



Capital Projects Group Quality Compliance Audit Report - YRRTC - vivaNext BRT - Metrolinx - Master Agreement -Schedule I- Amended Cost Confidence Process

Revision 0

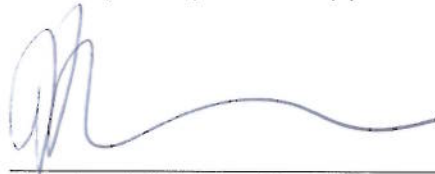
Approval Date: 07/01/2019

Authorization

Prepared by: Maha Ibrahim
Quality Compliance Support Lead

Lisa Peckham
Quality Compliance Support

Approved by:



Kimberly Weston-Martin
Quality Compliance Manager

Revision	Purpose of Submittal	Date (DD/MM/YYYY)	Comments
0	Approved	07/01/2019	

Executive Summary

Overview

The Capital Projects Group (CPG) Quality Compliance Audit Team conducted a Compliance Audit on November 27, 2018, at the York Region Rapid Transit Corporation (YRRTC) office located at 3601 Highway in Markham, Ontario as part of their Second-party Compliance Audit Program (Program).

The audit was proposed by Metrolinx Bus Rapid Transit (BRT) Program Management as a continuous series of audits to be done on the Master Agreement between Metrolinx and YRRTC and its protocols for the vivaNext project since 2017.

The purpose of the audit was to assess compliance against the Master Agreement between Metrolinx and YRRTC. The scope of the audit included *Amended Cost Confidence Process Schedule I*, dated October 1, 2009, and its relevant supporting documents.

Schedule I, "Amended Cost Confidence Process" means the cost confidence process which is set forth in *Schedule A, Authorized Expenditures and Cash Flow Estimate* of the vivaNext Procurement Agreement and is attached as *Schedule I* to this Agreement.

Schedule I covered the following segments of the vivaNext project, which include:

- D1-Early Works: Davis Drive (Yonge Street to Highway 404) - D1 Early Works Package
- D1-Main Contract: Davis Drive (Yonge Street to Highway 404) - D1 Main Contract Work Package
- H3 -Highway 7 (Richmond Hill to Warden Avenue) and
- H2 VMC, which is the Highway 7 - H2 - Vaughan Metropolitan Centre (VMC) (Edgeley Boulevard to Bowes Road) segment

Although the Yonge Street (Mullock Drive to Davis Drive) Segment Design-Build Project (Y3.2) segment is identified in *Schedule A* of the Master Agreement as one of the three Design Build Projects applicable to the *Amended Cost Confidence Process*, the Y3.2 segment was exchanged with the Highway 7 - H2-VMC (Edgeley Blvd. to Bowes Road) segment.

The auditors included the following from the *Amended Cost Confidence Process*:

- Preparation of scope of work and cost estimate submissions (19 weeks)
- Where the Proposed Guaranteed Maximum Price (GMP) is less than the Estimated GMP (2 weeks)
- Where the Proposed GMP exceeds the Estimated GMP, and the difference is within 5% of the Estimated GMP (11 weeks - maximum)
- Where the Proposed GMP exceeds the Estimated GMP, and the difference is greater than five percent 5% but less than 10% of the Estimated GMP (12 weeks - maximum)
- Where the difference between the Proposed GMP and the Estimated GMP is greater than 10% of the Estimated GMP
- Metrolinx Approval
- Fairness Monitor

An audit checklist was developed to cover the scope of this audit and communicated with the Auditee prior to initiating the audit opening meeting. Samples of compliance evidence were received from the

YRRTC Auditee Representatives. These samples were reviewed and compared against the requirements of the *Schedule I, Amended Cost Confidence Process*.

YRRTC Management and Representatives were cooperative and hospitable and supported the Audit Team during the audit. The audit was completed within the agreed time frame and in accordance with the Audit Plan. The closing meeting took place on November 27, 2018, at the same YRRTC office where the audit was initiated.

Conclusions

Evidence samples assessed during the audit indicate that the *Amended Cost Confidence Process* was implemented and documented comprehensively per the Master Agreement.

During review of the evidence, the Auditors found that there is no formal workflow transmittal process for record distribution. Records related to the *Amended Cost Confidence Process* were distributed via email only. It was difficult to determine what role each email recipient played within the program or whether each recipient received and read the email. This process is not sufficient to support an effective Document Control Management System (DCMS).

An Opportunity for Improvement (OFI) was suggested to address this issue.

Contents

Section	Page
Authorization	i
Executive Summary	ii
Documents	1
Acronyms and Abbreviations	1
1. Report Purpose	2
1.1 Report Purpose	2
2. Audit Purpose and Scope	2
2.1 Audit Purpose	2
2.2 Audit Scope	2
3. Audit Findings	2
3.1 Summary	2
3.2 Sampling	2
4. Detailed Report	2

Appendices

Appendix A - Quality Compliance Audit Report	3
Appendix B - Evidence	10

Tables

Table 0-1 References	1
Table 0-2 Acronyms and Abbreviations	1

Documents

TABLE 0-1 REFERENCES

Reference	Title
Metrolinx Master Agreement	<i>Amended Cost Confidence Process Schedule I, dated October 1, 2009</i>
CPG-QAT-FRM-092	<i>Compliance Audit Report Template</i>
CPG-QAT-FRM-095	<i>Evidence Form</i>
CPG-QAT-FRM-099	<i>Attendance Form</i>
CPG-QAT-PRO-005	<i>Continual Improvement Procedure</i>
ISO 19011:2011	<i>Guidelines for Auditing Management Systems</i>
ISO 9001:2015	<i>Quality Management Systems- Requirements</i>

Acronyms and Abbreviations

TABLE 0-2 ACRONYMS AND ABBREVIATIONS

Acronym or Abbreviation	Definition
BRT	Bus Rapid Transit
CPG	Capital Projects Group
D1	Davis Drive (Yonge Street to Highway 404) - D1 Main Contract Work Package
D1 - Early Works	Davis Drive (Yonge Street to Highway 404) - D1 Early Works Package
GMP	Guaranteed Maximum Price
H3	Highway 7 (Richmond Hill to Warden Avenue) Segment Design-Build Project
H2 VMC	Vaughan Metropolitan Centre - Segment Design-Build
OPI	Opportunity for Improvement
<i>Report</i>	<i>Capital Projects Group Quality Compliance Audit Report - YRRTC - vivaNext BRT - Metrolinx Master Agreement Amended Cost Confidence Process Protocol</i>
Y3.2	Yonge Street (Mulock Drive to Davis Drive) Segment Design-Build Project
YRRTC	York Region Rapid Transit Corporation

1. Report Purpose

1.1 Report Purpose

- 1.1.1 This *Capital Projects Group Quality Compliance Audit Report - YRRTC - vivaNext BRT - Metrolinx Master Agreement Amended Cost Confidence Process Protocol (Report)* documents the Compliance Audit conducted by the Capital Projects Group (CPG) Quality Compliance Audit Team.
- 1.1.2 The audit was conducted at the YRRTC office located at 3601 Highway 7 in Markham, Ontario on November 27, 2018.

2. Audit Purpose and Scope

2.1 Audit Purpose

- 2.1.1 The purpose of the audit was to assess YRRTC compliance against the Master Agreement.

2.2 Audit Scope

- 2.2.1 This audit included the *Amended Cost Confidence Process, Schedule I*, dated October 1, 2009, and its relevant supporting documentation.

3. Audit Findings

3.1 Summary

- 3.1.1 The Auditors identified one OFI during this audit.

3.2 Sampling

- 3.2.1 This Compliance Audit was based on the assessment and evaluation of evidence collected during interviews.
- 3.2.2 Other noncompliances may exist that have not been identified within the selected evidence samples during this audit.

4. Detailed Report

- 4.1.1 Appendix A - Quality Compliance Audit Report provides the details of this audit.
- 4.1.2 Appendix B - Evidence lists selected evidence samples.

Appendix A - Quality Compliance Audit Report

Quality Compliance Audit Report

Audit Number:	MX-RT-VNBRT-YRRTC-2018-001		
Process or Service Audited:	Metrolinx Master Agreement, Amended Cost Confidence Process Schedule I		
Audit Date(s):	November 27, 2018		
Report Date:	January 7, 2019		
Audited Org(s):	York Region Rapid Transit Corporation (YRRTC)		
Project Number:	vivaNext Bus Rapid Transit (BRT) - Contract Number (No.) 095703		
Project Start:	October 1, 2009	Project Completion:	March 31, 2022
Audit Report Distribution as Indicated Below:			
<input checked="" type="checkbox"/> YRRTC Vice-President, Project Implementation:		Paul May	
<input checked="" type="checkbox"/> YRRTC Director, BRT Program:		Liza Sheppard	
<input checked="" type="checkbox"/> YRRTC Chief Financial Officer:		Michael Cheong	
<input checked="" type="checkbox"/> YRRTC Manager, Finance - Governance and Compliance:		Narendra Shah	
<input checked="" type="checkbox"/> YRRTC Analyst, Financial Controls, Compliance:		Zahra Dossa	
<input checked="" type="checkbox"/> Vice President, Program Management & Controls:		Simon Springate	
<input checked="" type="checkbox"/> Compliance Manager:		Djoko Corovic	
<input checked="" type="checkbox"/> Program Manager:		Adrian Sheppard	
<input checked="" type="checkbox"/> Quality Manager:		Mojtaba Yousefi	
<input checked="" type="checkbox"/> Quality Compliance Manager:		Kimberly Weston-Martin	
<input checked="" type="checkbox"/> Quality Compliance Professional:		Maha Ibrahim	
<input checked="" type="checkbox"/> Quality Compliance Professional:		Lisa Peckham	
Audit Team Leader: Maha Ibrahim, Quality Compliance Support Lead		Audit Team: Lisa Peckham, Quality Compliance Support	
Key Audit Contacts: Michael Cheong, YRRTC Chief Financial Officer		Relevant Manager: Narendra Shah, YRRTC Manager, Finance - Governance and Compliance	
Total CAPAs:	<input type="checkbox"/> Major Noncompliance	<input type="checkbox"/> Minor Noncompliance	<input checked="" type="checkbox"/> 1 Opportunity for Improvement
Assigned CAPA Number(s): 1. Opportunity for Improvement (OFI) (CAPA-RT-VNBRTC-2018-01)			

Summary/Comments

- The audit was initiated with an opening meeting. The Lead Auditor explained the purpose and scope of the audit.
- YRRTC Vice-President, Project Implementation, Paul May presented a briefing of the vivaNext project and provided specific information about the projects covered by this protocol; D1 early and main works contract, H3 and H2 VMC Segment.
- Questions were asked from the audit checklist, and samples of evidence were reviewed.
- The audit was completed per the Audit Plan and concluded within the planned time frame.
- A closing meeting was convened and attended by the Auditee Team and the Auditors, and a summary of the audit findings was presented.

Positive Observations

- The YRRTC Team was cooperative and well-prepared for this audit.
- The documents provided as samples of evidence were organized and properly labelled.
- The YRRTC Team provided evidence in a timely manner.

Areas for Improvement

- During review of the evidence, the Auditors found that there is no formal workflow transmittal process for record distribution. Records related to the *Amended Cost Confidence Process* were distributed via email only. It was difficult to determine what role each email recipient played within the program or whether each recipient received and read the email. This process is not sufficient to support an effective DCMS. Examples of this are as follows:
 - a. Detailed records of the reconciliation of all differences on an issue by issue basis and the resolution of all differences sent to required parties per this protocol (Metrolinx, York Consortium 2002) at the Vaughan Metropolitan Centre - Segment Design-Build (H2 VMC) project via email dated June 8, 2012.
 - b. H2 VMC Evaluation Team documentation for June 18, 2012, meeting sent via email to the Metrolinx Independent Cost Advisor, YRRTC, and Metrolinx by MNP LLP, the Fairness Monitor for this project.
 - c. Email from Susan Tuckey; Chief Finance and Strategy Officer for YRRTC to members of the Expert Panel, dated Monday, August 30, 2010, referencing initiation of the cost confidence process analysis of the Proposed and Estimated GMP Bid Submissions that include correction of errors.
- An OFI (CAPA-RT-VNBRTC-2018-01) was issued to address this issue.

Audit Details

Background

YRRTC and the Regional Municipality of York (York Region) entered into a Master Agreement with Metrolinx on October 1, 2009. The purpose and principles of this Agreement are:

- (a) to establish the Parties' roles, relationships, responsibilities, mutual expectations and accountability mechanisms relating to the Program;
- (b) to identify and confirm the Parties' commitment to work collaboratively and consult with each other to deliver the Program in an efficient and professional manner consistent with the unique nature of the Parties' roles in the delivery of the Program;
- (c) to define generally the working arrangements between the Parties to ensure that each is able to carry out properly its operational roles, responsibilities and obligations relating to:

- (i) the selection of the Preferred Bidder, and the conclusion of a Project Agreement with the Contractor for the design and/or construction of each Project; and
- (ii) subject to further detail to be included in Project-specific Project Charters, the implementation of each Project; and
- (d) to lay the foundation for the terms of Metrolinx ownership and control of Project Assets.

The following schedules form part of the Master Agreement:

- Schedule A - Authorized Expenditures and Cash Flow Estimate
- Schedule A-1 - Procurement Protocol
- Schedule B - Real Estate Protocol
- Schedule C - Description of Projects
- Schedule D - Administrative and Financial Protocol
- Schedule E -Third Party Agreements
- Schedule F - Excluded Assets
- Schedule G - Metrolinx-YRRTC Communications Protocol
- Schedule H - Capital Cost Eligibility Criteria
- Schedule I - Amended Cost Confidence Process
- Schedule J - Access and Operating Principles
- Schedule K - Project Charter Template

The parties signed the first amendment to this Master Agreement on September 18, 2015, that apply to the Alternative Financing and Procurement (AFP) Bundle. The Original Master Agreement, in its unamended form, continues to apply to all Projects other than the AFP Bundle.

The Quality Compliance Audit Team conducted a Compliance Audit as part of their Second-party Compliance Audit Program.

The purpose of this audit was to assess compliance against the Master Agreement between Metrolinx and YRRTC. The scope of this audit included the *Amended Cost Confidence Process Schedule I*, dated October 1, 2009, and its relevant supporting documentation.

The Auditors covered the following clauses in the *Amended Cost Confidence Process Schedule I*:

- **Preparation of scope of work and cost estimate submission.**
 - **Clause 1.b: The Independent Expert Panel updated from time to time as necessary throughout the cost confidence process**
 - The Independent Expert Panel members, notwithstanding their nomination by York Consortium 2002, YRRTC, and Metrolinx, acted in an independent manner and kept confidential all information received and all deliberations of the Independent Expert Panel. The Independent Expert Panel were involved in the Highway 7 (Richmond Hill to Warden Avenue) Segment Design-Build Project (H3) project only and were updated from time to time as necessary throughout the cost confidence process.
 - Evidence was witnessed (refer to Item No. 1 and 2 - Evidence Form - Appendix B).

- **Clause 1.c: YRRTC establish an evaluation team, members of the team**
 - YRRTC established an evaluation team which included staff of YRRTC, staff of YRRTC's Owner's Engineer as independent cost estimator and Metrolinx representative (Independent Cost Advisor) to monitor the evaluation process so long as the latter have not been involved in the preparation of the cost estimate submission of the Cost Estimator.
 - Evidence was witnessed (refer to Item No. 2, 3, and 4 - Evidence Form - Appendix B).
- **Clause 1.d: The procurement plan and its contents**
The competitive procurement process used by York Consortium 2002 to get Metrolinx approval
 - The Cost Estimator prepared a procurement plan, which included a description of the scope of work based on the preliminary engineering work. The preliminary engineering work included drawings, specifications, design materials, budget estimates, quantity estimates, and the risk allocation matrix. This plan contained a provision that at least 66 2/3% of the cost estimate of the GMP.
 - Evidence was witnessed (refer to Item No. 5 and 6 - Evidence Form- Appendix B).
- **Clause 1.e: The scope of the work reviewed by the Cost Estimator, York Consortium 2002 and the Evaluation Team within 2 weeks**
 - The scope of work was reviewed by the Metrolinx Representative and Metrolinx Independent Cost Advisor, Independent Cost Estimator, York Consortium, and YRRTC.
 - Many workshops and meetings were held as part of the review process for all projects.
 - Evidence was witnessed for D1, Early Works, H3, and H2 VMC projects (refer to Item No. 7 and 10 - Evidence Form - Appendix B).
- **Clause 1.f: The Estimated GMP and Proposed GMP been prepared for the scope of work independently by the Cost Estimator and York Consortium 2002 during the Cost Estimate Period.**
 - The Cost Estimator and York Consortium 2002 prepared the estimated GMP independently without consultation between them for the scope of work, but when they discovered an ambiguity or an error in the scope of work, they contacted the Evaluation Team to resolve this ambiguity and inconsistency.
 - This case happened during the H2 VMC project when differences were discovered between the Proposed and Estimated GMP.
 - Evidence was witnessed (refer to Item No. 3, 6, 8, and 10 - Evidence Form- Appendix B).
- **Where the Proposed GMP is less than the Estimated GMP.**
 - **Clause 2.a: Any situation where the Proposed GMP is less than or equal to the Estimated GMP.**
The scope of work and Proposed GMP formed the basis of the contract price subject to final approvals of YRRTC
 - Only one situation happened in the Davis Drive (Yonge Street to Highway 404) - D1 Early Works Package (D1-Early Works) project when the Proposed GMP was less than the Estimated GMP, and when Metrolinx's approval was obtained, York Consortium 2002 awarded the contract for the scope of work.
 - The Proposed GMP formed the basis of the contract price subject to final approval by YRRTC.
 - Evidence was witnessed (refer to Item No. 9 - Evidence Form- Appendix B).

- **Where the Proposed GMP exceeds the Estimated GMP and difference is within 5% of the Estimated GMP**
 - **Clause 3.a: Providing a copy of the detailed records of the reconciliation of all differences on an issue by issue basis and all the resolutions of all differences within 5% difference between Estimated GMP and the Proposed one**
 - YRRTC recorded revised amounts that form a basis of calculating variances and provided these to Metrolinx, York Consortium 2002, and the Independent Expert Panel with the resolution in a detailed fashion within 2 weeks.
 - Evidence was witnessed (refer to Item No. 10 and 11 – Evidence Form- Appendix B).
 - **Clause 3.c: If all parties are not successful in reconciling the differences**
 - When all parties cannot successfully reconcile the differences, the Evaluation Team notified and coordinated submissions to the independent External Panel.
 - This process is supposed to be completed within 1 week, but in this case, it took approximately 13 days, which is one of the observations that the timeline indicated in the Master Agreement was not achievable.
 - Evidence was witnessed (refer to Item No. 1, 2, 12, and 13 – Evidence Form- Appendix B).
 - **Clause 3.d: The Independent Expert Panel detailed recommendations are to be provided to Metrolinx, YRRTC and York Consortium 2002 within four weeks**
 - The Independent Expert Panel reviewed the Proposed GMP, the Estimated GMP, and the submissions from York Consortium 2002 and the Cost Estimator; and provided detailed recommendations to Metrolinx, YRRTC, and York Consortium 2002 within 4 weeks
 - Evidence was witnessed (refer to Item No. 2 – Evidence Form- Appendix B).
 - **Clause 3.e: YRRTC make a non-negotiable final offer based upon the scope of work to York consortium 2002 of the contract price for the work**
 - There was no project that fell under the amended cost confidence process that needed to follow this process.
- **Where the Proposed GMP exceeds the Estimated GMP and the difference is greater than 5% but less than 10% of the Estimated GMP**
 - There was no project that fell under the amended cost confidence process when the Proposed GMP exceeded the Estimated GMP with a difference greater than 5% but less than 10% of the Estimated GMP.
- **Where the difference between the Proposed GMP and the Estimated GMP is greater than 10% of the Estimated GMP**
 - **Clause 5.a: Review the Proposed GMP and the Estimated GMP**
 - The Evaluation Team and the Cost Estimator met to review the Proposed and Estimated GMP to determine whether either submission contained an obvious error that needs to be corrected.
 - This case happened in the H3 project when there was an obvious error in the Proposed GMP; the error was corrected by the applicable party to match the requirements of the Estimated GMP.
 - Evidence was witnessed (refer to Item No. 2 and 13 – Evidence Form- Appendix B).

- **Metrolinx Approval**
 - **Clause 6.a: A written approval of Metrolinx obtained prior the award of any contract under Schedule "A" to York Consortium 2002**
 - YRRTC obtained a written approval from Metrolinx prior to the award of any contract under Schedule A to York Consortium 2002.
 - This process was followed for the H2 VMC, D1 main contract, and H3 project.
 - Evidence was witnessed (refer to Item No. 10 and 14 - Evidence Form- Appendix B).
 - **Clause 6.b: A separate and independent analysis performed on the cost confidence process on behalf of Metrolinx**
 - Metrolinx retained its own Cost Advisor as a third-party independent reviewer.
 - This Independent Cost Advisor carried out an over the shoulder review and reported to Metrolinx.
 - Evidence was witnessed (refer to Item No.14 - Evidence Form- Appendix B).
- **Fairness Monitor**
 - **Clause 7.a: Employ the services of fairness monitor to oversee the cost confidence process set out in schedule "A"**
 - YRRTC engaged the services of a Fairness Monitor to oversee the cost confidence process and confirmed that the Fairness Monitor terms of reference were acceptable to Metrolinx.
 - The Fairness Monitor provided the report to YRRTC at the end of the cost confidence process to verify compliance of the requirements of a particular segment of the vivaNext Green Project.
 - Evidence was witnessed (refer to Item No.15 - Evidence Form - Appendix B).

Attachments:

1. Audit Plan
2. Attendance Form
3. Evidence Form
4. Opportunity for Improvement (CAPA-RT-VNBRT-YRRTC-2018-001)

Audit Team Leader Sign-off: *Maha Ibrahim*

Appendix B - Evidence

Evidence Form - Compliance Quality Audit

Location:	York Region Rapid Transit Corporation (YRRTC) vivaNext Bus Rapid Transit (BRT) (3601 Highway 7, Markham, Ontario)	Date:	November 27, 2018						
Contract Number:	VivaNext BRT - Contract Number (No.) 095703								
Audited Processes: <ul style="list-style-type: none"> • YRRTC Master Agreement Schedule I, Amended Cost Confidence Process Protocol • Preparation of scope of work and cost estimate submissions (19 weeks) • Where the Proposed GMP is less than the Estimated GMP (2 weeks) • Where the Proposed GMP exceeds the Estimated GMP and the difference is within 5% of the Estimated GMP (11 weeks - maximum) • Where the Proposed GMP exceeds the Estimated GMP and the difference is greater than five percent 5% but less than 10% of the Estimated GMP (12 weeks - maximum) • Where the difference between the Proposed and Estimated GMP is greater than 10% of the Estimated GMP • Metrolinx Approval • Fairness Monitor 									
Auditee's Management Representative(s) Involved: <table border="0"> <tr> <td>1. Michael Cheong</td> <td>4. Zahra Dossa</td> </tr> <tr> <td>2. Narendra Shah</td> <td>5. Paul May</td> </tr> <tr> <td>3. Liza Sheppard</td> <td>6. Norman Chan</td> </tr> </table>				1. Michael Cheong	4. Zahra Dossa	2. Narendra Shah	5. Paul May	3. Liza Sheppard	6. Norman Chan
1. Michael Cheong	4. Zahra Dossa								
2. Narendra Shah	5. Paul May								
3. Liza Sheppard	6. Norman Chan								
List of Reference Documents/Evidences: <p>Compliance verification of Master Agreement Schedule I, <i>Amended Cost Confidence Process</i> included samples from D1 Main and Early Works, Highway 7 (Richmond Hill to Warden Avenue) Segment Design-Build Project (H3), and Vaughan Metropolitan Centre - Segment Design-Build (H2 VMC).</p> <p>The following items have been received and filed in the relevant binder:</p> <ul style="list-style-type: none"> • YRRTC letter, dated November 1, 2011, regarding the H2 VMC Segment: Proposed Change in Limits and Acceleration of Cash Flow and exchange of the vivaNext Y3.2 (Green Project) with H2 VMC segment and request of authorization to begin the Cost Confidence Process. • Metrolinx letter, dated November 24, 2011, regarding the H2 VMC Segment: Proposed Change in Limits and Acceleration of Cash Flow verifies authorization of exchange of the vivaNext Y3.2 (Green Project) to be considered to future project bundles and commence the execution of the H2 VMC segment. • Copy of YRRTC <i>Amended Cost Confidence Process</i> workflow chart, dated November 27, 2018, was provided to the Audit Team. 									

Item 1, Clause 1.b, 3.c

- Email from Janis Vanderburgh, YRRTC Senior Counsel to members of the Expert Panel, dated Tuesday, August 3, 2010, regarding H3 Docs for Expert Panel engagement throughout the Cost Confidence Process.
- Email from Janis Vanderburgh, YRRTC Senior Counsel to members of the Expert Panel, dated Thursday, August 11, 2010, regarding preparation for Expert Panel Presentation referencing Expert Panel engagement throughout the Cost Confidence Process.

Item 2 Clause 1.b, 1.c, 3.c, 3.d and 5.a

- YRRTC Report of the Evaluation Team regarding vivaNext H3.1 and H3.2 Design/Build Project Cost Confidence Process, dated September 20, 2010, referencing Expert Panel engagement on August 6, 2010.
- The Expert Panel recommendation hearing was held on August 18, 2010, makes reference to the analysis of submissions for errors by Susan Tuckey, Chief Finance and Strategy Officer for YRRTC, the Expert Panel Report dated August 25, 2010 and identifies the list of Evaluation Team Members.

Item 3, Clause 1.c, and 1.f

- YRRTC Report of the Evaluation Team regarding vivaNext D1 Design/Build Project Cost Confidence Process, dated July 7, 2011, referencing list of Evaluation Team Members, referencing the Cost Estimate Period of 15 weeks duration (December 2, 2010 - May 19, 2011).
- YRRTC Report of the Evaluation Team regarding vivaNext H2 VMC Design Build Project Cost Confidence Process, dated June 20, 2012, referencing list of Evaluation Team Members in section III. There is an analysis on page 2 of the report referencing commencement of the cost confidence process on January 24, 2012 to June 5, 2012, which met the GMP submission close timeline.

Item 4, Clause 1.c

- YRRTC letter referencing Report of Evaluation Team regarding vivaNext D1 Early Works Design/Build project Cost Confidence Process, dated October 18, 2010.
- YRRTC letter referencing report of the Evaluation Team regarding vivaNext H3.1 and H3.2 Design/Build Project Cost Confidence Process, dated September 20, 2010.

Item 5, Clause 1.d

- Email from Denise Morneau, Owner's Engineer, YRRTC, dated Sunday, June 17, 2012, to all applicable parties regarding H2 VMC Cost Confidence - Final Procurement Plan, including attachment (VH2C-PM-PRD-Final Procurement Plan-R3-2012-05-21-dm.pdf) highlighting incorporation of comments received and distribution of Procurement Plan update for H2 VMC cost confidence process on May 21, 2012.
- VivaNext Segment Project H3 Design -Build Contract Procurement Plan, dated March 10, 2010.
- YRRTC Contract Award Memorandum for the H3 Cost Confidence Process under vivaNext Procurement Agreement, dated March 10, 2010.

Item 6, Clause 1.d and 1.f

- YRRTC Procurement Plan: H2 VMC Design-Build Contract, Rev. 3, dated May 21, 2012, identifying in Section 6 the schedule of key milestones and the commencement of the cost confidence process on January 24, 2012 to June 5, 2012, which met the scope of work review timeline.
- YRRTC Procurement Plan Highway 7- H2-VMC (Edgeley Blvd to Bowes Road) Design-Build Contract Rev. 03 (VH2CC-PM-PRD-Final Procurement Plan-R3-2012-05-21-dm.docx) verifies proposed and estimated GMP bid submissions were provided to YRRTC on June 5, 2012, meeting the cost confidence timeline of 15 weeks.

Item 7, Clause 1.e

- Copy of YRRTC vivaNext D1 Early Work Cost Confidence Workshops Master Contact List, dated July 29, 2010.
- Copy of YRRTC D1 Early Works Cost Confidence Workshop meeting notes, dated July 7, 2010, verified applicable parties' scope of work review.
- Copy of D1 Cost Confidence Workshops Master Contact List, dated January 18, 2011, identifying the representatives of Metrolinx and the Metrolinx Independent Cost Advisor, Independent Cost Estimator, York Consortium, and YRRTC.
- YRRTC minutes of meeting (013), dated January 28, 2011, verifies scope of work review process by applicable parties for D1 project.
- Email from Denise Morneau, Owner's Engineer, YRRTC, dated Wednesday, February 9, 2011, to all applicable parties regarding D1CC Workshop 2/9 and documents referencing scope of work review and attachments, including consolidated comments on the draft of Schedule 3 (Scope of Works) (VIVA_OE_D1CC_CBD_SOW Consolidated Comments by ICE_MTX_31-JAN-20011_BF.xlsx).
- Copy of H3 Cost Confidence Workshops Master Contact List, dated April 29, 2010, identifying the representatives of Metrolinx and the Metrolinx Independent Cost Advisor, Independent Cost Estimator, York Consortium, and YRRTC.
- Copies of YRRTC vivaNext H3 Cost Confidence Issues Workshops notes of meetings, dated April 13, 2011 (029), verified applicable parties' scope of work review in Section 3.1.
- Copies of YRRTC vivaNext H3 Cost Confidence Issues Workshops meeting notes, dated July 13, 2010, and June 25, 2010, indicating the Metrolinx Independent Cost Advisor involvement and observation of the Cost Confidence Process verifying meetings are ongoing.
- Copy of YRRTC vivaNext H2 VMC Cost Confidence Workshop notes of meeting (030), dated Thursday, May 10, 2012, verified applicable parties' scope of work review.

Item 8, Clause 1.f

- YRRTC Fairness Monitor Report by MNP LLP for the YRRTC H2-VMC Design Build Project Cost Confidence Process, dated August 3, 2012, identifying the commencement of the cost confidence process on January 24, 2012.
- Copy of YRRTC vivaNext H2 VMC Cost Confidence Workshop notes of meeting (030), dated Thursday, May 10, 2012, verified applicable parties' scope of work review.
- Signed copy of YRRTC contract award authorization, dated October 1, 2012, regarding Cost Confidence - H2 VMC Design Build- Limited Notice to proceed (CC-12-020-RT).

- Email from Sheena Arora, Project Administrator for Mary-Frances Turner, President at YRRTC to Jack Collins, Metrolinx Chief Capital Officer, dated Wednesday, June 20, 2012, regarding attachments H2 VMC Design Build Project - Cost Confidence Process and Report of the Evaluation Team regarding vivaNext H2-VMC Design Build Project Cost Confidence Process, June 20, 2012.

Item 9, Clause 2.a

- vivaNext Contract Award Memorandum for D1 Early Works Cost Confidence Process under vivaNext Procurement Agreement, dated March 10, 2010.
- Metrolinx Pre-Award Authority for York Viva Segment D1 Early Works Memorandum, dated October 5, 2010.
- Signed Metrolinx Procurement Authorization Report for vivaNext D1 Early Works, dated October 21, 2010.
- YRRTC Contract Award for Cost Confidence -H2 VMC Design Build - Limited Notice to Proceed, dated October 31, 2012.

Item 10, 1.e, 1.f, 3.a, and 6.a

- YRRTC Report of the Evaluation Team regarding vivaNext H2 VMC Design Build Project Cost Confidence Process, dated June 20, 2012, referencing scope of work review by applicable parties, meeting cost estimate period timeline requirement, and YRRTC Chief Financial Officer Analysis of submissions of Proposed and Estimated GMP for errors.

Item 11, Clause 3.a

- Email from Sheena Arora on behalf of Mary-Frances Turner, President of YRRTC, dated July 7, 2011, regarding D1 Main: Report of the Evaluation Team, dated July 7, 2011, verified distribution to Metrolinx.
- Email from Jack Collins, Metrolinx Chief Executive Officer, dated July 7, 2011, to YRRTC Representatives verifying notification to proceed with contract execution.
- YRRTC H2-VMC Cost Confidence - GMP Reconciliation Meeting (01) agenda involving Evaluation Team and Procurement Team, dated June 11, 2012.
- McCormick Rankin (MRC) letter from Rick Vince on behalf of the Independent Cost Estimator Team to Janis Ingram, Senior Counsel, dated June 6, 2012, regarding vivaNext: H2 VMC- Hwy 400 to Barrie Go Line Independent Cost Estimate Breakdown (File No. 3211017- Owner's Engineer) reference cost estimate breakdown summary.
- Email from Antonia Moras, Law Clerk at Janis E. Ingram, Senior Counsel YRRTC to applicable parties regarding H2 VMC Design Build Project- Cost Confidence back-up documentation of Independent Cost Estimator (ICE) and Kiweit-EllisDon (KED) in support of submitted GMP on June 5, 2012.
- YRRTC Procurement Plan for Davis Drive- D1 Main Contract Work Package, dated March 8, 2011, identifying in Section (j) the schedule for evaluation and award of the scope of work review timeline.

Item 12, Clause 3.c

- Email from Paul May, YRRTC Vice-President, Project Implementation dated August 26, 2010, regarding the final report of the Expert Panel Presentation for the H3 project.

Item 13, Clause 5.a and 3.c

- Email from Susan Tuckey, Chief Finance and Strategy Officer for YRRTC to members of the Expert Panel, dated Monday, August 30, 2010, referencing initiation of the cost confidence process analysis of the Proposed and Estimated GMP bid submissions that include correction of errors in the H3 project.

Item 14, Clause 6.a and 6.b

- Metrolinx Procurement Authorization Report for YRRTC Davis Drive (D1-Main) Design-Build GMP Project, authorized by Metrolinx on July 8, 2011.
- Metrolinx Memorandum regarding award of York Segment H3 Design-Build Contract, dated October 5, 2010.
- Metrolinx Procurement Authorization Report for York viva Segment H3 Design-Build Contract pursuant to Cost Confidence Process, dated October 21, 2010.
- Signed copy of Metrolinx Procurement Authorization Report authorizing RFX No: CC-12-020-RT Cost Confidence-H2 VMC Design Build award, dated July 10, 2012.
- YRRTC Contract Award for Cost Confidence -H2 VMC Design Build - Limited Notice to proceed, dated October 31, 2012.

Item 15, Clause 7.a and 7.b

- YRRTC Fairness Monitor Report by P1 Consulting Inc. for YRRTC Davis Drive (D1 Main) Design Build Project Cost Confidence Process, dated August 2, 2011, for the duration between January 3 and August 2, 2011, inclusive.
- YRRTC Request for Quotation for Fairness Monitor Services (FRQ-11-001-RT) Davis Drive (D1 Main) Design Build Project, dated December 1, 2010, that includes Terms of Reference.
- Metrolinx Procurement Authorization Report verifying authorization on December 21, 2010, for Davis Drive (Main) Design Build Project (YRRTC RFQ-11-001-RT) Cost Confidence Process Fairness Monitor.
- YRRTC Fairness Monitor Report by KPMG LLP for York Region Rapid Transit Plan - H3 segment of VivaNext (Green) - Amended Cost Confidence Process, dated March 18, 2010, for the duration between March 10 and August 6, 2010, inclusive.
- YRRTC Fairness Monitor Report by KPMG LLP for York Region Rapid Transit Plan - H3 segment of VivaNext (Green) - Amended Cost Confidence Process, dated March 18, for the duration between August 30 and September 17, 2010, inclusive, to observe step 4 (difference between 5% and 10% of their GMPs) of the cost confidence process.
- Email from Janis Vanderburgh, YRRTC Senior Counsel to Mark Ciavarro and Mary Martin, Metrolinx, dated December 16, 2009, request for quotation for Fairness Monitor Services (attachment) York #1339765-v2 YRRTC_Metrolinx_Cost_Confidence_Process_-_Fairness_Monitor_Request_for_Quotation.DOC).
- YRRTC Request for Quotation for Fairness Monitor Services for the H3 segment of the VivaNext (green) Project (York #1339765-v2-YRRTC_Metrolinx_Cost_Confidence_Process_Fairness_Monitor_Request_for_Quotation.DOC), dated December 18, 2009, that includes Terms of Reference.
- Email from Mark Ciavarro, Metrolinx to Janis Vanderburgh, YRRTC Senior Counsel, dated January 12, 2010, advising YRRTC to proceed with the Fairness Monitor Request for Quotation process.

- YRRTC Request for Quotation for the H2 Vaughan Metropolitan Centre (VMC) Design -Build Cost Confidence Process Fairness Monitor (RFQ-11-154-RT), dated November 9, 2011, that includes Terms of Reference.
- Email from Joe Marotta, Metrolinx Assistant Procurement Manager to Antonia Moras, the Law Clerk to Janis E-Ingram, Senior Counsel and Mark Dunn regarding RFQ-11-154-RT - Fairness Monitor Services for H2 VMC, dated November 1, 2011, verifies Metrolinx review of Fairness Monitor submission documents for the Request for Quotation process.
- Metrolinx Procurement Authorization Report for H2 VMC (Vaughan Metropolitan Centre) Design-Build Contract Cost Confidence Process referencing (YRRTC RFQ-11-154-RT) for Fairness Monitor vendor approval, dated December 12, 2011, that includes Terms of Reference.

List of Legislation, Regulations, and Standards:

1. *Metrolinx Master Agreement, Amended Cost Confidence Process Schedule I*

Audit Planning Form

Organization name:	YRRTC			
Contract number:	095703			
Audit number:	MX-RT-VNBRT-YRRTC-2018-001	Audit date:	27/11/2018	
Management standard:	Quality Compliance			
Audit scope:	Schedule "I" Amended Cost Confidence Process ; Schedule "A" Amended Cost Confidence Process for design build projects for the vivaNext, H3,D1 and Y3.2			
Audit references:	Master Agreement, Schedule "I" YRRTC Amended Cost Confidence Process			
Auditee's Management Representative:	Michael Cheong			
Previous audit report number:	MX-RT-VNBRT-YRRTC-2017-030, Master Agreement, Schedule" B" Real Estate Protocol			
Previous audit date:	15/11/2017			
Additional information:	For the audit, please be prepared and provide all relevant records and evidence as per audit			
Audit Team Leader:	Maha Ibrahim			
Audit Team:	Lisa Peckham			
Opening meeting:	Date:	27/11/2018	Time:	10:30 am
Closing meeting:	Date:	27/11/2018	Time:	2:15 pm
Date	Time	Auditor	Audit area	Description
27/11/2018	10:30-10:40	Kimberly Weston-Martin	Opening Meeting	
27/11/2018	10:40 -10:50	Auditee's Management Representative	Brief about, Schedule "I" YRRTC Amended Cost Confidence Process	
27/11/2018	10:50- 1:00	Maha Ibrahim	1- Preparation of scope of work and cost estimate submissions 2- Where the proposed GMP is less than the estimated GMP 3- Where the proposed GMP Exceeds the estimated GMP and the difference is within 5% of the estimated GMP. 4- where the proposed GMP Exceeds the estimated GMP and the difference is greater than 5% but less than 10% of the estimated GMP	
27/11/2018	1:00-1:30		Lunch Break	
27/11/2018	1:30- 2:15	Lisa Peckham	5- where the difference between the proposed GMP and the estimated GMP is greater than 10% of the estimated GMP 6- Metrolinx Approval	

			7- Fairness monitor	
--	--	--	---------------------	--

Audit Team Leader:*Maha*

Maha Ibrahim

19/09/2018

Signature

Name

Date

Auditee's Management Representative:

Signature

Name


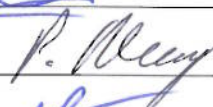






Date

Attendance Form

Subject: Quality Compliance Audit, The Master Agreement among Metrolinx, YRRTC and the Regional Municipality of York, Schedule "I" Amended Cost Confidence Process

Project: VivaNext Project

Date: 27/11/2018

No.	Name	Organization	Designation	Signature
1	MICHAEL CHEONG	YRRTC	CHIEF FINANCIAL OFFICER	
2	Paul Day	YRRTC	VP, Project Implementation	
3	NARENDRA SHAN	YRRTC	Manager - Finance - Governance & Compliance	
4	LIZA SHEPPARD	YRRTC	Director, BES Program	
5	Norman Chan	YRRTC	Accounting & Bus Analyst	
6	ZAHRA DOSSA	YRRTC	FINANCIAL CONTROLS & COMPLIANCE ANALYST	
7	LESA PECKHAM	MX	Quality Compliance Architect	
8	Maher Ibrahim	MX	Quality Compliance Professional	
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				

Corrective Action (CAPA) Form

Issue date:	20/12/2018	Category:	<input type="radio"/> Major <input type="radio"/> Minor <input checked="" type="radio"/> Opportunity for Improvement	CAPA no.:	CAPA-RT-VNBRT-YRRTC-2018-001
Project name:	vivaNext Project				
Organization:	Michael Cheong, Chief Financial Officer Narendra Shah, Manager - Finance, Governance and Compliance York Region Rapid Transit Corporation (YRRTC) 3601 Highway 7 in Markham, Ontario				
Description of issue:					
During review of the evidence, the Auditors found that there is no formal workflow transmittal process for record distribution. Records related to the <i>Amended Cost Confidence Process</i> were distributed via email only. It was difficult to determine what role each email recipient played within the program or whether each recipient received and read the email. This process is not sufficient to support an effective Document Control Management System (DCMS).					
Process or service affected: Transmittal process					
Additional comments:					
Due date:					

Root cause:
Correction actions:
Responsible individual:
<div>Signature</div> <div>Name</div> <div>Date</div>

Verifications and acceptance:
Closure due date:

Verifier:

Signature

Name

Date