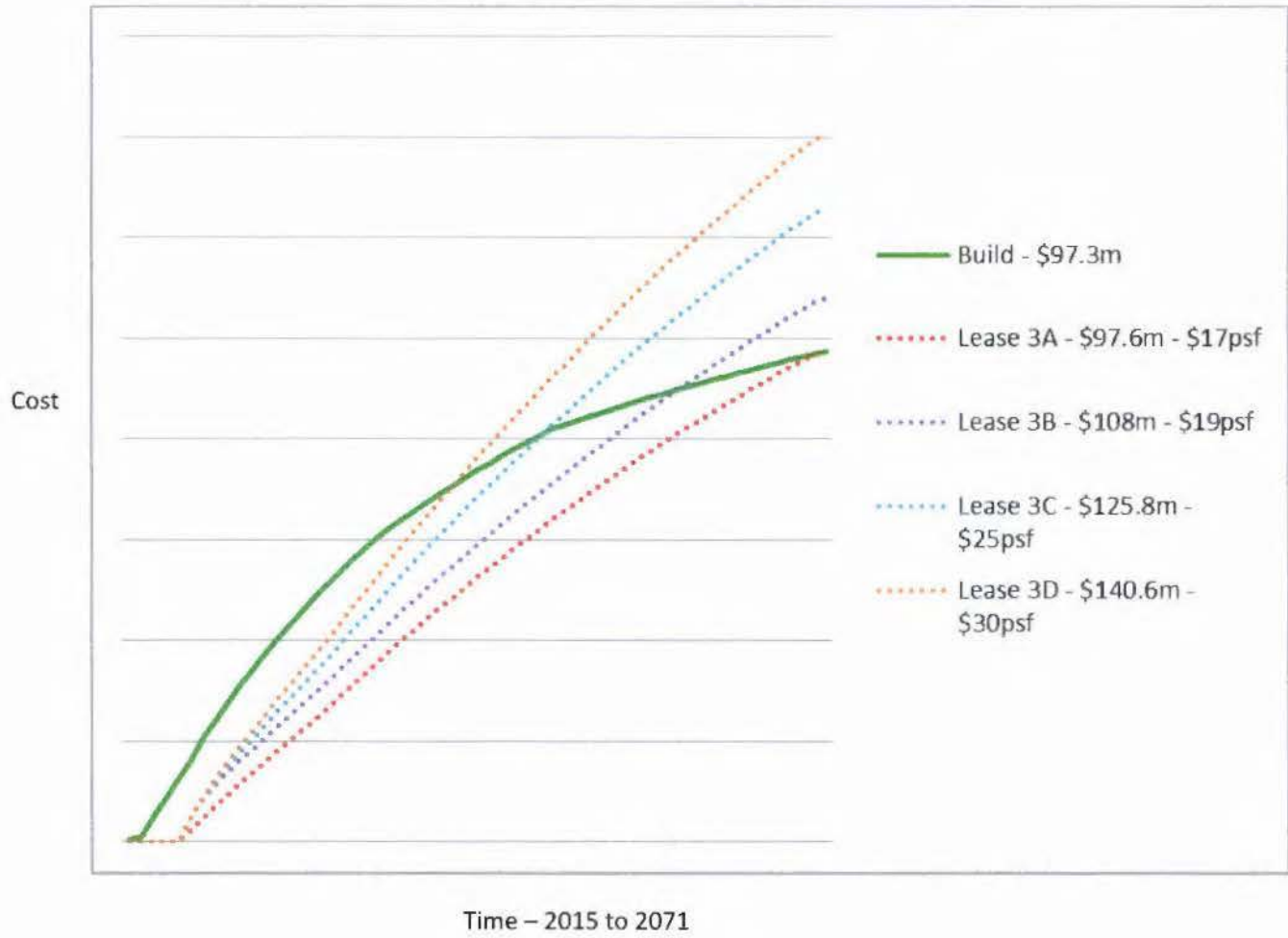


Figure 5: Summary of Initial Capital Costs

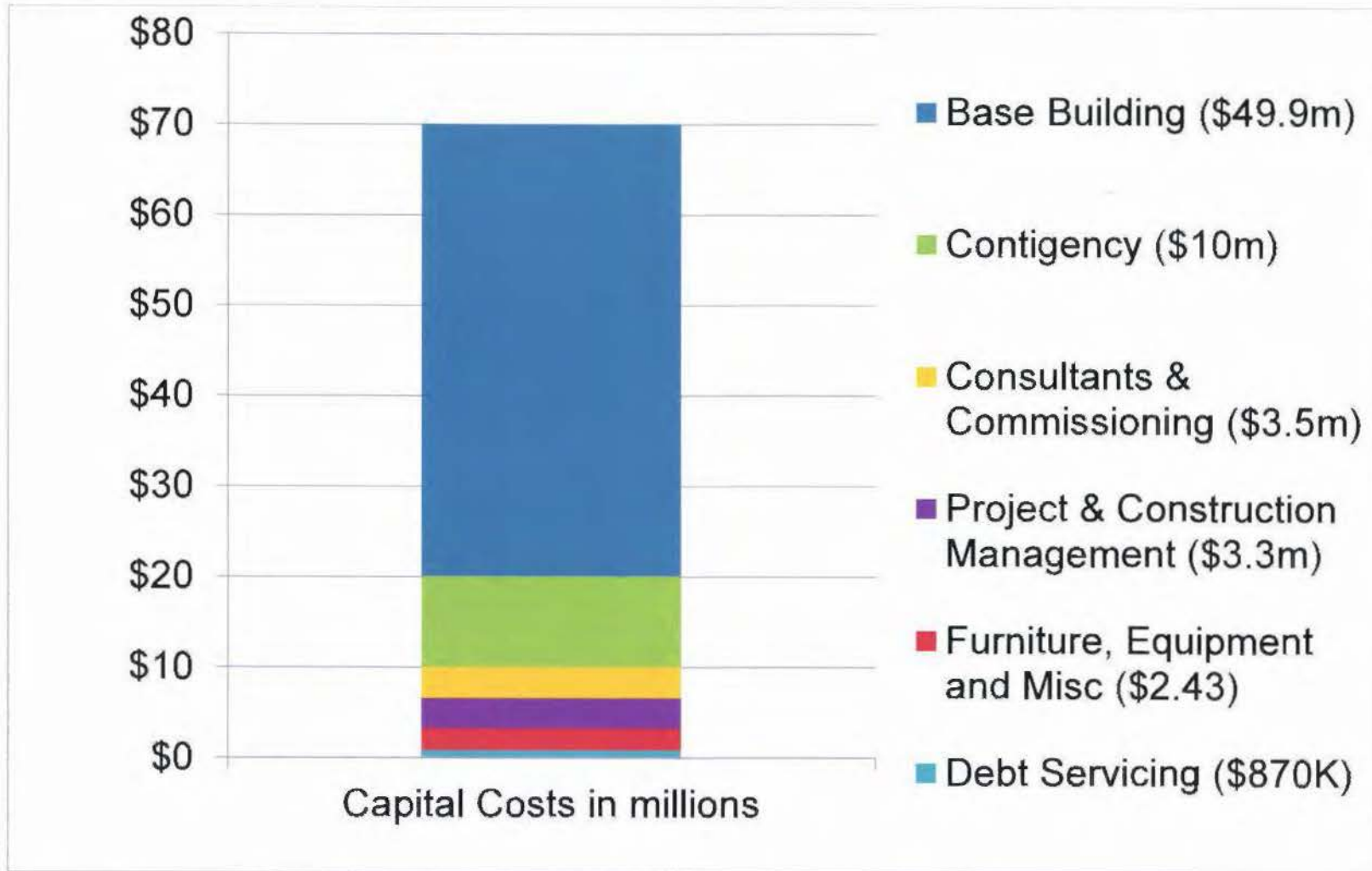


Figure 6: Sources of Initial Capital Costs

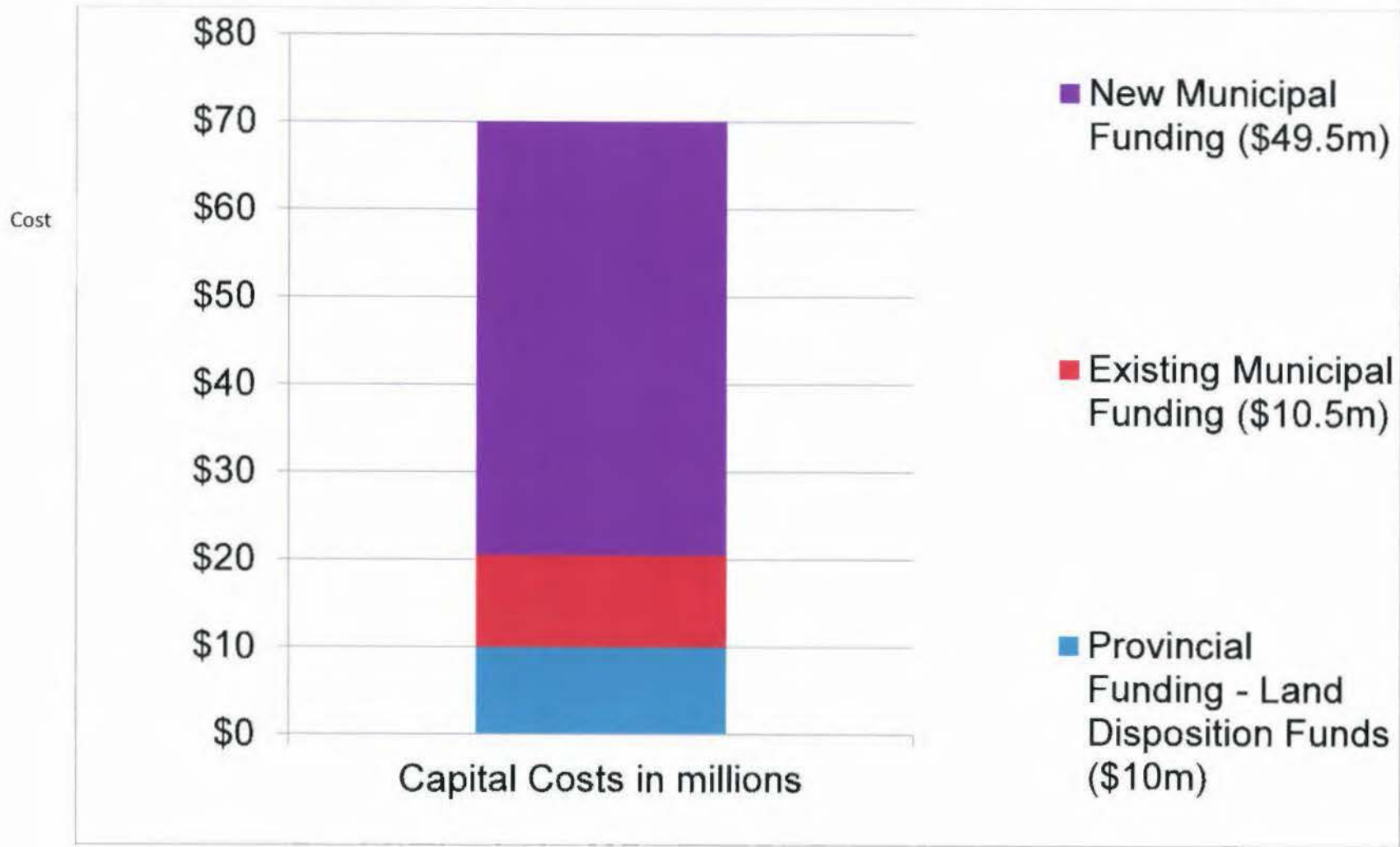


Table 2: Levy Apportionment by Municipality

**Project for the Construction of an Administrative Head Office Building
For the Toronto and Region Conservation Authority
Levy Apportionment by Municipality**

Participating Municipality	2016 CVA Factor (Note 1)	Existing Project Funding (Note 2)	New Project Funding (Note 3)	Total Annual Levy Funding
Adjala-Tosorontio, Township of	0.000067	34	101	135
Durham, Regional Municipality of	0.028247	14,124	42,370	56,494
Mono, Town of	0.00008	40	120	160
Peel, Regional Municipality of	0.113733	56,867	170,600	227,467
Toronto, City of	0.643621	321,810	965,431	1,287,241
York, Regional Municipality of	0.214252	107,125	321,378	428,503
Annual Total	1.000000	500,000	1,500,000	2,000,000
Project Total (21 Years)		10,500,000		10,500,000
Project Total (33 Years)			49,500,000	49,500,000
Total Project Municipal Levy		10,500,000	49,500,000	60,000,000

Note 1 - The annual allocation factors are subject to change with the release of updated modified CVA data.

Note 2 - This funding is available within approved levy allocations to the TRCA.

Note 3 - This funding is an additional amount the participating municipalities will be required to raise for TRCA.

Section I – Items for Authority Action

RES.#A85/16 -

PROJECT FOR THE CONSTRUCTION OF AN ADMINISTRATIVE OFFICE BUILDING FOR TORONTO AND REGION CONSERVATION AUTHORITY

5 Shoreham Drive, Toronto. Approval of the "Project for the Construction of an Administrative Office Building for Toronto and Region Conservation Authority (TRCA)".

Moved by: Maria Augimeri
Seconded by: Jack Heath

THAT the Project for the Construction of an Administrative Office Building for Toronto and Region Conservation Authority (TRCA) (Project), at a cost of \$70,000,000, be approved;

THAT the regional municipalities of Peel, York, Durham, the City of Toronto, the Town of Mono and the Township of Adjala-Tosorontio be designated as the benefiting municipalities on the basis as set out in the Project;

THAT the Minister of Natural Resources and Forestry be requested to approve the Project in accordance with Section 24 of the *Conservation Authorities Act (Act)*, and the application to the Project of the provincial share of land disposition proceeds on the basis as set out in the Project;

THAT pursuant to Section 3(5) of the *Conservation Authorities Act (Act)*, the Minister be requested to approve an interest rate on funds borrowed to finance the Project not to exceed 3.75% for the life of the Project;

THAT pursuant to Section 24 of the *Act*, the Ontario Municipal Board be requested to approve the Project, if required;

THAT staff be authorized and directed to take the necessary action to complete the Project, including obtaining any additional approvals which may be deemed necessary and the execution of any necessary documents;

AND FURTHER THAT staff be directed to report to the Authority upon response from the Province of Ontario and the participating municipalities.

AMENDMENT #1

RES.#A86/16

Moved by: Maria Augimeri
Seconded by: Jack Heath

THAT the following be inserted before the last paragraph of the main motion:

THAT staff explore, in a rigorous nature, the pursuit of funding for the Project for the Construction of an Administrative Office Building for TRCA from the federal and provincial governments, and public-private partnerships;

AMENDMENT #2
RES.#A87/16

Moved by: Glenn De Baeremaeker
Seconded by: Chris Fonseca

THAT the second paragraph of the main motion be amended to read as follows:

THAT the regional municipalities of Peel, York, Durham, the City of Toronto, the Town of Mono and the Township of Adjala-Tosorontio be designated as the benefiting municipalities on the basis as set out in the Project and that the TRCA's member municipalities be requested to consider this matter as part of the budget deliberations at the earliest opportunity;

THAT the following be inserted to the main motion, after Amendment #1:

THAT if TRCA staff is required to utilize funds from the existing City of Toronto erosion control funding, then TRCA staff work with local TRCA board members to identify priority restoration projects;

AMENDMENT #1 WAS CARRIED

AMENDMENT #2 WAS CARRIED

RECORDED VOTE ON THE MAIN MOTION, AS AMENDED

Paul Ainslie	Yea
Kevin Ashe	Yea
Maria Augimeri	Yea
Jack Ballinger	Yea
Ronald Chopowick	Yea
Vincent Crisanti	Nay
Glenn De Baeremaeker	Yea
Michael Di Biase	Yea
Jennifer Drake	Yea
Chris Fonseca	Yea
Jack Heath	Yea
Jennifer Innis	Yea
Colleen Jordan	Yea
Giorgio Mammoliti	Yea
Glenn Mason	Yea
Mike Mattos	Yea
Jennifer McKelvie	Yea
Frances Nunziata	Nay
Linda Pabst	Yea
Anthony Perruzza	Yea
Jim Tovey	Yea

THE MAIN MOTION, AS AMENDED, WAS CARRIED

THE RESULTANT MOTION READS AS FOLLOWS:

THAT the Project for the Construction of an Administrative Office Building for Toronto and Region Conservation Authority (TRCA) (Project), at a cost of \$70,000,000, be approved;

THAT the regional municipalities of Peel, York, Durham, the City of Toronto, the Town of Mono and the Township of Adjala-Tosorontio be designated as the benefiting municipalities on the basis as set out in the Project and that the TRCA's member municipalities be requested to consider this matter as part of the budget deliberations at the earliest opportunity;

THAT the Minister of Natural Resources and Forestry be requested to approve the Project in accordance with Section 24 of the *Conservation Authorities Act* (Act), and the application to the Project of the provincial share of land disposition proceeds on the basis as set out in the Project;

THAT pursuant to Section 3(5) of the *Conservation Authorities Act* (Act), the Minister be requested to approve an interest rate on funds borrowed to finance the Project not to exceed 3.75% for the life of the Project;

THAT pursuant to Section 24 of the Act, the Ontario Municipal Board be requested to approve the Project, if required;

THAT staff be authorized and directed to take the necessary action to complete the Project, including obtaining any additional approvals which may be deemed necessary and the execution of any necessary documents;

THAT staff explore, in a rigorous nature, the pursuit of funding for the Project for the Construction of an Administrative Office Building for TRCA from the federal and provincial governments, and public-private partnerships;

THAT if TRCA staff is required to utilize funds from the existing City of Toronto erosion control funding, then TRCA staff work with local TRCA board members to identify priority restoration projects;

AND FURTHER THAT staff be directed to report to the Authority upon response from the Province of Ontario and the participating municipalities.

BACKGROUND

At Authority Meeting #12/15, held on January 29, 2016, Resolution #A257/15 was approved as follows:

THAT a project to build a new Toronto and Region Conservation Authority (TRCA) head office at 5 Shoreham Drive, based upon the schematic design developed by DTAH be accepted in principle, with the condition that staff be directed to:

- *approach TRCA member municipalities for new funding support for the construction of a new head office building based upon the design developed by DTAH Architects Limited;*
- *initiate a competitive procurement process for a consulting team to lead detail design;*

- *confirm financing and borrowing opportunities and strategy (i.e. public private partnerships, liquidation of assets, government grants and support from industry partners etc.);*
- *proceed with an Expression of Interest (EOI) for the Black Creek Pioneer Village parking lot site, which may consider a design/build option for a new TRCA head office, as part of a potential public private partnership, in accordance with the parameters attached as Attachment 5; and*
- *report back at Authority Meeting #4/16, scheduled to be held on May 27, 2016 on member municipality funding support, financing strategy, outcome of procurement process and EOI.*

RATIONALE

Since Authority Meeting #12/15, held on January 29, 2016, staff has conducted research and analysis of available financing and borrowing opportunities that has been informed by discussion with key stakeholders and experts. This has included discussions with TRCA's municipal partners, in which the Project has been well received. The findings from TRCA's work to date are summarized as follows:

Investigation of Public Private Partnership

TRCA retained PricewaterhouseCoopers LLP (PwC) to undertake a financial analysis of the Project through a Public Private Partnership (PPP) or design-build-finance-maintain-operate project delivery method versus a conventional Design-Bid-Build (DBB) process. PwC reviewed TRCA's existing cost estimate and used this information to calculate a cost comparison of both procurement models, which included Net Present Value of the total project as well as the annual cash requirements. PwC also outlined for TRCA the benefits and drawbacks of each approach as summarized in Attachment 1.

Based on this comparison, the Project net present value under PPP was calculated to be \$27 million higher on a whole life basis than through a DBB approach. TRCA staff has concluded that there is not sufficient risk associated with the Project that would warrant the projected increase in cost anticipated by using a PPP method. Staff is therefore recommending a more conventional project delivery method.

Procurement Method and Schedule

As informed by the PwC report and discussions with other leaders in the field, staff has confirmed that the most effective delivery of the Project will be achieved using a conventional procurement approach, supported by a construction manager, and similar to a PPP will be coupled with an integrated design process that assembles a design team early in the planning process, to benefit from the input of the constructor and operator on constructability, operation, maintenance and life cycle requirements. TRCA staff will explore another benefit of PPP (pay for performance advantage) by utilizing financial incentives or penalties to encourage innovation, and mitigate potential schedule or scope creep.

Further to the findings related to the advantages of the PPP approach, TRCA staff has also made provision for an annual contribution to a major maintenance reserve to ensure that there is available budget to undertake a proactive maintenance and replacement schedule based on the Project life cycle requirements. TRCA staff will work with the project team to detail the opportunities for building life cycle efficiency and inform the long-term operation and maintenance.

Staff will now proceed with the Request for Qualification phase (Phase 1) of the procurement process, as directed by Resolution #A257/15, to retain a design team. Phase 1 will be followed by the Request for Proposal phase (Phase 2). Following the completion of Phase 2, staff will report back to the Authority as required by the TRCA Purchasing Policy. The timing and decision to award will be influenced by progress related to Project approval.

Project Financing

Recent feedback from municipal staff, potential lenders and PwC, suggests that TRCA will be able to achieve a rate of interest comparable to those generally available to our participating municipalities, and certainly lower than the rates generally available through private financing provided in a PPP model. While the option of having one of TRCA's participating municipalities borrow the required funds on behalf of the organization has not been ruled out, TRCA must also be prepared to borrow directly from a financial institution. The Royal Bank of Canada, TRCA's banker, has expressed an interest in advancing the required Project funds, provided that the Project is adopted by both the participating municipalities and the Province of Ontario, in accordance with all the provisions of the *Conservation Authorities Act (Act.)*

One of the requirements of the banker is approval of the project by the Minister of Natural Resources and Forestry under section 24 of the Act. Staff has contacted staff from the Ministry and confirmed that in order for the Minister to provide approval of the project there must be provincial funds allocated to the project. In as much as the proposed project funding model calls for the application of \$10 million in land sale proceeds, of which approximately \$5 million is deemed provincial funding, this condition can be satisfied. The rationale for the application of land sale proceeds is addressed below.

Under subsection 3(5) of the Act the Minister is also required to approve the interest rate for the associated Project borrowing. It is proposed that the Minister be requested to approve an interest rate ceiling of 3.75%, which appears adequate based on staff's research to date.

FINANCIAL DETAILS

The maximum total Project cost is \$70,000,000 (including contingency provision.) The elements of the Project include: base building; design; project and construction management (design and construction); furniture and equipment; permits, approvals and legal fees; and disbursements.

Project Funding

The Project will be funded as follows:

Participating Municipal Funding:	\$60 million
Land Disposition Funds:	\$10 million

TOTAL:	\$70 million

The participating municipal Project contributions will be finalized through their respective budget process and will be in accordance with the annual Modified Current Value Assessment (CVA) formula; which is subject to annual updating. Participating municipal Project funding contributions includes two sources: a) confirmed existing annual Major Facilities Project funding of \$500,000 over 21 years (\$10.5 million total); and b) new annual funding contributions of \$1.5 million over a 33 year period (\$49.5 million total). Municipal levy funding is summarized in Attachment 2.

Staff will continue to explore opportunities for other grant funding contributions. If successful, these funds would be used to offset the term of the participating municipal contributions.

Land Disposition Funds

As noted, Minister's approval will be required by financial institutions prior to advancing the required funds for the Project. Therefore, subject to approval by the Minister, TRCA proposes that land disposition funds in the amount of \$10,000,000 be made available to assist with the funding of the Project. TRCA currently has \$2,000,000 in reserves from land disposition funds that could be allocated to the Project.

The final value of land disposition contribution will be determined based on available land disposition funds during the Project, and will be reviewed on a case by case basis. When land disposition proceeds become available TRCA will seek approval of the Minister to allocate the funds as described herein.

The requested land disposition funds will support Project costs directly tied to green technologies that demonstrate the goals and objectives of the *Climate Change Mitigation and Low Carbon Economy Act*, as well as the strategies presented in the Government of Ontario's Green Investment Fund. TRCA has estimated that these green technologies amount to approximately \$10,000,000 (including on-site photovoltaic panels, electric heat and cool ground and air source heat pumps, low-carbon wood and concrete hybrid structure, and self-tint electro chromatic glass window system). Additional information on how the Project supports the goals of the Province is provided within the Project document.

DETAILS OF WORK TO BE DONE

Staff will submit the Project document to each participating municipality, with a request for formal approval of the Project and funding contributions.

Staff will continue to seek out the most favourable approach in finalizing the terms and conditions of a loan to finance the Project, including continuing to explore opportunities for a participating municipality to take on a loan on behalf of TRCA, on a cost recovery basis.

Staff will submit the Project document to the Minister of Natural Resources and Forestry for approval in accordance with Section 24 and 3(5) of the Act.

Report prepared by: Ethan Griesbach, extension 5364

Emails: egriesbach@trca.on.ca

For Information contact: Ethan Griesbach, extension 5364

Emails: egriesbach@trca.on.ca

Date: May 12, 2016

Attachments: 2

Table 1. Advantages and disadvantages of PPP and DBB

Advantages of PPP	Advantages of DBB
Fixed price, date-certain commitment	Well understood process, allows for the Project to be divided into smaller components as required
Ability to enforce achievement of specifications through the contract and payment mechanism (pay for performance), which includes deductions in case of availability or performance failures	Engineer/designer will work for the TRCA and will provide best recommendation on quality vs. price
Design benefits from input of construction contractors and operators	Opportunity for value engineering with the TRCA's continuous involvement during the design period, that is, the comparative review of technical alternatives compared to their execution cost
Design and overall Project cost reflect whole lifecycle of the asset	Lower up-front ancillary costs for consultants and legal advisors
The private partner assumes significant long-term risks, including interface and coordination risks during construction (such as between design and construction)	
Quality of the assets at the end of the project term is assured through handback condition assessment	
Bidders are encouraged to develop innovative solutions to meet the TRCA's needs	
Disadvantages of PPP	Disadvantages of DBB
TRCA is contractually obligated to make maintenance and lifecycle payments in line with the service standards defined in the Project Agreement. This will remove flexibility to divert funds away from these activities in case of budget constraints	Difficult to avoid schedule and scope creep
Success of PPP depends on the quality of the Project Agreement and ability to clearly and accurately communicate performance requirements	Design does not benefit from input of construction contractors and could potentially suffer from a lack of constructability and potential disputes between designer and construction contractor
Planning and procurement take longer than under a DBB procurement	Design does not benefit from an operator's input concerning O&M and lifecycle requirements
This approach can be misunderstood and raise opposition from special interest groups such as trade unions, who fear job losses	Low opportunity/less motivation for innovation by construction contractor and O&M/lifecycle providers
Up-front planning and procurement costs are higher	Limited price and delay risk transfer: engineers and contractors would not provide guarantee of overall "fixed price date certain" commitment, with the TRCA assuming most cost overruns or costs resulting from delays
	Interface risk between designer and contractor(s) and operators
	Warranty on construction and equipment limited to one to two years post completion. Warranty typically not supported through liquid security, putting enforcement at risk
	Lifecycle costs are not always funded in a timely manner (i.e. may be pushed back due to budget constraints in a given year)
	Construction contractors have no responsibility for the lifecycle of the assets and may not be motivated to build with consideration for longevity



**Project for the Construction of an Administrative Office Building for Toronto and Region
Conservation Authority (Project)**

5 Shoreham Drive, Toronto

May 12, 2016

Toronto and Region Conservation Authority

INTRODUCTION

This Project description has been prepared by Toronto and Region Conservation Authority (TRCA) in order to obtain the approval of the Project by the Minister of Natural Resources and Forestry in accordance with Section 24 of the *Conservation Authorities Act* (the "Act.") The Project provides the design and build elements of a new TRCA administrative headquarters which will be located at 5 Shoreham Drive in Toronto. Also consistent with the Act, TRCA requests approval of the Minister of a rate of interest for its financing requirements in accordance with Section 3(5) of the Act.

Minister's approval of the Project in accordance with the various provisions of the Act is required by financial agencies prior to entering into loan agreement with TRCA.

This Project outlines the details of the proposed building together with the rationale for the replacement of the existing head office building, the estimated costs and the proposed funding arrangements.

DESCRIPTION OF THE PROJECT

The Project is for a new six storey TRCA headquarters building that is based upon the schematic design completed by DTAH Architects Limited in 2015, as described further herein. The schematic design supports TRCA's business and provides accessible customer service by meeting requirements for office, meeting, collaboration, demonstration, central filling, shipping/receiving and storage spaces. The project will provide 9,724m² (100,000ft²) for office space use and 7,951m² (90,254ft²) for a three level underground parking garage.

The Project will follow best practices in operational efficiency and will supplement energy demand with on-site, renewable power sources (i.e. rooftop-photovoltaic panels). The Project's structure will be a low-carbon wood and concrete hybrid system; and is proposed to achieve Leadership in Energy and Environmental Design (LEED) platinum certification and WELL Building certification; which is the world's first building standard focused exclusively on human health and wellness.

LOCATION

The Project location at 5 Shoreham Drive, Toronto, Ontario has served as TRCA's head office setting for over forty years. (Recently, TRCA moved to an interim, leased head office facility in Vaughan, Ontario.) The Shoreham site is an optimal location for TRCA operations as it provides convenient access to the 400 series highways, is relatively central to its area of jurisdiction and is well serviced by public transit and regional trail connections. The location will result in a reduced auto driver mode share ranging from 45% to 65%, which is less than the 80% range currently experienced by staff and clients at TRCA's interim head office, located at 101 Exchange Avenue, Vaughan.

RATIONALE FOR THE PROJECT

TRCA Space Requirements:

TRCA has grown considerably since its main office at 5 Shoreham Drive was constructed in the early 1970's. The original office at 1,821m² (19,600ft²) was built to accommodate 80 staff. Growth coupled with a lack of adequate office accommodations resulted in long term, chronic space shortages, poor working conditions for staff and a lack of adequate meeting space. These issues were partially addressed with the move of staff to various satellite offices over the years and the lease of additional office space at 101 Exchange Avenue in Vaughan to serve as an interim head office¹ to accommodate over 300 staff. However, TRCA's long-term goal is to consolidate staff currently in multiple facilities to one central location to reduce travel time between TRCA offices, and allow resource and staff sharing. Furthermore, a purpose built facility will allow TRCA to provide optimal customer service and support; achieve accommodation standards for staff comparable to our regional and municipal partners, with a positive influence on staff retention; and ensure that the office can accommodate growth to meet future staff and program requirements.

¹ Lease expires in 2021

TRCA growth projections show that our current interim head office will not have sufficient space to accommodate staff growth beyond 2021. The interim head office has a maximum building capacity of 440 persons (including staff and visitors). At the interim head office, TRCA anticipates a 3% growth rate over the coming years, resulting in an estimated work force of 436 persons in 2021. This number does not include staff from other buildings that TRCA intends to relocate to the new head office building at 5 Shoreham in order to achieve operational efficiencies.

Ownership of the Project:

Building at the 5 Shoreham Drive location will allow TRCA to maintain asset-ownership and reduce cost and risks generally associated with a leasing option (i.e. potential for unfavourable and expensive lease terms; unsuitable working conditions; decreased levels of service delivery; lower workforce productivity; and staff retention). After an extensive analysis of our available options TRCA has concluded, that similar to our municipal partners, a 100% ownership model is the most cost effective solution. Finally, since TRCA owns the lands at the 5 Shoreham location the total project costs will be positively impacted.

Project Green Features and Demonstration of Key Climate Change Mitigation and Low Carbon Economy Act Features:

The Project will demonstrate how the goals and objectives of the *Climate Change Mitigation and Low Carbon Economy Act* (Climate Act), as well as, the strategies presented in the Government of Ontario's Green Investment Fund (GIF) can be achieved. The Project will i) support Ontario's continued growth and global leadership in the development, use and manufacturing of clean energy and green technologies; and ii) demonstrate Ontario's transition to low-carbon urban communities.

Presented in Table 1 below is a comparison of the key GIF strategy areas and how the Project will demonstrate their application.

Table 1: Project's Demonstration of Key GIF Strategy Areas

GIF Strategy Area	How Project will Demonstrate a GIF Strategy Area	Key Project Features to Achieve GIF Strategy
Climate Change – Low Carbon Future	<p>The Project will demonstrate a low carbon footprint through all lifecycle phases (material production, construction, operation and end-of-life). According to model simulations completed by WSP Group (formerly Halsall), operating carbon emissions are estimated to be reduced by more than 50% and embodied carbon by more than 75% when compared to an average building in the Toronto region.</p> <p>The Project is Net-Zero ready, as the systems and the designs have been done in a manner that will allow for them to be reconfigured in the future, to draw from completely renewable sources.</p>	<p>Predominantly all electric heating and cooling system serviced by air and ground source heat pumps.</p> <p>Low carbon, wood structural system.</p> <p>At minimum, 5% of building's energy needs will be met with on-site photovoltaic panels.</p> <p>Passive House design principles, simple, well insulated building envelope will reduce heating and cooling requirements.</p> <p>Self-tint electro chromatic glass system that automatically adjusts throughout the day will optimize the indoor climate and the outside view.</p> <p>Solar thermals panels on the roof will provide heat for domestic hot water demands.</p>

GIF Strategy Area	How Project will Demonstrate a GIF Strategy Area	Key Project Features to Achieve GIF Strategy
Grow Economy and Create Jobs	<p>Where possible, the Project will source from Ontario base firms. The Project will create a point of local demand for clean energy and green technologies.</p> <p>Ontario WOOD Works – a champion for Ontario’s wood industry – has expressed support for the Project.</p>	<p>Photovoltaic panels.</p> <p>Solar thermal wall.</p> <p>Low carbon, wood structural system.</p>
Electric Vehicle Charging Stations	<p>Installation of charging stations for TRCA staff and visitors will support and promote Electrical Vehicle use.</p>	<p>Quantity of charging stations to be at 2% of total number of parking spaces.</p>
Green Infrastructure	<p>Project will be regenerative; it will restore green infrastructure systems and their corresponding ecosystem services (i.e. benefits humans obtain from nature) that existed prior to the properties initial development in the 1970s.</p> <p>The Project will manage on-site, stormwater runoff for at minimum the first 25 mm of rainfall.</p>	<p>Rainwater harvesting gardens.</p> <p>Bioswales and permeable pavement.</p> <p>Native plants that will mimic pre-development habitats.</p> <p>Provision for on-site agriculture.</p>
Modal Shift: to low-carbon	<p>Project promotes use of active transportation infrastructure as it is near a transit node, with supporting connections (sidewalks, signalized pedestrian crossings, carpooling), as well as walking and cycling networks that promote accessibility and safety.</p> <p>The Project will provide support for TRCA’s corporate fleet of hybrid and electric vehicles, which allows staff to commute to work by way of active or public transportation systems, and use a fleet vehicle for work purposes.</p>	<p>Located within one kilometre of Toronto Transit Commission’s new Black Creek Pioneer Subway Station and the York University Bus Loop; which provides regional connections.</p> <p>On-site access to the Black Creek Pioneer Ravine trail system.</p> <p>Fronts Shoreham Drive, which has sidewalks and forthcoming cycling lanes.</p> <p>On-site designated carpool parking spots.</p> <p>On-site electric car charging.</p> <p>Additional parking to accommodate 60 TRCA corporate fleet vehicles. The TRCA corporate fleet is transitioning to 100% electric.</p>
Water Conservation and Stormwater Management	<p>Project will demonstrate design and technologies that reduce potable water use and manage/use-onsite stormwater.</p> <p>The Project will demonstrate a preliminary potable water use reduction of 43%.</p>	<p>Potable water use metres.</p> <p>Ultra-low flow plumbing fixtures.</p> <p>Harvest rainwater for use in the building (i.e. as feed for water closets, urinals and irrigation).</p>

ESTIMATED COSTS

The maximum total Project cost is \$70,000,000 (including contingency provision.) The cost elements of the Project include: base building; design; project management (design and construction); furniture and equipment; permits, approvals and legal fees; and disbursements.

FUNDING ARRANGEMENTS

TRCA proposes that the funding for this Project be contributed as follows:

Participating Municipality Levy (see Appendix 1)	\$60 million
Land Disposition Funds	\$10 million
TOTAL:	\$70 million

This purpose built facility will allow TRCA to provide optimal customer service and support to all its participating municipalities and residents of its jurisdiction. Therefore, TRCA proposes that the Project be a generally benefiting project and participating municipalities contribute to the Project in accordance with the Modified Current Value Assessment (CVA) formula; which is subject to annual updating. The participating municipal funding will be negotiated with each participating municipality and will be subject to their individual budget processes.

Land Disposition Funds

Subject to approval by the Minister, TRCA proposes that land disposition funds in amount of \$10,000,000 will be available to assist with the funding of the Project. When land disposition funds become available TRCA will seek approval of the Minister to allocate the provincial share of the funds as described herein.

The requested land disposition funds will support Project costs directly tied to green technologies that demonstrate the goals and objectives of the Climate Act, as well as the strategies presented in the GIF. TRCA has estimated that these green technologies amount to approximately \$10,000,000 (including on-site photovoltaic panels, electric heat and cool ground and air source heat pumps, low-carbon wood and concrete hybrid structure, and self-tint electro chromatic glass window system).

FINANCING RATE

In accordance with Section 3(5) of the Act, TRCA requests that the Minister approve a rate of interest for the Project that is no greater than 3.75%, throughout the life of the Project. Based on proposals from TRCA's banker and discussions with finance staff at participating municipalities it is estimated that this rate represents the ceiling on borrowing costs.

CONCLUSION

Minister's approval under sections 3(5) and 24 of the Act is required in order to satisfy lending conditions which will be required by financial institutions. Furthermore, Minister's approval is also required to contribute Provincial share of land disposition funds towards the Project.

Appendix 1: Breakdown Participating Municipality Levy

**Project for the Construction of an Administrative Head Office Building
For the Toronto and Region Conservation Authority
Levy Apportionment by Municipality**

Participating Municipality	2016 CVA Factor (Note 1)	Existing Project Funding (Note 2)	New Project Funding (Note 3)	Total Annual Levy Funding
Adjala- Tosorontio, Township of	0.000067	34	101	135
Durham, Regional Municipality of	0.028247	14,124	42,370	56,494
Mono, Town of	0.000008	40	120	160
Peel, Regional Municipality of	0.113733	56,867	170,600	227,467
Toronto, City of	0.643621	321,810	965,431	1,287,241
York, Regional Municipality of	0.214252	107,125	321,378	428,503
Annual Total	1.000000	500,000	1,500,000	2,000,000
Project Total (21 Years)		10,500,000		10,500,000
Project Total (33 Years)			49,500,000	49,500,000
Total Project Municipal Levy		10,500,000	49,500,000	60,000,000

Note 1 - The annual allocation factors are subject to change with the release of updated modified CVA data.

Note 2 - This funding is available within approved levy allocations to the TRCA.

Note 3 - This funding is an additional amount the participating municipalities will be required to raise for TRCA.