## THE CITY OF EDMONTON

# DESIGN-BUILD AGREEMENT CAPITAL LINE SOUTH LRT EXTENSION

Schedule 16
Payment Mechanism

## **SCHEDULE 16**

# **PAYMENT MECHANISM**

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#### **SCHEDULE 16**

#### **PAYMENT MECHANISM**

#### 1. General

## 1.1 Payment for the Project Work

1.1.1 Payment will be calculated monthly using the following formula, from the Effective Date to the Expiry Date, or if applicable, the Termination Date:

$$P_t = \sum DPP_t + MCP_t - CPA_t - LDD_t + CCP_t + LHP_t - RFD_t$$

where:

- P means the sum of all Payments owing to Design-Builder during the Term;
- DPP means the Design and Procurement Payments as defined in Section 2.1 [Design and Procurement Payments];
- MCP means the Monthly Construction Payments as defined in Section 2.2 [Monthly Construction Payments];
- CPA means the Construction Payment Adjustments as defined in Section 2.3 [Construction Payment Adjustments];
- LDD means the Liquidated Damages Deduction as defined in Section 2.4 [Liquidated Damages Deduction];
- CCP means the Construction Completion Payment as defined in Section 2.5 [Construction Completion Payment];
- LHP means Legislative Holdback Payment as defined in Section 2.6 [Legislative Holdback Payment]; and
- RFD means the Reporting Failure Deduction as defined in Section 4.5 [Reporting Errors].
- 1.1.2 If the Payment for month (t) is a negative number, the City may require, in its sole discretion, that the amount shall be paid by the Design-Builder or carried forward to any subsequent month(s), until that amount has been fully recovered by the City and interest shall accrue in accordance with Section 7.7 [Interest on Overdue Payments] of the Agreement.
- 1.1.3 If on the Final Completion Date, Expiry Date, or, if applicable, the Termination Date, the Payment is in a cumulative negative position and such amounts are outstanding from the Design-Builder to the City, the Design-Builder shall pay such amounts to the City in accordance with Section 7.9 [Payments by Design-Builder] of the Agreement not later than, the 28<sup>th</sup> calendar day following the earliest of the Final Completion Date, Expiry Date or, if applicable, the Termination Date.
- 1.1.4 For the avoidance of doubt, but subject to any express amounts payable to Design-Builder pursuant to this Agreement, the Design-Builder shall not be paid more than 100% of the Total Capital Cost Amount with the exception of any credits pursuant to Section 3 [Construction Payment Adjustments].

### 1.2 Payment Rate Adjustment

- 1.2.1 A Payment Rate Adjustment of 86% will be applied to all amounts owing pursuant to Section 2.1 [Design and Procurement Payments] and Section 2.2 [Monthly Construction Payments], from the Effective Date to the Construction Completion Date, or if applicable, the Termination Date.
- 1.2.2 The Payment Rate Adjustment accounts for the amounts to be paid to the Design-Builder in accordance with Section 2.5 [Construction Completion Payments], and Section 2.6 [Legislative Holdback Payments].
- 1.2.3 For the avoidance of doubt, the Payment Rate Adjustment is not applied to amounts owing pursuant to Section 2.3 [Construction Payment Adjustments].

## 1.3 Obligation to Make Payments

- 1.3.1 Subject to the provisions of this Schedule 16, the City shall pay to the Design-Builder the Payments during the Term, on a monthly basis, in respect of each month where such Payments shall be due to Design-Builder.
- 1.3.2 Each such Payment shall be calculated in accordance with Section 1 [General], Section 2 [Payments] and Section 3 [Construction Payment Adjustments] and shall be paid in accordance with Section 4 [Payment Procedures and Reporting] and Section 5 [Payment of Proper Invoice].
- 1.3.3 No payment made under this Schedule 16 shall constitute an acceptance of any part of the Project Work by the City.

#### 2. Payments

#### 2.1 Design and Procurement Payments

- 2.1.1 The Design and Procurement Payments are calculated as follows:
  - (a) For the month (t), which is the month after the month where the Design-Builder has satisfied the following conditions;
    - (i) The Design-Builder has submitted the plans required for the Design-Builder to conduct ground disturbance activities in a form and format acceptable to the City and that contains the content required pursuant to Section 8.1(b) and Section 15.1(c) of Schedule 10 [Environmental Performance Requirements];
    - (ii) The Design-Builder has submitted the safety documentation, as required, for the Design-Builder to commence ground disturbance activities in a form and format acceptable to the City and that contains the content required pursuant to Schedule 11 [Construction Safety Requirements]; and
    - (iii) The Design-Builder has submitted the initial Monthly Progress Report in a form and format acceptable to the City and that contains the content

required pursuant to Section 3.2 of Schedule 4 [Design and Construction Protocols];

then:

$$DPP(a)_t = PRA \times$$

- (b) For the first month (t) where the Design-Builder has satisfied the following conditions:
  - (i) The Design-Builder has delivered the Preliminary Construction Schedule in accordance with Section 2.1(a) of Schedule 3 [Construction Schedule] that has been Accepted by the City and that contains the required information pursuant to Section 3 [Construction Schedule Requirements] of Schedule 3 [Construction Schedule];
  - (ii) All completion documents have been provided in accordance with Schedule 25 [Completion Documents];
  - (iii) The Design-Builder has submitted the Quality Manual and the Design Quality Management Plan in a form and format acceptable to the City and that contain the content required pursuant to Section 4.1 [Quality Manual and Quality Management Plans] of Schedule 9 [Quality Management]; and
  - (iv) The Design-Builder has submitted the Design Management Plan, including the Submittal Schedule and Register in a form and format acceptable to the City and that contain the content required pursuant to Section 6.4.1 [General] of Schedule 4 [Design and Construction Protocols];

then:

$$DPP(b)_t = PRA \times$$

- (c) For each subsequent month (t) where the Design-Builder complies, and continues to comply, with the following conditions:
  - (i) The requirements of Section 2 [Integrated Project Management Team] and Section 6 [Design, Certification, and Submission Procedures] of Schedule 4 [Design and Construction Protocols]; and
  - (ii) The requirements of the Quality Manual and the Design Quality Management Plan pursuant to Section 4.1 [Quality Manual and Quality Management Plans] of Schedule 9 [Quality Management];

then:

$$DPP(c)_t = PRA \times$$

For the purposes of payment relating to DPP(c), the Design-Builder shall not be entitled to receive more than 17 individual monthly payments and the cumulative value of these payments shall not exceed

(d) For the month (t), which is the month after the month where Acceptance of the Full Construction Schedule is achieved;

then:

$$DPP(d)_t = PRA \times$$

For clarity, if Acceptance of the Full Construction Schedule is achieved in a month where the Design-Builder is eligible to receive a payment for DPP(b) then the amounts owing for DPP(c) and DPP(b) can be invoiced in the same invoice period.

(e) The Design-Builder shall remain eligible to receive the Design and Procurement Payments until:

$$DPP = PRA \times DPF$$

where:

DPP means the Design and Procurement Payment that is equal to the sum of DPP(a), DPP(b), DPP(c) and DPP(d), as described in 2.1.1(a) through 2.1.1(d) above;

PRA means the Payment Rate Adjustment as set out in Section 1.2 [Payment Rate Adjustment]; and

DPF means the Design and Procurement Fee that is equal to

- 2.1.2 If the Design-Builder does not comply with one or more of the conditions outlined in Section 2.1.1(c), or there is evidence that the Design-Builder:
  - (a) Is demonstrably not able to progress design of the infrastructure in material compliance to the scheduled design activities that are documented in the Construction Schedule; and/or
  - (b) Is demonstrably not able to continue Project Work in material compliance to the Construction Schedule;

then the City reserves the right to suspend the Design and Procurement Payments until such time that the rectification of the condition(s) occurs.

2.1.3 To suspend the Design and Procurement Payments, the City will provide written notification to the Design-Builder advising of the reason(s) for the suspension and the conditions that are necessary to be rectified for the Design and Procurement Payments to resume.

- 2.1.4 The City is not obligated to pay the Design and Procurement Payments in sequential months, therefore if the Design and Procurement Payments are suspended for any reason, the Design and Procurement Payments will resume in the month immediately following rectification of the conditions that led to the suspension. A suspension in the Design and Procurement Payments does not result in forfeited payments. The Design-Builder will remain eligible to receive the Design and Procurement Payment until  $\sum DPP = PRA \times DPF$ .
- 2.1.5 If the Design-Builder achieves Final Design for all Work Packages in accordance with Section 6 [Design, Certification, and Submission Procedures] of Schedule 4 [Design and Construction Protocols] prior to  $\sum DPP = PRA \times DPF$ , then the Design-Builder will continue to receive the Design and Procurement Payment on a monthly basis until  $\sum DPP = PRA \times DPF$ .
- 2.1.6 The Design-Builder shall not, in any event, be paid more than 100% of the Design and Procurement Fee set out in Section 2.1.1.

## 2.2 Monthly Construction Payments

2.2.1 The Monthly Construction Payments are calculated in accordance with the following formula:

$$MCP_t = PRA \times ((TCC - DPF) \times (PC_t - PC_{t-1}))$$

where:

MCP<sub>t</sub> means the Monthly Construction Payments for month (t);

PRA means the Payment Rate Adjustment as set out in Section 1.2 [Payment

Rate Adjustment];

TCC means the Total Capital Cost Amount as indicated in Table 6 [Total

Capital Cost Amount] of Appendix 16A [Payment Inputs];

DPF means the Design and Procurement Fee as identified in Section 2.1.1;

PC<sub>t</sub> means the Percent Completion as defined in Section 4.3 [Progress

Measurement for Percent Completion], for month (t); and

PC<sub>t-1</sub> means the Percent Completion as defined in Section 4.3 [Progress

Measurement for Percent Completion], for month (t-1).

- 2.2.2 The Monthly Construction Payment will be calculated for the month (t) and applied to the monthly Payment.
- 2.2.3 The Monthly Construction Payment for the month (t) shall be calculated by the Design-Builder and provided to the City with complete supporting information for review as part of the Monthly Payment Forecast.

## 2.3 Construction Payment Adjustments

2.3.1 The Construction Payment Adjustment is determined in accordance with the following formula:

$$CPA_t = LCA_{t-1} + TIA_{t-1} + TRA_{t-1} + NPE_{t-1}$$

where:

CPA<sub>t</sub> means the Construction Payment Adjustment for month (t);

LCA<sub>t-1</sub> means the Lane Closure Adjustment as defined in Section 3.1 [Lane

Closure Adjustment] for month (t-1);

TIA<sub>t-1</sub> means the Transit Impact Adjustment as defined in Section 3.2 [Transit

Impact Adjustment] for month (t-1);

TRA<sub>t-1</sub> means the Tree Removal Adjustment as defined in Section 3.3 [Tree

Removal Adjustment] for month (t-1); and

NPE<sub>t-1</sub> means the Non-Performance Event Payment Adjustment as defined in

Section 3.4 [Non-Performance Payment Adjustment] for month (t-1).

- 2.3.2 The Construction Payment Adjustment will be calculated for the month (t) and applied to the monthly Payment.
- 2.3.3 The Construction Payment Adjustment for the month (t) shall be calculated by the Design-Builder and provided to the City for review as part of the Monthly Payment Forecast.
- 2.3.4 Where the Design-Builder does not provide the Construction Payment Adjustment or if, in the sole opinion of the City, the Construction Payment Adjustment provided by the Design-Builder is not correct, the City reserves the right to determine the Construction Payment Adjustment for the month that will be applied to the monthly Payment.

#### 2.4 Liquidated Damages Deduction

2.4.1 Only in the month(s) where liquidated damages occur, the Payments for those month(s) will be adjusted for liquidated damages as set out in Schedule 4 [Design and Construction Protocols], Schedule 7 [Construction Completion, Service Readiness and Final Completion], Schedule 26 [Representatives and Key Individuals] and otherwise in accordance with the Agreement.

## 2.5 Construction Completion Payment

2.5.1 The Construction Completion Payment is calculated in accordance with the following formula:

 $CCP = CCR \times TCC$ 

where:

CCP means the Construction Completion Payment as defined in Section 2.5 [Construction Completion Payment];

CCR means the Construction Completion Payment rate that is equal to 4%; and

TCC means the Total Capital Cost as indicated in Table 6 [Total Capital Cost Amount] of Appendix 16A [Payment Inputs].

- 2.5.2 The Construction Completion Payment will be made by the City to the Design-Builder in two (2) parts and in accordance with the following conditions:
  - (a) Only in the month (t) when Construction Completion occurs and the Certificate of Construction Completion has been issued by the City in accordance with Section 2.8 [Certification of Construction Completion] of Schedule 7 [Construction Completion, Service Readiness and Final Completion], the Design-Builder shall be eligible to invoice for 2% of the Total Capital Cost Amount.
  - (b) Only in the month (t) when:
    - (i) all Construction Completion Deficiencies have been rectified, as determined by the City, in accordance with Section 2.11 [Correction of Construction Completion Deficiencies] of Schedule 7 [Construction Completion, Service Readiness and Final Completion]; and
    - (ii) when the Certificate of Service Readiness has been issued by the City in accordance with Section 3 [Service Readiness Requirements] of Schedule 7 [Construction Completion, Service Readiness and Final Completion],

the Design-Builder shall be eligible to invoice for 2% of the Total Capital Cost Amount.

- 2.5.3 Where the Design-Builder does not rectify all Construction Completion Deficiencies in accordance with Section 2.11 [Correction of Construction Completion Deficiencies] of Schedule 7 [Construction Completion, Service Readiness and Final Completion], as determined by the City, and where the City and the Design-Builder do not agree to an extension of time for rectification, the City and the City shall determine the value of rectified deficiencies and the Design-Builder shall be eligible to invoice for the value of rectified deficiencies only, provided the value of rectified deficiencies does not exceed 1% of the Total Capital Cost Amount.
- 2.5.4 If the City determines that the Design-Builder is not entitled to some or all of the amount retained for the Construction Completion Payment, then the City shall provide a written notice of non-payment specifying the amount that is not being paid and detailing all the

reasons for non-payment. The remaining portion of the Construction Completion Payment will be forfeited.

# 2.6 Legislative Holdback Payment

2.6.1 The Legislative Holdback Payment is calculated in accordance with the following formula:

$$LHP = LHR \times TCC$$

where:

LHP means the Legislative Holdback Payment, as defined in Section 2.6.2;

LHR means the Legislative Holdback rate that is equal to 10%; and

TCC means the Total Capital Cost Amount as indicated in Table 6: Total

Capital Cost Amount of Appendix 16A [Payment Inputs].

- 2.6.2 The Legislative Holdback Payment shall be made by the City to the Design-Builder in seven (7) phases and the Design-Builder may apply for release of the accrued Legislative Holdback amount when each of the following phases are met:
  - (a) Only in the month (t) where 10 Design and Procurement Payments have been made and where a minimum of sixty (60) days has elapsed without any liens having been registered, the Design-Builder shall be eligible to apply for release of the accrued Legislative Holdback amount withheld until month (t) where 10 Design and Procurement Payments have been made;
  - (b) Only in the month (t) where all 20 Design and Procurement Payments have been made and where a minimum of sixty (60) days has elapsed without any liens having been registered, the Design-Builder shall be eligible to apply for the second release of the accrued Legislative Amount withheld until month (t) where all 20 Design and Procurement Payments have been made, less any amount of Legislative Holdback that was previously released;
  - (c) Only in the month (t) where the Percent Completion is equal to 20%, as verified by the City, and where a minimum of sixty (60) days has elapsed without any liens having been registered, the Design-Builder shall be eligible to apply for the third release of the accrued Legislative Holdback amount withheld until the month (t) where the Percent Completion of 20% was achieved, less any amount of Legislative Holdback that was previously released;
  - (d) Only in the month (t) where the Percent Completion is equal to 40%, as verified by the City, and where a minimum of sixty (60) days has elapsed without any liens having been registered, the Design-Builder shall be eligible to apply for the fourth release of the accrued Legislative Holdback amount withheld until the month (t) where the Percent Completion of 40% was achieved, less any amount of Legislative Holdback that was previously released;

- (e) Only in the month (t) where the Percent Completion is equal to 60%, as verified by the City, and where a minimum of sixty (60) days has elapsed without any liens having been registered, the Design-Builder shall be eligible to apply for the fifth release of the accrued Legislative Holdback amount withheld until the month (t) where the Percent Completion of 60% was achieved, less any amount of Legislative Holdback that was previously released;
- (f) Only in the month (t) where the Percent Completion is equal to 75%, and where a minimum of sixty (60) days has elapsed without any liens having been registered, the Design-Builder shall be eligible to apply for the sixth release of the accrued Legislative Holdback amount withheld until the month (t) where the Percent Completion of 75% was achieved, less any amount of Legislative Holdback that was previously released; and
- (g) Only in the month (t) where the Construction Completion occurs, and where a minimum of sixty (60) days has elapsed without any liens having been registered, and where the Design-Builder has removed from the Lands, the City Lands and the Existing Infrastructure all goods, supplies, waste materials, rubbish and temporary facilities and all personnel except as required to achieve Service Readiness, Final Completion, to Make Good any Deficiencies, to correct any remaining Construction Completion Deficiencies and to satisfy its Warranty obligations provided that, for clarity, satisfaction of the foregoing obligations shall not constitute a precondition to payment by the City of the Legislative Holdback Payment, then the Design-Builder shall be eligible apply for seventh and final release of the accrued Legislative Holdback amount withheld until the month (t) where the Construction Completion occurred, less any amount of Legislative Holdback that was previously released.
- 2.6.3 The City will release the accrued Legislative Holdback when each condition outlined in Section 2.6.2 is met, upon application of the Design-Builder, provided that:
  - (a) the Design-Builder applies for release of the accrued Legislative Holdback amount for each phase outlined in Section 2.6.2 as part of the monthly Proper Invoice that is submitted pursuant to Section 5 [Payment of Proper Invoice];
  - (b) the application from the Design-Builder shall include:
    - (i) a statement of the amount of Legislative Holdback requested for release;
    - (ii) a certificate dated within five days of the application from the Workers' Compensation Board of Alberta verifying that assessment dues from the Design-Builder and its Subcontractors have been paid; and
    - (iii) reasonable evidence as the City may require showing the Design-Builder's entitlement to the payment claimed, including a statutory declaration that all Subcontractors have been paid for Work done and materials furnished prior to the date of the application, that no liens have been filed or submitted for registration, and that all Workers' Compensation Board payments have been made, and receipts showing that payments have been made;

- (c) there are no liens filed or submitted for registration in respect of this Agreement; and
- (d) all liens filed or submitted for registration in respect of this Agreement have been satisfied, discharged, or otherwise provided for under the Prompt Payment and Construction Lien Act (PPCLA).
- 2.6.4 The City will review the application within ten Business Days of receipt to determine whether the conditions of Section 2.6.3. are met and whether the Design-Builder has achieved the condition pursuant to which the Design-Builder has applied for release of the Legislative Holdback.
- 2.6.5 If the City determines that all of the conditions set forth in Section 2.6.3. have been met and the relevant milestone has been achieved, the City will commence approval for the release of the accrued Legislative Holdback.
- 2.6.6 If the City determines that any of the conditions set forth in Section 2.6.3 have not been met and/or the relevant milestone has not been achieved, then the City shall provide a written notice of non-payment specifying the amount that is not being paid and detailing all the reasons for non-payment.
- 3. Construction Payment Adjustments
- 3.1 Lane Closure Adjustment
- 3.1.1 The Payments will be adjusted to reflect the impact of periodic lane reductions and road closures that will delay traffic pursuant to Section 1-5.2.4 [Record Keeping of Lane Closures / Traffic Control Devices / Collisions] of Schedule 5 [D&C Performance Requirements].
- 3.1.2 The Lane Closure Adjustment is calculated as follows:

For the first month (t) where the  $\sum ALCC > TLCC$  then:

$$LCA_t = \left(\sum ALCC - TLCC\right) \times LCDM$$

For all subsequent months (t) where the  $\sum ALCC > TLCC$  then:

$$LCA_t = ALCC_t \times LCDM$$

If at Construction Completion, the  $\sum ALCC < TLCC$  then:

$$LCA_t = \left(\sum ALCC - TLCC\right) \times LCCM$$

where:

LCA<sub>t</sub> means the Lane Closure Adjustment for month (t);

ALCC means the Actual Lane Closure Costs as defined in Section 3.1.4;

TLCC means the Target Lane Closure Cost as defined in Section 3.1.5;

LCDM means the Lane Closure deduction multiplier that is equal to 150%; and

LCCM means the Lane Closure credit multiplier that is equal to 50%.

- 3.1.3 Lane Closures will be measured in half hour periods based on the following:
  - (a) All partial restrictions or partial closures of a lane within a Roadway Section will be considered as a full Lane Closure. Lane Closures longer than 5 minutes in duration will be rounded up to the next half hour period; for example, and for clarity, a 6-minute Lane Closure will be accounted for as a 30-minute Lane Closure, and a 33-minute Lane Closure will be accounted for as a 60-minute Lane Closure. Calculation of Lane Closure Adjustment as defined in this Section considers full hour and half hour increments only;
  - (b) Closures of through lanes will be considered Lane Closures for each Roadway Section based on the lesser of the Total Existing Number of Lanes and Total Future Number of Lanes shown in Table 1-5.2.5.1 [Roadway Section Restrictions and Roadway Categories] of Schedule 5 [D&C Performance Requirements];
  - (c) Closures of existing dedicated left turn lanes with a road classification of arterials or collectors as listed in Table 1-5.2.5.1 [Roadway Section Restrictions and Roadway Categories] of Schedule 5 [D&C Performance Requirements] will be considered Lane Closures. Dedicated right turn lanes will be treated as lanes even if not mentioned in Table 1-5.2.5.1 [Roadway Section Restrictions and Roadway Categories] of Schedule 5 [D&C Performance Requirements];
  - (d) Lane Closures will be measured on a Roadway Section basis, where Roadway Categories are determined in Table 1-5.2.5.1 [Roadway Section Restrictions and Roadway Categories] of Schedule 5 [D&C Performance Requirements]; and
  - (e) If a Transportation Accommodation Request (TAR) requires Lane Closures within a Roadway Section that will extend into an adjacent Roadway Section, then Lane Closures will be measured in both Roadway Sections.
- 3.1.4 The Actual Lane Closure Cost, measured in accordance with this Section 3.1.3, will be calculated using the Lane Closure Hour Adjustment Rates identified in Table 1 and the Periods of Measurement identified in Table 2.

Table 1: Lane Closure Hour Adjustment Rates

Roadway Category	Period of Measurement (see Table 2)	Lane Closure Hour Adjustment Rate*
1	Peak	
1	Off-Peak	
1	Night Time	

Roadway Category	Period of Measurement (see Table 2)	Lane Closure Hour Adjustment Rate*
2	Peak	
2	Off-Peak	
2	Night Time	
3	Peak	
3	Off-Peak	
3	Night Time	

<sup>\*</sup> Lane Closure Hour Adjustment Rate per Lane Closure Hour per Roadway Section referenced in Table 1-5.2.5.1 [Roadway Section Restrictions and Roadway Categories] of Schedule 5 [D&C Performance Requirements]

**Table 2: Periods of Measurement** 

Period name	Period of measurement
Peak Traffic	06:00 to 09:00 and 15:30 to 18:30 during Business Days
Off-Peak	09:00 to 15:30 and 18:30 to 21:00 during Business Days; 06:00 to 21:00 on Non-Business Days
Night Time	21:00 to 06:00 during Business Days and Non-Business Days

- 3.1.5 The Target Lane Closure Cost is equal to
- 3.1.6 Lane restrictions or closures due to City Works, City Utility Work, Utility Work undertaken by a Utility Company, or due to third party construction adjacent to the alignment will not be considered Lane Closures.
- 3.1.7 The Lane Closure Adjustment shall be assigned on a monthly basis, in accordance with this Section 3.1 [Lane Closure Adjustment], until the date Construction Completion is achieved, subject to a maximum aggregate Actual Lane Closure Cost for the Construction Period of

## 3.2 Transit Impact Adjustment

- 3.2.1 The Payments will be adjusted to reflect the impact of periodic lane reductions and road closures that will delay traffic and affect the Edmonton Transit Service (ETS) bus network pursuant to Section 1-5.2.5 [Record Keeping of Lane Closures / Traffic Control Devices / Collisions] of Schedule 5 [D&C Performance Requirements].
- 3.2.2 The Transit Impact Adjustment is calculated as follows:

For the first month (t) where the  $\sum ATIC > TTIC$  then:

$$TIA_t = \left(\sum ATIC - TTIC\right) \times TIDM$$

For all subsequent months (t) where the  $\sum ATIC > TTIC$  then:

$$TIA_t = ATIC_t \times TIDM$$

If at Construction Completion, the  $\sum ATIC < TTIC$  then:

$$TIA_t = \left(\sum ATIC - TTIC\right) \times TICM$$

where:

TIA<sub>t</sub> means the Transit Impact Adjustment for month (t);

ATIC means the Actual Transit Impact Costs as defined in Section 3.2.3 of this

Schedule 16;

TTIC means the Target Transit Impact Cost as defined in Section 3.2.4 of this

Schedule 16:

TIDM means the Transit Impact deduction multiplier that is equal to 150%; and

TICM means the Transit Impact credit multiplier that is equal to 50%.

#### 3.2.3 As soon as an ETS Transit Impact is in effect:

- (a) at any point along the Transit Impact Roadway Section (i), whether for a portion or the full length of the Transit Impact Roadway Section (i); and
- (b) for any period of time during a day, whether a full day or a partial day along the Transit Impact Roadway Section (i):

then the Actual Transit Impact Cost will be calculated using the full amount of the Daily Transit Impact Rates identified in Table 3 where traffic is reduced to a single lane in one or more directions or the Daily Transit Closure Rates identified in Table 4 for that day, where traffic is subject to a Full Closure.

Table 3: Daily Transit Impact Rates

	Transit Impact Roadway Section (i)	Daily Transit Impact Rates (TIR)			
	Transit impact Roadway Section (i)	Weekday	Saturday	Sunday	
1	111 Street NW (29A Ave NW / Saddleback Rd to Ellerslie Rd SW)				
2	23 Avenue NW (109 St NW to Saddleback Rd)				
3	Ellerslie Road SW (111 St SW to 135 St SW)				

4	12 Avenue NW (Running Creek Rd to 112 St NW)		
5	9 Avenue NW (Running Creek Ln to 113 St NW)		

**Table 4: Daily Transit Closure Rates** 

	Transit Impact Roadway Section (i)	Daily Transit Closure Rates (TCR)		
	Transit impact Roadway Section (i)	Weekday	Saturday	Sunday
1	12 Avenue NW (Running Creek Rd to 112 St NW)			
2	9 Avenue NW (Running Creek Ln to 113 St NW)			

- 3.2.4 The Target Transit Impact Cost is equal to
- 3.2.5 ETS Transit Impacts due to City Works, City Utility Work, Utility Work undertaken by a Utility Company, or due to third party construction adjacent to the alignment will not be considered ETS Transit Impacts.
- 3.2.6 The Transit Impact Adjustment shall be assigned on a monthly basis, in accordance with this Section 3.2 [Transit Impact Adjustment], until the date Construction Completion is achieved, subject to a maximum aggregate Actual Transit Impact Cost for the Construction Period of

## 3.3 Tree Removal Adjustment

- 3.3.1 The Tree Retention, Removal and Protection/Preservation Plan (TRRP) incorporates Tree Valuation Inventory tables that reference existing trees and Forested Areas within the Lands, in accordance with Section 2-12 [Tree Retention, Removal, and Protection/Preservation] of Schedule 5 [D&C Performance Requirements]. Production of the TRRP demonstrates how the Target Tree Compensation Value will be achieved. Deviation from this value and therefore the TRRP will result in a Tree Removal Adjustment unless a deviation from the TRRP is Accepted by the City.
- 3.3.2 The Tree Removal Adjustment is calculated as follows:

For the first month (t) where the  $\sum ATCC > TTCC$  then:

$$TRA_t = \left(\sum ATCC - TTCC\right) \times TCDM$$

For all subsequent months (t) where the  $\sum ATCC > TTCC$  then:

$$TRA_t = ATCC_t \times TCDM$$

If at Construction Completion, the  $\sum ATCC < TTCC$  then:

$$TRA_t = \left(\sum ATCC - TTCC\right) \times TCCM$$

where:

TRA<sub>t</sub> means the Tree Removal Adjustment for month (t);

ATCC means the Actual Tree Compensation Value during the month (t) which is

equal to  $AValueTREM + \sum_{i=1}^{M} (FARem_i \times FAvalue_{r,i});$ 

AValueTREM means the aggregate value of tree removals provided in the monthly tree

reconciliation report, as described in Section 2-12 [Tree Retention,

Removal, and Protection/Preservation] of Schedule 5 [D&C Performance

Requirements];

FARem, means the removal area in square meters of Forested Area (i);

FAvalue, means the Assessment Value Unit Rate for Forested Area (i), \$/m² as set

out in Table 5 of Section 3.3.3;

TTCC means the Target Tree Compensation Cost as defined in Section 3.3.4;

TCDM means the Tree Compensation deduction multiplier that is equal to 150%;

and

TCCM means the Tree Compensation credit multiplier that is equal to 50%.

3.3.3 Calculation of Actual Tree Compensation Cost includes an adjustment made for the removal of Forested Areas (i) at the Assessment Value Unit Rate for Forested Area, as shown in Table 5.

Table 5: Forested Area Assessment Value Unit Rates

Forested Area ID (i)	Assessment Value Unit Rates (\$/m²)		
Area A			
Area B			
Area C			
Area D			
Area E			
Area F			
Area G			
Area H			
Area I			
Area J			
Area K			
Area L			
Area M			

- 3.3.4 The Target Tree Compensation Cost is equal to
- 3.3.5 Trees that are removed due to City Works, City Utility Work, Utility Work undertaken by a Utility Company, or due to third party construction adjacent to the alignment will not be considered in the Tree Removal Adjustment calculation.

## 3.4 Non-Performance Payment Adjustment

- 3.4.1 Upon the occurrence of a Non-Performance Event whether such occurrence is first identified and reported by Design-Builder or the City, the corresponding NPE shall be recorded in the NPE tracking system as soon as practical and the NPE Payment Adjustment may be applied by the City to the Design-Builder in accordance with this Section 3.4 [Non-Performance Payment Adjustment] and Appendix 16C [Non-Performance Event Payment Adjustments].
- 3.4.2 On the occurrence of a Non-Performance Event the City shall have the right to assign an NPE Payment Adjustment, in accordance with the formula for Construction Payment Adjustment described in Section 2.3 [Construction Payment Adjustments]. If an occurrence corresponds to one or more Non-Performance Events as set out in Table 7 [Non-Performance Events] of Appendix 16C [Non-Performance Event Payment Adjustments], the City has the right to either assign or waive each NPE Payment Adjustment. The Design-Builder shall only be entitled to dispute the assignment of any NPE Payment Adjustment if the Design-Builder refers such dispute to the Dispute Resolution Procedure within ten (10) Business Days after receipt of the assigned NPE Payment Adjustment for each month from the City.
- 3.4.3 The City may refrain from assigning an NPE Payment Adjustment in its discretion, without such action affecting any other or future rights to apply NPE Payment Adjustments, including for the same or similar Non-Performance Events that may occur.
- 3.4.4 The NPE Payment Adjustment for month (t) (NPE<sub>t</sub>) shall be determined in accordance with the following formula:

$$NPE_t = \sum_{d=1}^{D} NPE_d$$

where:

NPE<sub>t</sub> NPE Payment Adjustment for month (t);

NPE $_{\text{d}}$   $\sum_{i=1}^{66} (\textit{NPERate}_i \times \textit{NPEOccurance}_{i,d})$  being the NPE Payment

Adjustment for day (d);

D Number of days (d) in month (t);

NPERate<sub>i</sub> the daily NPE Payment Adjustment rate for each applicable NPE

as set out in Table 7 of Appendix 16C column "Rate"; and

NPEOccurrence<sub>i,d</sub>

the NPEs (i) that, in day (d), have activated the allocation triggers as set out in Table 7 of Appendix 16C column titled "Allocation Trigger" or have failed to be rectified in accordance with the rectification action, within the rectification timeframe set out in Table 7 of Appendix 16C columns titled "Rectification Action" and "Rectification Timeframe", respectively.

- 3.4.5 Within 90 days after the Effective Date, the Design-Builder must implement and maintain for the duration of the Agreement an NPE tracking system capable of monitoring and reporting the daily volume, status and timing of all NPEs. If the Design-Builder does not implement an NPE tracking system, then the City will implement an NPE tracking system at the Design-Builder's cost and the Design-Builder will be responsible to maintain the NPE tracking system during the Term. The tracking system must mirror the requirements set out in Section 9.4 [Nonconformity Report Tracking System] of Schedule 9 [Quality Management]. The NPE tracking system must contain the following attributes:
  - (a) Comprise a single repository containing both the Design-Builder and City initiated NPEs.
  - (b) Have the capability to directly link an NPE to an associated Nonconformity Report in the Nonconformity Tracking System.
  - (c) Provide the City and the Design-Builder remote access, without the need for payment, to the central repository for NPEs, including supporting data and material relevant to each entry.
  - (d) Include commentary on Corrective Actions, Preventive Actions or other remedial activity associated with the handling of an NPE.
  - (e) The repository will have a built–in query function to support the production of written summary reports on request; the ability to search the repository is required including, but not limited to:
    - (i) NPE number;
    - (ii) NPE category;
    - (iii) Status;
    - (iv) Date initiated;
    - (v) Date rectified;
    - (vi) Total NPE Payment Adjustment; and
    - (vii) Total NPE Payment Adjustments and related events in the last 90 days.
- 3.4.6 The NPE Payment Adjustment shall be assigned on a monthly basis, in accordance with this Section 3.4 [Non-Performance Payment Adjustment], until the date Service Readiness is achieved, subject to a maximum aggregate NPE Payment Adjustment for each Look Back Period pursuant to this Section 3.4.6 of \$1,000,000. The Design-Builder

acknowledges and agrees that the maximum aggregate NPE Payment Adjustment for each Look Back Period under this Section 3.4.6 will not prejudice the City's right to assign Default Points pursuant to Section 4.6 [Default Points].

- 3.4.7 The maximum aggregate NPE Payment Adjustment for the Term shall be The Design-Builder acknowledges and agrees that the maximum aggregate NPE Payment Adjustment for the Term under this Section 3.4.7 will not prejudice the City's right to assign Default Points pursuant to Section 4.6 [Default Points].
- 3.4.8 For clarity, the Design-Builder remains obligated to report, track and calculate the NPE Payment Adjustment amount on a monthly basis irrespective of whether the maximum aggregate NPE Payment Adjustment for each Look Back Period or the Term has been achieved.

### 4. Payment Procedures and Reporting

## 4.1 Monthly Payment Forecast

- 4.1.1 On or before the seventh (7<sup>th</sup>) calendar day of each month, the Design-Builder shall deliver a Monthly Payment Forecast to the City.
- 4.1.2 The Monthly Payment Forecast shall contain:
  - (a) The forecast Payment owing, and its corresponding calculations, for the month;
  - (b) A 90-day lookahead of the forecast Percent Completion for the Project Work and its corresponding calculation for the estimate monthly Payment;
  - (c) Details of the anticipated progress to be claimed for percent completion in accordance with Section 4.3 [Progress Measurement for Percent Completion]; and
  - (d) All information, that can reasonably be anticipated as part of the Monthly Payment Forecast, that is required to be submitted by the Design-Builder as part of the Monthly Payment Report in accordance with Section 4.4 [Monthly Payment Report].
- 4.1.3 The City shall review the Monthly Payment Forecast within 14 calendar days and provide comments to the Design-Builder for discussion at the Monthly Payment Forecast Review.
- 4.1.4 The Monthly Payment Forecast shall be in a form and format that is substantially similar to the Monthly Payment Report required pursuant to Section 4.4 [Monthly Payment Report].

## 4.2 Monthly Payment Forecast Review

4.2.1 The Design-Builder shall meet with the City at least seven (7) calendar days before the end of each month.

4.2.2 During the Monthly Payment Forecast Review, the City, and the Design-Builder shall endeavour to discuss and resolve comments on the Monthly Payment Forecast prior to the Design-Builder preparing the Monthly Payment Report in accordance with Section 4.4 [Monthly Payment Report] and prior to submitting their Proper Invoice pursuant to Section 5.1 [Proper Invoice].

### 4.3 Progress Measurement for Percent Completion

- 4.3.1 Design-Builder will be considered to have reached a particular Percent Completion for Construction Payment when the City, acting reasonably, has verified the progress measured by the Design-Builder to determine the Percent Completion for each month (t). In verifying the progress measured, the City will consider the following:
  - (a) Subject to clause 4.3.1(b), the City shall verify the overall proportion, or Percent Completion for the Monthly Construction Payment with reference to the information provided by the Design-Builder;
  - (b) The Percent Completion for the Monthly Construction Payment shall mean the overall percent complete as determined by the City's assessment of progress completed for each Work Package and supporting activities as indicated in the Work Breakdown Structure in Appendix 4A [Work Breakdown Structure] of Schedule 4 [Design and Construction Protocols]. Measurement of Percent Completion for the Monthly Construction Payment will be based on the concept of the assessed Percent Completion of the Total Capital Cost Amount net of the Design and Procurement Fee. For the avoidance of doubt, the measurement of Percent Completion for the Monthly Construction Payment excludes all costs and progress related amounts included in the Design and Procurement Fee;
  - (c) Progress against each Work Package and supporting activities assigned across the Work Breakdown Structure in Appendix 4A [Work Breakdown Structure] of Schedule 4 [Design and Construction Protocols], will form the basis for the determination of Percent Completion for the Monthly Construction Payment. Percent Completion for the Monthly Construction Payment will be determined by the City based on professional judgment and inspection of Construction completed. Furthermore, the City may, at its sole discretion, rely on any other information considered necessary to support the City's determination, such as:
    - (i) the information provided by Design-Builder in its monthly reports for payment during the Term, as required to be submitted in Section 4.1 [Monthly Payment Forecast] and 4.4 [Monthly Payment Report];
    - (ii) any additional information necessary to verify the progress measured and reported by the Design-Builder that is requested by the City;
    - (iii) the information provided by Design-Builder in accordance with Section 3 [Construction Schedule Requirements] of Schedule 3 [Construction Schedule]; and
    - (iv) any Quality Documentation, including Nonconformity Reports, as outlined in Schedule 9 [Quality Management];

- (d) Percent Completion for the Monthly Construction Payment for any given month (t), shall be rounded to the nearest tenth of a percent;
- (e) Percent Completion for the Monthly Construction Payment for month (t) shall equal 0% until the Design-Builder starts construction of the Infrastructure, as verified by the City; and
- (f) At Construction Completion, the Percent Completion for the Monthly Construction Payments shall be deemed to be 100.0%.
- 4.3.2 The Design-Builder shall assess and report on progress, and the City will verify progress, related to Percent Completion for the Monthly Construction Payment in a manner consistent with the Work Breakdown Structure, as amended.
- 4.3.3 Notwithstanding the requirements of Section 4.3 [Progress Measurement for Percent Completion], the City may within 180 days from the Effective Date, acting reasonably and in its sole judgement, request review of the values in Table 6 [Total Capital Cost Amount] of Appendix 16A [Payment Inputs] by the Payment Referee. Where the Payment Referee determines that the budgeted cost of work is materially misrepresented, then the Design-Builder shall adjust the values in Table 6 [Total Capital Cost Amount] of Appendix 16A [Payment Inputs] to reflect the adjustment(s) made by the Payment Referee, provided that the adjustment(s) does not affect the overall Total Capital Cost Amount.
- 4.3.4 If the Design-Builder objects to any adjustment made by the independent third party of the values in Table 6 [Total Capital Cost Amount] of Appendix 16A [Payment Inputs] pursuant to Section 4.3.3, notification shall be provided to the City, and the notifying party shall refer the matter in accordance with Schedule 20 [Dispute Resolution Procedure].

## 4.4 Monthly Payment Report

- 4.4.1 The Design-Builder shall deliver a Monthly Payment Report for review by the City, as supporting documentation for the Proper Invoice submitted pursuant to Section 5.1 [Proper Invoice] and Section 5.2 [Proper Invoice Submission], setting out the Design-Builder's calculation of each of the following (each stated separately):
  - (a) detailed calculations and supporting documentation for each component of the monthly Payment pursuant to Section 1 [General] and in accordance with Section 2 [Payments] and Section 3 [Construction Payment Adjustments], for the month;
  - (b) [Not Used]
  - (c) identification of all variances from the information provided in the Monthly Payment Forecast pursuant to Section 4.1 [Monthly Payment Forecast] and reviewed as part of the Monthly Payment Forecast Review pursuant to Section 4.2 [Monthly Payment Forecast Review];
  - (d) the NPE Payment Adjustment assignable to the Design-Builder in respect of each Non-Performance Event occurring during the preceding month (or portion

- thereof, as the case may be) including a detailed description of each Non-Performance Event that occurred during the preceding month;
- (e) the aggregate of all Payments made by the City prior to the preceding month in respect of the Term, broken down in accordance with the Work Breakdown Structure;
- (f) where applicable, any adjustments to reflect over-payments and/or underpayments (each such adjustment stated separately) in respect of Payments made by the City during the period prior to the preceding month (for which adjustment has not already been made);
- (g) any information required pursuant to Section 7.5 [Taxes] of the Agreement;
- (h) in the case of a Change as provided for in Schedule 13 [Changes], any information that the City reasonably requires to properly assess, determine and validate its payment obligations in relation to that Change;
- (i) any interest payable in respect of any amounts owed pursuant to Section 7.7 [Interest on Overdue Payments] of the Agreement;
- (j) any amounts payable by the City pursuant to Section 4 [Utility Costs] of Schedule 28 [Project Approvals and Utility Matters], Part 2 [Utility Matters];
- (k) any other amounts to be paid by the City or by Design-Builder in relation to the requirements of the Agreement; and
- (I) the net amount owing by the City to the Design-Builder or by Design-Builder to the City in respect of the City's obligation to make Payments pursuant to Section 1.3 [Obligation to make Payments].
- 4.4.2 The report delivered pursuant to this Section 4.4 [Monthly Payment Report] shall be accompanied by supporting documentation clearly setting forth the derivation of the amounts payable, including a detailed breakdown with explanations of each payment component, set out therein in accordance with all applicable calculations specified in this Schedule.

## 4.5 Reporting Errors

- 4.5.1 The Design-Builder will be assigned a Reporting Failure Deduction equal to 30% of the value of the Reporting Error ("Reporting Failure Deduction") if a report delivered pursuant to Section 4.4 [Monthly Payment Report] includes a Reporting Error.
- 4.5.2 If the Design-Builder identifies the Reporting Error in amendments to the relevant reports before the City identifies the Reporting Error, the Reporting Failure Deduction shall be reduced to 10% of the value of the Reporting Error. A Reporting Failure Deduction for a Reporting Error shall not exceed \$25,000.00 per Reporting Error unless the Reporting Error relates to fraudulent actions by Design-Builder.
- 4.5.3 Should three or more Reporting Failure Deductions occur in any 12 consecutive monthly periods, the City may increase its review and monitoring activities in respect of such

reporting at the Design-Builder's expense. The Design-Builder will reimburse the City all reasonable costs and expenses incurred as part of these monitoring activities within 28 calendar days after the City submits an invoice to Design-Builder for such amounts.

#### 4.6 Default Points

- 4.6.1 The City may assign a Default Point to the Design-Builder if the total value of NPE occurrences during the Look Back Period, as measured on the final day of such period, is greater than or equal to \$700,000.
- 4.6.2 Upon the assignment of a Default Point the City may not apply another Default Point as may be applicable under Section 3.4.6, until a further three months have lapsed.
- 4.6.3 Once assigned, Default Points will persist until the Expiry Date.

### 5. Payment of Proper Invoice

### 5.1 Proper Invoice

- 5.1.1 A Proper Invoice must contain the following information and supporting documentation:
  - the Design-Builder's full legal name, which must match with the Design-Builder's name as recorded in the applicable City vendor master record;
  - (b) the entity that the invoice is payable to and the payment address;
  - (c) the GST registration number;
  - (d) the word 'invoice':
  - (e) an invoice date;
  - (f) the invoice period start and end dates;
  - (g) the project reference number, the contract number and contract description;
  - (h) the PO number;
  - (i) the payment terms pursuant to Section 5.4 [Payment Due Dates for Proper Invoice];
  - (j) a unique invoice number;
  - (k) the City's address;
  - (I) the City's invoice approver name and email address;
  - (m) the calculation of the amount owing for payment, inclusive of amounts owing for:
    - (i) Design and Procurement Payments;
    - (ii) Monthly Construction Payments;

- (iii) Construction Payment Adjustments;
- (iv) Construction Completion Payment;
- (v) Legislative Holdback Payments;
- (vi) [Not Used];
- (vii) amounts owing as a result of Section 7.1 [Payment by the City] of the Agreement; and
- (viii) amounts owing as a result of Section 7.9 [Payments by Design-Builder] of the Agreement;
- (n) the value of all GST charged, as a separate line item; and
- (o) supporting documentation that includes, at minimum:
  - (i) the Monthly Payment Certificate pursuant to Appendix 16D [Monthly Payment Certificate];
  - (ii) the Monthly Payment Report pursuant to Section 4.4 [Monthly Payment Report];
  - (iii) documentation for amounts owing as a result of Section 7.1 [Payment by the City] of the Agreement; and
  - (iv) documentation for amounts owing as a result of Section 7.9 [Payments by Design-Builder] of the Agreement.
- 5.1.2 Invoices submitted by the Design-Builder that do not comply with this Section 5.1 [Proper Invoice] are not considered to be a Proper Invoice and will be rejected by the City.

## 5.2 Proper Invoice Submission

- 5.2.1 The Design-Builder shall deliver one Proper Invoice per month to the City no earlier than the first day of each month, unless otherwise agreed with the City, starting in the first month after the Effective Date and continuing on a monthly basis until the Completion Date or, if applicable, the Termination Date.
- 5.2.2 The start and end dates for the period of the Proper Invoice delivered to the City shall be for the month prior to the month in which the Proper Invoice is delivered. As an example, and for clarity, the Proper Invoice delivered no earlier than the first day of the month of November shall be for the period of October 1, the start date, and October 31, the end date.
- 5.2.3 The Proper Invoice shall be delivered using SAP Ariba, or other such invoicing system as specified by the City.

- 5.2.4 The date of receipt of an invoice by the City in SAP Ariba, or such other invoicing system as specified by the City, shall be the invoice date for the purpose of calculating the payment due date pursuant to Section 5.4 [Payment Due Dates for Proper Invoice].
- 5.2.5 In the event that SAP Ariba, or other such invoicing system as specified by the City, experiences technical disruption and sending an invoice for payment is not possible due to the technical disruption, the Design-Builder shall comply with any direction provided by the City, with regard to issuing an invoice for payment through other means, if the City deems it necessary for an invoice for payment to be issued before the technical disruption is resolved.
- 5.2.6 Following delivery of the Proper Invoice, and if requested by the City, the Design-Builder shall be available to meet to review the Proper Invoice with the City within 14 days of delivering the Proper Invoice.

### 5.3 Disputed Amounts

- 5.3.1 If the City wishes to dispute all or part of the amount included on the Proper Invoice, the City will provide written notice of non-payment specifying the amount of the Proper Invoice that is being disputed and detailing all the reasons for non-payment.
- 5.3.2 If the Design-Builder does not agree with the City's non-payment, the Design-Builder may issue a Dispute Notice to the City and refer the matter for determination by the Payment Referee as outlined in Section 3 [Dispute Resolution] of Schedule 20 [Dispute Resolution Procedure] for resolution.
- 5.3.3 If the City disputes part of a Proper Invoice pursuant to this Section 5.3 [Disputed Amounts], the Design-Builder shall within three (3) calendar days of receiving such notice, deliver to the City a revised Proper Invoice that meets the requirements of Section 5.1 [Proper Invoice] with the amount of such revised Proper Invoice including only the undisputed portion of the original Proper Invoice. The date of the revised Proper Invoice must remain the same as the date of the original Proper Invoice. For greater certainty, such delivery of a revised Proper Invoice does not constitute admission on the part of the Design-Builder that the disputed amount is not owed to the Design-Builder.

#### 5.4 Payment Due Dates for Proper Invoice

- 5.4.1 The City shall pay undisputed amounts of a Proper Invoice on or before the twenty-eighth (28<sup>th</sup>) calendar day after receipt of the Proper Invoice in SAP Ariba, or other such invoicing system as specified by the City.
- 5.4.2 If the City, or the Design-Builder identify errors, omissions or corrections to a Proper Invoice that has been previously paid, then the errors, omissions or corrections will be included in the Monthly Payment Forecast for the month where the errors, omissions or corrections are identified and then included in the subsequent Proper Invoice and Monthly Payment Report.

# Appendix 16A - Payment Inputs

To the extent that this Table 6: Total Capital Cost Amount is used for the purpose of measuring the Percent Completion for Construction Payment on a monthly basis, measurement shall include only the Work Packages and supporting activities in the Work Breakdown Structure, net of Design and Procurement Fee amounts.

**Table 6: Total Capital Cost Amount** 

Item No.	Level	Name	WBS Discipline	Value
1000	Level 0	Construction		
1000.1	Level 1	Utilities	Utilities	
1000.1.1	Level 2	Utility Relocations & Protection	Utilities	
1000.1.2	Level 2	New Utility Services (Water, Natural Gas, Power)	Utilities	
1000.2	Level 1	Roadworks	Roadworks	
1000.2.1	Level 2	Civil Drainage	Drainage	
1000.2.2	Level 2	Roadworks	Roadworks	
1000.3	Level 1	Heritage ∀alley Storm Pond Expansion	Heritage Valley Storm Pond Expansion	
1000.3.1	Level 2	Heritage ∀alley Storm Pond Expansion	Heritage Valley Storm Pond Expansion	
1000.4	Level 1	Street Lighting	Streetlighting	
1000.4.1	Level 2	Street Lighting	Streetlighting	
1000.5	Level 1	Structures	Structures	
1000.5.1	Level 2	Retaining Walls	Structures #1	
1000.5.2	Level 2	23 Avenue Underpass	Structures #1	
1000.5.3	Level 2	Blackmud Creek LRT Bridge	Structures #2	
1000.5.4	Level 2	111 Street Bridge Widening	Structures #1	
1000.5.5	Level 2	Anthony Henday Drive LRT Bridge	Structures #2	
1000.6	Level 1	Stations	Stations	
1000.6.1	Level 2	Twin Brooks Station	Twin Brooks Stations	
1000.6.2	Level 2	Heritage Valley North Station	Heritage Valley North Stations	
1000.7	Level 1	Landscaping	Landscaping	

Item No.	Level	Name	WBS Discipline	Value
1000.7.1	Level 2	New Trees	Landscaping	
1000.7.2	Level 2	Shrubs and beds	Landscaping	
1000.7.3	Level 2	Topsoil, Sod or Seeding	Landscaping	
1000.7.4	Level 2	Fencing	Landscaping	
1000.7.5	Level 2	Blackmud Creek Naturalization	Landscaping	
1000.8	Level 1	System Structures	System Structures	
1000.8.1	Level 2	Ductbanks	System Structures	
1000.8.2	Level 2	Foundations - OCS	System Structures	
1000.8.3	Level 2	Foundations - Signaling Equipment	System Structures	
1000.8.4	Level 2	Utility Complex Building #1 – Twin Brooks	Utility Complex Building	
1000.8.5	Level 2	Utility Complex Building #2 – Heritage ∀alley	Utility Complex Building	
1000.8.6	Level 2	Utility Complex Building #3 – OMF	Utility Complex Building	
1000.8.7	Level 2	Traction Power Substation (TPSS) – AHD TUC	Traction Power Substation (TPSS)	
1000.9	Level 1	Mainline Trackwork	Mainline Trackwork	
1000.9.1	Level 2	Track Drainage	Drainage	
1000.9.2	Level 2	Track Bed	Mainline Trackwork	
1000.9.3	Level 2	Tie-and-Ballast Track	Mainline Trackwork	
1000.9.4	Level 2	Direct Fixation Track	Mainline Trackwork	
1000.9.5	Level 2	At Grade Crossings	Mainline Trackwork	
1000.9.6	Level 2	Special Trackwork	Mainline Trackwork	
1000.10	Level 1	ROW Electrical	ROW Electrical	
1000.10.1	Level 2	ROW Electrical	ROW Electrical	
1000.11	Level 1	Mainline Power Supply and Distribution	Mainline Power Supply and Distribution	
1000.11.1	Level 2	Traction Power TPSS	Mainline Power Supply and Distribution	
1000.11.2	Level 2	Traction Power SCADA	Mainline Power Supply and Distribution	
1000.11.3	Level 2	TPSS Transfer Trip	Mainline Power Supply and Distribution	
1000.11.4	Level 2	ocs	Mainline Power Supply and Distribution	

Item No.	Level	Name	WBS Discipline	Value
1000.12	Level 1	Mainline Signaling and Train Control	Mainline Signaling and Train Control	
1000.12.1	Level 2	Signalling System	Mainline Signalling and Train Control	
1000.13	Level 1	Communications Systems	Communications Systems	
1000.13.1	Level 2	Communications Systems	Communications Systems	
1000.14	Level 1	Integrated Systems Testing and Commissioning	Integrated Systems Testing and Commissioning	
1000.14.1	Level 2	Integrated Systems Testing and Commissioning	Integrated Systems Testing and Commissioning	
1000.15	Level 1	Llew Lawrence Operations and Maintenance Facility (OMF)	Operations and Maintenance Facility (OMF)	
1000.15.1	Level 2	Track Structure	OMF- Site Track	
1000.15.2	Level 2	Yard and Track Works	OMF- Site Track	
1000.15.3	Level 2	OMF Building and Equipment	OMF- Building and Equipment	
1000.15.4	Level 2	Retaining Walls	Retaining Walls	
1000.15.5	Level 2	Roadways	OMF- Roadways	
1000.15.6	Level 2	Civil Drainage	OMF- Drainage	
1000.15.7	Level 2	Utilities	OMF- Utilities	
1000.15.8	Level 2	Landscaping	OMF- Landscaping	
1000.15.9	Level 2	OCS Foundations	OMF- OCS Foundations	
1000.15.10	Level 2	ocs	OMF- OCS	
1000.15.11	Level 2	Duct Bank	OMF – Duct Bank	
1000.15.12	Level 2	Integrated Systems Testing and Commissioning	OMF – Integrated Systems Testing and Commissioning	
1000.16	Level 1	Public Art	Public Art	
1000.16.1	Level 2	Public Art Installation	Public Art	
2000	Level 0	Design-Builder Management, Engineering, Overhe	ad (Indirect Costs)	

Item No.	Level	Name	WBS Discipline	Value
2000.1	Level 1	Project Management	Project Management	
2000.2	Level 1	Design / Engineering	Design/ Engineering	
2000.2.1	Level 2	Utilities	Utilities	
2000.2.2	Level 2	Roadworks	Roadworks	
2000.2.3	Level 2	Drainage	Drainage	
2000.2.4	Level 2	Heritage ∀alley Storm Pond Expansion	Heritage ∀alley Storm Pond Expansion	
2000.2.5	Level 2	Streetlighting	Streetlighting	
2000.2.6	Level 2	Structures #1	Structures #1	
2000.2.7	Level 2	Structures #2	Structures #2	
2000.2.8	Level 2	Twin Brooks Station	Twin Brooks Station	
2000.2.9	Level 2	Heritage Valley North Station	Heritage ∀alley North Station	
2000.2.10	Level 2	Landscaping	Landscaping	
2000.2.11	Level 2	System Structures	System Structures	
2000.2.12	Level 2	Utility Complex Building	Utility Complex Building	
2000.2.13	Level 2	Traction Power Substation (TPSS)	Traction Power Substation (TPSS)	
2000.2.14	Level 2	Mainline Trackwork	Mainline Trackwork	
2000.2.15	Level 2	ROW Electrical	ROW Electrical	
2000.2.16	Level 2	Mainline Power Supply and Distribution	Mainline Power Supply and Distribution	
2000.2.17	Level 2	Mainline Signaling and Train Control	Mainline Signaling and Train Control	
2000.2.18	Level 2	Communications Systems	Communications Systems	
2000.2.19	Level 2	Stray Current, EMI, Noise, Vibration Mitigation	Stray Current, EMI, Noise, Vibration Mitigation	
2000.2.20	Level 2	Integrated Systems Testing and Commissioning	Integrated Systems Testing and Commissioning	
2000.2.21	Level 2	Operation and Maintenance Facility (OMF)	Operation and Maintenance Facility (OMF)	
2000.2.22	Level 2	OMF - Integrated Systems Testing and Commissioning	OMF - Integrated Systems Testing and Commissioning	
2000.2.23	Level 2	OMF - Site Track	OMF - Site Track	
2000.2.24	Level 2	OMF - Building and Equipment	OMF - Building and Equipment	

Item No.	Level	Name	WBS Discipline	Value
2000.2.25	Level 2	OMF - Retaining Walls	OMF - Retaining Walls	
2000.2.26	Level 2	OMF - Roadways	OMF - Roadways	
2000.2.27	Level 2	OMF - Drainage	OMF - Drainage	
2000.2.28	Level 2	OMF - Utilities	OMF - Utilities	
2000.2.29	Level 2	OMF - Landscaping	OMF - Landscaping	
2000.2.30	Level 2	OMF - OCS Foundations	OMF - OCS Foundations	
2000.2.31	Level 2	OMF - OCS	OMF - OCS	
2000.2.32	Level 2	OMF - Duct Bank	OMF - Duct Bank	
2000.3	Level 1	Construction Management	Construction Management	
2000.3.1	Level 2	General Requirements and Supervision	Construction Management	
2000.3.2	Level 2	Site Preparation, Mobilization and De- mobilization	Construction Management	
2000.3.3	Level 2	Environmental Controls and Mitigations	Construction Management	
2000.3.4	Level 2	Temporary Roadworks, Lighting, Signals	Construction Management	
2000.3.5	Level 2	Stray Current, EMI, Noise, ∀ibration Mitigations	Construction Management	_
2000.4	Level 1	Public Art Coordination	Public Art Coordination	
2000.5	Level 1	Communications and Public Engagement	Communications and Public Engagement	
2000.6	Level 1	Offices	Offices	
2000.7	Level 1	Proposal Phase Costs	Proposal Phase Costs	
	Total	Total Capital Cost Amount		

# Appendix 16B - Escalation Indices

# 1. Hyper Escalation

To account for the impact of hyperinflation, resulting in a Hyper Escalation during the Term, the indices in Table 16B.1 will be used.

Table 16B.1 - Escalation Indices

No.	Index Name	Description	Threshold Percent
1	Construction Union Wage Rate Index, Edmonton	Statistics Canada, Table 18-10-0140-01  - Construction Union Wage Rates, Edmonton, Monthly, Published Semi- Annually	20%
2	Industrial Product Price Index, Diesel Fuel, Prairies	Statistics Canada, Table 18-10-0272-01  – Industrial Product Price Index, Diesel Fuel, Prairies, Monthly	65%
3	Industrial Product Price Index, Primary Ferrous Metal Products, Canada	Statistics Canada, Table 18-10-0265-01  – Industrial Product Price Index, Primary Ferrous Metal Products, Canada, Monthly	33%
4	Industrial Product Price Index, Cement, Glass, and Other Non-Metallic Mineral Products, Canada	Statistics Canada, Table 18-10-0265-01 - Industrial Product Price Index, Cement, Glass, and Other Non-Metallic Mineral Products, Canada, Monthly	20%
5	Consumer Price Index (CPI) - Excluding Food & Energy, Alberta	Statistics Canada, Table 18-10-0004-01 - CPI - Excluding Food & Energy, Alberta, Monthly	20%
6	International Monetary Fund (IMF) - "Industrial Inputs" Primary Commodity Price Index (PCPI)	International Monetary Fund (IMF), Industrial Inputs, Primary Commodity Price Index (PCPI), Global, Monthly	33%

## **Appendix 16C – Non-Performance Event Payment Adjustments**

Table 7 sets out the various attributes that facilitate the calculation of the NPE Payment Adjustments as set out in Section 3.4 [Non-Performance Payment Adjustment] of this Schedule 16. There are a number of mechanics associated with Table 7, represented by the various columns in the table, as follows:

- "NPE Ref #" is a sequential count of the various unique NPE occurrences, representative of (i) in NPE Payment Adjustment formula in Section 3.4.4;
- "NPE Description" includes a description of the NPE occurrence, which if it manifests, will trigger the NPE Payment Adjustment;
- "Sch. Ref" refers to the particular Agreement Schedule and "Sch. Sec" to the particular clause within said Schedule, to which the NPE is related. The NPE and the particular Schedule Section should be considered together.
- "Rate" refers to the daily NPE Payment Adjustment Rate applicable to a particular NPE occurrence, as applied in the NPE Payment Adjustment formula in Section 3.4.4.
- "Allocation Trigger" refers to how a particular NPE is allocated and/or when it is allocated following the occurrence of the NPE.
- "Rectification Timeframe" refers to the timeframe for which rectification of the NPE must be achieved. Failure to rectify the NPE within the rectification timeframe will result in the reapplication of the NPE Payment Adjustment following the last day of the rectification timeframe.
- "Rectification Action" refers to the desired action to be taken by Design-Builder to rectify or alleviate the applicable NPE, which needs to be taken to suspend the applicable NPE Payment Adjustment.

**Table 7: Non-Performance Events** 

NPE Ref # (i)	NPE Description	Sch. Ref	Sch. Sec	Rate	Allocation Trigger	Rectification Timeframe	Rectification Action
1	Failure to provide Submittals required to be provided by a specific due date under this Agreement or in reference to or relative to a due date required under this Agreement. For greater certainty, this does not apply to design Submittals which do not have a specific due date required under this Agreement.	2	1.1	\$1,000	On the day following the end of the allowance period.	Each 7 days following the allocation trigger date.	Day after the Submittal has been received.
2	Implementing or permitting the implementation of any activity including any Construction activity, which is the subject of a Submittal prior to the applicable Submittal being endorsed "Accepted" or deemed endorsed "Accepted" by the City in accordance with Schedule 2. For greater certainty, this constitutes a Non-Performance Event for which the following exceptions apply:  (a) The Non-Performance Event does not apply where a Submittal has been deemed endorsed Accepted and the City subsequently revises the endorsement assigned to such Submittal;  (b) Design-Builder may proceed at risk after submission of Submittal in accordance with	2	2.2	\$1,000	On the day following the implementation of an applicable activity whether reported by Design-Builder or observed by City.	Each day following the allocation trigger.	Day after activity stops or Submittal has been Accepted, deemed Accepted, or related compliance issues have been acknowledged in writing by the City as resolved in the ROCO.
	Schedule 2 and prior to receiving endorsement; however, the Non-Performance Event will apply from start of the activity if within the Review Period the Submittal is endorsed Rejected or Observations with non-compliances applicable to the activity; and  (c) Design-Builder may proceed if the Submittal is endorsed "Observations" to the extent that the activities are not affected by the deficiencies noted in the City's review pursuant to Section 4.6 of Schedule 2.						
3	Failure to achieve Acceptance of the Full Construction Schedule within 365 calendar days, in accordance with the Project Requirements.	3	2.1(b)	\$1,000	On the day following the end of the applicable allowance period.	Each day following the allocation trigger date.	Day after Submittal has been Accepted or deemed Accepted.

NPE Ref # (i)	NPE Description	Sch. Ref	Sch. Sec	Rate	Allocation Trigger	Rectification Timeframe	Rectification Action
4	Failure to provide a compliant Schedule Update, in accordance with Project Requirements. For clarity, non-compliance with the Schedule Update requirements will be identified by the issuance of a Nonconformity Report in accordance with Schedule 9.	3	4.1	\$1,000	On the day following the end of the applicable due date.	Each day following the allocation trigger date.	Day after compliant Schedule Update has been received or when the subsequent months Schedule Update has been received.
5	Failure to provide a Recovery Schedule in accordance with Project Requirements.	3	5.1	\$5,000	On the day following the end of the applicable allowance period.	Each day following the allocation trigger date.	Day after Recovery Schedule has been submitted.
6	Failure to revise and resubmit to the City the Recovery Schedule as required to achieve an "Accepted" endorsement in accordance with Project Requirements	3	5.3	\$5,000	On the day following the end of the applicable allowance period.	Each day following the allocation trigger date.	Day after Recovery Schedule has been Accepted or deemed Accepted.
7	Failure to provide on each anniversary of Commercial Close, the annual report to the City on the implementation of the Community Employment Benefits Plan in accordance with Project Requirements.	4	4.5(d)	\$1,000	On the day following the end of the applicable due date.	Each 7 days following the allocation trigger date.	Day after Submittal has been submitted.
8	Failure to implement and/or comply with the Design Management Plan and any amendments or updates which have been Accepted by the City, in accordance with Project Requirements.	4	6.4.3	\$1,000	On the day following the end of the applicable allowance period.	Each day following the allocation trigger date.	Day after implementation and/or compliance with the Design Management Plan.
9	Failure to obtain prior approval or Acceptance from the City through the Operations Restrictions Request form process prior to impacting existing LRT operations, in accordance with Project Requirements.	5	1-1.4.1.B	\$10,000	For each closure or interruption of the existing Capital Line LRT for which prior approval or Acceptance is not obtained from the City.	Each 15-minute period that an existing Capital Line LRT closure or interruption remains in effect.	Immediately following the 15-minute period in which the existing Capital Line LRT interruption or closure has been removed.

NPE Ref # (i)	NPE Description	Sch. Ref	Sch. Sec	Rate	Allocation Trigger	Rectification Timeframe	Rectification Action
10	Failure to complete construction works and integration activities that require closure of the existing Capital Line LRT within the allowable closure period and as Accepted by the City pursuant to the Century Park Station Work Plan, in accordance with Project Requirements.	5	1-1.4.2.A	\$5,000	For each existing Capital Line LRT interruption or closure that remains in effect immediately following the allowable period.	Each 15-minute period that an existing Capital Line LRT closure or interruption remains in effect.	Immediately following the 15-minute period in which the existing Capital Line LRT interruption or closure has been removed.
11	Failure to provide required temporary fencing or complete construction of the replacement Property Fence in accordance with the Project Requirements.	5	1-3.2	\$500	On the day following the end of the applicable allowance period.	Each day following the allocation trigger date.	Day after required temporary fences or replacement Property Fence is installed.
12	Failure to maintain a fully accessible and barrier-free SUP connection across and into the Blackmud Creek River Valley during Construction, in accordance with Project Requirements.	5	1-4.1.7	\$500	On first day that the Blackmud Creek Bridge SUP is not open and available for public use.	Each day following the allocation trigger date.	Day after the Blackmud Creek Bridge SUP is open and available for public use.
13	For each Building Category 1: exceedance of building v bration thresholds as described in the Project Requirements.	5	1-4.4 A.4.	\$50,000	On the day following the vibration threshold exceedance.	Application of NPE per allocation trigger date only.	Not applicable: non- rectifiable event.
14	For each Building Category 2: exceedance of building v bration thresholds as described in the Project Requirements.	5	1-4.4.A.2. and 1- 4.4.A.3.	\$5,000	On the day following the vibration threshold exceedance.	Application of NPE per allocation trigger date only.	Not applicable: non- rectifiable event.
15	For each Building Category 3: exceedance of building v bration thresholds as described in the Project Requirements.	5	1-4.4.A.1.	\$500	On the day following the vibration threshold exceedance.	Application of NPE per allocation trigger date only.	Not applicable: non- rectifiable event.
16	For each Transportation Closure or modification to traffic signals without an Accepted TAR.	5	1-5.2.2.D.	\$1,000	On the day of the implementation of the closure.	Each 6-hour period that traffic lane, vehicular route, bicycle route, or pedestrian route is not available.	Immediately following the 6-hour period in which traffic lane, vehicular route, bicycle route, or pedestrian route Availability is restored or an Accepted TAR is received.

NPE Ref # (i)	NPE Description	Sch. Ref	Sch. Sec	Rate	Allocation Trigger	Rectification Timeframe	Rectification Action
17	Failure to re-open each Lane Closure by the specified time, following a Full Closure of Anthony Henday Drive or following a Full Closure of the allowable ramps, in accordance with the Project Requirements.	5	1-5.2.5.B.3 and 1- 5.2.5.B.4	\$1,500	For each Lane Closure that remains in effect immediately following the specified time.	Each 30-minute period that a Lane Closure remains in effect.	Immediately following the 30-minute period in which the Lane Closure has been removed.
18	Failure to provide protection from compaction and damage to tree trunks, canopies, and root systems for Critical Root Zones A and B for Protected Trees and Removal Trees in accordance with the Project Requirements.	5	2-12.1.4	\$500	Day following the occurrence.	Each day following the allocation trigger date.	Day after rectification is complete.
19	Damage to any part of a Protected Tree, including tree trunk, canopy and root system evaluated by the Arborist to be less than 30% of the tree, as descr bed in the Project Requirements.	5	2-12.1.7.C.	\$5,000	Day following the tree damage occurrence.	Application of NPE per allocation trigger date only.	Not applicable; non- rectifiable event.
20	Damage to any part of a Protected Tree, including tree trunk, canopy and root system evaluated by the Arborist to be greater than or equal to 30% of the tree, or where the extent of the damage results in death of the Protected Tree, as descr bed in the Project Requirements.	5	2-12.1.7.C.	\$10,000	Day following the tree damage occurrence.	Application of NPE per allocation trigger date only.	Not applicable; non- rectifiable event.
21	For each affected pour, failure to adhere to the cold weather protection period to prevent freezing and to adequately cure the concrete, in accordance with the Project Requirements.	5	4-4.6.18	\$5,000	On the day following the occurrence.	Each day following the occurrence during the required cold weather protection period.	Day after rectification of non-conformity.
22	For each affected pour, failure to adhere to the concrete curing requirements in accordance with the Project Requirements.	5	4-4.6.20	\$1,000	On the day following the occurrence.	Each day following the occurrence during the required curing period.	Day after rectification of non-conformity.
23	Failing to conduct static Testing and Commissioning in a manner that does not cause impact to operation of the existing Capital Line LRT, in accordance with the Project Requirements.	6	1.1.1(a)(iv)	\$5,000	For each existing Capital Line LRT impact that occurs.	Each 15-minute period that an existing Capital Line LRT impact remains in effect.	Immediately following the 15-minute period in which the existing Capital Line LRT impact has been removed.

NPE Ref # (i)	NPE Description	Sch. Ref	Sch. Sec	Rate	Allocation Trigger	Rectification Timeframe	Rectification Action
24	Deleted						
25	Failure to obtain and maintain certification of the Quality Management System in accordance with the most current version of the ISO 9001 Standard from the Accepted ISO 9001 Standard certification agency in accordance with the Project Requirements.	9	2.2	\$10,000	On the day following the applicable due date.	Each 30 days following the allocation trigger date.	Day after satisfactory evidence of certification provided to the City.
26	Failure to provide the required amount of notice for check, review, inspection, monitoring, calibration, sample, test or trial where such activity is being performed in the rest of North America or outside of North America, in accordance with Project Requirements.	9	6.4.1 (b) and 6.4.1 (c)	\$5,000	Day following the required notification period.	Application of NPE per allocation trigger date only.	Not applicable; non- rectifiable event.
27	For each applicable Quality Audit findings or audit recommendations identified, failure to address the finding and implement all Corrective Actions in accordance with the Project Requirements.	9	7.2, 7.4, and 8.2	\$1,000	On the day following the applicable due date.	Each 5 Business Days following the allocation trigger date.	Day after the audit finding is addressed and Accepted or deemed Accepted by the City.
28	Failure to have a compliant Final Plan within 30 Business Days of the initiation of each Nonconformity Report, or alternate date agreed to by the City.	9	9.2.1(e)	\$1,000	On the day following the applicable allowance period.	Each 5 Business Days following the allocation trigger date.	Day after the Final Plan has been Accepted by the City.
29	Failure to implement, document and verify completion of the Final Plan within the Accepted time frame on the Nonconformity Report in the Nonconformity Tracking System.	9	9.2.1 (g)	\$1,000	On the day following the applicable allowance period.	Each 5 Business Days following the allocation trigger date.	Day after required completion of the Final Plan is verified.
30	Failure to identify and report a Nonconformity, in accordance with the Project Requirements:  a) for which the City has issued a Nonconformity Report or a Potential Nonconformity that is subsequently considered a Nonconformity; and b) that the City, acting reasonably, considers that Design-Builder ought to have identified	9	9.2 and 9.3	\$5,000	On the day the City issues the Non-conformity Report or Potential Non-Conformity Report	Application of NPE per allocation trigger date only.	Not applicable: non- rectifiable event.

NPE Ref # (i)	NPE Description	Sch. Ref	Sch. Sec	Rate	Allocation Trigger	Rectification Timeframe	Rectification Action
	and reported before the City did so.						
31	Failure to fully implement and maintain a compliant Nonconformity Tracking System, in accordance with Project Requirements.	9	9.4	\$5,000	On the day following the applicable allowance period.	Each 5 Business Days following the allocation trigger date.	Day after system operation is achieved or re-achieved as Accepted by the City.
32	Failure to rectify the Root Cause(s) that lead to issuance of a Corrective Action Request, in accordance with the Project Requirements.	9	10	\$10,000	On the day following the applicable due date.	Each 5 Business Days following the allocation trigger date.	Day after closure of all Root Cause(s) associated the NCRs that lead to the issuance of the CAR, as Accepted or deemed Accepted by the City
33	A rectifiable breach of an Applicable Law or the Environmental Permits.	10	1(b), 1(d) and 3(a)	\$3,000	On the day following the occurrence.	Each day following the allocation trigger date.	Day after rectification is complete.
34	A non-rectifiable breach of an Applicable Law or the Environmental Permits	10	1(b), 1(d) and 3(a)	\$10,000	On the day following the occurrence.	Application of NPE per allocation trigger date only.	Not applicable: non- rectifiable event.
35	Failure to stop any or all of the Project Work if any environmental monitoring, inspection or audit indicates that the Project Work does not comply with any of Design-Builder's Environmental Obligations.	10	7(c) (iv)	\$3,000	On the day following the implementation of an applicable activity.	Each day following the allocation trigger date.	Day after Project Work is brought back into compliance or the work is stopped.
36	Starting any Project Work that involves any physical disturbance of the Lands before all elements of the Environmental Management System and all Environmental Plans applicable to that Project Work have been Accepted or deemed Accepted in accordance with the Review Procedure.	10	8.1(b) and 9.2(a)	\$5,000	On the day following the implementation of an applicable activity.	Each day following the allocation trigger date.	Day after activity stops or the EMS and Environmental Plan is Accepted or deemed Accepted
37	Failure to submit an updated Environmental Management System and updated Environmental Plans to the City on each anniversary of the Effective Date or the first Business Day thereafter.	10	8.3(b) and 9.3(b)	\$1,000	Submittal is not received before or on the applicable due date.	Each 2 days after the allocation trigger date.	Day after the submission of the Submittal or gaining City Acceptance of revised Submittal due date.

NPE Ref # (i)	NPE Description	Sch. Ref	Sch. Sec	Rate	Allocation Trigger	Rectification Timeframe	Rectification Action
38	Failure to resolve comments provided by the City on the updated EMS and updated Environmental Plans due on the anniversary of the Effective Date to ensure the EMS and Environmental Plans are Accepted or deemed Accepted by the City in accordance with Project Requirements.	10	8.3(b) and 9.3(b)	\$1,000	On the day following the end of the applicable allowance period.	Each day following the allocation trigger date.	Day after Submittal has been Accepted or deemed Accepted.
39	Starting new or modified Project Work not covered by existing Accepted Environmental Plans, before new or modified plans have been submitted to the City as a Submittal under Schedule 2 [Submittal Review Procedure] and have been Accepted or deemed Accepted under Schedule 2 [Submittal Review Procedure].	10	9.2(a) and 9.3(d)	\$5,000	On the day following the implementation of an applicable activity.	Each day following the allocation trigger date.	Day after Environmental Plan is Accepted or deemed Accepted or the Project Work is stopped.
40	Failure to only remove vegetation to ground level and leave root networks intact on slopes where vegetation clearing occurs more than two days in advance of earthworks, in accordance with the Project Requirements.	10	11(e)	\$5,000	On the day following the removal occurrence.	Application of NPE per allocation trigger date only.	Not applicable; non- rectifiable event.
41	Failure to conduct any monitoring or inspection as required under the EMS, including under any Environmental Plan.	10	13(a)	\$3,000	On the day following the day when the monitoring or inspection activity was due.	Application of NPE per allocation trigger date only.	Not applicable: non- rectifiable event.
42	Failure to provide required monitoring and inspection reports in accordance with the Project Requirements.	10	13 (b)	\$1,000	On the day following the applicable due date.	Each 2 days following the allocation trigger date.	Day after Submittal has been Accepted or deemed Accepted.
43	Failure to notify the City in accordance with the Project Requirements:  i) after Design-Builder or a Design-Builder Person becomes aware of any breach of, or failure to comply with, any Applicable Law or Environmental Permit, or  ii) after receipt of any charge, order, investigation or notice of violation or noncompliance issued against Design-Builder or any Person Co Person under any	10	13 (d)	\$1,000	On the day following the occurrence.	Each day following the allocation trigger date.	Day after the City has received the required notice.

NPE Ref # (i)	NPE Description	Sch. Ref	Sch. Sec	Rate	Allocation Trigger	Rectification Timeframe	Rectification Action
	Applicable Law or Environmental Permit, or iii) (iii) after Design-Builder or a Design-Builder Person becomes aware of any notice, claim, action or other proceeding by any Person or Governmental Authority against Design- Builder or any Design-Builder Person.						
44	Failure to submit to the City a copy of the written report prior to filing such report to the Governmental Authority within 72 hours after the breach or failure to comply with Applicable Law or Environmental Permit.	10	13(e)	\$1,000	On the day following the applicable allowance period.	Each day following the allocation trigger date.	The day after the applicable report is submitted to the City.
45	Failure to conduct either internal or external audits of the Environmental Management System in accordance with the Project Requirements.	10	14.1 and 14.2	\$1,000	On the day following the applicable due date.	Each day following the allocation trigger date.	The day following the commencement of the applicable audit.
46	Failure to complete all Corrective Actions and Preventive Actions identified during EMS internal and external audits in accordance with Project Requirements.	10	14.1(f) and 14.2(f)	\$1,000	On the day following the applicable allowance period.	Each day following the allocation trigger date.	The day after rectification of the identified non-conformities/deficiencies.
47	Commencing any ground disturbance activity at Known Contaminated Locations before the Contamination Management Plan has been Accepted or deemed Accepted.	10	15.1	\$1,000	On the day following the implementation of an applicable activity.	Each day following the allocation trigger date.	Day after Contamination Management Plan has been Accepted or deemed "Accepted" or work has been suspended.
48	Failure to notify the City in accordance with Project Requirements, if Design-Builder or a Design-Builder Person knows, discovers or suspects on the basis of visual or olfactory observation any location outside the boundaries of the Known Contaminated Locations contains Contamination.	10	15.6(a)	\$1,000	On the day following the occurrence.	Each day following the allocation trigger date.	Day after the City has received the required notice.

NPE Ref # (i)	NPE Description	Sch. Ref	Sch. Sec	Rate	Allocation Trigger	Rectification Timeframe	Rectification Action
49	Failure to meet the specified annual 90% waste diversion standard.	10	15.7(e)(x)	\$5,000	On the day following standard inspection.	Application of NPE per allocation trigger date only.	Not applicable: non-rectifiable event.
50	Failure to verbally notify the City in accordance with Project Requirements, of the occurrence of any spill or other release of a Hazardous Substance after the Design-Builder or Design-Builder Person became aware or, ought to have been aware of, the spill or other Release.	10	15.7(h)	\$1,000	On the day following the occurrence.	Each day following the allocation trigger date.	Day after the City has received the required notice.
51	Failure to remove vegetation and waste from the Lands within the times specified in Schedule 10.	10	17(c)(i) and (ii)	\$500	On the day following the end of the applicable allowance period.	Each 3 days following the allocation trigger date.	The day following the removal of vegetation and waste from the Lands in accordance with the Project Requirements.
52	Failure to obtain a passing grade on ISNetworld of A, B, or C and maintain a status of "Certificate Issued" as its most recent COR/SECOR/SMA status on ISNetworld for the Term, or any other alternate certificate and status, as agreed by the City.	11	1.4	\$5,000	On the day following the implementation of any portion of the Project Work.	Each 7 days following the allocation trigger date.	Day after a passing grade and/or the status of "Certificate Issued" is received.
53	Failure to prepare and submit a compliant Safety Management Plan covering each type of Construction activity prior to commencing the activity, in accordance with the Project Requirements.	11	3.1	\$5,000	On the day following the implementation of an applicable activity.	Each day following the allocation trigger date.	Day after submission of the required Safety Management Plan or the day after the activity is stopped.
54	For each incident resulting in property damage, failure to investigate and report the incident in accordance with the Project Requirements.	11	9.2 (a)	\$500	On the day after the applicable allowance period.	Each day following the allocation trigger date.	Day after the required investigation is complete and report is provided to the City.
55	For each incident resulting in injury to a Person or loss of life, failure to investigate and report the incident in accordance with the Project Requirements.	11	9.2 (a)	\$5,000	On the day following the applicable allowance period.	Each day following the allocation trigger date.	Day after the required investigation is complete and report is provided to

NPE Ref # (i)	NPE Description	Sch. Ref	Sch. Sec	Rate	Allocation Trigger	Rectification Timeframe	Rectification Action
							the City.
56	Failure to implement the Corrective Actions identified in the applicable report in accordance with Project Requirements.	11	9.2 (b)	\$5,000	On the day following the applicable allowance period.	Each day following the allocation trigger date.	Day after implementation of the Corrective Action.
57	Failure to notify the City in writing of any order, directive, fine or penalty issued under the Occupational Health and Safety Act (Alberta), including a "stop-work order", in accordance with Project Requirements.	11	9.6	\$1,000	On the day following the applicable allowance period.	Each day following the allocation trigger date.	Day after the City has received the required notice.
58	For each post made or shared by Design-Builder or any Design-Builder Person relating to the Project, the Design-Build Agreement or the City on their own social media accounts or website(s) without the prior review, acceptance and consent of the City, aside from the social media accounts that Design-Builder establishes for the purposes of meeting the requirements of Schedule 12.	12	3.5(c)	\$1,000	On the day following the occurrence.	Application of NPE per allocation trigger date only.	Not applicable: non- rectifiable event.
59	For each media release, public announcement or any other public disclosure shared by the Design-Builder to the media relating to the Project, the Design-Build Agreement or the City without the prior review, acceptance and consent of the City.	12	3.6(c)	\$5,000	On the day following the occurrence.	Application of NPE per allocation trigger date only.	Not applicable: non- rectifiable event.
60	Failure to provide the Monthly Payment Forecast to the City in accordance with Section 4.1 [Monthly Payment Forecast] of this Schedule 16.	16	4.1	\$1,000	On the day following the applicable due date.	Each day following the allocation trigger date.	Submission of the Monthly Payment Forecast to the City.
61	Failure to meet with the City in accordance with Section 4.2 [Monthly Payment Forecast Review] of this Schedule 16.	16	4.2	\$1,000	On the day following the occurrence.	Application of NPE per allocation trigger date only.	Not applicable: non- rectifiable event.

NPE Ref # (i)	NPE Description	Sch. Ref	Sch. Sec	Rate	Allocation Trigger	Rectification Timeframe	Rectification Action
62	Failure to provide Project Records within 5 Business Days of receipt of a written request from the City.	18	2(c)	\$500	On the day following the applicable allowance period.	Each day following the allocation trigger date.	Submission of Project Records to the City.
63	Failure to notify the City of any unauthorized use, access, or disclosure of Project Records, containing personal information or third-party business information, of the Design-Builder becoming aware of such unauthorized use, access, or disclosure in accordance with Project Requirements.	18	8	\$1,000	On the day following the applicable allowance period	Each day following the allocation trigger date.	Day after the City has received the required notice.
64	Failure to implement the Records Management Protocol within 90 days following the Effective Date or such other date Accepted by the City in the Submittal Schedule and Register.	19	2(c)	\$1,000	On the day following the applicable allowance period.	Every 7 days following the allocation trigger date.	Day after full implementation is achieved.
65	Failure to meet the commitment requirements as stated in Appendix 26A for the respective Key Individual in any given month as determined by the City, acting reasonably.	26	3.1(c)	\$1,000	On the day following the applicable allowance period.	Every 7 days following the allocation trigger date.	Day after Accepted Key Individual is available in accordance with Appendix 26A.
66	Changing of a Key Individual in accordance with Section 3.2(b) of Schedule 26 (as a result of death/serious illness/resignation) and not having an Accepted permanent replacement after 60 days.	26	3.2(b)	\$1,000	On the day following the applicable allowance period.	Every 7 days following the allocation trigger date.	Day after Accepted Key Individual is available in accordance with Appendix 26A.

### Appendix 16D - Monthly Payment Certificate

The Proper Invoice and its Monthly Payment Report delivered pursuant to Sections 5.1 [*Proper Invoice*] and Section 4.4 [*Monthly Payment Report*] of Schedule 16 [*Payment Mechanism*] shall be accompanied by a monthly payment certificate in a form agreed to by the City substantially similar to the Monthly Payment Certificate below:

## LETTERHEAD + ...

This letter, together with the attached documents, constitutes the Design-Builder's request for payment in the amount of \$[●] for work performed for the period beginning [●] and ending [●].

Capitalized terms used and not defined shall have the meanings given to them as defined in the Agreement. "Disclosed" means disclosed to the City in writing prior to the date hereof or specifically set out in the attached documents with a reference to the applicable Section of this request.

The Design-Builder is familiar with and has examined the provisions of the Agreement. As of the date hereof, the Design-Builder hereby represents, warrants and certifies to the City that:

- A. The Design-Builder does not have knowledge, having made all reasonable enquiries, of any matter that is:
  - (i) materially and adversely affecting or impairing the ability of the Design-Builder to perform its obligations under the Agreement;
  - (ii) materially and adversely affecting or impairing the Project Work, including the ability of the Design-Builder to achieve PICO Completion by the Target PICO Completion Date or to complete the Construction by the Target Construction Completion Date; or
  - (iii) resulting in the occurrence of a Termination Event under the Agreement;

and that has not been disclosed.

- B. The Design-Builder has provided notice, in accordance with the Design-Build Agreement, to the City of any Relief Events, Limited Relief Events or Force Majeure Events that have affected Project Work during the period.
- C. The Design-Builder has or will have available to it, as and when required, all the Permits that are necessary to carry out the Project Work being performed.
- D. To the best of the Design-Builder's knowledge, the Design-Builder has or will have the right to use, or has entered into a binding agreement under which it will acquire or have the right to use, all Intellectual Property rights necessary for it to perform its obligations under the Agreement and the Design-Builder has notified the City of any assertion of adverse claim by a third party to any such Intellectual Property rights.
- E. To the best of the Design-Builder's knowledge (after all due enquiry), no Intellectual Property right owned by the Design-Builder or any third party and necessary for the Design-Builder to perform its obligations under the Agreement is being infringed, nor is there any threatened infringement of any such Intellectual Property right, and that has not been disclosed.

- F. The Design-Builder has taken all formal and procedural actions (including payment of fees) required to maintain any material Intellectual Property rights owned by the Design-Builder.
- G. The Project Work covered by this request is generally in accordance with the Design-Builder's obligations under the Agreement.
- H. All the Project Contractors and Subcontractors have been paid in full all amounts that are due and owing as of the month immediately preceding the month represented by this request except for holdbacks (including for amounts disputed in good faith) required or permitted to be made under the Contracts and Subcontracts and pursuant to the Alberta Prompt Payment and Construction Lien Act (Alberta), if applicable.
- I. The Design-Builder is entitled to payment in the amount requested in this request.
- J. No Termination Event has occurred that is continuing.

This request is made subject to and in accordance with the terms and conditions of the Agreement.

SIGNATURES +...