THE CITY OF EDMONTON

DESIGN-BUILD AGREEMENT CAPITAL LINE SOUTH LRT EXTENSION

Schedule 28 Project Approvals and Utility Matters Part 2 – Utility Matters

> Edmonton Capital Line South LRT Extension Design-Build Agreement – Final Version Schedule 28 – Project Approvals and Utility Matters Part 2 – Utility Matters

1.	GENEF	RAL	
	1.1	Definitions	1
2.	DESIG	N-BUILDER RESPONSIBILITIES	5
	2.1	General	
	2.2	Utility Best Practices	
	2.2	Interpretation of Utility Best Practices	
	2.3	Utility Coordination Plan	
	2.4 2.5	Public Utilities Interface Procedures	9
	2.6	Public Utility Agreements	
	2.7	Utility Work Reporting	
	2.8	City Support Statements	
	2.9	Additional Design-Builder Responsibilities	
	2.10	Future Utility Work	
	2.11	Changes to City Utility Work	
	2.12	Design-Builder Assumption of Incomplete City Utility Work	18
	2.13	City Participation in Meetings	
	2.14	Coordination with Pipeline Companies	19
3.	CITY R	ESPONSIBILITIES	
	3.1	City Responsibilities	19
	3.2	Unfinished City Utility Work	21
4.		Y COSTS	
5.	UTILIT	Y COMPANY RESPONSIBILITIES	23
6.	UTILIT	Y WORK REQUIREMENTS	23
	6.1	General	23
	6.2	Utility Conflicts	24
	6.3	Background to Deferred Utility Work	
	6.4	Utility Infrastructure Left in Place	
	6.5	Utility Infrastructure Not To Be Relocated	
	0.0		
7.	UTILIT	Y WORK DISCLOSED DATA	25
	7.1	Development of Scope or Standards of Work	25
	7.2	Information Only	
8.	MISCE	LLANEOUS	
	8.1	Contamination and Hazardous Substances	
	8.2	Utility Work Relief Events	27
	NDIV 20	24 City Utility Work Completed Prior To Effective Date	20
AFFEI		-2A City Utility Work Completed Prior To Effective Date	20
APPE	NDIX 28	-2B Incomplete City Utility Work	30
APPE	NDIX 28	-2C Deferred Utility Work	31
	NDIX 28	-2D Pipeline Work	35

TABLE OF CONTENTS

APPENDIX 28-2E Existing Utility Agreements	35
APPENDIX 28-2F Utility Company Contact Particulars	37
APPENDIX 28-2G Utility Line Assignment (ULA) Data and Processes	40
APPENDIX 28-2H Utility Infrastructure Left in Place	46
APPENDIX 28-2I Utility Infrastructure Not To be Relocated	47
Appendix 28-2J Utility Deviations	48

SCHEDULE 28 PROJECT APPROVALS AND UTILITY MATTERS PART 2 – UTILITY MATTERS

1. GENERAL

1.1 Definitions

In this Part 2 - Utility Matters of this Schedule, capitalized terms have the meanings given in Schedule 1 [Definitions and Interpretation] and the following capitalized terms have the following meanings:

- 1.1.1 **"Assumed Incomplete City Utility Work**" means Incomplete City Utility Work that has become the responsibility of Design-Builder pursuant to Section 2.12 [Design-Builder Assumption of Incomplete City Utility Work].
- 1.1.2 DELETED.
- 1.1.3 "City Support Statements" has the meaning given in Section 2.8 [City Support Statements].
- 1.1.4 **"City Utility Work**" means all Utility Work activities or undertakings described in Appendix 28-2A [*City Utility Work Completed Prior To Effective Date*] and Appendix 28-2B [*Incomplete City Utility Work*], but excluding Assumed Incomplete City Utility Work.
- 1.1.5 **"Deferred Utility Work**" means all Utility Work activities or undertakings described in Appendix 28-2C [*Deferred Utility Work*].
- 1.1.6 **"Design-Builder Utility Work**" means, collectively, all Deferred Utility Work, any Assumed Incomplete City Utility Work and any other Utility Work that is required to accommodate the Design or Construction of the Infrastructure, including New Utility Service Connections required to operate the Project.
- 1.1.7 **"Eligible Utilities Costs**" means amounts invoiced to Design-Builder directly by a Utility Company pursuant to carrying out Utility Works, including in respect of the following:
 - (a) by EDTI for Utility Complex electrical servicing costs;
 - (b) Utility Service Connections; and
 - (c) Permitted Relocations;

but excludes "Ineligible Utilities Costs".

- 1.1.8 "Eligible Utilities Costs Reports" has the meaning given in Section 4.1.3 [Utility Costs].
- 1.1.9 "Eligible Utilities Costs Ruling" has the meaning given in Section 4.1.4 [Utility Costs].
- 1.1.10 **"Eligible Utilities Costs Ruling Request**" has the meaning given in Section 4.1.4 *[Utility Costs]*.
- 1.1.11 "Excess Eligible Utilities Costs" has the meaning given in Section 4.1.2 [Utility Costs].
- 1.1.12 **"Existing Utility Agreements**" means the Utility Agreements listed and described in Appendix 28-2E [*Existing Utility Agreements*].

- 1.1.13 **"Existing Utility Service Connections**" means existing Utility Service Connections to Adjoining Lands.
- 1.1.14 **"Franchise Agreements**" means those Existing Utility Agreements identified as **"Franchise Agreements**" in Appendix 28-2E *[Existing Utility Agreements]*.
- 1.1.15 "Future Utility Work" means Utility Work:
 - (a) occurring after Construction Completion; or
 - (b) which (i) was not disclosed or known to Design-Builder prior to the Financial Bid Response Deadline; and (ii) is not required to accommodate the Design, Construction, or operation of the Infrastructure.
- 1.1.16 **"GeoEdmonton**" means the City's spatial data system, created and managed using geographic information system technology.
- 1.1.17 **"Incomplete City Utility Work**" means all City Utility Work activities or undertakings described in Appendix 28-2B *[Incomplete City Utility Work]*.
- 1.1.18 **"Initial Eligible Utilities Costs**" means Eligible Utilities Costs up to and including the amount of **Costs**.
- 1.1.19 **"Ineligible Utilities Costs**" means costs and/or expense incurred by Design-Builder for Utility Work in respect of the following:
 - (a) Utility Work Relief Events;
 - (b) relocation of City Utility Work, Assumed Incomplete City Utility Work, Utility Infrastructure Left in Place, other than Permitted Relocations;
 - (c) any subsequent relocation of Deferred Utility Work;
 - (d) Utility Infrastructure Not To be Relocated;
 - (e) managing, supervising (including supervising others) and undertaking Design-Builder Utility Work;
 - (f) acceleration costs or other increased costs incurred by Utility Companies for Design-Builder Utility Work resulting from any Design-Builder request to change the Utility Design and/or Utility construction schedule prepared by the Utility Company in accordance with the Existing Utility Agreements;
 - (g) temporary and drainage Utility Service Connections;
 - (h) Utility consumption expenses;
 - (i) DELETED; and
 - (j) professional fees and expenses of the Design-Builder.
- 1.1.20 <u>"Maximum Excess Eligible Utilities Costs Amount</u>" means an amount equal to

- 1.1.21 **"New Utility Service Connections**" means new Utility Service Connections to the Infrastructure.
- 1.1.22 **"Permitted Relocations**" means relocation of, or relating to, City Utility Work, Assumed Incomplete City Utility Work and Utility Infrastructure Left in Place to the extent Design-Builder demonstrates to the City's reasonable satisfaction that, notwithstanding implementation of Utility Best Practices, such City Utility Work, Assumed Incomplete City Utility Work and Utility Infrastructure Left in Place is not able to be accommodated vis-àvis the Project Work and must be relocated.
- 1.1.23 **"Pipeline Company**" means those owners and operators of Pipeline Infrastructure within or adjacent to the City Lands, including:
 - ATCO Gas and Pipelines Ltd.;
 - Keyera Energy Ltd.;
 - Trans Mountain Pipeline L.P.; and
 - Plains Midstream Canada ULC.
- 1.1.24 **"Pipeline Agreement**" has the meaning given in Section 2.5.4 *[Pipeline Agreements]* provided that, for clarity, **"Pipeline Agreements**" includes, without limitation, proximity and encroachment agreements, pipeline crossing agreements and temporary permits.
- 1.1.25 **"Pipeline Infrastructure**" means privately, publicly or cooperatively owned lines, facilities or systems for transmitting or distributing gas, oil and petroleum products, or other similar commodity or substance which serve the public directly or indirectly, including underground and surface facilities, as well as facilities on a shared basis and all related infrastructure.
- 1.1.26 "**Pipeline Interface Protocols**" has the meaning given in Section 2.2 [Utility Best Practices].
- 1.1.27 **"Pipeline Work**" means all Design-Builder Utility Work in respect of or relating to Pipeline Infrastructure including, without limitation, the Utility Work or undertakings described in Appendix 28-2D [*Pipeline Work*].
- 1.1.28 **"Pre-ULA Process**" means the process developed and administered by Design-Builder in advance of, and to facilitate, the ULA Process. The Pre-ULA Process shall be consistent with the pre-ULA process recommended in Appendix 28-2G *[Utility Line Assignment (ULA) Data and Processes]* to this Schedule and, for certainty, shall include the following:
 - (a) collection of draft Utility Design submissions from Utility Companies or Design-Builder, as the case may be;
 - (b) distribution of draft Utility Design submissions to Design-Builder designers and Utility Company designers for review and comment, for the purpose of minimizing or eliminating conflicts arising during the ULA Process;
 - (c) collection, collation and distribution to relevant parties of review comments; and

- (d) coordination of adjustments to submitted Design of the Infrastructure or Utility Design to address review comments and advance such designs for ULA Process submission. The Pre-ULA Process shall mirror the ULA system, including, but not limited to distribution of designs to all interested parties for solicitation of evaluation and feedback, as well as compliance with drawing standards.
- 1.1.29 "Public Utility Agreement" means a Utility Agreement with a Public Utility Company.
- 1.1.30 **"Public Utility Company**" means those owners and operators of Public Utility Infrastructure within or adjacent to the City Lands, including:
 - AltaLink, L.P.;
 - ATCO Gas and Pipelines Ltd.;
 - Bell Canada;
 - Shaw Cablesystems Limited;
 - TELUS Communications Company;
 - TransAlta Corporation;
 - EPCOR Distribution & Transmission Inc.; and
 - EPCOR Water Services Inc.
- 1.1.31 **"Public Utility Infrastructure**" means privately, publicly or cooperatively owned lines, facilities or systems for transmitting or distributing electricity, data, communications, sewage, water or other similar commodity or substance which serve the public directly or indirectly, including underground, surface and overhead facilities as well as facilities which use common poles, ducts or conduits on a shared basis, and all related infrastructure including, as applicable, Utility Service Connections.
- 1.1.32 **"Request for Excess Eligible Utilities Costs Payment**" has the meaning set out in Section 4.1.7 of this Schedule.
- 1.1.33 **"Rights of Way Consent and Access Agreement**" means each of the Existing Utility Agreements identified as "Rights of Way Consent and Access Agreements" or "Municipal Access Agreement" in Appendix 28-2E *[Existing Utility Agreements]*.
- 1.1.34 "**ULA Process**" has the meaning set out in Section 6.1.5 [Approvals and Rights of Access].
- 1.1.35 **"Utility Agreement**" means any written agreement entered into by the City or Design-Builder with a Utility Company in respect of Utility Work, including without limitation, Pipeline Agreements.
- 1.1.36 "Utility Best Practices" has the meaning given in Section 2.2 [Utility Best Practices].
- 1.1.37 "Utility Company" means a Public Utility Company or a Pipeline Company.
- 1.1.38 "Utility Conflicts" has the meaning given in Section 6.2 [Utility Conflicts].

- 1.1.39 **"Utility Coordination**" means coordination of Utility Work pursuant to the Utility Coordination Plan.
- 1.1.40 **"Utility Coordination Plan**" has the meaning given in Section 2.4 *[Utility Coordination Plan]*.
- 1.1.41 "Utility Design" means design of Utility Infrastructure, specifically.
- 1.1.42 **"Utility Infrastructure**" means Pipeline Infrastructure and Public Utility Infrastructure, as applicable, provided that, for certainty, Utility Infrastructure may not be limited to infrastructure on or within the Lands.
- 1.1.43 "Utility Infrastructure Left in Place" has the meaning given in Section 6.4 [Utility Infrastructure Left in Place].
- 1.1.44 "Utility Infrastructure Not To Be Relocated" has the meaning given in Section 6.5 [Utility Infrastructure Not To Be Relocated].
- 1.1.45 "Utility Report" has the meaning given in Section 2.7 [Utility Work Reporting].
- 1.1.46 **"Utility Service Connections**" means the Utility Infrastructure required, whether within or outside of the Lands, to connect a customer to Utility services;
- 1.1.47 **"Utility Work**" means all work activities or undertakings being carried out or to be performed in, on, under, over or otherwise in connection with the existence, before or after the Effective Date, of Utility Infrastructure.
- 1.1.48 **"Utility Work Relief Event**" means an event, condition or circumstance described in Section 10.1.1(d) of the Agreement.

For clarification, references in this Schedule 28 [Project Approvals and Utility Matters] Part 2 [Utility Matters] to "this Schedule" shall be deemed to mean this Part 2 [Utility Matters] only and not the whole of Schedule 28 [Project Approvals and Utility Matters].

2. DESIGN-BUILDER RESPONSIBILITIES

2.1 General

Subject to and in accordance with the terms of this Schedule and other applicable terms of the Agreement, Design-Builder shall be responsible for and shall assume all of the obligations, tasks, and risks related to the Design-Builder Utility Work.

2.2 Utility Best Practices

Without limiting any other provisions of this Agreement, Design-Builder shall perform the Design-Builder Utility Work in accordance with Good Industry Practice, including, without limitation, the following practices and standards and in compliance with the following obligations as applicable to this Project (collectively, "**Utility Best Practices**"):

- 2.2.1 using standards, practices, methods and procedures to a good commercial standard, conforming to Applicable Law;
- 2.2.2 proactively meeting and otherwise communicating regularly with all applicable Utility Companies, Governmental Authorities, and the City to investigate, forecast, anticipate,

assess, coordinate, manage, minimize, and mitigate the impact of all Utility Work, including but not limited to City Utility Work and Design-Builder Utility Work, on the Project Work;

- 2.2.3 providing proactive, diligent, and prudent project management oversight of all Utility Work, including active coordination of Design-Builder Utility Work with the other Project Work and the City Utility Work;
- 2.2.4 undertaking and engaging in the Pre-ULA Process to collect draft submissions of Utility Design and Design relating to Infrastructure and obtaining and sharing feedback prior to engaging in the ULA Process;
- 2.2.5 reviewing, listing, and commenting upon ULA applications from Utility Companies that relate to Utilities in proximity to the Lands to identify any Utility Conflicts and to facilitate coordination of Utility Conflict mitigations so as to ensure that any Utility Conflicts arising from these Utilities do not adversely impact the Project;
- 2.2.6 identifying locations for which there is inadequate Utility Design information, undertaking the necessary diligence to identify any Utility Conflicts and, if applicable, designing and constructing Utility Conflict mitigations;
- 2.2.7 identifying and addressing Utility Conflict mitigations that could involve work outside the Lands;
- 2.2.8 developing, providing to the City and relevant Utility Companies, and updating, as necessary, a comprehensive standard separation criteria table identifying the separation criteria provided by each Utility Company;
- 2.2.9 developing, providing to the City and relevant Utility Companies, and updating, as necessary, a listing of Utility Company approved variances to standard separation criteria associated with each Utility Design location;
- 2.2.10 developing and maintaining a comprehensive and current listing of Utility Conflicts that will be provided to the City and the applicable Utility Companies and revising the list of potential impacts and updating the concept Utility Design mitigation, where applicable;
- 2.2.11 For each Utility Conflict:
 - (a) developing a concept Utility Design and including in the concept Utility Design a recommended horizontal and vertical realignment of the Utility Infrastructure which will successfully mitigate the Utility Conflict;
 - (b) providing comprehensive revised Utility Design and/or Design-Builder Infrastructure Design and related updates to the City and the applicable Utility Company in a timely fashion; and
 - (c) confirming with each Utility Company the format of information acceptable to the Utility Company and supplying information in the identified format.
- 2.2.12 for each Utility Conflict, developing and maintaining a Utility Conflict mitigation schedule that will contain the estimated duration of Utility Design, construction and associated tasks for completion of the Utility Conflict mitigation, including in relation to applicable cabling, terminations or abandonments of Utility Infrastructure. This schedule shall be

developed, updated and provided to the City and applicable Utility Companies on a monthly basis;

- 2.2.13 designing Infrastructure to meet separation requirements or other applicable design parameters so as to avoid Utility Conflicts with existing or recently relocated Utility Infrastructure or, where this is not possible, pursuing, in conjunction with the relevant Utility Company, the development and execution of a cost-efficient Utility Design that mitigates the relevant Utility Conflict;
- 2.2.14 where it is not possible to meet standard separation requirements, requesting variances from standard separation requirements from the applicable Utility Companies, any applicable Governmental Authority or the City, and obtaining confirmation of non-objection by way of a formal variance request document, circulated to each of the City and relevant Utility Companies;
- 2.2.15 distributing on a monthly basis to each Utility Company and the City, Project Work CAD base files and design drawings relevant to Utility Work, in a form and through delivery methods acceptable to the relevant entity acting reasonably;
- 2.2.16 complying with all Utility Company requirements, policies and guidelines, including guidelines and specifications provided by the Utility Companies;
- 2.2.17 utilizing experienced, qualified and trained Design-Builder Persons having credentials consistent with reputable consultants or contractors specializing in the relevant type of Utility Work;
- 2.2.18 diligently and proactively organizing all meetings, communications, exchanges of information and ensuring timely submission of Utility Conflict identifications,, mitigation designs, drawings, construction schedules and plans among Design-Builder, Design-Builder Persons, Utility Companies, the City, City Persons, Governmental Authorities and other relevant Persons to facilitate the orderly, cost effective, and timely completion of all Design-Builder Utility Work in a manner that mitigates potential delays to the Project and the Project Work, and the Infrastructure;
- 2.2.19 diligently coordinating, accommodating and supporting the Utility Companies and the City in the completion of any Incomplete City Utility Work;
- 2.2.20 supporting, coordinating and accommodating Utility Companies in their performance of Utility Work in accordance with the terms of this Agreement;
- 2.2.21 complying with the Accepted Utility Coordination Plan;
- 2.2.22 providing timely information to Stakeholders regarding Design and Construction, and other activities as is necessary for the effective and efficient performance of the Design-Builder Utility Work and other Project Work, including identifying and disclosing to relevant Stakeholders in a timely manner:
 - (a) the Utility Infrastructure that is expected to be affected by the Project Work;
 - (b) the Project Work that is expected to be affected by the Utility Infrastructure;
 - (c) the Existing Utility Service Connections that require retention and augmentation to maintain customer services in operation during and following Construction Completion;

- (d) the New Utility Service Connections and the support required for the performance of the Project Work; and
- 2.2.23 providing timely responses to enquiries and requests from Utility Companies, including requests for review and comment on Utility Design and performance of field reviews;
- 2.2.24 taking reasonable steps to avoid, and to mitigate the impact of, disputes in relation to Utility Work as between Design-Builder and the City or a Utility Company or between the City and a Utility Company;
- 2.2.25 accommodating requests from the City and Utility Companies for adjustments to scheduled Project Work activities as reasonably required to permit the effective, coordinated and efficient performance of the Utility Work and the Project Work;
- 2.2.26 consistent with the Accepted Utility Coordination Plan, sequencing the Design-Builder Utility Work to facilitate a progressive flow of relevant Design Data and other Submittals to the City and the Utility Companies in order to permit sufficient time for review and response, taking into account: (i) any agreed review and response times; (ii) the volume and complexity of the Submittals; and (iii) and the resources available to the City and the applicable Utility Companies to consider such Submittals;
- 2.2.27 in good faith, having regard to the best interests of the Project, diligently and proactively arranging, negotiating and entering into all approvals, arrangements, understandings, guidelines and agreements which may be contractual and legally binding or non-contractual and non-binding (but confirmed in writing by the relevant Utility Company or the City) in order to supplement the Utility Agreements where reasonably possible and anticipated to be helpful;
- 2.2.28 complying with the applicable terms of the Existing Utility Agreements, the Pipeline Agreements and the terms of all other Utility Agreements, in each case, in accordance with this Schedule;
- 2.2.29 regularly consulting with relevant Governmental Authorities, industry associations and the Utility Companies regarding new developments and updated practices in relevant jurisdictions in relation to adopted codes, standards, conditions, protocols, and related practices applicable to work plans and activities similar to the Design-Builder Utility Work;
- 2.2.30 through diligent and proactive investigations and enquiries throughout the Design phase, consistent with Good Industry Practice and subsurface utility engineering investigation methodologies, including but not limited to enhanced locating techniques (e.g. Sonde, CCTV, scanning, ground penetrating radar), exposure and surveying of Utility Infrastructure, identifying existing Utility Infrastructure locations and improving the reliability of such locations for Utility Conflict mitigation design development to improve the utility quality level to minimize the need for field alterations and produce a more efficient, informed Infrastructure Design. Utilities location information compiled by Design-Builder shall be provided to all relevant Utility Companies and the City on a timely basis;
- 2.2.31 ongoing review, updating and providing to the City and Utility Companies all relevant information and data relating to the Utility Work and Utility Design and the Design of the Infrastructure, including performing additional investigations over and above the Disclosed Data as Design-Builder may consider appropriate in order to accurately understand and quantify Utility Conflicts and plan and implement Utility Conflict mitigations to the extent possible during the Design phase;

- 2.2.32 determining and developing, in consultation with the appropriate parties and consistent with the intent of the ULA Process, the lowest cost mitigation methodology; and
- 2.2.33 mitigation of adverse impacts to the Project and to the City of events, conditions or circumstances that form the basis of a Utility Work Relief Event, using reasonable commercial efforts to avoid adversely affecting, impairing or compromising the recourse rights or remedies of the City as against any Utility Company or any other Person.

2.3 Interpretation of Utility Best Practices

If there is a Dispute between the Parties regarding the meaning or application of Utility Best Practices in or to any particular circumstance or situation, the determination of what it means shall be made having regard to the following factors, which shall be applied in the priority set out below. For clarity, if a factor having higher priority applies, the factors having lower priority shall not be applied in that circumstance.

- 2.3.1 the applicable requirements and standards of this Agreement,
- 2.3.2 the applicable terms, requirements and standards of the Utility Agreements, as the same may be qualified by City Support Statements;
- 2.3.3 the practices and standards applied by the City prior to Commercial Close in respect of the City Utility Work which was made known to, or was capable of being made known to, Design-Builder had it made reasonable enquiry of the City and the Utility Companies prior to Financial Bid Response Deadline;
- 2.3.4 the practices and standards of the City and its consultants and/or contractors in respect of other capital projects similar in size and scope in which Utility Work is required to be performed where the applicable Utility Company was also involved, based on the disclosed practices of the Utility Company in material filed in the Data Room prior to the Financial Bid Response Deadline;
- 2.3.5 the practices and standards of the City and its consultants and/or contractors in respect of other capital projects of similar size and scope to the Utility Work to be performed where the applicable Utility Company is also involved, based on Utility Infrastructure location investigations performed by Design-Builder during the Design phase in order to inform the Design and Construction;
- 2.3.6 the practices and standards customarily followed or applied by other consultants and/or contractors on other similar capital projects not involving the City when working with the applicable Utility Company in respect of similar work activities in similar situations; and
- 2.3.7 the practices and standards of other consultants, contractors and Utility Companies, or Pipeline Companies in respect of capital projects in Alberta or elsewhere in Canada in similar circumstances.

2.4 Utility Coordination Plan

Not more than 90 days after the Effective Date, Design-Builder shall prepare and submit an initial Utility Coordination Plan to the City (the "**Utility Coordination Plan**") that looks forward for the next 270 days. Design-Builder shall further prepare and submit an updated Utility Coordination Plan not later than 180 days following the Effective Date, reflecting the full Term of the Project. One month prior to the date that Design-Builder assumes any obligations in respect of Assumed Incomplete City Utility Work, Design-Builder shall prepare and submit an updated Utility Coordination Plan, which shall address the Incomplete City Utility Work for which Design-Builder shall assume responsibility. Thereafter, annually or upon

request of the City, Design-Builder shall update the current Utility Coordination Plan, highlighting any changes to the Plan from the last Plan submitted. The Utility Coordination Plan shall be consistent with the version included in the Bid Extracts and shall:

- 2.4.1 describe all anticipated Utility Conflicts and their respective mitigations and the planned scheduling and sequencing of the Project Work, identifying any Utility Work deferred subsequent to Construction Completion;
- 2.4.2 describe the Design-Builder Utility Work coordination role and responsibilities, required for each phase of the Design and Construction, including
 - (a) an organizational chart identifying, within Design-Builder and its Subcontractors, each individual position to which the tasks of internal Utility Coordination, Utility Design and construction are assigned; and
 - (b) identification of the methods to be used to ensure Utility Design and Design relating to Infrastructure are fully reviewed internally and externally pursuant to the Pre-ULA Process, highlighting the methods of collection and sharing of feedback; including a description of the information to be communicated, and frequency of communications; and a description of the proposed decision matrix to be used to resolve issues that arise, differentiating, where necessary, in relation to the phase of the work in which the issue would arise;
- 2.4.3 describe the external coordination processes, including listing of information to be shared with Utility Companies, frequency of distribution of information, planned design circulation processing times for reviewing, commenting on, summarizing and exchanging Design-Builder collated information with the Utility Companies and the City for normal-course coordination purposes, pre-ULA Design submissions and ULA submissions, including a description of the process by which compliance with Applicable Law, Utility Best Practices, this Agreement and the requirements of any Utility Agreements and the ULA Process (Appendix 28-2G [Utility Line Assignment (ULA) Data and Processes]) will be achieved;
- 2.4.4 include a narrative describing the existing Utility Infrastructure survey, plans for the acquisition of additional surveys during each phase of the Utility Works, as well as asbuilt survey information to be gathered for Utility Work; indicate for each survey item whether the Utility Company or Design-Builder will be responsible for acquisition of that survey information and whether that information will be shared;
- 2.4.5 describe in detail the Utility Work risks that are known or expected to be encountered by Design-Builder in the successful mitigation of Utility Conflicts (whether known or unknown), and for each risk describe the planned mitigation measures for that risk;
- 2.4.6 describe the Utility Work protection measures to be employed for each temporary or permanent crossing including, but not limited to, commenting upon advance notification, agreement acquisition and Utility Company participation in inspections; in particular, identify whether these measures have been reviewed and confirmed by the respective Utility Company or are to be determined solely by Design-Builder;
- 2.4.7 describe how Utility Companies' access to their Utility Infrastructure will be maintained, including details of any risks relating to such access and the associated mitigation strategies to be employed to mitigate those risks;

- 2.4.8 describe for each individual Utility Conflict, the planned pre-design field investigation to be performed by Design-Builder or by the relevant Utility Company with reference to the target quality level of information to be obtained by way of an aerial and subsurface utility engineering investigation;
- 2.4.9 describe the approach for identifying and maintaining Existing Utility Service Connections and modifying and reinstating such connections into permanent locations in order to maintain existing Utility services to properties, residences, businesses and Utility customers that are impacted by the Project Work;
- 2.4.10 include a mark-up of the reference design Utility Infrastructure drawings included in the Disclosed Data, identifying any additional contemplated variances, Utility Conflicts or planned Utility Conflict mitigations in the Design-Builder Utility Work;
- 2.4.11 include for Design and Construction purposes, a comprehensive list of horizontal and vertical clearance values (preferred separation value and absolute minimum separation value where possible) for Utility Infrastructure forming part of Design-Builder Utility Work versus:
 - (a) other Public Utility Infrastructure to be installed or existing;
 - (b) other Pipeline Infrastructure to be installed or existing; and
 - (c) Non-Utility Infrastructure (including but not limited to trees, catenary poles, catch basins, vaults, foundations and power cubicles) to be installed or existing;
- 2.4.12 include any estimates or agreed confirmations or indications of schedule or cost commitments made prior to Commercial Close, and, where applicable, the Construction Period, by a Utility Company in respect of its deliverables for Utility Work; include as appendices copies of written confirmations, assurances, or forecasts from the Utility Companies attributed in general terms or, where appropriate, specific to a particular item;
- 2.4.13 describe the general sequencing to be followed for Project Work by area and time; include a description of priority areas or individual priority Utility Conflict items for initial Utility Conflict mitigation efforts, and describe why they are a priority; describe the Project Work that must be performed to lessen or eliminate the potential adverse impact of the Utility Conflicts;
- 2.4.14 include in the full term Utility Coordination Plan a description of how timelines or work requirements have changed since the initial Utility Coordination Plan, the Preliminary Construction Schedule and any Schedule Updates; and
- 2.4.15 to the extent relevant and necessary, include Design-Builder's assumptions regarding Utility Company compliance with the terms of specific Utility Agreements and the expected enforcement of these terms by the City, together with confirmation of the expected corresponding support activities from the City as set out in a City Support Statement.

2.5 Public Utilities Interface Procedures

2.5.1 **Public Utilities Interface Procedures**

Design-Builder shall use commercially reasonable efforts, and apply Utility Best Practices in endeavouring, to confirm in writing the Utility interface procedures with each Public Utility Company as

soon as reasonably and practically possible, having regard to the Utility Coordination Plan and Construction Schedule and the Public Utility Company in question. The intended purpose of confirming the procedures in writing is to supplement the Existing Utility Agreements with Project-specific procedures that create a clear mutual understanding of Design-Builder and Public Utility Company interface processes, procedures, notification and reaction durations, application procedures, communication methodologies, to successfully and suitably communicate together for coordinated planning, scheduling, completion and commissioning of Utility Work. For certainty, whether or not the Utility interface procedures are binding on Design-Builder and/or Utility Company, Utility interface procedures shall not amend, or be deemed to amend, applicable Existing Utility Agreements.

2.5.2 **Public Utilities Interface Process**

Design-Builder shall, in consultation with the applicable Public Utility Company, determine for each Public Utility Company work package or program whether a Utility interface procedure would be helpful in managing and mitigating the risk of potential delays or misunderstood work requirements or processes and, in connection therewith, shall:

- (a) deliver a copy of compiled interface procedures to the City and periodically confer with the City Representative, or designate, regarding the proposed key terms and principles of the Utility interface procedures;
- (b) except as may be clarified or confirmed by the City in an applicable City Support Statement, ensure that all Utility interface procedures are consistent with, do not conflict with, and are supplemental to, the Existing Utility Agreements;
- (c) where agreed by the respective Public Utility Company, update and modify the Utility interface procedures to respond to changing circumstances or conditions relating to the Utility Work and the other Project Work; and
- (d) duly perform and carry out the obligations of Design-Builder pursuant to any Utility interface procedures.

2.5.3 **Public Utility Interface Content**

Each Public Utilities interface procedure should, to the extent reasonably possible and applicable, and having regard to the scope and nature of the Utility Work in question, describe some or all of:

- (a) the communications procedures to be followed for successful communication of information regarding the Utility Work;
- (b) the advance coordination procedures to be mutually established:
 - (i) for identification of new Utility Conflicts and the minimum lead time required by the applicable Public Utility Company to initiate a response;
 - (ii) to quantify the minimum information requirements for successful development of a Utility Conflict mitigation;
 - (iii) to determine where Utility Work requires connection to any existing Public Utility Infrastructure; and
 - (iv) to implement measures required to accommodate any Project Work impacts on service recipients and Public Utility Companies;

- (c) the requirements for sharing of Utility Work base plans, drawings, sketches, profiles, specifications, and other documents required to facilitate review of proposed Utility Work and incorporation of revisions from review;
- (d) the procedures, timing and coordination requirements for Public Utility Company pre-notification, monitoring, inspections and sign-offs;
- (e) the requirements for preparation of final Construction plans, profiles, specifications, and other documents that must be reviewed and accepted by the Public Utility Company;
- (f) protocols and expected or targeted timing, including key milestones for the performance of all Utility Work to be performed by the Public Utility Company;
- (g) requirements for advance notification of the applicable Public Utility Company prior to undertaking Utility Work or other Project Work in proximity to its Utility Infrastructure or property to enable Public Utility Company supervisory staff to perform the required inspections and pre-arrange and coordinate any required adjustment to the Public Utility Infrastructure in a manner that is satisfactory to all stakeholders including, where applicable, compensation payable by Design-Builder to the Public Utility Company for its work;
- (h) handover procedures for all Public Utility Infrastructure;
- (i) advance notification of Construction phasing to the relevant Public Utility Company, Governmental Authorities and other interested parties;
- access rights for the Public Utility Company to access the Lands for the purposes of the performance of the Utility Work, including the inspection of Design-Builder Utility Work; and
- (k) notification and request for assistance in clarifying any unknown Utilities that are discovered.

2.5.4 **Pipeline Agreements**

The City shall be responsible to arrange, negotiate and enter into contractually binding agreements or amendments to existing agreements with each Pipeline Company in respect of the Pipeline Work (each a "**Pipeline Agreement**"), in each case, within 12 months of the date that Design-Builder delivers the Final Design for the Project Work associated with the Pipeline Infrastructure, as well as any additional information that may be required by each Pipeline Company associated with the Final Design, including equipment loading, temporary load mitigation, support designs, stray current mitigation, geotechnical information and vibration studies. Design-Builder shall, in a timely manner, cooperate with and assist the City, at the City's request, in negotiating and finalizing the proposed Pipeline Agreements, including for purposes of developing schedules for the Pipeline Work.

2.6 Public Utility Agreements

Design-Builder shall duly perform and carry out on behalf of the City all of the City's obligations under the Public Utility Agreements in respect of the Design-Builder Utility Work, except that Design-Builder shall not have any obligation to:

- 2.6.1 collect on behalf of the City any amount, including any cost contributions, to be paid by a person to the City under a Public Utility Agreement (and all such amounts will be payable to and for the credit of the City and not Design-Builder);
- 2.6.2 remit on behalf of the City any amount, including any cost contributions, to be paid by the City under a Public Utility Agreement; or
- 2.6.3 perform, follow, or abide by those specific sections or provisions of a particular Public Utility Agreement which the City confirms pursuant to a City Support Statement are not relevant or applicable to particular Design-Builder Utility Work activities.

2.7 Utility Work Reporting

Not less than monthly, Design-Builder shall prepare and submit a report on the development of and compliance by the Utility Companies and Design-Builder with the procedures, terms, and conditions of the Utility interface procedures and Utility Agreements as they relate to the Project, Utility Work, or Project Work for the period since the previous report, including:

- 2.7.1 an overview status report of all Utility Work performed during that period;
- 2.7.2 a summary overview of records being maintained and key activities occurring in relation to the oversight and administration of the Utility interface procedures and Utility Agreements;
- 2.7.3 a record of the steps taken by Design-Builder to investigate, assess, mitigate and manage all Design-Builder Utility Work, including identified issues or adverse impacts associated with the Utility Work that could give rise to or have given rise to a Relief Event, including a Utility Work Relief Event;
- 2.7.4 a record of the steps taken by Design-Builder to coordinate the Project Work, including the Design-Builder Utility Work, with other Utility Work, including City Utility Work;
- 2.7.5 Design-Builder Utility Work cost variances from the Utility Coordination Plan;
- 2.7.6 relevant City Support Statement listings, if any;
- 2.7.7 relevant Design variance log, if any;
- 2.7.8 description of newly identified Utility Conflicts and/or Future Utility Work;
- 2.7.9 an updated Construction Schedule summarizing the status of all Design-Builder Utility Work completed and planned for completion; and
- 2.7.10 other material developments relating to Utility Work matters,

(each, a "Utility Report")

The scope and level of detail of each Utility Report shall be commensurate with the scope and complexity of new developments to be covered in each Utility Report, having regard to timing and scheduling considerations and the stages of the Utility Work in relation to the Utility Coordination Plan.

2.8 City Support Statements

2.8.1 General

The Parties acknowledge that, whereas the Utility Agreements are of general application to a broad range of different projects and that certain terms of certain Utility Agreements may not necessarily be relevant to or capable of being applied to certain aspects or components of the Design-Builder Utility Work, Design-Builder may, in accordance with the protocol set out in this Section 2.8 *[City Support Statements]*, obtain clarification from the City from time to time regarding the need or appropriateness of Design-Builder applying and adhering to specific terms of applicable Utility Agreements for certain specific work activities.

2.8.2 **Preparation of Statements**

Design-Builder may provide the City with a statement of the specific steps, actions, or activities that Design-Builder reasonably requests the City to perform or undertake in support of Design-Builder fulfilling its Design-Builder Utility Work obligations, including any dates by which the steps, actions or activities must be performed (each, a "**City Support Statement**"). The steps, actions, or activities described in a City Support Statement must be consistent with the scope of City responsibilities described in Section 3.1 *[City Responsibilities]*. In the City Support Statement, Design-Builder shall detail, by relevant date, the specific notifications, steps, actions or activities it has already undertaken prior to preparation of the statement.

To the extent Design-Builder may ascertain or be aware that it may be a relevant factor or consideration, Design-Builder may include in a City Support Statement a request that the City confirm and clarify: (i) the relevancy and application or non-application of certain terms of certain Utility Agreements to specific Utility Work activities; or (ii) possible recourse rights or remedies the City may have in the circumstances of a Relief Event that may have to be preserved or relied upon in some manner.

Concurrently with each Utility Report, Design-Builder shall provide the City with a listing of City Support Statement requests made of the City, including a brief description of the item as well as an indication of the status of the request.

2.8.3 City Review

Upon receipt of a City Support Statement request, the City shall consider the steps, actions or activities already completed by Design-Builder and those requested of the City by Design-Builder and will either:

- (a) accept the City Support Statement; or
- (b) reject the City Support Statement, in whole or in part and provide a substitute list of steps, actions or activities or a substitute schedule for performance of the steps, actions or activities, which are intended to achieve the equivalent outcome in the circumstances.

2.8.4 *City Acceptance*

Where the City accepts a City Support Statement or provides a substitute list of steps, actions or activities which Design-Builder acknowledges as appropriate (which list will become the City Support Statement), the City will use reasonable commercial efforts to carry out the specified steps, actions or activities that are applicable to the City within the applicable timeframe set out in the City Support Statement.

2.8.5 Disputes

If the City rejects a City Support Statement and Design-Builder does not accept the City's proposed substituted steps or schedule: (i) either Party may treat this as a Dispute and refer the matter to the Dispute Resolution Procedure; (ii) Design-Builder may still request the City to proceed with the substituted steps or schedule and such request will be without prejudice to Design-Builder's rights in the Dispute; and (iii) the City's performance of these proposed substituted steps or schedule shall be without prejudice to its rights in the Dispute.

2.8.6 Design-Builder Constraints



2.9 Additional Design-Builder Responsibilities

Without limiting, and in addition to, the other provisions of this Schedule, Design-Builder shall use reasonable commercial efforts consistent with Utility Best Practices and subject to the terms of this Agreement to:

- 2.9.1 carry out all necessary inquiries and investigations of the City and of the Utility Companies to ascertain Utility Company standards, requirements, policies and guidelines and any other special requirements, procedures, limitations, or constraints which may apply to the applicable Design-Builder Utility Work;
- 2.9.2 support the City in respect of any Incomplete City Utility Work until such Utility Work becomes Assumed Incomplete Utility Work pursuant to Section 2.12 [Design-Builder Assumption of Incomplete City Utility Work];
- 2.9.3 store, maintain, update and share monthly separate CAD base files of Utility Work that graphically represent:
 - (a) concept Utility mitigation planned alignment designs;
 - (b) preliminary, detailed, and for Construction Utility mitigation designs;
 - (c) line work and symbology compliant with the relevant quality level of the information presented; and
 - (d) as-built and existing cadastral base file, correctly identifying the current operational status of the Utility Infrastructure as known to Design-Builder;
- 2.9.4 store, maintain, update and provide on a quarterly basis to the City and Utility Companies the graphic inventory of all Infrastructure in, on, under, or adjacent to the Lands constructed by or in possession of Design-Builder or otherwise known to Design-Builder as is able to be imposed on the associated cadastral base maps in the GeoEdmonton

system, in a format compatible with the applicable Utility Company software and with the City cadastral drawing standards;

- 2.9.5 coordinate with, and provide access to, Utility Companies to enable them to access their Utility Infrastructure on, in, under or adjacent to the Lands for the purposes of continued operations, installations, maintenance, repairs, or other purposes throughout the Construction Period;
- 2.9.6 permit Utility Company inspectors to access the Utility Infrastructure on, in, under or adjacent to the Lands as requested by the Utility Company, acting reasonably, including where the performance of the Project Work, including the Design-Builder Utility Work, necessitates an inspection;
- 2.9.7 permit Utility Companies to monitor Project Work in proximity to their Utility Infrastructure as such Utility Companies may deem necessary;
- 2.9.8 pay any applicable fees or costs to the Utility Company for any inspection or monitoring of Project Work by a Utility Company;
- 2.9.9 obtain all necessary consents, approvals, permits and authorizations from the appropriate Utility Company(ies) prior to performing any Design-Builder Utility Work or having any Design-Builder Utility Work performed;
- 2.9.10 comply with City processes for accessing municipal rights of way, as described in Appendix 28-2G [Utility Line Assignment (ULA) Data and Processes];
- 2.9.11 comply with legal processes for accessing private lands if such access is required;
- 2.9.12 compile all drawings from any Utility Company and other available information relevant to the applicable Design-Builder Utility Work, including any additional information necessary for Utility Design, Design or Construction and update the as-built utility drawings no later than two months following completion of relevant Design-Builder Utility Work so as to maintain up to date as-built Utility drawings; and
- 2.9.13 perform the Design-Builder Utility Work in compliance with this Agreement, including Utility Best Practices, the specific Utility Work requirements set out in Section 6 [Utility Work Requirements].
- 2.9.14 develop the following design drawing types:
 - Pre-ULA and ULA drawings. To be developed for conflict mitigation pre-ULA and ULA design circulations and submissions. See Appendix 28-2G [Utility Line Assignment (ULA) Data and Processes] section A.1.1.D for drawing requirements;
 - (b) Design submission packages. Utility drawings for inclusion in Design submission packages along with roadways and drainage shall contain details in compliance with City of Edmonton detailed design U type drawings;
 - (c) Utility and Design-Builder coordination drawings. Similar to existing and proposed utility drawing sets supplied in the Data Room, Design-Builder shall develop and share consolidated Utility drawings based upon Utility base files. These shall include a separate existing Utility Infrastructure drawing set, a concept drawing set containing Design-Builder's concept design mitigation plans,

and a detailed design drawing set containing a composite of in-process designs as well as an as-built drawing set; and

(d) Utility and Pipeline Design drawings. These shall contain sufficient detail to confirm known separation standards from the Infrastructure, Utility Infrastructure and other conflicting items (landscaping, etc.).

2.10 Future Utility Work

Design-Builder shall not be responsible for the performance of Future Utility Work, but shall use all reasonable efforts to mitigate the impact of any Future Utility Work in accordance with Section 11.7 *[General Duty of Design-Builder to Mitigate]* of the Agreement as follows:

- (a) review and respond to Pre-ULA or ULA design submissions to identify and eliminate any contemplated Utility Conflicts at the Design development stage,
- (b) where Design-Builder has the active OSCAM permit for the planned Construction area, facilitate, to the extent possible, access for construction of the Future Utility Work, and
- (c) during the Construction Period, monitor the Future Utility Work construction activities with a bearing upon the Project Works to identify and mitigate any negative impacts;
- (d) provide detailed reports to the City in respect of Future Utility Work activities consistent with the requirements of Section 2.7 *[Utility Work Reporting]*.

2.11 Changes to City Utility Work

Utility Work described in Appendix 28-2A [*City Utility Work Completed Prior To Effective Date*] and Appendix 28-2B [*Incomplete City Utility Work*], represents work undertaken by Utility Companies to relocate existing Utility Infrastructure to mitigate Utility Conflicts identified through the Reference Design. Unless accepted as a Permitted Relocation, any subsequent relocation by Design-Builder of City Utility Work and Assumed Incomplete City Utility Work will be at the sole risk and cost of Design-Builder as the Utility Conflict has been deemed mitigated for the Project under the applicable Public Utility Agreement.

2.12 Design-Builder Assumption of Incomplete City Utility Work

Design-Builder shall assume and be responsible to complete, in accordance with Utility Best Practices and this Schedule, any Incomplete City Utility Work remaining uncompleted as of six months following the Effective Date ("**Assumed Incomplete City Utility Work**"). The Parties acknowledge that the six month period between the Effective Date and the transfer of such unfinished Incomplete City Utility Work to Design-Builder is intended to serve as a period for transition from City management to Design-Builder management. Subject to Section 2.11 *[Changes to City Utility Work]*, the relevant Utility Company will complete the Assumed Incomplete City Utility Work and any compensation due to the Utility Company under or pursuant to the Existing Utility Agreements for completion of the initial mitigation remains the City's responsibility.

2.13 City Participation in Meetings

Design-Builder shall provide reasonable notice of and permit the City to attend all meetings with Utility Companies. If Design-Builder is seeking a specific approval or agreement from a Utility Company and requires the City to acknowledge, approve, consent or agree to the proposed action or decision Design-Builder shall confirm the support required of the City in the specific City Support Statement.

2.14 Coordination with Pipeline Companies

- 2.14.1 Design-Builder acknowledges that Design and Construction of all Pipeline Infrastructure, including confirmation of the required work specifications and standards, in particular CSA Z662 Oil and Gas Pipeline Standards, shall require extensive coordination between Design-Builder and the Pipeline Companies.
- 2.14.2 Design-Builder shall be required to schedule and allow for all work and undertakings of the Pipeline Companies in accordance with the terms of the applicable Pipeline Agreements.
- 2.14.3 Design-Builder shall be responsible for providing access and for making all necessary arrangements to enable inspections of all Pipeline Infrastructure and to retain the services of Pipeline Company personnel to monitor Construction activities as required by the Pipeline Companies pursuant to Pipeline Agreements or otherwise based on Design-Builder's needs and Design-Builder shall be responsible for all costs associated therewith.
- 2.14.4 Subject to Section 10 [Relief Events and Limited Relief Events] of the Agreement, as between City and Design-Builder, Design-Builder shall be solely responsible for all costs and scheduling risk in respect of all Pipeline Work activities described in this Section 2.14 [Coordination with Pipeline Companies].
- 2.14.5 Design-Builder shall be responsible for development of crossing designs and any and all documentation relating to Pipeline Agreement applications, specifically tailored for provision to each Pipeline Company requirements, whether temporary or permanent and for provision of these in a timely fashion to the City for Pipeline Agreement applications.
- 2.14.6 Design-Builder shall perform the required investigations and develop the necessary data, reports, and documentation necessary to facilitate the City in acquisition of Pipeline Agreement applications for any temporary or permanent works relating to the any temporary or permanent works relating to pipeline rights-of-way.
- 2.14.7 Design-Builder shall lead the shared application of stray current mitigation designs for individual Pipeline Company mitigations.

3. CITY RESPONSIBILITIES

3.1 City Responsibilities

The City will assume the following responsibilities, tasks, and risks related to the completion or advancement of the Utility Work and, except as expressly set out in this Agreement, the City will have no other responsibilities, tasks, or risks related to the Utility Work:

- 3.1.1 be responsible for and bear all risks and costs for organizing, designing, coordinating, constructing, overseeing, supporting, performing and completing all City Utility Work, including Incomplete City Utility Work up to six months following the Effective Date;
- 3.1.2 be responsible for reimbursing or otherwise compensating Utility Companies in accordance with the relevant Franchise Agreement or Municipal Access Agreement for all City Utility Work completed prior to the Effective Date, Incomplete City Utility Work, Utility Infrastructure Left in Place and Deferred Utility Work except in respect of costs and/or expenses incurred by Utility Companies for any Utility Work or other matters

described in clauses (b), (c), (d), (f), (g), (h) and (i) of the definition of "Ineligible Utilities Costs";

- 3.1.3 be responsible for reimbursing or otherwise compensating Pipeline Companies in accordance with the relevant Pipeline Agreement for all Pipeline Work, including the cost of completing pipeline mitigation evaluations and engineering for such construction activities as are determined to be necessary for the permanent crossings of pipeline rights-of-way and the Transportation Utility Corridor, but excluding costs for which Design-Builder is responsible pursuant to Section 2.14 [Coordination with Pipeline Companies];
- 3.1.4 upon request from Design-Builder, providing Design-Builder with available relevant information and reasonable guidance, consultation, feedback and support in relation to the timely and coordinated completion of the Utility Work;
- 3.1.5 upon request by Design-Builder, communicating with Utility Company representatives to assist Design-Builder in resolving any issues with the Utility Agreements or Utility interface procedures which Design-Builder has not been able to resolve to its reasonable satisfaction, despite the exercise of Utility Best Practices;
- 3.1.6 updating Design-Builder when there is a change to a Utility Agreement or if the City is made aware of any changes to Utility Company standards, requirements, policies and guidelines that may be relevant to the Design-Builder Utility Work;
- 3.1.7 undertaking reasonable administrative efforts to diligently enforce Utility Agreements against Utility Companies, including sending notice letters to Utility Company representatives from appropriate levels of seniority of City officials or representatives, attending follow-up phone calls or meetings or involving senior City officials or representatives, provided that the City shall have no obligation to commence legal proceedings;
- 3.1.8 providing Design-Builder with information within the City's possession related to the Utility Agreements in a timely manner and cooperating with Design-Builder in relation to the Utility Agreements and the Utility interface procedures in accordance with an accepted City Support Statement;
- 3.1.9 when requested through an accepted City Support Statement, assisting Design-Builder in communicating and negotiating with Utility Companies with respect to the Utility Agreements, the Utility interface procedures, and the Design-Builder Utility Work;
- 3.1.10 acting upon any requests contained in an accepted City Support Statement or any substitute steps, actions or activities described in Section 2.8.3(b) above or in accordance with the determination or directions resulting from a related Dispute Resolution Procedure;
- 3.1.11 where there is an accepted City Support Statement to do so, providing Design-Builder with online access to relevant available spatially-related digital products, including overlays of schools and hospitals, parks, facilities, and registered survey plan indexes; and
- 3.1.12 providing guidance to Design-Builder regarding the relevancy or application of a Utility Agreement to particular work activities or circumstances.

3.2 Unfinished City Utility Work

Notwithstanding anything to the contrary in this Agreement, the City shall be responsible for the continued coordination and completion of any Utility Work identified in Appendix 28-2A [City Utility Work Completed Prior To Effective Date] which is not fully completed by the Effective Date, as well as Utility Work identified in Appendix 28 - 2B [Incomplete City Utility Work].

4. UTILITY COSTS

- 4.1.1 Subject to the express provisions of this Agreement (including, without limitation, in relation to Relief Events), Design-Builder shall be responsible for all costs and expenses incurred by Design-Builder or any Design-Builder Person in connection with or relating to all Utility Work (whether such costs and expenses are incurred pursuant to a Utility Agreement or otherwise). Without limiting the generality of the foregoing, Design-Builder shall be responsible for all Initial Eligible Utilities Costs and Design-Builder's share of Excess Eligible Utilities Costs.
- 4.1.2 Subject to Design-Builder's obligation to fund the Initial Eligible Utilities Costs pursuant to Section 4.1.1 above:
 - (a) in the event that the amount (excluding applicable GST) of Eligible Utilities Costs exceeds the Initial Eligible Utilities Costs, determined on an aggregate basis across all Utilities (the "Excess Eligible Utilities Costs"), Design-Builder shall be responsible for 25% of such Excess Eligible Utilities Costs, and the City shall be responsible for 75% of such Excess Eligible Utilities Costs; and
 - (b) if the total Eligible Utilities Costs exceed the Maximum Excess Eligible Utilities Costs Amount, the City shall be solely responsible for 100% of all Excess Eligible Utilities Costs in excess of such Maximum Excess Eligible Utilities Costs Amount.
- 4.1.3 Design-Builder shall provide detailed monthly reports ("Eligible Utilities Costs Reports") to the City'[s Representative that include the following information itemized for each Utility Company:
 - (a) itemized and aggregate Eligible Utilities Costs committed to date for each Utility Company and the aggregate of such Eligible Utilities Costs for all Utility Companies (including copies of all vendor invoices provided up to and including the date of the Eligible Utilities Costs Reports which have not previously been delivered to the City);
 - (b) itemized and aggregate Eligible Utilities Costs spent to date for all Utility Companies and the aggregate of such Eligible Utilities Costs for all Utility Companies;
 - (c) the projected Eligible Utilities Costs for each remaining Utility Company and the aggregate of such projected Eligible Utilities Costs for all Utility Companies.
- 4.1.4 Design-Builder may, at any time, request (an "Eligible Utilities Costs Ruling Request") from the City prior or in relation to an Eligible Utilities Costs Report a determination or ruling from the City (an "Eligible Utilities Costs Ruling") as to whether specific types of costs and expenses incurred or which may be incurred by Design-Builder in relation to Utility Work constitute Eligible Utilities Costs. Design-Builder shall provide all relevant information pertaining to such costs and expenses, including as the City may request.

- 4.1.5 The City shall, within 10 Business Days of receipt of an Eligible Utilities Costs Ruling Request, advise Design-Builder, in writing, whether or not the costs set out in such Eligible Utilities Costs Ruling Request are approved as Eligible Utilities Costs or whether the City requires additional information upon which to evaluate the request. The City shall be permitted to withhold its approval if the City determines that the Eligible Utilities Costs Ruling Request does not contain the information that the City requires, acting reasonably, to discharge its obligations under this Section 4 *[Utility Costs]* or contains costs that are not Eligible Utilities Costs. If the City withholds its approval pursuant to this Section 4.1.5 and subsequently receives the information that the City requires, acting reasonably, to discharge its obligations under this Section 4.1.5, it shall, within 10 Business Days of its receipt of such information, issue to Design-Builder, in writing, the City's approval or rejection of the Eligible Utilities Costs Ruling Request.
- 4.1.6 The City shall, within 10 Business Days of receipt of an Eligible Utilities Costs Report, advise Design-Builder, in writing, whether or not the Eligible Utilities Costs set out in such Eligible Utilities Costs Report are approved. The City shall be permitted to withhold its approval if the City determines that the Eligible Utilities Costs Report does not contain the information that the City requires, acting reasonably, to discharge its obligations under this Section 4 [Utility Costs] or contains costs that are not Eligible Utilities Costs. If the City withholds its approval pursuant to this Section 4.1.6 and subsequently receives the information that the City requires, acting reasonably, to discharge its obligations under this Section 4 [Utility Costs], it shall, within 10 Business Days of its receipt of such information, provide to Design-Builder, in writing, the City's approval of the undisputed Eligible Utilities Costs set out in the aforementioned Eligible Utilities Costs Report.
- 4.1.7 In addition to the Eligible Utilities Costs Report described in Section 4.1.3 above, Design-Builder shall, in respect of Excess Eligible Utilities Costs and on a monthly basis, provide to the City Representative a request for payment (each, a "Request for Excess Eligible Utilities Costs Payment") that includes the following information:
 - (a) details of all vendor or Design-Builder Party invoices for Excess Eligible Utilities Costs that are due for payment that month, including copies of all such invoices and relevant supporting documentation; and
 - (b) any discounts, rebates, refunds, chargebacks, credits, price adjustments and other allowances available to Design-Builder in connection with the Excess Eligible Utilities Costs.
- 4.1.8 The City shall, within 10 Business Days of receipt of a Request for Excess Eligible Utilities Costs Payment, advise Design-Builder, in writing, whether or not payment of the City's share of the Excess Eligible Utilities Costs set out in such Request for Excess Eligible Utilities Costs Payment is approved. The City shall be permitted to withhold its approval if the City determines that the Request for Excess Eligible Utilities Costs Payment does not contain the information that the City requires, acting reasonably, to discharge its obligations under this Section 4 *[Utility Costs]* or in respect of any amounts claimed that are not Excess Eligible Utilities Costs. If the City withholds its approval pursuant to this Section 4.1.8 and subsequently receives the information that the City requires, acting reasonably, to discharge its obligations under this Section 4 *[Utility Costs]*, it shall, within 10 Business Days of its receipt of such information, provide to Design-Builder, in writing, the City's approval of the undisputed Excess Eligible Utilities Costs Payment.
- 4.1.9 The eligibility of any amounts as Eligible Utilities Costs shall be verified by the City. Any Dispute between the City and Design-Builder as to such eligibility (including pursuant to

an Eligible Utilities Costs Ruling Request) will be referred for determination to the Dispute Resolution Procedure.

- 4.1.10 Within 30 days of approval by the City of the undisputed Excess Eligible Utilities Costs set out in a Request for Excess Eligible Utilities Costs Payment, the City shall pay its share of such undisputed Excess Eligible Utilities Costs, plus applicable GST, to Design-Builder.
- 4.1.11 If there are costs related to work performed by a Utility Company that the Design-Builder considers to be incremental to the scope of work reasonably necessary to permit Design-Builder to carry out the Project Work, the Design-Builder may submit such proposed costs to the City, in accordance with the Eligible Utilities Costs Ruling Request process set out above. If the City agrees that the costs presented by the Design-Builder are incremental to the scope of work reasonably necessary to permit the Design-Builder to carry out the Project Work, the City will pay such costs directly.

5. UTILITY COMPANY RESPONSIBILITIES

- 5.1.1 The scope and required standards of work activities or tasks to be performed or undertaken by the Utility Companies in respect of or in relation to Utility Work shall be as expressly set out in the applicable Existing Utility Agreements, Utility interface procedures and Pipeline Agreements, as the same may be modified by accepted City Support Statements.
- 5.1.2 Where Design-Builder is of the opinion that a Utility Company has an obligation or responsibility in respect of any portion of the Utility Work that deviates from the express provisions of the Existing Utility Agreements, Utility interface procedures and Pipeline Agreements, Design-Builder shall obtain the City's acknowledgement of these supplemental or different requirements through an accepted City Support Statement. Any work activity, task or other responsibility in relation to Design-Builder Utility Work that is not expressly included as part of the City Utility Work, an accepted City Support Statement (or imposed through the Dispute Resolution Procedure) or a Utility Company responsibility, as described above, shall be the obligation of Design-Builder.
- 5.1.3 To the extent Design-Builder may ascertain or be aware that it may be a relevant factor or consideration in the performance of the Design-Builder Utility Work, Design-Builder may include in a City Support Statement a request that the City confirm and clarify the relevance and application or non-application of certain terms of certain Existing Utility Agreements, Utility interface procedures or Pipeline Agreements to specific Design-Builder Utility Work activities.

6. UTILITY WORK REQUIREMENTS

6.1 General

Consistent with Utility Best Practices, applicable Utility interface procedures, the relevant Utility Coordination Plan, any relevant accepted City Support Statements, and the applicable terms of any relevant Utility Agreement:

6.1.1 *Coordination and Completion*: Design-Builder shall, subject to the terms of this Agreement, including this Schedule, be responsible for, and bear all risks and costs of, organizing, designing, coordinating, constructing, overseeing, supporting, performing, and completing, or overseeing the completion of, all Design-Builder Utility Work. Design-Builder shall coordinate the Project Work with all Design-Builder Utility Work and any

other work related to Utility Infrastructure, whether undertaken by, or on behalf of, the City, Design-Builder or a Utility Company during the Term.

- 6.1.2 *Advance Confirmations*: Design-Builder shall coordinate and confirm in advance with the applicable Utility Company any special requirements for Project Work undertaken around Utility Infrastructure and shall comply with all such special requirements in the performance of the Project Work.
- 6.1.3 *Designs, Drawings and Construction Programs*: Design-Builder shall be responsible for the Design and Construction of all Design-Builder Utility Work (including all Utility Design), whether performed by Design-Builder or a Utility Company.
- 6.1.4 *Codes & Standards*: Design-Builder shall comply with this Agreement, including compliance with Applicable Law.
- 6.1.5 Approvals and Rights of Access: Design-Builder shall be responsible for investigating and obtaining all necessary approvals or authorizations associated with the Design-Builder Utility Work, including those set out in the applicable Utility interface procedures, and Design-Builder shall comply with City processes for accessing municipal rights of way, as described in Section 2 [Drawing Standards for ULA Permit Submission] of Appendix 28-2G [Utility Line Assignment (ULA) Data and Processes] (the "ULA **Process**") and for obtaining consent of Governmental Authorities for work to be performed within the TUC.
- 6.1.6 Utility Conflict Mitigation Design and Construction: Design-Builder shall proactively investigate and confirm probable Utility Conflicts, design appropriate adjustments to the Design that will eliminate the Utility Conflicts or communicate a concept design for mitigation with the respective Utility Company and shall coordinate, monitor and oversee the management and mitigation of Utility Conflicts and variances in relation to Design-Builder Utility Work.
- 6.1.7 *Third Party Notifications*: Design-Builder shall notify the applicable Utility Companies, Governmental Authorities and other affected Persons prior to undertaking investigations or work in proximity to their respective Utility Infrastructure or property.
- 6.1.8 *Pipeline Agreements*: Design-Builder shall not commence Pipeline Work or other Design-Builder Utility Work in proximity of Pipeline Infrastructure except pursuant to and in accordance with an executed Pipeline Agreement.

6.2 Utility Conflicts

Design-Builder acknowledges that, prior to the Technical Bid Response Deadline, written notifications were provided by the City to Utility Companies, identifying areas of known potential conflict between the existing Utility Infrastructure and the Infrastructure. A list of known conflicts is included in the Disclosed Data. Such known conflicts, along with any new conflicts that Design-Builder may identify during the course of the Project Work, are referred to in this Schedule and this Agreement as "**Utility Conflicts**".

6.3 Background to Deferred Utility Work

Deferred Utility Work represents Utility Work that is required to be undertaken pursuant to Existing Utility Agreements (including Franchise Agreements and/or Rights of Way Consent and Access Agreements) to mitigate Utility Conflicts. In consultation with relevant Utility Companies, such Utility Work has been deferred for various reasons including as follows:

- 6.3.1 Utility Conflict mitigations have been identified; however the construction of such mitigations has been deferred to facilitate efficient construction staging of the Utility Work with Construction of the Infrastructure. Design-Builder shall be responsible to coordinate the construction of the mitigation measures with the applicable Utility Company; or
- 6.3.2 design of the mitigation measures have been deferred until the Design of the Infrastructure is sufficiently complete to determine the necessary mitigation measures. Design-Builder shall be responsible to coordinate the Design and Construction of the necessary mitigation measures with the applicable Utility Companies.

6.4 Utility Infrastructure Left in Place

The Utility Infrastructure listed in Appendix 28-2H [Utility Infrastructure Left in Place] has been determined by the City to have minimal impact on the Infrastructure and is likely able to be accommodated in the Design without the need for it to be modified. Therefore, such Utility Infrastructure will be allowed to remain in place without mitigation. If Design-Builder determines any of the Utility Infrastructure Left in Place constitutes or creates a Utility Conflict that accommodation by the Design or Construction of the Infrastructure cannot mitigate, Design-Builder shall be responsible for coordination, management and implementation of the mitigation and all costs related thereto where not accepted as a Permitted Relocation. Where accepted as a Permitted Relocation, the Public Utility Company will perform the mitigation in accordance with the applicable Franchise Agreement or Rights of Way Consent and Access Agreement, with Design-Builder responsible for coordination, management and facilitation of the mitigation.

6.5 Utility Infrastructure Not To Be Relocated

Design-Builder shall not relocate, modify or otherwise impact any of the Utility Infrastructure listed in Appendix 28-21 [Utility Infrastructure Not To be Relocated].

7. UTILITY WORK DISCLOSED DATA

The City and Design-Builder acknowledge and agree that the documents and information referenced in this Section 7 *[Utility Work Disclosed Data]* are relevant to, and form the informational background to, this Schedule are referenced herein solely for informational purposes. Notwithstanding the foregoing, information related to Utility Conflicts provided by the City prior to the Effective Date, based on the Reference Design and included in the Disclosed Data can be relied on.

7.1 Development of Scope or Standards of Work

The nature and performance standards of Utility Work required to be undertaken or performed pursuant to this Schedule and the allocation of responsibilities, obligations and liabilities as between Design-Builder, the City and the applicable Utility Company are based on the following:

- 7.1.1 the Existing Utility Agreements;
- 7.1.2 the City Utility Work that is set out at Appendix 28-2A [City Utility Work Completed Prior To Effective Date];
- 7.1.3 the City Utility Work ongoing into the Construction Period and as set out at and Appendix 28-2B [Incomplete City Utility Work]; and
- 7.1.4 the Deferred Utility Work, including all required notifications or performance of repair replacement or removal work in relation to existing Utility Infrastructure, required to be

carried out and coordinated by Design-Builder, all of which is listed at Appendix 28-2C [Deferred Utility Work] and Appendix 28-2D [Pipeline Work].

7.2 Information Only

The following data and documents, along with the Reference Design were used to identify potential Utility Conflicts and Design-Builder acknowledges and agrees that the provisions of Section 19.4 [Design-Builder's Reliance on Information] of the Agreement apply to all of such data and documents, except as expressly permitted by Section 7 [Utility Work Disclosed Data]:

- 7.2.1 background information of utility locations, current Utility Conflicts, and variances, possible mitigation strategies, service connection requirements and similar information or data provided as Disclosed Data that Design-Builder may require to investigate and assess the Utility Work and Pipeline Work;
- 7.2.2 contacts for each Utility Company are listed at Appendix 28-2F [Utility Company Contact Particulars];
- 7.2.3 references to the ULA data and processes, listed at Appendix 28-2G [Utility Line Assignment (ULA) Data and Processes]; and
- 7.2.4 information was requested and information supplied has been compiled by the City from each Pipeline Company known to possess Pipeline Infrastructure within the Lands, including but not limited to:
 - (a) Pipeline Company standards and specifications;
 - (b) variances to Pipeline Company standards and specifications;
 - (c) notification requirements;
 - (d) documentation requirements;
 - (e) emergency response requirements;
 - (f) review & response time commitments;
 - (g) onsite personnel requirements;
 - (h) Pipeline Work commitment by Pipeline Company; and
 - (i) Pipeline Company personnel costs for call outs.
- 7.2.5 information requested and where supplied was compiled by the City from each Utility Company known to possess Utility Infrastructure within the Lands, including but not limited to:
 - (a) Utility Company standards and specifications;
 - (b) exceptions to Utility Company standards and specifications;
 - (c) notification requirements;
 - (d) documentation requirements;

- (e) emergency response requirements;
- (f) review & response time commitments;
- (g) onsite personnel requirements;
- (h) Utility Work commitment by Utility Company;
- (i) Utility Company personnel costs for call outs; and
- (j) Utility base mapping drawings, design files and other related data.

8. MISCELLANEOUS

8.1 Contamination and Hazardous Substances

In performing Design-Builder Utility Work, Design-Builder shall be responsible for managing Contamination and Hazardous Substances in accordance with the requirements of Schedule 10 *[Environmental Performance Requirements]*.

8.2 Utility Work Relief Events

Design-Builder shall, in the circumstances described in Section 10.1.1(d) of the Agreement, be entitled to claim a Utility Work Relief Event, subject to and in accordance with the provisions of Section 10 [Relief Events and Limited Relief Events] of the Agreement.

APPENDIX 28-2A

City Utility Work Completed Prior To Effective Date

Description	Utility Company	Location
Relocation of 600 mm Concrete Cylinder Pipe watermain	EPCOR Water	Along 111th Str. from north of 23rd Ave to south of 23rd Ave from Sta 410+700 to Sta 411+050
Lower power cables and relocation of power vault	EDTI (Power)	Across the track alignment at Sta 410+785
Power cable, 9 way duct structure, switching cubicle and power vault relocation	EDTI (Power)	Along track alignment on 111th Str south of 23rd Ave from Sta 410+900 to Sta 411+500
Power cable and switching cubicle relocations	EDTI (Power)	Across track alignment north of 23rd Ave at Sta 410+918 and Sta 410+930
Relocation/lowering of fibre optic cable	Bell	Crossing track alignment on the north and south side of 23rd Ave at Sta 410+935 & Sta 411+005
Relocation/lowering of 450 mm AC watermain	EPCOR Water	23rd Ave Intersection and east along 23rd Ave. at Sta 410+975
Relocation of 6-102 mm duct bank	Telus	Crosses track alignment on the south side of 23rd Ave at Sta 410+996
Realignment of 525/600 mm storm sewer	EPCOR Water (Drainage)	West side of 111th Str south of 23rd Ave from Sta 411+200 to 411+420
Power cable, 9 way duct structure, switching cubicle and power vault relocation	EDTI (Power)	Along track alignment on 111th Str from north of 19th Ave to north of 12th Ave from Sta 411+500 to Sta 412+200
Lowering of 168 mm steel gas main	Atco Gas	Aligned across the tracks just north of 19th Ave at Sat 411+513
Realignment of 200 mm forcemain	EPCOR Water (Drainage)	On the west side of 111th Str from Saddleback Road to Blackmud Creek (BMC) Bridge from Sta 411+540 to Sta 411+800
Realignment of 350 mm forcemain	EPCOR Water (Drainage)	On the west side of 111th Str north of BMC Bridge from Sta 411+540 to Sta 411+800
Lower 4 way duct structure and relocation of power vault	EDTI (Power)	Crossing track alignment just south of 19th Ave at Sta 411+563
Relocation of power cables across Blackmud Creek bridge	EDTI (Power)/ Shaw	Across BMC Bridge Sta 411+800 to Sta 412+000

Relocation of 600 mm storm sewer	EPCOR Water (Drainage)	BMC ravine from Sta 411+850 to Sta 411+900
Relocation of 675 mm storm sewer	EPCOR Water (Drainage)	BMC ravine Sta 411+940 to Sta 411+980
Realignment of 350 mm forcemain	EPCOR Water (Drainage)	On the west side of 111th Str south of BMC Bridge to 12th Ave from Sta 411+980 to Sta 412+200
Realignment of 200 mm forcemain	EPCOR Water (Drainage)	On the west side of 111th Str south of BMC Bridge to 12th Ave from Sta 412+020 to Sta 412+200
Lower power cables and relocation of switching cubicle	EDTI (Power)	Across track alignment north of 12th Ave at Sta 412+172
Lowering of 219 mm steel gas main	Atco Gas	Crosses track alignment north of 9th Ave at Sta 412+575
Lowering of 323 mm HP steel gas main	Atco Gas	Crosses track alignment north of 9th Ave at Sta 412+580
Lower fibre optic cables	Shaw	Crosses track alignment on the south side of 9th Ave at Sta 412+612
Relocation and lowering of power cables	EDTI (Power)	Crosses track alignment on the south side of 9th Ave at Sta 412+615

APPENDIX 28-2B

Incomplete City Utility Work

Description	Utility Company	Location Complet (by end	
Diversion of storm sewer system conflicting with tunnel	EPCOR Water (Drainage)	23rd Ave and 111th Street intersection	Q4 2024
Lowering of multiple duct lines	Telus/ Shaw	Aligned east-west on the north side of 19th Ave at Sta 411+520	Q2 2024
Lowering of duct structure	Telus/Bell/Shaw	Crossing alignment just south of 19 Ave at Sta 411+559	Q2 2024
Relocation of ducts across BMC bridge	Telus/Bell	Across BMC Bridge from Sta 411+800 to Sta 412+000	Q2 2024
Lowering of 6-102 mm duct bank	Telus/Shaw	Crosses track alignment north of 12th Ave at Sta 412+196	Q2 2024
Lowering of 6-102 mm duct bank	Telus	Crosses track alignment north of 12th Ave at Sta 412+212	Q2 2024

APPENDIX 28-2C

Deferred Utility Work

Description	Utility Company	Location	Reason for Deferral
Removal of abandoned 600 mm Concrete Cylinder Pipe	EPCOR Water	Parallel to SB track at Sta 410+675 to 410+740	Most feasible to remove during track construction.
Removal of abandoned 60 mm gas main	Atco Gas	Crosses track alignment north of 23rd Ave at Sta 410+940	Most feasible to remove during tunnel construction
New cover for sub-surface cubicle in SUP	Bell	NW corner of 23rd Ave & 111th Str at Sta 410+940	Conflict is dependent on Final Design.
Lowering of 406 mm steel gas main	Atco Gas	Crosses track alignment on the south side of 23rd Ave at Sta 410+992	Final track design is required
Lowering of telecom vault	Telus	Southeast corner of 23rd Ave and 111th Str. At Sta 410+995	Vault has 600 mm of adjustment for lowering. The amount adjustment based on final road design may exceed 600 mm. Lowering requirements are dependant on final road design.

Relocation of Shaw Fiber Optic Cables	Shaw	Southwest corner of 23rd Ave and 111th Str. to 19th Ave	Utility company likely not able to begin before 'Effective Date'
Removal of abandoned conduit(s)	Shaw	Aligned east-west on the north side of 19th Ave at Sta 411+520	Most feasible to remove during track construction.
Casing of 300 mm AC watermain	EPCOR Water	Aligned along 19th Ave at Sta 411+538	Utility Company likely not able to begin before Effective Date
Casing of 450mm sanitary sewer	EPCOR Water (Drainage)	Aligned along 19th Ave at Sta 411+543	Utility company likely not able to begin before Effective Date
Lowering of 610 mm steel watermain	EPCOR Water	Crossing tracks at 45 deg angle north and south of BMC Bridge at Sta 411+750 & Sta 412+035	Utility Company likely not able to begin before Effective Date
Relocation of 50 mm water service	EPCOR Water	Crosses track alignment south of BMC Bridge at Sta 412+034	Utility Company likely not able to begin before Effective Date
Casing of 250mm sanitary sewer	EPCOR Water (Drainage)	Crosses track alignment just north of 12th Ave at Sta 412+211	Utility company likely not able to begin before Effective Date

Lowering of 250 mm PVC watermain	EPCOR Water	Crosses track alignment at 12th Ave at Sta 412+216	Utility Company likely not able to begin before Effective Date
Realignment of 600 mm concrete watermain	EPCOR Water	Along 111th Str from Sta 412+180 to 412+593	Utility Company likely not able to begin before Effective Date
Realignment and casing of 250 mm PVC watermain	EPCOR Water	Crosses track alignment at 9th Ave at Sta 412+593	Utility Company likely not able to begin before Effective Date
Remove abandoned power cables	EDTI (power)	Crosses track alignment north of 9th Ave at Sta 412+590	Most feasible to remove during track construction.
Lowering of communication cables	Telus	Crosses track alignment at 9th Ave at Sta 412+610	Utility Company could not begin work before Effective Date.
Lowering of power cables	EDTI (power)	Crosses track alignment west of 127th Str at Sta 414+425	Utility Company could not begin work before Effective Date.
Removal of abandoned AC watermain	EPCOR Water	Along 127th Str within area for OMF construction	Most feasible to remove during Llew Lawrence OMF construction
Removal of abandoned telecom cables	Telus	Along 127th Str within area for OMF construction	Most feasible to remove during Llew Lawrence OMF construction
-------------------------------------	--------------	--	---
Removal of overhead power lines	EDTI (power)	Along 127th Str within area for OMF construction	Removal and relocation require Final Design
Removal of abandoned gas line	Atco Gas	Along 127th Str within area for OMF construction	Most feasible to remove during Llew Lawrence OMF construction

APPENDIX 28-2D

Pipeline Work

Description	Pipeline Company	Location
Remove Abandoned Pipeline that Crosses Tracks	Strathcona Pipeline (Alberta Energy Regulator)	South of 19 th Ave at approx. Sta. 411+700
Lowering of 219 mm steel gas main	ATCO Gas	North of Ellerslie Rd at Sta. 415+360
Lowering of 323 mm steel gas main	ATCO Gas	North of Ellerslie Rd. at Sta. 415+361

APPENDIX 28-2E

Existing Utility Agreements

Utility Company	Date	Agreement
Telus Communications Inc.	20 November 2012	Rights of Way Consent and Access Agreement
Bell Canada	5 July, 2016	Municipal Access Agreement
Shaw Cablesystems Limited	11 September 2012	Rights of Way Consent and Access Agreement
EPCOR Distribution &Transmission Inc. (Distribution Power)	1 January 2004	Franchise Agreement
ATCO Gas and Pipelines Ltd.	Not Dated	Natural Gas Distribution System Franchise Agreement
EPCOR Water Services Inc.	1 January 2020	Water Services Franchise Agreement
EPCOR Water Services Inc.	1 September 2017	Drainage Services Franchise Agreement
Keyera Energy Ltd.	7 July 1997	Master Facility Crossing Agreement

APPENDIX 28-2F

Utility Company Contact Particulars

Company	Contact	Address	Phone Number / Email
Alta Link	C.E.T. Lines Encroachment Technologist	Alta Link 2611 - 3rd Avenue SE Calgary, AB T2A 7W7	
EPCOR D&T (Distribution)	Engineering Technologist - Franchise Engineering	EPCOR Distribution & Transmission Inc. 12116-107 Street Edmonton, AB T5G 2S7	
EPCOR D&T (Customer Connections)	Project Manager	EPCOR Distribution & Transmission Inc. 8743 - 58 Avenue NW Edmonton, AB T6E 5W4	
EPCOR D&T (Customer Connections)	Designer	EPCOR Distribution & Transmission Inc. 8743 - 58 Avenue NW Edmonton, AB T6E 5W4	
Bell Canada	OSP Engineering	Bell Canada 28th Floor, 10104-103 Avenue Edmonton, AB T5J 0H8	
ATCO Gas	, P. Eng., Engineer, Distribution Engineering - Improvements	ATCO Gas Ltd. 10035-105 Street Edmonton, AB T5J 2V6	
EPCOR Water (Distribution & Transmission)	, P. Eng. Manager Distribution Infrastructure	EPCOR Water Services Inc. Rossdale Water Treatment Plant 9469 Rossdale Road Edmonton, AB T5J 3B1	

Company	Contact	Address	Phone Number / Email
EPCOR (Drainage Project Management and Engineering)	, MSc., P. Eng., PMP Manager, Drainage Design	Coronation Yard 14323 115 Avenue Edmonton, AB T5M 3B8	
EPCOR Drainage Services 1432 3 115 Avenue Edmonton, AB T5M 3B8	, P. Eng., PhD., FCSCE Project Manager	Coronation Yard 14323 115 Avenue Edmonton, AB T5M 3B8	
TELUS	Senior Design Specialist	TELUS Communications Inc. 10th Floor, 10035-102 Avenue NW Edmonton, AB T5J 0E5	
Shaw	Senior Planner TOPS	Shaw Communications Inc. 10450-178 Street Edmonton, AB T5S 1S2	
Shaw	Planner Fibre Plus Deployment	Shaw Communications Inc. 10450-178 Street Edmonton, AB T5S 1S2	

PIPELINES

Company	Contact	Address	Phone Number / Email
Trans Mountain Canada Inc.	, Pipeline Integrity	Trans Mountain Corporation 300 5th Avenue SW Suite 2700 Calgary, AB T2P 5J2	
Trans Mountain	Permit Tech	Trans Mountain Corporation	

Company	Contact	Address	Phone Number / Email
Canada Inc.	Central Region Pipeline Protection	Building B, Suite 276 Sherwood Park, AB T8H 2W7	
Trans Mountain Canada Inc.	, Supervisor Pipeline Protection		
Keyera Energy Ltd.		Keyera Pipeline Operations 275 Portage Close Sherwood Park, AB	
Keyera Corp.	, Pipeline Operations		
ATCO Pipelines (Natural Gas)	Operations Engineering	ATCO Pipelines 7210 – 42 Street, NW Edmonton, AB. T6B 3H1	
Plains Midstream Canada	Analyst, Damage Prevention	Plains Midstream Canada Suite 1400, 607 8 Ave S.W. Calgary, AB T2P 0A7	

APPENDIX 28-2G

Utility Line Assignment (ULA) Data and Processes

1. APPLICATION

1.1 Background

- As the owner of the road right of way within the city of Edmonton, the City determines where Α. Utility Infrastructure is placed and has developed the ULA permit system to administrate installation requests. No utility installation work shall be undertaken without a valid ULA permit having been issued pursuant to the City's Regulation of Work and Equipment on City Lands Bylaw, 12846. ULA applications are processed online through a web-based application process. link the City's website ULA permits А to relating to is https://www.edmonton.ca/business economy/utility-line-assignment-permit.aspx.
- B. Drawing standards for ULA permit submissions are available at the City's website at https://www.edmonton.ca/business_economy/documents/PDF/Drawing_Standards_for_ULA_Per mit_submissions.pdf.
- C. Each applicant shall submit a separate application for its installation. In the case of joint installations that involve Utility Infrastructure to be operated by another Utility Company, each Utility Company shall submit an application.
- D. Non-permanent investigation work, such as daylighting, does not require a ULA permit.
- E. ULA permit applications must be reviewed by each department and agency within the City and by all Utility Companies with Utility Infrastructure that could reasonably be affected. A ULA permit is valid for one calendar year, unless otherwise specified. Where work under a ULA permit has not occurred within or extends beyond the permit expiry date, the applicant shall reapply for a new ULA permit. No work shall be performed under an expired permit.
- F. A valid ULA permit, confirming design, construction method and approximate schedule is a precondition to applying for an OSCAM permit for Infrastructure installations or maintenance within the City's road right of way.
- G. The placement of any Utility Infrastructure within the City's road right-of-way shall be designed to minimize conflicts with future infrastructure.

1.2 Process Overview

- A. The City unit that administers the ULA permit system is the Regulated Road Use group. This group collects applications, distributes them to potentially affected City departments, agencies, and Utility Companies for review and feedback.
- B. Each affected Utility Company will have access to information from its and other Utility Company application requests. Design-Builder shall be supplied with ULA application information from Utility Companies and the City.
- C. Design-Builder shall designate a ULA representative and an alternative and shall make these contacts known to the Regulated Road Use group, LRT Expansion and Renewal, and other interested parties, as needed. Any changes to these individuals shall be communicated to LRT Expansion and Renewal, and to the Regulated Road Use group. Each of the representative and alternative must possess demonstrated technical competency to hold these positions.

- D. Design-Builder shall obtain from the City a copy of each ULA submission submitted by others within and adjacent to the Lands, as appropriate. Design-Builder will be responsible to:
 - 1. Review the submission and, within the required time for doing so, provide formal comments to the Regulated Road Use group, the LRT Expansion and Renewal contact, or other contact as agreed by Design-Builder and the City, on a similar basis as required of Utility Companies supplying written responses;
 - 2. Circulate the design to the relevant Utility Companies as it relates to Project Work, coordinate and collate the Utility Companies' responses in a manner and on a basis consistent with a pre-ULA circulation, supply the collated responses to the Regulated Road Use group; and
 - 3. Coordinate as necessary to resolve any issues noted throughout the foregoing process.

1.3 Prior Coordination (Pre-ULA process)

- A. Prior to submission of a ULA application by Design-Builder, coordination with Utility Companies shall have been performed. The ULA system is not the process through which expected coordination and Utility Conflict resolutions are achieved. Accordingly, advance dialogue with Utility Companies must precede formal ULA applications. The recommended pre-ULA process that Design-Builder shall perform is:
 - Potential Utility Conflict location identification and investigation;
 - Potential Utility Conflict notification to affected Utility Companies and the Design Team of conflicts and causation;
 - Design-Builder development and circulation of a recommended mitigation concept to the Design Team and subsequent discussion with the affected Utility Companies;
 - Perform and share additional field investigations to confirm the Utility Conflict and mitigation concept where appropriate;
 - Discuss suitability of the mitigation concept with each Utility Company to eliminate objections or incorporate any improvements;
 - Continue the process of design development, submission, circulation, response collection, and coordination until a mutually acceptable design is developed; and
 - When mutual agreement to the pre-ULA process has been attained, recommend or proceed with formal ULA application.

1.4 ULA Application Process

- A. Applications are to be submitted electronically via the City's accelerated on-line utility coordination and ULA permit application tool.
- B. An application has a two week review period for a full distribution.
- C. A rush application has a one week review period and a reduced distribution list. These are restricted to resubmission of a previously circulated application or suspended permit reapplication; see Section 1.8 [Permit Suspension] below.

- D. Applications are processed in the order they are received. Distribution of the application may be delayed based upon the volume of applications made as well as other such factors leading to a delay in obtaining a collated response to the application. The review period will begin at the earlier of the distribution date, or one week following the submission date should a high volume of applications delay distribution.
- E. Incomplete information may result in return and refusal to process the application.

1.5 ULA Responses

- A. Responses to applications are mandatory within the applicable review period.
- B. Acceptable responses are limited to:
 - 1. Approved with no conditions;
 - 2. Denied with reasons stated; or
 - 3. Approved with conditions.

Conditions contained within an application response must be clear, based upon application of a standard industry practice and capable of being satisfied without creating other conflicts.

- C. If a response is not provided within the applicable review period, a reminder to respond will be transmitted by the Regulated Road Use group to those who have not yet provided a response. There will be one reminder distributed. The late submission period shall run for a maximum of one week from the end of the application review period.
- D. If outstanding responses remain at the end of the late submission period, the City will evaluate from responses received and the anticipated applicability of missing responses to determine whether a permit is granted. A maximum of one week will be allowed to complete this administrative review and issue a permit response.

1.6 Application Denial

- A. Any respondent, including the City, may deny an application upon valid grounds. The registration of a valid denial response shall officially void the application. The Regulated Road Use group will notify the applicant that the application has been denied, including reasons therefor.
- B. The applicant will be required to resolve the issues leading to the denial with the responder or responders who objected to the application, outside of the ULA application process, prior to reapplication. As no permit was ever granted, the standard two week application review period may apply to any reapplication made under these circumstances.
- C. Should reasonable efforts not yield a mutually agreeable solution, the applicant may request the City to mediate an agreement. In this case the applicant shall, in addition to provision of all pertinent data in which to facilitate a thorough review of the details to the City, identify within its new application the presence of an existing objection; stating the following:
 - 1. description of the objection;
 - 2. name of the dissenting company;
 - 3. contact information for the representative of the company dissenting to the work.

1.7 Application Acceptance

- A. Approval of an application will be through issuance of a Utility Line Assignment Permit document by the Regulated Road Use group, containing the official permit number and issuance date.
- B. Where there are missing responses but no denials contained in received responses, the City may, at its sole discretion, grant a ULA permit without all responses having been received.
- C. A valid ULA permit number is required prior to application for an OSCAM permit and shall be supplied on the OSCAM application.
- D. All conditions identified by ULA application respondents are contained within the permit document, and shall be adhered to by the applicant in completing their work. Where satisfaction of one condition infringes upon another the permit shall be deemed automatically suspended; see Section 1.8 [Permit Suspension] below. The applicant shall directly notify the affected parties to establish a mutually satisfactory solution, develop and submit a rush application demonstrating compliance with all conditions.

1.8 Permit Suspension

- A. Presence of any of the following conditions shall automatically place the ULA permit into suspension:
 - 1. Where an installation varies from approved design by greater than the following horizontal and vertical deviations:
 - (i) Horizontal: 0.15 m
 - (ii) Vertical: 0.25 m
- B. Deviation from an item within the application, including but not limited to:
 - (i) Installation methodology (example: directional push to open cut)
 - (ii) Substitution of materials
 - (iii) Addition of previously unidentified installations
- C. Where a permit is suspended the applicant shall stop construction.
- D. Work may only resume once a permit is removed from suspension. To remove a permit from suspension requires successful processing of a rush application or written authorization by Utility Company and/or Pipeline Company representatives with authority to grant the proposed change via a document developed and administered by Design-Builder.

1.9 Permit Revocation

- A. The City may revoke a permit due to:
 - 1. Repeated noncompliance with permit conditions;
 - 2. Unsafe work;
 - 3. Notification by the applicant that the work will no longer be undertaken.

2. DRAWING STANDARDS FOR ULA PERMIT SUBMISSION

2.1 General

A. ULA drawing submissions shall be clear, concise, and legible design, produced in color at a size relevant to the overall project. Multiple pages may be required for legibility. Applications are received on-line and attachments shall be in pdf format with CAD drawings available upon request. Information on the Drawing standards for ULA Permit Submissions can be found on the City's website https:

//www.edmonton.ca/business_economy/documents/PDF/Drawing_Standards_for_ULA_P ermit_submissions.pdf.

3. COMPLETED INSTALLATION RECORDS

3.1 General

- A. An as-built record of the Infrastructure installation shall be supplied to the Regulated Road Use group. The as-built data should be reflected on updated Design-Builder CAD base files and electronically submitted to the City no later than two months following completion of the installation.
- B. The as-built record shall contain an accurate representation of the actual location of the installation (horizontal and vertical), size and orientation, connections, and appurtenances. Horizontal information should contain centerline alignment along with representative installation widths. Each alteration in horizontal and vertical alignment, orientation, materials should be included in the records.
- C. In accordance with CSA-S250-11 the level of accuracy of as-built record information shall be a minimum of Level 2; +/- 100mm in the x, y and z coordinates. The quality level of data shall be level A for any section of open cut installation and level B for other installations.
- D. As-built drawings shall be supplied in accordance with existing City cadastral practices.
- E. The respective Utility Company shall retain responsibility for electronically submitting design information for incorporation into the cadastral GeoEdmonton system. Where Design-Builder has been the designer and constructor of that Utility Infrastructure, Design-Builder shall submit this information to the respective Utility Owner no later than two months following completion of the installation and/or no later than two months following abandonment of a facility has been completed.

As-built records for the following works shall be submitted to the respective City departments, agencies or Utility Companies, as applicable:

- Drainage works to EPCOR Water
- Streetlights and Signals to the City's Signals and Streetlights group
- Telecom to TELUS, SHAW, Bell, the City
- Gas to ATCO Gas
- Water to EPCOR Water

- Electrical power to EDTI
- City fibre optic lines to the City's Facility Infrastructure Delivery group
- AltaLink, L.P.

APPENDIX 28-2H

Utility Infrastructure Left in Place

Description	Utility Company	Location
250 mm watermain in casing	EPCOR Water	Crosses track alignment at Sta 410+680
900 mm storm sewer and U/S manhole	EPCOR Water (drainage)	Aligned east/west to the east of 23rd Ave intersection at Sta 410+980
42 mm steel gas main	ATCO Gas	Along west property line south of 23rd Ave from Sta 411+100 to Sta 411+450
Fibre optic/communication line duct bank	Telus/Shaw	Along west property line south of 23rd Ave from Sta 411+140 to Sta 411+520
900 mm storm sewer	EPCOR Water (drainage)	Across TUC at Sta 414+000
114 mm steel gas main	ATCO Gas	Crosses track alignment just north of Ellerslie Rd. (9th Ave SW) at Sta 415+385
Overhead power lines	EDTI (power)	Along north side of Ellerslie Road

APPENDIX 28-2I

Utility Infrastructure Not To Be Relocated

Description	Utility Company	Location
Transmission Lines	Alta Link	AHD Sta 413+100
23rd Ave Tunnel Drainage and Stormwater Storage system and Lift Station	EPCOR Water (drainage)	23rd Ave Intersection and east along 23rd Ave.
900 mm dia. 23rd Ave Storm Sewer Diversion	EPCOR Water (drainage)	23rd Ave Intersection
Switching Cubicle	EDTI (power)	East side of 111th Str north of 23rd Ave at Sta 410+730

Appendix 28-2J

Utility Deviations

- 1.1 Utility Infrastructure located wholly outside of the deviation allowances described below are considered mislocated based on the following Quality Level definitions:
 - (a) Quality Level A Precise horizontal and vertical location of utilities obtained by the actual exposure (or verification of previously exposed and surveyed utilities) and subsequent measurement of subsurface utilities.
 - (b) Quality Level B Information obtained through the application of appropriate surface geophysical methods to determine the existence and approximate horizontal position of subsurface utilities.
 - (c) Quality Level C Information obtained by surveying and plotting visible aboveground utility features and by using professional judgement in correlating this information to Quality Level D information.
 - (d) Quality Level D Information derived from existing records.
- 1.2 Deviations are measured from the base line information in the CAD reference base files as follows:
 - (a) horizontal deviations are measured from the line or symbol depicted, applying the applicable Quality Level horizontal and width measures as appropriate, and survey data supplied; or
 - (b) vertical deviations are measured based upon the following parameters:
 - (i) Quality Level A elevation of the stated location;
 - (ii) Quality Level B, C, and D elevation of (in ascending order of precedence):
 - (A) ULA application quoted planned depth;
 - (B) depth quoted on the drawing whether plan/profile alignment or as specifically identified with a location;
 - (C) as-built location and elevation contained on drawings or transmitted to Design-Builder from the respective Utility;
 - (D) Identified invert elevation for sewer infrastructure as contained in the DRAINS table (where a figure exists);
 - (E) Services: as per the applicable standard for the type of Utility;
 - (F) 1.2 m standard depth below grade for shallow utilities plus width; and
 - (G) 2.6 m for water.

Deviations are measured from the centre of the baseline reference to the centre of the field identified item. Where the data available pertains to a part of the item other than the centre (i.e. the surveyed

corner of a vault), the baseline deviation shall be applied to the representative location rather than the object's centre.

Abandoned line types are considered Quality level D where the applicable Utility type can be determined.

Mislocated Utility Deviation Allowance Table

QUALITY		APPLICABLE	ALLOWABLE	DEVIATION (m)
LEVEL		UTILITIES	HORIZONTAL	VERTICAL
А	Hydrovac locations	All Utilities	0.5	0.5
LINES				
В				
	Horizontal Alignment	Applicable Utilities	1	
	Item width		1	
	Elevation			See QL-D
С				
	Horizontal Alignment	All Utilities (except as below)	1	
	Item width		1	
	Elevation			See QL-D
	Horizontal	CTEL, PWR	2	
	Alignment Item width		1	
	Elevation			See QL-D
D				
	Horizontal	All Utilities (except as below)	3	
	Alignment Item width		1	
	Elevation			2
	Horizontal	SEW	3	
	Alignment Elevation			2
	Horizontal	SEW-s, WAT-s	6	
	Alignment Elevation			+0.5 above /-2m below
SYMBOLS				
Surveyed	Horizontal Location	All Utilities (except as below)	1	
	Item width		2	
	Horizontal Location	Network vaults and vault investigations	0.5	
Not	Horizontal	All Utilities (except as below)	2	
Surveyed	Location Item width		2	

UTILITIES		
Distribution power	PWR DCT, PWR	
Transmission power	PWR	
Telecommunications	CTEL (Combined telecoms)	
	TELUS	
	SHAW	
	BELL	
Water	WAT	
Sewer	SEW (all sewer mains)	
	COMB	
	SAN	
	STM	
Abandoned (ABND)	ABND	
Pipelines	OIL	
Services - suffix	-S	
Shallow utilities are buried power, telecom, or gas infrastructure		

For certainty, the following Utility Infrastructure is excluded from, and shall not constitute, a Mislocated Utility in any circumstances:

- a. aerial Infrastructure;
- b. Utility Infrastructure outside of City Lands; and

c. where DRAINS does not contain an elevation, and no as-built record exists of that sewer infrastructure, there is no baseline upon which to determine a deviation.