

# Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass Project

**Audit Recommendation Implementation Quarterly Updates:  
Project Initiation to 2019 Qtr 4**

*The final report was received by Council on November 26, 2020*

<https://clkapps.winnipeg.ca/DMIS/November 26, 2020>

# Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass Audit for the Period of Project Initiation to March 31, 2016



## **Table of Contents**

AUDIT AT A GLANCE	1
MANDATE OF THE CITY AUDITOR	2
AUDIT BACKGROUND	2
AUDIT OBJECTIVES	2
PROJECT RISK ANALYSIS	3
SCOPE	3
APPROACH AND CRITERIA	4
CONCLUSIONS	5
INDEPENDENCE	7
ACKNOWLEDGEMENT	7
Project Background	8
Project Reporting Analysis	13
APPENDIX 1 – Risk Assessment Worksheet	20
APPENDIX 3 – Audit Process	21
APPENDIX 4 – Summary of Recommendations	22
APPENDIX 5 – Illustration of Actual Costs Presented in Financial Status Reports	23

---

## AUDIT AT A GLANCE

### **RECOMMENDATIONS**

*We recommended that the Public Service:*

- 1. Further enhance the required discussion in quarterly financial status reports for major capital projects.*

### **Background**

Stage 2 of the Southwest Rapid Transitway and Pembina Highway Underpass is one of the largest capital projects that the City has embarked upon. Appropriate communication is important to allow key stakeholders to fulfill their roles in relation to the project; it also keeps the public informed on project performance. The Audit Department will be releasing quarterly audit reports that provide assurance on the reporting processes and selected key project management areas throughout the construction of the project.

### **Findings**

The Public Service has produced the appropriate legislated and agreed upon reports from the inception of the project to the reporting period ended March 31, 2016.

The Public Service is currently in the process of updating the quarterly financial status reporting templates. Further enhancements to the drafted changes will allow the Public Service to meet the best practice reporting advice of the Government Finance Officers' Association (GFOA).

## MANDATE OF THE CITY AUDITOR

- ◆ The City Auditor is a statutory officer appointed by City Council under *The City of Winnipeg Charter*. The City Auditor is independent of the Public Service and reports directly to Executive Policy Committee, which serves as the City's Audit Committee.
- ◆ The City Auditor conducts examinations of the operations of the City and its affiliated bodies to assist Council in its governance role of ensuring the Public Service's accountability for the quality of stewardship over public funds and for the achievement of value for money in City operations.
- ◆ Once an audit report has been communicated to Council, it becomes a public document.

## AUDIT BACKGROUND

- ◆ Stage 2 of the Southwest Rapid Transitway and Pembina Highway Underpass ("the Project") is one of the largest capital projects that Winnipeg has initiated to date. An audit of the Project was added to the City Auditor's *Audit Plan 2015 – 2018* in order to provide timely assurance on key project management areas on a proactive basis. Our audit work began after the procurement phase of the Project due to a fairness monitor being secured to provide oversight on the procurement process (a requirement of *The Public-Private Partnerships Transparency and Accountability Act*).
- ◆ The City Auditor's audit plan was adopted by Council on July 15, 2015.

## AUDIT OBJECTIVES

- ◆ The objectives of this ongoing audit are:
  - To provide assurance that appropriate reporting is occurring for the Project based on regulatory requirements, City policies and procedures, and agreements with third parties
  - To provide assurance that appropriate financial status reporting is occurring for the Project
  - To provide assurance that appropriate risk management is occurring in the Project

## PROJECT RISK ANALYSIS

- ◆ Communication is essential for successful projects. Some of the most important communication in large-scale public capital projects occurs in the form of public reporting; however, few industry organizations give guidance on what exactly should be included in project performance reports. Reporting is mainly left to be agreed upon by project stakeholders, and much is left to the professional judgment of the project management teams. Improper communication can hold up projects or cause wasted efforts. Therefore, proper communication practices are essential to ensure that projects run smoothly and efficiently.
- ◆ Individual audit area risk assessments are provided for each issue discussed. The assessments discuss and detail the residual risk for issues after considering the City's mitigating risk controls. Our risk assessment criteria are shown in **Appendix 1**.

## SCOPE

- ◆ The scope of our audit includes project communication management over the course of the project. The scope of our quarterly audit reports also includes the reporting on key management areas (such as risk, quality, schedule, and cost) as the Project progresses.
- ◆ Our audit runs concurrently with the project over the duration of the project, and reports are released on a quarterly basis. This is our first report, which covers the period of project approval in the City's capital budget to March 31, 2016.

## APPROACH AND CRITERIA

- ◆ We conducted our audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient appropriate evidence to provide a reasonable basis for our observations and conclusions, based on our audit objectives. We believe the evidence we have obtained provides a reasonable basis for our observations and conclusions.
- ◆ To gather sufficient appropriate evidence for our audit, we reviewed Manitoba's legislated requirements for public-private partnership reporting, the City of Winnipeg's documented guidance for capital project reporting, and the public reporting requirements set out in funding and capital project management agreements. We also researched industry standards and guidance on capital project monitoring and reporting. We then conducted our fieldwork, which compared the public reporting for the project for the period covered by this audit report to all of the outlined guidance.
- ◆ The guiding documents we used include:
  - *The Public-Private Partnerships Transparency and Accountability Act* of Manitoba
  - *The Environment Act* of Manitoba
  - *The City of Winnipeg Charter* for Council's and its committees' legislated roles in relation to capital project decision making
  - *Administrative Standard FM-004: Asset Management* (and its precursors throughout the project)
  - Agreements with federal and provincial funding partners (P3 Canada, and the Government of Manitoba) and contracted service providers (Plenary Roads Winnipeg Transitway LP)
- ◆ Industry capital project monitoring and reporting practices we researched included:
  - The October 2007 "Capital Project Monitoring and Reporting" best practice published by the Government Finance Officers' Association (GFOA)
  - Recommended practices 17R-97 and 56R-08 of The Association for the Advancement of Cost Engineering (AACE)
  - Accounting principles published by CPA Canada
  - *Effectiveness Reporting and Auditing in the Public Sector* published by the Canadian Comprehensive Auditing Foundation (CCAF)
  - Publicly available reporting information for the National Project Management System (NPMS)
  - *A Guide to the Project Management Body of Knowledge (PMBOK® Guide) Fifth Edition*
  - Projects IN Controlled Environments (PRINCE2)
- ◆ **Appendix 2** provides a flowchart of the audit process.

## CONCLUSIONS

*The reports required by legislation, by-law, administrative standards, and contractual agreements have been issued by the Public Service.*

- ◆ The Public Service has submitted the formal reports required for this project during the period of this audit report.
- ◆ The reports reviewed for the period of this audit included:
  - “Capital Integration Project – Southwest Transitway (Stage 2) and Pembina Highway Underpass” (June 25, 2014 Council meeting)
  - “City of Winnipeg Stage 2 – Southwest Rapid Transit Corridor Project P3 Business Case Summary” (June 25, 2014 Council meeting)
  - “Capital Integration Project – Increase of the Delegated Award Authority for Manitoba Hydro Early Works” (January 28, 2015 Council meeting)
  - Expropriation and land approval reports provided to Council and its committees to March 31, 2016
  - The six (6) quarterly financial status reports to the SPC on Finance from project initiation to the period ended March 31, 2016
  - Applications, reports and correspondence relating to the City’s license under *The Environment Act* posted on the Province of Manitoba website to March 31, 2016
- ◆ The reports were compared to the guidance given for such reports and were found to meet the standards of said guidance.
- ◆ Financial costs reported to the SPC on Finance were found to be in accordance with the generally accepted accounting principles on cost reporting issued by Canada’s Public Sector Accounting Board and, in our opinion, fairly presented the actual costs incurred for the Project at the date of each report.

*Status report contents can be enhanced to provide more complete communications to Council and the public.*

- ◆ Little industry guidance exists that directs exactly what project status reports should report; reporting is an agreement between various parties based on their information needs so they can perform their roles in relation to the project and their offices.
- ◆ The reports submitted to the SPC on Finance were found to be in accordance with the documented requirements for these reports.
- ◆ Councillors have expressed desires for more fulsome information in status reports to be informed about projects, and to better enable them to perform their oversight roles as elected officials.
- ◆ The Government Finance Officers’ Association, an association that the City of Winnipeg is a member of, recommends specific minimal reporting requirements that can be included in financial status reports. The Public Service is currently revising the financial status report template. The draft revision includes some GFOA recommendations, but does not include several of the minimum reporting items including completion percentage, contract statuses, and scope and cost change information.

## CONCLUSIONS (Continued)

*An initial risk assessment was included in the business case for the Project. Construction risk management plans are currently in development.*

- ◆ The business case prepared by Deloitte LLP included in the June 2014 Council meeting agenda included a risk assessment for the Project, as is required by *The Public-Private Partnerships Transparency and Accountability Act*.
- ◆ The City's project team developed and utilized a risk management plan and monitoring system for the procurement phase.
- ◆ Project risks were regularly considered at City project team meetings, and at the Major Capital Projects Advisory Committee meetings.
- ◆ At the time of this report, more in-depth risk management plans relating to construction were also in development between the recently awarded private partner for the Project, Plenary Roads Winnipeg, and the City's owner's advocate, Dillon Consulting.

**Appendix 3** provides a summary of our recommendations.

## INDEPENDENCE

The team members selected for the audit did not have any conflicts of interest related to the audit's subject matter.

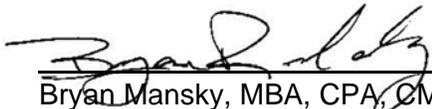
## ACKNOWLEDGEMENT

The Audit Department wants to extend its appreciation to all of the stakeholders who participated in this audit and especially to City's project team for their time and cooperation.

### The Audit Team

Micheal Giles, CPA, CA, CIA  
Deputy City Auditor

Marisol Gil Reyes, CPA, CA  
Auditor

  
Bryan Mansky, MBA, CPA, CMA, CIA  
City Auditor

August 2016  
Date

# Project Background

## 1.1 History of the Project

- ◆ The concept of transit corridors has been included in City plans for several decades.
- ◆ The first tangible public drawings that we are aware of for a southwest transit corridor were included in “Plan Winnipeg – toward 2010” (Policy Plate C), which was adopted by Council in 1993.
- ◆ In 2004, the Mayor at the time appointed the Rapid Transit Task Force, the work of which was adopted by Council in February 2006 in an administrative report entitled “Implementation Plan for Rapid Transit Task Force Recommendations”. This report included Stage 1 of the Southwest Rapid Transit Corridor. Stage 1 of the Southwest Rapid Transit Corridor was completed on time in 2012, and within the approved budget of \$138,000,000.
- ◆ In November 2011, Council adopted the City’s “Transportation Master Plan”, which included the provision for the expansion of the Pembina Highway Underpass and five new transit corridors, the first being the southwest corridor.
- ◆ Capitalizing on an opportunity to integrate two projects, the City of Winnipeg submitted the combined Southwest Transitway (Stage 2) and Pembina Highway Underpass project (“the Project”) to the Government of Canada for funding under the Building Canada Fund. As the Project was expected to exceed a \$100 million threshold, a screening process was completed to determine whether the project could be successfully delivered under a P3 model. It was ultimately determined that the project could be successful as a P3 project, and funding was announced from P3 Canada.
- ◆ On June 25, 2014, Council approved that the project be included in the City’s Capital Budget at an estimated cost of \$590 million.

## 1.2 Project Makeup

- ◆ The design of the Project is shown below:

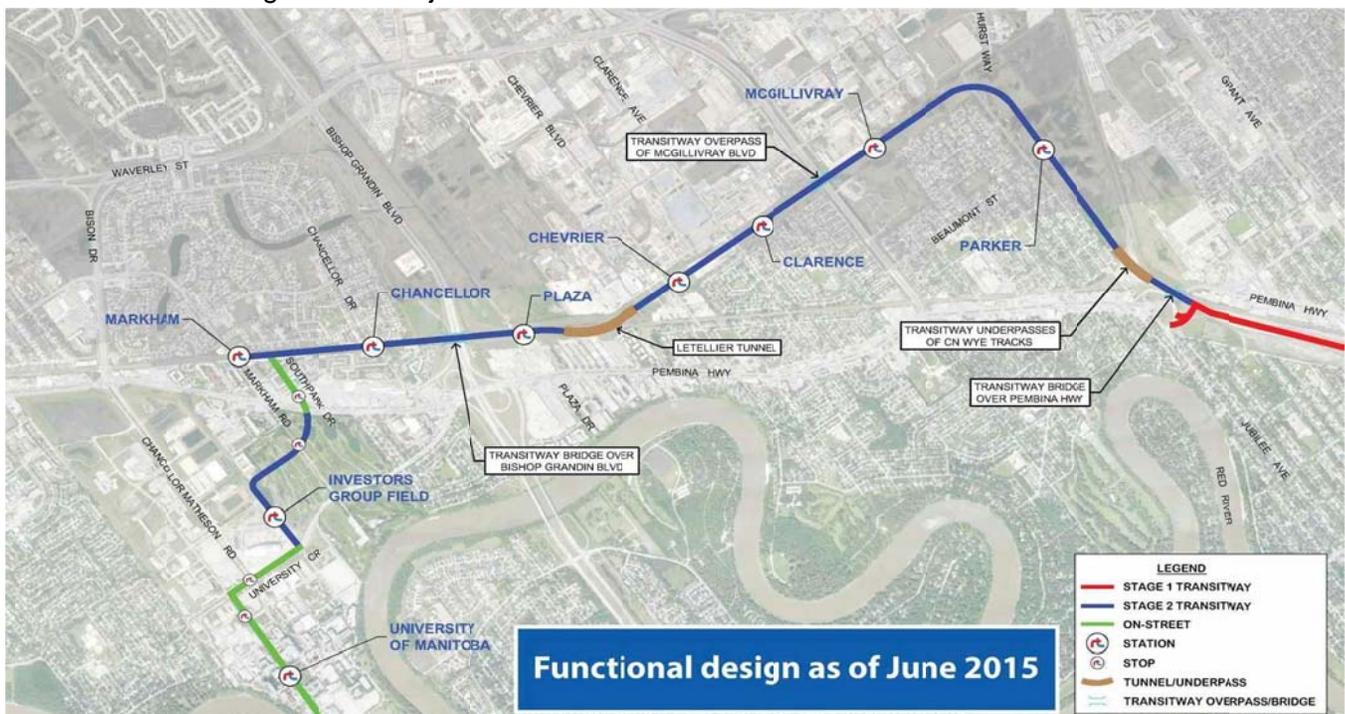


Figure 1: Southwest Rapid Transitway (Stage 2) Project Overview

~Source: Winnipeg Transit website March 31, 2016

- ◆ Until March 31, 2016, the scope of the Project involved the extension of the current Stage 1 of the southwest transit corridor from Jubilee Boulevard to the University of Manitoba. This extension is approximately 7.6 kilometers long and requires the construction of five new bridges (two for railways and three for the transitway), an underpass and a tunnel under existing railways, an active transportation path parallel to the transitway, two “Park & Ride” areas, and seven new transit stations.
- ◆ The Project also includes the widening of the northbound side of Pembina Highway under the Jubilee overpass from two to three lanes.

### 1.3 Project Resources

- ◆ At the time of this report, the Project is being managed by a team of experienced City employees. Project management is also supported by an “owner’s advocate” (contracted engineering consultant), and several contracted subject matter experts for legal, engineering, procurement, and regulatory compliance advice.
- ◆ The Project will ultimately be managed by the P3 consortium, which will be responsible for design, construction, finance, and maintenance of the asset for the next 30 years.
- ◆ The Project budget at the time of this report is \$587.3 million.
- ◆ The financing for the Project is:

<u>Contributing Party</u>	<u>Contribution</u>	<u>Percent</u>
City of Winnipeg	\$ 225,000,000	38%
Province of Manitoba	225,000,000	38%
Government of Canada	<u>137,300,000</u>	24%
 Total	 <u>\$ 587,300,000</u>	

### 1.4 Current State of the Project

- ◆ The planning and procurement phase of the Project is being managed by a team of City of Winnipeg employees until such time that construction begins. Project management will then be turned over to the private partner with oversight still being provided by the City project team. The City’s project management team is made up of several experienced City employees with backgrounds in project management, finance, engineering, legal services, and procurement processes. This team also receives oversight support from the Major Capital Projects Advisory Committee, which includes the City’s Chief Operating Officer, the Chief Financial Officer, and the Director of Winnipeg Transit. The team is also supported by several contracted consulting firms.

### 1.5 Reporting

- ◆ The following reports are required for legislated and contractually agreed upon matters:
  - Actions that are outside the delegated authority of the Public Service (such as expropriation of lands, procurement in excess of delegated authority, or over-expenditure reports)
  - Quarterly reporting to the SPC on Finance
  - Report on a public sector comparator, as well as the viability, expected risks, costs and benefits of using the P3 procurement method
  - A report by the contracted Fairness Monitor on the procurement process for the Project
  - Report on the final results of the Project
  - Environmental reports as determined by the Province of Manitoba

## 1.6 Roles and Responsibilities of Governing Stakeholders

- ◆ Project communication should allow governing bodies to perform their responsibilities of their offices in general and in relation to the specific capital project.<sup>1</sup> To set the stage for appropriate communication, it is important to have an understanding of the different stakeholders, and the responsibilities associated with their offices. Due to the size and scope of this project, the number of stakeholders, and the form of the delivery, clear, appropriate and timely communication is essential to keep the project on track to avoid project delays and additional costs.

### **Council**

- ◆ Council is the governing body for the City. Council has the legislated authority to govern the city in whatever way it considers appropriate within the broad strokes of the city charter, and has the power to delegate its authority with few exceptions. In relation to the project, Council has the responsibility to:
  - Set and approve civic priorities for the community
  - Set and approve the capital budget for the project
  - Approve contract awards in excess of \$5,000,000, unless that authority has been delegated by a specific resolution of Council
  - Approve the debt financing for the project
  - Approve expropriations required for the project
- ◆ Aside from these Council duties, individual Councillors have been elected to represent and advocate for the populous and require a basic level of information to be able to hold a dialogue to advocate for citizens in their wards, and within the sphere of their committee duties.

### **Committees of Council**

- ◆ Other than the Executive Policy Committee, which is a statutory committee, Council has the authority to create and to delegate powers to committees as it sees fit through the enactment of by-laws. Other committees of Council that are stakeholders in this project include Executive Policy Committee (“EPC”), various Standing Policy Committees (“SPC”), and Community Committees. The committees of Council that regularly consider the Project are detailed in the following pages.

### **Executive Policy Committee (“EPC”)**

- ◆ EPC formulates, coordinates and endorses the work of other Council committees, and makes recommendations to Council regarding matters that affect the city as a whole, including policies, plans, budgets, by-laws and other matters. EPC is also responsible for the supervision of the City’s Chief Administrative Officer. In relation to the project, the committee has the responsibility to:
  - Hold intergovernment conversations in the event that plans must be escalated to a political level
  - Endorse and present capital budgets to Council

---

<sup>1</sup> Canadian Comprehensive Auditing Foundation (1987). *Effectiveness Reporting and Auditing in the Public Sector* (Ottawa). 6.

### ***SPC on Finance***

- ◆ SPC on Finance coordinates and advises EPC on the City's fiscal policy development and strategies, including capital project recommendations and strategies. In relation to the project, SPC on Finance has the responsibility to:
  - Review and make recommendations on the project before project initiation
  - Receive quarterly reports on the current status of the project

### ***SPC on Property and Development, Heritage, and Downtown Development***

- ◆ SPC on Property and Development, Heritage, and Downtown Development provides policy advice to Council on asset management, land acquisition, land development, and planning and land use. In relation to the project, this committee has the responsibility to:
  - Recommend land acquisition strategies for the project including expropriations of property
  - Approve terms and conditions of dealing with land
  - Prepare conceptual planning in transportation systems
  - Make budgetary recommendations within the jurisdiction of the committee

### ***SPC on Infrastructure Renewal and Public Works***

- ◆ SPC on Infrastructure Renewal and Public Works provides policy advice to Council on engineering services, public works maintenance, transit, traffic control, and transportation control planning. In relation to the project, this committee has the responsibility to:
  - Make budgetary recommendations within the jurisdiction of the committee

### ***SPC on Water and Waste, Riverbank Management, and the Environment***

- ◆ SPC on Water and Waste, Riverbank Management, and the Environment provides policy advice to Council on land drainage engineering services, and environmental issues. In relation to the project, this committee has the responsibility to:
  - Make budgetary recommendations within the jurisdiction of the committee

### ***Community Committees***

- ◆ Community Committees maintain the closest possible communication between the City and the citizenry. In relation to the project, these committees have the responsibility to:
  - Provide residents information on the City's policies, programs and budgets, and ensure that residents are given the opportunity to represent their views on the same

# **Project Reporting Analysis**

## 2.1 Reporting Requirements

### Issue

- ◆ Has the Public Service communicated the proper reports required by legislation, by-laws, City of Winnipeg policies and standards, and project agreements?

### Conclusions

- ◆ The Public Service has distributed the reports required by legislation, by-laws, policies, standards and agreements over the period of review for this audit report. We have performed limited testing on the information in the reports released and outlined below, and have found the information tested to be accurate.

### Analysis

- ◆ Since the inception of the project, the following reports have been required, and have been published for the Project:
  - The business case for the Project, which serves as the public sector comparator, a report on the the viability and expected, risks, costs and benefits of using the P3 model for the Project, and as the cost estimate for the City's capital budget (required by *The Public-Private Partnerships Transparency and Accountability Act* and *The City of Winnipeg Charter*)<sup>1</sup>
  - Environmental license application and reports as determined by the Environmental Stewardship Division of the Province of Manitoba<sup>2</sup>
  - "Capital Integration Project – Increase of the Delegated Award Authority for Manitoba Hydro Early Works" (required by Council's *Materials Management Policy*)<sup>3</sup>
  - "Expropriation of Lands – Capital Integration Project (Southwest Transitway (Stage 2) and Pembina Highway Underpass)" (required by *The City of Winnipeg Charter*)<sup>4</sup>
  - "Expropriation of Lands – Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass Project" (required by *The City of Winnipeg Charter*)<sup>5</sup>
  - Six (6) quarterly financial status reports to the Standing Policy Committee on Finance (*Administrative Standard FM-004: Asset Management*)<sup>6</sup>
- ◆ Our audit work includes examination of reports in relation to the legislated, regulated or agreed-upon requirements to communicate such reports. Limited testing of the accuracy of information included in reports was also completed based on our risk assessment of whether such information could be misstated. Testing the accuracy of reports published before or during the procurement phase of the project is not included in our audit scope.

---

<sup>1</sup> Published in the appendices to minute 608 of City Council's June 25, 2014 meeting.

<sup>2</sup> Published on the Province of Manitoba's website: [www.gov.mb.ca/conservation/eal/registries/](http://www.gov.mb.ca/conservation/eal/registries/)

<sup>3</sup> Submitted to Council for approval in minute 162 of City Council's January 28, 2015 meeting.

<sup>4</sup> Submitted to Council for approval in minute 205 of City Council's February 25, 2015 meeting.

<sup>5</sup> Submitted to Council for approval in minute 133 of City Council's January 27, 2016 meeting.

<sup>6</sup> Submitted as information to the Standing Policy Committee on Finance in its April 9, June 4, September 17, and November 26, 2015, and March 6 and June 24, 2016 meetings.

- ◆ We did not perform testing on the completeness and accuracy of the application, reports and other correspondence to the Environmental Stewardship Division of the Province of Manitoba. We have assessed that this information has met the requirements of the division as the license has been issued to the City.
- ◆ For this audit report, we audited the actual costs reported in each of the six financial status updates submitted to the Standing Policy Committee on Finance (see **Appendix 4** for an example). The most recent financial status report at the time of this audit report was for the period ended March 31, 2016. In our opinion, the actual costs reported were fairly presented and were reported in accordance with generally accepted accounting principles issued by Canada's Public Sector Accounting Board.
- ◆ We also tested the supporting documentation for the Public Service's requested increase in delegated authority to initiate the Manitoba Hydro early works and found it to be reasonable.
- ◆ Future selective testing of the accuracy of information included in reports will be completed throughout the ongoing period of our audit of this Project. Information to be tested is based on our risk assessment of the information included in reports.
- ◆ Council policy requires major capital projects to be submitted to the Standing Policy Committee on Finance for review and comment prior to any bid procurements to be released for the project. This requirement for this project, however, was superseded by Council's delegation of authority to the CAO to approve, issue and award the Request for Qualifications and the Request for Proposals for the Project in its June 25, 2014 meeting.<sup>1</sup>

RECOMMENDATION			
<i>No recommendation accompanies this analysis.</i>			
RISK AREA	Information Resources	ASSESSMENT	Moderate
BASIS OF ASSESSMENT	Reports that are not distributed, or that contain inaccurate information, affect stakeholders' ability to perform their roles and could also affect legal compliance or funding agreements. To mitigate this risk, the Public Service has formed an experienced project management team to address all project management knowledge areas that require reporting.		

<sup>1</sup> Required by policy adopted in minute 207 of the Council's December 16, 1999 meeting; superseded by minute 608 of Council's June 25, 2014 meeting.

## 2.2 Contents of Project Financial Status Reports

### Issue

- ◆ Is sufficient information being provided in the quarterly financial status updates?

### Conclusions

- ◆ The quarterly financial status updates meet the current administrative requirements for reporting set by City guidance. Additional information can be added to the reporting format to give Council and the public a clearer picture of the progress and expectations for this and other major capital projects.

### Analysis

- ◆ Public reporting is subjective. No one authoritative agency exists that provides authoritative guidance on what should or should not be included in public reports. Respected project management and public organizations primarily state that reporting should be based on the needs of the information users (elected officials, governments, funders, the public, etc.) but does not give specific guidance on what content should be discussed in reports. Reporting is left to the professional judgment of the reporters.
- ◆ To provide Council and the public with regular updates on the City's major capital projects, quarterly financial status reporting for major capital projects are required by *Administrative Directive No. FM-004: Asset Management*.<sup>1</sup> Accompanying templates are also used to help guide the content of the status reports.
- ◆ Councillors have presented concerns about the current reporting style for capital projects. In the November 26, 2015 SPC on Finance meeting, discussion focused on report writing style for reports submitted to the committee. Committee members discussed that they would like to see project prioritization rationale, risk analysis including risk mitigation strategies, timelines and milestones, and the current status of estimate classes presented in Financial Status Reports. These items are also a part of the recommended practices discussed below. In the February 12, 2016 SPC on Infrastructure Renewal and Public Works meeting, concerns were voiced over the current practice of the Public Service reporting that a project is "on time and within budget" until such time that a project is not; at this point, there is little that can be done to make a choice on whether the budget or the scope of the project takes priority.
- ◆ The Government Finance Officers Association (GFOA), an association that the City of Winnipeg is an active member of, provides some recommendations on what should be included in status reporting for capital projects. The practice states that at a minimum, status reporting should include:
  - Provide a comparison of actual results to the project plan, including:
    - Percent of project completed
    - Percent of project budget expended
    - Progress on key project milestones
    - Contract status information
    - Revenue and expenditure activity cash flow, investment maturities, funding commitments, and available appropriations
    - Comparison of results in relation to established performance measures
  - And also highlight significant changes to the project scope or costs

---

<sup>1</sup> This directive has been refocused and renamed since it was introduced in 2007 as *Administrative Standard FM-004: Capital Project Administration*.

- ◆ The Infrastructure Planning Division of the Corporate Finance Department is currently in the process of reviewing and improving the templates for the quarterly financial status reports, as well as the remainder of the City’s project management guidance. A draft of the updated template was provided to us by the Infrastructure Planning Division. We noted that the draft template for quarterly status reporting showed marked improvement in disclosure over the prior version of the report, and that the accompanying instructions on how to fill the report out were also an improvement over the previous version. We also observed that the draft we were provided would include percent of project budget expended (actual costs incurred are presented in the same table as the total project budget), progress on key project milestones, revenue and expenditure cash flows, investment maturities, funding information, and comparison to established performance measures (time and budget), that are recommended by the GFOA. The draft does not include a disclosure on the percentage of the project completed to date, contract status information, or instructions on disclosing significant scope or cost changes for the project. Including the recommended information in status reports will provide more comprehensive information to both Council and the public.

RECOMMENDATION 1			
<i>We recommend to the Infrastructure Planning Division of the Corporate Finance Department that it include the minimum requirements for capital project status reporting as recommended by the Government Finance Officers Association.</i>			
<b>RISK AREA</b>	Information Resources	<b>ASSESSMENT</b>	Moderate
<b>BASIS OF ASSESSMENT</b>	Appropriate information must be publicly reported to allow governing stakeholders to fulfill their public duties.		

MANAGEMENT RESPONSE	
<i>As noted above, the Infrastructure Planning Division of the Corporate Finance Department has undertaken a review of the content included in the quarterly financial status reports submitted to the Standing Policy Committee on Finance. The review involves consideration of the recommendations made by the Government Finance Officers’ Association, discussions with departments and other stakeholders including senior management and elected officials at the City. Once agreement is reached on a new format, Administrative Standard FM-004: Asset Management, will be amended to include the revised reporting template together with instructions for completion. The Public Service anticipates the new template will be in use by the third quarter of 2017.</i>	
<b>IMPLEMENTATION DATE</b>	Q3 2017

# **Project Risk Analysis**

### 3.1 Risk Management Activities

#### Issue

- ◆ Have appropriate risk management activities occurred for the project?

#### Conclusions

- ◆ The Public Service has issued the risk assessment required by *The Public-Private Partnerships Transparency and Accountability Act*. Risk management plans are currently in development for the project, which will be discussed in future quarterly audit reports on the project.

#### Analysis

- ◆ A risk assessment for the Project was included in the business case prepared by Deloitte LLP that was presented to Council in its June 2014 meeting. The risk assessment quantified the expected risks for the Projects based on proprietary systems owned by Deloitte LLP. The assessment stated that the value for money savings that the City would realize over the thirty year lifespan of the P3 arrangement would be between 10.5% to 16.7% of the costs that would be incurred if the project were built under a traditional design-bid-build strategy. The methodology for the risk assessment has not been tested by the Audit Department as it was published before our involvement with the project, and is proprietary information of Deloitte LLP.
- ◆ The City's project team developed a risk management plan for the procurement phase that was discussed in team meetings and updated regularly. The team also utilized an issues tracking system to monitor new and outstanding risk items.
- ◆ Project risks were discussed regularly at project team meetings and also at Major Capital Projects Advisory Committee meetings.
- ◆ At the time of this report, more detailed construction risk management plans were in development by the recently awarded Private Partner (Plenary Roads Winnipeg) and the consulting Owner's Advocate for the Project.

RECOMMENDATION			
<i>No recommendation accompanies this analysis.</i>			
RISK AREA	Business Process	ASSESSMENT	Moderate
BASIS OF ASSESSMENT	Inadequate risk planning could reduce the projected value for money savings for the Project.		

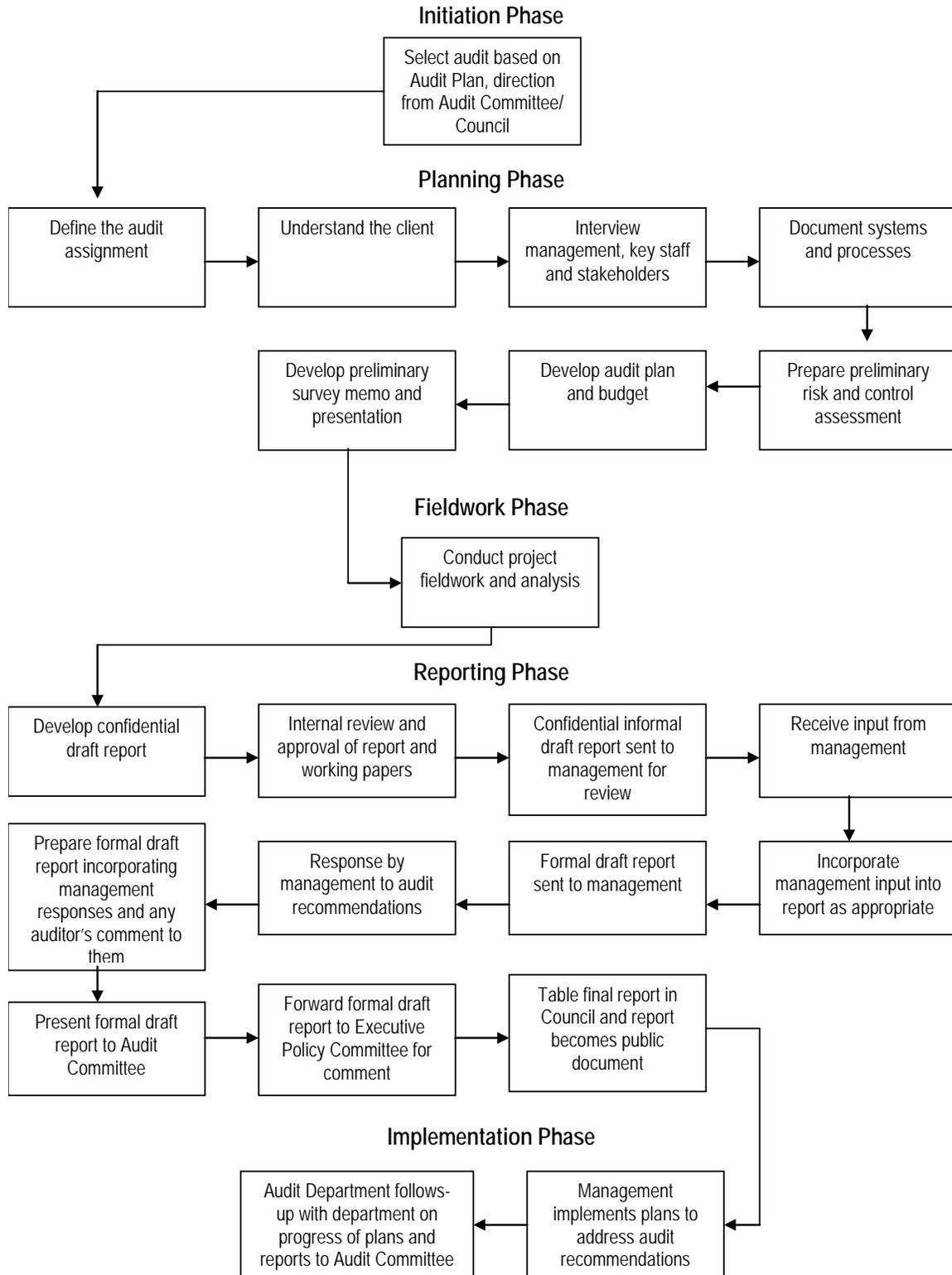
## APPENDIX 1 – Risk Assessment Worksheet

Potential Impacts  Likelihood	Insignificant	Minor	Moderate	Major	Extreme
	- None or minor change in services, project or processes - Very limited exposure of sensitive information - Very minor, non-permanent environmental damage - Financial impact < \$100K	- Minor change in achievement of service objectives - Limited exposure of sensitive information - Minor, non-permanent environmental damage - Financial impact \$100K – \$500K	- Moderate change in delivery of essential services - Exposure of limited amount of confidential information - Moderate environmental damage - Financial impact \$500K – \$1M	- Significant change in delivery of essential services - Exposure of significant amount of confidential information - Significant change in quality of life indicators - Major environmental damage - Financial impact \$1M – \$10M	- Unable to perform essential services for extended period - Exposure of critical confidential information - Very significant change in quality of life indicators - Significant damage to environment - Financial impact >\$10M
<b>Almost certain</b> (Excepted to occur unless circumstances change)	M	M	H	C	C
<b>Likely</b> (Probably occur in most circumstances)	M	M	H	C	C
<b>Possible</b> (Might occur under different circumstances)	L	M	M	H	H
<b>Unlikely</b> (Could occur if circumstances change)	L	L	M	H	H
<b>Rare</b> (May occur in exceptional circumstances)	L	L	M	M	M

### Legend

<b>C</b> Critical risk:	Requires urgent action, monitor and review at least weekly by Senior Management and COO, inform CAO and Committee of Council
<b>H</b> High risk:	High impact, monitor and review at least quarterly by management, inform COO
<b>M</b> Moderate risk:	Monitor and review at least quarterly by management
<b>L</b> Low risk:	Review periodically, no explicit action required.

## APPENDIX 2 – Audit Process



## APPENDIX 3 – Summary of Recommendations

Focus Area	Rec. #	Recommendation	Priority
Financial Status Reporting	1	<i>We recommend to the Infrastructure Planning Division of the Corporate Finance Department that it include the minimum requirements for capital project status reporting as recommended by the Government Finance Officers Association.</i>	Moderate

## APPENDIX 4 – Illustration of Actual Costs Presented in Financial Status Reports

Appendix I

**SOUTHWEST RAPID TRANSITWAY (STAGE 2) & PEMBINA HIGHWAY UNDERPASS**  
**TRANSIT DEPARTMENT**  
*As of March 31, 2016*

Project Component	Capital Budget	Capital Expenditure Forecast								Surplus (Deficit)	
		Actual Costs		Forecast					Total		From Revised
		Original	To March 31 2016	2016	2017	2018	2019	2020	2021 to End of Contract		
<b>UPFRONT COSTS</b>											
PROFESSIONAL SERVICES	\$ 13,000,000	\$ 2,465,843	\$ 4,135,523	\$ 1,568,333	\$ 1,568,333	\$ 1,568,334				\$ 11,306,366	1,693,634
PROPERTY AND UTILITIES	23,000,000	6,770,893	16,229,107							\$ 23,000,000	-
OTHER	5,550,000	583,243	1,382,556	\$ 1,688,688	\$ 1,754,254	\$ 945,340	\$ 889,554			\$ 7,243,635	(1,693,635)
<b>TOTAL UPFRONT COSTS *</b>	<b>\$ 41,550,000</b>	<b>\$ 9,819,979</b>	<b>\$ 21,747,186</b>	<b>\$ 3,257,021</b>	<b>\$ 3,322,587</b>	<b>\$ 2,513,674</b>	<b>\$ 889,554</b>			<b>\$ 41,550,001</b>	<b>(1)</b>
<b>ANNUAL SERVICE PAYMENTS</b>	719,547,000							22,050,000	697,479,000	\$ 719,529,000	

Source: Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Financial Status (Project No. 4230010514) Report No. 6 for the Period Ending March 31, 2016.

Note: The actual costs presented in all six financial status reports were reviewed and were found to fairly present the costs to date as of the report dates.

# Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass Audit for the Period of April 1 to June 30, 2016



## **Table of Contents**

AUDIT AT A GLANCE	1
MANDATE OF THE CITY AUDITOR	2
AUDIT BACKGROUND	2
AUDIT OBJECTIVES	2
PROJECT RISK ANALYSIS	3
SCOPE	3
APPROACH AND CRITERIA	4
CONCLUSIONS	5
INDEPENDENCE	6
ACKNOWLEDGEMENT	6
Project Background	7
Project Reporting Analysis	13
Project Risk Management Analysis	16
APPENDIX 1 – Risk Assessment Worksheet	18
APPENDIX 2 – Audit Process	19
APPENDIX 3 – Actual Costs Presented in Financial Status Reports	20

## AUDIT AT A GLANCE

### **RECOMMENDATIONS**

*No recommendations accompany this report.*

### **Background**

Stage 2 of the Southwest Rapid Transitway and Pembina Highway Underpass is one of the largest capital projects that the City has embarked upon. Appropriate communication is important to allow key stakeholders to fulfill their roles in relation to the project; it also keeps the public informed on project performance. The Audit Department will be releasing quarterly audit reports that provide assurance on the reporting processes and selected key project management areas throughout the construction of the project.

### **Findings**

The Public Service has produced the appropriate legislated and agreed upon reports, as well as public financial status updates for the Project, from April 1 to June 30, 2016.

The Public Service has managed risk for the project in accordance with City project management guidance from April 1 to June 30, 2016.

## MANDATE OF THE CITY AUDITOR

- ◆ The City Auditor is a statutory officer appointed by City Council under *The City of Winnipeg Charter*. The City Auditor is independent of the Public Service and reports directly to Executive Policy Committee, which serves as the City's Audit Committee.
- ◆ The City Auditor conducts examinations of the operations of the City and its affiliated bodies to assist Council in its governance role of ensuring the Public Service's accountability for the quality of stewardship over public funds and for the achievement of value for money in City operations.
- ◆ Once an audit report has been communicated to Council, it becomes a public document.

## AUDIT BACKGROUND

- ◆ Stage 2 of the Southwest Rapid Transitway and Pembina Highway Underpass ("the Project") is one of the largest capital projects that Winnipeg has initiated to date. An audit of the Project was added to the City Auditor's *Audit Plan 2015 – 2018* in order to provide timely assurance on key project management areas on a proactive basis. Our audit work began after the procurement phase of the Project due to a fairness monitor being secured to provide oversight on the procurement process (a requirement of *The Public-Private Partnerships Transparency and Accountability Act*).
- ◆ The City Auditor's audit plan was adopted by Council on July 15, 2015.

## AUDIT OBJECTIVES

- ◆ The objectives of this ongoing audit are:
  - To provide assurance that appropriate reporting is occurring for the Project based on regulatory requirements, City policies and procedures, and agreements with third parties
  - To provide assurance that appropriate financial status reporting is occurring for the Project
  - To provide assurance that appropriate risk management is occurring in the Project

## PROJECT RISK ANALYSIS

- ◆ Communication is essential for successful projects. Some of the most important communication in large-scale public capital projects occurs in the form of public reporting; however, few industry organizations give guidance on what exactly should be included in project performance reports. Reporting is mainly left to be agreed upon by project stakeholders, and much is left to the professional judgment of the project management teams. Improper communication can hold up projects or cause wasted efforts. Therefore, proper communication practices are essential to ensure that projects run smoothly and efficiently.
- ◆ Individual audit area risk assessments are provided for each issue discussed. The assessments discuss and detail the residual risk for issues after considering the City's mitigating risk controls. Our risk assessment criteria are shown in **Appendix 1**.

## SCOPE

- ◆ The scope of our audit includes project communication management over the course of the project. The scope of our quarterly audit reports also includes the reporting on key management areas (such as risk, quality, schedule, and cost) as the Project progresses.
- ◆ Our audit runs concurrently with the project over the duration of the project, and reports are released on a quarterly basis. This is our second report, which covers the period of April 1 to June 30, 2016.

## APPROACH AND CRITERIA

- ◆ We conducted our audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient appropriate evidence to provide a reasonable basis for our observations and conclusions, based on our audit objectives. We believe the evidence we have obtained provides a reasonable basis for our observations and conclusions.
- ◆ To gather sufficient appropriate evidence for our audit, we reviewed Manitoba's legislated requirements for public-private partnership reporting, the City of Winnipeg's documented guidance for capital project reporting, and the public reporting requirements set out in funding and capital project management agreements. We also researched industry standards and guidance on capital project monitoring and reporting. We then conducted our fieldwork, which compared the public reporting for the project for the period covered by this audit report to all of the outlined guidance.
- ◆ The guiding documents we used include:
  - *The Public-Private Partnerships Transparency and Accountability Act* of Manitoba
  - *The Environment Act* of Manitoba
  - *The City of Winnipeg Charter* for Council's and its committees' legislated roles in relation to capital project decision making
  - *Administrative Standard FM-004: Asset Management* (and its precursors throughout the project)
  - Agreements with federal and provincial funding partners (P3 Canada, and the Government of Manitoba) and contracted service providers (Plenary Roads Winnipeg Transitway LP)
- ◆ Industry capital project monitoring and reporting practices we researched included:
  - Recommended practices 17R-97 and 56R-08 of The Association for the Advancement of Cost Engineering (AACE)
  - Accounting principles published by CPA Canada
  - *Effectiveness Reporting and Auditing in the Public Sector* published by the Canadian Comprehensive Auditing Foundation (CCAF)
  - Publicly available reporting information for the National Project Management System (NPMS)
  - *A Guide to the Project Management Body of Knowledge (PMBOK® Guide) Fifth Edition*
  - Projects IN Controlled Environments (PRINCE2)
- ◆ **Appendix 2** provides a flowchart of the audit process.

## CONCLUSIONS

*The reports required by legislation, by-law, administrative standards, and contractual agreements have been issued by the Public Service.*

- ◆ The Public Service has submitted the formal reports required for this project during the period of this audit report.
- ◆ The reports reviewed for the period of this audit included:
  - “Acquisition – Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass Project”
  - “DAO 4/2015 and DAO 1/2016: Proposed Opening of University Crescent, Markham Road and Public Road Nos. 1 and 2 – Bus Rapid Transit Phase 2”
  - “Acquisition and License of a portion of the Manitoba Hydro transmission corridor for the Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass Project”
  - “Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Financial Status (Project No. 4230010514) Report No. 7 for the Period Ending June 30, 2016”
- ◆ The reports were compared to the guidance given for such reports and were found to meet the standards of said guidance.
- ◆ Financial costs reported to the SPC on Finance were found to be in accordance with the generally accepted accounting principles on cost reporting issued by Canada’s Public Sector Accounting Board and, in our opinion, fairly presented the actual costs incurred for the Project for the period ending June 30, 2016.

*Project risks are being managed in accordance with the risk management guidance provided in the City’s Project Management Manual.*

- ◆ The City’s project management team has created a risk management plan and risk registry that has been regularly updated over the period reviewed, and the risks have been discussed regularly in team meetings and Major Capital Project Steering Committee meetings.
- ◆ The private partner for the Project has also developed a risk management plan and risk registry for the Project.

## INDEPENDENCE

The team members selected for the audit did not have any conflicts of interest related to the audit's subject matter.

## ACKNOWLEDGEMENT

The Audit Department wants to extend its appreciation to all of the stakeholders who participated in this audit and especially to City's project team for their time and cooperation.

### The Audit Team

Micheal Giles, CPA, CA, CIA  
Deputy City Auditor

Marisol Gil Reyes, CPA, CA  
Auditor

  
Bryan Mansky, MBA, CPA, CMA, CIA  
City Auditor

January 2017  
Date

# Project Background

## 1.1 History of the Project

- ◆ The concept of transit corridors has been included in City plans for several decades.
- ◆ The first tangible public drawings that we are aware of for a southwest transit corridor were included in “Plan Winnipeg – toward 2010” (Policy Plate C), which was adopted by Council in 1993.
- ◆ In 2004, the Mayor at the time appointed the Rapid Transit Task Force, the work of which was adopted by Council in February 2006 in an administrative report entitled “*Implementation Plan for Rapid Transit Task Force Recommendations*”. This report included Stage 1 of the Southwest Rapid Transit Corridor. Stage 1 of the Southwest Rapid Transit Corridor was completed on time in 2012, and within the approved budget of \$138,000,000.
- ◆ In November 2011, Council adopted the City’s “Transportation Master Plan”, which included the provision for the expansion of the Pembina Highway Underpass and five new transit corridors, the first being the southwest corridor.
- ◆ Capitalizing on an opportunity to integrate two projects, the City of Winnipeg submitted the combined Southwest Transitway (Stage 2) and Pembina Highway Underpass project (“the Project”) to the Government of Canada for funding under the Building Canada Fund. As the Project was expected to exceed a \$100 million threshold, a screening process was completed to determine whether the project could be successfully delivered under a P3 model. It was ultimately determined that the project could be successful as a P3 project, and funding was announced from P3 Canada.
- ◆ On June 25, 2014, Council approved that the project be included in the City’s Capital Budget at an estimated cost of \$590 million.
- ◆ On June 24, 2016 the CAO awarded the contract for the design, build, financing, operation, and maintenance of the Project to Plenary Roads Winnipeg.

## 1.2 Project Makeup

- ◆ The design of the Project is shown below:

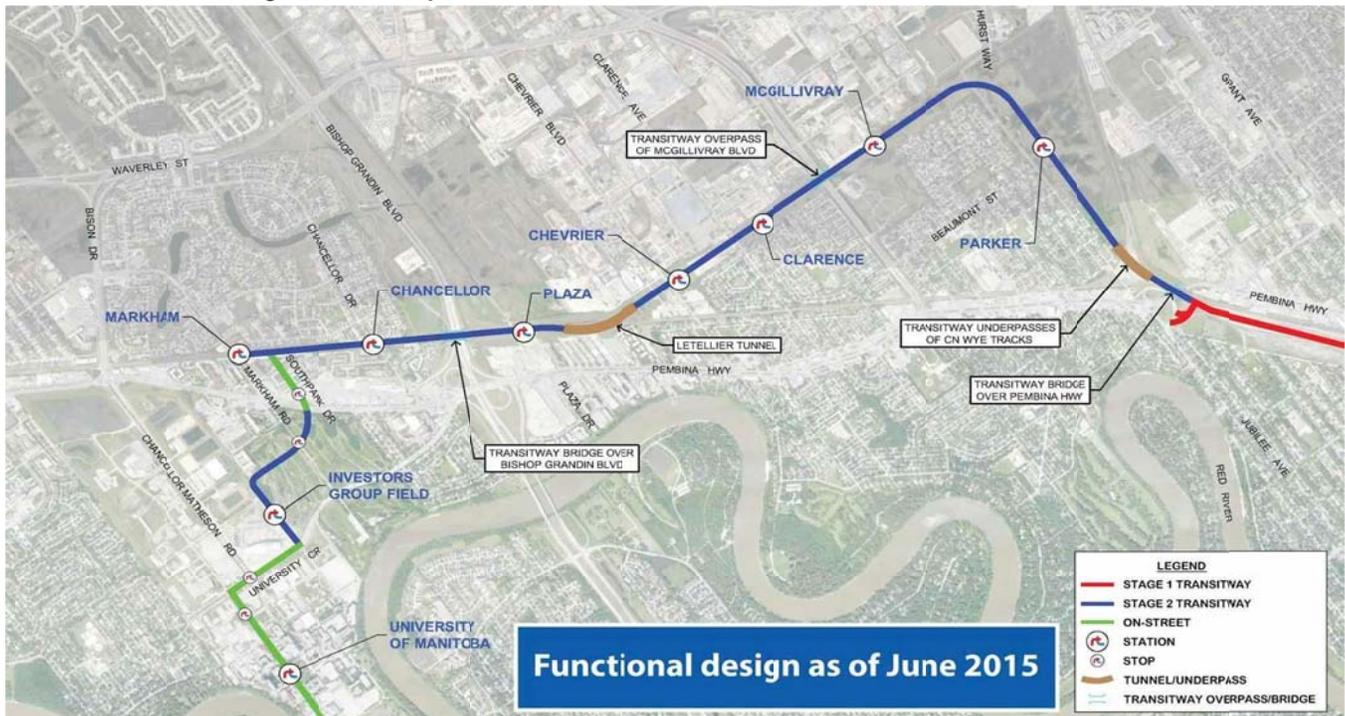


Figure 1: Southwest Rapid Transitway (Stage 2) Project Overview

~Source: Winnipeg Transit website March 31, 2016

- ◆ The scope of the Project has been adjusted from our previous report for the period of project initiation until March 31, 2016. The scope of the Project currently includes the extension of the current Stage 1 of the southwest transit corridor from Jubilee Boulevard to the University of Manitoba. This extension is approximately 7.6 kilometers long and requires the construction of three new bridges (one for a railway and two for the transitway), two overpasses, an underpass under existing railways, the reconstruction of Southpark Drive, two new lift stations, pedestrian and cycling facilities along Southpark Drive, a new pedestrian ramp at Investor's Group Field, and nine new transit stations.
- ◆ The Project also includes the widening of the northbound side of Pembina Highway under the Jubilee overpass from two to three lanes along with pedestrian and cycling facilities on both sides of Pembina Highway.

## 1.3 Project Resources

- ◆ At the time of this report, the Project is being managed by a team of experienced City employees. Project management is also supported by an "owner's advocate" (contracted engineering consultant), and several contracted subject matter experts for legal, engineering, procurement, and regulatory compliance advice.
- ◆ The Project was in a transition stage to be managed by the P3 consortium, Plenary Roads Winnipeg, which will be responsible for design, construction, finance, and maintenance of the asset for the next 30 years.
- ◆ The Project budget at the time of this report is \$467.3 million.

- ◆ The financing for the Project is:

<u>Contributing Party</u>	<u>Contribution</u>	<u>Percent</u>
City of Winnipeg	\$ 188,050,000	40%
Province of Manitoba	188,050,000	40%
Government of Canada	<u>91,200,000</u>	20%
Total	<u>\$ 467,300,000</u>	

#### 1.4 Current State of the Project

- ◆ An agreement has been signed with Plenary Roads Winnipeg to design, build, finance, operate and maintain the Project. Project risks are now being shared with the private partner and the City's project management team has moved into a project oversight role.

#### 1.5 Reporting

- ◆ The following reports are required for legislated and contractually agreed upon matters:
  - Actions that are outside the delegated authority of the Public Service (such as expropriation of lands, procurement in excess of delegated authority, or over-expenditure reports)
  - Quarterly reporting to the SPC on Finance
  - Report on a public sector comparator, as well as the viability, expected risks, costs and benefits of using the P3 procurement method
  - A report by the contracted Fairness Monitor on the procurement process for the Project
  - Report on the final results of the Project
  - Environmental reports as determined by the Province of Manitoba

#### 1.6 Roles and Responsibilities of Governing Stakeholders

- ◆ Project communication should allow governing bodies to perform their responsibilities of their offices in general and in relation to the specific capital project.<sup>1</sup> To set the stage for appropriate communication, it is important to have an understanding of the different stakeholders, and the responsibilities associated with their offices. Due to the size and scope of this project, the number of stakeholders, and the form of the delivery, clear, appropriate and timely communication is essential to keep the project on track to avoid project delays and additional costs.

##### **Council**

- ◆ Council is the governing body for the City. Council has the legislated authority to govern the city in whatever way it considers appropriate within the broad strokes of the city charter, and has the power to delegate its authority with few exceptions. In relation to the project, Council has the responsibility to:
  - Set and approve civic priorities for the community
  - Set and approve the capital budget for the project
  - Approve contract awards in excess of \$5,000,000, unless that authority has been delegated by a specific resolution of Council
  - Approve the debt financing for the project
  - Approve expropriations required for the project

---

<sup>1</sup> Canadian Comprehensive Auditing Foundation (1987). *Effectiveness Reporting and Auditing in the Public Sector* (Ottawa). 6.

- ◆ Aside from these Council duties, individual Councillors have been elected to represent and advocate for the populous and require a basic level of information to be able to hold a dialogue to advocate for citizens in their wards, and within the sphere of their committee duties.

### ***Committees of Council***

- ◆ Other than the Executive Policy Committee, which is a statutory committee, Council has the authority to create and to delegate powers to committees as it sees fit through the enactment of by-laws. Other committees of Council that are stakeholders in this project include Executive Policy Committee (“EPC”), various Standing Policy Committees (“SPC”), and Community Committees. The committees of Council that regularly consider the Project are detailed in the following pages.

### ***Executive Policy Committee (“EPC”)***

- ◆ EPC formulates, coordinates and endorses the work of other Council committees, and makes recommendations to Council regarding matters that affect the city as a whole, including policies, plans, budgets, by-laws and other matters. EPC is also responsible for the supervision of the City’s Chief Administrative Officer. In relation to the project, the committee has the responsibility to:
  - Hold intergovernment conversations in the event that plans must be escalated to a political level
  - Endorse and present capital budgets to Council

### ***SPC on Finance***

- ◆ SPC on Finance coordinates and advises EPC on the City’s fiscal policy development and strategies, including capital project recommendations and strategies. In relation to the project, SPC on Finance has the responsibility to:
  - Review and make recommendations on the project before project initiation
  - Receive quarterly reports on the current status of the project

### ***SPC on Property and Development, Heritage, and Downtown Development***

- ◆ SPC on Property and Development, Heritage, and Downtown Development provides policy advice to Council on asset management, land acquisition, land development, and planning and land use. In relation to the project, this committee has the responsibility to:
  - Recommend land acquisition strategies for the project including expropriations of property
  - Approve terms and conditions of dealing with land
  - Prepare conceptual planning in transportation systems
  - Make budgetary recommendations within the jurisdiction of the committee

### ***SPC on Infrastructure Renewal and Public Works***

- ◆ SPC on Infrastructure Renewal and Public Works provides policy advice to Council on engineering services, public works maintenance, transit, traffic control, and transportation control planning. In relation to the project, this committee has the responsibility to:
  - Make budgetary recommendations within the jurisdiction of the committee

***SPC on Water and Waste, Riverbank Management, and the Environment***

- ◆ SPC on Water and Waste, Riverbank Management, and the Environment provides policy advice to Council on land drainage engineering services, and environmental issues. In relation to the project, this committee has the responsibility to:
  - Make budgetary recommendations within the jurisdiction of the committee

***Community Committees***

- ◆ Community Committees maintain the closest possible communication between the City and the citizenry. In relation to the project, these committees have the responsibility to:
  - Provide residents information on the City's policies, programs and budgets, and ensure that residents are given the opportunity to represent their views on the same

# **Project Reporting Analysis**

## 2.1 Reporting Requirements

### Issue

- ◆ Has the Public Service communicated the proper reports required by legislation, by-laws, City of Winnipeg policies and standards, and project agreements?

### Conclusions

- ◆ The Public Service has distributed the reports required by legislation, by-laws, policies, standards and agreements over the period of review for this audit report. We have performed limited testing on the information in the reports released and outlined below, and have found the information tested to be accurate.

### Analysis

- ◆ For the period of April 1 to June 30, 2016, the following reports have been required, and have been published for the Project:
  - “Acquisition – Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass Project” (required by *The City Organization By-law*)<sup>1</sup>
    - The report seeks the approval required to purchase land from the University of Manitoba for the Project.
  - “DAO 4/2015 and DAO 1/2016: Proposed Opening of University Crescent, Markham Road and Public Road Nos. 1 and 2 – Bus Rapid Transit Phase 2” (required by a motion adopted by Council in its September 29, 1998 meeting)<sup>2</sup>
    - The report submits a proposed street opening to facilitate the construction a portion of the Project located on the former Southwood Golf Course & Country Club for the consideration of the Riel Community Committee.
  - “Acquisition and License of a portion of the Manitoba Hydro transmission corridor for the Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass Project” (required by *The City Organization By-law*)<sup>3</sup>
    - The report requests approval for a piece of land required to construct the Project.
  - “Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Financial Status (Project No. 4230010514) Report No. 7 for the Period Ending June 30, 2016” (required by *Administrative Standard FM-004: Asset Management*)<sup>4</sup>
    - The report presents the financial position and significant project updates for the Project up to June 30, 2016.
- ◆ Our audit work included examination of reports in relation to the legislated, regulated or agreed-upon requirements to communicate such reports. Limited testing of the accuracy of information included in reports was also completed based on our risk assessment of whether such information could be misstated.

---

<sup>1</sup> Submitted to the Standing Policy Committee on Property and Development, Heritage and Downtown Development in its April 12, 2016 meeting.

<sup>2</sup> Submitted to the Riel Community Committee in its May 2, 2016 meeting.

<sup>3</sup> Submitted to the Standing Policy Committee on Property and Development, Heritage and Downtown Development in its June 7, 2016 meeting.

<sup>4</sup> Submitted as information to the Standing Policy Committee on Finance in its September 15, 2016 meeting.

- ◆ For this audit report, we audited the actual costs reported in the financial status update submitted to the Standing Policy Committee on Finance (see **Appendix 4** for an illustration). In our opinion, the actual costs reported were fairly presented, and were reported in accordance with generally accepted accounting principles issued by the Canadian Public Sector Accounting Board.

RECOMMENDATION			
<i>No recommendation accompanies this analysis.</i>			
RISK AREA	Information Resources	ASSESSMENT	Moderate
BASIS OF ASSESSMENT	Reports that are not distributed, or that contain inaccurate information, affect stakeholders' ability to perform their roles and could also affect legal compliance or funding agreements. To mitigate this risk, the Public Service has formed an experienced project management team that works closely with all interdependent departments to address all project management knowledge areas that require reporting.		

# **Project Risk Management Analysis**

### 3.1 Risk Management Activities

#### Issue

- ◆ Has the project management team followed the risk management guidance given in the City's *Project Management Manual*?

#### Conclusions

- ◆ The Public Service has acted in accordance with the project risk management guidance given in the City's *Project Management Manual*.

#### Analysis

- ◆ During the quarter, the Public Service signed an agreement with the private partner, Plenary Roads Winnipeg. One of the main benefits of entering into a public-private partnership agreement is for the transference of risks that would normally be retained by the public sector in a typical design-bid-build project methodology. The public sector does retain some risk that it will need to manage, and will receive assurance from the private partner through the partnership agreement and other communications that the remainder of the risks are also being effectively managed.
- ◆ We observed that the City's project management team has continued to update its project risk register for the period. We observed through meeting minutes that project risks are regularly discussed in project team meetings, as well as the Major Capital Project Steering Committee meetings. These practices are consistent with the guidance of the City's *Project Management Manual*.
- ◆ We observed that Plenary Roads Winnipeg has provided the Public Service with a project risk management plan that outlines the anticipated risks in the projects, the mitigation strategies for the risks, and the estimated residual risks remaining after the mitigation strategies. This practice is consistent with generally accepted project management practices (such as the *Project Management Book of Knowledge* issued by the Project Management Institute) and is also consistent with the City's *Project Management Manual*.

RECOMMENDATION			
No recommendation accompanies this analysis.			
RISK AREA	Business Process	ASSESSMENT	Moderate
BASIS OF ASSESSMENT	Inadequate risk management could reduce the projected value for money savings for the Project.		

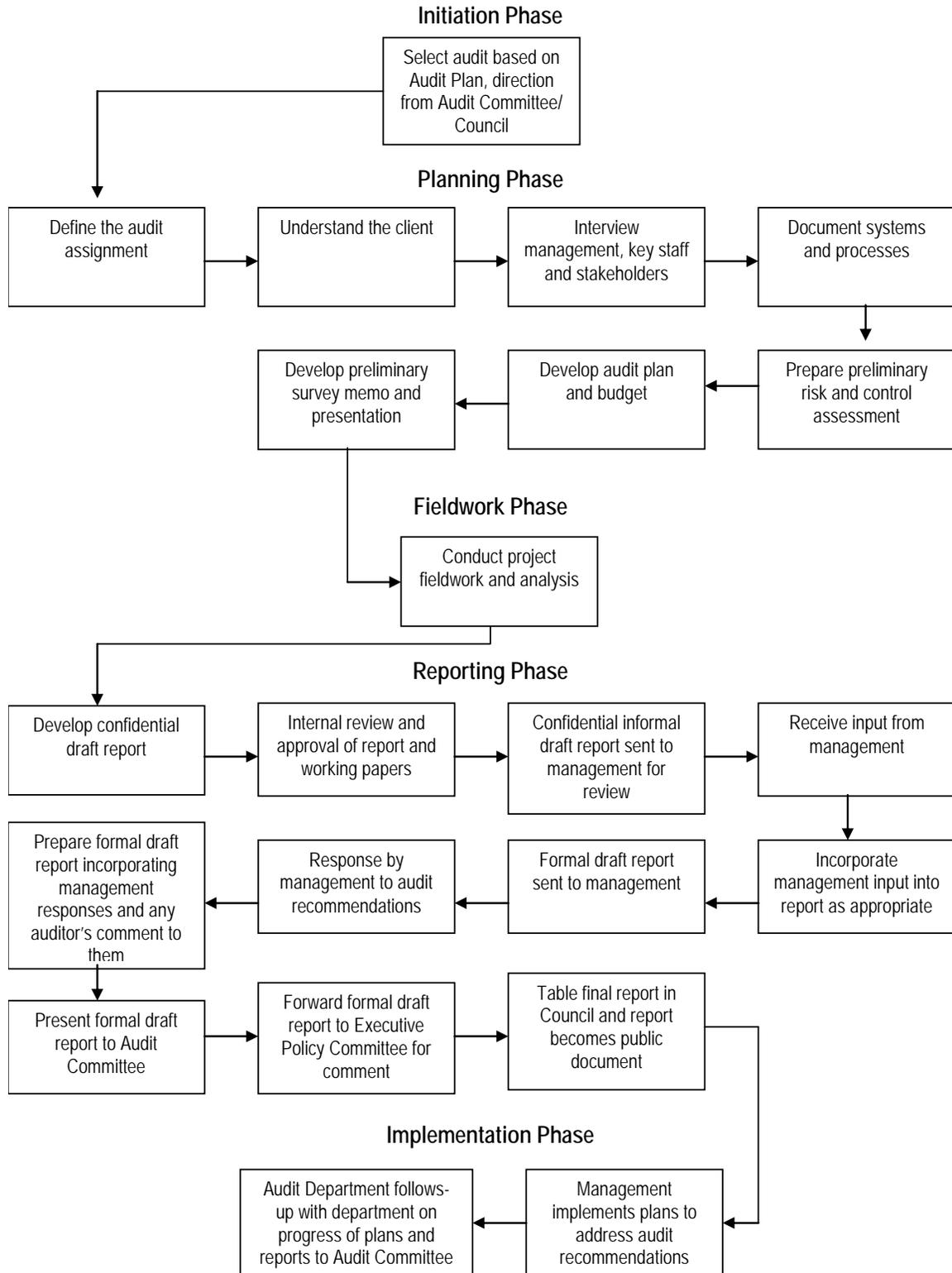
## APPENDIX 1 – Risk Assessment Worksheet

Potential Impacts  Likelihood	Insignificant	Minor	Moderate	Major	Extreme
	- None or minor change in services, project or processes - Very limited exposure of sensitive information - Very minor, non-permanent environmental damage - Financial impact < \$100K	- Minor change in achievement of service objectives - Limited exposure of sensitive information - Minor, non-permanent environmental damage - Financial impact \$100K – \$500K	- Moderate change in delivery of essential services - Exposure of limited amount of confidential information - Moderate environmental damage - Financial impact \$500K – \$1M	- Significant change in delivery of essential services - Exposure of significant amount of confidential information - Significant change in quality of life indicators - Major environmental damage - Financial impact \$1M – \$10M	- Unable to perform essential services for extended period - Exposure of critical confidential information - Very significant change in quality of life indicators - Significant damage to environment - Financial impact >\$10M
<b>Almost certain</b> (Excepted to occur unless circumstances change)	M	M	H	C	C
<b>Likely</b> (Probably occur in most circumstances)	M	M	H	C	C
<b>Possible</b> (Might occur under different circumstances)	L	M	M	H	H
<b>Unlikely</b> (Could occur if circumstances change)	L	L	M	H	H
<b>Rare</b> (May occur in exceptional circumstances)	L	L	M	M	M

### Legend

<b>C</b> Critical risk:	Requires urgent action, monitor and review at least weekly by Senior Management and COO, inform CAO and Committee of Council
<b>H</b> High risk:	High impact, monitor and review at least quarterly by management, inform COO
<b>M</b> Moderate risk:	Monitor and review at least quarterly by management
<b>L</b> Low risk:	Review periodically, no explicit action required.

## APPENDIX 2 – Audit Process



## APPENDIX 3 – Actual Costs Presented in Financial Status Reports

Appendix I

SOUTHWEST RAPID TRANSITWAY (STAGE 2) & PEMBINA HIGHWAY UNDERPASS  
TRANSIT DEPARTMENT  
As of June 30, 2016

Project Component	Capital Budget	Capital Expenditure Forecast							Surplus (Deficit)	Variance Last Report	Change in Variance	
		Forecast						Total				
		Original	To June 30, 2016	2016	2017	2018	2019					2020
<b>UPFRONT COSTS</b>												
PROFESSIONAL SERVICES	\$ 13,000,000	\$ 3,235,733	\$ 2,139,201	\$ 1,977,144	\$ 1,977,144	\$ 1,977,144			\$ 11,306,366	1,693,634	1,693,634	-
PROPERTY AND UTILITIES	23,000,000	7,798,976	15,201,024	3,438,000	6,562,000				33,000,000	(10,000,000)	-	(10,000,000)
OTHER	5,550,000	671,244	1,274,783	1,641,674	1,689,045	945,340	1,021,548		7,243,634	(1,693,634)	(1,693,634)	-
<b>TOTAL UPFRONT COSTS *</b>	<b>\$ 41,550,000</b>	<b>\$ 11,705,953</b>	<b>\$ 18,615,008</b>	<b>\$ 7,056,818</b>	<b>\$ 10,228,189</b>	<b>\$ 2,922,484</b>	<b>\$ 1,021,548</b>		<b>\$ 51,550,000</b>	<b>(10,000,000)</b>	<b>-</b>	<b>(10,000,000)</b>
CONSTRUCTION COSTS	\$ 476,750,000	\$ -							\$ 346,750,000	130,000,000	-	130,000,000
CONTINGENCY	\$ 69,000,000	\$ -							\$ 69,000,000	-	-	-
<b>TOTAL PROJECT COSTS</b>	<b>\$ 587,300,000</b>								<b>\$ 467,300,000</b>	<b>120,000,000</b>	<b>-</b>	<b>120,000,000</b>
<b>ANNUAL SERVICE PAYMENTS</b>	<b>719,547,000</b>			350,000	350,000	1,780,000	14,460,000	476,160,000	<b>\$ 493,100,000</b>	<b>226,447,000</b>	<b>-</b>	<b>226,447,000</b>

Source: Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Financial Status (Project No. 4230010514) Report No. 7 for the Period Ending June 30, 2016.

# Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass Audit for the Period of July 1 to September 30, 2016



## **Table of Contents**

AUDIT AT A GLANCE	1
MANDATE OF THE CITY AUDITOR	2
AUDIT BACKGROUND	2
AUDIT OBJECTIVES	2
PROJECT RISK ANALYSIS	3
SCOPE	3
APPROACH AND CRITERIA	4
CONCLUSIONS	5
INDEPENDENCE	6
ACKNOWLEDGEMENT	6
Project Background	7
Project Reporting Analysis	13
Project Risk Management Analysis	16
APPENDIX 1 – Risk Assessment Worksheet	18
APPENDIX 2 – Audit Process	19
APPENDIX 3 – Actual Costs Presented in Financial Status Reports	20

# AUDIT AT A GLANCE

**RECOMMENDATIONS**

*No recommendations accompany this report.*

**Background**

Stage 2 of the Southwest Rapid Transitway and Pembina Highway Underpass is one of the largest capital projects that the City has embarked upon. Appropriate communication is important to allow key stakeholders to fulfill their roles in relation to the project; it also keeps the public informed on project performance. The Audit Department will be releasing quarterly audit reports that provide assurance on the reporting processes and selected key project management areas throughout the construction of the project.

**Findings**

The Public Service has produced the appropriate legislated and agreed upon reports, as well as public financial status updates for the Project, from July 1 to September 30, 2016.

The Public Service has managed risk for the project in accordance with City project management guidance from July 1 to September 30, 2016.

## MANDATE OF THE CITY AUDITOR

- ◆ The City Auditor is a statutory officer appointed by City Council under *The City of Winnipeg Charter*. The City Auditor is independent of the Public Service and reports directly to Executive Policy Committee, which serves as the City's Audit Committee.
- ◆ The City Auditor conducts examinations of the operations of the City and its affiliated bodies to assist Council in its governance role of ensuring the Public Service's accountability for the quality of stewardship over public funds and for the achievement of value for money in City operations.
- ◆ Once an audit report has been communicated to Council, it becomes a public document.

## AUDIT BACKGROUND

- ◆ Stage 2 of the Southwest Rapid Transitway and Pembina Highway Underpass ("the Project") is one of the largest capital projects that Winnipeg has initiated to date. An audit of the Project was added to the City Auditor's *Audit Plan 2015 – 2018* in order to provide timely assurance on key project management areas on a proactive basis. Our audit work began after the procurement phase of the Project due to a fairness monitor being secured to provide oversight on the procurement process (a requirement of *The Public-Private Partnerships Transparency and Accountability Act*).
- ◆ The City Auditor's audit plan was adopted by Council on July 15, 2015.

## AUDIT OBJECTIVES

- ◆ The objectives of this ongoing audit are:
  - To provide assurance that appropriate reporting is occurring for the Project based on regulatory requirements, City policies and procedures, and agreements with third parties
  - To provide assurance that appropriate financial status reporting is occurring for the Project
  - To provide assurance that appropriate risk management is occurring in the Project

## PROJECT RISK ANALYSIS

- ◆ Communication is essential for successful projects. Some of the most important communication in large-scale public capital projects occurs in the form of public reporting; however, few industry organizations give guidance on what exactly should be included in project performance reports. Reporting is mainly left to be agreed upon by project stakeholders, and much is left to the professional judgment of the project management teams. Improper communication can hold up projects or cause wasted efforts. Therefore, proper communication practices are essential to ensure that projects run smoothly and efficiently.
- ◆ Individual audit area risk assessments are provided for each issue discussed. The assessments discuss and detail the residual risk for issues after considering the City's mitigating risk controls. Our risk assessment criteria are shown in **Appendix 1**.

## SCOPE

- ◆ The scope of our audit includes project communication management over the course of the project. The scope of our quarterly audit reports also includes the reporting on key management areas (such as risk, quality, schedule, and cost) as the Project progresses.
- ◆ Our audit runs concurrently with the project over the duration of the project, and reports are released on a quarterly basis. This is our third report, which covers the period of July 1 to September 30, 2016.

## APPROACH AND CRITERIA

- ◆ We conducted our audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient appropriate evidence to provide a reasonable basis for our observations and conclusions, based on our audit objectives. We believe the evidence we have obtained provides a reasonable basis for our observations and conclusions.
- ◆ To gather sufficient appropriate evidence for our audit, we reviewed Manitoba's legislated requirements for public-private partnership reporting, the City of Winnipeg's documented guidance for capital project reporting, and the public reporting requirements set out in funding and capital project management agreements. We also researched industry standards and guidance on capital project monitoring and reporting. We then conducted our fieldwork, which compared the public reporting for the project for the period covered by this audit report to all of the outlined guidance.
- ◆ The guiding documents we used include:
  - *The Public-Private Partnerships Transparency and Accountability Act* of Manitoba
  - *The Environment Act* of Manitoba
  - *The City of Winnipeg Charter* for Council's and its committees' legislated roles in relation to capital project decision making
  - *Administrative Standard FM-004: Asset Management* (and its precursors throughout the project)
  - Agreements with federal and provincial funding partners (P3 Canada, and the Government of Manitoba) and contracted service providers (Plenary Roads Winnipeg Transitway LP)
- ◆ Industry capital project monitoring and reporting practices we researched included:
  - Recommended practices 17R-97 and 56R-08 of The Association for the Advancement of Cost Engineering (AACE)
  - Accounting principles published by CPA Canada
  - *Effectiveness Reporting and Auditing in the Public Sector* published by the Canadian Comprehensive Auditing Foundation (CCAF)
  - Publicly available reporting information for the National Project Management System (NPMS)
  - *A Guide to the Project Management Body of Knowledge (PMBOK® Guide) Fifth Edition*
  - Projects IN Controlled Environments (PRINCE2)
- ◆ **Appendix 2** provides a flowchart of the audit process.

## CONCLUSIONS

*The reports required by legislation, by-law, administrative standards, and contractual agreements have been issued by the Public Service.*

- ◆ The Public Service has submitted the formal reports required for this project during the period of this audit report.
- ◆ The reports reviewed for the period of this audit included:
  - “Proposed Land Exchange Agreement between the City of Winnipeg (“City”) and Canadian National Railway Company (“CN”) for the Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass”
  - “Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass Project - Installation of Traffic Control Signals”
  - “Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Financial Status (Project No. 4230010514) Report No. 8 for the Period Ending September 30, 2016”
- ◆ The reports were compared to the guidance given for such reports and were found to meet the standards of said guidance.
- ◆ Financial costs reported to the SPC on Finance were found to be in accordance with the generally accepted accounting principles on cost reporting issued by Canada’s Public Sector Accounting Board and, in our opinion, fairly presented the actual costs incurred for the Project for the period ending September 30, 2016.

*Project risks are being managed in accordance with the risk management guidance provided in the City’s Project Management Manual.*

- ◆ The City’s project management team has created a risk management plan and risk registry that has been regularly updated over the period reviewed, and the risks have been discussed regularly in team meetings and Major Capital Project Steering Committee meetings.
- ◆ The private partner for the Project has also developed a risk management plan and risk registry for the Project.

## INDEPENDENCE

The team members selected for the audit did not have any conflicts of interest related to the audit's subject matter.

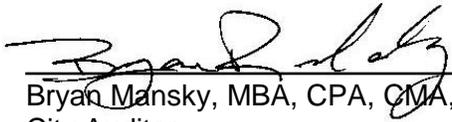
## ACKNOWLEDGEMENT

The Audit Department wants to extend its appreciation to all of the stakeholders who participated in this audit and especially to City's project team for their time and cooperation.

### The Audit Team

Micheal Giles, CPA, CA, CIA  
Deputy City Auditor

Marisol Gil Reyes, CPA, CA  
Auditor

  
Bryan Mansky, MBA, CPA, CMA, CIA  
City Auditor

January 2017  
Date

# Project Background

## 1.1 History of the Project

- ◆ The concept of transit corridors has been included in City plans for several decades.
- ◆ The first tangible public drawings that we are aware of for a southwest transit corridor were included in “Plan Winnipeg – toward 2010” (Policy Plate C), which was adopted by Council in 1993.
- ◆ In 2004, the Mayor at the time appointed the Rapid Transit Task Force, the work of which was adopted by Council in February 2006 in an administrative report entitled “*Implementation Plan for Rapid Transit Task Force Recommendations*”. This report included Stage 1 of the Southwest Rapid Transit Corridor. Stage 1 of the Southwest Rapid Transit Corridor was completed on time in 2012, and within the approved budget of \$138,000,000.
- ◆ In November 2011, Council adopted the City’s “Transportation Master Plan”, which included the provision for the expansion of the Pembina Highway Underpass and five new transit corridors, the first being the southwest corridor.
- ◆ Capitalizing on an opportunity to integrate two projects, the City of Winnipeg submitted the combined Southwest Transitway (Stage 2) and Pembina Highway Underpass project (“the Project”) to the Government of Canada for funding under the Building Canada Fund. As the Project was expected to exceed a \$100 million threshold, a screening process was completed to determine whether the project could be successfully delivered under a P3 model. It was ultimately determined that the project could be successful as a P3 project, and funding was announced from P3 Canada.
- ◆ On June 25, 2014, Council approved that the project be included in the City’s Capital Budget at an estimated cost of \$590 million.
- ◆ On June 24, 2016 the Chief Administrative Officer awarded the contract for the design, build, financing, operation, and maintenance of the Project to Plenary Roads Winnipeg.
- ◆ Construction began on the Project on August 8, 2016 after receiving approval of the Species at Risk report on August 2, 2016.

## 1.2 Project Makeup

- ◆ The design of the Project is shown below:

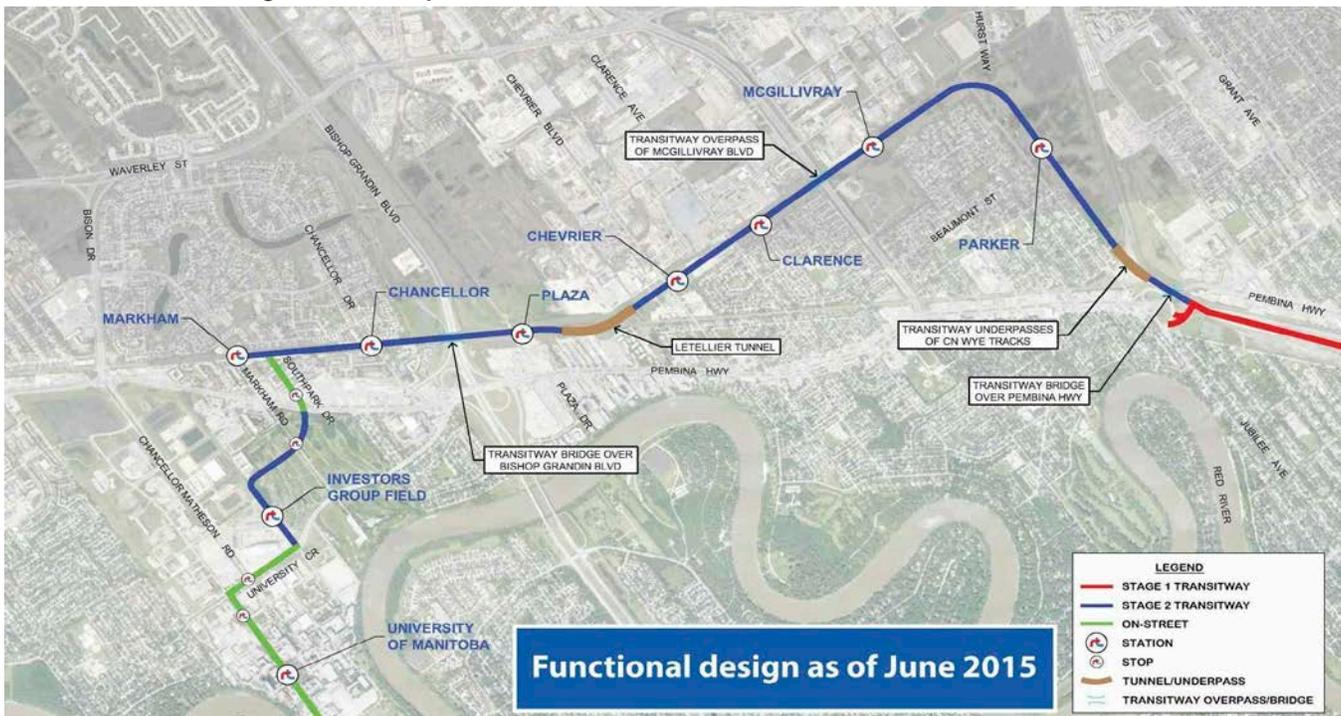


Figure 1: Southwest Rapid Transitway (Stage 2) Project Overview

~Source: Winnipeg Transit website March 31, 2016

- ◆ The scope of the Project includes the extension of the current Stage 1 of the southwest transit corridor from Jubilee Boulevard to the University of Manitoba. This extension is approximately 7.6 kilometers long and requires the construction of three new bridges (one for a railway and two for the transitway), two overpasses, an underpass under existing railways, the reconstruction of Southpark Drive, two new lift stations, pedestrian and cycling facilities along Southpark Drive, a new pedestrian ramp at Investor's Group Field, and nine new transit stations.
- ◆ The Project also includes the widening of the northbound side of Pembina Highway under the Jubilee overpass from two to three lanes along with pedestrian and cycling facilities on both sides of Pembina Highway.

## 1.3 Project Resources

- ◆ At the time of this report, the Project is being managed by Plenary Roads Winnipeg with oversight by a team of experienced City employees. Project management is also supported by an "owner's advocate" (contracted engineering consultant), and several contracted subject matter experts for legal, engineering, procurement, and regulatory compliance advice.
- ◆ Plenary Roads Winnipeg is responsible for design, construction, finance, and operational maintenance and rehabilitation of the asset for the next 30 years.
- ◆ The Project budget at the time of this report is \$467.3 million.

- ◆ The financing for the Project is:

<u>Contributing Party</u>	<u>Contribution</u>	<u>Percent</u>
City of Winnipeg	\$ 188,050,000	40%
Province of Manitoba	188,050,000	40%
Government of Canada	<u>91,200,000</u>	20%
Total	<u>\$ 467,300,000</u>	

#### 1.4 Current State of the Project

- ◆ Plenary Roads Winnipeg has now taken responsibility for the design, build, financing, operation and maintenance of the Project. Project risks are now being shared with the private partner and the City's project management team has moved into a project oversight role.
- ◆ Detailed designs for the various components of the Project are actively underway and at various states of completion based on the iterative nature of design work, and their requirement according to the construction schedule.
- ◆ Early transitway construction on the Southwood lands close to the University of Manitoba began in early August.

#### 1.5 Reporting

- ◆ The following reports have been published for the Project as of the date of this report:
  - Actions that are outside the delegated authority of the Public Service (such as expropriation of lands, procurement in excess of delegated authority, or over-expenditure reports)
  - Quarterly reporting to the SPC on Finance
  - Report on a public sector comparator, as well as the viability, expected risks, costs and benefits of using the P3 procurement method
  - Environmental reports as determined by the Province of Manitoba
- ◆ The following reports are ongoing or are forthcoming for the Project for legislated and contractually agreed upon matters:
  - Actions that are outside the delegated authority of the Public Service (such as expropriation of lands, procurement in excess of delegated authority, or over-expenditure reports)
  - Quarterly reporting to the SPC on Finance
  - A report by the contracted Fairness Monitor on the procurement process for the Project
  - Report on the final results of the Project

#### 1.6 Roles and Responsibilities of Governing Stakeholders

- ◆ Project communication should allow governing bodies to perform their responsibilities of their offices in general and in relation to the specific capital project.<sup>1</sup> To set the stage for appropriate communication, it is important to have an understanding of the different stakeholders, and the responsibilities associated with their offices. Due to the size and scope of this project, the number of stakeholders, and the form of the delivery, clear, appropriate and timely communication is essential to keep the project on track to avoid project delays and additional costs.

<sup>1</sup> Canadian Comprehensive Auditing Foundation (1987). *Effectiveness Reporting and Auditing in the Public Sector* (Ottawa). 6.

### ***Council***

- ◆ Council is the governing body for the City. Council has the legislated authority to govern the city in whatever way it considers appropriate within the broad strokes of the city charter, and has the power to delegate its authority with few exceptions. In relation to the project, Council has the responsibility to:
  - Set and approve civic priorities for the community
  - Set and approve the capital budget for the project
  - Approve contract awards in excess of \$5,000,000, unless that authority has been delegated by a specific resolution of Council
  - Approve the debt financing for the project
  - Approve expropriations required for the project
- ◆ Aside from these Council duties, individual Councillors have been elected to represent and advocate for the populous and require a basic level of information to be able to hold a dialogue to advocate for citizens in their wards, and within the sphere of their committee duties.

### ***Committees of Council***

- ◆ Other than the Executive Policy Committee, which is a statutory committee, Council has the authority to create and to delegate powers to committees as it sees fit through the enactment of by-laws. Other committees of Council that are stakeholders in this project include Executive Policy Committee (“EPC”), various Standing Policy Committees (“SPC”), and Community Committees. The committees of Council that regularly consider the Project are detailed in the following pages.

### ***Executive Policy Committee (“EPC”)***

- ◆ EPC formulates, coordinates and endorses the work of other Council committees, and makes recommendations to Council regarding matters that affect the city as a whole, including policies, plans, budgets, by-laws and other matters. EPC is also responsible for the supervision of the City’s Chief Administrative Officer. In relation to the project, the committee has the responsibility to:
  - Hold intergovernment conversations in the event that plans must be escalated to a political level
  - Endorse and present capital budgets to Council

### ***SPC on Finance***

- ◆ SPC on Finance coordinates and advises EPC on the City’s fiscal policy development and strategies, including capital project recommendations and strategies. In relation to the project, SPC on Finance has the responsibility to:
  - Review and make recommendations on the project before project initiation
  - Receive quarterly reports on the current status of the project

### ***SPC on Property and Development, Heritage, and Downtown Development***

- ◆ SPC on Property and Development, Heritage, and Downtown Development provides policy advice to Council on asset management, land acquisition, land development, and planning and land use. In relation to the project, this committee has the responsibility to:
  - Recommend land acquisition strategies for the project including expropriations of property
  - Approve terms and conditions of dealing with land
  - Prepare conceptual planning in transportation systems
  - Make budgetary recommendations within the jurisdiction of the committee

***SPC on Infrastructure Renewal and Public Works***

- ◆ SPC on Infrastructure Renewal and Public Works provides policy advice to Council on engineering services, public works maintenance, transit, traffic control, and transportation control planning. In relation to the project, this committee has the responsibility to:
  - Make budgetary recommendations within the jurisdiction of the committee

***SPC on Water and Waste, Riverbank Management, and the Environment***

- ◆ SPC on Water and Waste, Riverbank Management, and the Environment provides policy advice to Council on land drainage engineering services, and environmental issues. In relation to the project, this committee has the responsibility to:
  - Make budgetary recommendations within the jurisdiction of the committee

***Community Committees***

- ◆ Community Committees maintain the closest possible communication between the City and the citizenry. In relation to the project, these committees have the responsibility to:
  - Provide residents information on the City's policies, programs and budgets, and ensure that residents are given the opportunity to represent their views on the same

# **Project Reporting Analysis**

## 2.1 Reporting Requirements

### Issue

- ◆ Has the Public Service communicated the proper reports required by legislation, by-laws, City of Winnipeg policies and standards, and project agreements?

### Conclusions

- ◆ The Public Service has distributed the reports required by legislation, by-laws, policies, standards and agreements over the period of review for this audit report. We have performed limited testing on the information in the reports released and outlined below, and have found the information tested to be accurate.

### Analysis

- ◆ For the period of July 1 to September 30, 2016, the following reports have been required, and have been published for the Project:
  - “Proposed Land Exchange Agreement between the City of Winnipeg (“City”) and Canadian National Railway Company (“CN”) for the Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass” (required by *The City Organization By-law*)<sup>1</sup>
    - The report requested approval for a land exchange to obtain lands required for the construction of the Project.
  - “Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass Project - Installation of Traffic Control Signals” (required by *The City Organization By-law*)<sup>2</sup>
    - The report requested approval to install traffic signals in seven locations required for traffic control along the Project route.
  - “Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Financial Status (Project No. 4230010514) Report No. 8 for the Period Ending September 30, 2016” (required by *Administrative Standard FM-004: Asset Management*)<sup>3</sup>
    - The report presents the financial position and significant project updates for the Project up to September 30, 2016.
- ◆ Our audit work included examination of reports in relation to the legislated, regulated or agreed-upon requirements to communicate such reports. Limited testing of the accuracy of information included in reports was also completed based on our risk assessment of whether such information could be misstated.
- ◆ For this audit report, we audited the actual costs reported in the financial status update submitted to the Standing Policy Committee on Finance (see **Appendix 4** for an illustration). In our opinion, the actual costs reported were fairly presented, and were reported in accordance with generally accepted accounting principles issued by the Canadian Public Sector Accounting Board.

---

<sup>1</sup> Submitted to Council in its July 13, 2016 meeting through the Standing Policy Committee on Property and Development, Heritage and Downtown Development.

<sup>2</sup> Submitted to the Standing Policy Committee on Infrastructure Renewal and Public Works in its September 19, 2016 meeting.

<sup>3</sup> Submitted as information to the Standing Policy Committee on Finance in its December 1, 2016 meeting.

RECOMMENDATION			
<i>No recommendation accompanies this analysis.</i>			
RISK AREA	Information Resources	ASSESSMENT	Moderate
BASIS OF ASSESSMENT	Reports that are not distributed, or that contain inaccurate information, affect stakeholders' ability to perform their roles and could also affect legal compliance or funding agreements. To mitigate this risk, the Public Service has formed an experienced project management team that works closely with all interdependent departments to address all project management knowledge areas that require reporting.		

# **Project Risk Management Analysis**

### 3.1 Risk Management Activities

#### Issue

- ◆ Has the project management team followed the risk management guidance given in the City's *Project Management Manual*?

#### Conclusions

- ◆ The Public Service has acted in accordance with the project risk management guidance given in the City's *Project Management Manual*.

#### Analysis

- ◆ We observed that the City's project management team has continued to update its project risk register for the period. We observed through meeting minutes that project risks are regularly discussed in project team meetings, as well as the Major Capital Project Steering Committee meetings. These practices are consistent with the guidance of the City's *Project Management Manual*.
- ◆ We observed that Plenary Roads Winnipeg has provided the Public Service with a project risk management plan and monthly Project reports that outline the anticipated risks in the projects, the mitigation strategies for the risks, and the estimated residual risks remaining after the mitigation strategies. This practice is consistent with generally accepted project management practices (such as the *Project Management Book of Knowledge* issued by the Project Management Institute) and is also consistent with the City's *Project Management Manual*.

RECOMMENDATION			
No recommendation accompanies this analysis.			
RISK AREA	Business Process	ASSESSMENT	Moderate
BASIS OF ASSESSMENT	Inadequate risk management could reduce the projected value for money savings for the Project.		

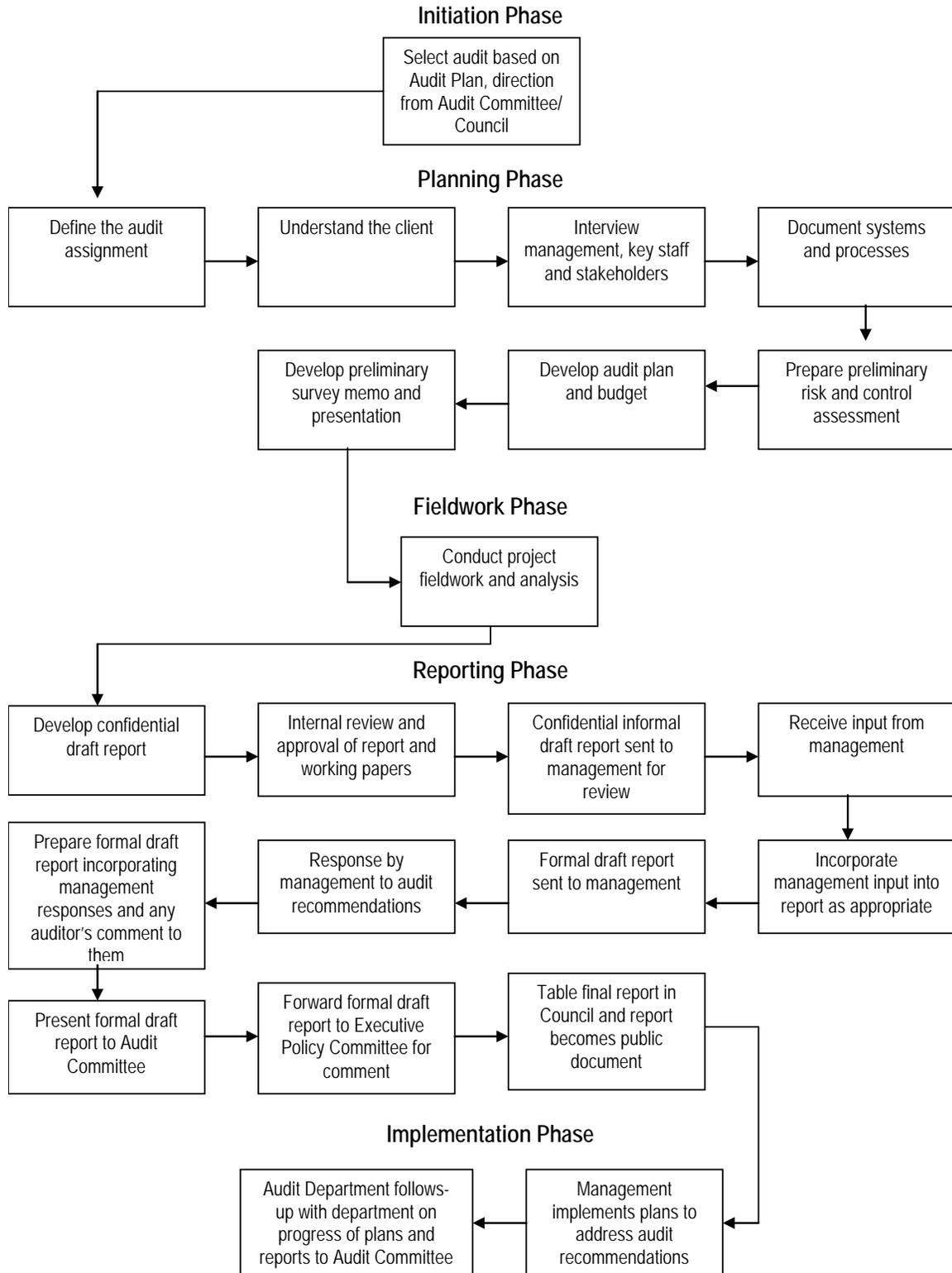
## APPENDIX 1 – Risk Assessment Worksheet

Potential Impacts / Likelihood	Insignificant	Minor	Moderate	Major	Extreme
	<ul style="list-style-type: none"> <li>- None or minor change in services, project or processes</li> <li>- Very limited exposure of sensitive information</li> <li>- Very minor, non-permanent environmental damage</li> <li>- Financial impact &lt; \$100K</li> </ul>	<ul style="list-style-type: none"> <li>- Minor change in achievement of service objectives</li> <li>- Limited exposure of sensitive information</li> <li>- Minor, non-permanent environmental damage</li> <li>- Financial impact \$100K – \$500K</li> </ul>	<ul style="list-style-type: none"> <li>- Moderate change in delivery of essential services</li> <li>- Exposure of limited amount of confidential information</li> <li>- Moderate environmental damage</li> <li>- Financial impact \$500K – \$1M</li> </ul>	<ul style="list-style-type: none"> <li>- Significant change in delivery of essential services</li> <li>- Exposure of significant amount of confidential information</li> <li>- Significant change in quality of life indicators</li> <li>- Major environmental damage</li> <li>- Financial impact \$1M – \$10M</li> </ul>	<ul style="list-style-type: none"> <li>- Unable to perform essential services for extended period</li> <li>- Exposure of critical confidential information</li> <li>- Very significant change in quality of life indicators</li> <li>- Significant damage to environment</li> <li>- Financial impact &gt;\$10M</li> </ul>
<b>Almost certain</b> (Excepted to occur unless circumstances change)	M	M	H	C	C
<b>Likely</b> (Probably occur in most circumstances)	M	M	H	C	C
<b>Possible</b> (Might occur under different circumstances)	L	M	M	H	H
<b>Unlikely</b> (Could occur if circumstances change)	L	L	M	H	H
<b>Rare</b> (May occur in exceptional circumstances)	L	L	M	M	M

### Legend

<b>C</b> Critical risk:	Requires urgent action, monitor and review at least weekly by Senior Management and COO, inform CAO and Committee of Council
<b>H</b> High risk:	High impact, monitor and review at least quarterly by management, inform COO
<b>M</b> Moderate risk:	Monitor and review at least quarterly by management
<b>L</b> Low risk:	Review periodically, no explicit action required.

## APPENDIX 2 – Audit Process



## APPENDIX 3 – Actual Costs Presented in Financial Status Reports

Appendix I

SOUTHWEST RAPID TRANSITWAY (STAGE 2) & PEMBINA HIGHWAY UNDERPASS  
TRANSIT DEPARTMENT  
As of September 30, 2016

Project Component	Capital Budget	Capital Expenditure Forecast								Surplus (Deficit)	Variance Last Report	Change in Variance	
		Actual Costs		Forecast									Total
		Original	To Sept 30, 2016	2016	2017	2018	2019	2020	2021 to End of Contract				Forecast
<b>UPFRONT COSTS</b>													
PROFESSIONAL SERVICES	\$ 13,000,000	\$ 4,412,231	\$ 837,703	\$ 2,252,144	\$ 1,902,144	\$ 1,902,144			\$ 11,306,366	1,693,634	1,693,634	-	
PROPERTY AND UTILITIES	23,000,000	15,267,020	7,732,980	3,438,000	6,562,000				\$ 33,000,000	(10,000,000)	(10,000,000)	-	
OTHER	5,550,000	738,530	455,104	1,400,000	1,650,000	3,000,000	\$ -		\$ 7,243,634	(1,693,634)	(1,693,634)	-	
<b>TOTAL UPFRONT COSTS *</b>	\$ 41,550,000	\$ 20,417,781	\$ 9,025,787	\$ 7,090,144	\$ 10,114,144	\$ 4,902,144	\$ -		\$ 51,550,000	(10,000,000)	(10,000,000)	-	
<b>CONSTRUCTION COSTS</b>	\$ 476,750,000								\$ 346,750,000	130,000,000	130,000,000	-	
<b>CONTINGENCY</b>	\$ 69,000,000								\$ 69,000,000	-	-	-	
<b>TOTAL PROJECT COSTS</b>	\$ 587,300,000								\$ 467,300,000	120,000,000	130,000,000	-	
<b>ANNUAL SERVICE PAYMENTS</b>	719,547,000			350,000	350,000	1,780,000	14,460,000	476,160,000	\$ 493,100,000	226,447,000	226,447,000	-	

Source: Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Financial Status (Project No. 4230010514) Report No. 8 for the Period Ending September 30, 2016.

# Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass Audit for the Period of October 1 to December 31, 2016

## **Table of Contents**

AUDIT AT A GLANCE	1
MANDATE OF THE CITY AUDITOR	2
AUDIT BACKGROUND	2
AUDIT OBJECTIVES	2
PROJECT RISK ANALYSIS	3
SCOPE	3
APPROACH AND CRITERIA	3
CONCLUSIONS	4
INDEPENDENCE	5
ACKNOWLEDGEMENT	5
Project Background	6
Project Reporting Analysis	8
Project Management Key Areas Analysis	11
APPENDIX 1 – Risk Assessment Worksheet	15
APPENDIX 2 – Audit Process	16
APPENDIX 3 – Risk Allocation Summary	17
APPENDIX 4 – Project Scope	19
APPENDIX 5 – Actual Costs Presented in Financial Status Reports	20

## AUDIT AT A GLANCE

### **RECOMMENDATIONS**

*No recommendations accompany this report.*

### **Background**

Stage 2 of the Southwest Rapid Transitway and Pembina Highway Underpass is one of the largest capital projects that the City has embarked upon. Appropriate communication is important to allow key stakeholders to fulfill their roles in relation to the project; it also keeps the public informed on project performance. The Audit Department will be releasing quarterly audit reports that provide assurance on the reporting processes and selected key project management areas throughout the construction of the project.

### **Findings**

The Public Service has produced the appropriate legislated and agreed upon reports, as well as public financial status updates for the Project, from October 1 to December 31, 2016.

The Public Service has managed risk for the project in accordance with City project management requirements from October 1 to December 31, 2016.

The scope of the Project has remained constant while the estimated costs have been reduced from \$590 million to \$467 million.

## MANDATE OF THE CITY AUDITOR

- ◆ The City Auditor is a statutory officer appointed by City Council under *The City of Winnipeg Charter*. The City Auditor is independent of the Public Service and reports directly to Executive Policy Committee, which serves as the City's Audit Committee.
- ◆ The City Auditor conducts examinations of the operations of the City and its affiliated bodies to assist Council in its governance role of ensuring the Public Service's accountability for the quality of stewardship over public funds and for the achievement of value for money in City operations.
- ◆ Once an audit report has been communicated to Council, it becomes a public document.

## AUDIT BACKGROUND

- ◆ Stage 2 of the Southwest Rapid Transitway and Pembina Highway Underpass ("the Project") is one of the largest capital projects that Winnipeg has initiated to date. An audit of the Project was added to the City Auditor's *Audit Plan 2015 – 2018* in order to provide timely assurance on key project management areas on a proactive basis. Our audit work began after the procurement phase of the Project due to a fairness monitor being secured to provide oversight on the procurement process (a requirement of *The Public-Private Partnerships Transparency and Accountability Act*).
- ◆ The City Auditor's audit plan was adopted by Council on July 15, 2015.

## AUDIT OBJECTIVES

- ◆ The objectives of this quarterly audit report are:
  - To provide assurance that appropriate reporting is occurring for the Project based on regulatory requirements, City policies and procedures, and agreements with third parties.
  - To provide assurance that appropriate risk management is occurring in the Project.
  - To provide assurance on the scope of the Project in relation to the estimated cost from \$590 million to \$467 million.

## PROJECT RISK ANALYSIS

- ◆ Communication is essential for successful projects. Some of the most important communication in large-scale public capital projects occurs in the form of public reporting; however, few industry organizations give guidance on what exactly should be included in project performance reports. Reporting is mainly left to be agreed upon by project stakeholders, and much is left to the professional judgment of the project management teams. Improper communication can hold up projects or cause wasted efforts. Therefore, proper communication practices are essential to ensure that projects run smoothly and efficiently.
- ◆ Individual audit area risk assessments are provided for each issue discussed. The assessments discuss and detail the residual risk for issues after considering the City's mitigating risk controls. Our risk assessment criteria are shown in **Appendix 1**.

## SCOPE

- ◆ The scope of our audit includes project communication management over the course of the project. The scope of our quarterly audit reports also includes the reporting on key management areas (such as risk, quality, schedule, and cost) as the Project progresses.
- ◆ Our audit runs concurrently with the project over the duration of the project, and reports are released on a quarterly basis. This is our fourth report, which covers the period of October 1 to December 31, 2016.

## APPROACH AND CRITERIA

- ◆ We conducted our audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient appropriate evidence to provide a reasonable basis for our observations and conclusions, based on our audit objectives. We believe the evidence we have obtained provides a reasonable basis for our observations and conclusions.
- ◆ To gather sufficient appropriate evidence for our audit, we compared the public reporting for the project for the period covered by this audit report to the reporting required by regulation, City policies and procedures, and third party agreements.
- ◆ **Appendix 2** provides a flowchart of the audit process.

## CONCLUSIONS

*The reports required by legislation, by-law, administrative standards, and contractual agreements have been issued by the Public Service.*

- ◆ The Public Service has submitted the formal reports required for this project during the period of this audit report.
- ◆ The reports reviewed for the period of this audit included:
  - “City of Winnipeg Request for Proposals to Design, Build, Finance, (Operate) and Maintain the Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass: Fairness Monitor’s Report”
  - “Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass” Capital Project Detail Sheet in the 2017 Preliminary Budget
  - “Proposed Expropriation Settlement – Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Holding #27 – 1500 Parker Ave - Catia Aparecida Macieira (formerly Brigham)”
  - “Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Financial Status (Project No. 4230010514) Report No. 9 for the Period Ending December 31, 2016”
- ◆ The reports were compared to the guidance given for such reports and were found to meet the standards of said guidance.
- ◆ Financial costs reported to the SPC on Finance were found to be in accordance with the generally accepted accounting principles on cost reporting issued by Canada’s Public Sector Accounting Board and, in our opinion, fairly presented the actual costs incurred for the Project for the period ending December 31, 2016.

*Project management activities meet risk management requirements provided in the City’s Project Management Manual.*

- ◆ The risk management activities have met the requirements outlined in the City’s Project Management Manual. Documentation and verbal updates discussing and tracking risks were reviewed including meeting minutes and issue logs.
- ◆ The risk allocation summary in the Fairness Monitor’s Report summarizes the risk distribution for the Project. We have included a reproduction of the summary in **Appendix 3**.

*The Project scope has remained constant while the estimated costs of the Project have decreased by \$120 million.*

- ◆ The City signed an agreement with Plenary Roads Winnipeg to design, build, finance, operate and maintain the transitway over the next 30 years. The estimated costs of the Project from this process were reduced from \$590 million to \$467 million.
- ◆ A comparison of the project agreement to the original business case for the Project confirms that the scope of the Project has not been reduced along with the estimated costs of the Project.

## INDEPENDENCE

The team members selected for the audit did not have any conflicts of interest related to the audit's subject matter.

## ACKNOWLEDGEMENT

The Audit Department wants to extend its appreciation to all of the stakeholders who participated in this audit and especially to City's project team for their time and cooperation.

### The Audit Team

Micheal Giles, CPA, CA, CIA  
Deputy City Auditor

Marisol Gil Reyes, CPA, CA, MPAcc  
Auditor

  
Bryan Mansky, MBA, CPA, CMA, CIA  
City Auditor

June 2017  
Date

# Project Background

**1.1 The Southwest Rapid Transitway (Stage 2) and Pembina Underpass Project**

- ◆ Stage 2 of Winnipeg’s first rapid transit corridor, and the expansion of Pembina Highway under the Jubilee Overpass, (“the Project”) was approved by Council on June 25, 2014. The Project is being delivered under a public-private partnership methodology.
- ◆ After a competitive bidding process, an agreement was signed with Plenary Roads Winnipeg to design, build, finance, operate and maintain the infrastructure at an estimated total cost of \$467 million.
- ◆ The scope of the Project includes the extension of the current southwest transit corridor (Stage 1) from Jubilee Avenue to the University of Manitoba. This extension is approximately 7.6 kilometers long and will include the construction of four new bridges (one for a railway, one for the active transportation pathway, and two for the transitway), two overpasses (for the transitway over McGillivray Boulevard and the CN Letellier rail line and spur lines), the reconstruction of Southpark Drive, two new drainage pump stations, a new pedestrian ramp at Investor’s Group Field, a reconstructed bus staging area at the University of Manitoba, two new “Park and Ride” facilities, nine new transit stations, and an active transportation pathway along the entire length of the transitway.
- ◆ The Project also includes the widening of the northbound side of Pembina Highway under the Jubilee overpass from two to three lanes along with pedestrian and cycling facilities on both sides of Pembina Highway. An illustration of the Project is included in **Appendix 4**.

**1.2 Project Funding**

- ◆ The financing for the Project is:

<u>Contributing Party</u>	<u>Contribution</u>	<u>Percent</u>
City of Winnipeg	\$ 188,050,000	40%
Province of Manitoba	188,050,000	40%
Government of Canada	<u>91,200,000</u>	20%
 Total	 <u>\$ 467,300,000</u>	

**1.3 Current State of the Project**

- ◆ Construction for the Project is underway. Plenary Roads Winnipeg has taken responsibility for the design, construction, financing, operation, maintenance and rehabilitation of the infrastructure for the next 30 years. Project risks are being shared with the private partner; this is detailed in **Appendix 3**. The City’s project management team is responsible for project oversight.

**1.4 Reporting**

- ◆ The following reports are ongoing or are forthcoming for the Project for legislated and contractually agreed upon matters:
  - Actions that are outside the delegated authority of the Public Service (such as expropriation of lands, procurement in excess of delegated authority, or over-expenditure reports)
  - Quarterly reporting to the SPC on Finance
  - Report on the final results of the Project

# **Project Reporting Analysis**

## 2.1 Reporting Requirements

### Issue

- ◆ Has the Public Service communicated the proper reports required by legislation, by-laws, City of Winnipeg policies and standards, and project agreements?

### Conclusions

- ◆ The Public Service has published the reports required by legislation, by-laws, policies, standards and agreements over the period of review for this audit report. We have performed limited testing on the information in the reports released and outlined below, and have found the information tested to be accurate.

### Analysis

- ◆ For the period of October 1 to December 31, 2016, the following reports have been required, and have been published for the Project:
  - “City of Winnipeg Request for Proposals to Design, Build, Finance, (Operate) and Maintain the Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass: Fairness Monitor’s Report”<sup>1</sup> created by P1 Consulting (required by *The Public-Private Partnerships Transparency and Accountability Act*)
    - The report provides assurance relating to the fairness and appropriateness of the public-private partnership procurement process.
  - “Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass”<sup>2</sup> Capital Project Detail Sheet in the 2017 Preliminary Budget (required by *The City of Winnipeg Charter*)
    - The project detail sheet was updated to communicate the reduction in project costs and adjustments to project financing.
  - “Proposed Expropriation Settlement – Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Holding #27 – 1500 Parker Ave - Catia Aparecida Macieira (formerly Brigham)”<sup>3</sup> (required by *The City of Winnipeg Charter*)
    - The report requested approval of proposed expropriation settlement to complete negotiations for a property required for the Project.
  - “Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Financial Status (Project No. 4230010514) Report No. 9 for the Period Ending December 31, 2016”<sup>4</sup> (required by *Administrative Standard FM-004: Asset Management*)
    - The report presents the financial position and significant project updates for the Project up to December 31, 2016.
- ◆ Our audit work included examination of reports in relation to the legislated, regulated or agreed-upon requirements to communicate such reports. Limited testing of the accuracy of information included in reports was also completed based on our risk assessment of whether such information could be misstated.

---

<sup>1</sup> Posted in the Transit Project site in November 2016.

<sup>2</sup> Submitted to Council in its December 13, 2016 meeting through the Executive Policy Committee.

<sup>3</sup> Submitted to Council in its November 16, 2016 meeting through the Executive Policy Committee.

<sup>4</sup> Submitted as information to the Standing Policy Committee on Finance in its March 13, 2017 meeting.

- ◆ The Fairness Monitor’s Report concluded that the procurement process for the Project was undertaken in a fair, open and transparent manner. The report has been submitted to the Office of the Auditor General in accordance with *The Public-Private Partnerships Transparency and Accountability Act*. As the report is reviewed by the Auditor General, we have not tested the information that the Fairness Monitor relied on to form their opinion. The City has not received commentary back from the Auditor General relating to the Fairness Monitor’s Report as of the date of this audit report.
- ◆ The 2017 Capital Project Detail Sheet presented a revised project cost of \$467 million, which is about \$120 million less than what was originally approved for the Project. The implications to the scope of the Project from this adjustment are discussed in the Scope Management Analysis section (section 3.2) of our report.
- ◆ For this quarterly report, we audited the actual costs reported in the financial status update submitted to the Standing Policy Committee on Finance (see **Appendix 5**). In our opinion, the actual costs reported were fairly presented, and were reported in accordance with generally accepted accounting principles issued by the Canadian Public Sector Accounting Board. We also observed that the land proposed for expropriation was required for the Project.

RECOMMENDATION			
<i>No recommendation accompanies this analysis.</i>			
RISK AREA	Information Resources	ASSESSMENT	Moderate
BASIS OF ASSESSMENT	Reports that are not distributed, or that contain inaccurate information, affect stakeholders’ ability to perform their roles and could also affect legal compliance or funding agreements. To mitigate this risk, the Public Service has formed an experienced project management team that works closely with all interdependent departments to address all project management knowledge areas that require reporting.		

# **Project Management Key Areas Analysis**

### 3.1 Risk Management Activities

#### Issue

- ◆ Has the project management team followed the risk management guidance given in the City’s Project Management Manual?

#### Conclusions

- ◆ The Project management activities carried out have met the requirements of the City’s Project Management Manual.

#### Analysis

- ◆ The City’s Project Management Manual (“PMM”) is required to be applied to all capital projects undertaken by the Public Service. The PMM details a project management methodology, and also states that the methodology used should be tailored to the specific project.
- ◆ Under a public-private partnership arrangement, the majority of the risks for costs, scope, schedule, and quality are transferred to the private partner. This leaves the City with a limited amount of risk. The City still retains risks on regulatory changes related to construction of the transitway, scope changes requested by the City, termination of agreement, maintenance of connecting roadways, and bus operations on the transitway. We have reproduced the Fairness Monitor’s illustration of the risk distribution for the Project in **Appendix 3**.
- ◆ The risk management guidance in the PMM focuses on identifying, planning for, managing, and communicating risks. We observed that the City’s project management team has an issue log that is regularly updated. We observed through meeting minutes that project risks are regularly discussed in project team meetings and Major Capital Project Steering Committee meetings. These practices are consistent with the guidance of the City’s Project Management Manual.
- ◆ We observed that Plenary Roads Winnipeg has provided the Public Service with a project risk management plan and monthly reports that outline the anticipated risks in the projects, the mitigation strategies for the risks, and the estimated residual risks remaining after the mitigation strategies. This practice is consistent with generally accepted project management practices (such as the *Project Management Book of Knowledge* issued by the Project Management Institute) and is also consistent with the City’s Project Management Manual.

RECOMMENDATION			
<i>No recommendation accompanies this analysis.</i>			
RISK AREA	Business Process	ASSESSMENT	Moderate
BASIS OF ASSESSMENT	Inadequate risk management could reduce the projected value for money savings for the Project.		

## 3.2 Scope Management Analysis

### Issue

- ◆ Was the scope reduced when the capital budget for the Project was reduced from \$590 million to \$467 million?

### Conclusions

- ◆ The scope of the Project has not been reduced. The lower cost resulted from the competitive bidding process and several proposed structural changes to the transitway that do not reduce the level of service that the transitway will provide.

### Analysis

- ◆ Based on the accompanying business case for the Project, Council approved that \$590 million be added to the City's capital budget for the design, construction (build), financing, operation, and maintenance of Stage 2 of the Southwest Rapid Transitway and Pembina Highway Underpass Project on June 25, 2014.
- ◆ The Project followed a competitive procurement process, and financial close for the Project occurred on June 24, 2016 with Plenary Roads Winnipeg receiving the contract.
- ◆ The estimated total costs for the Project were revised to \$467 million (79% of the original estimate). A revised Capital Project Detail Sheet was added to the 2017 Preliminary Budget to communicate the cost reduction. Revised detail sheets are normally created for cost increases, but not always for cost decreases. The Public Service informed us that a new detail sheet was created to provide transparent public information about the costs of the Project, and to communicate the impact that the new cost had on financing from other levels of government.
- ◆ A 21% reduction in project costs could indicate a reduction of scope for a project. We reviewed the Project Agreement and public communications to determine whether the decreased budget also reduced the scope of the Project.
- ◆ The Public Service communicated in a public information session that Plenary Roads Winnipeg had proposed several innovative structural alterations to the transitway that would result in significant cost savings. These adjustments included:
  - Constructing an overpass over the Letellier subdivision and industrial spur rail lines, rather than a tunnel underneath them.
  - Keeping the CNR rail bridge over Bishop Grandin Boulevard, rather than demolishing it and constructing a new bridge.
  - Routing the active transportation pathway along the transit ramp at Jubilee Avenue, rather than digging a separate active transportation tunnel.
- ◆ We observed that these alterations were part of the Project Agreement signed with Plenary Roads Winnipeg.
- ◆ Structural elements of a transportation infrastructure project can significantly affect the project cost. We believe the lower cost estimate is reasonable, based on the alterations proposed for the Project. We also believe that these revised structural elements do not affect the level of service that was originally approved for the Project.

RECOMMENDATION			
<i>No recommendation accompanies this analysis.</i>			
RISK AREA	Business Process	ASSESSMENT	High
BASIS OF ASSESSMENT	Significant cost estimate differences in projects could indicate changes to project scope.		

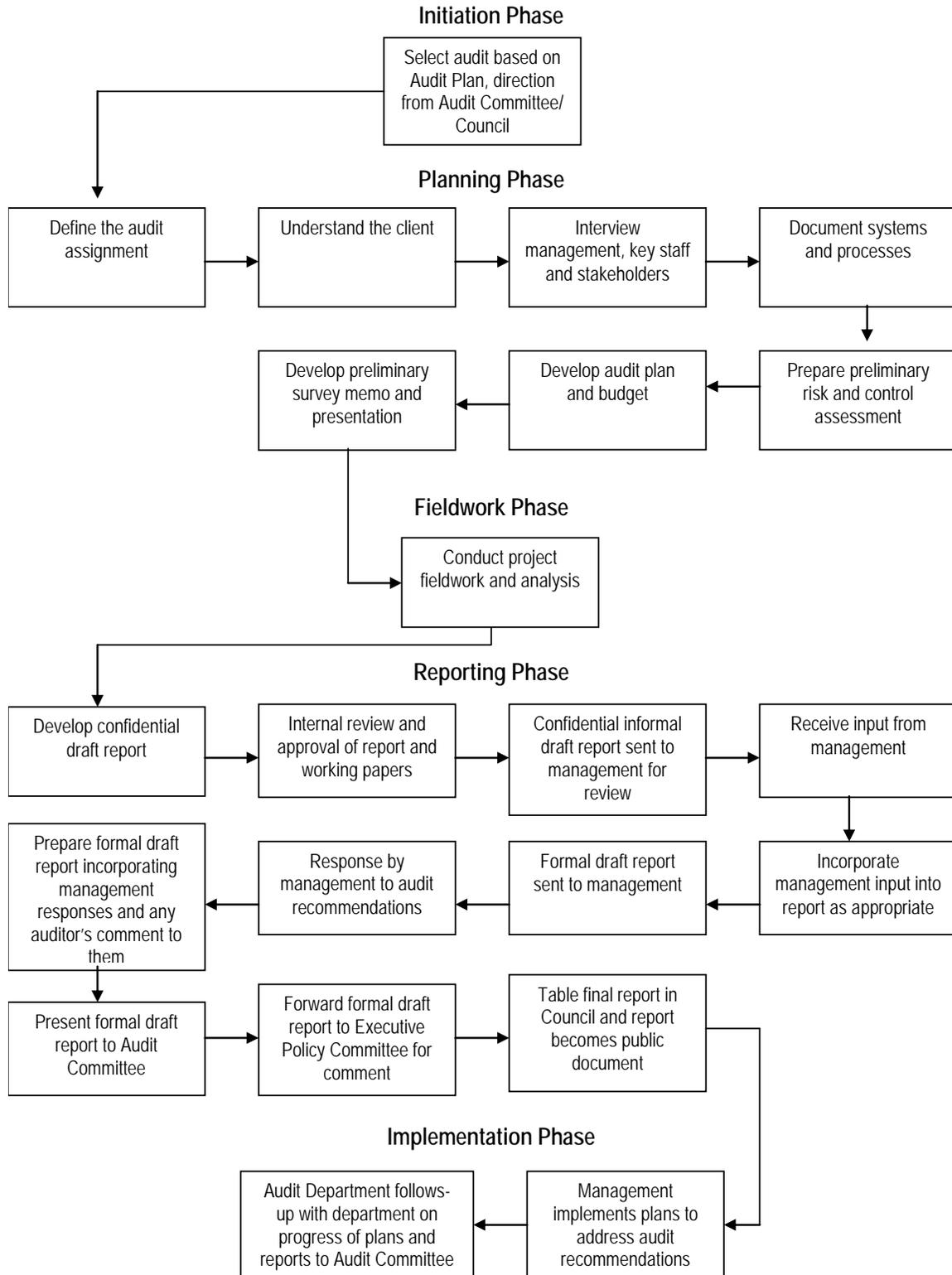
## APPENDIX 1 – Risk Assessment Worksheet

Potential Impacts  Likelihood	Insignificant	Minor	Moderate	Major	Extreme
	- None or minor change in services, project or processes - Very limited exposure of sensitive information - Very minor, non-permanent environmental damage - Financial impact < \$100K	- Minor change in achievement of service objectives - Limited exposure of sensitive information - Minor, non-permanent environmental damage - Financial impact \$100K – \$500K	- Moderate change in delivery of essential services - Exposure of limited amount of confidential information - Moderate environmental damage - Financial impact \$500K – \$1M	- Significant change in delivery of essential services - Exposure of significant amount of confidential information - Significant change in quality of life indicators - Major environmental damage - Financial impact \$1M – \$10M	- Unable to perform essential services for extended period - Exposure of critical confidential information - Very significant change in quality of life indicators - Significant damage to environment - Financial impact >\$10M
<b>Almost certain</b> (Excepted to occur unless circumstances change)	M	M	H	C	C
<b>Likely</b> (Probably occur in most circumstances)	M	M	H	C	C
<b>Possible</b> (Might occur under different circumstances)	L	M	M	H	H
<b>Unlikely</b> (Could occur if circumstances change)	L	L	M	H	H
<b>Rare</b> (May occur in exceptional circumstances)	L	L	M	M	M

### Legend

<b>C</b> Critical risk:	Requires urgent action, monitor and review at least weekly by Senior Management and COO, inform CAO and Committee of Council
<b>H</b> High risk:	High impact, monitor and review at least quarterly by management, inform COO
<b>M</b> Moderate risk:	Monitor and review at least quarterly by management
<b>L</b> Low risk:	Review periodically, no explicit action required.

## APPENDIX 2 – Audit Process



## APPENDIX 3 – Risk Allocation Summary

Risk	Retained by City	Transfer to Project Co	Shared	Notes on Any Changes to Risk as Previously Proposed
<b>A. General</b>				
1. Compliance with applicable law and standards		✓		N/A
2. Designated change in law	✓			
3. Changes in applicable law		✓		N/A
4. Changes in standards			✓	N/A
5. Permits, Licenses and Approvals (Including CN and Manitoba Hydro approvals)			✓	N/A
6. Access to Lands, Encumbrances, Liens			✓	N/A
7. Geotechnical		✓		N/A
8. Contamination			✓	N/A
9. Defects in Existing Infrastructure			✓	N/A
<b>B. Design and Construction</b>				
10. Design development (Detailed design)		✓		N/A
11. Construction management delays		✓		N/A
12. Construction latent defects		✓		N/A
13. Construction warranty for Maintenance-Exempt Work		✓		N/A
14. Scope changes initiated by City during construction	✓			N/A
15. Adverse weather conditions		✓		N/A
16. Labour relations			✓	N/A
17. Safety and security		✓		N/A
18. Stadium Access Works		✓		N/A
19. Utility Work			✓	<ul style="list-style-type: none"> <li>• Project Co is responsible for all utility work for the Project, including Manitoba Hydro utility relocation work, however a cost sharing regime is in place as described below.               <ul style="list-style-type: none"> <li>○ The City is responsible for reimbursing Project Co for certain utility costs that exceed a pre-determined baseline amount established by the City, subject to Project Co's obligation to mitigate such costs.</li> <li>○ Project Co is entitled to relief from the City in the event that Manitoba Hydro fails to perform its obligations in accordance with the applicable utility agreement and causes delay to Project Co in achieving Substantial Completion.</li> </ul> </li> </ul>

## APPENDIX 3 – Risk Allocation Summary (Continued)

Risk	Retained by City	Transfer to Project Co	Shared	Notes on Any Changes to Risk as Previously Proposed
20. CN Rail Interface			✓	<ul style="list-style-type: none"> <li>Project Co is responsible for all interface with CN Rail to compel them to fulfil their obligations, with the City required to provide assistance to resolve non-performance by CN.</li> <li>Project Co is entitled to relief from the City in the event that CN Rail fails to perform its obligations that causes delays to Project Co in achieving Substantial Completion.</li> </ul>
21. Traffic Management		✓		<ul style="list-style-type: none"> <li>Project Co is subject to payment deductions for lane closures during the construction period that exceed their target number of closure days as per their proposal.</li> </ul>
22. Rectification of deficiencies		✓		N/A
23. Commissioning		✓		N/A
<b>C. Maintenance and Rehabilitation</b>				
24. Operational and preventive maintenance (Stage 1 and Stage 2)		✓		N/A
25. Rehabilitative maintenance – Stage 1	✓			N/A
26. Rehabilitative maintenance – Stage 2		✓		N/A
27. Winter Maintenance		✓		N/A
28. Bus operations – Stage 1 and Stage 2	✓			N/A
29. Maintenance of roadway connections between the Transitway and street system	✓			N/A
30. Default of Operator or Project Co		✓		N/A
31. Inflation risk			✓	N/A
32. Asset residual		✓		N/A
<b>D. Force Majeure</b>				
33. Force Majeure			✓	N/A
<b>E. Relief Events</b>				
34. Relief Events			✓	N/A
<b>F. Termination of Project Agreement</b>				
35. Termination for convenience of City	✓			N/A
36. Termination for default of Project Co		✓		N/A
37. Termination for Force Majeure			✓	N/A

Source: P1 Consulting (2016). *City of Winnipeg Request for Proposals to Design, Build, Finance, (Operate) and Maintain the Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass: Fairness Monitor's Report*. Retrieved from winnipegtransit.com.

# APPENDIX 4 – Project Scope



Source: winipegtransit.com

## APPENDIX 5 – Actual Costs Presented in Financial Status Reports

Appendix I

**SOUTHWEST RAPID TRANSITWAY (STAGE 2) & PEMBINA HIGHWAY UNDERPASS**  
**TRANSIT DEPARTMENT**  
*As of December 31, 2016*

Project Component	Capital Budget			Actual Costs To Dec 31, 2016	Capital Expenditure Forecast					Total Forecast	Surplus (Deficit) From Revised	Variance Last Report	Change in Variance
	Original	Council Approved Changes	Revised		2017	2018	2019	2020	2021 to End of Contract				
<b>UPFRONT COSTS</b>													
PROFESSIONAL SERVICES	\$ 13,000,000	(1,663,634)	\$ 11,306,366	\$ 5,127,651	\$ 2,309,168	\$ 1,652,144	\$ 1,917,103			\$ 11,306,366	-	1,663,634	(1,663,634)
PROPERTY AND UTILITIES	23,000,000	10,000,000	\$ 33,000,000	23,970,109	5,023,571	\$ 4,006,320	\$ -			\$ 33,000,000	-	(10,000,000)	10,000,000
OTHER	5,550,000	1,663,634	\$ 7,243,634	928,395	1,667,239	\$ 1,650,000	\$ 3,000,000			\$ 7,243,634	-	(1,663,634)	1,663,634
<b>TOTAL UPFRONT COSTS *</b>	<b>\$ 41,550,000</b>	<b>\$ 10,000,000</b>	<b>\$ 51,550,000</b>	<b>\$ 30,024,455</b>	<b>\$ 8,999,978</b>	<b>\$ 7,608,464</b>	<b>\$ 4,917,103</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 51,550,000</b>	<b>-</b>	<b>(10,000,000)</b>	<b>10,000,000</b>
<b>CONSTRUCTION COSTS</b>	<b>\$476,750,000</b>	<b>(130,000,000)</b>	<b>\$346,750,000</b>				<b>\$346,750,000</b>			<b>\$ 346,750,000</b>	<b>-</b>	<b>130,000,000</b>	<b>(130,000,000)</b>
<b>CONTINGENCY</b>	<b>\$ 69,000,000</b>		<b>\$ 69,000,000</b>	<b>\$ 49,320</b>			<b>\$ 68,950,680</b>			<b>\$ 69,000,000</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>TOTAL PROJECT COSTS</b>	<b>\$567,300,000</b>	<b>\$ (120,000,000)</b>	<b>\$467,300,000</b>	<b>\$ 30,073,775</b>	<b>\$ 8,999,978</b>	<b>\$ 7,608,464</b>	<b>\$420,317,783</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 467,300,000</b>	<b>-</b>	<b>130,000,000</b>	<b>(120,000,000)</b>
<b>ANNUAL SERVICE PAYMENTS</b>	<b>719,547,000</b>	<b>(226,447,000)</b>	<b>\$493,100,000</b>		<b>350,000</b>	<b>350,000</b>	<b>1,780,000</b>	<b>14,460,000</b>	<b>478,160,000</b>	<b>\$ 493,100,000</b>	<b>-</b>	<b>226,447,000</b>	<b>(226,447,000)</b>

Source: Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Financial Status (Project No. 4230010514) Report No. 9 for the Period Ending December 31, 2016.

# Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass Audit for the Period of January 1 to March 31, 2017



## **Table of Contents**

AUDIT AT A GLANCE	1
AUDIT BACKGROUND	2
AUDIT OBJECTIVES	2
CONCLUSIONS	3
PROJECT REPORTING ANALYSIS	4
PROJECT MANAGEMENT KEY AREAS ANALYSIS	6
INDEPENDENCE	7
ACKNOWLEDGEMENT	7
APPENDIX 1 – Project Background	8
APPENDIX 2 – Audit Methodology	9
APPENDIX 3 – Audit Process	11
APPENDIX 4 – Risk Assessment Worksheet	12
APPENDIX 5 – Risk Allocation Summary	13
APPENDIX 6 – Actual Costs Presented in Financial Status Reports	15

## AUDIT AT A GLANCE

### **RECOMMENDATIONS**

*No recommendations accompany this report.*

### **Project Background**

Stage 2 of the Southwest Rapid Transitway and Pembina Highway Underpass is one of the largest capital projects that the City has embarked upon. Appropriate communication is important to allow key stakeholders to fulfill their roles in relation to the project; it also keeps the public informed on project performance.

The Audit Department will be releasing quarterly audit reports that provide assurance on the reporting processes and selected key project management areas throughout the construction of the project. This report is for Q1 2017, covering the period January 1 to March 31, 2017.

### **Current State of the Project**

Construction for the Project is underway. Plenary Roads Winnipeg has taken responsibility for the design, construction, financing, operation, maintenance and rehabilitation of the infrastructure for the next thirty years. The City's project management team is responsible for project oversight.

### **Findings**

The Public Service has produced the appropriate legislated and agreed upon reports, as well as public financial status updates for the Project from January 1 to March 31, 2017.

The Public Service has managed risk for the project in accordance with City project management requirements from January 1 to March 31, 2017.

## AUDIT BACKGROUND

*The audit of this Project is to provide timely assurance on key project management areas on a proactive basis.*

- ◆ Stage 2 of the Southwest Rapid Transitway and Pembina Highway Underpass (“the Project”) is one of the largest capital projects that Winnipeg has initiated to date. An audit of the Project was added to the City Auditor’s *Audit Plan 2015 – 2018* in order to provide timely assurance on key project management areas on a proactive basis. Our audit work began after the procurement phase of the Project due to a fairness monitor being secured to provide oversight on the procurement process (a requirement of *The Public-Private Partnerships Transparency and Accountability Act*).
- ◆ The City Auditor’s audit plan was adopted by Council on July 15, 2015.
- ◆ Background on the Project is included in **Appendix 1**.
- ◆ Our audit methodology is located in **Appendix 2**.
- ◆ **Appendix 3** provides a flowchart of the audit process.
- ◆ Our risk assessment criteria for each audit area are provided in **Appendix 4**.

## AUDIT OBJECTIVES

*We had two objectives for this quarterly audit*

- ◆ The objectives of this quarterly audit report were:
  - To provide assurance that appropriate reporting is occurring for the Project based on regulatory requirements, City policies and procedures.
  - To provide assurance that appropriate risk management is occurring in the Project.

## CONCLUSIONS

*The reports required by legislation, by-law, administrative standards, and contractual agreements have been issued by the Public Service.*

- ◆ The Public Service has submitted the formal reports required for this project during the period of this audit report.
- ◆ The following report was reviewed for the period of this audit:
  - “Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Financial Status (Project No. 4230010514) Report No. 10 for the Period Ending March 31, 2017”
- ◆ The report was compared to the guidance given for such reports and was found to meet the standards of said guidance.
- ◆ Financial costs reported to the Standing Policy Committee on Finance were found to be in accordance with the generally accepted accounting principles on cost reporting issued by Canada’s Public Sector Accounting Board and, in our opinion, fairly presented the actual costs incurred for the Project for the quarter ending March 31, 2017.

*Project management activities meet risk management requirements provided in the City’s Project Management Manual.*

- ◆ The risk management activities have met the requirements outlined in the City’s Project Management Manual. Documentation and verbal updates discussing and tracking risks were reviewed including meeting minutes and the issue log.
- ◆ The risk allocation summary in the Fairness Monitor’s Report summarizes the risk distribution for the Project. We have included a reproduction of the summary in **Appendix 5**.
- ◆ The private partner for the Project has also developed a risk management plan and risk registry for the Project.

# PROJECT REPORTING ANALYSIS

## 1.1 Reporting Requirements

### Issue

- ◆ Has the Public Service communicated the proper reports required by legislation, by-laws, City of Winnipeg policies and standards, and project agreements?

### Conclusions

- ◆ The Public Service has published the reports required by legislation, by-laws, policies, standards and agreements over the period of review for this audit report. We have performed limited testing on the information in the reports released and outlined below, and have found the information tested to be accurate.

### Analysis

- ◆ The following reports are ongoing or are forthcoming for the Project for legislated and contractually agreed upon matters:
  - Actions that are outside the delegated authority of the Public Service (such as expropriation of lands, procurement in excess of delegated authority, or over expenditure reports)
  - Quarterly reporting to the Standing Policy Committee on Finance
  - Report on the final results of the Project
- ◆ For the period of January 1 to March 31, 2017, the following report was required, and was published for the Project:
  - “Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Financial Status (Project No. 4230010514) Report No. 10 for the Period Ending March 31, 2017”<sup>1</sup> (required by *Administrative Standard FM-004: Asset Management*)
    - The report presents the financial position and significant project updates for the Project up to March 31, 2017.
- ◆ Our audit work included examination of reports in relation to the legislated, regulated or agreed-upon requirements to communicate such reports. Limited testing of the accuracy of information included in reports was also completed based on our risk assessment of whether such information could be misstated.
- ◆ For this quarterly report, we audited the actual costs reported in the financial status update submitted to the Standing Policy Committee on Finance (see **Appendix 6**). In our opinion, the actual costs reported were fairly presented, and were reported in accordance with generally accepted accounting principles issued by the Canadian Public Sector Accounting Board.

---

<sup>1</sup> Submitted as information to the Standing Policy Committee on Finance in its June 8, 2017 meeting.

RECOMMENDATION			
<i>No recommendation accompanies this analysis.</i>			
RISK AREA	Information Resources	ASSESSMENT	Moderate
BASIS OF ASSESSMENT	Reports that are not distributed, or that contain inaccurate information, affect stakeholders' ability to perform their roles and could also affect legal compliance or funding agreements. To mitigate this risk, the Public Service has formed an experienced project management team that works closely with all interdependent departments to address all project management knowledge areas that require reporting.		

# PROJECT MANAGEMENT KEY AREAS ANALYSIS

## 2.1 Risk Management Activities

### Issue

- ◆ Has the project management team followed the risk management guidance given in the City’s Project Management Manual?

### Conclusions

- ◆ The Project management activities carried out have met the requirements of the City’s Project Management Manual.

### Analysis

- ◆ The City’s Project Management Manual (“PMM”) is required to be applied to all capital projects undertaken by the Public Service. The PMM details a project management methodology, and also states that the methodology used should be tailored to the specific project.
- ◆ Under a public-private partnership arrangement, the majority of the risks for costs, scope, schedule, and quality are transferred to the private partner. This leaves the City with a limited amount of risk. The City still retains risks on regulatory changes related to construction of the transitway, scope changes requested by the City, termination of agreement, maintenance of connecting roadways, and bus operations on the transitway. We have reproduced the Fairness Monitor’s illustration of the risk distribution for the Project in **Appendix 5**.
- ◆ The risk management guidance in the PMM focuses on identifying, planning for, managing, and communicating risks. We observed that the City’s project management team has an issues log that is regularly updated. We observed through meeting minutes that project risks are regularly discussed in project team meetings and Major Capital Project Steering Committee meetings. These practices are consistent with the guidance of the City’s Project Management Manual.
- ◆ We observed that Plenary Roads Winnipeg has provided the Public Service with a project risk management plan and monthly reports that outline the anticipated risks in the projects, the mitigation strategies for the risks, and the estimated residual risks remaining after the mitigation strategies. This practice is consistent with generally accepted project management practices (such as the *Project Management Book of Knowledge* issued by the Project Management Institute) and is also consistent with the City’s Project Management Manual.

RECOMMENDATION			
<i>No recommendation accompanies this analysis.</i>			
RISK AREA	Business Process	ASSESSMENT	Moderate
BASIS OF ASSESSMENT	Inadequate risk management could reduce the projected value for money savings for the Project.		

## INDEPENDENCE

The team members selected for the audit did not have any conflicts of interest related to the audit's subject matter.

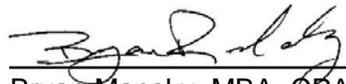
## ACKNOWLEDGEMENT

The Audit Department wants to extend its appreciation to all of the stakeholders who participated in this audit and especially to City's project team for their time and cooperation.

### The Audit Team

Micheal Giles, CPA, CA, CIA  
Deputy City Auditor

Larissa Klimchak, CPA, CMA, CIA  
Senior Auditor

  
\_\_\_\_\_  
Bryan Mansky, MBA, CPA, CMA, CIA  
City Auditor

August 2017  
\_\_\_\_\_  
Date

# APPENDIX 1 – Project Background

## The Southwest Rapid Transitway (Stage 2) and Pembina Underpass Project

- ◆ Stage 2 of Winnipeg’s first rapid transit corridor, and the expansion of Pembina Highway under the Jubilee Overpass, (“the Project”) was approved by Council on June 25, 2014. The Project is being delivered under a public-private partnership methodology.
- ◆ After a competitive bidding process, an agreement was signed with Plenary Roads Winnipeg to design, build, finance, operate and maintain the infrastructure at an estimated total cost of \$467 million.
- ◆ The scope of the Project includes the extension of the current southwest transit corridor (Stage 1) from Jubilee Avenue to the University of Manitoba. This extension is approximately 7.6 kilometers long and will include the construction of three new bridges (one for a railway and two for the transitway), two overpasses (for the transitway over McGillivray Boulevard and the CN Letellier rail line and spur lines), the reconstruction of Southpark Drive, two new drainage pump stations, a new pedestrian ramp at Investor’s Group Field, a reconstructed bus staging area at the University of Manitoba, two new “Park and Ride” facilities, nine new transit stations, and an active transportation pathway along the entire length of the transitway.
- ◆ The Project also includes the widening of the northbound side of Pembina Highway under the Jubilee overpass from two to three lanes along with pedestrian and cycling facilities on both sides of Pembina Highway.

### Project Funding

- ◆ The financing for the Project is:

<u>Contributing Party</u>	<u>Contribution</u>	<u>Percent</u>
City of Winnipeg	\$ 188,050,000	40%
Province of Manitoba	188,050,000	40%
Government of Canada	<u>91,200,000</u>	20%
Total	<u>\$ 467,300,000</u>	

### Reporting

- ◆ The following reports are ongoing or are forthcoming for the Project for legislated and contractually agreed upon matters:
  - Actions that are outside the delegated authority of the Public Service (such as expropriation of lands, procurement in excess of delegated authority, or over-expenditure reports)
  - Quarterly reporting to the SPC on Finance
  - Report on the final results of the Project

## APPENDIX 2 – Audit Methodology

### MANDATE OF THE CITY AUDITOR

- ◆ The City Auditor is a statutory officer appointed by City Council under *The City of Winnipeg Charter*. The City Auditor is independent of the Public Service and reports directly to Executive Policy Committee, which serves as the City's Audit Committee.
- ◆ The City Auditor conducts examinations of the operations of the City and its affiliated bodies to assist Council in its governance role of ensuring the Public Service's accountability for the quality of stewardship over public funds and for the achievement of value for money in City operations.
- ◆ Once an audit report has been communicated to Council, it becomes a public document.

### PROJECT RISK ANALYSIS

- ◆ Communication is essential for successful projects. Some of the most important communication in large-scale public capital projects occurs in the form of public reporting; however, few industry organizations give guidance on what exactly should be included in project performance reports. Reporting is mainly left to be agreed upon by project stakeholders, and much is left to the professional judgment of the project management teams. Improper communication can hold up projects or cause wasted efforts. Therefore, proper communication practices are essential to ensure that projects run smoothly and efficiently.
- ◆ Individual audit area risk assessments are provided for each issue discussed. The assessments discuss and detail the residual risk for issues after considering the City's mitigating risk controls.

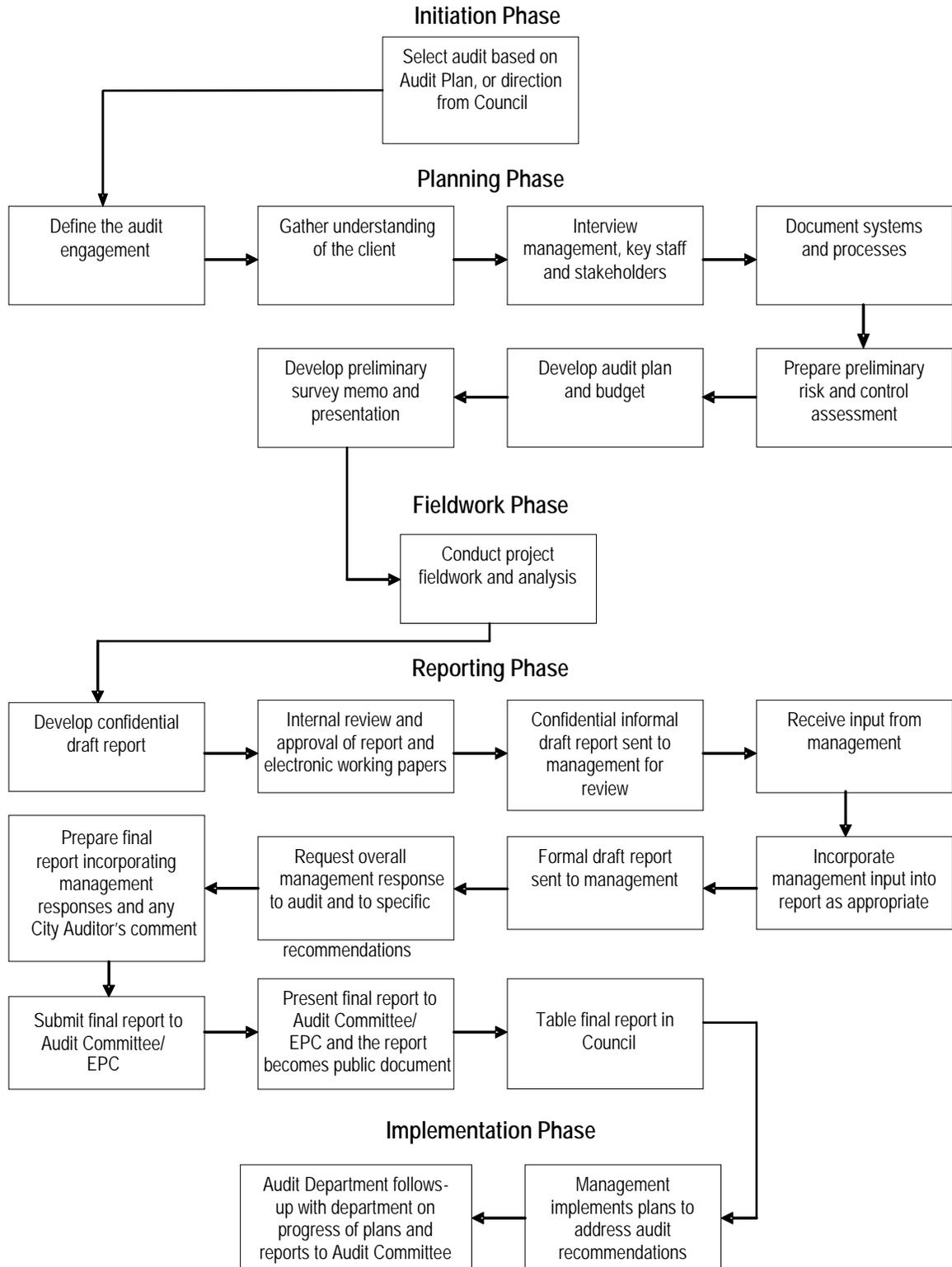
### SCOPE

- ◆ The scope of our audit includes project communication management over the course of the project. The scope of our quarterly audit reports also includes the reporting on key management areas (such as risk, quality, schedule, and cost) as the Project progresses.
- ◆ Our audit runs concurrently with the project over the duration of the project, and reports are released on a quarterly basis.

## APPROACH AND CRITERIA

- ◆ We conducted our audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient appropriate evidence to provide a reasonable basis for our observations and conclusions, based on our audit objectives. We believe the evidence we have obtained provides a reasonable basis for our observations and conclusions.
- ◆ To gather sufficient appropriate evidence for our audit, we reviewed Manitoba's legislated requirements for public-private partnership reporting, the City of Winnipeg's documented guidance for capital project reporting, and the public reporting requirements set out in funding and capital project management agreements. We also researched industry standards and guidance on capital project monitoring and reporting. We then conducted our fieldwork, which compared the public reporting for the project for the period covered by this audit report to all of the outlined guidance.
- ◆ The guiding documents we used include:
  - *The Public-Private Partnerships Transparency and Accountability Act* of Manitoba
  - *The Environment Act* of Manitoba
  - *The City of Winnipeg Charter* for Council's and its committees' legislated roles in relation to capital project decision making
  - *Administrative Standard FM-004: Asset Management* (and its precursors throughout the project)
  - Agreements with federal and provincial funding partners (P3 Canada, and the Government of Manitoba) and contracted service providers (Plenary Roads Winnipeg Transitway LP)
- ◆ Industry capital project monitoring and reporting practices we researched included:
  - Recommended practices 17R-97 and 56R-08 of The Association for the Advancement of Cost Engineering (AACE)
  - Accounting principles published by CPA Canada
  - *Effectiveness Reporting and Auditing in the Public Sector* published by the Canadian Comprehensive Auditing Foundation (CCAF)
  - Publicly available reporting information for the National Project Management System (NPMS)
  - *A Guide to the Project Management Body of Knowledge (PMBOK® Guide) Fifth Edition*
  - Projects IN Controlled Environments (PRINCE2)

## APPENDIX 3 – Audit Process



## APPENDIX 4 – Risk Assessment Worksheet

Potential Impacts / Likelihood	Insignificant	Minor	Moderate	Major	Extreme
	<ul style="list-style-type: none"> <li>- None or minor change in services, project or processes</li> <li>- Very limited exposure of sensitive information</li> <li>- Very minor, non-permanent environmental damage</li> <li>- Financial impact &lt; \$100K</li> </ul>	<ul style="list-style-type: none"> <li>- Minor change in achievement of service objectives</li> <li>- Limited exposure of sensitive information</li> <li>- Minor, non-permanent environmental damage</li> <li>- Financial impact \$100K – \$500K</li> </ul>	<ul style="list-style-type: none"> <li>- Moderate change in delivery of essential services</li> <li>- Exposure of limited amount of confidential information</li> <li>- Moderate environmental damage</li> <li>- Financial impact \$500K – \$1M</li> </ul>	<ul style="list-style-type: none"> <li>- Significant change in delivery of essential services</li> <li>- Exposure of significant amount of confidential information</li> <li>- Significant change in quality of life indicators</li> <li>- Major environmental damage</li> <li>- Financial impact \$1M – \$10M</li> </ul>	<ul style="list-style-type: none"> <li>- Unable to perform essential services for extended period</li> <li>- Exposure of critical confidential information</li> <li>- Very significant change in quality of life indicators</li> <li>- Significant damage to environment</li> <li>- Financial impact &gt;\$10M</li> </ul>
<b>Almost certain</b> (Excepted to occur unless circumstances change)	M	M	H	C	C
<b>Likely</b> (Probably occur in most circumstances)	M	M	H	C	C
<b>Possible</b> (Might occur under different circumstances)	L	M	M	H	H
<b>Unlikely</b> (Could occur if circumstances change)	L	L	M	H	H
<b>Rare</b> (May occur in exceptional circumstances)	L	L	M	M	M

### Legend

<b>C</b> Critical risk:	Requires urgent action, monitor and review at least weekly by Senior Management and COO, inform CAO and Committee of Council
<b>H</b> High risk:	High impact, monitor and review at least quarterly by management, inform COO
<b>M</b> Moderate risk:	Monitor and review at least quarterly by management
<b>L</b> Low risk:	Review periodically, no explicit action required.

## APPENDIX 5 – Risk Allocation Summary

Risk	Retained by City	Transfer to Project Co	Shared	Notes on Any Changes to Risk as Previously Proposed
<b>A. General</b>				
1. Compliance with applicable law and standards		✓		N/A
2. Designated change in law	✓			
3. Changes in applicable law		✓		N/A
4. Changes in standards			✓	N/A
5. Permits, Licenses and Approvals (Including CN and Manitoba Hydro approvals)			✓	N/A
6. Access to Lands, Encumbrances, Liens			✓	N/A
7. Geotechnical		✓		N/A
8. Contamination			✓	N/A
9. Defects in Existing Infrastructure			✓	N/A
<b>B. Design and Construction</b>				
10. Design development (Detailed design)		✓		N/A
11. Construction management delays		✓		N/A
12. Construction latent defects		✓		N/A
13. Construction warranty for Maintenance-Exempt Work		✓		N/A
14. Scope changes initiated by City during construction	✓			N/A
15. Adverse weather conditions		✓		N/A
16. Labour relations			✓	N/A
17. Safety and security		✓		N/A
18. Stadium Access Works		✓		N/A
19. Utility Work			✓	<ul style="list-style-type: none"> <li>• Project Co is responsible for all utility work for the Project, including Manitoba Hydro utility relocation work, however a cost sharing regime is in place as described below.               <ul style="list-style-type: none"> <li>○ The City is responsible for reimbursing Project Co for certain utility costs that exceed a pre-determined baseline amount established by the City, subject to Project Co's obligation to mitigate such costs.</li> <li>○ Project Co is entitled to relief from the City in the event that Manitoba Hydro fails to perform its obligations in accordance with the applicable utility agreement and causes delay to Project Co in achieving Substantial Completion.</li> </ul> </li> </ul>

## APPENDIX 5 – Risk Allocation Summary (Continued)

Risk	Retained by City	Transfer to Project Co	Shared	Notes on Any Changes to Risk as Previously Proposed
20. CN Rail Interface			✓	<ul style="list-style-type: none"> <li>Project Co is responsible for all interface with CN Rail to compel them to fulfil their obligations, with the City required to provide assistance to resolve non-performance by CN.</li> <li>Project Co is entitled to relief from the City in the event that CN Rail fails to perform its obligations that causes delays to Project Co in achieving Substantial Completion.</li> </ul>
21. Traffic Management		✓		<ul style="list-style-type: none"> <li>Project Co is subject to payment deductions for lane closures during the construction period that exceed their target number of closure days as per their proposal.</li> </ul>
22. Rectification of deficiencies		✓		N/A
23. Commissioning		✓		N/A
<b>C. Maintenance and Rehabilitation</b>				
24. Operational and preventive maintenance (Stage 1 and Stage 2)		✓		N/A
25. Rehabilitative maintenance – Stage 1	✓			N/A
26. Rehabilitative maintenance – Stage 2		✓		N/A
27. Winter Maintenance		✓		N/A
28. Bus operations – Stage 1 and Stage 2	✓			N/A
29. Maintenance of roadway connections between the Transitway and street system	✓			N/A
30. Default of Operator or Project Co		✓		N/A
31. Inflation risk			✓	N/A
32. Asset residual		✓		N/A
<b>D. Force Majeure</b>				
33. Force Majeure			✓	N/A
<b>E. Relief Events</b>				
34. Relief Events			✓	N/A
<b>F. Termination of Project Agreement</b>				
35. Termination for convenience of City	✓			N/A
36. Termination for default of Project Co		✓		N/A
37. Termination for Force Majeure			✓	N/A

Source: P1 Consulting (2016). *City of Winnipeg Request for Proposals to Design, Build, Finance, (Operate) and Maintain the Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass: Fairness Monitor's Report*. Retrieved from winniegetransit.com.

## APPENDIX 6 – Actual Costs Presented in Financial Status Reports

Appendix I

SOUTHWEST RAPID TRANSITWAY (STAGE 2) & PEMBINA HIGHWAY UNDERPASS  
TRANSIT DEPARTMENT  
As of March 31, 2017

Project Component	Capital Budget			Actual Costs To March 31, 2017	Capital Expenditure Forecast					Surplus (Deficit) From Revised	Variance Last Report	Change in Variance
	Original	Council Approved Changes	Revised		Forecast				Total			
					2017	2018	2019	2020	2021 to End of Contract	Forecast		
<b>UPFRONT COSTS</b>												
PROFESSIONAL SERVICES	\$ 13,000,000	(1,693,634)	\$ 11,306,366	\$ 5,400,808	\$ 2,036,311	\$ 1,952,144	\$ 1,917,103			\$ 11,306,366	-	-
PROPERTY AND UTILITIES	23,000,000	10,000,000	\$ 33,000,000	24,248,715	4,744,965	\$ 4,006,320	\$ -			\$ 33,000,000	-	-
OTHER	5,550,000	1,693,634	\$ 7,243,634	1,029,629	1,564,005	\$ 1,650,000	\$ 3,000,000			\$ 7,243,634	-	-
<b>TOTAL UPFRONT COSTS *</b>	<b>\$ 41,550,000</b>	<b>\$ 10,000,000</b>	<b>\$ 51,550,000</b>	<b>\$ 30,679,152</b>	<b>\$ 8,345,281</b>	<b>\$ 7,608,464</b>	<b>\$ 4,917,103</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 51,550,000</b>	<b>-</b>	<b>-</b>
<b>CONSTRUCTION COSTS (PLENARY)</b>	<b>\$476,750,000</b>	<b>(130,000,000)</b>	<b>\$346,750,000</b>				\$346,750,000			\$ 346,750,000	-	-
<b>CONTINGENCY</b>	<b>\$ 69,000,000</b>		<b>\$ 69,000,000</b>	<b>\$ 36,829</b>			\$ 68,963,371			\$ 69,000,000	-	-
<b>TOTAL PROJECT COSTS</b>	<b>\$587,300,000</b>	<b>\$ (120,000,000)</b>	<b>\$467,300,000</b>	<b>\$ 30,715,781</b>	<b>\$ 8,345,281</b>	<b>\$ 7,608,464</b>	<b>\$420,630,474</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 467,300,000</b>	<b>-</b>	<b>-</b>
<b>ANNUAL SERVICE PAYMENTS</b>	<b>719,547,000</b>	<b>(226,447,000)</b>	<b>\$493,100,000</b>		<b>350,000</b>	<b>350,000</b>	<b>1,780,000</b>	<b>14,460,000</b>	<b>476,160,000</b>	<b>\$ 493,100,000</b>	<b>-</b>	<b>-</b>

Source: Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Financial Status (Project No. 4230010514) Report No. 10 for the Period Ending March 31, 2017.

# Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass Audit for the Period of April 1, 2017 to June 30, 2017

## **Table of Contents**

AUDIT AT A GLANCE	1
AUDIT BACKGROUND	2
AUDIT OBJECTIVES	2
CONCLUSIONS	3
PROJECT REPORTING ANALYSIS	5
PROJECT MANAGEMENT KEY AREAS ANALYSIS	7
INDEPENDENCE	8
ACKNOWLEDGEMENT	8
APPENDIX 1 – Project Background	9
APPENDIX 2 – Audit Methodology	10
APPENDIX 3 – Audit Process	12
APPENDIX 4 – Risk Assessment Worksheet	13
APPENDIX 5 – Risk Allocation Summary	14
APPENDIX 6 – Actual Costs Presented in Financial Status Reports	16

## AUDIT AT A GLANCE

### **RECOMMENDATIONS**

*No recommendations accompany this report.*

### **Project Background**

Stage 2 of the Southwest Rapid Transitway and Pembina Highway Underpass is one of the largest capital projects that the City has embarked upon. Appropriate communication is important to allow key stakeholders to fulfill their roles in relation to the project; it also keeps the public informed on project performance.

The Audit Department will be releasing quarterly audit reports that provide assurance on the reporting processes and selected key project management areas throughout the construction of the project. This report is for Q2 2017, covering the period April 1 to June 30, 2017.

### **Current State of the Project**

Construction for the Project is underway. Plenary Roads Winnipeg has taken responsibility for the design, construction, financing, operation, maintenance and rehabilitation of the infrastructure for the next thirty years. The City's project management team is responsible for project oversight.

### **Findings**

The Public Service has produced the appropriate legislated and agreed upon reports, as well as public financial status updates for the Project from April 1 to June 30, 2017.

The Public Service has managed risk for the project in accordance with City project management requirements from April 1 to June 30, 2017.

## AUDIT BACKGROUND

*The audit of this Project is to provide timely assurance on key project management areas on a proactive basis.*

- ◆ Stage 2 of the Southwest Rapid Transitway and Pembina Highway Underpass (“the Project”) is one of the largest capital projects that Winnipeg has initiated to date. An audit of the Project was added to the City Auditor’s *Audit Plan 2015 – 2018* in order to provide timely assurance on key project management areas on a proactive basis. Our audit work began after the procurement phase of the Project due to a fairness monitor being secured to provide oversight on the procurement process (a requirement of *The Public-Private Partnerships Transparency and Accountability Act*).
- ◆ The City Auditor’s audit plan was adopted by Council on July 15, 2015.
- ◆ Background on the Project is included in **Appendix 1**.
- ◆ Our audit methodology is located in **Appendix 2**.
- ◆ **Appendix 3** provides a flowchart of the audit process.
- ◆ Our risk assessment criteria for each audit area are provided in **Appendix 4**.

## AUDIT OBJECTIVES

*We had two objectives for this quarterly audit*

- ◆ The objectives of this quarterly audit report were:
  - To provide assurance that appropriate reporting is occurring for the Project based on regulatory requirements, City policies and procedures.
  - To provide assurance that appropriate risk management is occurring in the Project.

## CONCLUSIONS

*The reports required by legislation, by-law, administrative standards, and contractual agreements have been issued by the Public Service.*

- ◆ The Public Service has submitted the formal reports required for this project during the period of this audit report.
- ◆ The following reports were reviewed for the period of this audit:
  - “Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Financial Status (Project No. 4230010514 & 4230010614) Report No. 11 for the Period Ended June 30, 2017”
  - “Award of Contract Phase IV- Procurement for Professional Consulting Services for Stage 2 of the Southwest Transitway - Functional Design - P3 Business Case and VFM Analysis - Procurement - Owner’s Advocate Component 2 RFP No. 685-2013”
  - “Proposed Closing and Rededication of the Public Lane between Chancellor Drive and Markham Road- Bus Rapid Transit Phase Two - File DAOC 3/2016”
  - “Proposed Opening, Closing and Rededication of Streets and Lanes in the blocks bounded by Chevrier Boulevard, Gregoire Avenue and Hervo and French Streets and proposed closing of part of the Public Road West of Pembina Highway: Bus Rapid Transit Phase 2- File DAOC 1/2016”
  - “Proposed Closing of Parts of Various Streets and Lanes in the blocks bounded by Derek Street, Hurst Way, Asquith and Edderton Avenues: Bus Rapid Transit Phase 2- File DAC 1/2016”
  - “Proposed Closing of Part of Winchester Street, Somerville Avenue and the Public Lane East of Fennell Street and Part of Waller Avenue, East of Irene Street: Bus Rapid Transit Phase 2 – File DAC 2/2016”
- ◆ The reports were compared to the guidance given for such reports and were found to meet the standards of said guidance.
- ◆ Financial costs reported to the Standing Policy Committee on Finance were found to be in accordance with the generally accepted accounting principles on cost reporting issued by Canada’s Public Sector Accounting Board and, in our opinion, fairly presented in all material respects the actual costs incurred for the Project for the quarter ending June 30, 2017.

*Project management activities meet risk management requirements provided in the City's Project Management Manual.*

- ◆ The risk management activities have met the requirements outlined in the City's Project Management Manual. Documentation and verbal updates discussing and tracking risks were reviewed including meeting minutes, stakeholder communications, and the issue log.
- ◆ The risk allocation summary in the Fairness Monitor's Report summarizes the risk distribution for the Project. We have included a reproduction of the summary for information purposes in **Appendix 5**.
- ◆ The private partner for the Project has also developed a risk management plan and risk registry for the Project, which it's being updated on timely basis.

# PROJECT REPORTING ANALYSIS

## 1.1 Reporting Requirements

### Issue

- ◆ Has the Public Service communicated the proper reports required by legislation, by-laws, City of Winnipeg policies and standards, and project agreements?

### Conclusions

- ◆ The Public Service has published the reports required by legislation, by-laws, policies, standards and agreements over the period of review for this audit report. We have performed limited testing on the information in the reports released and outlined below, and have found the information tested to be accurate.

### Analysis

- ◆ The following reports are ongoing or are forthcoming for the Project for legislated and contractually agreed upon matters:<sup>1</sup>
  - Actions that are outside the delegated authority of the Public Service (such as expropriation of lands, procurement in excess of delegated authority, or over expenditure reports)
  - Quarterly reporting to the Standing Policy Committee on Finance
- ◆ For the period of April 1 to June 30, 2017, the following reports were required, and were published for the Project:
  - “Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Financial Status (Project No. 4230010514 & 4230010614) Report No. 11 for the Period Ended June 30, 2017”<sup>2</sup> (required by *Administrative Standard FM-004: Asset Management*)
    - The report presents the financial position and significant project updates for the Project up to June 30, 2017.
  - “Award of Contract Phase IV- Procurement for Professional Consulting Services for Stage 2 of the Southwest Transitway - Functional Design - P3 Business Case and VFM Analysis - Procurement - Owner’s Advocate Component 2 RFP No. 685-2013”<sup>3</sup> (required by *The City of Winnipeg Materials Management Policy*)
    - The report requests approval to award contract for the Project’s Component 2 - Phase IV of professional consulting services.
  - “Proposed Closing and Rededication of the Public Lane between Chancellor Drive and Markham Road- Bus Rapid Transit Phase Two - File DAOC 3/2016”<sup>4</sup> (required by *City of Winnipeg Organization By-law*)
    - The report brings forward street and lane closings for the committee’s consideration, and requests that Council declare adjoining lands surplus to be sold to offset overall project costs.
  - “Proposed Opening, Closing and Rededication of Streets and Lanes in the blocks

<sup>1</sup> Prior quarterly audit reports stated that a report on the final results of the Project was forthcoming. This report was a requirement of *The Public-Private Partnerships Transparency and Accountability Act*, which was repealed by the Manitoba Legislature on November 9, 2017, and is no longer forthcoming.

<sup>2</sup> Submitted as information to the Standing Policy Committee on Finance in its October 12, 2017 meeting.

<sup>3</sup> Submitted to the Standing Policy Committee on Infrastructure Renewal and Public Works in its May 30, 2017 meeting.

<sup>4</sup> Submitted to the Riel Community Committee in its April 03, 2017 meeting.

bounded by Chevrier Boulevard, Gregoire Avenue and Hervo and French Streets and proposed closing of part of the Public Road West of Pembina Highway: Bus Rapid Transit Phase 2- File DAOC 1/2016”<sup>1</sup> (required by *City of Winnipeg Organization By-law*)

- The report brings forward street and lane closings for the Committee’s consideration, and requests that Council declare adjoining lands surplus to be sold to offset overall project costs.
  - “Proposed Closing of Parts of Various Streets and Lanes in the blocks bounded by Derek Street, Hurst Way, Asquith and Edderton Avenues: Bus Rapid Transit Phase 2- File DAC 1/2016”<sup>1</sup> (required by *City of Winnipeg Organization By-law*)
    - The report brings forward street and lane closings for the Committee’s consideration, and requests that Council declare adjoining lands surplus to be sold to offset overall project costs.
  - “Proposed Closing of Part of Winchester Street, Somerville Avenue and the Public Lane East of Fennell Street and Part of Waller Avenue, East of Irene Street: Bus Rapid Transit Phase 2 – File DAC 2/2016”<sup>1</sup> (required by *City of Winnipeg Organization By-law*)
    - The report brings forward street and lane closings for the Committee’s consideration, and requests that Council declare adjoining lands surplus to be sold to offset overall project costs.
- ◆ Our audit work included examination of reports in relation to the legislated, regulated or agreed-upon requirements to communicate such reports. Limited testing of the accuracy of information included in reports was also completed based on our risk assessment of whether such information could be misstated.
- ◆ For this quarterly report, we audited the actual costs reported in the financial status update submitted to the Standing Policy Committee on Finance (see **Appendix 6**). In our opinion, the actual costs reported were fairly presented in all material respects, and were reported in accordance with generally accepted accounting principles issued by the Canadian Public Sector Accounting Board. We reviewed the rationale provided for the consultant procurement to determine that it met the City’s criteria for single-source contracts. We examined a sample of land parcels included in each of the streets reports to determine that they were associated with the Project.

RECOMMENDATION			
<i>No recommendation accompanies this analysis.</i>			
RISK AREA	Information Resources	ASSESSMENT	Moderate
BASIS OF ASSESSMENT	Reports that are not distributed, or that contain inaccurate information, affect stakeholders’ ability to perform their roles and could also affect legal compliance or funding agreements. To mitigate this risk, the Public Service has formed an experienced project management team that works closely with all interdependent departments to address all project management knowledge areas that require reporting.		

<sup>1</sup> Submitted to the City Centre Community Committee in its April 13, 2017 meeting.

# PROJECT MANAGEMENT KEY AREAS ANALYSIS

## 2.1 Risk Management Activities

### Issue

- ◆ Has the project management team followed the risk management guidance given in the City’s Project Management Manual?

### Conclusions

- ◆ The Project management activities carried out have met the requirements of the City’s Project Management Manual.

### Analysis

- ◆ The City’s Project Management Manual (“PMM”) is required to be applied to all capital projects undertaken by the Public Service. The PMM details a project management methodology, and also states that the methodology used should be tailored to the specific project.
- ◆ Under a public-private partnership arrangement, the majority of the risks for costs, scope, schedule, and quality are transferred to the private partner. This leaves the City with a limited amount of risk. The City still retains risks on regulatory changes related to construction of the transitway, scope changes requested by the City, termination of agreement, maintenance of connecting roadways, and bus operations on the transitway. We have reproduced the Fairness Monitor’s illustration of the risk distribution for the Project in **Appendix 5**.
- ◆ The risk management guidance in the PMM focuses on identifying, planning for, managing, and communicating risks. We observed that the City’s project management team has an issues log that is regularly updated. We observed through meeting minutes that project risks are regularly discussed in project team meetings and Major Capital Project Steering Committee meetings. These practices are consistent with the guidance of the City’s Project Management Manual.
- ◆ We observed that Plenary Roads Winnipeg has provided the Public Service with a project risk management plan and monthly reports that outline the anticipated risks in the projects, the mitigation strategies for the risks, and the estimated residual risks remaining after the mitigation strategies. This practice is consistent with generally accepted project management practices (such as the *Project Management Book of Knowledge* issued by the Project Management Institute) and is also consistent with the City’s Project Management Manual.

RECOMMENDATION			
<i>No recommendation accompanies this analysis.</i>			
RISK AREA	Business Process	ASSESSMENT	Moderate
BASIS OF ASSESSMENT	Inadequate risk management could reduce the projected value for money savings for the Project.		

## INDEPENDENCE

The Audit Department is classified as an independent external auditor under *Government Auditing Standards* due to statutory safeguards that require the City Auditor to report directly to Council, the City's governing body, through the Audit Committee.

The Audit Department team members selected for the audit have all attested that they do not have any conflict of interest related to the audit's subject matter.

## ACKNOWLEDGEMENT

The Audit Department wants to extend its appreciation to all of the stakeholders who participated in this audit and especially to City's project team for their time and cooperation.

  
\_\_\_\_\_  
Bryan Mansky, MBA, CPA, CMA, CIA  
City Auditor

March 2018

\_\_\_\_\_  
Date

## APPENDIX 1 – Project Background

### The Southwest Rapid Transitway (Stage 2) and Pembina Underpass Project

- ◆ Stage 2 of Winnipeg’s first rapid transit corridor, and the expansion of Pembina Highway under the Jubilee Overpass, (“the Project”) was approved by Council on June 25, 2014. The Project is being delivered under a public-private partnership methodology.
- ◆ After a competitive bidding process, an agreement was signed with Plenary Roads Winnipeg to design, build, finance, operate and maintain the infrastructure at an estimated total cost of \$467 million.
- ◆ The scope of the Project includes the extension of the current southwest transit corridor (Stage 1) from Jubilee Avenue to the University of Manitoba. This extension is approximately 7.6 kilometers long and will include the construction of three new bridges (one for a railway and two for the transitway), two overpasses (for the transitway over McGillivray Boulevard and the CN Letellier rail line and spur lines), the reconstruction of Southpark Drive, two new drainage pump stations, a new pedestrian ramp at Investor’s Group Field, a reconstructed bus staging area at the University of Manitoba, two new “Park and Ride” facilities, nine new transit stations, and an active transportation pathway along the entire length of the transitway.
- ◆ The Project also includes the widening of the northbound side of Pembina Highway under the Jubilee overpass from two to three lanes along with pedestrian and cycling facilities on both sides of Pembina Highway.

### Project Funding

- ◆ The financing for the Project is:

<u>Contributing Party</u>	<u>Contribution</u>	<u>Percent</u>
City of Winnipeg	\$ 188,050,000	40%
Province of Manitoba	188,050,000	40%
Government of Canada	<u>91,200,000</u>	20%
Total	<u>\$ 467,300,000</u>	

### Reporting

- ◆ The following reports are ongoing or are forthcoming for the Project for legislated and contractually agreed upon matters:
  - Actions that are outside the delegated authority of the Public Service (such as expropriation of lands, procurement in excess of delegated authority, or over-expenditure reports)
  - Quarterly reporting to the SPC on Finance
  - Report on the final results of the Project

## APPENDIX 2 – Audit Methodology

### MANDATE OF THE CITY AUDITOR

- ◆ The City Auditor is a statutory officer appointed by City Council under *The City of Winnipeg Charter*. The City Auditor is independent of the Public Service and reports directly to Executive Policy Committee, which serves as the City's Audit Committee.
- ◆ The City Auditor conducts examinations of the operations of the City and its affiliated bodies to assist Council in its governance role of ensuring the Public Service's accountability for the quality of stewardship over public funds and for the achievement of value for money in City operations.
- ◆ Once an audit report has been communicated to Council, it becomes a public document.

### PROJECT RISK ANALYSIS

- ◆ Communication is essential for successful projects. Some of the most important communication in large-scale public capital projects occurs in the form of public reporting; however, few industry organizations give guidance on what exactly should be included in project performance reports. Reporting is mainly left to be agreed upon by project stakeholders, and much is left to the professional judgment of the project management teams. Improper communication can hold up projects or cause wasted efforts. Therefore, proper communication practices are essential to ensure that projects run smoothly and efficiently.
- ◆ Individual audit area risk assessments are provided for each issue discussed. The assessments discuss and detail the residual risk for issues after considering the City's mitigating risk controls.

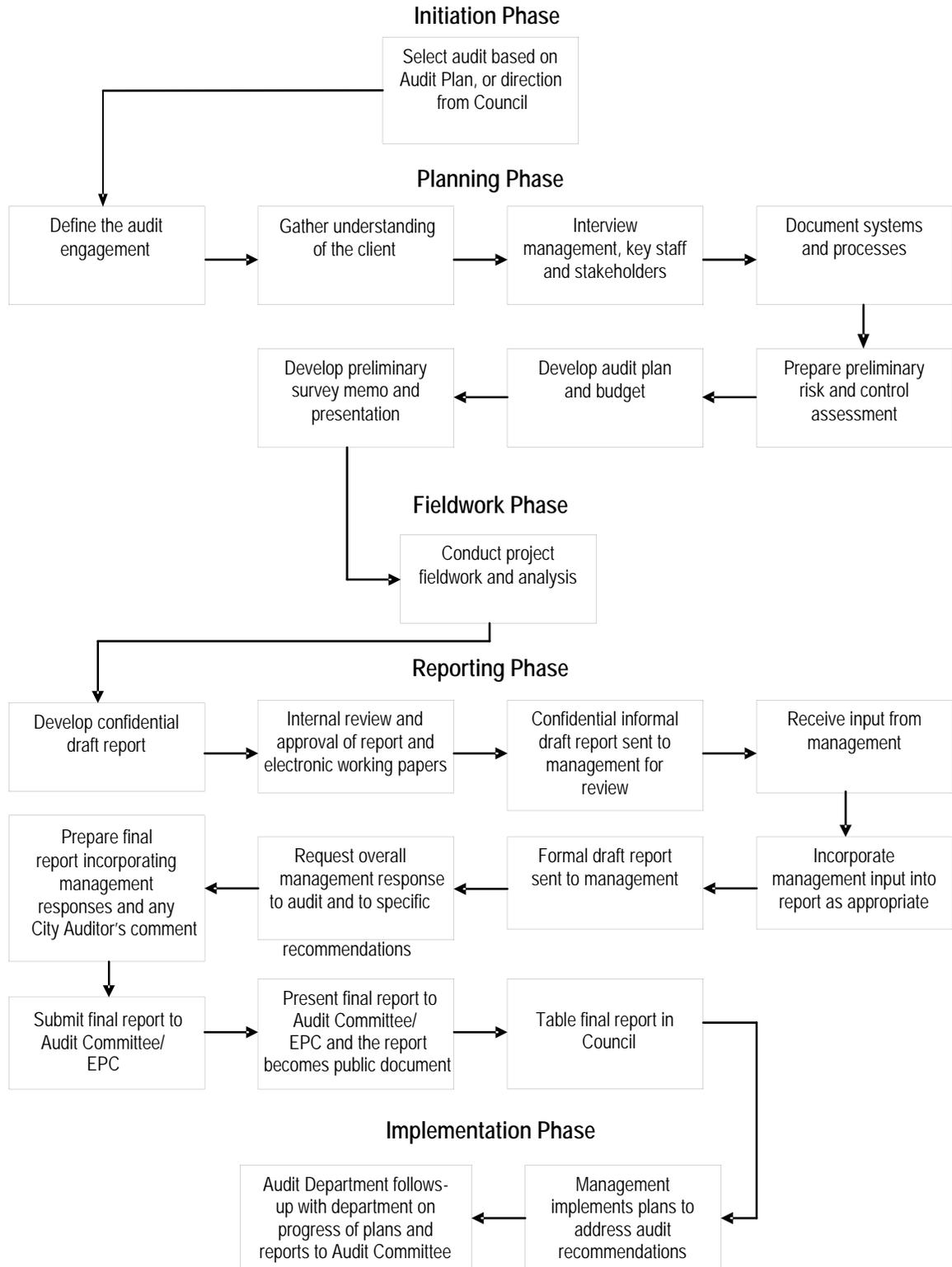
### SCOPE

- ◆ The scope of our audit includes project communication management over the course of the project. The scope of our quarterly audit reports also includes the reporting on key management areas (such as risk, quality, schedule, and cost) as the Project progresses.
- ◆ Our audit runs concurrently with the project over the duration of the project, and reports are released on a quarterly basis.

## APPROACH AND CRITERIA

- ◆ We conducted our audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient appropriate evidence to provide a reasonable basis for our observations and conclusions, based on our audit objectives. We believe the evidence we have obtained provides a reasonable basis for our observations and conclusions.
- ◆ To gather sufficient appropriate evidence for our audit, we reviewed Manitoba's legislated requirements for public-private partnership reporting, the City of Winnipeg's documented guidance for capital project reporting, and the public reporting requirements set out in funding and capital project management agreements. We also researched industry standards and guidance on capital project monitoring and reporting. We then conducted our fieldwork, which compared the public reporting for the project for the period covered by this audit report to all of the outlined guidance.
- ◆ The guiding documents we used include:
  - *The Public-Private Partnerships Transparency and Accountability Act* of Manitoba
  - *The Environment Act* of Manitoba
  - *The City of Winnipeg Charter* for Council's and its committees' legislated roles in relation to capital project decision making
  - *Administrative Standard FM-004: Asset Management* (and its precursors throughout the project)
  - Agreements with federal and provincial funding partners (P3 Canada, and the Government of Manitoba) and contracted service providers (Plenary Roads Winnipeg Transitway LP)
- ◆ Industry capital project monitoring and reporting practices we researched included:
  - Recommended practices 17R-97 and 56R-08 of The Association for the Advancement of Cost Engineering (AACE)
  - Accounting principles published by CPA Canada
  - *Effectiveness Reporting and Auditing in the Public Sector* published by the Canadian Comprehensive Auditing Foundation (CCAF)
  - Publicly available reporting information for the National Project Management System (NPMS)
  - *A Guide to the Project Management Body of Knowledge (PMBOK® Guide) Fifth Edition*
  - Projects IN Controlled Environments (PRINCE2)

## APPENDIX 3 – Audit Process



## APPENDIX 4 – Risk Assessment Worksheet

Potential Impacts / Likelihood	Insignificant	Minor	Moderate	Major	Extreme
	<ul style="list-style-type: none"> <li>- None or minor change in services, project or processes</li> <li>- Very limited exposure of sensitive information</li> <li>- Very minor, non-permanent environmental damage</li> <li>- Financial impact &lt; \$100K</li> </ul>	<ul style="list-style-type: none"> <li>- Minor change in achievement of service objectives</li> <li>- Limited exposure of sensitive information</li> <li>- Minor, non-permanent environmental damage</li> <li>- Financial impact \$100K – \$500K</li> </ul>	<ul style="list-style-type: none"> <li>- Moderate change in delivery of essential services</li> <li>- Exposure of limited amount of confidential information</li> <li>- Moderate environmental damage</li> <li>- Financial impact \$500K – \$1M</li> </ul>	<ul style="list-style-type: none"> <li>- Significant change in delivery of essential services</li> <li>- Exposure of significant amount of confidential information</li> <li>- Significant change in quality of life indicators</li> <li>- Major environmental damage</li> <li>- Financial impact \$1M – \$10M</li> </ul>	<ul style="list-style-type: none"> <li>- Unable to perform essential services for extended period</li> <li>- Exposure of critical confidential information</li> <li>- Very significant change in quality of life indicators</li> <li>- Significant damage to environment</li> <li>- Financial impact &gt;\$10M</li> </ul>
<b>Almost certain</b> (Excepted to occur unless circumstances change)	M	M	H	C	C
<b>Likely</b> (Probably occur in most circumstances)	M	M	H	C	C
<b>Possible</b> (Might occur under different circumstances)	L	M	M	H	H
<b>Unlikely</b> (Could occur if circumstances change)	L	L	M	H	H
<b>Rare</b> (May occur in exceptional circumstances)	L	L	M	M	M

### Legend

- C** Critical risk: Requires urgent action, monitor and review at least weekly by Senior Management and COO, inform CAO and Committee of Council
- H** High risk: High impact, monitor and review at least quarterly by management, inform COO
- M** Moderate risk: Monitor and review at least quarterly by management
- L** Low risk: Review periodically, no explicit action required.

## APPENDIX 5 – Risk Allocation Summary

Risk	Retained by City	Transfer to Project Co	Shared	Notes on Any Changes to Risk as Previously Proposed
<b>A. General</b>				
1. Compliance with applicable law and standards		✓		N/A
2. Designated change in law	✓			
3. Changes in applicable law		✓		N/A
4. Changes in standards			✓	N/A
5. Permits, Licenses and Approvals (Including CN and Manitoba Hydro approvals)			✓	N/A
6. Access to Lands, Encumbrances, Liens			✓	N/A
7. Geotechnical		✓		N/A
8. Contamination			✓	N/A
9. Defects in Existing Infrastructure			✓	N/A
<b>B. Design and Construction</b>				
10. Design development (Detailed design)		✓		N/A
11. Construction management delays		✓		N/A
12. Construction latent defects		✓		N/A
13. Construction warranty for Maintenance-Exempt Work		✓		N/A
14. Scope changes initiated by City during construction	✓			N/A
15. Adverse weather conditions		✓		N/A
16. Labour relations			✓	N/A
17. Safety and security		✓		N/A
18. Stadium Access Works		✓		N/A
19. Utility Work			✓	<ul style="list-style-type: none"> <li>• Project Co is responsible for all utility work for the Project, including Manitoba Hydro utility relocation work, however a cost sharing regime is in place as described below.               <ul style="list-style-type: none"> <li>○ The City is responsible for reimbursing Project Co for certain utility costs that exceed a pre-determined baseline amount established by the City, subject to Project Co's obligation to mitigate such costs.</li> <li>○ Project Co is entitled to relief from the City in the event that Manitoba Hydro fails to perform its obligations in accordance with the applicable utility agreement and causes delay to Project Co in achieving Substantial Completion.</li> </ul> </li> </ul>

## APPENDIX 5 – Risk Allocation Summary (Continued)

Risk	Retained by City	Transfer to Project Co	Shared	Notes on Any Changes to Risk as Previously Proposed
20. CN Rail Interface			✓	<ul style="list-style-type: none"> <li>Project Co is responsible for all interface with CN Rail to compel them to fulfil their obligations, with the City required to provide assistance to resolve non-performance by CN.</li> <li>Project Co is entitled to relief from the City in the event that CN Rail fails to perform its obligations that causes delays to Project Co in achieving Substantial Completion.</li> </ul>
21. Traffic Management		✓		<ul style="list-style-type: none"> <li>Project Co is subject to payment deductions for lane closures during the construction period that exceed their target number of closure days as per their proposal.</li> </ul>
22. Rectification of deficiencies		✓		N/A
23. Commissioning		✓		N/A
<b>C. Maintenance and Rehabilitation</b>				
24. Operational and preventive maintenance (Stage 1 and Stage 2)		✓		N/A
25. Rehabilitative maintenance – Stage 1	✓			N/A
26. Rehabilitative maintenance – Stage 2		✓		N/A
27. Winter Maintenance		✓		N/A
28. Bus operations – Stage 1 and Stage 2	✓			N/A
29. Maintenance of roadway connections between the Transitway and street system	✓			N/A
30. Default of Operator or Project Co		✓		N/A
31. Inflation risk			✓	N/A
32. Asset residual		✓		N/A
<b>D. Force Majeure</b>				
33. Force Majeure			✓	N/A
<b>E. Relief Events</b>				
34. Relief Events			✓	N/A
<b>F. Termination of Project Agreement</b>				
35. Termination for convenience of City	✓			N/A
36. Termination for default of Project Co		✓		N/A
37. Termination for Force Majeure			✓	N/A

Source: P1 Consulting (2016). *City of Winnipeg Request for Proposals to Design, Build, Finance, (Operate) and Maintain the Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass: Fairness Monitor's Report*. Retrieved from winnipegtransit.com.

## APPENDIX 6 – Actual Costs Presented in Financial Status Reports

### Appendix B – Financial Forecast

Appendix B - Southwest Rapid Transitway (Stage 2) & Pembina Highway Underpass Financial Forecast \*  
As at June 30, 2017

Project Component Deliverables	Budget (in 000's)			Actual Costs To June 30, 2017	Expenditure Forecast (in 000's)				Total Forecasted Costs	Surplus (Deficit) From Amended Budget	Variance Last Report	Change in Variance
	Adopted Budget	Council Approved Change**	Amended Budget		Projected Costs							
					2017	2018	2019	2020				
Engineering, Design and Other	\$ 13,000	\$ (1,694)	\$ 11,306	\$ 5,658	\$ 1,779	\$ 1,952	\$ 1,917	\$ -	\$ 11,306	\$ -	\$ -	\$ -
Land Acquisition	\$ 23,000	\$ 10,000	\$ 33,000	\$ 24,524	\$ 4,470	\$ 4,006	\$ -	\$ -	\$ 33,000	\$ -	\$ -	\$ -
Internal Financing / Overhead Costs	\$ 5,550	\$ 1,694	\$ 7,244	\$ 1,158	\$ 1,436	\$ 1,650	\$ 3,000	\$ -	\$ 7,244	\$ -	\$ -	\$ -
Contingency <sup>1</sup>	\$ 69,000	\$ -	\$ 69,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 68,952	\$ 48	\$ -	\$ 48
Change Order	\$ -	\$ -	\$ -	\$ 48	\$ -	\$ -	\$ -	\$ -	\$ 48	\$ (48)	\$ -	\$ (48)
<b>Upfront Costs and Contingency <sup>2</sup></b>	<b>\$ 110,550</b>	<b>\$ 10,000</b>	<b>\$ 120,550</b>	<b>\$ 31,388</b>	<b>\$ 7,685</b>	<b>\$ 7,608</b>	<b>\$ 4,917</b>	<b>\$ -</b>	<b>\$ 120,550</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Construction <sup>3</sup></b>	<b>\$ 476,750</b>	<b>\$ (130,000)</b>	<b>\$ 346,750</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 346,750</b>	<b>\$ -</b>	<b>\$ 346,750</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total Project Budget <sup>4</sup></b>	<b>\$ 587,300</b>	<b>\$ (120,000)</b>	<b>\$ 467,300</b>	<b>\$ 31,388</b>	<b>\$ 7,685</b>	<b>\$ 7,608</b>	<b>\$ 351,667</b>	<b>\$ -</b>	<b>\$ 467,300</b>	<b>\$ -</b>		

Source: Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Financial Status (Project No. 4230010514 & 4230010614) Report No. 11 for the Period Ended June 30, 2017.

# Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass Audit for the Period of July 1, 2017 to September 30, 2017

## **Table of Contents**

AUDIT AT A GLANCE	1
AUDIT BACKGROUND	2
AUDIT OBJECTIVES	2
CONCLUSIONS	3
PROJECT REPORTING ANALYSIS	4
PROJECT MANAGEMENT KEY AREAS ANALYSIS	6
INDEPENDENCE	8
ACKNOWLEDGEMENT	8
APPENDIX 1 – Project Background	9
APPENDIX 2 – Audit Methodology	10
APPENDIX 3 – Audit Process	12
APPENDIX 4 – Risk Assessment Worksheet	13
APPENDIX 5 – Risk Allocation Summary	14
APPENDIX 6 – Actual Costs Presented in Financial Status Reports	16

## AUDIT AT A GLANCE

### **RECOMMENDATIONS**

*No recommendations accompany this report.*

### **Project Background**

Stage 2 of the Southwest Rapid Transitway and Pembina Highway Underpass is one of the largest capital projects that the City has embarked upon. Appropriate communication is important to allow key stakeholders to fulfill their roles in relation to the project; it also keeps the public informed on project performance.

The Audit Department will be releasing quarterly audit reports that provide assurance on the reporting processes and selected key project management areas throughout the construction of the project. This report is for Q3 2017, covering the period July 1 to September 30, 2017.

### **Current State of the Project**

Construction for the Project is underway. Plenary Roads Winnipeg has taken responsibility for the design, construction, financing, operation, maintenance and rehabilitation of the infrastructure for the next thirty years. The City's project management team is responsible for project oversight.

### **Findings**

The Public Service has produced the appropriate legislated and agreed upon reports, as well as public financial status updates for the Project from July 1 to September 30, 2017.

The Public Service has managed risk for the project in accordance with City project management requirements from July 1 to September 30, 2017.

## AUDIT BACKGROUND

*The audit of this Project is to provide timely assurance on key project management areas on a proactive basis.*

- ◆ Stage 2 of the Southwest Rapid Transitway and Pembina Highway Underpass (“the Project”) is one of the largest capital projects that Winnipeg has initiated to date. An audit of the Project was added to the City Auditor’s *Audit Plan 2015 – 2018* in order to provide timely assurance on key project management areas on a proactive basis. Our audit work began after the procurement phase of the Project due to a fairness monitor being secured to provide oversight on the procurement process (a requirement of the now repealed *Public-Private Partnerships Transparency and Accountability Act*).
- ◆ The City Auditor’s audit plan was adopted by Council on July 15, 2015.
- ◆ Background on the Project is included in **Appendix 1**.
- ◆ Our audit methodology is located in **Appendix 2**.
- ◆ **Appendix 3** provides a flowchart of the audit process.
- ◆ Our risk assessment criteria for each audit area are provided in **Appendix 4**.

## AUDIT OBJECTIVES

*We had two objectives for this quarterly audit*

- ◆ The objectives of this quarterly audit report were:
  - To provide assurance that appropriate reporting is occurring for the Project based on regulatory requirements, City policies and procedures.
  - To provide assurance that appropriate risk management is occurring in the Project.

## CONCLUSIONS

*The reports required by legislation, by-law, administrative standards, and contractual agreements have been issued by the Public Service.*

- ◆ The Public Service has submitted the formal reports required for this project during the period of this audit report.
- ◆ The following reports were reviewed for the period of this audit:
  - “Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Quarterly Project Status Report, Project ID. 4230010514, Quarterly Project Status Report No. 12 for the Period Ended September 30, 2017”
  - “Expropriation of Lands – Southwest Rapid Transit (Stage 2) and Pembina Highway Underpass Project”
- ◆ The report was compared to the guidance given for such reports and was found to meet the standards of said guidance.
- ◆ Financial costs reported to the Standing Policy Committee on Finance were found to be in accordance with the generally accepted accounting principles on cost reporting issued by Canada’s Public Sector Accounting Board and, in our opinion, fairly presented in all material respects the actual costs incurred for the Project for the quarter ending September 30, 2017.

*Project management activities meet risk management requirements provided in the City’s Project Management Manual.*

- ◆ The risk management activities have met the requirements outlined in the City’s Project Management Manual. Documentation and verbal updates discussing and tracking risks were reviewed including meeting minutes and the issue log.
- ◆ Appropriate risk management actions were taken for a higher risk item that exceeded the recommended guidance of the City’s Project Management Manual.
- ◆ The risk allocation summary in the Fairness Monitor’s Report summarizes the risk distribution for the Project. We have included a reproduction of the summary in **Appendix 5**.
- ◆ The private partner for the Project has also developed a risk management plan and risk registry for the Project, which it’s being updated on timely basis.

# PROJECT REPORTING ANALYSIS

## 1.1 Reporting Requirements

### Issue

- ◆ Has the Public Service communicated the proper reports required by legislation, by-laws, City of Winnipeg policies and standards, and project agreements?

### Conclusions

- ◆ The Public Service has published the reports required by legislation, by-laws, policies, standards and agreements over the period of review for this audit report. We have performed limited testing on the information in the reports released and outlined below, and have found the information tested to be accurate.

### Analysis

- ◆ The following reports are ongoing or are forthcoming for the Project for legislated and contractually agreed upon matters:
  - Actions that are outside the delegated authority of the Public Service (such as expropriation of lands, procurement in excess of delegated authority, or over expenditure reports)
  - Quarterly reporting to the Standing Policy Committee on Finance
- ◆ For the period of July 1 to September 30, 2017, the following reports were required, and were published for the Project:
  - “Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Quarterly Project Status Report, Project ID. 4230010514, Quarterly Project Status Report No. 12 for the Period Ended September 30, 2017”<sup>1</sup> (required by *Administrative Standard FM-004: Asset Management*)
    - The report presents the financial position and significant project updates for the Project up to September 30, 2017.
  - “Expropriation of Lands – Southwest Rapid Transit (Stage 2) and Pembina Highway Underpass Project”<sup>2</sup> (required by *The City of Winnipeg Charter*)
    - This report requests approval to expropriate land required to construct the Project.
- ◆ Our audit work included examination of reports in relation to the legislated, regulated or agreed-upon requirements to communicate such reports. Limited testing of the accuracy of information included in reports was also completed based on our risk assessment of whether such information could be misstated.
- ◆ For this quarterly report, we audited the actual costs reported in the financial status update submitted to the Standing Policy Committee on Finance (see **Appendix 6**). In our opinion, the actual costs reported were fairly presented in all material respects, and were reported in accordance with generally accepted accounting principles issued by the Canadian Public Sector Accounting Board.
- ◆ Land included in the expropriation report was cross referenced with the Project’s Agreement Land requirements, confirming that land being expropriated is required for

---

<sup>1</sup> Submitted as information to the Standing Policy Committee on Finance in its January 09, 2018 meeting.

<sup>2</sup> Submitted to the Standing Policy Committee on Property and Development, Heritage and Downtown Development in its July 04, 2017 meeting.

the SWRTII Project.

RECOMMENDATION			
<i>No recommendation accompanies this analysis.</i>			
RISK AREA	Information Resources	ASSESSMENT	Moderate
BASIS OF ASSESSMENT	Reports that are not distributed, or that contain inaccurate information, affect stakeholders' ability to perform their roles and could also affect legal compliance or funding agreements. To mitigate this risk, the Public Service has formed an experienced project management team that works closely with all interdependent departments to address all project management knowledge areas that require reporting.		

# PROJECT MANAGEMENT KEY AREAS ANALYSIS

## 2.1 Risk Management Activities

### Issue

- ◆ Has the project management team followed the risk management guidance given in the City's Project Management Manual?

### Conclusions

- ◆ The Project management activities carried out have met the requirements of the City's Project Management Manual.

### Analysis

- ◆ The City's Project Management Manual ("PMM") is required to be applied to all capital projects undertaken by the Public Service. The PMM details a project management methodology, and also states that the methodology used should be tailored to the specific project.
- ◆ Under a public-private partnership arrangement, the majority of the risks for costs, scope, schedule, and quality are transferred to the private partner. This leaves the City with a limited amount of risk. The City still retains risks on regulatory changes related to construction of the transitway, scope changes requested by the City, termination of agreement, maintenance of connecting roadways, and bus operations on the transitway. We have reproduced the Fairness Monitor's illustration of the risk distribution for the Project in **Appendix 5**.
- ◆ The risk management guidance in the PMM focuses on identifying, planning for, managing, and communicating risks. We observed that the City's project management team has an issues log that is regularly updated. We observed through meeting minutes that project risks are regularly discussed in project team meetings and Major Capital Project Steering Committee meetings. These practices are consistent with the guidance of the City's Project Management Manual.
- ◆ In Q2 2017, CN proposed a revision to the track designs along the transitway that had implications to the Project's schedule and budget. In Q3 2017, the CAO and other members of the Major Capital Project Steering Committee met with CN to discuss the proposal; this was over and above the scope of the guidance of Project Management Manual. As of Q1 2018, the item has been successfully negotiated between CN and the City, and the third track proposal was removed from Plenary Roads Winnipeg's scope of work, thereby reducing both schedule and budget risk on the Project.
- ◆ We observed that Plenary Roads Winnipeg has provided the Public Service with a project risk management plan and monthly reports that outline the anticipated risks in the projects, the mitigation strategies for the risks, and the estimated residual risks remaining after the mitigation strategies. This practice is consistent with generally accepted project management practices (such as the *Project Management Book of Knowledge* issued by the Project Management Institute) and is also consistent with the City's Project Management Manual.

RECOMMENDATION			
<i>No recommendation accompanies this analysis.</i>			
RISK AREA	Business Process	ASSESSMENT	Moderate
BASIS OF ASSESSMENT	Inadequate risk management could reduce the projected value for money savings for the Project.		

## INDEPENDENCE

The Audit Department is classified as an independent external auditor under *Government Auditing Standards* due to statutory safeguards that require the City Auditor to report directly to Council, the City's governing body, through the Audit Committee.

The Audit Department team members selected for the audit have all attested that they do not have any conflict of interest related to the audit's subject matter.

## ACKNOWLEDGEMENT

The Audit Department wants to extend its appreciation to all of the stakeholders who participated in this audit and especially to City's project team for their time and cooperation.

  
\_\_\_\_\_  
Bryan Mansky, MBA, CPA, CMA, CIA  
City Auditor

March 2018

\_\_\_\_\_  
Date

## APPENDIX 1 – Project Background

### The Southwest Rapid Transitway (Stage 2) and Pembina Underpass Project

- ◆ Stage 2 of Winnipeg’s first rapid transit corridor, and the expansion of Pembina Highway under the Jubilee Overpass, (“the Project”) was approved by Council on June 25, 2014. The Project is being delivered under a public-private partnership methodology.
- ◆ After a competitive bidding process, an agreement was signed with Plenary Roads Winnipeg to design, build, finance, operate and maintain the infrastructure at an estimated total cost of \$467 million.
- ◆ The scope of the Project includes the extension of the current southwest transit corridor (Stage 1) from Jubilee Avenue to the University of Manitoba. This extension is approximately 7.6 kilometers long and will include the construction of three new bridges (one for a railway and two for the transitway), two overpasses (for the transitway over McGillivray Boulevard and the CN Letellier rail line and spur lines), the reconstruction of Southpark Drive, two new drainage pump stations, a new pedestrian ramp at Investor’s Group Field, a reconstructed bus staging area at the University of Manitoba, two new “Park and Ride” facilities, nine new transit stations, and an active transportation pathway along the entire length of the transitway.
- ◆ The Project also includes the widening of the northbound side of Pembina Highway under the Jubilee overpass from two to three lanes along with pedestrian and cycling facilities on both sides of Pembina Highway.

### Project Funding

- ◆ The financing for the Project is:

<u>Contributing Party</u>	<u>Contribution</u>	<u>Percent</u>
City of Winnipeg	\$ 188,050,000	40%
Province of Manitoba	188,050,000	40%
Government of Canada	<u>91,200,000</u>	20%
Total	<u>\$ 467,300,000</u>	

### Reporting

- ◆ The following reports are ongoing or are forthcoming for the Project for legislated and contractually agreed upon matters:
  - Actions that are outside the delegated authority of the Public Service (such as expropriation of lands, procurement in excess of delegated authority, or over-expenditure reports)
  - Quarterly reporting to the SPC on Finance
  - Report on the final results of the Project

## APPENDIX 2 – Audit Methodology

### MANDATE OF THE CITY AUDITOR

- ◆ The City Auditor is a statutory officer appointed by City Council under *The City of Winnipeg Charter*. The City Auditor is independent of the Public Service and reports directly to Executive Policy Committee, which serves as the City's Audit Committee.
- ◆ The City Auditor conducts examinations of the operations of the City and its affiliated bodies to assist Council in its governance role of ensuring the Public Service's accountability for the quality of stewardship over public funds and for the achievement of value for money in City operations.
- ◆ Once an audit report has been communicated to Council, it becomes a public document.

### PROJECT RISK ANALYSIS

- ◆ Communication is essential for successful projects. Some of the most important communication in large-scale public capital projects occurs in the form of public reporting; however, few industry organizations give guidance on what exactly should be included in project performance reports. Reporting is mainly left to be agreed upon by project stakeholders, and much is left to the professional judgment of the project management teams. Improper communication can hold up projects or cause wasted efforts. Therefore, proper communication practices are essential to ensure that projects run smoothly and efficiently.
- ◆ Individual audit area risk assessments are provided for each issue discussed. The assessments discuss and detail the residual risk for issues after considering the City's mitigating risk controls.

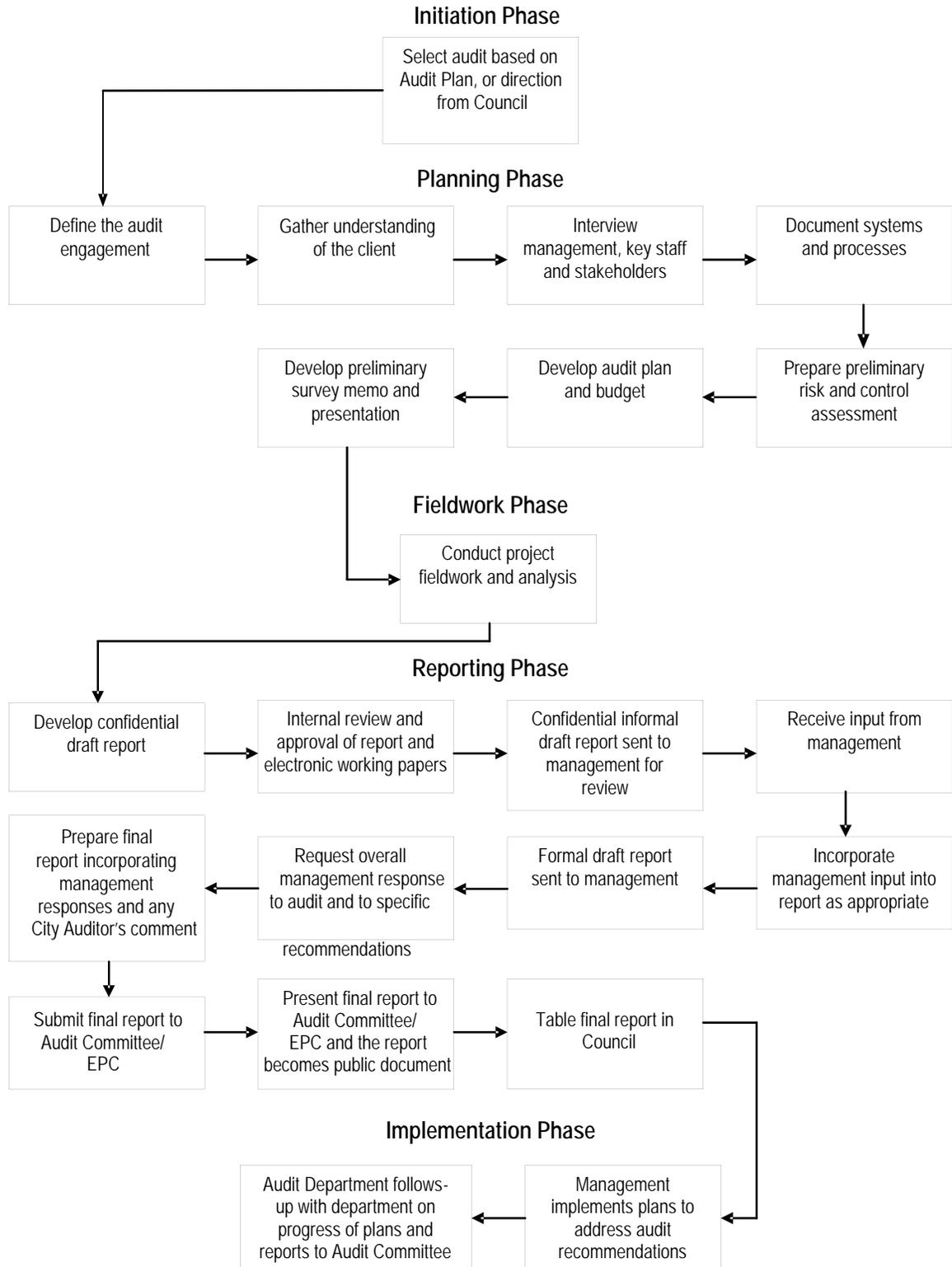
### SCOPE

- ◆ The scope of our audit includes project communication management over the course of the project. The scope of our quarterly audit reports also includes the reporting on key management areas (such as risk, quality, schedule, and cost) as the Project progresses.
- ◆ Our audit runs concurrently with the project over the duration of the project, and reports are released on a quarterly basis.

## APPROACH AND CRITERIA

- ◆ We conducted our audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient appropriate evidence to provide a reasonable basis for our observations and conclusions, based on our audit objectives. We believe the evidence we have obtained provides a reasonable basis for our observations and conclusions.
- ◆ To gather sufficient appropriate evidence for our audit, we reviewed Manitoba's legislated requirements for public-private partnership reporting, the City of Winnipeg's documented guidance for capital project reporting, and the public reporting requirements set out in funding and capital project management agreements. We also researched industry standards and guidance on capital project monitoring and reporting. We then conducted our fieldwork, which compared the public reporting for the project for the period covered by this audit report to all of the outlined guidance.
- ◆ The guiding documents we used include:
  - *The Public-Private Partnerships Transparency and Accountability Act* of Manitoba
  - *The Environment Act* of Manitoba
  - *The City of Winnipeg Charter* for Council's and its committees' legislated roles in relation to capital project decision making
  - *Administrative Standard FM-004: Asset Management* (and its precursors throughout the project)
  - Agreements with federal and provincial funding partners (P3 Canada, and the Government of Manitoba) and contracted service providers (Plenary Roads Winnipeg Transitway LP)
- ◆ Industry capital project monitoring and reporting practices we researched included:
  - Recommended practices 17R-97 and 56R-08 of The Association for the Advancement of Cost Engineering (AACE)
  - Accounting principles published by CPA Canada
  - *Effectiveness Reporting and Auditing in the Public Sector* published by the Canadian Comprehensive Auditing Foundation (CCAF)
  - Publicly available reporting information for the National Project Management System (NPMS)
  - *A Guide to the Project Management Body of Knowledge (PMBOK® Guide) Fifth Edition*
  - Projects IN Controlled Environments (PRINCE2)

## APPENDIX 3 – Audit Process



## APPENDIX 4 – Risk Assessment Worksheet

Potential Impacts / Likelihood	Insignificant	Minor	Moderate	Major	Extreme
	<ul style="list-style-type: none"> <li>- None or minor change in services, project or processes</li> <li>- Very limited exposure of sensitive information</li> <li>- Very minor, non-permanent environmental damage</li> <li>- Financial impact &lt; \$100K</li> </ul>	<ul style="list-style-type: none"> <li>- Minor change in achievement of service objectives</li> <li>- Limited exposure of sensitive information</li> <li>- Minor, non-permanent environmental damage</li> <li>- Financial impact \$100K – \$500K</li> </ul>	<ul style="list-style-type: none"> <li>- Moderate change in delivery of essential services</li> <li>- Exposure of limited amount of confidential information</li> <li>- Moderate environmental damage</li> <li>- Financial impact \$500K – \$1M</li> </ul>	<ul style="list-style-type: none"> <li>- Significant change in delivery of essential services</li> <li>- Exposure of significant amount of confidential information</li> <li>- Significant change in quality of life indicators</li> <li>- Major environmental damage</li> <li>- Financial impact \$1M – \$10M</li> </ul>	<ul style="list-style-type: none"> <li>- Unable to perform essential services for extended period</li> <li>- Exposure of critical confidential information</li> <li>- Very significant change in quality of life indicators</li> <li>- Significant damage to environment</li> <li>- Financial impact &gt;\$10M</li> </ul>
<b>Almost certain</b> (Excepted to occur unless circumstances change)	M	M	H	C	C
<b>Likely</b> (Probably occur in most circumstances)	M	M	H	C	C
<b>Possible</b> (Might occur under different circumstances)	L	M	M	H	H
<b>Unlikely</b> (Could occur if circumstances change)	L	L	M	H	H
<b>Rare</b> (May occur in exceptional circumstances)	L	L	M	M	M

### Legend

<b>C</b> Critical risk:	Requires urgent action, monitor and review at least weekly by Senior Management and COO, inform CAO and Committee of Council
<b>H</b> High risk:	High impact, monitor and review at least quarterly by management, inform COO
<b>M</b> Moderate risk:	Monitor and review at least quarterly by management
<b>L</b> Low risk:	Review periodically, no explicit action required.

## APPENDIX 5 – Risk Allocation Summary

Risk	Retained by City	Transfer to Project Co	Shared	Notes on Any Changes to Risk as Previously Proposed
<b>A. General</b>				
1. Compliance with applicable law and standards		✓		N/A
2. Designated change in law	✓			
3. Changes in applicable law		✓		N/A
4. Changes in standards			✓	N/A
5. Permits, Licenses and Approvals (Including CN and Manitoba Hydro approvals)			✓	N/A
6. Access to Lands, Encumbrances, Liens			✓	N/A
7. Geotechnical		✓		N/A
8. Contamination			✓	N/A
9. Defects in Existing Infrastructure			✓	N/A
<b>B. Design and Construction</b>				
10. Design development (Detailed design)		✓		N/A
11. Construction management delays		✓		N/A
12. Construction latent defects		✓		N/A
13. Construction warranty for Maintenance-Exempt Work		✓		N/A
14. Scope changes initiated by City during construction	✓			N/A
15. Adverse weather conditions		✓		N/A
16. Labour relations			✓	N/A
17. Safety and security		✓		N/A
18. Stadium Access Works		✓		N/A
19. Utility Work			✓	<ul style="list-style-type: none"> <li>• Project Co is responsible for all utility work for the Project, including Manitoba Hydro utility relocation work, however a cost sharing regime is in place as described below.               <ul style="list-style-type: none"> <li>○ The City is responsible for reimbursing Project Co for certain utility costs that exceed a pre-determined baseline amount established by the City, subject to Project Co's obligation to mitigate such costs.</li> <li>○ Project Co is entitled to relief from the City in the event that Manitoba Hydro fails to perform its obligations in accordance with the applicable utility agreement and causes delay to Project Co in achieving Substantial Completion.</li> </ul> </li> </ul>

## APPENDIX 5 – Risk Allocation Summary (Continued)

Risk	Retained by City	Transfer to Project Co	Shared	Notes on Any Changes to Risk as Previously Proposed
20. CN Rail Interface			✓	<ul style="list-style-type: none"> <li>Project Co is responsible for all interface with CN Rail to compel them to fulfil their obligations, with the City required to provide assistance to resolve non-performance by CN.</li> <li>Project Co is entitled to relief from the City in the event that CN Rail fails to perform its obligations that causes delays to Project Co in achieving Substantial Completion.</li> </ul>
21. Traffic Management		✓		<ul style="list-style-type: none"> <li>Project Co is subject to payment deductions for lane closures during the construction period that exceed their target number of closure days as per their proposal.</li> </ul>
22. Rectification of deficiencies		✓		N/A
23. Commissioning		✓		N/A
<b>C. Maintenance and Rehabilitation</b>				
24. Operational and preventive maintenance (Stage 1 and Stage 2)		✓		N/A
25. Rehabilitative maintenance – Stage 1	✓			N/A
26. Rehabilitative maintenance – Stage 2		✓		N/A
27. Winter Maintenance		✓		N/A
28. Bus operations – Stage 1 and Stage 2	✓			N/A
29. Maintenance of roadway connections between the Transitway and street system	✓			N/A
30. Default of Operator or Project Co		✓		N/A
31. Inflation risk			✓	N/A
32. Asset residual		✓		N/A
<b>D. Force Majeure</b>				
33. Force Majeure			✓	N/A
<b>E. Relief Events</b>				
34. Relief Events			✓	N/A
<b>F. Termination of Project Agreement</b>				
35. Termination for convenience of City	✓			N/A
36. Termination for default of Project Co		✓		N/A
37. Termination for Force Majeure			✓	N/A

Source: P1 Consulting (2016). *City of Winnipeg Request for Proposals to Design, Build, Finance, (Operate) and Maintain the Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass: Fairness Monitor's Report*. Retrieved from winniepttransit.com.

## APPENDIX 6 – Actual Costs Presented in Financial Status Reports

### Appendix B – Financial Forecast

Appendix B - Southwest Rapid Transitway (Stage 2) & Pembina Highway Underpass Financial Forecast \*

As at September 30, 2017

Project Component Deliverables	Budget (in 000's)			Actual Costs To Sept 30, 2017	Expenditure Forecast (in 000's)				Surplus (Deficit) From Amended Budget	Variance Last Report	Change in Variance	
	Adopted Budget <sup>1</sup>	Council Approved Change**	Amended Budget		Projected Costs							Total Forecasted Costs
					2017	2018	2019	2020				
Engineering, Design and Other	\$ 13,000	\$ (1,694)	\$ 11,306	\$ 6,375	\$ 887	\$ 2,127	\$ 1,917	\$ -	\$ 11,306	\$ -	\$ -	\$ -
Construction	\$ 476,750	\$ (130,000)	\$ 346,750	\$ -	\$ -	\$ -	\$ 346,750	\$ -	\$ 346,750	\$ -	\$ -	\$ -
Land Acquisition	\$ 23,000	\$ 10,000	\$ 33,000	\$ 24,679	\$ 1,238	\$ 7,083	\$ -	\$ -	\$ 33,000	\$ -	\$ -	\$ -
Internal Financing / Overhead Costs	\$ 5,550	\$ 1,694	\$ 7,244	\$ 1,295	\$ 432	\$ 1,813	\$ 3,704	\$ -	\$ 7,244	\$ -	\$ -	\$ -
Contingency <sup>2</sup>	\$ 69,000	\$ -	\$ 69,000	\$ -	\$ -	\$ -	\$ -	\$ 68,952	\$ 68,952	\$ 48	\$ 48	\$ -
Change Order	\$ -	\$ -	\$ -	\$ 48	\$ -	\$ -	\$ -	\$ -	\$ 48	\$ (48)	\$ (48)	\$ -
<b>Total Project Budget <sup>3</sup></b>	<b>\$ 587,300</b>	<b>\$ (120,000)</b>	<b>\$ 467,300</b>	<b>\$ 32,397</b>	<b>\$ 2,557</b>	<b>\$ 11,023</b>	<b>\$ 352,371</b>	<b>\$ 68,952</b>	<b>\$ 467,300</b>	<b>\$ -</b>		

Source: Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Quarterly Project Status Report, Project ID. 4230010514, Quarterly Project Status Report No. 12 for the Period Ended September 30, 2017

# Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass Audit for the Period of October 1 to December 31, 2017

## **Table of Contents**

AUDIT AT A GLANCE	1
AUDIT BACKGROUND	2
AUDIT OBJECTIVES	2
CONCLUSIONS	3
PROJECT REPORTING ANALYSIS	4
PROJECT MANAGEMENT KEY AREAS ANALYSIS	6
INDEPENDENCE	8
ACKNOWLEDGEMENT	8
APPENDIX 1 – Project Background	9
APPENDIX 2 – Audit Methodology	10
APPENDIX 3 – Audit Process	12
APPENDIX 4 – Risk Assessment Worksheet	13
APPENDIX 5 – Risk Allocation Summary	14
APPENDIX 6 – Actual Costs Presented in Financial Status Reports	16

## AUDIT AT A GLANCE

### **RECOMMENDATIONS**

*No recommendations accompany this report.*

### **Project Background**

Stage 2 of the Southwest Rapid Transitway and Pembina Highway Underpass is one of the largest capital projects that the City has embarked upon. Appropriate communication is important to allow key stakeholders to fulfill their roles in relation to the project; it also keeps the public informed on project performance.

The Audit Department will be releasing quarterly audit reports that provide assurance on the reporting processes and selected key project management areas throughout the construction of the project. This report is for Q4 2017, covering the period October 1 to December 31, 2017.

### **Current State of the Project**

Construction for the Project is underway. Plenary Roads Winnipeg has taken responsibility for the design, construction, financing, operation, maintenance and rehabilitation of the infrastructure for the next thirty years. The City's project management team is responsible for project oversight.

### **Findings**

The Public Service has produced the appropriate legislated and agreed upon reports, as well as public financial status updates for the Project from October 1 to December 31, 2017.

The Public Service has managed risk for the project in accordance with City project management requirements from October 1 to December 31, 2017.

The Public Service has followed established process requirements for the approval and review of change orders; approved changes are within project budget and scope at December 31, 2017.

## AUDIT BACKGROUND

*The audit of this Project is to provide timely assurance on key project management areas on a proactive basis.*

- ◆ Stage 2 of the Southwest Rapid Transitway and Pembina Highway Underpass (“the Project”) is one of the largest capital projects that Winnipeg has initiated to date. An audit of the Project was added to the City Auditor’s *Audit Plan 2015 – 2018* in order to provide timely assurance on key project management areas on a proactive basis. Our audit work began after the procurement phase of the Project due to a fairness monitor being secured to provide oversight on the procurement process (a requirement of the now repealed *Public-Private Partnerships Transparency and Accountability Act*).
- ◆ The audit plan was adopted by Council on July 15, 2015.
- ◆ Background on the Project is included in **Appendix 1**.
- ◆ Our audit methodology is located in **Appendix 2**.
- ◆ **Appendix 3** provides a flowchart of the audit process.
- ◆ Our risk assessment criteria for each audit area are provided in **Appendix 4**.

## AUDIT OBJECTIVES

*We had three objectives for this quarterly audit*

- ◆ The objectives of this quarterly audit report were:
  - To provide assurance that appropriate reporting is occurring for the Project based on regulatory requirements, City policies and procedures.
  - To provide assurance that appropriate risk management is occurring in the Project.
  - To provide assurance that change orders are within project scope, budget and followed established review and approval processes.

## CONCLUSIONS

*The reports required by legislation, by-law, administrative standards, and contractual agreements have been issued by the Public Service.*

- ◆ The Public Service has submitted the formal reports required for this project during the period of this audit report.
- ◆ The following report was reviewed for the period of this audit:
  - “Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Quarterly Project Status Report, Project ID. 4230010514, No. 13 for the Period Ended December 31, 2017”
- ◆ The report was compared to the guidance given for such reports and was found to meet the standards of said guidance.
- ◆ Financial costs reported to the Standing Policy Committee on Finance were found to be in accordance with the generally accepted accounting principles on cost reporting issued by Canada’s Public Sector Accounting Board and, in our opinion, fairly presented in all material respects the actual costs incurred for the Project for the quarter ending December 31, 2017.

*Project management activities have met risk management requirements provided in the City’s Project Management Manual.*

- ◆ The risk management activities have met the requirements outlined in the City’s Project Management Manual. Documentation that tracked risks was reviewed, including meeting minutes and the issues log.
- ◆ The risk allocation summary in the Fairness Monitor’s Report summarizes the risk distribution for the Project. We have included a reproduction of the summary in **Appendix 5**.
- ◆ The private partner for the Project has also developed a risk management plan and risk registry for the Project, which is being updated on a timely basis.

*Reviews and approvals of change orders have followed established processes.*

- ◆ Analyzed change orders followed appropriate review and approval processes.
- ◆ We observed that approved changes were reasonable based on the intended scope of the Project.
- ◆ The total amount spent on change orders to December 31, 2017 is just over \$1 million of the \$69 million contingency budget for the Project.

# PROJECT REPORTING ANALYSIS

## 1.1 Reporting Requirements

### Issue

- ◆ Has the Public Service communicated the proper reports required by legislation, by-laws, City of Winnipeg policies and standards, and project agreements?

### Conclusions

- ◆ The Public Service has published the reports required by legislation, by-laws, policies, standards and agreements over the period of review for this audit report. We have performed limited testing on the information in the reports released and outlined below, and have found the information tested to be accurate.

### Analysis

- ◆ The following reports are ongoing or are forthcoming for the Project for legislated and contractually agreed upon matters:
  - Actions that are outside the delegated authority of the Public Service (such as expropriation of lands, procurement in excess of delegated authority, or over expenditure reports)
  - Quarterly reporting to the Standing Policy Committee on Finance
- ◆ For the period of October 1 to December 31, 2017, the following report was required, and was published for the Project:
  - “Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Quarterly Project Status Report, Project ID. 4230010514, No. 13 for the Period Ended December 31, 2017”<sup>1</sup> (required by *Administrative Standard FM-004: Asset Management*)
    - The report presents the financial position and significant project updates for the Project up to December 31, 2017.
- ◆ Our audit work included examination of the report in relation to the legislated, regulated or agreed-upon requirements to communicate such reports. Limited testing of the accuracy of information included in the report was also completed based on our risk assessment of whether such information could be misstated.
- ◆ For this quarterly report, we audited the actual costs reported in the quarterly status update submitted to the Standing Policy Committee on Finance (see **Appendix 6**). In our opinion, the actual costs reported were fairly presented in all material respects, and were reported in accordance with generally accepted accounting principles issued by the Canadian Public Sector Accounting Board.

## RECOMMENDATION

*No recommendation accompanies this analysis.*

<sup>1</sup> Submitted as information to the Standing Policy Committee on Finance in its April 06, 2018 meeting.

<b>RISK AREA</b>	Information Resources	<b>ASSESSMENT</b>	Moderate
<b>BASIS OF ASSESSMENT</b>	<p>Reports that are not distributed or that contain inaccurate information affect stakeholders' ability to perform their roles, and could also affect legal compliance or funding agreements. To mitigate this risk, the Public Service has formed an experienced project management team that works closely with all interdependent departments to address all project management knowledge areas that require reporting.</p>		

# PROJECT MANAGEMENT KEY AREAS ANALYSIS

## 2.1 Risk Management Activities

### Issue

- ◆ Has the project management team followed the risk management guidance given in the City’s Project Management Manual?

### Conclusions

- ◆ The Project management activities carried out have met the requirements of the City’s Project Management Manual.

### Analysis

- ◆ The City’s Project Management Manual (“PMM”) is required to be applied to all capital projects undertaken by the Public Service. The PMM details a project management methodology, and also states that the methodology used should be tailored to the specific project.
- ◆ Under a public-private partnership arrangement, the majority of the risks for costs, scope, schedule, and quality are transferred to the private partner. This leaves the City with a limited amount of risk. The City still retains risks on regulatory changes related to construction of the transitway, scope changes requested by the City, termination of agreement, maintenance of connecting roadways, and bus operations on the transitway. We have reproduced the Fairness Monitor’s illustration of the risk distribution for the Project in **Appendix 5**.
- ◆ The risk management guidance in the PMM focuses on identifying, planning for, managing, and communicating risks. We observed that the City’s project management team has an issues log that is regularly updated. We observed through meeting minutes that project risks are regularly discussed in project team meetings and Major Capital Project Steering Committee meetings. These practices are consistent with the guidance of the City’s Project Management Manual.
- ◆ We observed that Plenary Roads Winnipeg has provided the Public Service with a project risk management plan and monthly reports that outline the anticipated risks in the projects, the mitigation strategies for the risks, and the estimated residual risks remaining after the mitigation strategies. This practice is consistent with generally accepted project management practices (such as the *Project Management Book of Knowledge* issued by the Project Management Institute) and is also consistent with the City’s Project Management Manual.

RECOMMENDATION			
<i>No recommendation accompanies this analysis.</i>			
RISK AREA	Business Process	ASSESSMENT	Moderate
BASIS OF ASSESSMENT	Inadequate risk management could reduce the projected value for money savings for the Project.		

## 2.2 Change Order Status

### Issue

- ◆ Has the project management team followed established processes for the review and approval of change orders, and have change orders been within the intended project scope and budget?

### Conclusions

- ◆ The project management team's reviews and approvals of change orders have met established process requirements for these activities. Approved changes were within budget and intended project scope.

### Analysis

- ◆ Change orders are part of the scope management and cost management processes. If change orders are not properly managed, they can pose significant risks for a project.
- ◆ A sample of change orders (COs) was reviewed to assess whether appropriate review and approval processes were followed. We observed that the COs followed the appropriate review and approval processes.
- ◆ We also observed that some COs were approved, and some were challenged and withdrawn. The actions taken in each sample were reasonable based on review of the supporting documentation for the changes.
- ◆ Change orders totaled \$1.08 million as at December 31, 2017. These are within the established contingency of \$69 million for the Project.
- ◆ Change order reviews in future audit reports will depend on the nature and significance of the changes. A summary of COs will be provided in our final quarterly report.

RECOMMENDATION			
<i>No recommendation accompanies this analysis.</i>			
RISK AREA	Business Process	ASSESSMENT	Moderate
BASIS OF ASSESSMENT	Inadequate review and approval of change orders could have a negative impact on the Project's budget and/or scope.		

## INDEPENDENCE

The Audit Department is classified as an independent external auditor under *Government Auditing Standards* due to statutory safeguards that require the City Auditor to report directly to Council, the City's governing body, through the Audit Committee.

The Audit Department team members selected for the audit have all attested that they do not have any conflict of interest related to the audit's subject matter.

## ACKNOWLEDGEMENT

The Audit Department wants to extend its appreciation to all of the stakeholders who participated in this audit and especially to City's project team for their time and cooperation.

  
\_\_\_\_\_  
Bryan Mansky, MBA, CPA, CMA, CIA  
City Auditor

May 2018  
\_\_\_\_\_  
Date

## APPENDIX 1 – Project Background

### The Southwest Rapid Transitway (Stage 2) and Pembina Underpass Project

- ◆ Stage 2 of Winnipeg’s first rapid transit corridor, and the expansion of Pembina Highway under the Jubilee Overpass, (“the Project”) was approved by Council on June 25, 2014. The Project is being delivered under a public-private partnership methodology.
- ◆ After a competitive bidding process, an agreement was signed with Plenary Roads Winnipeg to design, build, finance, operate and maintain the infrastructure at an estimated total cost of \$467 million.
- ◆ The scope of the Project includes the extension of the current southwest transit corridor (Stage 1) from Jubilee Avenue to the University of Manitoba. This extension is approximately 7.6 kilometers long and will include the construction of three new bridges (one for a railway and two for the transitway), two overpasses (for the transitway over McGillivray Boulevard and the CN Letellier rail line and spur lines), the reconstruction of Southpark Drive, two new drainage pump stations, a new pedestrian ramp at Investor’s Group Field, a reconstructed bus staging area at the University of Manitoba, two new “Park and Ride” facilities, nine new transit stations, and an active transportation pathway along the entire length of the transitway.
- ◆ The Project also includes the widening of the northbound side of Pembina Highway under the Jubilee overpass from two to three lanes along with pedestrian and cycling facilities on both sides of Pembina Highway.

### Project Funding

- ◆ The financing for the Project is:

<u>Contributing Party</u>	<u>Contribution</u>	<u>Percent</u>
City of Winnipeg	\$ 181,400,000	39%
Province of Manitoba	187,000,000	40%
Government of Canada	93,300,000	20%
Canadian National Railway Co.	5,600,000	1%
Total	<u>\$ 467,300,000</u>	

### Reporting

- ◆ The following reports are ongoing or are forthcoming for the Project for legislated and contractually agreed upon matters:
  - Actions that are outside the delegated authority of the Public Service (such as expropriation of lands, procurement in excess of delegated authority, or over-expenditure reports)
  - Quarterly reporting to the SPC on Finance

## APPENDIX 2 – Audit Methodology

### MANDATE OF THE CITY AUDITOR

- ◆ The City Auditor is a statutory officer appointed by City Council under *The City of Winnipeg Charter*. The City Auditor is independent of the Public Service and reports directly to Executive Policy Committee, which serves as the City's Audit Committee.
- ◆ The City Auditor conducts examinations of the operations of the City and its affiliated bodies to assist Council in its governance role of ensuring the Public Service's accountability for the quality of stewardship over public funds and for the achievement of value for money in City operations.
- ◆ Once an audit report has been communicated to Council, it becomes a public document.

### PROJECT RISK ANALYSIS

- ◆ Communication is essential for successful projects. Some of the most important communication in large-scale public capital projects occurs in the form of public reporting; however, few industry organizations give guidance on what exactly should be included in project performance reports. Reporting is mainly left to be agreed upon by project stakeholders, and much is left to the professional judgment of the project management teams. Improper communication can hold up projects or cause wasted efforts. Therefore, proper communication practices are essential to ensure that projects run smoothly and efficiently.
- ◆ Individual audit area risk assessments are provided for each issue discussed. The assessments discuss and detail the residual risk for issues after considering the City's mitigating risk controls.

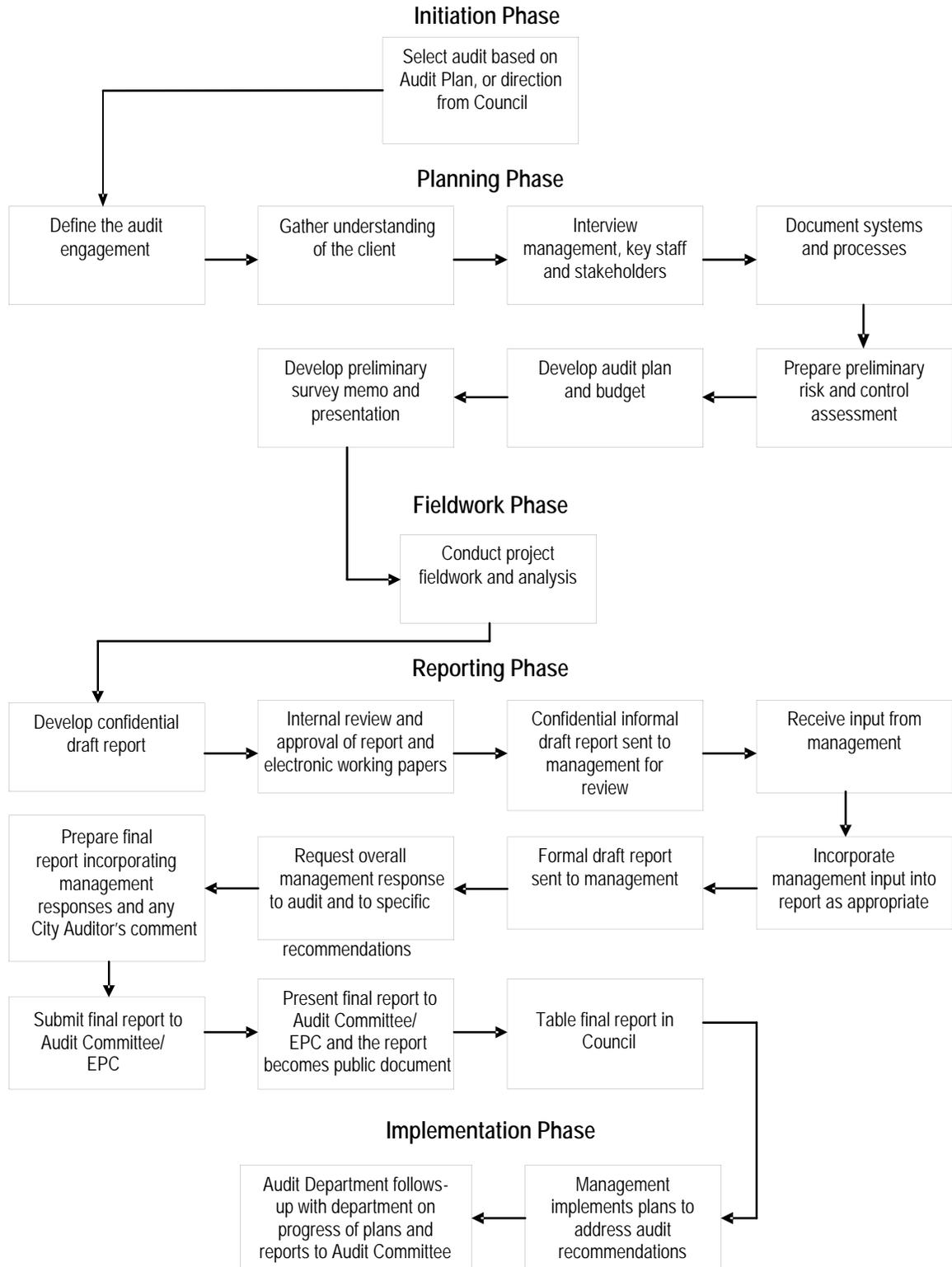
### SCOPE

- ◆ The scope of our audit includes project communication management over the course of the project. The scope of our quarterly audit reports also includes the reporting on key management areas (such as risk, quality, schedule, and cost) as the Project progresses.
- ◆ Our audit runs concurrently with the project over the duration of the project, and reports are released on a quarterly basis.

## APPROACH AND CRITERIA

- ◆ We conducted our audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient appropriate evidence to provide a reasonable basis for our observations and conclusions, based on our audit objectives. We believe the evidence we have obtained provides a reasonable basis for our observations and conclusions.
- ◆ To gather sufficient appropriate evidence for our audit, we reviewed Manitoba's legislated requirements for public-private partnership reporting, the City of Winnipeg's documented guidance for capital project reporting, and the public reporting requirements set out in funding and capital project management agreements. We also researched industry standards and guidance on capital project monitoring and reporting. We then conducted our fieldwork, which compared the public reporting for the project for the period covered by this audit report to all of the outlined guidance.
- ◆ The guiding documents we used include:
  - *The Public-Private Partnerships Transparency and Accountability Act* of Manitoba
  - *The Environment Act* of Manitoba
  - *The City of Winnipeg Charter* for Council's and its committees' legislated roles in relation to capital project decision making
  - *Administrative Standard FM-004: Asset Management* (and its precursors throughout the project)
  - Agreements with federal and provincial funding partners (P3 Canada, and the Government of Manitoba) and contracted service providers (Plenary Roads Winnipeg Transitway LP)
- ◆ Industry capital project monitoring and reporting practices we researched included:
  - Recommended practices 17R-97 and 56R-08 of The Association for the Advancement of Cost Engineering (AACE)
  - Accounting principles published by CPA Canada
  - *Effectiveness Reporting and Auditing in the Public Sector* published by the Canadian Comprehensive Auditing Foundation (CCAF)
  - Publicly available reporting information for the National Project Management System (NPMS)
  - *A Guide to the Project Management Body of Knowledge (PMBOK® Guide) Fifth Edition*
  - Projects IN Controlled Environments (PRINCE2)

## APPENDIX 3 – Audit Process



## APPENDIX 4 – Risk Assessment Worksheet

Potential Impacts / Likelihood	Insignificant	Minor	Moderate	Major	Extreme
	<ul style="list-style-type: none"> <li>- None or minor change in services, project or processes</li> <li>- Very limited exposure of sensitive information</li> <li>- Very minor, non-permanent environmental damage</li> <li>- Financial impact &lt; \$100K</li> </ul>	<ul style="list-style-type: none"> <li>- Minor change in achievement of service objectives</li> <li>- Limited exposure of sensitive information</li> <li>- Minor, non-permanent environmental damage</li> <li>- Financial impact \$100K – \$500K</li> </ul>	<ul style="list-style-type: none"> <li>- Moderate change in delivery of essential services</li> <li>- Exposure of limited amount of confidential information</li> <li>- Moderate environmental damage</li> <li>- Financial impact \$500K – \$1M</li> </ul>	<ul style="list-style-type: none"> <li>- Significant change in delivery of essential services</li> <li>- Exposure of significant amount of confidential information</li> <li>- Significant change in quality of life indicators</li> <li>- Major environmental damage</li> <li>- Financial impact \$1M – \$10M</li> </ul>	<ul style="list-style-type: none"> <li>- Unable to perform essential services for extended period</li> <li>- Exposure of critical confidential information</li> <li>- Very significant change in quality of life indicators</li> <li>- Significant damage to environment</li> <li>- Financial impact &gt;\$10M</li> </ul>
<b>Almost certain</b> (Excepted to occur unless circumstances change)	M	M	H	C	C
<b>Likely</b> (Probably occur in most circumstances)	M	M	H	C	C
<b>Possible</b> (Might occur under different circumstances)	L	M	M	H	H
<b>Unlikely</b> (Could occur if circumstances change)	L	L	M	H	H
<b>Rare</b> (May occur in exceptional circumstances)	L	L	M	M	M

### Legend

- C** Critical risk: Requires urgent action, monitor and review at least weekly by Senior Management and COO, inform CAO and Committee of Council
- H** High risk: High impact, monitor and review at least quarterly by management, inform COO
- M** Moderate risk: Monitor and review at least quarterly by management
- L** Low risk: Review periodically, no explicit action required.

## APPENDIX 5 – Risk Allocation Summary

Risk	Retained by City	Transfer to Project Co	Shared	Notes on Any Changes to Risk as Previously Proposed
<b>A. General</b>				
1. Compliance with applicable law and standards		✓		N/A
2. Designated change in law	✓			
3. Changes in applicable law		✓		N/A
4. Changes in standards			✓	N/A
5. Permits, Licenses and Approvals (Including CN and Manitoba Hydro approvals)			✓	N/A
6. Access to Lands, Encumbrances, Liens			✓	N/A
7. Geotechnical		✓		N/A
8. Contamination			✓	N/A
9. Defects in Existing Infrastructure			✓	N/A
<b>B. Design and Construction</b>				
10. Design development (Detailed design)		✓		N/A
11. Construction management delays		✓		N/A
12. Construction latent defects		✓		N/A
13. Construction warranty for Maintenance-Exempt Work		✓		N/A
14. Scope changes initiated by City during construction	✓			N/A
15. Adverse weather conditions		✓		N/A
16. Labour relations			✓	N/A
17. Safety and security		✓		N/A
18. Stadium Access Works		✓		N/A
19. Utility Work			✓	<ul style="list-style-type: none"> <li>• Project Co is responsible for all utility work for the Project, including Manitoba Hydro utility relocation work, however a cost sharing regime is in place as described below.               <ul style="list-style-type: none"> <li>○ The City is responsible for reimbursing Project Co for certain utility costs that exceed a pre-determined baseline amount established by the City, subject to Project Co's obligation to mitigate such costs.</li> <li>○ Project Co is entitled to relief from the City in the event that Manitoba Hydro fails to perform its obligations in accordance with the applicable utility agreement and causes delay to Project Co in achieving Substantial Completion.</li> </ul> </li> </ul>

## APPENDIX 5 – Risk Allocation Summary (Continued)

Risk	Retained by City	Transfer to Project Co	Shared	Notes on Any Changes to Risk as Previously Proposed
20. CN Rail Interface			✓	<ul style="list-style-type: none"> <li>Project Co is responsible for all interface with CN Rail to compel them to fulfil their obligations, with the City required to provide assistance to resolve non-performance by CN.</li> <li>Project Co is entitled to relief from the City in the event that CN Rail fails to perform its obligations that causes delays to Project Co in achieving Substantial Completion.</li> </ul>
21. Traffic Management		✓		<ul style="list-style-type: none"> <li>Project Co is subject to payment deductions for lane closures during the construction period that exceed their target number of closure days as per their proposal.</li> </ul>
22. Rectification of deficiencies		✓		N/A
23. Commissioning		✓		N/A
<b>C. Maintenance and Rehabilitation</b>				
24. Operational and preventive maintenance (Stage 1 and Stage 2)		✓		N/A
25. Rehabilitative maintenance – Stage 1	✓			N/A
26. Rehabilitative maintenance – Stage 2		✓		N/A
27. Winter Maintenance		✓		N/A
28. Bus operations – Stage 1 and Stage 2	✓			N/A
29. Maintenance of roadway connections between the Transitway and street system	✓			N/A
30. Default of Operator or Project Co		✓		N/A
31. Inflation risk			✓	N/A
32. Asset residual		✓		N/A
<b>D. Force Majeure</b>				
33. Force Majeure			✓	N/A
<b>E. Relief Events</b>				
34. Relief Events			✓	N/A
<b>F. Termination of Project Agreement</b>				
35. Termination for convenience of City	✓			N/A
36. Termination for default of Project Co		✓		N/A
37. Termination for Force Majeure			✓	N/A

Source: P1 Consulting (2016). *City of Winnipeg Request for Proposals to Design, Build, Finance, (Operate) and Maintain the Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass: Fairness Monitor's Report*. Retrieved from winnipegtransit.com.

## APPENDIX 6 – Actual Costs Presented in Financial Status Reports

### Appendix B – Financial Forecast

Appendix B - Southwest Rapid Transitway (Stage 2) & Pembina Highway Underpass Financial Forecast \*  
As at December 31, 2017

Project Component Deliverables	Budget (in 000's)			Actual Costs To Dec 31, 2017	Expenditure Forecast (in 000's)				Total Forecasted Costs	Surplus (Deficit) From Amended Budget	Variance Last Report	Change in Variance
	Adopted Budget	Council Approved Change**	Amended Budget		Projected Costs							
					2018	2019	2020	2021 and Beyond				
Engineering, Design and Other	\$ 13,000	\$ (1,694)	\$ 11,306	\$ 7,368	\$ 2,158	\$ 1,780	\$ -	\$ -	\$ 11,306	\$ -	\$ -	\$ -
Construction <sup>1</sup>	\$ 476,750	\$ (130,000)	\$ 346,750	\$ -	\$ -	\$ 210,043	\$ 8,350	\$ 128,357	\$ 346,750	\$ -	\$ -	\$ -
Land Acquisition	\$ 23,000	\$ 10,000	\$ 33,000	\$ 26,510	\$ 6,490	\$ -	\$ -	\$ -	\$ 33,000	\$ -	\$ -	\$ -
Internal Financing / Overhead Costs	\$ 5,550	\$ 1,694	\$ 7,244	\$ 1,507	\$ 2,420	\$ 3,317	\$ -	\$ -	\$ 7,244	\$ -	\$ -	\$ -
Contingency <sup>2</sup>	\$ 69,000	\$ -	\$ 69,000	\$ -	\$ -	\$ -	\$ -	\$ 68,952	\$ 68,952	\$ 48	\$ 48	\$ -
Change Order	\$ -	\$ -	\$ -	\$ 48	\$ -	\$ -	\$ -	\$ -	\$ 48	\$ (48)	\$ (48)	\$ -
<b>Total Project Budget <sup>3</sup></b>	<b>\$ 587,300</b>	<b>\$ (120,000)</b>	<b>\$ 467,300</b>	<b>\$ 35,433</b>	<b>\$ 11,068</b>	<b>\$ 215,140</b>	<b>\$ 8,350</b>	<b>\$ 197,309</b>	<b>\$ 467,300</b>	<b>\$ -</b>		
<b>% of Project Budget Spent (Actual Costs to Date / Adopted &amp; Amended Budget)</b>	<b>6%</b>		<b>8%</b>									

Source: Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Quarterly Project Status Report, Project ID. 4230010514, Quarterly Project Status Report No. 13 for the Period Ended December 31, 2017



**Winnipeg**  
Audit Department  
Service de vérification

# Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass Audit for the Period of January 1 to March 31, 2018

*Leaders in building public trust in civic government*

## **Table of Contents**

AUDIT AT A GLANCE	1
AUDIT BACKGROUND	2
AUDIT OBJECTIVES	2
CONCLUSIONS	3
PROJECT REPORTING ANALYSIS	4
PROJECT MANAGEMENT KEY AREAS ANALYSIS	6
INDEPENDENCE	8
ACKNOWLEDGEMENT	8
APPENDIX 1 – Project Background	9
APPENDIX 2 – Audit Methodology	10
APPENDIX 3 – Audit Process	12
APPENDIX 4 – Risk Assessment Worksheet	13
APPENDIX 5 – Risk Allocation Summary	14
APPENDIX 6 – Actual Costs Presented in Financial Status Reports	16

## AUDIT AT A GLANCE

### **RECOMMENDATIONS**

*No recommendations accompany this report.*

### **Project Background**

Stage 2 of the Southwest Rapid Transitway and Pembina Highway Underpass is one of the largest capital projects that the City has embarked upon. Appropriate communication is important to allow key stakeholders to fulfill their roles in relation to the project; it also keeps the public informed on project performance.

The Audit Department will be releasing quarterly audit reports that provide assurance on the reporting processes and selected key project management areas throughout the construction of the project. This report is for Q1 2018, covering the period January 1 to March 31, 2018.

### **Current State of the Project**

Construction for the Project is underway. Plenary Roads Winnipeg has taken responsibility for the design, construction, financing, operation, maintenance and rehabilitation of the infrastructure for the next thirty years. The City's project management team is responsible for project oversight.

### **Findings**

The Public Service has produced the appropriate legislated and agreed upon reports, as well as public financial status updates for the Project from January 1 to March 31, 2018.

The Public Service has managed risk for the project in accordance with City project management requirements from January 1 to March 31, 2018.

Approved change orders for the period of January 1 to March 31, 2018 were deemed reasonable, and are within project budget and scope.

## AUDIT BACKGROUND

*The audit of this Project is to provide timely assurance on key project management areas on a proactive basis.*

- ◆ Stage 2 of the Southwest Rapid Transitway and Pembina Highway Underpass (“the Project”) is one of the largest capital projects that Winnipeg has initiated to date. An audit of the Project was added to the City Auditor’s *Audit Plan 2015 – 2018* in order to provide timely assurance on key project management areas on a proactive basis. Our audit work began after the procurement phase of the Project due to a fairness monitor being secured to provide oversight on the procurement process (a requirement of the now repealed *Public-Private Partnerships Transparency and Accountability Act*).
- ◆ The audit plan was adopted by Council on July 15, 2015.
- ◆ Background on the Project is included in **Appendix 1**.
- ◆ Our audit methodology is located in **Appendix 2**.
- ◆ **Appendix 3** provides a flowchart of the audit process.
- ◆ Our risk assessment criteria for each audit area are provided in **Appendix 4**.

## AUDIT OBJECTIVES

*We had three objectives for this quarterly audit*

- ◆ The objectives of this quarterly audit report were:
  - To provide assurance that appropriate reporting is occurring for the Project based on regulatory requirements, City policies and procedures.
  - To provide assurance that appropriate risk management is occurring in the Project.
  - To determine whether change orders are reasonable, within project scope and budget.

## CONCLUSIONS

*The reports required by legislation, by-law, administrative standards, and contractual agreements have been issued by the Public Service.*

- ◆ The Public Service has submitted the formal reports required for this project during the period of this audit report.
- ◆ The following report was reviewed for the period of this audit:
  - “Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Quarterly Project Status Report, Project ID. 4230010514, No. 14 for the Period Ended March 31, 2018”
- ◆ The report was compared to the guidance given for such reports and was found to meet the standards of said guidance.
- ◆ Financial costs reported to the Standing Policy Committee on Finance were found to be in accordance with the generally accepted accounting principles on cost reporting issued by Canada’s Public Sector Accounting Board and, in our opinion, fairly presented in all material respects the actual costs incurred for the Project for the quarter ending March 31, 2018.

*Project management activities have met risk management requirements provided in the City’s Project Management Manual.*

- ◆ The risk management activities have met the requirements outlined in the City’s Project Management Manual. Documentation that tracked risks was reviewed, including meeting minutes and the issues log.
- ◆ The risk allocation summary in the Fairness Monitor’s Report summarizes the risk distribution for the Project. We have included a reproduction of the summary in **Appendix 5**.
- ◆ The private partner for the Project has also developed a risk management plan and risk registry for the Project, which is being updated on a timely basis.

*Reviews and approvals of change orders have followed established processes.*

- ◆ We observed that approved changes were reasonable based on the intended scope of the Project.
- ◆ The total amount spent on change orders to March 31, 2018 is just over \$2 million of the \$69 million contingency budget for the Project.

# PROJECT REPORTING ANALYSIS

## 1.1 Reporting Requirements

### Issue

- ◆ Has the Public Service communicated the proper reports required by legislation, by-laws, City of Winnipeg policies and standards, and project agreements?

### Conclusions

- ◆ The Public Service has published the reports required by legislation, by-laws, policies, standards and agreements over the period of review for this audit report. We have performed limited testing on the information in the reports released and outlined below, and have found the information tested to be accurate.

### Analysis

- ◆ The following reports are ongoing or are forthcoming for the Project for legislated and contractually agreed upon matters:
  - Actions that are outside the delegated authority of the Public Service (such as expropriation of lands, procurement in excess of delegated authority, or over expenditure reports)
  - Quarterly reporting to the Standing Policy Committee on Finance
- ◆ For the period of January 1 to March 31, 2018, the following report was required, and was published for the Project:
  - “Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Quarterly Project Status Report, Project ID. 4230010514, No. 14 for the Period Ended March 31, 2018”<sup>1</sup> (required by *Administrative Standard FM-004: Asset Management*)
    - The report presents the financial position and significant project updates for the Project up to March 31, 2018.
- ◆ Our audit work included examination of the report in relation to the legislated, regulated or agreed-upon requirements to communicate such reports. Limited testing of the accuracy of information included in the report was also completed based on our risk assessment of whether such information could be misstated.
- ◆ For this quarterly report, we audited the actual costs reported in the quarterly status update submitted to the Standing Policy Committee on Finance (see **Appendix 6**). In our opinion, the actual costs reported were fairly presented in all material respects, and were reported in accordance with generally accepted accounting principles issued by the Canadian Public Sector Accounting Board.
- ◆ To avoid potential misunderstandings, *Government Auditing Standards* require that we address items that could potentially be assumed to be within the scope of our audit. An administrative report was issued to Council on February 22, 2018 requesting a budget increase for the Jubilee Rapid Transit Station. This station relates to work performed for SWRT Stage 1, and is not related to SWRT Stage 2. As such, the report is outside the scope of our audit.

---

<sup>1</sup> Submitted as information to the Standing Policy Committee on Finance in its June 26, 2018 meeting.

RECOMMENDATION			
<i>No recommendation accompanies this analysis.</i>			
RISK AREA	Information Resources	ASSESSMENT	Moderate
BASIS OF ASSESSMENT	Reports that are not distributed or that contain inaccurate information affect stakeholders' ability to perform their roles, and could also affect legal compliance or funding agreements. To mitigate this risk, the Public Service has formed an experienced project management team that works closely with all interdependent departments to address all project management knowledge areas that require reporting.		

# PROJECT MANAGEMENT KEY AREAS ANALYSIS

## 2.1 Risk Management Activities

### Issue

- ◆ Has the project management team followed the risk management guidance given in the City's Project Management Manual?

### Conclusions

- ◆ The Project management activities carried out have met the requirements of the City's Project Management Manual.

### Analysis

- ◆ The City's Project Management Manual ("PMM") is required to be applied to all capital projects undertaken by the Public Service. The PMM details a project management methodology, and also states that the methodology used should be tailored to the specific project.
- ◆ Under a public-private partnership arrangement, the majority of the risks for costs, scope, schedule, and quality are transferred to the private partner. This leaves the City with a limited amount of risk. The City still retains risks on regulatory changes related to construction of the transitway, scope changes requested by the City, termination of agreement, maintenance of connecting roadways, and bus operations on the transitway. We have reproduced the Fairness Monitor's illustration of the risk distribution for the Project in **Appendix 5**.
- ◆ The risk management guidance in the PMM focuses on identifying, planning for, managing, and communicating risks. We observed that the City's project management team has an issues log that is regularly updated. We observed through meeting minutes that project risks are regularly discussed in project team meetings and Major Capital Project Steering Committee meetings. Significant risks and mitigation strategies have been included in the quarterly project status report to SPC on Finance for the general awareness of the committee. These practices are consistent with the guidance of the City's Project Management Manual.
- ◆ We observed that Plenary Roads Winnipeg has provided the Public Service with a project risk management plan and monthly reports that outline the anticipated risks in the projects, the mitigation strategies for the risks, and the estimated residual risks remaining after the mitigation strategies. This practice is consistent with generally accepted project management practices (such as the *Project Management Book of Knowledge* issued by the Project Management Institute) and is also consistent with the City's Project Management Manual.

RECOMMENDATION			
<i>No recommendation accompanies this analysis.</i>			
RISK AREA	Business Process	ASSESSMENT	Moderate
BASIS OF ASSESSMENT	Inadequate risk management could reduce the projected value for money savings for the Project.		

## 2.2 Change Order Status

### Issue

- ◆ Were approved change orders for the period of January 1, 2018 to March 31, 2018 reasonable, and are costs within the established contingency?

### Conclusions

- ◆ Approved changes were reasonable, within budget and intended project scope.

### Analysis

- ◆ Change orders (COs) are part of the scope management and cost management processes. If change orders are not properly managed, they can pose significant risks for a project.
- ◆ The increase in change orders from January 01, 2018 to March 31, 2018 totaled approximately \$997,000.
- ◆ The largest two COs making up the majority of the \$997,000 change related to railway and utility design changes. Based on a review of the information received, the COs were deemed to be reasonable.
- ◆ Change orders totaled \$2.09 million as at March 31, 2018. These are within the established contingency of \$69 million for the Project.
- ◆ Change order reviews in future audit reports will depend on the nature and significance of the changes. A summary of COs will be provided in our final quarterly report.

RECOMMENDATION			
<i>No recommendation accompanies this analysis.</i>			
RISK AREA	Business Process	ASSESSMENT	Moderate
BASIS OF ASSESSMENT	Inadequate review and approval of change orders could have a negative impact on the Project's budget and/or scope.		

## INDEPENDENCE

The Audit Department is classified as an independent external auditor under *Government Auditing Standards* due to statutory safeguards that require the City Auditor to report directly to Council, the City's governing body, through the Audit Committee.

The Audit Department team members selected for the audit have all attested that they do not have any conflict of interest related to the audit's subject matter.

## ACKNOWLEDGEMENT

The Audit Department wants to extend its appreciation to all of the stakeholders who participated in this audit and especially to City's project team for their time and cooperation.

  
\_\_\_\_\_  
Bryan Mansky, MBA, CPA, CMA, CIA  
City Auditor

November 2018

\_\_\_\_\_  
Date

## APPENDIX 1 – Project Background

### The Southwest Rapid Transitway (Stage 2) and Pembina Underpass Project

- ◆ Stage 2 of Winnipeg’s first rapid transit corridor, and the expansion of Pembina Highway under the Jubilee Overpass, (“the Project”) was approved by Council on June 25, 2014. The Project is being delivered under a public-private partnership methodology.
- ◆ After a competitive bidding process, an agreement was signed with Plenary Roads Winnipeg to design, build, finance, operate and maintain the infrastructure at an estimated total cost of \$467 million.
- ◆ The scope of the Project includes the extension of the current southwest transit corridor (Stage 1) from Jubilee Avenue to the University of Manitoba. This extension is approximately 7.6 kilometers long and will include the construction of three new bridges (one for a railway and two for the transitway), two overpasses (for the transitway over McGillivray Boulevard and the CN Letellier rail line and spur lines), the reconstruction of Southpark Drive, two new drainage pump stations, a new pedestrian ramp at Investor’s Group Field, a reconstructed bus staging area at the University of Manitoba, two new “Park and Ride” facilities, nine new transit stations, and an active transportation pathway along the entire length of the transitway.
- ◆ The Project also includes the widening of the northbound side of Pembina Highway under the Jubilee overpass from two to three lanes along with pedestrian and cycling facilities on both sides of Pembina Highway.

### Project Funding

- ◆ The financing for the Project is:

<u>Contributing Party</u>	<u>Contribution</u>	<u>Percent</u>
City of Winnipeg	\$ 181,400,000	39%
Province of Manitoba	187,000,000	40%
Government of Canada	93,300,000	20%
Canadian National Railway Co.	5,600,000	1%
Total	<u>\$ 467,300,000</u>	

### Reporting

- ◆ The following reports are ongoing or are forthcoming for the Project for legislated and contractually agreed upon matters:
  - Actions that are outside the delegated authority of the Public Service (such as expropriation of lands, procurement in excess of delegated authority, or over-expenditure reports)
  - Quarterly reporting to the SPC on Finance

## APPENDIX 2 – Audit Methodology

### MANDATE OF THE CITY AUDITOR

- ◆ The City Auditor is a statutory officer appointed by City Council under *The City of Winnipeg Charter*. The City Auditor is independent of the Public Service and reports directly to Executive Policy Committee, which serves as the City's Audit Committee.
- ◆ The City Auditor conducts examinations of the operations of the City and its affiliated bodies to assist Council in its governance role of ensuring the Public Service's accountability for the quality of stewardship over public funds and for the achievement of value for money in City operations.
- ◆ Once an audit report has been communicated to Council, it becomes a public document.

### PROJECT RISK ANALYSIS

- ◆ Communication is essential for successful projects. Some of the most important communication in large-scale public capital projects occurs in the form of public reporting; however, few industry organizations give guidance on what exactly should be included in project performance reports. Reporting is mainly left to be agreed upon by project stakeholders, and much is left to the professional judgment of the project management teams. Improper communication can hold up projects or cause wasted efforts. Therefore, proper communication practices are essential to ensure that projects run smoothly and efficiently.
- ◆ Individual audit area risk assessments are provided for each issue discussed. The assessments discuss and detail the residual risk for issues after considering the City's mitigating risk controls.

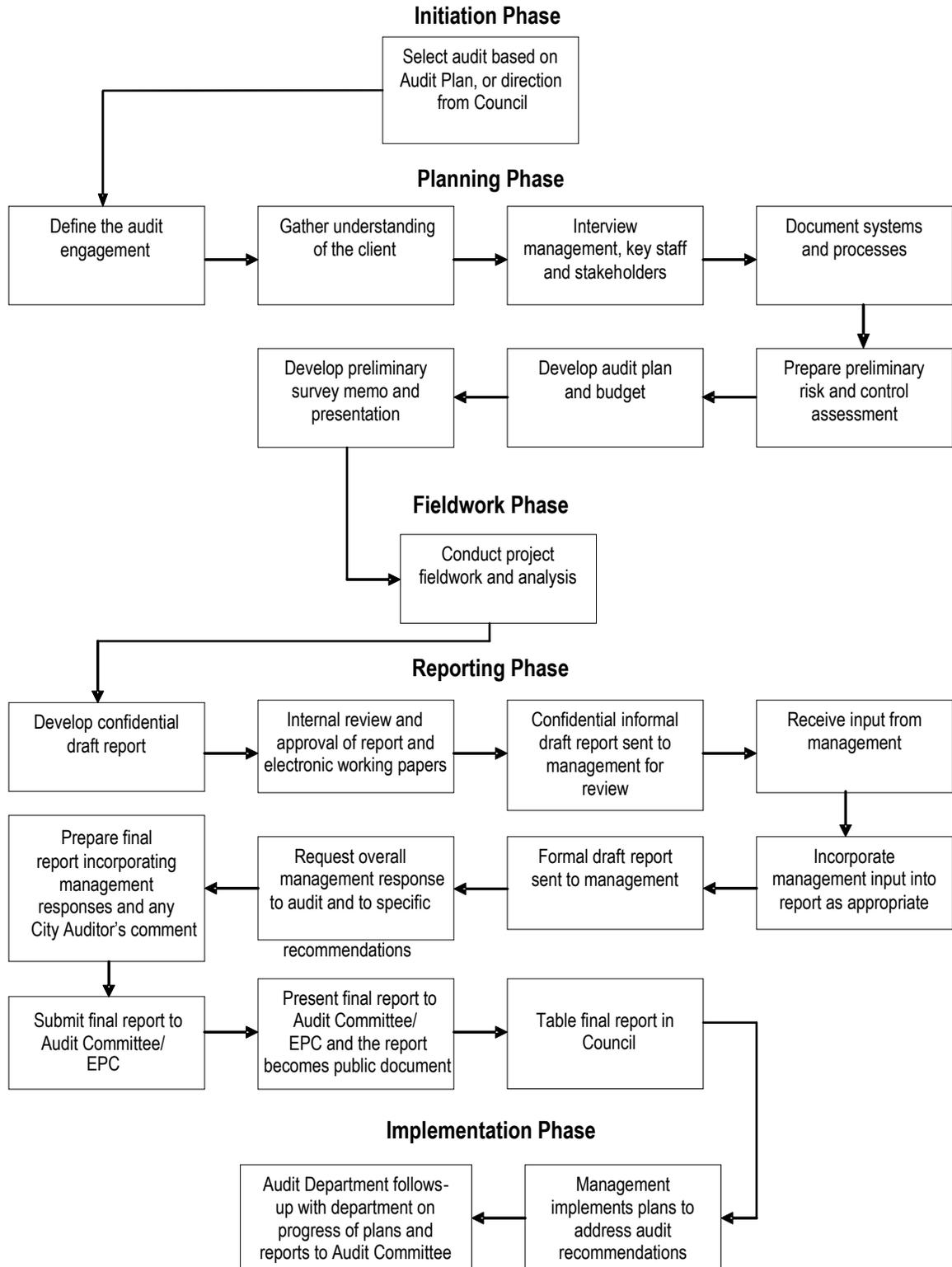
### SCOPE

- ◆ The scope of our audit includes project communication management over the course of the project. The scope of our quarterly audit reports also includes the reporting on key management areas (such as risk, quality, schedule, and cost) as the Project progresses.
- ◆ Our audit runs concurrently with the project over the duration of the project, and reports are released on a quarterly basis.

## APPROACH AND CRITERIA

- ◆ We conducted our audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient appropriate evidence to provide a reasonable basis for our observations and conclusions, based on our audit objectives. We believe the evidence we have obtained provides a reasonable basis for our observations and conclusions.
- ◆ To gather sufficient appropriate evidence for our audit, we reviewed Manitoba's legislated requirements for public-private partnership reporting, the City of Winnipeg's documented guidance for capital project reporting, and the public reporting requirements set out in funding and capital project management agreements. We also researched industry standards and guidance on capital project monitoring and reporting. We then conducted our fieldwork, which compared the public reporting for the project for the period covered by this audit report to all of the outlined guidance.
- ◆ The guiding documents we used include:
  - *The Public-Private Partnerships Transparency and Accountability Act* of Manitoba
  - *The Environment Act* of Manitoba
  - *The City of Winnipeg Charter* for Council's and its committees' legislated roles in relation to capital project decision making
  - *Administrative Standard FM-004: Asset Management* (and its precursors throughout the project)
  - Agreements with federal and provincial funding partners (P3 Canada, and the Government of Manitoba) and contracted service providers (Plenary Roads Winnipeg Transitway LP)
- ◆ Industry capital project monitoring and reporting practices we researched included:
  - Recommended practices 17R-97 and 56R-08 of The Association for the Advancement of Cost Engineering (AACE)
  - Accounting principles published by CPA Canada
  - *Effectiveness Reporting and Auditing in the Public Sector* published by the Canadian Comprehensive Auditing Foundation (CCAF)
  - Publicly available reporting information for the National Project Management System (NPMS)
  - *A Guide to the Project Management Body of Knowledge (PMBOK® Guide) Fifth Edition*
  - Projects IN Controlled Environments (PRINCE2)

## APPENDIX 3 – Audit Process



## APPENDIX 4 – Risk Assessment Worksheet

Potential Impacts / Likelihood	Insignificant	Minor	Moderate	Major	Extreme
	<ul style="list-style-type: none"> <li>- None or minor change in services, project or processes</li> <li>- Very limited exposure of sensitive information</li> <li>- Very minor, non-permanent environmental damage</li> <li>- Financial impact &lt; \$100K</li> </ul>	<ul style="list-style-type: none"> <li>- Minor change in achievement of service objectives</li> <li>- Limited exposure of sensitive information</li> <li>- Minor, non-permanent environmental damage</li> <li>- Financial impact \$100K – \$500K</li> </ul>	<ul style="list-style-type: none"> <li>- Moderate change in delivery of essential services</li> <li>- Exposure of limited amount of confidential information</li> <li>- Moderate environmental damage</li> <li>- Financial impact \$500K – \$1M</li> </ul>	<ul style="list-style-type: none"> <li>- Significant change in delivery of essential services</li> <li>- Exposure of significant amount of confidential information</li> <li>- Significant change in quality of life indicators</li> <li>- Major environmental damage</li> <li>- Financial impact \$1M – \$10M</li> </ul>	<ul style="list-style-type: none"> <li>- Unable to perform essential services for extended period</li> <li>- Exposure of critical confidential information</li> <li>- Very significant change in quality of life indicators</li> <li>- Significant damage to environment</li> <li>- Financial impact &gt;\$10M</li> </ul>
<b>Almost certain</b> (Excepted to occur unless circumstances change)	M	M	H	C	C
<b>Likely</b> (Probably occur in most circumstances)	M	M	H	C	C
<b>Possible</b> (Might occur under different circumstances)	L	M	M	H	H
<b>Unlikely</b> (Could occur if circumstances change)	L	L	M	H	H
<b>Rare</b> (May occur in exceptional circumstances)	L	L	M	M	M

### Legend

- Critical risk: Requires urgent action, monitor and review at least weekly by Senior Management and COO, inform CAO and Committee of Council
- High risk: High impact, monitor and review at least quarterly by management, inform COO
- Moderate risk: Monitor and review at least quarterly by management
- Low risk: Review periodically, no explicit action required.

## APPENDIX 5 – Risk Allocation Summary

Risk	Retained by City	Transfer to Project Co	Shared	Notes on Any Changes to Risk as Previously Proposed
<b>A. General</b>				
1. Compliance with applicable law and standards		✓		N/A
2. Designated change in law	✓			
3. Changes in applicable law		✓		N/A
4. Changes in standards			✓	N/A
5. Permits, Licenses and Approvals (Including CN and Manitoba Hydro approvals)			✓	N/A
6. Access to Lands, Encumbrances, Liens			✓	N/A
7. Geotechnical		✓		N/A
8. Contamination			✓	N/A
9. Defects in Existing Infrastructure			✓	N/A
<b>B. Design and Construction</b>				
10. Design development (Detailed design)		✓		N/A
11. Construction management delays		✓		N/A
12. Construction latent defects		✓		N/A
13. Construction warranty for Maintenance-Exempt Work		✓		N/A
14. Scope changes initiated by City during construction	✓			N/A
15. Adverse weather conditions		✓		N/A
16. Labour relations			✓	N/A
17. Safety and security		✓		N/A
18. Stadium Access Works		✓		N/A
19. Utility Work			✓	<ul style="list-style-type: none"> <li>• Project Co is responsible for all utility work for the Project, including Manitoba Hydro utility relocation work, however a cost sharing regime is in place as described below.               <ul style="list-style-type: none"> <li>○ The City is responsible for reimbursing Project Co for certain utility costs that exceed a pre-determined baseline amount established by the City, subject to Project Co's obligation to mitigate such costs.</li> <li>○ Project Co is entitled to relief from the City in the event that Manitoba Hydro fails to perform its obligations in accordance with the applicable utility agreement and causes delay to Project Co in achieving Substantial Completion.</li> </ul> </li> </ul>

## APPENDIX 5 – Risk Allocation Summary (Continued)

Risk	Retained by City	Transfer to Project Co	Shared	Notes on Any Changes to Risk as Previously Proposed
20. CN Rail Interface			✓	<ul style="list-style-type: none"> <li>Project Co is responsible for all interface with CN Rail to compel them to fulfil their obligations, with the City required to provide assistance to resolve non-performance by CN.</li> <li>Project Co is entitled to relief from the City in the event that CN Rail fails to perform its obligations that causes delays to Project Co in achieving Substantial Completion.</li> </ul>
21. Traffic Management		✓		<ul style="list-style-type: none"> <li>Project Co is subject to payment deductions for lane closures during the construction period that exceed their target number of closure days as per their proposal.</li> </ul>
22. Rectification of deficiencies		✓		N/A
23. Commissioning		✓		N/A
<b>C. Maintenance and Rehabilitation</b>				
24. Operational and preventive maintenance (Stage 1 and Stage 2)		✓		N/A
25. Rehabilitative maintenance – Stage 1	✓			N/A
26. Rehabilitative maintenance – Stage 2		✓		N/A
27. Winter Maintenance		✓		N/A
28. Bus operations – Stage 1 and Stage 2	✓			N/A
29. Maintenance of roadway connections between the Transitway and street system	✓			N/A
30. Default of Operator or Project Co		✓		N/A
31. Inflation risk			✓	N/A
32. Asset residual		✓		N/A
<b>D. Force Majeure</b>				
33. Force Majeure			✓	N/A
<b>E. Relief Events</b>				
34. Relief Events			✓	N/A
<b>F. Termination of Project Agreement</b>				
35. Termination for convenience of City	✓			N/A
36. Termination for default of Project Co		✓		N/A
37. Termination for Force Majeure			✓	N/A

Source: P1 Consulting (2016). *City of Winnipeg Request for Proposals to Design, Build, Finance, (Operate) and Maintain the Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass: Fairness Monitor's Report*. Retrieved from winniepttransit.com.

## APPENDIX 6 – Actual Costs Presented in Financial Status Reports

### Appendix B – Financial Forecast

Appendix B - Southwest Rapid Transitway (Stage 2) & Pembina Highway Underpass Financial Forecast \*  
As at March 31, 2018

Project Component Deliverables	Budget (in 000's)			Actual Costs To Mar 31, 2018	Expenditure Forecast (in 000's)				Total Forecasted Costs	Surplus (Deficit) From Amended Budget	Variance Last Report	Change in Variance
	Adopted Budget	Council Approved Change**	Amended Budget		Projected Costs							
					2018	2019	2020	2021 and Beyond				
Engineering, Design and Other	\$ 13,000	\$ (1,694)	\$ 11,306	\$ 7,762	\$ 1,764	\$ 1,780	\$ -	\$ -	\$ 11,306	\$ -	\$ -	\$ -
Construction <sup>1</sup>	\$ 476,750	\$ (130,000)	\$ 346,750	\$ -	\$ -	\$ 210,043	\$ 8,350	\$ 128,357	\$ 346,750	\$ -	\$ -	\$ -
Land Acquisition	\$ 23,000	\$ 10,000	\$ 33,000	\$ 26,619	\$ 6,381	\$ -	\$ -	\$ -	\$ 33,000	\$ -	\$ -	\$ -
Internal Financing / Overhead Costs	\$ 5,550	\$ 1,694	\$ 7,244	\$ 1,736	\$ 2,191	\$ 3,317	\$ -	\$ -	\$ 7,244	\$ -	\$ -	\$ -
Contingency <sup>2</sup>	\$ 69,000	\$ -	\$ 69,000	\$ -	\$ -	\$ -	\$ -	\$ 68,952	\$ 68,952	\$ 48	\$ 48	\$ -
Change Order	\$ -	\$ -	\$ -	\$ 48	\$ -	\$ -	\$ -	\$ -	\$ 48	\$ (48)	\$ (48)	\$ -
<b>Total Project Budget <sup>3</sup></b>	<b>\$ 587,300</b>	<b>\$ (120,000)</b>	<b>\$ 467,300</b>	<b>\$ 36,165</b>	<b>\$ 10,336</b>	<b>\$ 215,140</b>	<b>\$ 8,350</b>	<b>\$ 197,309</b>	<b>\$ 467,300</b>	<b>\$ -</b>		
<b>% of Project Budget Spent</b> (Actual Costs to Date / Adopted & Amended Budget)	6%		8%									

\* Amended budget and actual costs to date have been agreed to the City's general ledger and Monthly Capital Expenditures Report.

\*\* Amended Budget as reflected in Transit's 2018 Capital Budget submission.

1) Construction projection represents the estimated payment at substantial completion (60%) and the repayment of the remaining capital portion (40%) stated in nominal dollars over the 30 year maintenance period.

2) Change Orders in the amount of \$2.554 million (capital) and \$137k (operating & maintenance) have been approved with Plenary Roads Winnipeg of which \$48,307 has been processed and reflected above. The remaining approved Change Orders will be reflected above as completed.

3) The 30-year Annual Service Payments (ASP) are not included in Total Project Budget with the exception of the 40% nominal construction amount (Note 1). The City anticipates cost sharing with the Province of Manitoba related to operations and maintenance. The forecasted amount for the total ASP in 2020 is \$14.46 million for debt service, operation and maintenance and other annual expenditures. Operation and maintenance payments increase with inflation.

Of the total forecast for ASP of \$493.1 million, \$353.0 million relates to debt service payments, \$123.9 million relates to operation and maintenance of the corridor over the 30 years, and \$16.2 million relates to other annual expenditures.

Source: Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Quarterly Project Status Report, Project ID. 4230010514, Quarterly Project Status Report No. 14 for the Period Ended March 31, 2018.

# Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass Audit for the Period of April 1 to June 30, 2018

## **Table of Contents**

AUDIT AT A GLANCE	1
AUDIT BACKGROUND	2
AUDIT OBJECTIVES	2
CONCLUSIONS	3
PROJECT REPORTING ANALYSIS	4
PROJECT MANAGEMENT KEY AREAS ANALYSIS	6
INDEPENDENCE	8
ACKNOWLEDGEMENT	8
APPENDIX 1 – Project Background	9
APPENDIX 2 – Audit Methodology	10
APPENDIX 3 – Audit Process	12
APPENDIX 4 – Risk Assessment Worksheet	13
APPENDIX 5 – Risk Allocation Summary	14
APPENDIX 6 – Actual Costs Presented in Financial Status Reports	16

## AUDIT AT A GLANCE

### **RECOMMENDATIONS**

*No recommendations accompany this report.*

### **Project Background**

Stage 2 of the Southwest Rapid Transitway and Pembina Highway Underpass is one of the largest capital projects that the City has embarked upon. Appropriate communication is important to allow key stakeholders to fulfill their roles in relation to the project; it also keeps the public informed on project performance.

The Audit Department will be releasing quarterly audit reports that provide assurance on the reporting processes and selected key project management areas throughout the construction of the project. This report is for Q2 2018, covering the period April 1 to June 30, 2018.

### **Current State of the Project**

Construction for the Project is underway. Plenary Roads Winnipeg has taken responsibility for the design, construction, financing, operation, maintenance and rehabilitation of the infrastructure for the next thirty years. The City's project management team is responsible for project oversight.

### **Findings**

The Public Service has produced the appropriate legislated and agreed upon reports, as well as public financial status updates for the Project from April 1 to June 30, 2018.

The Public Service has managed risk for the project in accordance with City project management requirements from April 1 to June 30, 2018.

Approved change orders for the period of April 1 to June 30, 2018 were deemed reasonable, and are within project budget and scope.

## AUDIT BACKGROUND

*The audit of this Project is to provide timely assurance on key project management areas on a proactive basis.*

- ◆ Stage 2 of the Southwest Rapid Transitway and Pembina Highway Underpass (“the Project”) is one of the largest capital projects that Winnipeg has initiated to date. An audit of the Project was added to the City Auditor’s *Audit Plan 2015 – 2018* in order to provide timely assurance on key project management areas on a proactive basis. Our audit work began after the procurement phase of the Project due to a fairness monitor being secured to provide oversight on the procurement process (a requirement of the now repealed *Public-Private Partnerships Transparency and Accountability Act*).
- ◆ The audit plan was adopted by Council on July 15, 2015.
- ◆ Background on the Project is included in **Appendix 1**.
- ◆ Our audit methodology is located in **Appendix 2**.
- ◆ **Appendix 3** provides a flowchart of the audit process.
- ◆ Our risk assessment criteria for each audit area are provided in **Appendix 4**.

## AUDIT OBJECTIVES

*We had three objectives for this quarterly audit.*

- ◆ The objectives of this quarterly audit report were:
  - To provide assurance that appropriate reporting is occurring for the Project based on regulatory requirements, City policies and procedures.
  - To provide assurance that appropriate risk management is occurring in the Project.
  - To determine whether change orders are reasonable, within project scope and budget.

## CONCLUSIONS

*The reports required by legislation, by-law, administrative standards, and contractual agreements have been issued by the Public Service.*

- ◆ The Public Service has submitted the formal reports required for this project during the period of this audit report.
- ◆ The following report was reviewed for the period of this audit:
  - “Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Quarterly Project Status Report, Project ID. 4230010514, No. 15 for the Period Ended June 30, 2018”
- ◆ The report was compared to the guidance given for such reports and was found to meet the standards of said guidance.
- ◆ Financial costs reported to the Standing Policy Committee on Finance were found to be in accordance with the generally accepted accounting principles on cost reporting issued by Canada’s Public Sector Accounting Board and, in our opinion, fairly presented in all material respects the actual costs incurred for the Project for the quarter ending June 30, 2018.

*Project management activities have met risk management requirements provided in the City’s Project Management Manual.*

- ◆ The risk management activities have met the requirements outlined in the City’s Project Management Manual. Documentation that tracked risks was reviewed, including meeting minutes and the issues log.
- ◆ The risk allocation summary in the Fairness Monitor’s Report summarizes the risk distribution for the Project. We have included a reproduction of the summary in **Appendix 5**.
- ◆ The private partner for the Project has also developed a risk management plan and risk registry for the Project, which is being updated on a timely basis.

*Reviews and approvals of change orders have followed established processes.*

- ◆ We observed that approved changes were reasonable based on the intended scope of the Project.
- ◆ The total amount spent on change orders to June 30, 2018 is just over \$2.5 million of the \$69 million contingency budget for the Project.

# PROJECT REPORTING ANALYSIS

## 1.1 Reporting Requirements

### Issue

- ◆ Has the Public Service communicated the proper reports required by legislation, by-laws, City of Winnipeg policies and standards, and project agreements?

### Conclusions

- ◆ The Public Service has published the reports required by legislation, by-laws, policies, standards and agreements over the period of review for this audit report. We have performed limited testing on the information in the reports released and outlined below, and have found the information tested to be accurate.

### Analysis

- ◆ The following reports are ongoing or are forthcoming for the Project for legislated and contractually agreed upon matters:
  - Actions that are outside the delegated authority of the Public Service (such as expropriation of lands, procurement in excess of delegated authority, or over expenditure reports)
  - Quarterly reporting to the Standing Policy Committee on Finance
- ◆ For the period of April 1 to June 30, 2018, the following report was required, and was published for the Project:
  - “Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Quarterly Project Status Report, Project ID. 4230010514, No. 15 for the Period Ended June 30, 2018”<sup>1</sup> (required by *Administrative Standard FM-004: Asset Management*)
    - The report presents the financial position and significant project updates for the Project up to June 30, 2018.
  - Reviewed the monthly verbal report updates presented to Standing Policy Committee on Infrastructure Renewal and Public Works.
    - The verbal report provides the status update for the Project and the contingency fund up to June 30, 2018.
- ◆ Our audit work included examination of the report in relation to the legislated, regulated or agreed-upon requirements to communicate such reports. Limited testing of the accuracy of information included in the report was also completed based on our risk assessment of whether such information could be misstated.
- ◆ For this quarterly report, we audited the actual costs reported in the quarterly status update submitted to the Standing Policy Committee on Finance (see **Appendix 6**). In our opinion, the actual costs reported were fairly presented in all material respects, and were reported in accordance with generally accepted accounting principles issued by the Canadian Public Sector Accounting Board.
- ◆ The Public Service was directed to include the status of the contingency fund in future verbal status updates to Standing Policy Committee on Infrastructure Renewal and Public Works as of February 2018. The contingency was not discussed in the June 2018 verbal update due to an oversight. The contingency spend has increased from the

---

<sup>1</sup> Submitted as information to the Standing Policy Committee on Finance in its June 26, 2018 meeting.

previous update by approximately \$462,000, representing 0.67% of the total contingency fund. As of June 30, 2018, \$2.5 million of contingency had been used, representing 3.7% of the total contingency fund.

<b>RECOMMENDATION</b>			
<i>No recommendation accompanies this analysis.</i>			
<b>RISK AREA</b>	Information Resources	<b>ASSESSMENT</b>	Moderate
<b>BASIS OF ASSESSMENT</b>	Reports that are not distributed or that contain inaccurate information affect stakeholders' ability to perform their roles, and could also affect legal compliance or funding agreements. To mitigate this risk, the Public Service has formed an experienced project management team that works closely with all interdependent departments to address all project management knowledge areas that require reporting.		

# PROJECT MANAGEMENT KEY AREAS ANALYSIS

## 2.1 Risk Management Activities

### Issue

- ◆ Has the project management team followed the risk management guidance given in the City's Project Management Manual?

### Conclusions

- ◆ The Project management activities carried out have met the requirements of the City's Project Management Manual.

### Analysis

- ◆ The City's Project Management Manual ("PMM") is required to be applied to all capital projects undertaken by the Public Service. The PMM details a project management methodology, and also states that the methodology used should be tailored to the specific project.
- ◆ Under a public-private partnership arrangement, the majority of the risks for costs, scope, schedule, and quality are transferred to the private partner. This leaves the City with a limited amount of risk. The City still retains risks on regulatory changes related to construction of the transitway, scope changes requested by the City, termination of agreement, maintenance of connecting roadways, and bus operations on the transitway. We have reproduced the Fairness Monitor's illustration of the risk distribution for the Project in **Appendix 5**.
- ◆ The risk management guidance in the PMM focuses on identifying, planning for, managing, and communicating risks. We observed that the City's project management team has an issues log that is regularly updated. We observed through meeting minutes that project risks are regularly discussed in project team meetings and Major Capital Project Steering Committee meetings. Significant risks and mitigation strategies have been included in the quarterly project status report to SPC on Finance for the general awareness of the committee. These practices are consistent with the guidance of the City's Project Management Manual.
- ◆ We observed that Plenary Roads Winnipeg has provided the Public Service with a project risk management plan and monthly reports that outline the anticipated risks in the projects, the mitigation strategies for the risks, and the estimated residual risks remaining after the mitigation strategies. This practice is consistent with generally accepted project management practices (such as the *Project Management Book of Knowledge* issued by the Project Management Institute) and is also consistent with the City's Project Management Manual.

RECOMMENDATION			
<i>No recommendation accompanies this analysis.</i>			
RISK AREA	Business Process	ASSESSMENT	Moderate
BASIS OF ASSESSMENT	Inadequate risk management could reduce the projected value for money savings for the Project.		

## 2.2 Change Order Status

### Issue

- ◆ Were approved change orders for the period of April 1, 2018 to June 30, 2018 reasonable, and are costs within the established contingency?

### Conclusions

- ◆ Approved changes were reasonable, within budget and intended project scope.

### Analysis

- ◆ Change orders (COs) are part of the scope management and cost management processes. If change orders are not properly managed, they can pose significant risks for a project.
- ◆ The increase in change orders from April 01, 2018 to June 30, 2018 totaled approximately \$462,000.
- ◆ The two largest approved COs make up the majority of the \$460,000 change related to railway and utility design changes. Based on a review of the information received, the COs were deemed to be reasonable.
- ◆ Change orders totaled \$2.554 million as at June 30, 2018. These are within the established contingency of \$69 million for the Project.
- ◆ Change order reviews in future audit reports will depend on the nature and significance of the changes. A summary of COs will be provided in our final quarterly report.

RECOMMENDATION			
<i>No recommendation accompanies this analysis.</i>			
RISK AREA	Business Process	ASSESSMENT	Moderate
BASIS OF ASSESSMENT	Inadequate review and approval of change orders could have a negative impact on the Project's budget and/or scope.		

## INDEPENDENCE

The Audit Department is classified as an independent external auditor under *Government Auditing Standards* due to statutory safeguards that require the City Auditor to report directly to Council, the City's governing body, through the Audit Committee.

The Audit Department team members selected for the audit have all attested that they do not have any conflict of interest related to the audit's subject matter.

## ACKNOWLEDGEMENT

The Audit Department wants to extend its appreciation to all of the stakeholders who participated in this audit and especially to City's project team for their time and cooperation.



\_\_\_\_\_  
Bryan Mansky, MBA, CPA, CMA, CIA  
City Auditor

\_\_\_\_\_  
January 2019

Date

## APPENDIX 1 – Project Background

### The Southwest Rapid Transitway (Stage 2) and Pembina Underpass Project

- ◆ Stage 2 of Winnipeg’s first rapid transit corridor, and the expansion of Pembina Highway under the Jubilee Overpass, (“the Project”) was approved by Council on June 25, 2014. The Project is being delivered under a public-private partnership methodology.
- ◆ After a competitive bidding process, an agreement was signed with Plenary Roads Winnipeg to design, build, finance, operate and maintain the infrastructure at an estimated total cost of \$467 million.
- ◆ The scope of the Project includes the extension of the current southwest transit corridor (Stage 1) from Jubilee Avenue to the University of Manitoba. This extension is approximately 7.6 kilometers long and will include the construction of three new bridges (one for a railway and two for the transitway), two overpasses (for the transitway over McGillivray Boulevard and the CN Letellier rail line and spur lines), the reconstruction of Southpark Drive, two new drainage pump stations, a new pedestrian ramp at Investor’s Group Field, a reconstructed bus staging area at the University of Manitoba, two new “Park and Ride” facilities, nine new transit stations, and an active transportation pathway along the entire length of the transitway.
- ◆ The Project also includes the widening of the northbound side of Pembina Highway under the Jubilee overpass from two to three lanes along with pedestrian and cycling facilities on both sides of Pembina Highway.

### Project Funding

- ◆ The financing for the Project is:

<u>Contributing Party</u>	<u>Contribution</u>	<u>Percent</u>
City of Winnipeg	\$ 181,400,000	39%
Province of Manitoba	187,000,000	40%
Government of Canada	93,300,000	20%
Canadian National Railway Co.	5,600,000	1%
Total	<u>\$ 467,300,000</u>	

### Reporting

- ◆ The following reports are ongoing or are forthcoming for the Project for legislated and contractually agreed upon matters:
  - Actions that are outside the delegated authority of the Public Service (such as expropriation of lands, procurement in excess of delegated authority, or over-expenditure reports)
  - Quarterly reporting to the SPC on Finance

## APPENDIX 2 – Audit Methodology

### MANDATE OF THE CITY AUDITOR

- ◆ The City Auditor is a statutory officer appointed by City Council under *The City of Winnipeg Charter*. The City Auditor is independent of the Public Service and reports directly to Executive Policy Committee, which serves as the City's Audit Committee.
- ◆ The City Auditor conducts examinations of the operations of the City and its affiliated bodies to assist Council in its governance role of ensuring the Public Service's accountability for the quality of stewardship over public funds and for the achievement of value for money in City operations.
- ◆ Once an audit report has been communicated to Council, it becomes a public document.

### PROJECT RISK ANALYSIS

- ◆ Communication is essential for successful projects. Some of the most important communication in large-scale public capital projects occurs in the form of public reporting; however, few industry organizations give guidance on what exactly should be included in project performance reports. Reporting is mainly left to be agreed upon by project stakeholders, and much is left to the professional judgment of the project management teams. Improper communication can hold up projects or cause wasted efforts. Therefore, proper communication practices are essential to ensure that projects run smoothly and efficiently.
- ◆ Individual audit area risk assessments are provided for each issue discussed. The assessments discuss and detail the residual risk for issues after considering the City's mitigating risk controls.

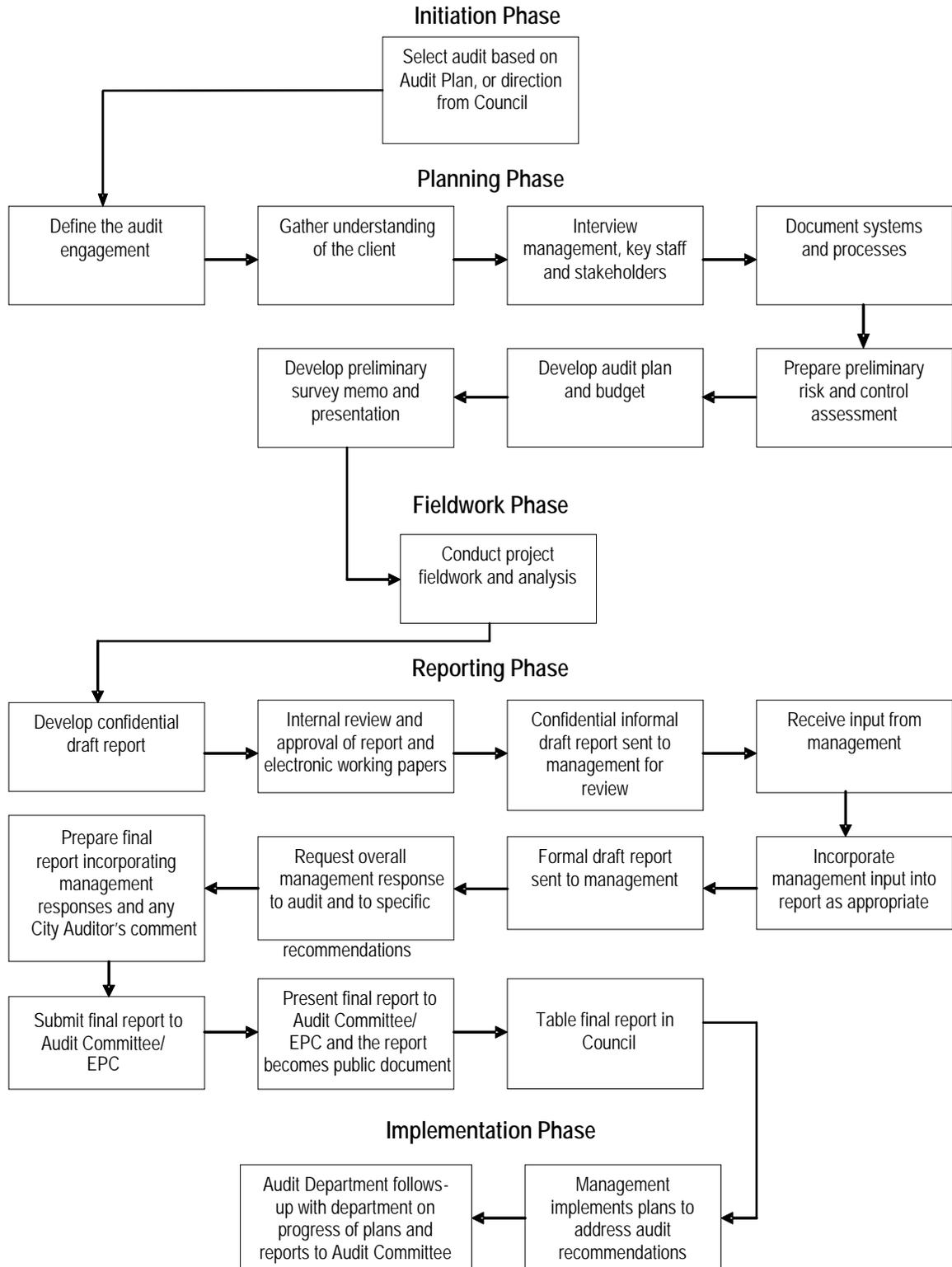
### SCOPE

- ◆ The scope of our audit includes project communication management over the course of the project. The scope of our quarterly audit reports also includes the reporting on key management areas (such as risk, quality, schedule, and cost) as the Project progresses.
- ◆ Our audit runs concurrently with the project over the duration of the project, and reports are released on a quarterly basis.

## APPROACH AND CRITERIA

- ◆ We conducted our audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient appropriate evidence to provide a reasonable basis for our observations and conclusions, based on our audit objectives. We believe the evidence we have obtained provides a reasonable basis for our observations and conclusions.
- ◆ To gather sufficient appropriate evidence for our audit, we reviewed Manitoba's legislated requirements for public-private partnership reporting, the City of Winnipeg's documented guidance for capital project reporting, and the public reporting requirements set out in funding and capital project management agreements. We also researched industry standards and guidance on capital project monitoring and reporting. We then conducted our fieldwork, which compared the public reporting for the project for the period covered by this audit report to all of the outlined guidance.
- ◆ The guiding documents we used include:
  - *The Public-Private Partnerships Transparency and Accountability Act* of Manitoba
  - *The Environment Act* of Manitoba
  - *The City of Winnipeg Charter* for Council's and its committees' legislated roles in relation to capital project decision making
  - *Administrative Standard FM-004: Asset Management* (and its precursors throughout the project)
  - Agreements with federal and provincial funding partners (P3 Canada, and the Government of Manitoba) and contracted service providers (Plenary Roads Winnipeg Transitway LP)
- ◆ Industry capital project monitoring and reporting practices we researched included:
  - Recommended practices 17R-97 and 56R-08 of The Association for the Advancement of Cost Engineering (AACE)
  - Accounting principles published by CPA Canada
  - *Effectiveness Reporting and Auditing in the Public Sector* published by the Canadian Comprehensive Auditing Foundation (CCAF)
  - Publicly available reporting information for the National Project Management System (NPMS)
  - *A Guide to the Project Management Body of Knowledge (PMBOK® Guide) Fifth Edition*
  - Projects IN Controlled Environments (PRINCE2)

## APPENDIX 3 – Audit Process



## APPENDIX 4 – Risk Assessment Worksheet

Potential Impacts  Likelihood	Insignificant	Minor	Moderate	Major	Extreme
	- None or minor change in services, project or processes - Very limited exposure of sensitive information - Very minor, non-permanent environmental damage - Financial impact < \$100K	- Minor change in achievement of service objectives - Limited exposure of sensitive information - Minor, non-permanent environmental damage - Financial impact \$100K – \$500K	- Moderate change in delivery of essential services - Exposure of limited amount of confidential information - Moderate environmental damage - Financial impact \$500K – \$1M	- Significant change in delivery of essential services - Exposure of significant amount of confidential information - Significant change in quality of life indicators - Major environmental damage - Financial impact \$1M – \$10M	- Unable to perform essential services for extended period - Exposure of critical confidential information - Very significant change in quality of life indicators - Significant damage to environment - Financial impact >\$10M
<b>Almost certain</b> (Excepted to occur unless circumstances change)	M	M	H	C	C
<b>Likely</b> (Probably occur in most circumstances)	M	M	H	C	C
<b>Possible</b> (Might occur under different circumstances)	L	M	M	H	H
<b>Unlikely</b> (Could occur if circumstances change)	L	L	M	H	H
<b>Rare</b> (May occur in exceptional circumstances)	L	L	M	M	M

### Legend

<b>C</b> Critical risk:	Requires urgent action, monitor and review at least weekly by Senior Management and COO, inform CAO and Committee of Council
<b>H</b> High risk:	High impact, monitor and review at least quarterly by management, inform COO
<b>M</b> Moderate risk:	Monitor and review at least quarterly by management
<b>L</b> Low risk:	Review periodically, no explicit action required.

## APPENDIX 5 – Risk Allocation Summary

Risk	Retained by City	Transfer to Project Co	Shared	Notes on Any Changes to Risk as Previously Proposed
<b>A. General</b>				
1. Compliance with applicable law and standards		✓		N/A
2. Designated change in law	✓			
3. Changes in applicable law		✓		N/A
4. Changes in standards			✓	N/A
5. Permits, Licenses and Approvals (Including CN and Manitoba Hydro approvals)			✓	N/A
6. Access to Lands, Encumbrances, Liens			✓	N/A
7. Geotechnical		✓		N/A
8. Contamination			✓	N/A
9. Defects in Existing Infrastructure			✓	N/A
<b>B. Design and Construction</b>				
10. Design development (Detailed design)		✓		N/A
11. Construction management delays		✓		N/A
12. Construction latent defects		✓		N/A
13. Construction warranty for Maintenance-Exempt Work		✓		N/A
14. Scope changes initiated by City during construction	✓			N/A
15. Adverse weather conditions		✓		N/A
16. Labour relations			✓	N/A
17. Safety and security		✓		N/A
18. Stadium Access Works		✓		N/A
19. Utility Work			✓	<ul style="list-style-type: none"> <li>• Project Co is responsible for all utility work for the Project, including Manitoba Hydro utility relocation work, however a cost sharing regime is in place as described below.               <ul style="list-style-type: none"> <li>○ The City is responsible for reimbursing Project Co for certain utility costs that exceed a pre-determined baseline amount established by the City, subject to Project Co's obligation to mitigate such costs.</li> <li>○ Project Co is entitled to relief from the City in the event that Manitoba Hydro fails to perform its obligations in accordance with the applicable utility agreement and causes delay to Project Co in achieving Substantial Completion.</li> </ul> </li> </ul>

## APPENDIX 5 – Risk Allocation Summary (Continued)

Risk	Retained by City	Transfer to Project Co	Shared	Notes on Any Changes to Risk as Previously Proposed
20. CN Rail Interface			✓	<ul style="list-style-type: none"> <li>Project Co is responsible for all interface with CN Rail to compel them to fulfil their obligations, with the City required to provide assistance to resolve non-performance by CN.</li> <li>Project Co is entitled to relief from the City in the event that CN Rail fails to perform its obligations that causes delays to Project Co in achieving Substantial Completion.</li> </ul>
21. Traffic Management		✓		<ul style="list-style-type: none"> <li>Project Co is subject to payment deductions for lane closures during the construction period that exceed their target number of closure days as per their proposal.</li> </ul>
22. Rectification of deficiencies		✓		N/A
23. Commissioning		✓		N/A
<b>C. Maintenance and Rehabilitation</b>				
24. Operational and preventive maintenance (Stage 1 and Stage 2)		✓		N/A
25. Rehabilitative maintenance – Stage 1	✓			N/A
26. Rehabilitative maintenance – Stage 2		✓		N/A
27. Winter Maintenance		✓		N/A
28. Bus operations – Stage 1 and Stage 2	✓			N/A
29. Maintenance of roadway connections between the Transitway and street system	✓			N/A
30. Default of Operator or Project Co		✓		N/A
31. Inflation risk			✓	N/A
32. Asset residual		✓		N/A
<b>D. Force Majeure</b>				
33. Force Majeure			✓	N/A
<b>E. Relief Events</b>				
34. Relief Events			✓	N/A
<b>F. Termination of Project Agreement</b>				
35. Termination for convenience of City	✓			N/A
36. Termination for default of Project Co		✓		N/A
37. Termination for Force Majeure			✓	N/A

Source: P1 Consulting (2016). *City of Winnipeg Request for Proposals to Design, Build, Finance, (Operate) and Maintain the Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass: Fairness Monitor's Report*. Retrieved from winnipegtransit.com.

## APPENDIX 6 – Actual Costs Presented in Financial Status Reports

### Appendix B – Financial Forecast

Appendix B - Southwest Rapid Transitway (Stage 2) & Pembina Highway Underpass Financial Forecast \*  
As at June 30, 2018

Project Component Deliverables	Budget (in 000's)			Actual Costs To June 30, 2018	Expenditure Forecast (in 000's)				Total Forecasted Costs	Surplus (Deficit) From Amended Budget	Variance Last Report	Change in Variance
	Adopted Budget	Council Approved Change**	Amended Budget		Projected Costs							
					2018	2019	2020	2021 and Beyond				
Engineering, Design and Other	\$ 13,000	\$ (1,694)	\$ 11,306	\$ 8,085	\$ 1,024	\$ 2,197	\$ -	\$ -	\$ 11,306	\$ -	\$ -	\$ -
Construction <sup>1</sup>	\$ 476,750	\$ (130,000)	\$ 346,750	\$ -	\$ -	\$ 210,043	\$ 8,350	\$ 128,357	\$ 346,750	\$ -	\$ -	\$ -
Land Acquisition	\$ 23,000	\$ 10,000	\$ 33,000	\$ 26,628	\$ 6,372	\$ -	\$ -	\$ -	\$ 33,000	\$ -	\$ -	\$ -
Internal Financing / Overhead Costs	\$ 5,550	\$ 1,694	\$ 7,244	\$ 1,988	\$ 1,939	\$ 3,317	\$ -	\$ -	\$ 7,244	\$ -	\$ -	\$ -
Contingency <sup>2</sup>	\$ 69,000	\$ -	\$ 69,000	\$ -	\$ -	\$ -	\$ -	\$ 67,642	\$ 67,642	\$ 1,358	\$ 48	\$ 1,310
Change Order	\$ -	\$ -	\$ -	\$ 1,358	\$ -	\$ -	\$ -	\$ -	\$ 1,358	\$ (1,358)	\$ (48)	\$ (1,310)
<b>Total Project Budget<sup>3</sup></b>	<b>\$ 587,300</b>	<b>\$ (120,000)</b>	<b>\$ 467,300</b>	<b>\$ 38,059</b>	<b>\$ 9,335</b>	<b>\$ 215,557</b>	<b>\$ 8,350</b>	<b>\$ 195,999</b>	<b>\$ 467,300</b>	<b>\$ -</b>		
<b>% of Project Budget Spent</b> (Actual Costs to Date / Adopted & Amended Budget)	6%		8%									

\* Amended budget and actual costs to date have been agreed to the City's general ledger and Monthly Capital Expenditures Report.

\*\* Amended Budget as reflected in Transit's 2018 Capital Budget submission.

1) Construction projection represents the estimated payment at substantial completion (60%) and the repayment of the remaining capital portion (40%) stated in nominal dollars over the 30 year maintenance period.

2) Change Orders in the amount of \$2.554 million (capital) and \$137k (operating & maintenance) have been approved with Plenary Roads Winnipeg of which \$1.358 million has been processed and reflected above. The remaining approved Change Orders will be reflected above as completed.

3) The 30-year Annual Service Payments (ASP) are not included in Total Project Budget with the exception of the 40% nominal construction amount (Note 1). The City anticipates cost sharing with the Province of Manitoba related to operations and maintenance. The forecasted amount for the total ASP in 2020 is \$14.46 million for debt service, operation and maintenance and other annual expenditures. Operation and maintenance payments increase with inflation.

Of the total forecast for ASP of \$493.1 million, \$353.0 million relates to debt service payments, \$123.9 million relates to operation and maintenance of the corridor over the 30 years, and \$16.2 million relates to other annual expenditures.

Source: Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Quarterly Project Status Report, Project ID. 4230010514, Quarterly Project Status Report No. 15 for the Period Ended June 30, 2018.

# Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass Audit for the Period of July 1 to November 30, 2018

## **Table of Contents**

AUDIT AT A GLANCE	1
AUDIT BACKGROUND	2
AUDIT OBJECTIVES	2
CONCLUSIONS	3
PROJECT REPORTING ANALYSIS	4
PROJECT MANAGEMENT KEY AREAS ANALYSIS	6
INDEPENDENCE	9
ACKNOWLEDGEMENT	9
APPENDIX 1 – Project Background	10
APPENDIX 2 – Audit Methodology	11
APPENDIX 3 – Audit Process	13
APPENDIX 4 – Risk Assessment Worksheet	14
APPENDIX 5 – Risk Allocation Summary	15
APPENDIX 6 – Actual Costs Presented in Financial Status Reports	17

## AUDIT AT A GLANCE

### RECOMMENDATIONS

*That the Office of the CAO implement a process to ensure that new/additional reporting requirements adopted by Council or its committees is embedded into existing reporting processes.*

### Project Background

Stage 2 of the Southwest Rapid Transitway (SWRT II) and Pembina Highway Underpass is one of the largest capital projects that the City has embarked upon. Appropriate communication is important to allow key stakeholders to fulfill their roles in relation to the project; it also keeps the public informed on project performance.

The Audit Department has released quarterly audit reports providing assurance on the reporting processes and selected key project management areas throughout the construction of the project. In Q3 2018, the project management team adjusted its reporting schedule to accommodate the municipal election held in October 2018. This report mirrors the project management team's adjustment and covers the period of July 1 to November 30, 2018. Our future reports will mirror the reporting periods in project status reports to the Standing Policy Committee on Finance until construction of the project is complete.

### Current State of the Project

Construction for the Project is ongoing. Plenary Roads Winnipeg has taken responsibility for the design, construction, financing, operation, maintenance and rehabilitation of the infrastructure for the next thirty years. The City's project management team is responsible for project oversight.

### Findings

The Public Service has produced all of the appropriate legislated and agreed upon reports during this period. However, in this period, one of these reports did not include the revised additional requirement for a status update of the project's contingency fund. Our recommendation addresses this finding.

The Public Service has managed risk for the project in accordance with City project management requirements from July 1 to November 30, 2018, including managing the risks of project delay experienced through two work stoppages experienced during the period.

The Public Service has followed established process requirements for the approval and review of change orders; approved changes are within project budget and scope at November 30, 2018.

## AUDIT BACKGROUND

*The audit of this Project is to provide timely assurance on key project management areas on a proactive basis.*

- ◆ Stage 2 of the Southwest Rapid Transitway and Pembina Highway Underpass (“the Project”) is one of the largest capital projects that Winnipeg has initiated to date. An audit of the Project was added to the City Auditor’s *Audit Plan 2015 – 2018* in order to provide timely assurance on key project management areas on a proactive basis. Our audit work began after the procurement phase of the Project due to a fairness monitor being secured to provide oversight on the procurement process (a requirement of the now repealed *Public-Private Partnerships Transparency and Accountability Act*).
- ◆ The audit plan was adopted by Council on July 15, 2015.
- ◆ Background on the Project is included in **Appendix 1**.
- ◆ Our audit methodology is located in **Appendix 2**.
- ◆ **Appendix 3** provides a flowchart of the audit process.
- ◆ Our risk assessment criteria for each audit area are provided in **Appendix 4**.

## AUDIT OBJECTIVES

*We had three objectives for this audit period*

- ◆ The objectives of this audit report were:
  - To provide assurance that appropriate reporting is occurring for the Project based on regulatory requirements, City policies and procedures.
  - To provide assurance that appropriate risk management is occurring in the Project.
  - To provide assurance that change orders are within project scope, budget and have followed established review and approval processes.

## CONCLUSIONS

*The reports required by legislation, by-law, administrative standards, and contractual agreements have been issued by the Public Service. One report did not include the specific requirement of providing the contingency fund status.*

The Public Service has produced all of the appropriate legislated and agreed upon reports for the period of July 1 to November 30, 2018.

We reviewed:

- ◆ “Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Quarterly Project Status Report, Project ID: 4230010514, Quarterly Project Status Report No. 16, for the Period Ended November 30, 2018”
- ◆ Recorded video of Standing Policy Committee on Infrastructure Renewal and Public Works (SPC IRPW) meetings held in this period to verify that verbal reports were provided.
- ◆ Financial costs reported to the SPC Finance were found to be in accordance with the generally accepted accounting principles on cost reporting issued by Canada’s Public Sector Accounting Board and, in our opinion, fairly presented in all material respects the actual costs incurred for the Project for the period of July 1 to November 30, 2018.
- ◆ Reports were compared to the guidance given for such reports. We found one exception with one verbal report to the SPC IRPW that did not include an update on the Project’s contingency fund.
  - We have recommended the reporting process be enhanced.

*Project management activities have met risk management requirements provided in the City’s Project Management Manual.*

- ◆ The risk management activities have met the requirements outlined in the City’s Project Management Manual. Documentation and verbal updates discussing and tracking risks were reviewed, including meeting minutes and the issue log.
- ◆ The realized risks of work stoppages were also experienced and appropriately managed during the period.
- ◆ The risk allocation summary in the Fairness Monitor’s Report summarizes the risk distribution for the Project. We have included a reproduction of the summary in **Appendix 5**.
- ◆ The private partner for the Project has also developed a risk management plan and risk registry, which is being updated on a timely basis.

*Reviews and approvals of change orders have followed established processes.*

- ◆ We observed that approved changes were reasonable based on the intended scope of the Project.
- ◆ The total amount of approved change order expenses incurred up to November 30, 2018 was \$2,941,252, or 4.3% of the \$69 million contingency budget for the Project.

# PROJECT REPORTING ANALYSIS

## 1.1 Reporting Requirements

### Issue

- ◆ Has the Public Service communicated the proper reports required by legislation, by-laws, City of Winnipeg policies and standards, and project agreements?

### Conclusions

- ◆ The Public Service has published all reports required by legislation, by-laws, policies, standards and agreements over the period of review for this audit report.
- ◆ We have performed limited testing on the information in the reports released and outlined below, and have found the information tested to be accurate.
- ◆ We did, however, note that the verbal report provided to SPC IRPW in the September 2018 meeting did not include a status update of the project's contingency fund, a specific reporting requirement of the committee.

### Analysis

- ◆ For the period of July 1 to November 30, 2018, the following reports were required, and provided:
  - “Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Quarterly Project Status Report, Project ID: 4230010514, Quarterly Project Status Report No. 16, for the Period Ended November 30, 2018”<sup>1</sup>
    - Required by Administrative Standard FM-004: Asset Management.
    - This Report presents the financial position and significant project updates for the Project up to November 30, 2018.
  - Verbal project status updates, including contingency fund status updates, to the SPC IRPW.<sup>2</sup>
    - Required by an Executive Policy Committee (EPC) motion passed on June 29, 2016.
    - The additional requirement to include a status update of the contingency fund was adopted by the SPC IRPW on February 27, 2018.
- ◆ Our audit work included examination of outputs in relation to the legislated, regulated or agreed-upon requirements to communicate reports. Limited testing of the accuracy of information included in each report was also completed based on our risk assessment of whether such information could be misstated.
- ◆ For the Quarterly Project Status Report, we audited the actual costs reported in the quarterly status update submitted to the SPC Finance (see **Appendix 6**). In our opinion, the actual costs reported were fairly presented in all material respects, and were reported in accordance with generally accepted accounting principles issued by the Canadian Public Sector Accounting Board. The Quarterly Project Status Report included consistent and accurate contingency fund status updates.

<sup>1</sup> Submitted as information to the SPC Finance in its March 6, 2019 meeting.

<sup>2</sup> Provided to the SPC IRPW in September 7 & November 20, 2018 meetings.

- ◆ For the verbal reports, we reviewed recorded video of SPC IRPW meetings to verify communication.
  - We found that each verbal Project status update report was provided as required. However, one of the verbal reports did not include the additional requirement for a status update of the Project’s contingency fund.
  - Given that we noted the same finding in the previous SWRT Quarterly Audit Report, we extended our audit work to review of all verbal reports between February 2018 and June 2019.
  - We found that contingency fund updates were not provided in five of the twelve verbal reports where they were required.<sup>1</sup>
  - After discussion with the Public Service, it was determined that omissions were due to oversight, and that the number of exceptions highlights an opportunity to improve reporting processes. We have provided a recommendation below.

RECOMMENDATION 1			
<i>We recommend the Office of the CAO implement a process to ensure new or additional reporting requirements adopted by Council or its committees are embedded into existing reporting processes.</i>			
<b>RISK AREA</b>	Information Resources	<b>ASSESSMENT</b>	Moderate
<b>BASIS OF ASSESSMENT</b>	Reports that are not distributed or that contain inaccurate information, affect stakeholders’ ability to perform their roles and could also affect legal compliance or funding agreements. To mitigate this risk, the Public Service has formed an experienced project management team that works closely with all interdependent departments to address all project management knowledge areas that require reporting.		
MANAGEMENT RESPONSE			
<i>The Public service agrees with the recommendation to create a process for embedding new, officially adopted reporting requirements, into existing reporting systems. In response, the CAO’s office is now sending out dispositions to departments that highlight the need for future reports to include any newly adopted reporting requirements, with no exceptions. This revised process was placed on the September 6, 2019 Senior Management Team Agenda, and discussed to ensure that all Department Heads are aware that all updates must include a section identifying “not optional” for those items that were specifically requested by Committee. As such, implementation of the process change is now complete.</i>			
IMPLEMENTATION DATE	September 6, 2019		

<sup>1</sup> These meeting dates were May 1, June 26, and September 7, 2018, and January 8, and February 5, 2019.

# PROJECT MANAGEMENT KEY AREAS ANALYSIS

## 2.1 Risk Management Activities

### Issue

- ◆ Has the project management team followed the risk management guidance given in the City's Project Management Manual?

### Conclusions

- ◆ The project management activities carried out have met the requirements of the City's Project Management Manual.

### Analysis

- ◆ The City's Project Management Manual ("PMM") is required to be applied to all capital projects undertaken by the Public Service. The PMM details a project management methodology, and also states that the methodology used should be tailored to the specific project.
- ◆ Under a public-private partnership arrangement, the majority of the risks for costs, scope, schedule, and quality are transferred to the private partner. This leaves the City with a limited amount of risk. The City still retains risks on regulatory changes related to construction of the transitway, scope changes requested by the City, termination of agreement, maintenance of connecting roadways, and bus operations on the transitway. We have reproduced the Fairness Monitor's illustration of the risk distribution for the Project in **Appendix 5**.
- ◆ The risk management guidance in the PMM focuses on identifying, planning for, managing, and communicating risks. We observed that the City's Project Management team has an issues log that is regularly updated. We observed through meeting minutes that project risks are regularly discussed in project team meetings and Major Capital Project Steering Committee meetings. These practices are consistent with the guidance of the City's Project Management Manual.
- ◆ We observed that Plenary Roads Winnipeg has provided the Public Service with a Project Risk Management Plan and monthly reports that outline the anticipated risks in the project, the mitigation strategies for the risks, and the estimated residual risks remaining after the mitigation strategies. This practice is consistent with generally accepted project management practices (such as the *Project Management Book of Knowledge* issued by the Project Management Institute) and is also consistent with the City's Project Management Manual.
- ◆ We also observed that there were two stop-work orders issued on the Project in this period; one for a workplace injury and one for an inappropriate area used for staging project materials. Each of these risks was appropriately managed and the associated issues were addressed.

RECOMMENDATION			
<i>No recommendation accompanies this analysis.</i>			
RISK AREA	Business Process	ASSESSMENT	Moderate
BASIS OF ASSESSMENT	Inadequate risk management could reduce the projected value for money savings for the Project.		

## 2.2 Change Order Status

### Issue

- ◆ Has the project management team followed established processes for the review and approval of change orders, and have change orders been within the intended project scope and budget?

### Conclusions

- ◆ The project management reviews and approvals of change orders have met established process requirements for these activities. Approved changes were within budget and intended project scope.

### Analysis

- ◆ Change orders (COs) are part of the scope management and cost management processes. If change orders are not properly managed, they can pose significant risks for a project.
- ◆ We observed that approved changes were reasonable based on the intended scope of the Project.
- ◆ As of November 30, 2018, change orders of \$2,941,252 have been approved (\$2,804,091 for capital costs and \$137,161 for operations and maintenance). The total approved change orders represent 4.26% of the contingency fund, and 0.63% of the overall Project budget.
- ◆ Change orders incurred in this period were \$250,000, representing 0.36% of the contingency fund, and 0.05% of the total Project budget.
- ◆ Change order reviews in future audit reports will depend on the nature and significance of the changes. A summary of COs will be provided in our final periodic report.

RECOMMENDATION			
<i>No recommendation accompanies this analysis.</i>			
RISK AREA	Business Process	ASSESSMENT	Moderate
BASIS OF ASSESSMENT	Inadequate review and approval of change orders could have a negative impact on the Project's budget and/or scope.		

## INDEPENDENCE

The Audit Department is classified as an independent external auditor under *Government Auditing Standards* due to statutory safeguards that require the City Auditor to report directly to Council, the City's governing body, through the Audit Committee.

The Audit Department team members selected for the audit have all attested that they do not have any conflict of interest related to the audit's subject matter.

## ACKNOWLEDGEMENT

The Audit Department wants to extend its appreciation to all of the stakeholders who participated in this audit and especially to City's project team for their time and cooperation.

  
\_\_\_\_\_  
Bryan Mansky, MBA, CPA, CMA, CIA  
City Auditor

October 2019  
\_\_\_\_\_  
Date

## APPENDIX 1 – Project Background

### The Southwest Rapid Transitway (Stage 2) and Pembina Underpass Project

- ◆ Stage 2 of Winnipeg’s first rapid transit corridor, and the expansion of Pembina Highway under the Jubilee Overpass, (“the Project”) was approved by Council on June 25, 2014. The Project is being delivered under a public-private partnership methodology.
- ◆ After a competitive bidding process, an agreement was signed with Plenary Roads Winnipeg to design, build, finance, operate and maintain the infrastructure at an estimated total cost of \$467 million.
- ◆ The scope of the Project includes the extension of the current southwest transit corridor (Stage 1) from Jubilee Avenue to the University of Manitoba. This extension is approximately 7.6 kilometers long and will include the construction of three new bridges (one for a railway and two for the transitway), two overpasses (for the transitway over McGillivray Boulevard and the CN Letellier rail line and spur lines), the reconstruction of Southpark Drive, two new drainage pump stations, a new pedestrian ramp at Investor’s Group Field, a reconstructed bus staging area at the University of Manitoba, two new “Park and Ride” facilities, nine new transit stations, and an active transportation pathway along the entire length of the transitway.
- ◆ The Project also includes the widening of the northbound side of Pembina Highway under the Jubilee overpass from two to three lanes along with pedestrian and cycling facilities on both sides of Pembina Highway.

### Project Funding

- ◆ The financing for the Project is:

<u>Contributing Party</u>	<u>Contribution</u>	<u>Percent</u>
City of Winnipeg	\$ 187,000,000	40%
Province of Manitoba	187,000,000	40%
Government of Canada	<u>93,300,000</u>	20%
Total	<u>\$ 467,300,000</u>	

### Reporting

- ◆ The following reports are ongoing or are forthcoming for the Project for legislated and contractually agreed upon matters:
  - Actions that are outside the delegated authority of the Public Service (such as expropriation of lands, procurement in excess of delegated authority, or over-expenditure reports)
  - Quarterly reporting to the SPC Finance
  - Verbal reporting to the SPC IRPW

## APPENDIX 2 – Audit Methodology

### MANDATE OF THE CITY AUDITOR

- ◆ The City Auditor is a statutory officer appointed by City Council under *The City of Winnipeg Charter*. The City Auditor is independent of the Public Service and reports directly to Executive Policy Committee, which serves as the City's Audit Committee.
- ◆ The City Auditor conducts examinations of the operations of the City and its affiliated bodies to assist Council in its governance role of ensuring the Public Service's accountability for the quality of stewardship over public funds and for the achievement of value for money in City operations.
- ◆ Once an audit report has been communicated to Council, it becomes a public document.

### PROJECT RISK ANALYSIS

- ◆ Communication is essential for successful projects. Some of the most important communication in large-scale public capital projects occurs in the form of public reporting; however, few industry organizations give guidance on what exactly should be included in project performance reports. Reporting is mainly left to be agreed upon by project stakeholders, and much is left to the professional judgment of the project management teams. Improper communication can hold up projects or cause wasted efforts. Therefore, proper communication practices are essential to ensure that projects run smoothly and efficiently.
- ◆ Individual audit area risk assessments are provided for each issue discussed. The assessments discuss and detail the residual risk for issues after considering the City's mitigating risk controls.

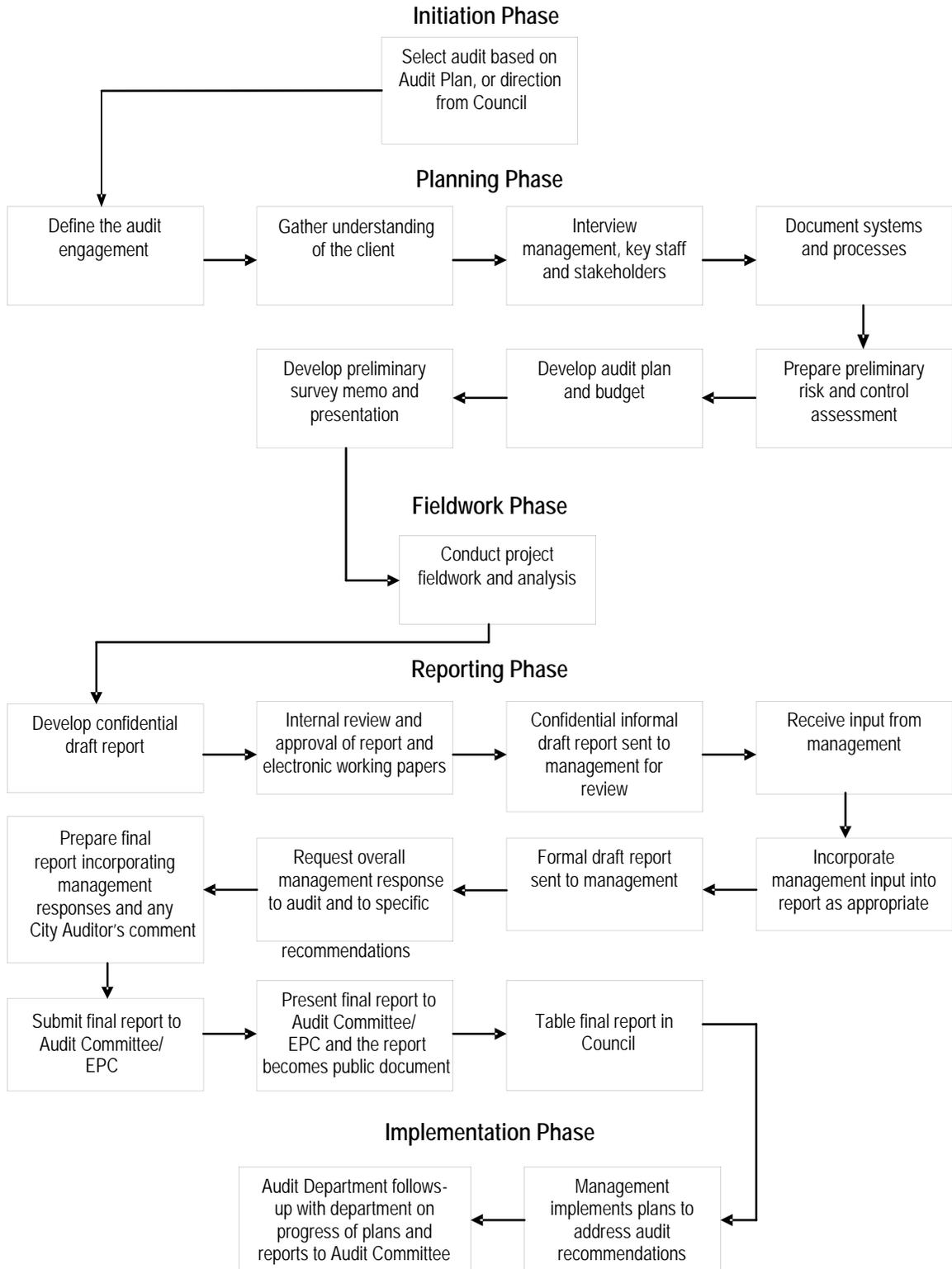
### SCOPE

- ◆ The scope of our audit includes project communication management over the course of the project. The scope of our periodic audit reports also includes the reporting on key management areas (such as risk, quality, schedule, and cost) as the Project progresses.
- ◆ Our audit runs concurrently with the project over the duration of the project, and reports are released on a periodic basis.

## APPROACH AND CRITERIA

- ◆ We conducted our audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient appropriate evidence to provide a reasonable basis for our observations and conclusions, based on our audit objectives. We believe the evidence we have obtained provides a reasonable basis for our observations and conclusions.
- ◆ To gather sufficient appropriate evidence for our audit, we reviewed Manitoba's legislated requirements for public-private partnership reporting, the City of Winnipeg's documented guidance for capital project reporting, and the public reporting requirements set out in funding and capital project management agreements. We also researched industry standards and guidance on capital project monitoring and reporting. We then conducted our fieldwork, which compared the public reporting for the project for the period covered by this audit report to all of the outlined guidance.
- ◆ The guiding documents we used include:
  - *The Public-Private Partnerships Transparency and Accountability Act* of Manitoba
  - *The Environment Act* of Manitoba
  - *The City of Winnipeg Charter* for Council's and its committees' legislated roles in relation to capital project decision making
  - *Administrative Standard FM-004: Asset Management* (and its precursors throughout the project)
  - Agreements with federal and provincial funding partners (P3 Canada, and the Province of Manitoba) and contracted service providers (Plenary Roads Winnipeg Transitway LP)
- ◆ Industry capital project monitoring and reporting practices we researched included:
  - Recommended practices 17R-97 and 56R-08 of The Association for the Advancement of Cost Engineering (AACE)
  - Accounting principles published by CPA Canada
  - *Effectiveness Reporting and Auditing in the Public Sector* published by the Canadian Comprehensive Auditing Foundation (CCAF)
  - Publicly available reporting information for the National Project Management System (NPMS)
  - *A Guide to the Project Management Body of Knowledge (PMBOK® Guide) Fifth Edition*
  - Projects IN Controlled Environments (PRINCE2)

## APPENDIX 3 – Audit Process



## APPENDIX 4 – Risk Assessment Worksheet

Potential Impacts / Likelihood	Insignificant	Minor	Moderate	Major	Extreme
	<ul style="list-style-type: none"> <li>- None or minor change in services, project or processes</li> <li>- Very limited exposure of sensitive information</li> <li>- Very minor, non-permanent environmental damage</li> <li>- Financial impact &lt; \$100K</li> </ul>	<ul style="list-style-type: none"> <li>- Minor change in achievement of service objectives</li> <li>- Limited exposure of sensitive information</li> <li>- Minor, non-permanent environmental damage</li> <li>- Financial impact \$100K – \$500K</li> </ul>	<ul style="list-style-type: none"> <li>- Moderate change in delivery of essential services</li> <li>- Exposure of limited amount of confidential information</li> <li>- Moderate environmental damage</li> <li>- Financial impact \$500K – \$1M</li> </ul>	<ul style="list-style-type: none"> <li>- Significant change in delivery of essential services</li> <li>- Exposure of significant amount of confidential information</li> <li>- Significant change in quality of life indicators</li> <li>- Major environmental damage</li> <li>- Financial impact \$1M – \$10M</li> </ul>	<ul style="list-style-type: none"> <li>- Unable to perform essential services for extended period</li> <li>- Exposure of critical confidential information</li> <li>- Very significant change in quality of life indicators</li> <li>- Significant damage to environment</li> <li>- Financial impact &gt;\$10M</li> </ul>
<b>Almost certain</b> (Excepted to occur unless circumstances change)	M	M	H	C	C
<b>Likely</b> (Probably occur in most circumstances)	M	M	H	C	C
<b>Possible</b> (Might occur under different circumstances)	L	M	M	H	H
<b>Unlikely</b> (Could occur if circumstances change)	L	L	M	H	H
<b>Rare</b> (May occur in exceptional circumstances)	L	L	M	M	M

### Legend

- C** Critical risk: Requires urgent action, monitor and review at least weekly by Senior Management and COO, inform CAO and Committee of Council
- H** High risk: High impact, monitor and review at least quarterly by management, inform COO
- M** Moderate risk: Monitor and review at least quarterly by management
- L** Low risk: Review periodically, no explicit action required.

## APPENDIX 5 – Risk Allocation Summary

Risk	Retained by City	Transfer to Project Co	Shared	Notes on Any Changes to Risk as Previously Proposed
<b>A. General</b>				
1. Compliance with applicable law and standards		✓		N/A
2. Designated change in law	✓			
3. Changes in applicable law		✓		N/A
4. Changes in standards			✓	N/A
5. Permits, Licenses and Approvals (Including CN and Manitoba Hydro approvals)			✓	N/A
6. Access to Lands, Encumbrances, Liens			✓	N/A
7. Geotechnical		✓		N/A
8. Contamination			✓	N/A
9. Defects in Existing Infrastructure			✓	N/A
<b>B. Design and Construction</b>				
10. Design development (Detailed design)		✓		N/A
11. Construction management delays		✓		N/A
12. Construction latent defects		✓		N/A
13. Construction warranty for Maintenance-Exempt Work		✓		N/A
14. Scope changes initiated by City during construction	✓			N/A
15. Adverse weather conditions		✓		N/A
16. Labour relations			✓	N/A
17. Safety and security		✓		N/A
18. Stadium Access Works		✓		N/A
19. Utility Work			✓	<ul style="list-style-type: none"> <li>• Project Co is responsible for all utility work for the Project, including Manitoba Hydro utility relocation work, however a cost sharing regime is in place as described below.               <ul style="list-style-type: none"> <li>○ The City is responsible for reimbursing Project Co for certain utility costs that exceed a pre-determined baseline amount established by the City, subject to Project Co's obligation to mitigate such costs.</li> <li>○ Project Co is entitled to relief from the City in the event that Manitoba Hydro fails to perform its obligations in accordance with the applicable utility agreement and causes delay to Project Co in achieving Substantial Completion.</li> </ul> </li> </ul>

## APPENDIX 5 – Risk Allocation Summary (Continued)

Risk	Retained by City	Transfer to Project Co	Shared	Notes on Any Changes to Risk as Previously Proposed
20. CN Rail Interface			✓	<ul style="list-style-type: none"> <li>Project Co is responsible for all interface with CN Rail to compel them to fulfil their obligations, with the City required to provide assistance to resolve non-performance by CN.</li> <li>Project Co is entitled to relief from the City in the event that CN Rail fails to perform its obligations that causes delays to Project Co in achieving Substantial Completion.</li> </ul>
21. Traffic Management		✓		<ul style="list-style-type: none"> <li>Project Co is subject to payment deductions for lane closures during the construction period that exceed their target number of closure days as per their proposal.</li> </ul>
22. Rectification of deficiencies		✓		N/A
23. Commissioning		✓		N/A
<b>C. Maintenance and Rehabilitation</b>				
24. Operational and preventive maintenance (Stage 1 and Stage 2)		✓		N/A
25. Rehabilitative maintenance – Stage 1	✓			N/A
26. Rehabilitative maintenance – Stage 2		✓		N/A
27. Winter Maintenance		✓		N/A
28. Bus operations – Stage 1 and Stage 2	✓			N/A
29. Maintenance of roadway connections between the Transitway and street system	✓			N/A
30. Default of Operator or Project Co		✓		N/A
31. Inflation risk			✓	N/A
32. Asset residual		✓		N/A
<b>D. Force Majeure</b>				
33. Force Majeure			✓	N/A
<b>E. Relief Events</b>				
34. Relief Events			✓	N/A
<b>F. Termination of Project Agreement</b>				
35. Termination for convenience of City	✓			N/A
36. Termination for default of Project Co		✓		N/A
37. Termination for Force Majeure			✓	N/A

Source: P1 Consulting (2016). *City of Winnipeg Request for Proposals to Design, Build, Finance, (Operate) and Maintain the Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass: Fairness Monitor's Report*. Retrieved from winnipegtransit.com.

## APPENDIX 6 – Actual Costs Presented in Status Report to SPC Finance

Southwest Rapid Transitway (Stage 2) & Pembina Highway Underpass Financial Forecast -  
As at November 30, 2018

Project Component Deliverables	Budget (in 000's)			Actual Costs To Nov 30, 2018	Expenditure Forecast (in 000's)				Surplus (Deficit) From Amended Budget	Variance Last Report	Change in Variance	
	Adopted Budget	Council Approved Change**	Amended Budget		Projected Costs							Total Forecasted Costs
					2018	2019	2020	2021 and Beyond				
Engineering, Design and Other	\$ 13,000	\$ (1,694)	\$ 11,306	\$ 9,219	\$ 157	\$ 1,930	\$	\$	\$ 11,306	\$	\$	
Construction <sup>1</sup>	\$ 476,750	\$ (130,000)	\$ 346,750	\$	\$	\$ 210,043	\$ 8,350	\$ 128,357	\$ 346,750	\$	\$	
Land Acquisition	\$ 23,000	\$ 10,000	\$ 33,000	\$ 28,525	\$	\$ 4,475	\$	\$	\$ 33,000	\$	\$	
Internal Financing / Overhead Costs	\$ 5,550	\$ 1,694	\$ 7,244	\$ 2,434	\$	\$ 4,810	\$	\$	\$ 7,244	\$	\$	
Contingency <sup>2</sup>	\$ 69,000	\$	\$ 69,000	\$	\$	\$	\$	\$ 67,164	\$ 67,164	\$ 1,836	\$ 48	
Change Order	\$	\$	\$	\$ 1,836	\$	\$	\$	\$	\$ 1,836	\$ (1,836)	\$ (48)	
<b>Total Project Budget <sup>3</sup></b>	<b>\$ 587,300</b>	<b>\$ (120,000)</b>	<b>\$ 467,300</b>	<b>\$ 42,014</b>	<b>\$ 157</b>	<b>\$ 221,258</b>	<b>\$ 8,350</b>	<b>\$ 195,521</b>	<b>\$ 467,300</b>	<b>\$</b>		
<b>% of Project Budget Spent</b> (Actual Costs to Date / Adopted & Amended Budget)												
	7%		9%									

• Amended budget and actual costs to date have been agreed to the City's general ledger and Monthly Capital Expenditures Report.

• Amended Budget as reflected in Transit's 2018 Capital Budget submission.

- 1) Construction projection represents the estimated payment at substantial completion (60%) and the repayment of the remaining capital portion (40%) stated in nominal dollars over the 30 year maintenance period.
- 2) Change Orders in the amount of \$2.804 million (capital) and \$137k (operating & maintenance) have been approved with Plenary Roads Winnipeg of which \$1.836 million has been processed and reflected above. The remaining approved Change Orders will be reflected above as completed.
- 3) The 30-year Annual Service Payments (ASP) are not included in Total Project Budget with the exception of the 40% nominal construction amount (Note 1). The City anticipates cost sharing with the Province of Manitoba related to operations and maintenance. The forecasted amount for the total ASP in 2020 is \$14.46 million for debt service, operation and maintenance and other annual expenditures. Operation and maintenance payments increase with inflation.

Source: Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Quarterly Project Status Report,  
Project ID: 4230010514,  
Quarterly Project Status Report No. 16  
For the Period Ended November 30, 2018



Audit

# **Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass Audit**

*For the Period of December 1,  
2018 to February 28, 2019*

## **Table of Contents**

AUDIT AT A GLANCE	1
AUDIT BACKGROUND	2
AUDIT OBJECTIVES	2
CONCLUSIONS	3
PROJECT REPORTING ANALYSIS	5
PROJECT MANAGEMENT KEY AREAS ANALYSIS	8
INDEPENDENCE	11
ACKNOWLEDGEMENT	11
APPENDIX 1 – Project Background	12
APPENDIX 2 – Audit Methodology	13
APPENDIX 3 – Audit Process	15
APPENDIX 4 – Risk Assessment Worksheet	16
APPENDIX 5 – Risk Allocation Summary	17
APPENDIX 6 – Actual Costs Presented in Financial Status Reports to SPC Finance	19

## AUDIT AT A GLANCE

### RECOMMENDATIONS

*No recommendations accompany this report.*

### Project Background

Stage 2 of the Southwest Rapid Transitway and Pembina Highway Underpass is one of the largest capital projects that the City has embarked upon. Appropriate communication is important to allow key stakeholders to fulfill their roles in relation to the project; it also keeps the public informed on project performance.

The Audit Department has released quarterly audit reports providing assurance on the reporting processes and selected key project management areas throughout the construction of this project. In the third quarter (Q3 2018) of 2018, the project management team adjusted its reporting schedule to accommodate the municipal election held in October. This report is for the fourth quarter (Q4 2018) of 2018, covering the adjusted period of December 1, 2018 to February 28, 2019.

We reviewed information up to April 27, 2020, the date when Public Service provided the Quarterly Project Status Report No. 20 to the Standing Policy Committee on Finance (SPC on Finance). We considered subsequent information related to existing issues as of February 28, 2019. Therefore, we did not recommend on issues later resolved.

### Current State of the Project

Construction for the Project was still underway during the fourth quarter of 2018. Some close-out activities had begun. Plenary Roads Winnipeg has taken responsibility for the design, construction, financing, operation, maintenance and rehabilitation of the infrastructure for the next thirty years. The City's project management team is responsible for project oversight.

### Findings

The Public Service has produced all of the appropriate legislated and agreed upon reports from December 1, 2018 to February 28, 2019. However, two reports to Standing Policy Committee on Infrastructure Renewal and Public Works (SPC on IRPW) during this period excluded the revised additional requirement for a status update of the Project's contingency fund. We included a recommendation in a prior Audit Report, but the Q4 2018 reporting period had passed prior to an opportunity to adjust their reporting practices. Public Service accepted the recommendation from our previous audit report, and updated their processes on September 6, 2019. No further recommendation is provided in this report.

The Public Service has managed risk for the project in accordance with City project management requirements from December 1, 2018 to February 28, 2019.

The Public Service has followed established process requirements for the approval and review of change orders; approved changes are within project budget and scope at February 28, 2019.

## AUDIT BACKGROUND

*The audit of this Project is to provide timely assurance on key project management areas on a proactive basis.*

- ◆ Stage 2 of the Southwest Rapid Transitway and Pembina Highway Underpass (“the Project”) is one of the largest capital projects that Winnipeg has initiated to date. An audit of the Project was added to the City Auditor’s *Audit Plan 2015 – 2018* in order to provide timely assurance on key project management areas on a proactive basis. Our audit work began after the procurement phase of the Project due to a fairness monitor being secured to provide oversight on the procurement process (a requirement of the now repealed *Public-Private Partnerships Transparency and Accountability Act*).
- ◆ The audit plan was adopted by Council on July 15, 2015.
- ◆ Background on the Project is included in **Appendix 1**.
- ◆ Our audit methodology is located in **Appendix 2**.
- ◆ **Appendix 3** provides a flowchart of the audit process.
- ◆ Our risk assessment criteria for each audit area are provided in **Appendix 4**.

## AUDIT OBJECTIVES

*We had three objectives for this quarterly audit*

- ◆ The objectives of this quarterly audit report were:
  - To provide assurance that appropriate reporting is occurring for the Project based on regulatory requirements, City policies and procedures.
  - To provide assurance that appropriate risk management is occurring in the Project.
  - To provide assurance that change orders are within project scope, budget and followed established review and approval processes.

## CONCLUSIONS

*The reports required by legislation, by-law, administrative standards, and contractual agreements have been issued by the Public Service.*

The Public Service has produced all of the appropriate legislated and agreed upon reports for the period of December 1, 2018 to February 28, 2019.

We reviewed:

- ◆ “Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Quarterly Project Status Report, Project ID: 4230010514, Quarterly Project Status Report No. 17, for the Period Ended February 28, 2019”.
- ◆ Recorded video of SPC on Finance meetings held in this period to assess verbal communication of issues noted in the documented Report to SPC on Finance.
- ◆ Recorded video of SPC on Finance meetings held after this quarter for information on major issues that existed as of February 28, 2019
- ◆ Recorded video of SPC on Infrastructure Renewal & Public Works (IRPW) meetings held in this period to verify that verbal reports were provided.
- ◆ Recorded video of SPC on IRPW meetings after this quarter for information on major issues that existed as of February 28, 2019.
- ◆ Financial costs reported to the SPC on Finance were found to be in accordance with the generally accepted accounting principles on cost reporting issued by Canada’s Public Sector Accounting Board and, in our opinion, fairly presented in all material respects the actual costs incurred for the Project for the period of December 1, 2018 to February 28, 2019.
- ◆ Reports were compared to the guidance given for such reports and were found to meet the standards of said guidance.

*Project management activities have met risk management requirements provided in the City’s Project Management Manual.*

- ◆ The risk management activities have met the requirements outlined in the City’s Project Management Manual.

We reviewed:

- ◆ Documentation and verbal updates discussing and tracking risks, including meeting minutes and the issue log.
- ◆ The project management team’s risk management plan
- ◆ The risk allocation summary in the Fairness Monitor’s Report. It summarizes the risk distribution for the Project. We have included a reproduction of the summary in **Appendix 5**.

- ◆ The private partner for the Project has also developed a risk management plan and risk registry, which is being updated on a timely basis.
- ◆ Quarterly Project Status Reports, subsequent to No.17, and SPC on Finance meetings subsequent to February 28, 2019 for additional context of any ongoing discussions on risks related to the provincial funding for the capital and ongoing maintenance and rehabilitation costs of this project.

*Reviews and approvals of change orders have followed established processes.*

- ◆ We observed that approved changes were reasonable based on the intended scope of the Project.
- ◆ The total amount of approved change order expenses incurred up to February 28, 2019 was \$3.688 million or 5.34 percent of the \$69 million contingency budget for the Project.

# PROJECT REPORTING ANALYSIS

## 1.1 Reporting Requirements

### Issue

- ◆ Has the Public Service communicated the proper reports required by legislation, by-laws, City of Winnipeg policies and standards, and project agreements?

### Conclusions

- ◆ The Public Service has published all reports required by legislation, by-laws, policies, standards and agreements over the period of review for this audit report.
- ◆ We have performed limited testing on the information in the reports released and outlined below, and have found the information tested to be accurate.
- ◆ We found that two verbal reports to SPC on IRPW excluded a status update of the Project's contingency fund. We included this finding and related recommendation in the SWRT (Stage 2) and Pembina Highway Underpass Audit for the Q3 2018 period of September 1, 2018 to November 30, 2018. Public Service implemented process changes subsequent to February 28, 2019. Therefore, no further recommendation is provided in this report.

### Analysis

- ◆ For the period of December 1, 2018 to February 28, 2019, the following reports were required, and provided:
  - "Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Quarterly Project Status Report, Project ID: 4230010514, Quarterly Project Status Report No. 17, for the Period Ended February 28, 2019"<sup>1</sup>
    - Required by Administrative Standard FM-004: Asset Management.
    - This Report presents the financial position and significant project updates for the Project up to February 28, 2019.
  - Verbal project status updates, including contingency fund status updates, to the SPC IRPW.<sup>2</sup>
    - Required by an Executive Policy Committee (EPC) motion made June 29, 2016.
    - The additional requirement to include a status update of the Project's contingency fund is required by a SPC on IRPW motion passed February 27, 2018.
- ◆ Our audit work included examination of outputs in relation to the legislated, regulated or agreed-upon requirements to communicate reports. Limited testing of the accuracy of information included in each report was also completed based on our risk assessment of whether such information could be misstated.

<sup>1</sup> Submitted as information to the SPC on Finance in the June 7, 2019 meeting.

<sup>2</sup> Provided to the SPC on IRPW in the January 8 & February 5, 2019 meetings.

- ◆ For the Quarterly Project Status Report, we audited the actual costs reported in the quarterly status update submitted to the SPC on Finance (see **Appendix 6**). In our opinion, the actual costs reported were fairly presented in all material respects, and were reported in accordance with generally accepted accounting principles issued by the Canadian Public Sector Accounting Board.
- ◆ The Quarterly Project Status Report No. 17 noted that “the City no longer anticipates cost sharing with the Province of Manitoba related to operations and maintenance”. This refers to cost sharing payments to the private partner, Plenary Roads Winnipeg, for the operations and maintenance for 30 years after the Project was completed.
  - We were unable to obtain any evidence to show that the City resolved this issue during Q4 2018.
  - However, Transit informed us that in their opinion, the Province notified the City about the exclusion of the cost sharing in the draft First Amending Agreement forwarded in 2017. They further advised that the Public Service continued to push the operations and maintenance funding discussion with the Province until such time as formal agreement was signed and in place that specifically precluded the operations and maintenance cost sharing.
  - The signed and executed First Amending Agreement was dated October 3, 2019. The Amending Agreement specifically states that costs of general repairs and maintenance of the Project and related structures are considered ineligible costs.
- ◆ The Quarterly Project Status Report No. 17 noted that “\$2.2M was provided to the City in trust” and the cheque was “subsequently returned to the Province, as the City Solicitor was unable to accept the trust conditions that the Province sought to impose.” Public Service continued their discussion with the Province about it after February 28, 2019. The issue was resolved in July 2019. The Province paid the City for the amount owed without prejudice basis.
- ◆ For the verbal reports, we reviewed recorded video of SPC on IRPW meetings to verify communication.
  - We found that each Project verbal status update report was provided as required.
  - We found two of the verbal reports excluded a status update of the Project’s contingency fund. This finding was also discovered when audit procedures were performed for the previous period. It was brought to the attention of the City’s senior management team, and a recommendation was included in the SWRT (Stage 2) and Pembina Highway Underpass Audit for Q3 2018 period of September 1, 2018 to November 30, 2018. The Q4 2018 reporting period had passed prior to an opportunity to adjust their reporting practices.
  - Public Service accepted the recommendation from our previous audit report, and updated their processes on September 6, 2019. Therefore, no further recommendation is provided in this report.

RECOMMENDATION			
<i>No recommendation accompanies this analysis.</i>			
RISK AREA	Information Resources	ASSESSMENT	Moderate
BASIS OF ASSESSMENT	Reports that are not distributed or that contain inaccurate information, affect stakeholders' ability to perform their roles and could also affect legal compliance or funding agreements. To mitigate this risk, the Public Service has formed an experienced project management team that works closely with all interdependent departments to address all project management knowledge areas that require reporting.		

# PROJECT MANAGEMENT KEY AREAS ANALYSIS

## 2.1 Risk Management Activities

### Issue

- ◆ Has the project management team followed the risk management guidance given in the City's Project Management Manual?

### Conclusions

- ◆ The project management activities carried out have met the requirements of the City's Project Management Manual.

### Analysis

- ◆ The City's Project Management Manual ("PMM") is required to be applied to all capital projects undertaken by the Public Service. The PMM details a project management methodology, and also states that the methodology used should be tailored to the specific project.
- ◆ Under a public-private partnership arrangement, the majority of the risks for costs, scope, schedule, and quality are transferred to the private partner. This leaves the City with a limited amount of risk. The City still retains risks on regulatory changes related to construction of the transitway, scope changes requested by the City, termination of agreement, maintenance of connecting roadways, and bus operations on the transitway. We have reproduced the Fairness Monitor's illustration of the risk distribution for the Project in **Appendix 5**.
- ◆ The risk management guidance in the PMM focuses on identifying, planning for, managing, and communicating risks. We observed that the City's Project Management team has an issues log that is regularly updated. We observed through meeting minutes that project risks are regularly discussed in project team meetings and Major Capital Project Steering Committee meetings. These practices are consistent with the guidance of the City's Project Management Manual.
- ◆ We observed that Plenary Roads Winnipeg has provided the Public Service with a Project Risk Management Plan and monthly reports that outline the anticipated risks in the project, the mitigation strategies for the risks, and the estimated residual risks remaining after the mitigation strategies. This practice is consistent with generally accepted project management practices (such as the *Project Management Book of Knowledge* issued by the Project Management Institute) and is also consistent with the City's Project Management Manual.

RECOMMENDATION			
<i>No recommendation accompanies this analysis.</i>			
RISK AREA	Business Process	ASSESSMENT	Moderate
BASIS OF ASSESSMENT	Inadequate risk management could reduce the projected value for money savings for the Project.		

## 2.2 Change Order Status

### Issue

- ◆ Has the project management team followed established processes for the review and approval of change orders, and have change orders been within the intended project scope and budget?

### Conclusions

- ◆ The project management reviews and approvals of change orders have met established process requirements for these activities. Approved changes were within budget and intended project scope.

### Analysis

- ◆ Change orders (COs) are part of the scope management and cost management processes. If change orders are not properly managed, they can pose significant risks for a project.
- ◆ As of February 28, 2019, COs, totaling \$3,687,519, have been approved. \$3,550,358 of the total COs are for capital costs, while \$137,161 is for operations and maintenance. The total approved COs represent 5.34 percent of the contingency fund, and 0.79 percent of the overall project budget.
- ◆ COs incurred in this quarter have increased by \$746,267 from the previous quarter. This increase represents 1.08 percent of the total contingency fund, and 0.16 percent of the overall project budget.
- ◆ The total COs for the period was below our audit's performance materiality. As such, we determined our sample COs based on their nature and significance. We tested the largest CO approved in this period. The CO relates to capital costs and has an amount of \$746,267. This amount is the entire increase during this period. We observed that the approved change order appears reasonable.
- ◆ Change order reviews in future audit reports will depend on the nature and significance of the changes. A summary of COs will be provided in our final period report.

RECOMMENDATION			
<i>No recommendation accompanies this analysis.</i>			
RISK AREA	Business Process	ASSESSMENT	Moderate
BASIS OF ASSESSMENT	Inadequate review and approval of change orders could have a negative impact on the Project's budget and/or scope.		

## INDEPENDENCE

The Audit Department is classified as an independent external auditor under *Government Auditing Standards* due to statutory safeguards that require the City Auditor to report directly to Council, the City's governing body, through the Audit Committee.

The Audit Department team members selected for the audit have all attested that they do not have any conflict of interest related to the audit's subject matter.

## ACKNOWLEDGEMENT

The Audit Department wants to extend its appreciation to all of the stakeholders who participated in this audit and especially to City's project team for their time and cooperation.



\_\_\_\_\_  
Bryan Mansky, MBA, CPA, CMA, CIA  
City Auditor

July 22, 2020

\_\_\_\_\_  
Date

## APPENDIX 1 – Project Background

### The Southwest Rapid Transitway (Stage 2) and Pembina Underpass Project

- ◆ Stage 2 of Winnipeg’s first rapid transit corridor, and the expansion of Pembina Highway under the Jubilee Overpass, (“the Project”) was approved by Council on June 25, 2014. The Project is being delivered under a public-private partnership methodology.
- ◆ After a competitive bidding process, an agreement was signed with Plenary Roads Winnipeg to design, build, finance, operate and maintain the infrastructure at an estimated total cost of \$467 million.
- ◆ The scope of the Project includes the extension of the current southwest transit corridor (Stage 1) from Jubilee Avenue to the University of Manitoba. This extension is approximately 7.6 kilometers long and will include the construction of three new bridges (one for a railway and two for the transitway), two overpasses (for the transitway over McGillivray Boulevard and the CN Letellier rail line and spur lines), the reconstruction of Southpark Drive, two new drainage pump stations, a new pedestrian ramp at Investor’s Group Field, a reconstructed bus staging area at the University of Manitoba, two new “Park and Ride” facilities, nine new transit stations, and an active transportation pathway along the entire length of the transitway.
- ◆ The Project also includes the widening of the northbound side of Pembina Highway under the Jubilee overpass from two to three lanes along with pedestrian and cycling facilities on both sides of Pembina Highway.

### Project Funding

- ◆ The financing for the Project is:

<u>Contributing Party</u>	<u>Contribution</u>	<u>Percent</u>
City of Winnipeg	\$ 187,000,000	40%
Province of Manitoba	187,000,000	40%
Government of Canada	<u>93,300,000</u>	20%
Total	<u>\$ 467,300,000</u>	

### Reporting

- ◆ The following reports are ongoing or are forthcoming for the Project for legislated and contractually agreed upon matters:
  - Actions that are outside the delegated authority of the Public Service (such as expropriation of lands, procurement in excess of delegated authority, or over-expenditure reports)
  - Quarterly reporting to the SPC on Finance
  - Verbal reporting to the SPC on IRPW

## APPENDIX 2 – Audit Methodology

### MANDATE OF THE CITY AUDITOR

- ◆ The City Auditor is a statutory officer appointed by City Council under *The City of Winnipeg Charter*. The City Auditor is independent of the Public Service and reports directly to Executive Policy Committee, which serves as the City's Audit Committee.
- ◆ The City Auditor conducts examinations of the operations of the City and its affiliated bodies to assist Council in its governance role of ensuring the Public Service's accountability for the quality of stewardship over public funds and for the achievement of value for money in City operations.
- ◆ Once an audit report has been communicated to Council, it becomes a public document.

### PROJECT RISK ANALYSIS

- ◆ Communication is essential for successful projects. Some of the most important communication in large-scale public capital projects occurs in the form of public reporting; however, few industry organizations give guidance on what exactly should be included in project performance reports. Reporting is mainly left to be agreed upon by project stakeholders, and much is left to the professional judgment of the project management teams. Improper communication can hold up projects or cause wasted efforts. Therefore, proper communication practices are essential to ensure that projects run smoothly and efficiently.
- ◆ Individual audit area risk assessments are provided for each issue discussed. The assessments discuss and detail the residual risk for issues after considering the City's mitigating risk controls.

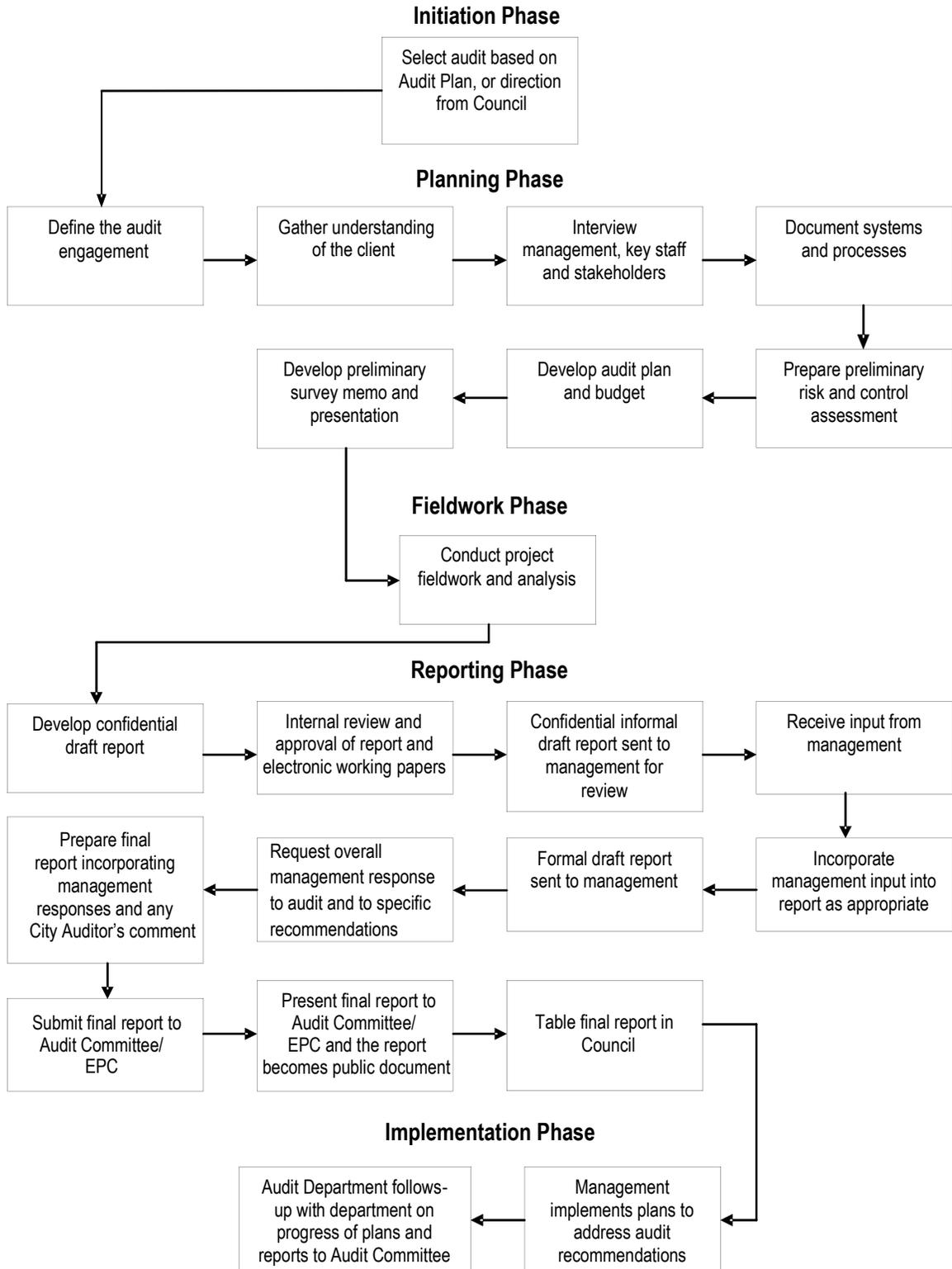
### SCOPE

- ◆ The scope of our audit includes project communication management over the course of the project. The scope of our quarterly audit reports also includes the reporting on key management areas (such as risk, quality, schedule, and cost) as the Project progresses.
- ◆ Our audit runs concurrently with the project over the duration of the project, and reports are released on a quarterly basis.
- ◆ We reviewed information up to April 27, 2020, the date when Public Service provided the Quarterly Project Status Report No. 20 to SPC on Finance. We considered subsequent information for issues known as of February 28, 2019. Therefore, we did not recommend on issues later resolved.

## APPROACH AND CRITERIA

- ◆ We conducted our audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient appropriate evidence to provide a reasonable basis for our observations and conclusions, based on our audit objectives. We believe the evidence we have obtained provides a reasonable basis for our observations and conclusions based on our audit objectives.
- ◆ To gather sufficient appropriate evidence for our audit, we reviewed Manitoba's legislated requirements for public-private partnership reporting, the City of Winnipeg's documented guidance for capital project reporting, and the public reporting requirements set out in funding and capital project management agreements. We also researched industry standards and guidance on capital project monitoring and reporting. We then conducted our fieldwork, which compared the public reporting for the project for the period covered by this audit report to all of the outlined guidance.
- ◆ The guiding documents we used include:
  - *The Public-Private Partnerships Transparency and Accountability Act* of Manitoba
  - *The Environment Act* of Manitoba
  - *The City of Winnipeg Charter* for Council's and its committees' legislated roles in relation to capital project decision making
  - *Administrative Standard FM-004: Asset Management* (and its precursors throughout the project)
  - Agreements with federal and provincial funding partners (P3 Canada and the Province of Manitoba) and contracted service providers (Plenary Roads Winnipeg Transitway LP)
- ◆ Industry capital project monitoring and reporting practices we researched included:
  - Recommended practices 17R-97 and 56R-08 of The Association for the Advancement of Cost Engineering (AACE)
  - Accounting principles published by CPA Canada
  - *Effectiveness Reporting and Auditing in the Public Sector* published by the Canadian Comprehensive Auditing Foundation (CCAF)
  - Publicly available reporting information for the National Project Management System (NPMS)
  - *A Guide to the Project Management Body of Knowledge (PMBOK® Guide) Fifth Edition*
  - Projects IN Controlled Environments (PRINCE2)

## APPENDIX 3 – Audit Process



## APPENDIX 4 – Risk Assessment Worksheet

Potential Impacts  Likelihood	Insignificant	Minor	Moderate	Major	Extreme
	- None or minor change in services, project or processes - Very limited exposure of sensitive information - Very minor, non-permanent environmental damage - Financial impact < \$100K	- Minor change in achievement of service objectives - Limited exposure of sensitive information - Minor, non-permanent environmental damage - Financial impact \$100K – \$500K	- Moderate change in delivery of essential services - Exposure of limited amount of confidential information - Moderate environmental damage - Financial impact \$500K – \$1M	- Significant change in delivery of essential services - Exposure of significant amount of confidential information - Significant change in quality of life indicators - Major environmental damage - Financial impact \$1M – \$10M	- Unable to perform essential services for extended period - Exposure of critical confidential information - Very significant change in quality of life indicators - Significant damage to environment - Financial impact >\$10M
<b>Almost certain</b> (Excepted to occur unless circumstances change)	M	M	H	C	C
<b>Likely</b> (Probably occur in most circumstances)	M	M	H	C	C
<b>Possible</b> (Might occur under different circumstances)	L	M	M	H	H
<b>Unlikely</b> (Could occur if circumstances change)	L	L	M	H	H
<b>Rare</b> (May occur in exceptional circumstances)	L	L	M	M	M

### Legend

<b>C</b> Critical risk:	Requires urgent action, monitor and review at least weekly by Senior Management and COO, inform CAO and Committee of Council
<b>H</b> High risk:	High impact, monitor and review at least quarterly by management, inform COO
<b>M</b> Moderate risk:	Monitor and review at least quarterly by management
<b>L</b> Low risk:	Review periodically, no explicit action required.

## APPENDIX 5 – Risk Allocation Summary

Risk	Retained by City	Transfer to Project Co	Shared	Notes on Any Changes to Risk as Previously Proposed
<b>A. General</b>				
1. Compliance with applicable law and standards		✓		N/A
2. Designated change in law	✓			
3. Changes in applicable law		✓		N/A
4. Changes in standards			✓	N/A
5. Permits, Licenses and Approvals (Including CN and Manitoba Hydro approvals)			✓	N/A
6. Access to Lands, Encumbrances, Liens			✓	N/A
7. Geotechnical		✓		N/A
8. Contamination			✓	N/A
9. Defects in Existing Infrastructure			✓	N/A
<b>B. Design and Construction</b>				
10. Design development (Detailed design)		✓		N/A
11. Construction management delays		✓		N/A
12. Construction latent defects		✓		N/A
13. Construction warranty for Maintenance-Exempt Work		✓		N/A
14. Scope changes initiated by City during construction	✓			N/A
15. Adverse weather conditions		✓		N/A
16. Labour relations			✓	N/A
17. Safety and security		✓		N/A
18. Stadium Access Works		✓		N/A
19. Utility Work			✓	<ul style="list-style-type: none"> <li>• Project Co is responsible for all utility work for the Project, including Manitoba Hydro utility relocation work, however a cost sharing regime is in place as described below.               <ul style="list-style-type: none"> <li>○ The City is responsible for reimbursing Project Co for certain utility costs that exceed a pre-determined baseline amount established by the City, subject to Project Co's obligation to mitigate such costs.</li> <li>○ Project Co is entitled to relief from the City in the event that Manitoba Hydro fails to perform its obligations in accordance with the applicable utility agreement and causes delay to Project Co in achieving Substantial Completion.</li> </ul> </li> </ul>

## APPENDIX 5 – Risk Allocation Summary (Continued)

Risk	Retained by City	Transfer to Project Co	Shared	Notes on Any Changes to Risk as Previously Proposed
20. CN Rail Interface			✓	<ul style="list-style-type: none"> <li>Project Co is responsible for all interface with CN Rail to compel them to fulfil their obligations, with the City required to provide assistance to resolve non-performance by CN.</li> <li>Project Co is entitled to relief from the City in the event that CN Rail fails to perform its obligations that causes delays to Project Co in achieving Substantial Completion.</li> </ul>
21. Traffic Management		✓		<ul style="list-style-type: none"> <li>Project Co is subject to payment deductions for lane closures during the construction period that exceed their target number of closure days as per their proposal.</li> </ul>
22. Rectification of deficiencies		✓		N/A
23. Commissioning		✓		N/A
<b>C. Maintenance and Rehabilitation</b>				
24. Operational and preventive maintenance (Stage 1 and Stage 2)		✓		N/A
25. Rehabilitative maintenance – Stage 1	✓			N/A
26. Rehabilitative maintenance – Stage 2		✓		N/A
27. Winter Maintenance		✓		N/A
28. Bus operations – Stage 1 and Stage 2	✓			N/A
29. Maintenance of roadway connections between the Transitway and street system	✓			N/A
30. Default of Operator or Project Co		✓		N/A
31. Inflation risk			✓	N/A
32. Asset residual		✓		N/A
<b>D. Force Majeure</b>				
33. Force Majeure			✓	N/A
<b>E. Relief Events</b>				
34. Relief Events			✓	N/A
<b>F. Termination of Project Agreement</b>				
35. Termination for convenience of City	✓			N/A
36. Termination for default of Project Co		✓		N/A
37. Termination for Force Majeure			✓	N/A

Source: P1 Consulting (2016). *City of Winnipeg Request for Proposals to Design, Build, Finance, (Operate) and Maintain the Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass: Fairness Monitor's Report*. Retrieved from winniepttransit.com.

## APPENDIX 6 – Actual Costs Presented in Status Report to SPC Finance

Appendix B - Southwest Rapid Transitway (Stage 2) & Pembina Highway Underpass Financial Forecast \*  
As at February 28, 2019

Project Component Deliverables	Budget (in 000's)			Actual Costs To Feb 28, 2019	Expenditure Forecast (in 000's)				Surplus (Deficit) From Amended Budget	Variance Last Report	Change in Variance	
	Adopted Budget	Council Approved Change**	Amended Budget		Projected Costs							Total Forecasted Costs
					2019	2020	2021	2022 and Beyond				
Engineering, Design and Other	\$ 13,000	\$ (1,694)	\$ 11,306	\$ 9,653	\$ 1,653	\$ -	\$ -	\$ -	\$ 11,306	\$ -	\$ -	\$ -
Construction <sup>1</sup>	\$ 476,750	\$ (130,000)	\$ 346,750	\$ -	\$ 210,043	\$ 8,350	\$ 8,350	\$ 120,007	\$ 346,750	\$ -	\$ -	\$ -
Land Acquisition	\$ 23,000	\$ 10,000	\$ 33,000	\$ 28,744	\$ 4,256	\$ -	\$ -	\$ -	\$ 33,000	\$ -	\$ -	\$ -
Internal Financing / Overhead Costs	\$ 5,550	\$ 1,694	\$ 7,244	\$ 2,570	\$ 4,674	\$ -	\$ -	\$ -	\$ 7,244	\$ -	\$ -	\$ -
Contingency <sup>2</sup>	\$ 69,000	\$ -	\$ 69,000	\$ -	\$ -	\$ -	\$ -	\$ 66,915	\$ 66,915	\$ 2,085	\$ 1,836	\$ 249
Change Order	\$ -	\$ -	\$ -	\$ 2,085	\$ -	\$ -	\$ -	\$ -	\$ 2,085	\$ (2,085)	\$ (1,836)	\$ (249)
<b>Total Project Budget <sup>3</sup></b>	<b>\$ 587,300</b>	<b>\$ (120,000)</b>	<b>\$ 467,300</b>	<b>\$ 43,052</b>	<b>\$ 220,626</b>	<b>\$ 8,350</b>	<b>\$ 8,350</b>	<b>\$ 186,922</b>	<b>\$ 467,300</b>	<b>\$ -</b>		
<b>% of Project Budget Spent</b> (Actual Costs to Date / Adopted & Amended Budget)	7%		9%									

\* Amended budget and actual costs to date have been agreed to the City's general ledger and Monthly Capital Expenditures Report.

\*\* Amended Budget as reflected in Transit's 2018 Capital Budget submission.

1) Construction projection represents the estimated payment at substantial completion (60%) and the repayment of the remaining capital portion (40%) stated in nominal dollars over the 30 year maintenance period.

2) Change Orders in the amount of \$3.550 million (capital) and \$137k (operating & maintenance) have been approved with Plenary Roads Winnipeg of which \$2.085 million has been processed and reflected above. The remaining approved Change Orders will be reflected above as completed.

3) The 30-year Annual Service Payments (ASP) are not included in Total Project Budget with the exception of the 40% nominal construction amount (Note 1). The City no longer anticipates cost sharing with the Province of Manitoba related to operations and maintenance. The forecasted amount for the total ASP in 2020 is \$14.46 million for debt service, operation and maintenance and other annual expenditures. Operation and maintenance payments increase with inflation.

Of the total forecast for ASP of \$493.1 million, \$353.0 million relates to debt service payments, \$123.9 million relates to operation and maintenance of the corridor over the 30 years, and \$16.2 million relates to other annual expenditures.



Audit

**Southwest Rapid  
Transitway (Stage 2)  
and Pembina Highway  
Underpass Audit**

***Final Report***

***For the Period of March 1,  
2019 to November 30, 2019***

## **Table of Contents**

AUDIT AT A GLANCE	1
AUDIT BACKGROUND	2
AUDIT OBJECTIVES	2
CONCLUSIONS	3
PROJECT REPORTING ANALYSIS	5
PROJECT MANAGEMENT KEY AREAS ANALYSIS	9
INDEPENDENCE	11
ACKNOWLEDGEMENT	11
APPENDIX 1 – Project Background	12
APPENDIX 2 – Audit Methodology	13
APPENDIX 3 – Audit Process	16
APPENDIX 4 – Risk Assessment Worksheet	17
APPENDIX 5 – Risk Allocation Summary	18
APPENDIX 6 – Actual Costs Presented in the Project Status Report to the Standing Policy Committee on Finance	20

## AUDIT AT A GLANCE

### RECOMMENDATIONS

*We have recommended to the Public Service to continue to perform a detailed analysis on any executed, subsequent amendments to the Contribution Agreement and report all potential material impacts to elected officials.*

### Project Background

Stage 2 of the Southwest Rapid Transitway and Pembina Highway Underpass (“the Project”) is one of the largest capital projects that the City has embarked upon. Appropriate communication is important to allow key stakeholders to fulfill their roles in relation to the project; it also keeps the public informed on project performance.

The Audit Department has released quarterly audit reports providing assurance on the reporting processes and selected key project management areas throughout the construction of this project. The Audit Department is releasing this final audit report covering multiple quarters. Please refer to the Scope section in Appendix 2 for further details. This final audit report covers the following reporting periods:

1. 2019 Quarter 1 (2019 Q1), for the period ending May 31, 2019;
2. 2019 Quarter 2 (2019 Q2), for the period ending August 31, 2019; and
3. 2019 Quarter 3 (2019 Q3), for the period ending November 30, 2019.

### Current State of the Project

Plenary Roads Winnipeg has taken responsibility for the design, construction, financing, operation, maintenance and rehabilitation of the infrastructure for the next thirty years. The City’s project management team is responsible for project oversight.

On October 1, 2019, the project achieved Substantial Completion. Transit expects to achieve Total Completion in 2021 Quarter 3. The Transitway is in use during Total Completion activities.

### Findings

The Public Service has produced all of the appropriate legislated and agreed upon reports, as well as financial status updates, for all reporting periods between March 1, 2019 and November 30, 2019.

On August 18, 2020, the Province proposed an amendment to the Provincial project contribution payment. The Public Service has analyzed the proposed amendments and has responded to the Province on October 7, 2020 seeking clarification. The Public Service has not signed the proposed amendment as of this report’s date. Understanding this is the final audit report, we recommend on a proactive basis to the Public Service relating to analyzing and communicating to elected officials the second and any subsequent amendments to the Contribution Agreement between the City and the Province.

The Public Service has managed project risk in accordance with City project management requirements for all reporting periods between March 1, 2019 and November 30, 2019.

The Public Service has followed established process requirements for the review and approval of change orders; approved changes are within project budget and scope for each reporting period between March 1, 2019 and November 30, 2019.

## AUDIT BACKGROUND

*The audit of this Project is to provide timely assurance on key project management areas on a proactive basis.*

- ◆ Stage 2 of the Southwest Rapid Transitway and Pembina Highway Underpass (“the Project”) is one of the largest capital projects that Winnipeg has initiated to date. An audit of the Project was added to the City Auditor’s *Audit Plan 2015 – 2018* in order to provide timely assurance on key project management areas on a proactive basis. Our audit work began after the procurement phase of the Project due to a fairness monitor being secured to provide oversight on the procurement process (a requirement of the now repealed *Public-Private Partnerships Transparency and Accountability Act*).
- ◆ The audit plan was adopted by Council on July 15, 2015.
- ◆ Background on the Project is included in **Appendix 1**.
- ◆ Our audit methodology is located in **Appendix 2**.
- ◆ **Appendix 3** provides a flowchart of the audit process.
- ◆ Our risk assessment criteria for each audit area are provided in **Appendix 4**.

## AUDIT OBJECTIVES

*We had three objectives for this quarterly audit.*

- ◆ The objectives of this quarterly audit report were:
  - To provide assurance that appropriate reporting is occurring for the Project based on regulatory requirements, City policies and procedures.
  - To provide assurance that appropriate risk management is occurring in the Project.
  - To provide assurance that change orders are within project scope, budget and followed established review and approval processes.

## CONCLUSIONS

*As at this report date, the reports required by legislation, by-law, administrative standards, and contractual agreements have been issued by the Public Service. Upon completion of the analysis of any further amendments to the Contribution Agreement, the Public Service will communicate any potential material impacts to elected officials.*

The Public Service has produced all the appropriate legislated and agreed upon reports for all reporting periods between March 1, 2019, and November 30, 2019.

We reviewed:

- ◆ the Quarterly Project Status Reports and the Contribution Agreement Update to the Standing Policy Committee on Finance (SPC on Finance) and related meeting videos
- ◆ Recorded videos of the Standing Policy Committee on Infrastructure Renewal & Public Works (SPC on IRPW) meetings during the period covered in this audit report to verify that the Public Service provided verbal reports and contingency fund updates to the Committee.

Financial costs reported to the SPC on Finance for the periods indicated above were found to be in accordance with the generally accepted accounting principles on cost reporting issued by Canada's Public Sector Accounting Board and, in our opinion, fairly presented in all material respects the actual costs incurred for the Project for each reporting period between March 1, 2019 and November 30, 2019.

Reports for the periods indicated above were compared to the guidance given for such reports and were found to meet the standards of said guidance.

The Public Service has accurately reported the terms of the First Amendment to elected officials in the SPC on Finance meetings during this period.

Audit performed a preliminary review of the proposed second amendments to the Contribution Agreement. We believe some provisions may be considered material and could have an impact to the City.

The Administrative Standard FM-004 (Asset Management) requires open and transparent reporting to Council on capital projects. The report must disclose all material facts to enable elected officials to make informed decisions. We have recommended to the Public Service continue to perform a detailed analysis on any executed, subsequent amendments to the Contribution Agreement and report all potential material impacts to elected officials.

*Project management activities have met risk management requirements provided in the City's Project Management Manual.*

The risk management activities have met the requirements outlined in the City's Project Management Manual.

We reviewed:

- ◆ Documentation and verbal updates discussing and tracking risks, including meeting minutes and the issue log.
- ◆ The project management team's risk management plan
- ◆ The risk allocation summary in the Fairness Monitor's Report. It summarizes the risk distribution for the Project. We have included a reproduction of the summary in **Appendix 5**.
- ◆ The private partner for the Project has also developed a risk management plan and risk registry, which is being updated on a timely basis.

*Reviews and approvals of change orders have followed established processes.*

We observed that approved change orders were reasonable based on the intended scope of the Project and established processes.

The total approved change orders of \$6,565,588 consists of \$6,988,141 in COs for capital costs and credits of \$422,553 for operations and maintenance. The total approved COs represent 9.52 percent of the contingency fund, and 1.41 percent of the overall project budget.

# PROJECT REPORTING ANALYSIS

## 1.1 Reporting Requirements

### Issue

- ◆ Has the Public Service communicated the proper reports required by legislation, by-laws, City of Winnipeg policies and standards, and project agreements?

### Conclusions

- ◆ The Public Service has published all reports required by legislation, by-laws, policies, standards and agreements for all the periods reviewed for this audit report.
- ◆ We have performed limited testing on the information in the reports released and outlined below, and have found the information tested to be accurate.
- ◆ Understanding that this is the final audit report, we recommend on a proactive basis, the Public Service continue to analyze fully the terms of any subsequent, signed amendments to the Contribution Agreement between the City and the Province, and to communicate all potential material impacts to elected officials.

### Analysis

- ◆ For the period of March 1, 2019 to November 1, 2019, the Public Service provided the reports below to elected officials.
  - Administrative Standard FM-004 (Asset Management) required these reports below. These reports present significant project updates and the financial position as of period end.
    - “Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Quarterly Project Status Report, Project ID: 4230010514, Quarterly Project Status Report No. 18, for the Period Ended May 31, 2019”<sup>1</sup>
    - “Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Quarterly Project Status Report, Project ID: 4230010514, Quarterly Project Status Report No. 19, for the Period Ended August 31, 2019”<sup>2</sup>
    - “Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Quarterly Project Status Report, Project ID: 4230010514, Quarterly Project Status Report No. 20, for the Period Ended November 30, 2019”<sup>3</sup>

---

<sup>1</sup> Submitted as information to the SPC on Finance in the October 11, 2019 meeting

<sup>2</sup> Submitted as information to the SPC on Finance in the January 10, 2020 meeting

<sup>3</sup> Submitted as information to the SPC on Finance in the April 27, 2020 meeting

- An Executive Policy Committee (EPC) motion made on June 29, 2016 required verbal project status updates to SPC on IRPW. A motion of SPC on IRPW, passed February 27, 2018, required a status update of the Project's contingency fund.
    - Verbal project status updates to the SPC on IRPW<sup>1</sup>
    - Contingency fund status updates to the SPC on IRPW<sup>2</sup>
  - “Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass and Provincial Project Contribution Agreement Update”<sup>3</sup>
- ◆ Our audit work included examination of outputs in relation to the legislated, regulated or agreed-upon requirements to communicate reports. Limited testing of the accuracy of information included in each report was also completed based on our risk assessment of whether such information could be misstated.
  - ◆ We audited the cumulative actual costs, as of November 30, 2019, in the quarterly status update report to the SPC on Finance (see **Appendix 6**). In our opinion, the actual costs reported were fairly presented in all material respects, and were reported in accordance with generally accepted accounting principles issued by the Canadian Public Sector Accounting Board.
    - The cumulative actual costs, as of November 30, 2019, includes costs incurred in 2019 Q1, 2019 Q2, and 2019 Q3. We verified the listing's completeness as part of our audit procedures.
    - The total transactions incurred, before the credits, during 2019 Q1 to 2019 Q3 is \$216,486,273. A total of \$133,133 in credits also occurred during this period. We selected transaction amounts above our performance materiality as key samples and any amounts below the performance materiality as representative samples. We selected samples from each reporting period to obtain coverage for our audit procedures.
    - We tested one key and 10 representative samples. The total of the samples tested is \$213,023,002, which is 98% of the total transactions incurred during 2019 Q1 to 2019 Q3.
    - We tested a transaction on October 2019 worth \$208,651,458 as a key sample. This transaction relates to the agreed-upon substantial completion payment to Plenary Roads Winnipeg. The representative samples sum to \$4,371,544.
    - We also tested a credit transaction during this period. The total credits were below our performance materiality. As such, we determined to test one sample to determine the reasonability of the credit transactions. This transaction occurred on June 2019.
    - These transactions appear reasonable and properly supported based on the work performed.

---

<sup>1</sup> Provided to the SPC on IRPW in the following meetings: a) March 6, 2019, b) April 2, 2019, c) May 2, 2019, d) May 28, 2019, e) June 25, 2019, f) September 12, 2019, g) October 1, 2019, and h) November 4, 2019

<sup>2</sup> Provided to the SPC on IRPW in the following meetings: a) March 6, 2019, b) April 2, 2019, c) May 2, 2019, d) May 28, 2019, e) June 25, 2019, f) September 12, 2019, g) October 1, 2019, and h) November 4, 2019

<sup>3</sup> Submitted as information to the SPC on Finance in the November 8, 2019 meeting

- ◆ The Public Service reported in quarterly project status reports that the Province of Manitoba will not contribute to the Transitway's operations and maintenance for the next 30 years after completion.
  - Transit informed us that in their opinion, the Province notified the City about the exclusion of the cost sharing in the draft First Amending Agreement forwarded in 2017. They further advised that the Public Service continued to pursue the operations and maintenance funding discussion with the Province until such time as a formal agreement was signed and in place that specifically precluded the operations and maintenance cost sharing.
  - The Public Service provided evidence of continuing discussions with Provincial officials about the cost sharing for the project's operations and maintenance.
  - The signed and executed First Amending Agreement, dated October 3, 2019, specifically states that costs of general repairs and maintenance of the Project and related structures are ineligible costs. The Public Service considers that the "general repairs and maintenance" in the amendment relate to operations, maintenance, and rehabilitation of the Transitway.
  - Subsequently, the Public Service plans to fund the Province's share of the Transitway's operations and maintenance using City funds. The Public Service reported the plan to elected officials in the past. For instance, the Public Service verbally reported to elected officials during the SPC on Finance meeting on October 11, 2019 about using the Transit Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass Payment Reserve fund to cover the entire amount of the operations and maintenance costs.
  
- ◆ For the First Amending Agreement, we reviewed the quarterly project status reports and the Contribution Agreement Update. We observed the amendment terms were communicated to elected officials. We also reviewed the First Amendment to the Contribution Agreement, dated October 3, 2019 and verified the accuracy of terms communicated to elected officials. We concluded that the terms communicated by the Public Service appear consistent to the signed agreement.
  
- ◆ Public Service has informed us that the Province sent a proposal for a Second Amendment, at the time of finalizing this report. For the proposed Second Amending Agreement, we reviewed the Province's letter to the City. We observed some potentially material items or items, which could have an impact to the City.
  - Consistent to quarterly project status reports, the Public Service appears to be in ongoing discussions with the Province on obtaining a resolution to the Provincial funding issues.
  - We have not reviewed the Public Service's analysis and response to the Province on their proposal.
  - The Administrative Standard FM-004 (Asset Management) requires open and transparent reporting to Council on capital projects. The report must disclose all material facts related to the capital project. This enables elected officials to make informed decisions.
  - We also considered the best practices for capital project monitoring and reporting issued by the Government Finance Officers Association (GFOA) of which the City of Winnipeg is a member. This guidance recognizes that high profile projects often require more extensive reporting. It also recommends the report to highlight significant changes to project funding.

- Understanding that this is the final audit report, we recommend that on a proactive basis the Public Service continue to analyze fully the final terms of any subsequent amendments to the Contribution Agreement and to communicate all potential material impacts of the analysis to elected officials.
- ◆ For the verbal reports, we reviewed recorded video of SPC on IRPW meetings to verify communication.
  - We found that Public Service provided a verbal status update as required for all reporting periods between March 1, 2019 and November 30, 2019. We also found that Public Service provided contingency fund update as required during the verbal status updates to SPC on IRPW for all reporting periods between March 1, 2019 and November 30, 2019.

RECOMMENDATION			
<p><i>Administrative Standard FM-004 (Asset Management) requires open, transparent, and full disclosure reporting to elected officials on all material facts related to the capital project. Understanding that this is the final audit report, we recommend that on a proactive basis the Public Service continue to analyze fully the impact of any subsequent amendments to the Contribution Agreement between the City and the Province and communicate all potential material impacts of the analysis to the elected officials.</i></p>			
RISK AREA	Information Resources	ASSESSMENT	Moderate
BASIS OF ASSESSMENT	<p>Reports that are not distributed or that contain inaccurate information, affect stakeholders' ability to perform their roles and could also affect legal compliance or funding agreements. To mitigate this risk, the Public Service has formed an experienced project management team that works closely with all interdependent departments to address all project management knowledge areas that require reporting.</p>		
MANAGEMENT RESPONSE			
<p><i>Transit agrees with Audit's final report and recommendations for the period ending November 30, 2019. We believe the audit process has provided value to citizens, as well as our project team, through a transparent and collaborative approach undertaken by the Audit Department.</i></p>			
IMPLEMENTATION DATE	To be determined.		

# PROJECT MANAGEMENT KEY AREAS ANALYSIS

## 2.1 Risk Management Activities

### Issue

- ◆ Has the project management team followed the risk management guidance given in the City's Project Management Manual?

### Conclusions

- ◆ The project management activities carried out have met the requirements of the City's Project Management Manual.

### Analysis

- ◆ The City's Project Management Manual ("PMM") is required to be applied to all capital projects undertaken by the Public Service. The PMM details a project management methodology, and also states that the methodology used should be tailored to the specific project.
- ◆ Under a public-private partnership arrangement, the majority of the risks for costs, scope, schedule, and quality are transferred to the private partner. This leaves the City with a limited amount of risk. The City still retains risks on regulatory changes related to construction of the transitway, scope changes requested by the City, termination of agreement, maintenance of connecting roadways, and bus operations on the transitway. We have reproduced the Fairness Monitor's illustration of the risk distribution for the Project in **Appendix 5**.
- ◆ The risk management guidance in the PMM focuses on identifying, planning for, managing, and communicating risks. We observed that the City's Project Management team has an issues log that is regularly updated. We observed through meeting minutes that project risks are regularly discussed in project team meetings and Major Capital Project Steering Committee meetings. These practices are consistent with the guidance of the City's Project Management Manual.
- ◆ We observed that Plenary Roads Winnipeg has provided the Public Service with a Project Risk Management Plan and monthly reports that outline the anticipated risks in the project, the mitigation strategies for the risks, and the estimated residual risks remaining after the mitigation strategies. This practice is consistent with generally accepted project management practices (such as the *Project Management Book of Knowledge* issued by the Project Management Institute) and is also consistent with the City's Project Management Manual.

RECOMMENDATION		
<i>No recommendation accompanies this analysis.</i>		
RISK AREA	Business Process	ASSESSMENT
		Moderate
BASIS OF ASSESSMENT	Inadequate risk management could reduce the projected value for money savings for the Project.	

## 2.2 Change Order Status

### Issue

- ◆ Has the project management team followed established processes for the review and approval of change orders, and have change orders been within the intended project scope and budget?

### Conclusions

- ◆ The project management reviews and approvals of change orders have met established process requirements for these activities. Approved changes were within budget and intended project scope.

### Analysis

- ◆ Change orders (COs) are part of the scope management and cost management processes. If change orders are not properly managed, they can pose significant risks for a project.
- ◆ As of November 30, 2019, COs, totaling \$6,565,588 have been approved. \$6,988,141 of the total COs are for capital costs, while \$422,553 in credits are for operations and maintenance. The total approved COs represent 9.52 percent of the contingency fund, and 1.41 percent of the overall project budget.
- ◆ COs related to capital costs have increased by \$3,437,784 from the previous period. This increase represents 4.98 percent of the total contingency fund, and 0.74 percent of the overall project budget.
- ◆ COs related to operations and maintenance costs have decreased by \$559,714 from the previous period. This decrease represents 0.81 percent of the total contingency fund, and 0.12 percent of the overall project budget.
- ◆ The total COs for the period was below our audit's performance materiality. As such, we determined our sample COs based on their nature and significance. We tested the largest two COs approved in this period. Both COs relate to capital costs. Both COs add to \$3,286,232. This total is 96 percent of the total COs related to capital costs. We observed that these approved change orders appear reasonable and properly supported.
- ◆ A summary of COs is not provided in this final audit report due to conditions in the Project Agreement prohibiting the publication of detailed commercial transactions of the Project.

RECOMMENDATION			
<i>No recommendation accompanies this analysis.</i>			
RISK AREA	Business Process	ASSESSMENT	Moderate
BASIS OF ASSESSMENT	Inadequate review and approval of change orders could have a negative impact on the Project's budget and/or scope.		

## INDEPENDENCE

The Audit Department is classified as an independent external auditor under *Government Auditing Standards* due to statutory safeguards that require the City Auditor to report directly to Council, the City's governing body, through the Audit Committee.

The Audit Department team members selected for the audit have all attested that they do not have any conflict of interest related to the audit's subject matter.

## ACKNOWLEDGEMENT

The Audit Department wants to extend its appreciation to all of the stakeholders who participated in this audit and especially to City's project team for their time and cooperation.



Bryan Mansky, MBA, CPA, CMA, CIA  
City Auditor

October 26, 2020

Date

## APPENDIX 1 – Project Background

### The Southwest Rapid Transitway (Stage 2) and Pembina Underpass Project

- ◆ Stage 2 of Winnipeg’s first rapid transit corridor, and the expansion of Pembina Highway under the Jubilee Overpass, (“the Project”) was approved by Council on June 25, 2014. The Project is being delivered under a public-private partnership methodology.
- ◆ After a competitive bidding process, an agreement was signed with Plenary Roads Winnipeg to design, build, finance, operate and maintain the infrastructure at an estimated total cost of \$467 million.
- ◆ The scope of the Project includes the extension of the current southwest transit corridor (Stage 1) from Jubilee Avenue to the University of Manitoba. This extension is approximately 7.6 kilometers long and will include the construction of three new bridges (one for a railway and two for the transitway), two overpasses (for the transitway over McGillivray Boulevard and the CN Letellier rail line and spur lines), the reconstruction of Southpark Drive, two new drainage pump stations, a new pedestrian ramp at Investor’s Group Field, a reconstructed bus staging area at the University of Manitoba, two new “Park and Ride” facilities, nine new transit stations, and an active transportation pathway along the entire length of the transitway.
- ◆ The Project also includes the widening of the northbound side of Pembina Highway under the Jubilee overpass from two to three lanes along with pedestrian and cycling facilities on both sides of Pembina Highway.

### Project Funding

- ◆ The financing for the Project is:

<u>Contributing Party</u>	<u>Contribution</u>	<u>Percent</u>
City of Winnipeg	\$ 187,000,000	40%
Province of Manitoba	187,000,000	40%
Government of Canada	<u>93,300,000</u>	20%
Total	<u>\$ 467,300,000</u>	

### Reporting

- ◆ The following reports are ongoing or are forthcoming for the Project for legislated and contractually agreed upon matters:
  - Actions that are outside the delegated authority of the Public Service (such as expropriation of lands, procurement in excess of delegated authority, or over-expenditure reports)
  - Quarterly reporting to the SPC on Finance
  - Verbal reporting to the SPC on IRPW

## APPENDIX 2 – Audit Methodology

### MANDATE OF THE CITY AUDITOR

- ◆ The City Auditor is a statutory officer appointed by City Council under *The City of Winnipeg Charter*. The City Auditor is independent of the Public Service and reports directly to Executive Policy Committee, which serves as the City’s Audit Committee.
- ◆ The City Auditor conducts examinations of the operations of the City and its affiliated bodies to assist Council in its governance role of ensuring the Public Service’s accountability for the quality of stewardship over public funds and for the achievement of value for money in City operations.
- ◆ Once an audit report has been communicated to Council, it becomes a public document.

### PROJECT RISK ANALYSIS

- ◆ Communication is essential for successful projects. Some of the most important communication in large-scale public capital projects occurs in the form of public reporting; however, few industry organizations give guidance on what exactly should be included in project performance reports. Reporting is mainly left to be agreed upon by project stakeholders, and much is left to the professional judgment of the project management teams. Improper communication can hold up projects or cause wasted efforts. Therefore, proper communication practices are essential to ensure that projects run smoothly and efficiently.
- ◆ Individual audit area risk assessments are provided for each issue discussed. The assessments discuss and detail the residual risk for issues after considering the City’s mitigating risk controls.

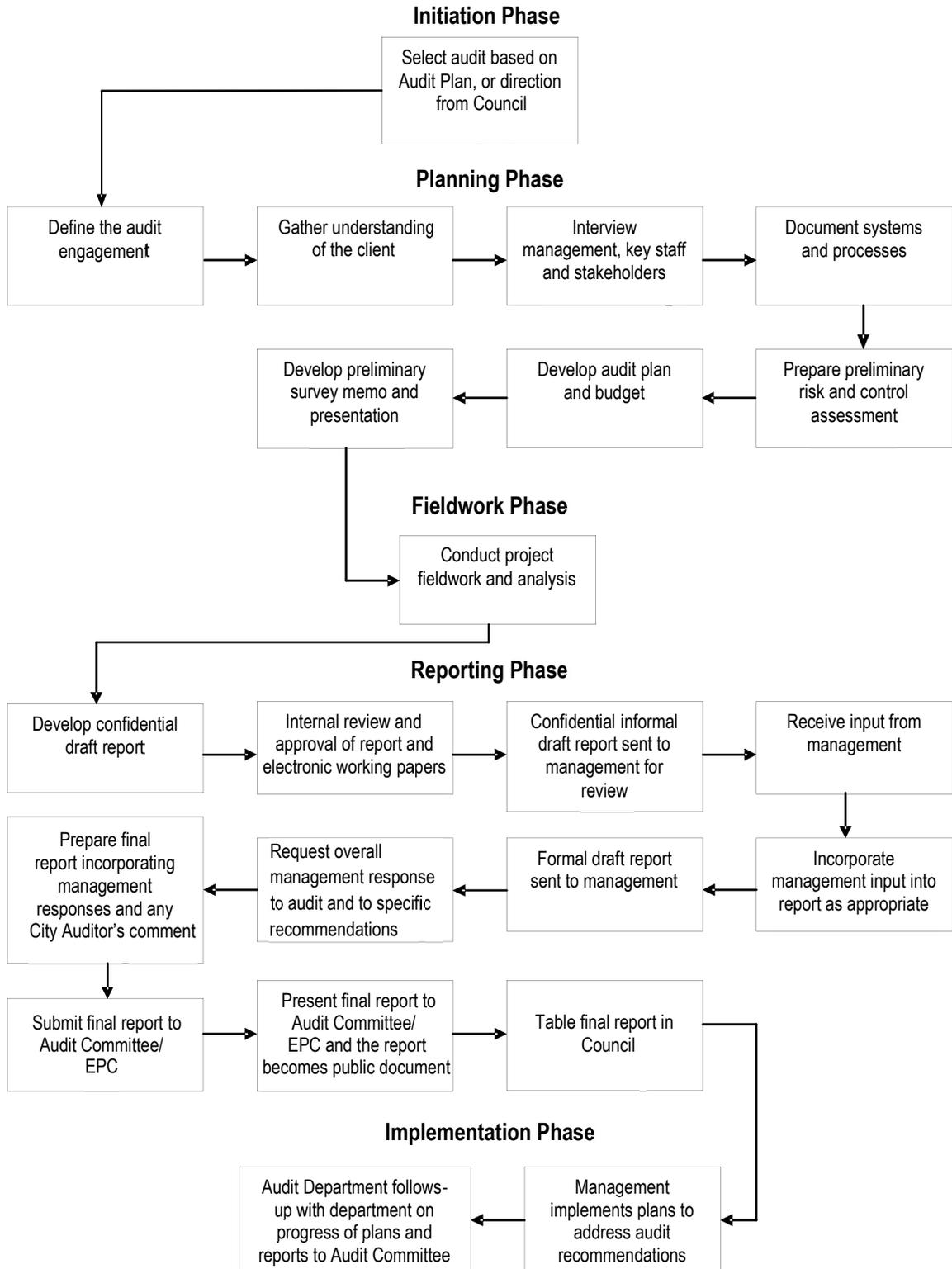
## SCOPE

- ◆ The scope of our audit includes project communication management over the course of the project. The scope of our quarterly audit reports also includes the reporting on key management areas (such as risk, quality, schedule, and cost) as the Project progresses.
- ◆ Our audit runs concurrently with the project over the duration of the project, and reports are released on a quarterly basis.
- ◆ In 2018 Quarter 3, the project management team adjusted its reporting schedule to accommodate the municipal election held in October 2018. Our audit reports subsequent to that period mirror the adjustment and the reporting periods in project status reports to the SPC on Finance.
- ◆ We provide this final audit report related to the Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass Capital Integration Project. This final audit report covers three reporting periods between March 1, 2019, and November 30, 2019.
- ◆ We have observed in the prior and current audits that the project team managed the Project well. There were some recommendations in the past audit reports. However, the Public Service agreed and made the recommended changes. The Project has also reached Substantial Completion on October 1, 2019, on schedule. Therefore, we determined a final audit report covering multiple reporting periods more appropriate. This will ease the review of the audit report for elected officials.
- ◆ This report covers three reporting periods. However, we determined the cut-off date for our procedures to be October 1, 2019, the Substantial Completion Date. We were not aware of any significant events that require our attention, except for the First Amendment to the Contribution Agreement, dated October 3, 2019. Additionally, Transit identified that the Province proposed a second amendment to the Contribution Agreement on August 18, 2020; the Public Service has analyzed the proposed amendments and has responded to the Province on October 7, 2020 seeking clarification. Transit added that there are no other significant events after October 1, 2019 to bring to our attention.

## APPROACH AND CRITERIA

- ◆ We conducted our audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient appropriate evidence to provide a reasonable basis for our observations and conclusions, based on our audit objectives. We believe the evidence we have obtained provides a reasonable basis for our observations and conclusions based on our audit objectives.
- ◆ To gather sufficient appropriate evidence for our audit, we reviewed Manitoba's legislated requirements for public-private partnership reporting, the City of Winnipeg's documented guidance for capital project reporting, and the public reporting requirements set out in funding and capital project management agreements. We also researched industry standards and guidance on capital project monitoring and reporting. We then conducted our fieldwork, which compared the public reporting for the project for the period covered by this audit report to all of the outlined guidance.
- ◆ The guiding documents we used include:
  - *The Public-Private Partnerships Transparency and Accountability Act* of Manitoba
  - *The Environment Act* of Manitoba
  - *The City of Winnipeg Charter* for Council's and its committees' legislated roles in relation to capital project decision making
  - *Administrative Standard FM-004: Asset Management* (and its precursors throughout the project)
  - Agreements with federal and provincial funding partners (P3 Canada, and the Province of Manitoba) and contracted service providers (Plenary Roads Winnipeg Transitway LP)
- ◆ Industry capital project monitoring and reporting practices we researched included:
  - Recommended practices 17R-97 and 56R-08 of The Association for the Advancement of Cost Engineering (AACE)
  - Accounting principles published by CPA Canada
  - *Effectiveness Reporting and Auditing in the Public Sector* published by the Canadian Comprehensive Auditing Foundation (CCAF)
  - Publicly available reporting information for the National Project Management System (NPMS)
  - *A Guide to the Project Management Body of Knowledge (PMBOK® Guide) Fifth Edition*
  - Projects IN Controlled Environments (PRINCE2)
  - GFOA Best Practices guidance, *Capital Project Monitoring and Reporting*

## APPENDIX 3 – Audit Process



## APPENDIX 4 – Risk Assessment Worksheet

Potential Impacts / Likelihood	Insignificant	Minor	Moderate	Major	Extreme
	<ul style="list-style-type: none"> <li>- None or minor change in services, project or processes</li> <li>- Very limited exposure of sensitive information</li> <li>- Very minor, non-permanent environmental damage</li> <li>- Financial impact &lt; \$100K</li> </ul>	<ul style="list-style-type: none"> <li>- Minor change in achievement of service objectives</li> <li>- Limited exposure of sensitive information</li> <li>- Minor, non-permanent environmental damage</li> <li>- Financial impact \$100K – \$500K</li> </ul>	<ul style="list-style-type: none"> <li>- Moderate change in delivery of essential services</li> <li>- Exposure of limited amount of confidential information</li> <li>- Moderate environmental damage</li> <li>- Financial impact \$500K – \$1M</li> </ul>	<ul style="list-style-type: none"> <li>- Significant change in delivery of essential services</li> <li>- Exposure of significant amount of confidential information</li> <li>- Significant change in quality of life indicators</li> <li>- Major environmental damage</li> <li>- Financial impact \$1M – \$10M</li> </ul>	<ul style="list-style-type: none"> <li>- Unable to perform essential services for extended period</li> <li>- Exposure of critical confidential information</li> <li>- Very significant change in quality of life indicators</li> <li>- Significant damage to environment</li> <li>- Financial impact &gt;\$10M</li> </ul>
<b>Almost certain</b> (Excepted to occur unless circumstances change)	M	M	H	C	C
<b>Likely</b> (Probably occur in most circumstances)	M	M	H	C	C
<b>Possible</b> (Might occur under different circumstances)	L	M	M	H	H
<b>Unlikely</b> (Could occur if circumstances change)	L	L	M	H	H
<b>Rare</b> (May occur in exceptional circumstances)	L	L	M	M	M

### Legend

- C** Critical risk: Requires urgent action, monitor and review at least weekly by Senior Management and COO, inform CAO and Committee of Council
- H** High risk: High impact, monitor and review at least quarterly by management, inform COO
- M** Moderate risk: Monitor and review at least quarterly by management
- L** Low risk: Review periodically, no explicit action required.

## APPENDIX 5 – Risk Allocation Summary

Risk	Retained by City	Transfer to Project Co	Shared	Notes on Any Changes to Risk as Previously Proposed
<b>A. General</b>				
1. Compliance with applicable law and standards		✓		N/A
2. Designated change in law	✓			
3. Changes in applicable law		✓		N/A
4. Changes in standards			✓	N/A
5. Permits, Licenses and Approvals (Including CN and Manitoba Hydro approvals)			✓	N/A
6. Access to Lands, Encumbrances, Liens			✓	N/A
7. Geotechnical		✓		N/A
8. Contamination			✓	N/A
9. Defects in Existing Infrastructure			✓	N/A
<b>B. Design and Construction</b>				
10. Design development (Detailed design)		✓		N/A
11. Construction management delays		✓		N/A
12. Construction latent defects		✓		N/A
13. Construction warranty for Maintenance-Exempt Work		✓		N/A
14. Scope changes initiated by City during construction	✓			N/A
15. Adverse weather conditions		✓		N/A
16. Labour relations			✓	N/A
17. Safety and security		✓		N/A
18. Stadium Access Works		✓		N/A
19. Utility Work			✓	<ul style="list-style-type: none"> <li>• Project Co is responsible for all utility work for the Project, including Manitoba Hydro utility relocation work, however a cost sharing regime is in place as described below.               <ul style="list-style-type: none"> <li>○ The City is responsible for reimbursing Project Co for certain utility costs that exceed a pre-determined baseline amount established by the City, subject to Project Co's obligation to mitigate such costs.</li> <li>○ Project Co is entitled to relief from the City in the event that Manitoba Hydro fails to perform its obligations in accordance with the applicable utility agreement and causes delay to Project Co in achieving Substantial Completion.</li> </ul> </li> </ul>

## APPENDIX 5 – Risk Allocation Summary (Continued)

Risk	Retained by City	Transfer to Project Co	Shared	Notes on Any Changes to Risk as Previously Proposed
20. CN Rail Interface			✓	<ul style="list-style-type: none"> <li>Project Co is responsible for all interface with CN Rail to compel them to fulfil their obligations, with the City required to provide assistance to resolve non-performance by CN.</li> <li>Project Co is entitled to relief from the City in the event that CN Rail fails to perform its obligations that causes delays to Project Co in achieving Substantial Completion.</li> </ul>
21. Traffic Management		✓		<ul style="list-style-type: none"> <li>Project Co is subject to payment deductions for lane closures during the construction period that exceed their target number of closure days as per their proposal.</li> </ul>
22. Rectification of deficiencies		✓		N/A
23. Commissioning		✓		N/A
<b>C. Maintenance and Rehabilitation</b>				
24. Operational and preventive maintenance (Stage 1 and Stage 2)		✓		N/A
25. Rehabilitative maintenance – Stage 1	✓			N/A
26. Rehabilitative maintenance – Stage 2		✓		N/A
27. Winter Maintenance		✓		N/A
28. Bus operations – Stage 1 and Stage 2	✓			N/A
29. Maintenance of roadway connections between the Transitway and street system	✓			N/A
30. Default of Operator or Project Co		✓		N/A
31. Inflation risk			✓	N/A
32. Asset residual		✓		N/A
<b>D. Force Majeure</b>				
33. Force Majeure			✓	N/A
<b>E. Relief Events</b>				
34. Relief Events			✓	N/A
<b>F. Termination of Project Agreement</b>				
35. Termination for convenience of City	✓			N/A
36. Termination for default of Project Co		✓		N/A
37. Termination for Force Majeure			✓	N/A

Source: P1 Consulting (2016). *City of Winnipeg Request for Proposals to Design, Build, Finance, (Operate) and Maintain the Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass: Fairness Monitor's Report*. Retrieved from winniepttransit.com.

## APPENDIX 6 – Actual Costs Presented in the Project Status Report to the Standing Policy Committee on Finance

### Appendix B – Financial Forecast

Appendix B - Southwest Rapid Transitway (Stage 2) & Pembina Highway Underpass Financial Forecast \*  
As at November 30, 2019

Project Component Deliverables	Budget (in 000's)			Actual Costs To November 30, 2019*	Expenditure Forecast (in 000's)				Total Forecasted Costs	Surplus (Deficit) From Amended Budget	Variance Last Report	Change in Variance
	Adopted Budget	Council Approved Change**	Amended Budget*		Projected Costs							
					2019	2020	2021	2022 and Beyond				
Engineering, Design and Other <sup>b</sup>	\$ 13,000	\$ (1,694)	\$ 11,306	\$ 10,983	\$ 495	\$ 1,523	\$ -	\$ -	\$ 13,001	\$ (1,695)	\$ -	\$ (1,695)
Construction <sup>1 &amp; 4</sup>	\$ 476,750	\$ (130,000)	\$ 346,750	\$ 208,651	\$ 1,392	\$ 8,350	\$ 8,350	\$ 121,009	\$ 347,752	\$ (1,002)	\$ -	\$ (1,002)
Land Acquisition	\$ 23,000	\$ 10,000	\$ 33,000	\$ 29,118	\$ (17)	\$ 3,899	\$ -	\$ -	\$ 33,000	\$ -	\$ -	\$ -
Internal Financing/Overhead Costs	\$ 5,550	\$ 1,694	\$ 7,244	\$ 3,694	\$ 461	\$ 3,089	\$ -	\$ -	\$ 7,244	\$ -	\$ -	\$ -
Contingency <sup>2</sup>	\$ 69,000	\$ -	\$ 69,000	\$ -	\$ 390	\$ -	\$ -	\$ 12,555	\$ 12,945	\$ 56,055	\$ 52,905	\$ 3,150
Change Order	\$ -	\$ -	\$ -	\$ 6,959	\$ -	\$ -	\$ -	\$ -	\$ 6,959	\$ (6,959)	\$ (6,505)	\$ (454)
<b>Total Project Budget <sup>3</sup></b>	<b>\$ 587,300</b>	<b>\$ (120,000)</b>	<b>\$ 467,300</b>	<b>\$ 259,405</b>	<b>\$ 2,721</b>	<b>\$ 16,861</b>	<b>\$ 8,350</b>	<b>\$ 133,564</b>	<b>\$ 420,901</b>	<b>\$ 46,399</b>		
<b>% of Project Budget Spent</b> (Actual Costs to Date / Adopted & Amended Budget)	<b>44%</b>		<b>56%</b>									

\* Amended budget and actual costs to date have been agreed to the City's general ledger and Monthly Capital Expenditures Report.

\*\* Amended Budget as reflected in Transit's 2019 Adopted Capital Budget.

1) Construction projection represents the estimated payment at substantial completion (60%) and the repayment of the remaining capital portion (40%) stated in nominal dollars over the 30 year maintenance period.

2) Change Orders in the amount of \$6.988 million (capital) and \$432k in credits (operating & maintenance) have been approved with Plenary Roads Winnipeg of which \$6.959 million has been processed and reflected above. The remaining approved Change Orders will be reflected above as completed.

3) The 30-year Annual Service Payments (ASP) are not included in Total Project Budget with the exception of the capital portion of 40% nominal construction amount (Note 1). The City no longer anticipates cost sharing with the Province of Manitoba related to operations and maintenance. The forecasted amount for the total ASP in 2020 is \$14.46 million for debt service, operation and maintenance and other annual expenditures. Operation and maintenance payments increase with inflation. Of the total forecast for ASP of \$493.1 million, \$353.0 million relates to debt service payments, \$123.9 million relates to operation and maintenance of the corridor over the 30 years, and \$16.2 million relates to other annual expenditures.

4) Total constructions costs represent actuals at Substantial Completion which was achieved on October 01, 2019.

5) Reallocation of budget to account for anticipated costs.

Source: Southwest Rapid Transitway (Stage 2) and Pembina Highway Underpass – Quarterly Project Status Report, Project ID: 4230010514, Quarterly Project Status Report No. 20, for the Period Ended November 30, 2019