

STAGE 2 LRT PROGRAM

Moodie – LRT/LMSF Process Review - MOECC – March 30, 2017

Minutes

| | | |
|-----------------|---|------------------|
| Status: | Draft | |
| Place: | Stage 2 Office - 601-180 Elgin Street – Trillium Boardroom | |
| Date: | March 30, 2017 | |
| Time: | 1:00 pm | |
| Present: | Charles Wheeler (CW) – Owner’s Engineer team Kim Howie (KH) – OE Kelly Roberts (KR) – OE Kim Eaton (KE) – OE Angela Taylor (AT) – City of Ottawa Nelson Edwards (NE) – City of Ottawa Solange Desautels (SD) – MOECC – on phone Gavin Battarino (GB) – MOECC – on phone Yves Dagssie – MOECC – on phone | |
| Regrets | | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | <p>The purpose of the meeting was to discuss process to be followed for the extension of the LRT to Moodie Drive, the site search for a new light maintenance and storage facility (LMSF) and the extension of the bus terminal at Bayshore Drive should Bayshore be the terminus of the line due to affordability constraints .</p> <p>This meeting is a follow-up to a previous meeting held on February 22, 2017 and correspondence since that meeting regarding the process</p> | |
| 2. | <p>Background</p> <p>CW reviewed the history of the project and outlined the plans for the project amendments and related environmental assessment approvals:</p> <ul style="list-style-type: none"> The work required for the expanded Bayshore bus terminal would be prepared as an Addendum to the Confederation Line West Extension EPR (West LRT EPR). The Stage 2 team is currently completing updated noise and vibration and air quality studies in anticipation of completing this addendum. Meetings have been held with the affected property owner as additional property would be required to expand the bus terminal from what was envisioned in the West LRT EPR. | |

| | | |
|----|--|--------------------------|
| | <ul style="list-style-type: none"> • he work for the LRT extension to Moodie Drive and the site search for the LMSF is planned to be prepared as an addendum to the approved West Transitway Extension EPR (BRT EPR). | |
| 3. | <p>Additional Discussion</p> <p>The study areas for the BRT EPR and the work being done for the Moodie project were discussed. MOECC indicated that their interpretation is that if the study areas are not the same, then an addendum process would not be appropriate. KR indicated that there have been other projects / precedents outlined in our letter that did not have the same study area and were prepared as addendums. MOECC indicated that the circumstances of these projects were not the same as this project and regardless, doing a new EPR for this change in scope would not necessarily result in a lengthier process as the timing between the TPAP Notice of Study Commencement and Notice of Study Completion can be shorter than the specified maximum time period. In the end may satisfy the public better than an addendum and would have to potential for less criticism of the resulting process.</p> <p>It was agreed that the City would proceed on this basis.</p> <p>The addendum for the Bayshore bus terminal was discussed and it was agreed that this could proceed as an addendum to the West LRT EPR approved by the Minister in December 2016. The City will prepare a summary of the current West LRT EPR assumptions for this area along with the contemplated changes for the information of MOECC.</p> | <p>City</p> <p>CW</p> |
| 4. | <p>EPR Next Steps for Moodie LRT/MSF</p> <p>The City will proceed with drafting the TPAP Notice of Study Commencement for the Moodie EPR. MOECC suggested that a copy of the notice should be provided to them in draft before issuing. This allows them to have information if questions arise from the public. MOECC indicated that this has not been the process followed by the City for projects in the past and they are encouraging the City to start doing this.</p> <p>CW requested a contact person to direct information to at MOECC. GB indicated that he would be the contact person for now and that eventually there would be someone assigned to the project. CW requested the MOECC look into assigning someone at this time so the City could have consistency in the process. SD indicated that they would look into assigning someone.</p> | <p>City</p> <p>GB/SD</p> |

Prepared by: K Howie

Reviewed by: C. Wheeler

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.

New Bayshore to Moodie LRT Extension EPR and Proposed changes to Stage 2 LRT existing EPRs

September 11, 2017



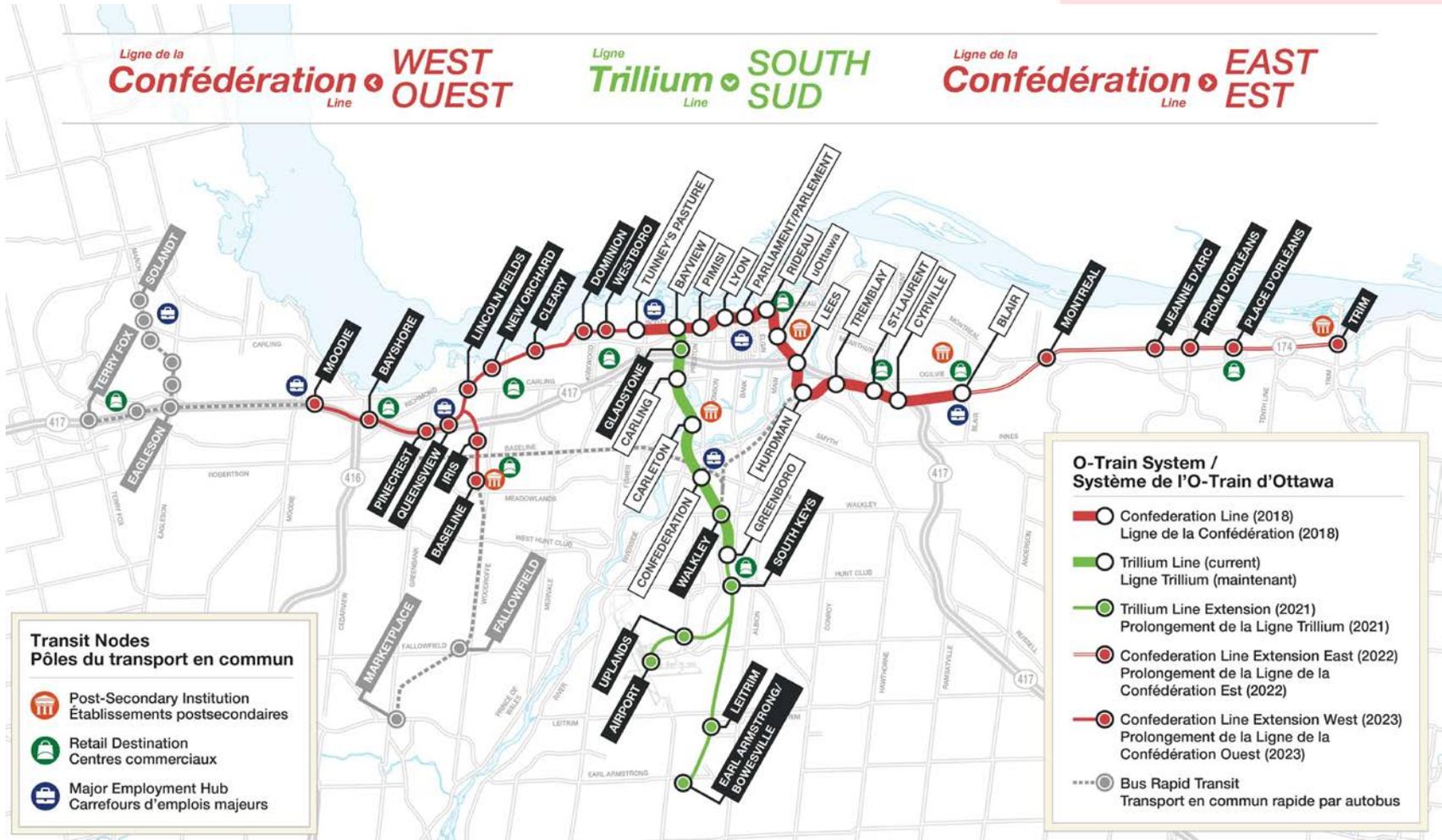
Agenda

- Confederation East Line Extension EPR
 - *Existing Trim Park and Ride Expansion*
- Confederation West Line Extension EPR
 - *Goldenrod Bridge Addition of Left Turn Lane*
 - *Bayshore Bus Staging Area Modifications*
- Trillium Line Extension EPR
 - *Bowesville Station Alternative Alignment and Extension to Limebank*
 - *Ellwood Diamond Rail Crossing Grade Separation*
 - *Walkley Yard Maintenance Facility Location*
- Bayshore to Moodie LRT Extension EPR

Background

- Stage 1 LRT (Tunney's Pasture to Blair) to open in 2018
- Stage 2 LRT is largest infrastructure project in City history (\$3.6B) and includes the following:
 - Confederation Line West extension to Moodie
 - Confederation Line East extension to Trim
 - Trillium Line extension to Earl Armstrong/Bowesville and Airport
 - Highway 417 widening and City bundled projects
- Funded by all three levels of government
- Confederation and Trillium Line RFPs released in June and July 2017; contract award anticipated Q2 2018
- Confederation West to open by end of 2023

Stage 2 LRT Project

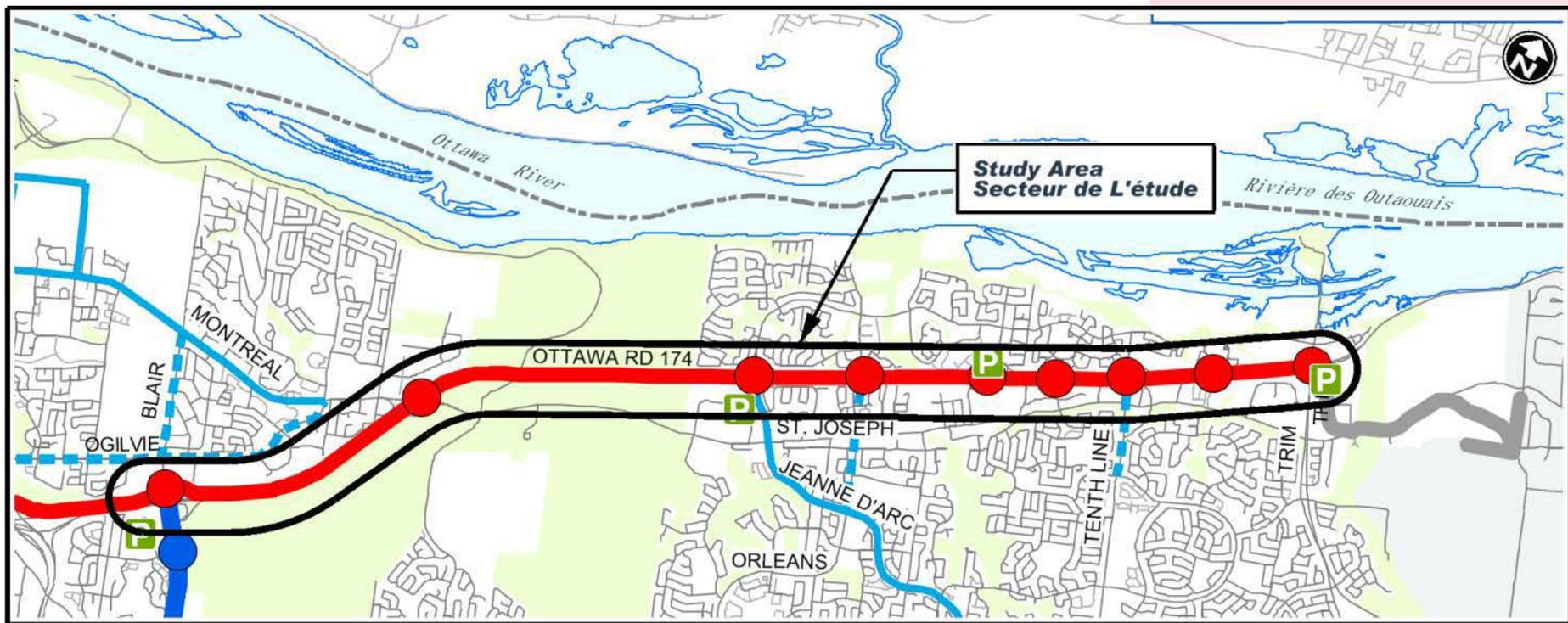


Confederation East and West

Recommended Plan Modification Process

- Only inconsistent changes require an addendum report.
- Consistent changes are defined as changes that:
 - ✓ Do not fundamentally affect the identified impact or mitigation measures;
 - ✓ Do not change the landowner notification requirements;
 - ✓ Do not include additional approval agencies.
- Should a minor inconsistent change be required, the City will prepare an addendum in accordance with Section 15(1) of the TPAP legislation.
- If the proponent is of the opinion that a change described in the addendum is a significant change to the project, the proponent shall prepare a Notice of Environmental Project Report Addendum.

Confederation Line East EPR Study Area



TRIM PARK AND RIDE EXPANSION



Confederation East

Existing Trim Park and Ride Expansion

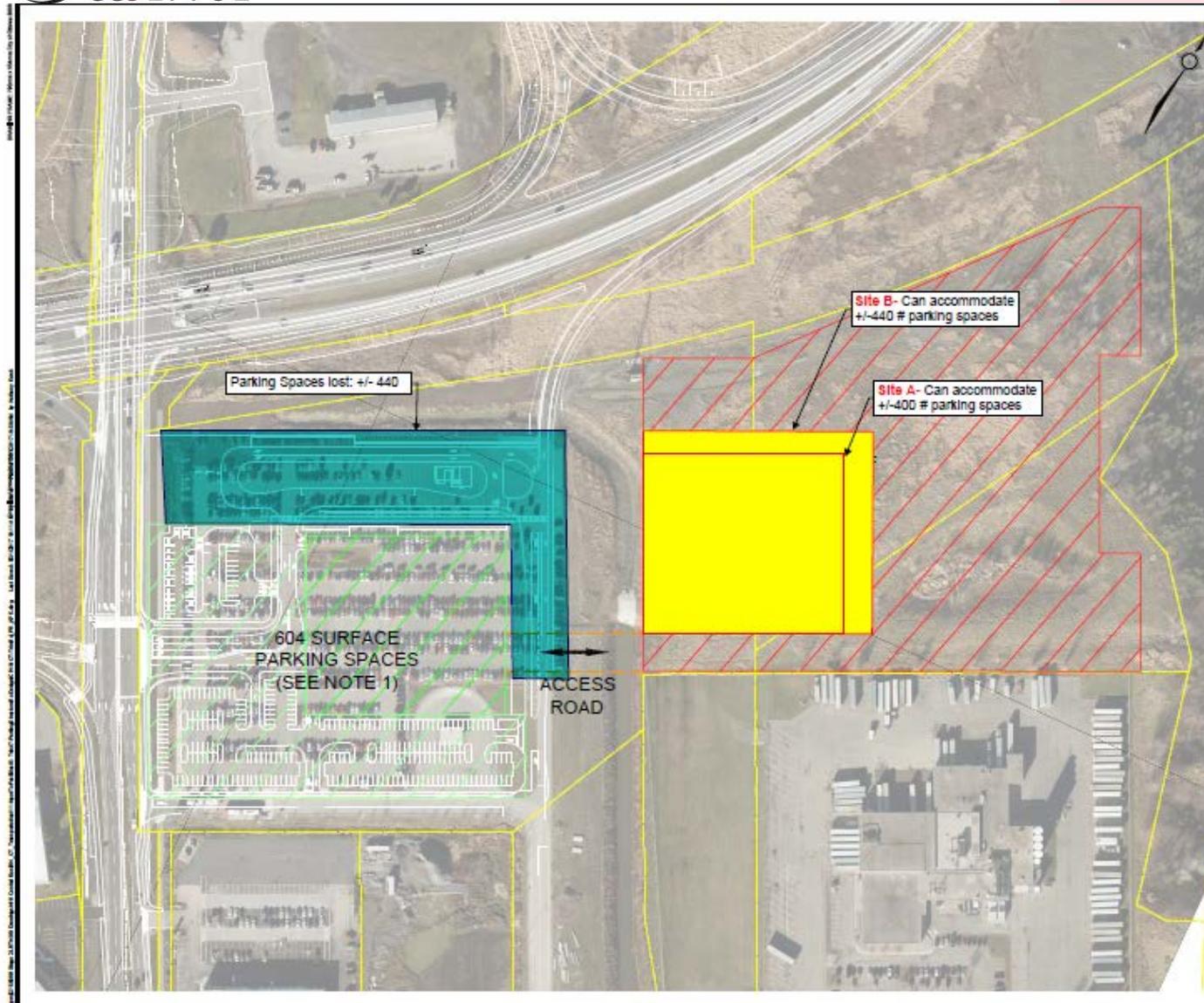
- Recommended plan indicates:
 - section 6.5 that “The potential demand for park and ride spaces will be determined at a later date once ridership is established. Park and Ride Lots are currently in place and planned to remain at terminus stations (Place d’Orléans and Trim Road).”
 - section 6.1.1.10 that “There is TOD or Park and Ride lot expansion potential for the development block on the north side, which is the former MTO works yard.”

Confederation East

Existing Trim Park and Ride Expansion

- Proposed change includes :
 - a new satellite surface parking site located to the east side of the existing SWM pond;
 - appropriate accesses from and to the main parking site;
 - new/modified stormwater management facilities; and
 - potential utilities relocations.

If built up front by DB Co, it is expected that the proposed satellite surface parking site could also better facilitate temporary parking requirements during staged construction.



OTTAWA STAGE 2 LIGHT RAIL
TRANSIT PROJECT
CONFEDERATION EAST

**TRIM ROAD PARK & RIDE
LAYOUT OPTION
W/ SURFACE PARKING**

DATE: 01/11/2017
SCALE: 1:1000

Project Manager: [Blank]
Design Engineer: [Blank]

DATE: 01/11/2017
SCALE: 1:1000

| No. | Description | By | Checked |
|-----|--------------------------|----|----------|
| 1 | FOR DESIGN PURPOSES ONLY | SK | SK/MLC/J |
| | | | |
| | | | |



- NOTES**
- 604 SURFACE PARKING SPACES INCLUDES 34 ADA PARKING SPACES FOR THE PROPOSED TRIM PARK AND RIDE DESIGN.
 - 1 PARKING LEVEL IS APPROXIMATELY =340 SPACES (9,975m²).

PRELIMINARY
NOT FOR CONSTRUCTION

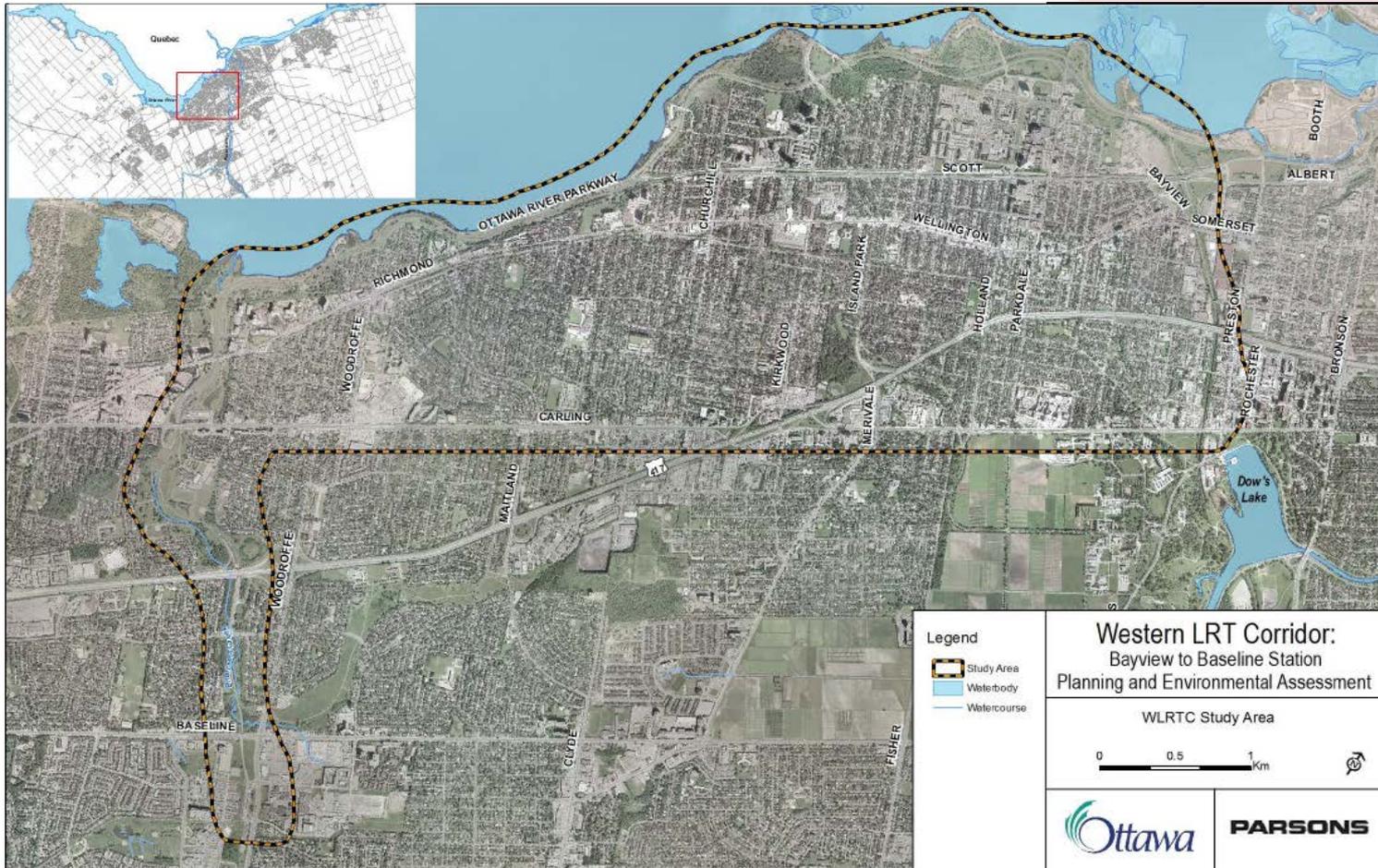
Confederation East

Existing Trim Park and Ride Expansion

| | |
|--|---|
| Affect the identified impact or mitigation measures | <ul style="list-style-type: none">• Impacts to be confirmed: ESA phase 2, Natural Sciences surveys and Archaeological Assessment Stage 2• Mitigation measures to address these potential impacts are included in the EPR |
| Change the landowner notification requirements | <ul style="list-style-type: none">• None |
| Additional approval agencies | <ul style="list-style-type: none">• None |

Change proposed is considered consistent and will be documented in a technical memo to be included in the project file

Confederation West EPR Study Area



GOLDENROD BRIDGE LEFT TURN LANE



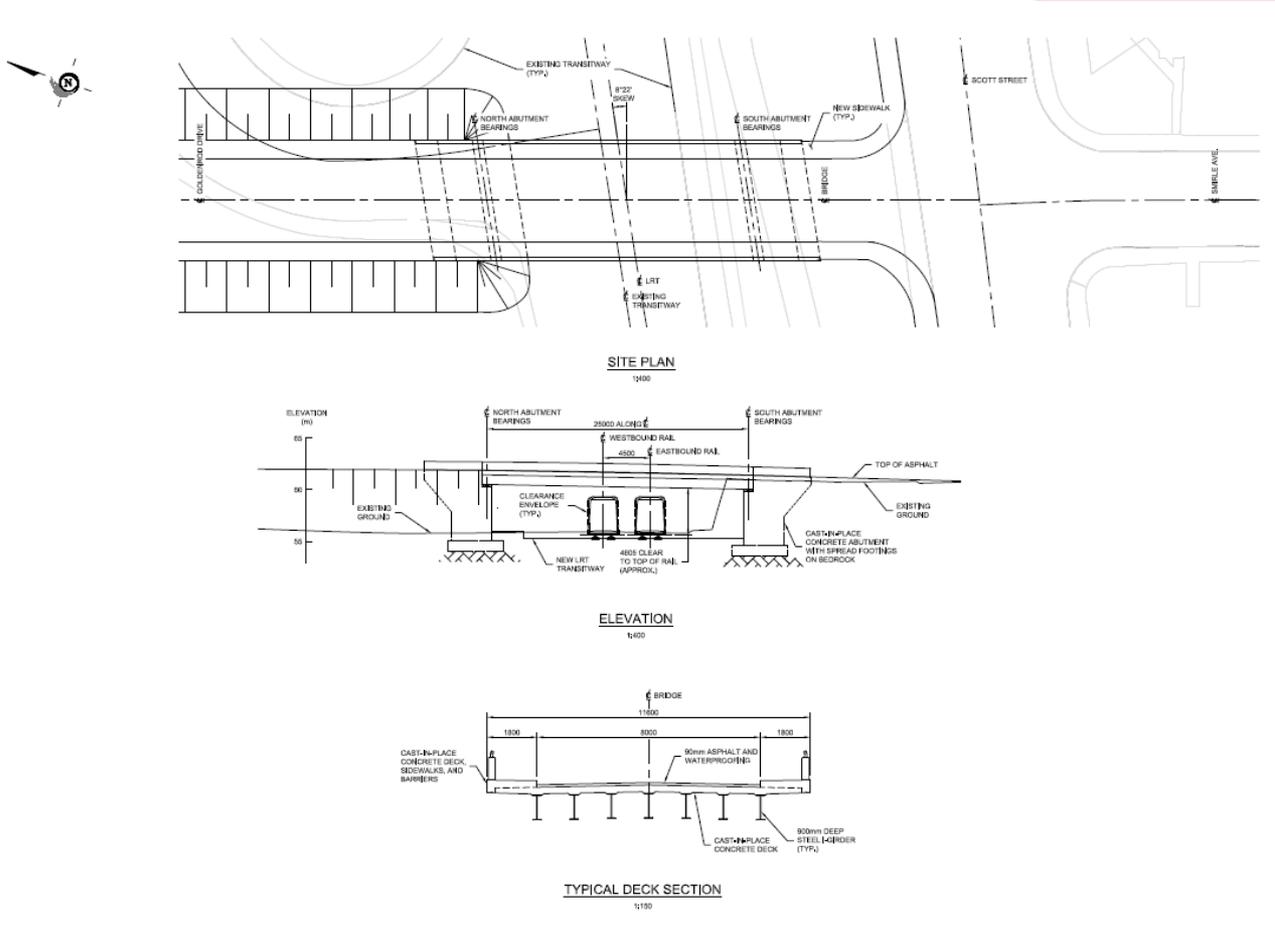
Confederation West

Goldenrod Bridge Recommended Plan

Recommended plan indicates:

- section 7.1.1 that: “A new structure will be required over the LRT corridor at Goldenrod. A two-lane structure is required to meet local traffic volumes and allow for local bus routes to loop through Tunney’s Pasture.”
- section 7.2.1 that: “new structure at Goldenrod, illustrated in Section 11.1, over the West LRT will be constructed to permit local bus access to Tunney’s Pasture and improve access for pedestrians, cyclists and vehicles to PWGSC’s Tunney’s Pasture campus.”

Confederation West Goldenrod Bridge Recommended Plan



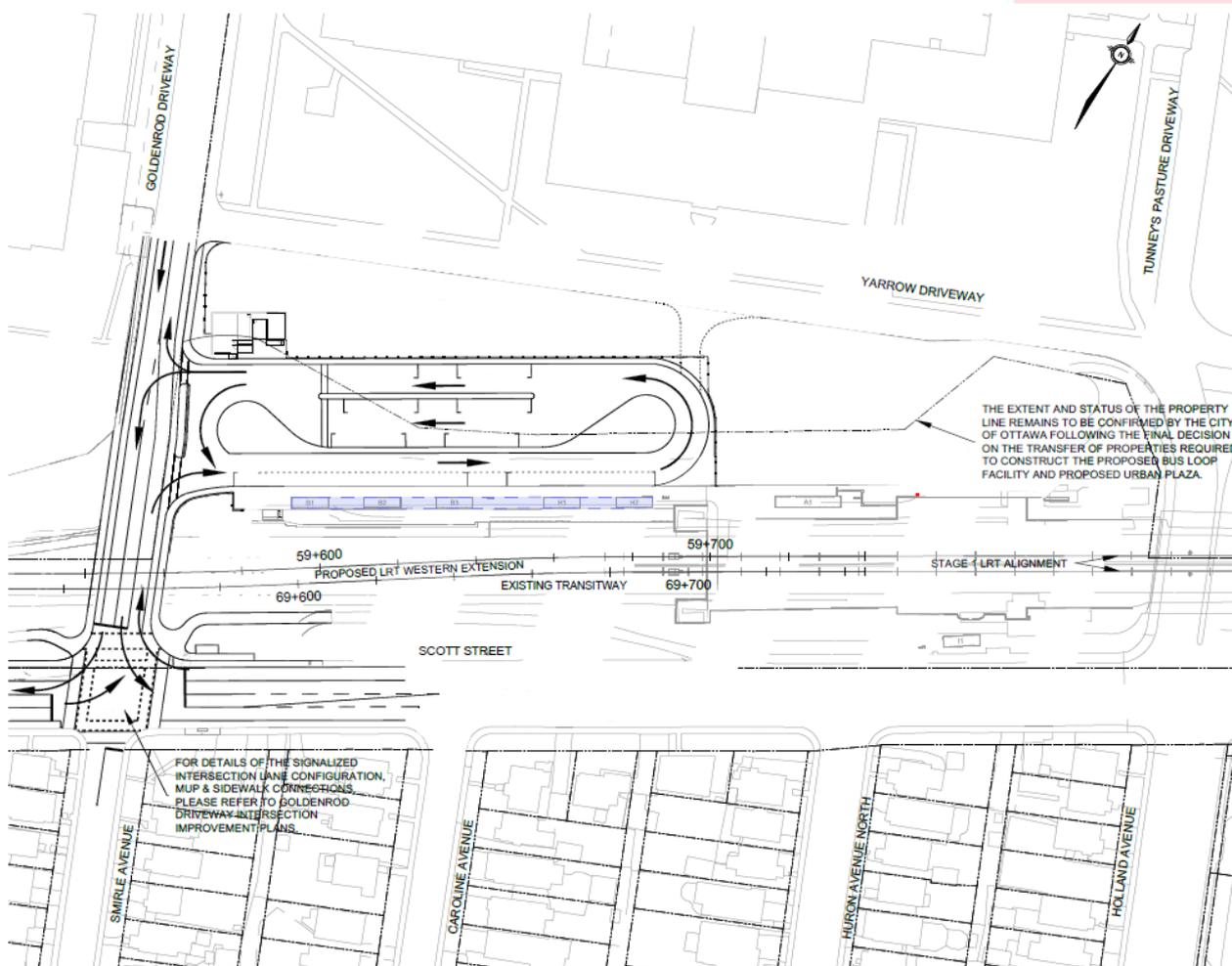
Confederation West

Goldenrod Bridge Left Turn Lane

- Proposed change scope is the addition of a left turn auxiliary lane to ensure fluidity of traffic movement in and out of the redeveloped Tunney's Pasture complex.

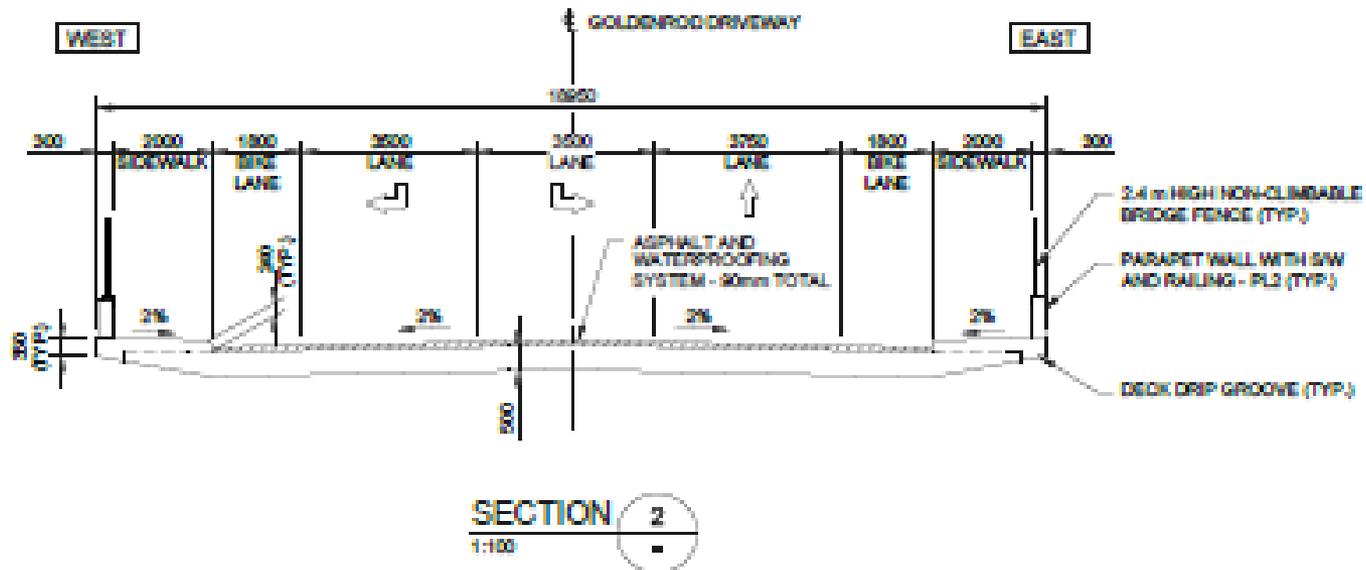


Confederation West Goldenrod Bridge Proposed Change



Confederation West

Goldenrod Bridge Widening Proposed Change



Confederation West Goldenrod Bridge Left Turn Lane

| | |
|--|--|
| Affect the identified impact or mitigation measures | <ul style="list-style-type: none">• None |
| Change the landowner notification requirements | <ul style="list-style-type: none">• None |
| Additional approval agencies | <ul style="list-style-type: none">• None |

Change proposed is considered consistent and will be documented in a technical memo to be included in the project file

BAYSHORE BUS STAGING AREA MODIFICATIONS



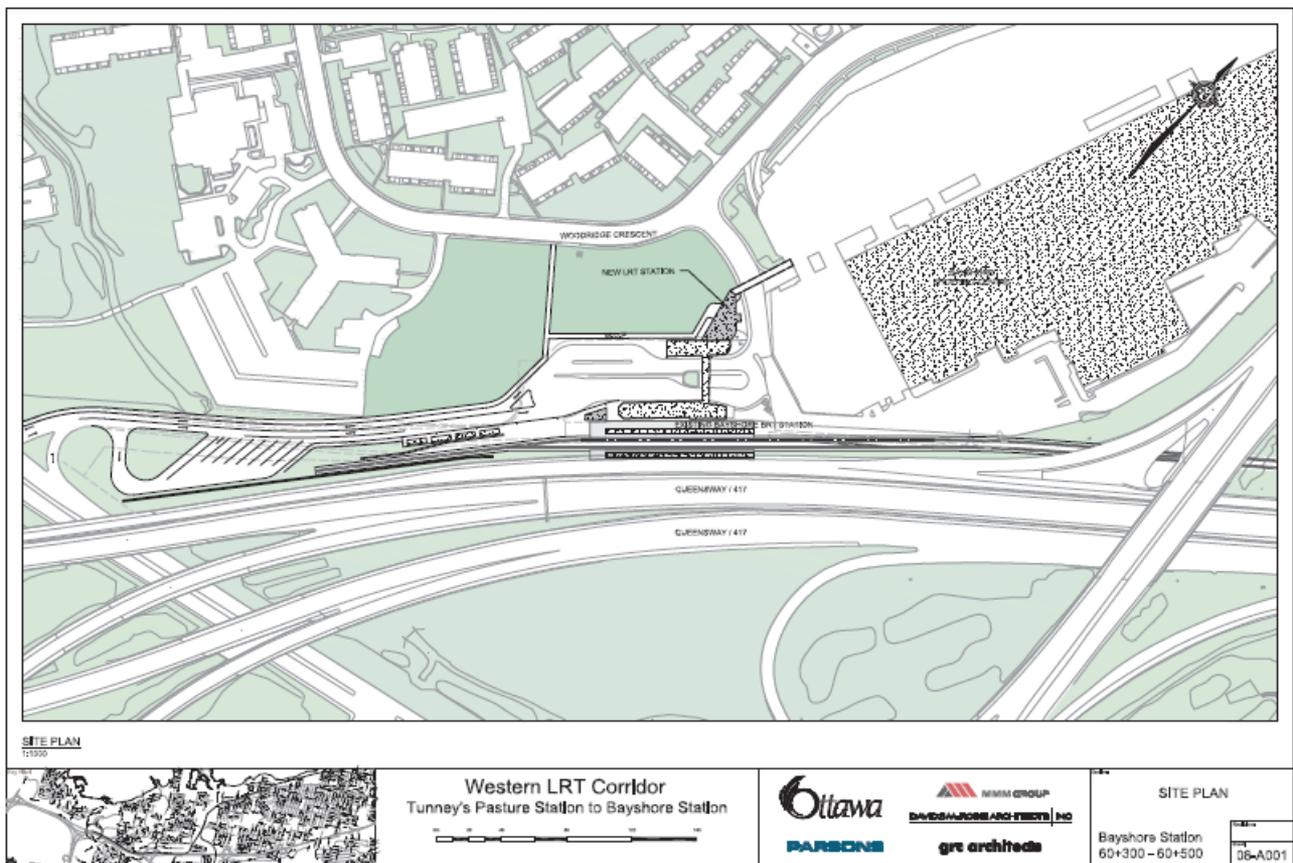
Confederation West

Bayshore Bus Staging Area Recommended Plan

Recommended plan indicates (section 7.2.4):

“A bus staging area will be created to the west of the station (between the bus platforms and Holly Acres Road) to facilitate short-term layover of buses, particularly in the afternoon peak period when high numbers of westbound transit riders will be transferring from the LRT to buses. A retaining wall along the north side of Highway 417 would be required to create an additional amount of level land for the recommended bus staging area. This staging area will accommodate 10 spaces, with an additional 8 lay by spaces in the footprint identified. There are also 8 platform spaces available, providing a total of 26 spaces for buses. The scale of this bus transfer area is similar in nature to Baseline. Should additional space be required, it will need to be acquired in the vicinity as part of a separate study.”

Confederation West Bayshore Bus Staging Area Recommended Plan

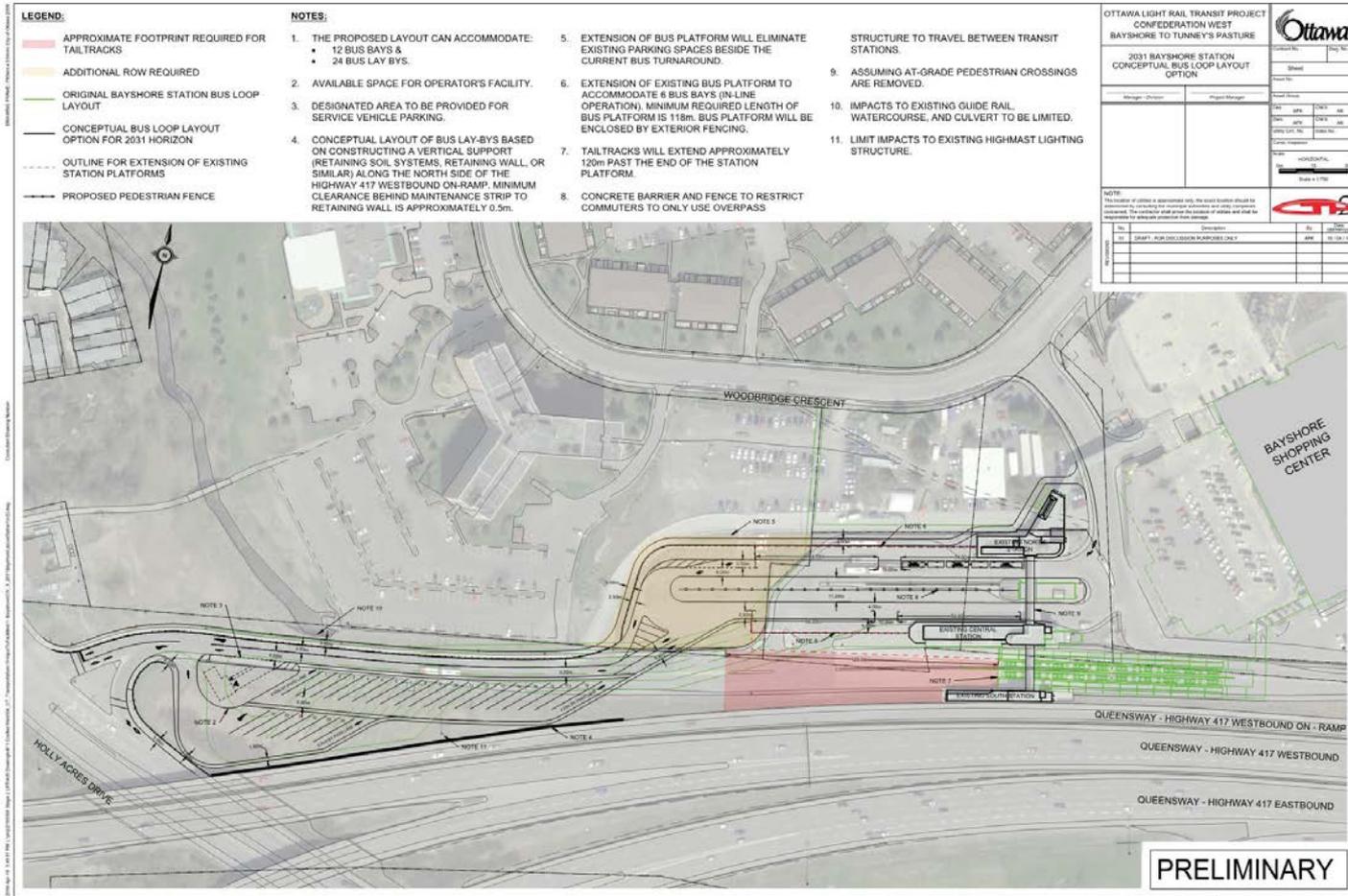


Confederation West Bayshore Bus Staging Area Proposed Changes

Preliminary engineering concept for Bayshore bus station and lay-by, includes the following:

- 12 bus bays
- 24 bus laybys
- Available space for operator's facility
- Designated area for service vehicle parking
- Vertical support (in the form of retaining soil systems, wall, or similar) along the north side of the Highway 417 westbound on-ramp
- Extension of bus platform westward, to accommodate 6 bus bays
- Extension of tail tracks approximately 120 metres past the end of the station platform
- Concrete barrier and fence to restrict commuters to use the overpass to travel between transit stations
- At-grade pedestrian crossings are removed between existing north and central stations
- Limited impact to existing guide rail, watercourse, and culvert

Bayshore Bus Staging Area Proposed Changes



Bayshore Bus Staging Area Proposed Changes

| | |
|--|--|
| Affect the identified impact or mitigation measures | <ul style="list-style-type: none">• None |
| Change the landowner notification requirements | <ul style="list-style-type: none">• None |
| Additional approval agencies | <ul style="list-style-type: none">• None |

Change proposed is considered consistent and will be documented in a technical memo to be included in the project file

Trillium Line

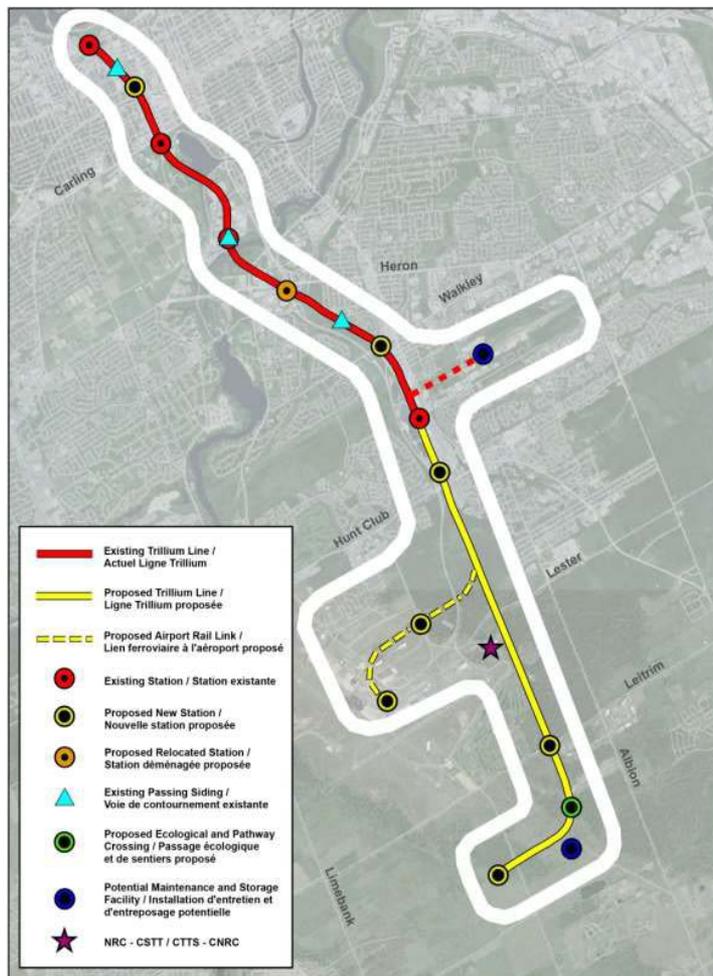
Recommended Plan Amendment Process

- Changes or modifications that are considered not significant include refinements that are consistent with the concept of the undertaking defined in this report. These generally include those:
 - ✓ that were already captured in the development of options within the study area envelope, and
 - ✓ minor shifts in the vertical or horizontal alignment, reconfiguration of station elements, or changes to the design of facilities within the defined transit corridor.

- Changes or modifications that are considered significant represent major departures from the concept of the undertaking identified in this report. These changes may :
 - ✓ result in major new impacts on the local environment;
 - ✓ require properties outside the original boundaries of the undertaking;
 - ✓ include major changes to the right-of-way/project footprint ; and
 - ✓ include major changes to the technology to be used.

- Should a not significant change be required, the City will prepare an addendum in accordance with Section 15(1) of the TPAP legislation.
- If the proponent is of the opinion that a change described in the addendum is a significant change to the project, the proponent shall prepare a Notice of Environmental Project Report Addendum.

Trillium Line EPR Study Area



BOWESVILLE STATION ALTERNATIVE ALIGNMENT AND EXTENSION TO LIMEBANK



Trillium Line

Bowesville Station Recommended Plan

Recommended Plan indicates (section 7.1.1):

“The line terminates at a new at-grade station and Park and Ride lot located approximately 150 metres east of Bowesville Road, on land to be acquired from the OMCIAA. It includes an operators’ rest facility as per City requirements for terminal stations, inside the farepaid zone. Like Leitrim Station, the design of this station reflects a rural context and includes a station house for ticketing machines, turnstiles and operators’ facility, a covered walkway across the bus lanes to the rail platform, and glazed shelters on all platforms. The fare-paid zone at this station also includes both bus and rail platforms. A loop and bus layup area is located at the east end of the station. The Park and Ride accommodates 400 spaces in the interim and 3,100 spaces in its ultimate configuration.”

Trillium Line

Bowesville Station Proposed Change

- The new alignment will move the current Bowesville Station to the edge of the urban boundary just southeast of the Earl Armstrong Road and Bowesville Road intersection. The alignment will now continue to follow the former CP rail corridor farther south until it crosses Earl Armstrong Road, at which point it will turn westward and terminate just east of Bowesville Road at the new Earl Armstrong/Bowesville Station. An overpass structure carrying Earl Armstrong Road over the extended Trillium Line will be built as part of the Stage 2 Project.
- This new Earl Armstrong/Bowesville alignment provides several benefits as it will:
 - ✓ Take advantage of an existing rail corridor, ultimately reducing land costs and simplifying construction, which will enable the City to add approximately 800 metres of rail within the existing budget;
 - ✓ Reduce the environmental impact on sensitive lands in and around the Greenbelt, as the City will no longer require approximately 12 acres of these environmentally sensitive lands; and,
 - ✓ Improve rail access to residents in Riverside South and broader Ottawa south communities by providing closer access to Earl Armstrong, a major east-west arterial in Riverside South, and bringing the Park and Ride closer to Riverside South.

This new alignment also facilitates a potential future extension beyond Earl Armstrong/Bowesville to Limebank Road to better integrate with the community of Riverside South as it grows.

Trillium Line

Bowesville Station Proposed Change



Trillium Line

Bowesville Station Proposed Change

| | |
|--|--|
| captured in the development of options within the study area envelope | <ul style="list-style-type: none">• No |
| minor shifts in the vertical or horizontal alignment, reconfiguration of station elements, or changes to the design of facilities within the defined transit corridor | <ul style="list-style-type: none">• No |

Change proposed is considered significant and will require preparation of an addendum report and preparation of a Notice of Environmental Project Report Addendum.

ELLWOOD DIAMOND RAIL CROSSING GRADE SEPARATION



Trillium Line

Ellwood Diamond Rail Crossing

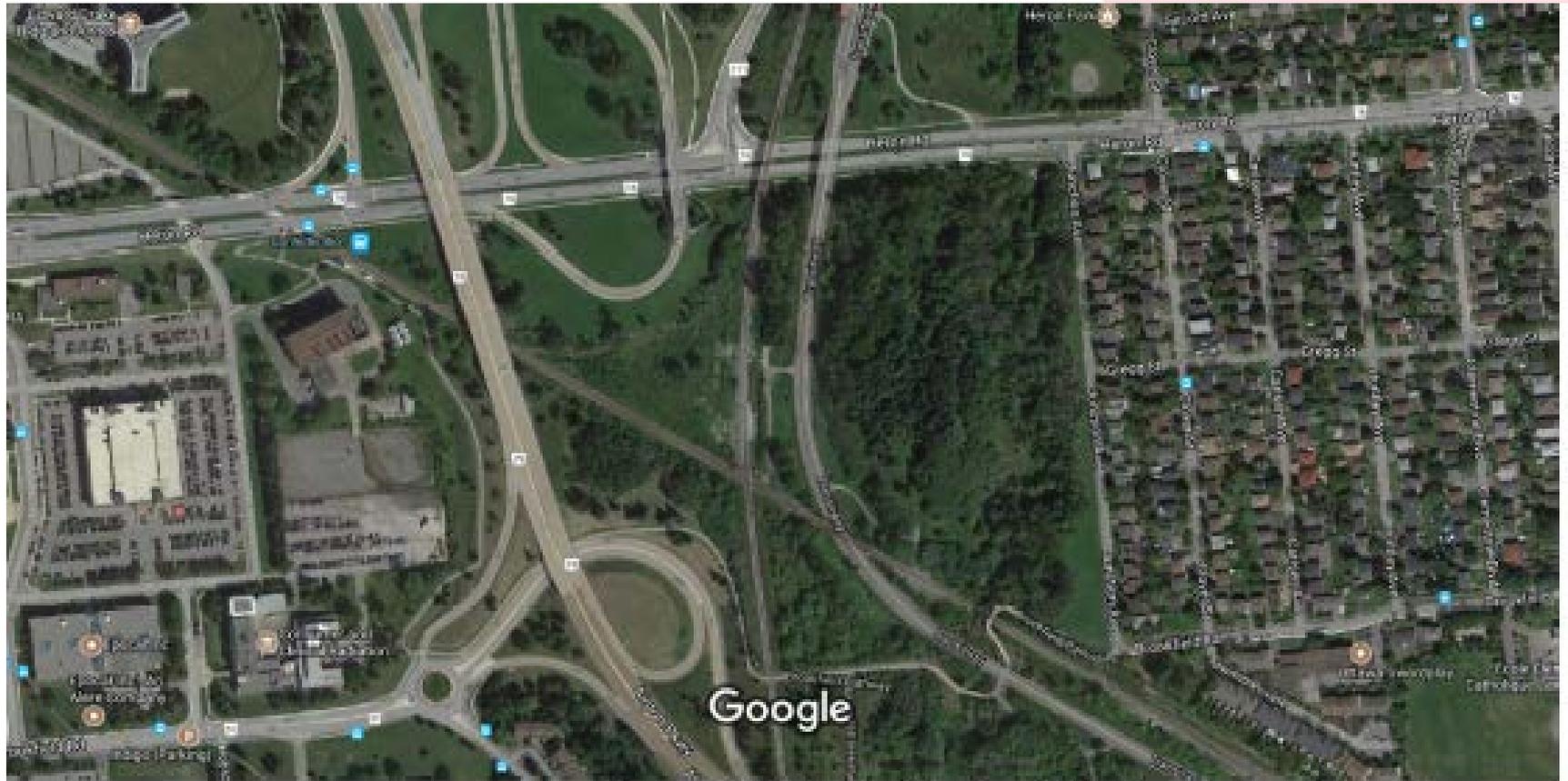
Recommended Plan

- Recommended Plan does not include any modifications to the existing Ellwood Diamond Rail Crossing.



Trillium Line

Ellwood Diamond Existing Rail Crossing



Imagery ©2017 DigitalGlobe, Map data ©2017 Google Canada 50 m

Trillium Line

Ellwood Diamond Rail Crossing

Proposed Change

- The proposed expansion of the Trillium line is expected to increase the number of O-Train crossings with longer trains.
- In addition, VIA has previously indicated its near term intentions to move to more frequent service between Ottawa and Toronto using the route across the Ellwood Diamond.
- Consider options related to eliminating the existing Ellwood Diamond railway crossing by grade separating the Trillium and VIA lines.
- Option 1C – The Trillium line goes over VIA on a new horizontal alignment with an overpass structure and approach grades that accommodate DMU movements only with the Freight track remaining at-grade on the existing horizontal alignment.

Ellwood Diamond Rail Crossing Proposed Change



Trillium Line

Ellwood Diamond Rail Crossing Proposed Change



Ellwood Diamond Rail Crossing Proposed Change

| | |
|--|---|
| captured in the development of options within the study area envelope | <ul style="list-style-type: none">• No |
| minor shifts in the vertical or horizontal alignment, reconfiguration of station elements, or changes to the design of facilities within the defined transit corridor | <ul style="list-style-type: none">• Yes |

Change proposed is considered not significant and will require preparation of an addendum report.

WALKLEY YARD LOCATION



Trillium Line

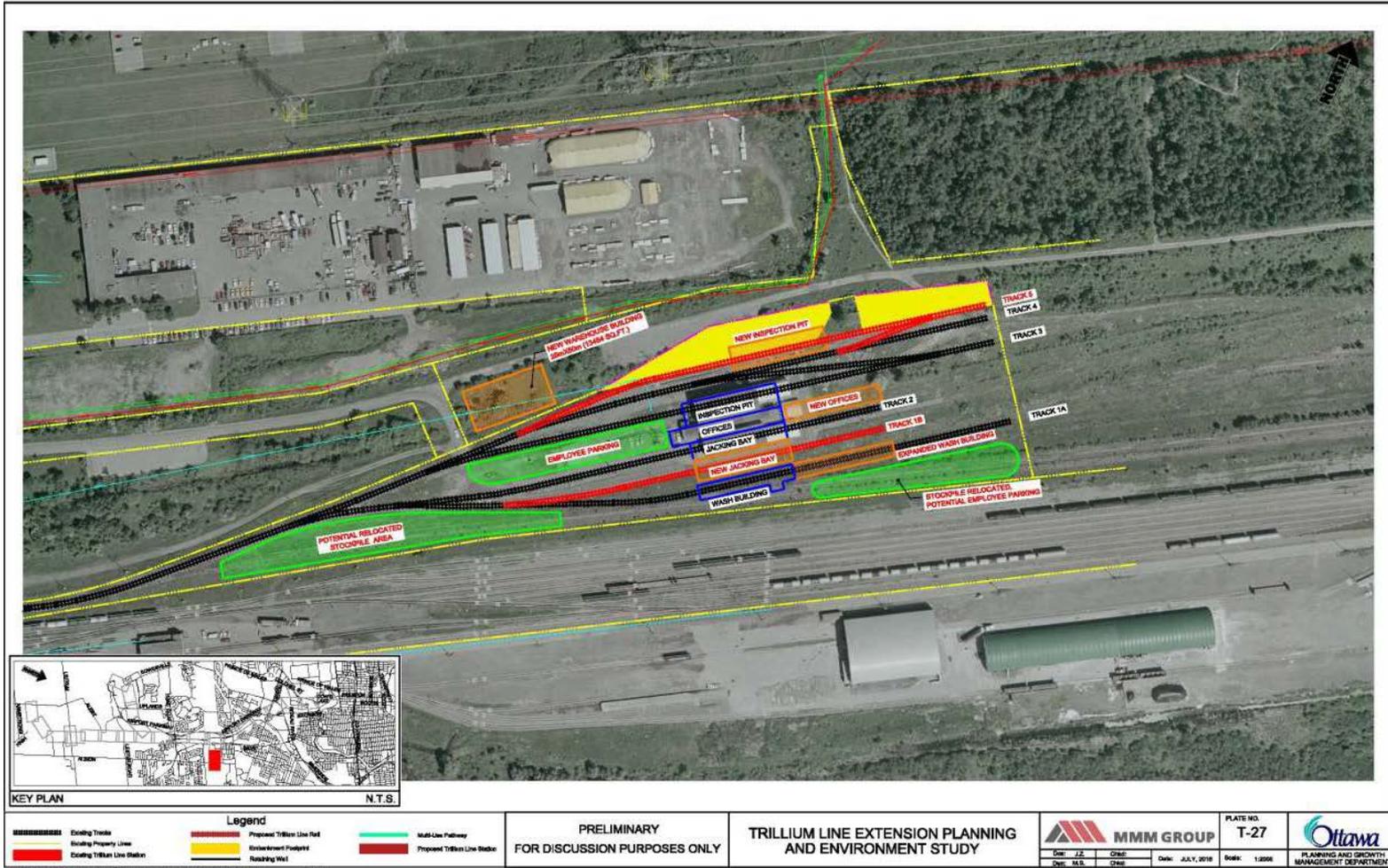
Walkley Yard Recommended Plan

Recommended Plan indicates (section 7.1.4):

“The existing Walkley Yard facility will be expanded to accommodate 18 trains, using an additional 0.5 ha of property from lands north of the yard on which the City already holds an option. A separate jacking bay, a new inspection pit, additional storage tracks and additional office space will be constructed between existing buildings where space permits, and at the north end of the yard on the additional property.”

Trillium Line

Walkley Yard Recommended Plan



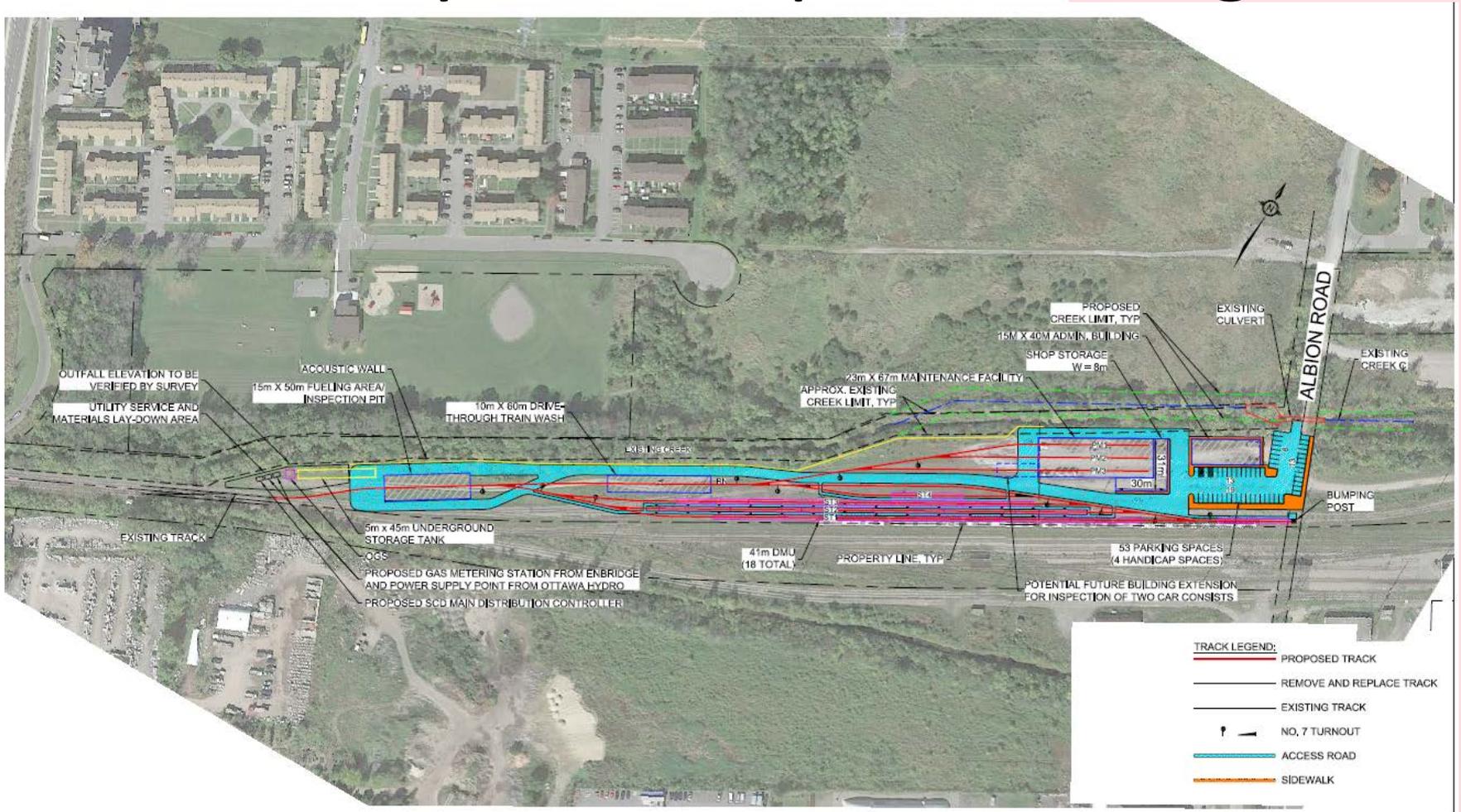
Trillium Line

Walkley Yard Proposed Change

As part of the development of the Preliminary Engineering Reference Design, the Walkley Yard Site has been under review. Options for optimizing the site and reducing costs have been considered. The existing Walkley Yard is currently leased to the City from CP Rail. One of the options being considered is an alternative site adjacent to and west of the current Walkley site which is owned by the City.

Trillium Line

Walkley Yard Proposed Change



Trillium Line

Walkley Yard Proposed Change

| | |
|--|---|
| captured in the development of options within the study area envelope | <ul style="list-style-type: none">• No |
| minor shifts in the vertical or horizontal alignment, reconfiguration of station elements, or changes to the design of facilities within the defined transit corridor | <ul style="list-style-type: none">• Yes |

Change proposed is considered not significant and will require preparation of an addendum report.

MOODIE LRT EXTENSION AND LMSF



Background

- BRT Transitway Extension from Bayshore Station to Moodie Drive currently under construction
 - Expected revenue service in November 2017
- City priorities for expansion to the west
 - LRT station closer to DND employment node
- Moodie LRT extension, including initial LMSF facility was determined to be affordable within Stage 2 project budget
- EA initiated with this in mind

Moodie BRT Study Area



BRT at Moodie and 417



Alternative B2 aligns the Transitway through the Moodie Drive interchange and passes under Moodie Drive and associated highway ramps before continuing west through the Greenbelt. A Transitway station serving both local and rapid transit services is located east of Moodie Drive with local access from Corkstown Road.

Reuse of Existing BRT Infrastructure

- Alignment/retaining walls/noise barriers
- BRT Station (to the extent possible)
- 417 ramp grade separation
- Stillwater Creek improvements
- Holly Acres Bridge (as designed)
- Add Kiss and Ride
- Expand Bus terminal



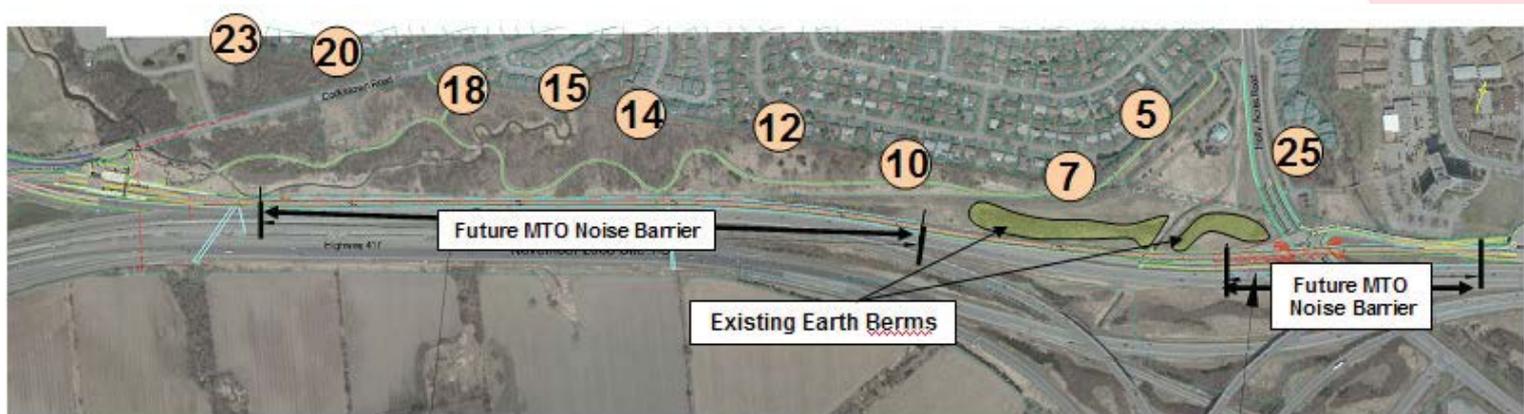
Conversion from Buses to LRT Vehicles

- Conversion of BRT to LRT eliminates 200,000 bus trips annually
- Existing and future air quality conditions all fall below the allowable limits of CO, HC, NO_x, and PM



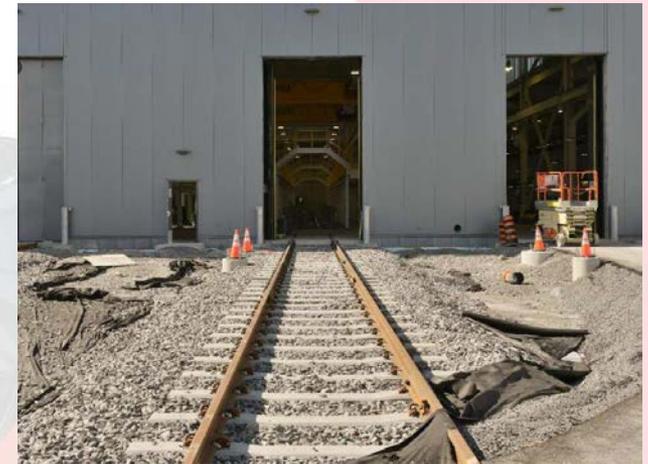
Noise & Vibration

- Existing background noise (Highway 417 traffic) is the predominant noise source
- Two noise barriers recommended to attenuate noise from future highway traffic to be retained
- Potential relocation of Holly Acres noise barrier to north side of new LRT bridge
- Vibration impacts not considered an issue/no mitigation needed

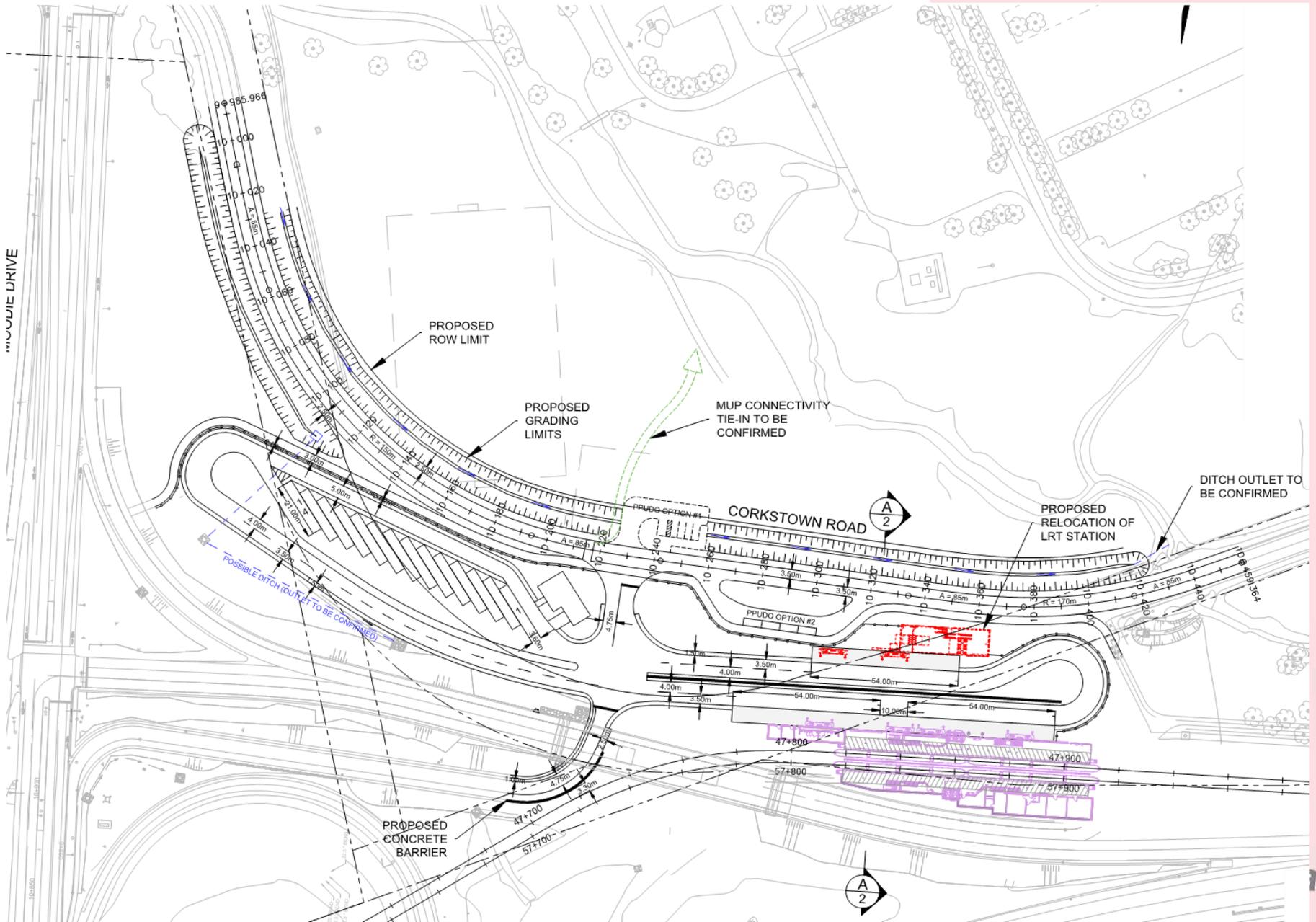


Storm Water Management/Drainage

- LRT impact is positive:
 - Decreased amount of impervious surfaces
 - Maintain and improve existing SWM initiatives implemented for BRT



Moodie Station Layout



BRT to LRT Impacts and Mitigation

Impacts

- Alignment/retaining walls/noise barriers
- BRT Station and 417 ramp grade separation
- Stillwater Creek improvements
- Holly Acres Bridge
- Add Kiss and Ride

Mitigation

- No additional mitigation required. West and east noise wall by BRT project unchanged
- Design modifications
- Floodplain management
- Maintain existing improvements
- Opportunities to reduce width. 417 Noise wall will NOT be relocated to north side of LRT bridge
- Added to BRT station

Light Maintenance and Storage Facility

- City needs a western “Light” MSF to balance Belfast “Heavy” MSF facility in the east
- “Light” refers to indoor storage of vehicles, interior cleaning, seat repairs, minor vehicle repairs and inspections only



LMSF Site Search

- Original search for LMSF site took place during the OLRT Stage 2 Confederation Line West EPR.
 - Study did not consider potential future extension to Moodie or Kanata
 - Requires mitigation measures due to proximity to community
 - Not ideally located in terms of deadhead mileage
 - Lengthy elevated guideway from Baseline to LMSF does not attract ridership
 - Cost to connect to Woodroffe site is unaffordable within scope of Stage 2 project
 - City has no plans to extend LRT beyond Baseline in the foreseeable future

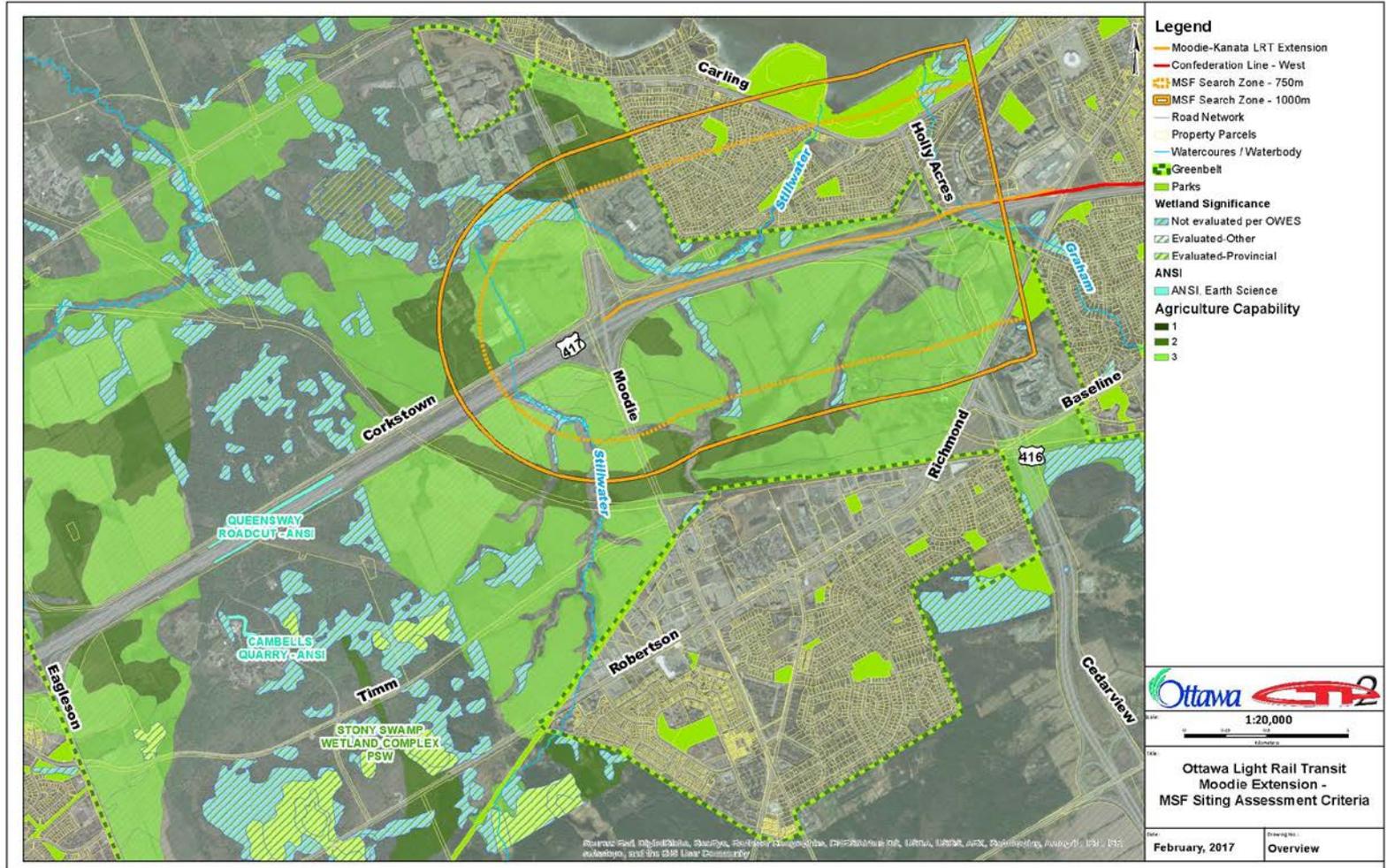
Preferred LMSF Location

- Moodie/Kanata LMSF Site Preferred
- Extension of LRT to the west beyond Bayshore is a City priority
 - Lower cost to connect to LMSF as revenue service LRT is planned/no throw away costs
 - Purpose built facility can be implemented for all LMSF work
 - Lower deadhead mileage compared to Woodroffe site

LMSF Distance Criteria to the Main Line

- Vast majority of Canadian MSF's (light and heavy rail) are within 200 m of the mainline including all 5 existing TTC rail yards
- Existing Belfast MSF is 525 m from main line
- Woodroffe MSF (1200 m) is excessive leading to LMSF search in Moodie LRT area
- 750 m adopted as a search criteria (50 % longer than Belfast MSF distance to main line)

Ottawa LMSF Search Zone West of Bayshore



Moodie/Kanata LMSF Site Alternatives

- Alternative LMSF locations identified using the following site characteristics:
 - **Topography and Grade:** Level ground
 - **Size:** Approximately 16 hectares
 - **Environment:** Avoid areas of geographical, environmental and historical importance
 - **Connections:** Connect to LRT corridor
 - **Access Redundancy:** Two tracks required for LMSF access and egress

Candidate LMSF Sites



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus

LMSF Screening Criteria

| <i>Criteria</i> | <i>Indicator/Measurement</i> |
|--|---|
| <i>Social Environmental Characteristics</i> | |
| <i>Effects to local residents</i> | Minimizes effects on visual intrusion, noise air quality, vibration |
| <i>Site safety</i> | Ability to restrict access to the MSF |
| <i>Agricultural capacity</i> | Minimizes effects on Class 1-3 agricultural lands or land under active use |
| <i>Transportation network</i> | Minimizes effects on existing and future transportation network. |
| <i>Pedestrian/cyclists</i> | Minimizes effects on existing and future pedestrian movements |
| <i>Existing land uses</i> | Minimizes effects on existing and planned land uses |
| <i>Heritage / Culture</i> | Minimizes effects on areas identified or having potential for archaeological or cultural significance |
| <i>Bio-Physical Environmental Characteristics</i> | |
| <i>Soil types</i> | Geotechnical characteristics to support a facility of this type |
| <i>Impacted Materials</i> | Minimizes potential to encounter impacted materials |
| <i>Key terrestrial features</i> | Minimizes effects on key terrestrial systems and features |
| <i>Key aquatic features</i> | Minimizes effects on key aquatic systems and features |
| <i>Geological faults</i> | Avoids areas of active faults |

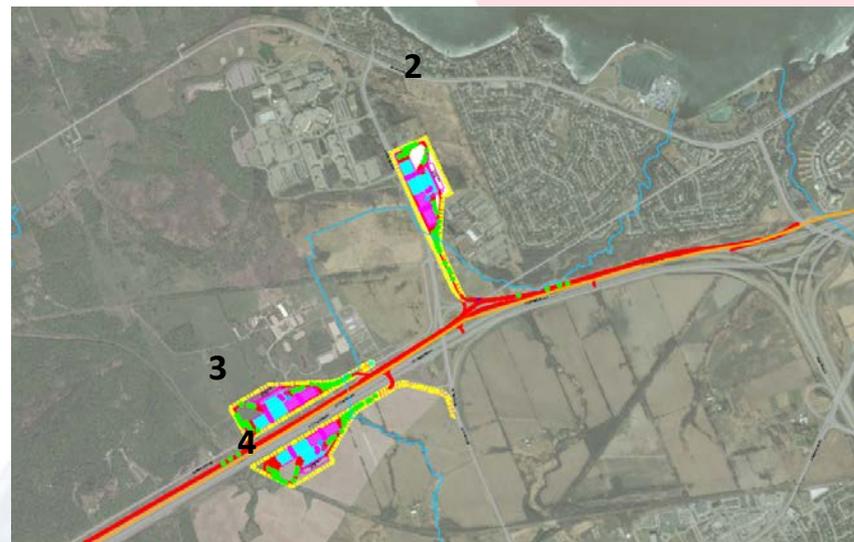
LMSF Screening Criteria

| <i>Criteria</i> | <i>Indicator/Measurement</i> |
|---|---|
| <i>Facility Operations</i> | |
| <i>Expansion Capability</i> | Ability to stage/expand facility |
| <i>MSF Site Servicing</i> | Access to Municipal Services, Utilities and Power Extent of reuse of existing infrastructure |
| <i>Existing services</i> | Minimizes conflicts with Municipal Services, Utilities and Power |
| <i>Road access</i> | Maximizes accessibility for, to, and from the MSF |
| <i>LRT Station location</i> | Ease of connection to future LRT station/mainline and BRT integration |
| <i>BRT Station location</i> | Maximizes integration with BRT station |
| <i>Economics</i> | |
| <i>Capital Costs</i> | Minimizes class D construction cost estimate |
| <i>Property Ownership and Acquisition</i> | Minimizes costs based on land use types and number of property owners |



Screening of Shortlisted LMSF sites

- Evaluation of all sites completed
- Initial PAC, TAC and public meeting held in March 2017
- Sites 2, 3 and 4 were carried forward for further design refinement, evaluation and mitigation
- Site 2 was initially selected



Preferred LMSF

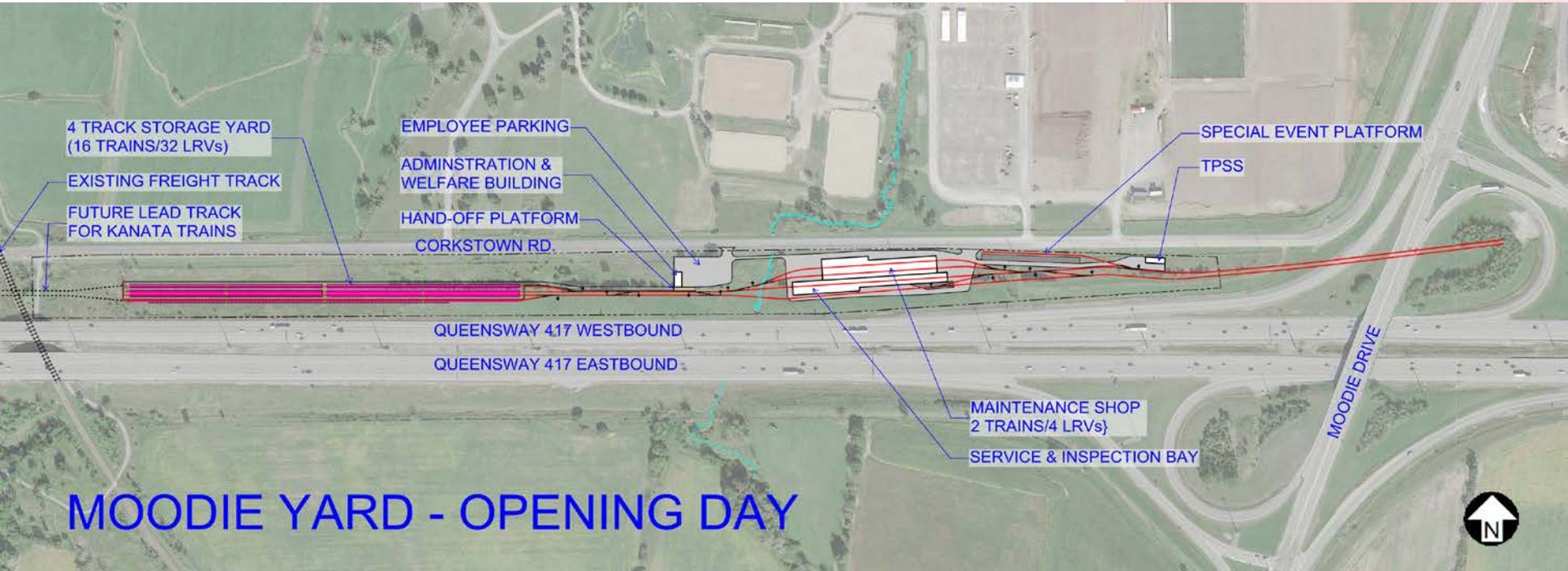
- Second round of PAC, TAC and a public meeting held in June 2017
- Large community opposition to Site 2
- Site 3, adjacent to Wesley Clover Parks was brought forward as recommended option



Modifications to Site 3

- Additional discussions with NCC and Wesley Clover regarding the impacts of Site 3 took place over the early summer
- Refinements to site 3 were undertaken to determine if storage and maintenance
 - contained within the area between the 417 and Corkstown Road, with a future expansion limited to the southwest corner of these federal lands
- New concept with smaller opening day footprint was identified and circulated to MTO early August

2023 LMSF Site Layout



Ultimate LMSF Site Layout



MOODIE YARD - POTENTIAL ULTIMATE FOOTPRINT

- Including Kanata Extension Requirements
- Timing unknown

LMSF Impacts and Mitigation

Impacts

- General Construction
- Active Transportation
- Potential Bobolink (SAR)
- Fisheries/Stillwater Creek
- Views and Vistas
- Impacts to agriculture
- Proximity to HWY 417

Mitigation

- BMPs
- Connectivity improvements
- Avoidance and habitat replacement/enhancement
- Avoidance and mitigation
- Context sensitive design for LMSF Buildings
- No net loss mitigation
- Cut-off lighting
- Protection for future expansion

Park and Ride

- Council motion to consider park and ride at Moodie LRT station
- New expansive Park and Ride lot (free) not recommended at this location:
 - Lack of space immediately adjacent to Moodie LRT station
 - A parking deck would likely be required given space constraints
 - May be underutilized once LRT is extended to Kanata/potential for throw away capital costs
 - Would encourage additional traffic across the Greenbelt and is contrary to City and NCC policy
- Potential to provide a limited/short term (paid) Park and Ride using the existing Abbott Industries surface lot if unused spaces are available

Next Steps in the Process

- Ongoing review with provincial and federal agencies
- Advance and finalize EPR including mitigation measures
- File EPR Notice of Completion – end Oct 2017
- Complete preliminary engineering for LRT and LMSF
- Include Moodie LRT and LMSF requirements in current RFP – Fall 2017
- Detailed property agreement by end of March 2018



Questions or comments





STAGE 2 LRT PROGRAM

Meeting with MOECC – Bayshore to Moodie LRT Extension and other OLRT EPR Amendments

| | | |
|-----------------|---|------------------|
| Status: | FINAL | |
| Place: | MOECC - 135 St. Clair Ave West, Toronto ON M4V 1P5 | |
| Date: | September 11, 2017 | |
| Time: | 10:30 a.m. | |
| Present: | Kelly Roberts, CTP2 Valérie Bédard, CTP2 Solange Desautels, MOECC Jennie Weller, MOECC Yves Dagssie, MOECC | |
| Regrets | | |
| ITEM # | COMMENTS | ACTION BY |
| 1.1. | <p>Bayshore to Moodie LRT Extension Kelly presented a brief overview of the project status including the process followed to choose a Light Storage and Maintenance Facility location. CTP2 to send a draft EPR to Yves.</p> | Kelly |
| 1.2. | <p>Changes proposed to the Trillium Line Extension EPR Valérie presented a brief overview of the changes proposed to the approved Trillium Line Extension EPR: Bowesville Station Alternative Alignment , Ellwood Diamond Rail Crossing Grade Separation and Walkley Yard Location. Following this presentation, it was indicated by MOECC that the three changes needed to be grouped together and presented to the ministry in an EPR Addendum for approval. These changes are considered significant and a Notice of Environmental Project Report Addendum as well as targeted public consultation with the affected communities are required because:</p> <ul style="list-style-type: none"> - Bowesville Alternative Alignment and Extension to Limebank is located outside of the original EPR study area; - A new rail grade separation would normally requires its own EPR; and - Walkley Yard is now located closer to the residential community located north of the existing railyard. | Valérie |
| 1.3. | <p>Changes proposed to the Confederation East Line Extension EPR Valérie presented a brief overview of the changes proposed to the Confederation East Line EPR: proposed Trim Park and Ride Expansion. Based on the information provided, MOECC agreed that the change may not be significant. However, as per Sub-clause 15.(24) (b) (i) of the Ontario Transit Regulation, the proposal must still go through an addendum process to evaluate the significance of the change.</p> | |



| | | |
|------|--|----------------|
| | | |
| 1.4. | Changes proposed to the Confederation West Line Extension EPR Valérie presented a brief overview of the changes proposed to the Confederation West Line EPR: addition to Goldenridge Bridge left turn lane and Bayshore Bus Staging Area modifications. Based on the information provided, MOECC agreed that the change may not be significant. However, as per Sub-clause 15.(24) (b) (i) of the Ontario Transit Regulation, the proposal must still go through an addendum process to evaluate the significance of the change. | |
| 1.5. | MOECC requires that a copy of the Power Point presentation be sent to them. | Valérie |

Prepared by: Valérie Bédard, CTP2
Reviewed by: Yves Dagssie, MOECC

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.



| | | |
|----|--|--|
| 2. | <u>In-Market Period Update for Confed</u> <ul style="list-style-type: none"> - ED explained that the City along with proponents will be holding DPMs and NCC will be invited to those that are relevant to NCC (ex. Tunnel, Stations, Bridges). - ED to provide NCC with list of approved additional geotechnical and environmental testing requested by proponents along with the property on which the | <p style="text-align: center;">Info</p> <p style="text-align: center;">Elie D.</p> |
| 3. | <u>Acceptance of Independent Estimate for Parkland Improvement Works</u> <ul style="list-style-type: none"> - MB to provide NCC's final position on Independent Cost Estimate by Hanscomb early next week. - City to send letter to NCC following acceptance of cost estimate by NCC. - ND noted that the language of the letter will make its way into the transfer agreement. | <p style="text-align: center;">Martin B.</p> <p style="text-align: center;">Stage 2</p> |
| 4. | <u>Trillium Rideau River Pedestrian Bridge Update</u> NCC comments from TAC 1 will be sent to CTP2 by 8/18. IDRC meeting scheduled for September 6th. | <p style="text-align: center;">Info</p> |
| 5. | <u>NCC Briefing on Land Use for LRT</u> <ul style="list-style-type: none"> - ND scheduled a meeting on August 24th to explain to NCC rational and need for acquiring NCC lands. - NCC expressed concern over the width of the corridor and requested a justification from Stage 2 team. - A resolution is needed to ensure timely execution of transfer agreement and environmental assessment. - MB confirmed that a board submission for land use is underway - NC requested a clarification on date and content required by Stage 2 team, MB clarified that this will be in November 2017 (MB to confirm date). - NC noted that there might be a possibility of minor land requests at Montreal Rd/OR174 interchange. MB confirmed that additional land requests in this area can be lumped into Green's Creek FLUDTA. | <p style="text-align: center;">Nicolas D.</p> <p style="text-align: center;">Info</p> <p style="text-align: center;">Martin B.</p> <p style="text-align: center;">Info</p> |
| 6. | <u>Scott St. Detour Noise, Vibration and Air Quality Study</u> <ul style="list-style-type: none"> - VB confirmed that air quality mitigation measures are not required. - VB noted that some walls are required along Scott Street and neighboring regions. - VB to send final version of the Noise, Vibration and Air Quality Study to NCC | <p style="text-align: center;">Info</p> <p style="text-align: center;">Valerie B.</p> |



| | | |
|-----|--|---|
| 7. | <u>Environmental Constraints Study, Reconstruction of SJAM Outfalls</u> <ul style="list-style-type: none"> - Due to construction impacts to SJAM outfalls, an environmental report will be prepared via Notice of Change (NOC). - Language of the NOC will be shared with NCC to ensure commission is in agreement with approach. NCC to formally respond | <p style="text-align: center;">Info</p> <p style="text-align: center;">Stage 2 Natalie O.</p> |
| 8. | <u>Green's Creek Update:</u> <ul style="list-style-type: none"> - The minor realignment of OR174 is required to avoid potential conflict between future piles and major 914mm watermain. - ED confirmed that OR 174 realignment will not impact NCC lands. - ED confirmed that structural drawings are ready and will be shared with NCC. - Drainage drawings showing culvert, treatment and slope protection are still not ready but will be shared with NCC in future. | <p style="text-align: center;">Elie D. Info</p> <p style="text-align: center;">Elie D.</p> <p style="text-align: center;">Stage 2</p> |
| 9. | <u>Moodie LRT Extension Update</u> <ul style="list-style-type: none"> - Site #3 at Wesley Clover west of Moodie interchange south of highway is being considered. | <p style="text-align: center;">Info</p> |
| 10. | <u>SJAM Design Speed Update</u> <ul style="list-style-type: none"> - Update will be ready in 2 weeks' time. | <p style="text-align: center;">Info</p> |
| 11. | <u>Woodroffe SWM Pond Update</u> <ul style="list-style-type: none"> - Not discussed. | <p style="text-align: center;">Info</p> |
| 12. | <u>New Business</u> <ul style="list-style-type: none"> - Not discussed. | <p style="text-align: center;">Info</p> |

Prepared by: Andrew Antoun

Reviewed by: Elie Dagher

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.



STAGE 2 LRT

NCC Functional Design & Working Group Meeting – September 28, 2017

2:30 p.m. - 4:00 p.m.

Minutes

| | | |
|-----------------|--|--|
| Status: | Draft | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | September 28, 2017 | |
| Time: | 2:30 p.m. - 4:00 p.m. | |
| Present: | Martin Barakengera MB – NCC Jason Hutchinson JH – NCC Bina Chakraburttty BC – NCC Rich Piloseno RP – AECOM Nicolas Delahousse ND – City of Ottawa Valérie Bédard VB – MH Marc Magierowicz MMZ – City of Ottawa Elie Dagher ED – AECOM Colin Mackenzie CM – MH | |
| Regrets | Martha Lush ML – CSW Natalie Ognibene – NCC Mike Schmidt MS – City of Ottawa Arash Khoshghalb AK – MH Karyn Cornfield – MH Heather Thomson HT – NCC Susan Fisher SF – NCC Michael Muir MM – NCC Arto Keklikian AK - NCC | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | <u>Review of Minutes from August 10, 2017 Meeting</u> - ED to provide list of additional geotechnical and environmental testing requested by proponents and approved on NCC lands. - NCC to provide comments on Trillium Rideau River Pedestrian Bridge IDRC within the next two days - BC to provide NCC input on SJAM Outfalls notice of change | Elie D. Martin B. Bina C. |
| 2. | <u>Acceptance of Independent Estimate for Parkland Improvement Works</u> - Still pending. ED to work with ND and CS to produce letter. City agrees in principle with independent cost estimate but needs to work details and timing of payments to NCC. - BC noted that changes may be forthcoming at Atlantis parking lot due to public opposition. This may have an impact on the PSOS | Elie D. |



| | | |
|----|--|---|
| | and independent cost estimate value. ED advised that any changed should be submitted as soon as possible prior to last addendum on November 23, 2017. | Bina C. |
| 3. | <u>SJAM Design Speed Update</u> <ul style="list-style-type: none"> - Sir John A. MacDonald Design Speed study findings have been shared with NCC and brief presentation by technical team given. NCC given electronic and hard copy of study. NCC to review and comment during the next functional design meeting. - Preliminary costing forthcoming - NCC to advise if more formal presentation required to roadway staff. | Martin B. Colin M. Martin B. |
| 4. | <u>FLUDTA Approvals</u> ED to provide latest Green's Creek drawings which shows slight re-alignment of OR174. | Elie D. |
| 5. | <u>Woodroffe SWM EA Request</u> <ul style="list-style-type: none"> - Application for FLUDTA at Woodroffe SWM Pond was received by NCC years ago at level 2 review. However, bump-up request has been received for the provincial level EA. MOECC to determine whether bump-up request will be granted. MOECC has 45 days to reply. MM to follow up with Darlene Conway from City of Ottawa. | Marc M. |
| 6. | <u>Archeological Stage 3 Requirements</u> <ul style="list-style-type: none"> - Awaiting review and comment from NCC. | Valerie B. |
| 7. | <u>Moodie LRT Extension Update</u> <ul style="list-style-type: none"> - MM advised that team is closer to a final design for Moodie Station including re-alignment of Corkstown Rd. - NCC requested to know drainage area change due to design. - NCC expressed concern with lack of input into design process up until this point. - ED to share latest design drawings to which NCC will review and comment on. | Kim H. Martin B. |
| 8. | <u>Proposed TPSS Location at Moodie Station</u> <ul style="list-style-type: none"> - NCC advised that a buried or architecturally treated TPSS is preferred at this location. In addition, NCC inquired if it's possible to incorporate TPSS into station. - ED to share latest TPSS location drawing with NCC. | Rich P Elie D. |



| | | |
|----|--|------------------|
| 9. | <u>New Business</u> <ul style="list-style-type: none">- ND inquired about the compensation by City to NCC for usage of deadhead busses on SJAM. MB to inquire with Mike Muir and Jean Gilles for value. | Martin B. |
|----|--|------------------|

Prepared by: Elie Dagher
Reviewed by:

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.



STAGE 2 LRT

NCC Functional Design & Working Group Meeting – October 12, 2017

2:30 p.m. - 4:00 p.m.

Minutes

| | | |
|-----------------|---|------------------|
| Status: | Draft | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | October 12, 2017 | |
| Time: | 2:30 p.m. - 4:00 p.m. | |
| Present: | Colin Mackenzie CM – OE Arash Khoshghalb AK – OE Martin Barakengera MB – NCC Jason Hutchinson JH – NCC Mike Schmidt MS – OE Valérie Bédard VB – OE Jean-Gilles Comtois JC – NCC Natalie Ognibene NO – NCC Kim Howie KH – OE Elie Dagher ED – OE Heather Thomson HT – Bina Chakraborty BC – NCC | |
| Regrets | Martha Lush ML – OE Karyn Cornfield – OE Susan Fisher SF – NCC Michael Muir MM – NCC Arto Keklikian AK - NCC Rich Piloseno RP – OE Nicolas Delahousse ND – OE Marc Magierowicz MMZ – OE | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | <u>Review of Minutes from September 28, 2017 Meeting</u> - NCC to provide comments on Trillium Rideau River Pedestrian Bridge IDRC still pending. | Martin B. |
| 2. | <u>Parkland Funding Letter</u> - ED noted the City have provided the letter to NCC for review. - JC questioned the timing of the payment to be made in mid-point of construction. Discussion took place to determine if this was a verbal commitment by Steve Willis - Same for mid-point of construction. | Info |



| | | |
|-----|--|------------------------------|
| | - | |
| 3. | <u>SJAM Speed Reduction Feedback</u> - NCC to provide feedback. - It was noted that a presentation is not required. - Costing is forthcoming by roadway. | Martin B. |
| 4. | <u>Permits, Licensing and Approvals for NCC SJAM Works</u> - ED noted a letter will be forthcoming next week detailing the position of the Stage 2 office on permits, licenses and approvals. - The EA report for Atlantis was received by NCC to VB. | Elie D. |
| 5. | <u>New Pathway Maintenance Responsibility</u> - It was noted the segment south of Bowesville close to Leitrim is of concern because it falls on NCC and Transport Canada lands. NCC is willing to maintain the pathway on NCC lands. NCC to discuss with Transport Canada. | Martin B. |
| 6. | <u>Archeological Requirements at Rochester Field and Woodroffe SWM Pond</u> - Ian from NCC provided input for archaeological assessment at Rochester Field and Woodroffe. - Stage 3 assessment is required with accelerated schedule. NOC to be prepared and shared with NCC. | Valérie B. |
| 7. | <u>Moodie LRT Extension Update</u> - LMSF details and drawings shared with NCC, which show a covered storage building between Highway 417 and Corkstown Road. The Kanata EA team are also looking for a LMSF site. - This information will be dropped into the RFP as an Addendum to Bidders. - MTO have provided their approval. | Info |
| 8. | <u>Property Update</u> - NCC to provide comments before the next meeting. - The City will provide figures (i.e. number of buses) | Martin B. Mike C. |
| 9. | <u>Accounting Update</u> N/A | |
| 10. | <u>New Business</u> CL East - NCC requested a copy of design plans for culverts for OR174. | Kim H. |

Prepared by: Elie Dagher
Reviewed by:

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.





STAGE 2 LRT

NCC Functional Design & Working Group Meeting – November 9, 2017

2:30 p.m. - 4:00 p.m.

Minutes

| | | |
|-----------------|--|------------------|
| Status: | Draft | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | November 9, 2017 | |
| Time: | 2:30 p.m. – 4:00 p.m. | |
| Present: | Martin Barakengera MB – NCC Michael Muir MM – NCC Valérie Bédard VB – OE Jean-Gilles Comtois JC – NCC Natalie Ognibene NO – NCC Kim Howie KH – OE Bina Chakraborty BC – NCC Martha Lush ML – OE Susan Fisher SF – NCC Rich Piloseno RP – OE Nicolas Delahousse ND – OE Marc Magierowicz MMZ – OE Ken Wasserman – KW - OE | |
| Regrets | Colin Mackenzie CM – OE Arash Khoshghalb AK – OE Jason Hutchinson JH – NCC Karyn Cornfield – OE Mike Schmidt MS – OE Arto Keklikian AK - NCC Heather Thomson HT - NCC | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | <u>Review of Minutes from October 12, 2017 Meeting</u> | |
| 2. | <u>Parkland Funding Letter</u> - NCC have circulated the letter internally - NCC to provide comments on the letter back to the City early next week - Main issue is payment deadline midpoint of construction – issue not in AIP. Reserve fund – not acceptable to NCC - Permit for NCC – maybe by City but hard to quantify – not included – holdback may be for that | Info |



| | | |
|-----|--|------------------|
| | | |
| 6. | <u>Archeological Requirements at Rochester Field and Woodroffe SWM Pond</u> <ul style="list-style-type: none"> - Land permission has been granted - Work started on Woodroffe last week - Work to begin next week at Rochester - Councilor to be briefed before Rochester work begins - Ian recommends to _____ up to satisfy requirement – Stage 3+ | |
| 7. | <u>Moodie LRT Extension Update</u> <ul style="list-style-type: none"> - Comments on SWM next week on SWM to NCC management - Maintenance requirements for BRT to be sent by NCC - AIP letter to come - EPR to go to NCC | Martin B. |
| 8. | <u>Property Update</u> <ul style="list-style-type: none"> - Need PRP for bridge work - Need property to do work – needs approval for ___ as well - _____ Carleton approval can be done | |
| 9. | <u>Accounting Update</u> N/A | |
| 10. | <u>New Business</u> | |

Prepared by: Kim Howie
Reviewed by:

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.

STAGE 2 LRT

NCC Functional Design & Working Group Meeting – August 11, 2016

2:30-4:00pm

Minutes

| | | |
|-----------------|---|-------------------------|
| Status: | Draft | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | August 11, 2016 | |
| Time: | 2:30-4:00pm | |
| Present: | Bina Chakraborty BC – NCC Arto Keklikian AK - NCC Susan Fisher SF – NCC Valerie Bedard VB - NCC Marc Magierowicz MMZ – City of Ottawa Charles Wheeler CW - AECOM Elie Dagher ED – AECOM Kim Eaton KE – MH Kelly Roberts KR - MH Arash Koshghalb AKB – MH Martha Lush ML – CSW Nadia El Dabee ND – City of Ottawa Brian Dowad BD - MH Joe Olson JO – STV (Teleconference) | |
| Regrets | Martin Barakengera MB – NCC Michael Muir MM – NCC Blaise Tongacé Traoré BT - NCC Heather Thompson HT - NCC Greg Kehoe GK – NCC Elaine Bergeron EB – NCC Allison Bergin AB – City of Ottawa Stan McGillis SM – MH Rich Piloseno RP – AECOM John Boadway JB - AECOM Keith Mackenzie KM - STV Morgan Ryan MR – Jacobs | |
| | | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | Review of Minutes from July 28, 2016 Meeting -The SWM team presented to NCC a number of water management options for SJAM. Central to the presentation was the need to replace existing corrugated steel pipes (CSP) under the SJAM which have | Stan M / Eric E. |

| | | |
|-----------|--|--|
| | <p>reached the end of their service life. At present there is no water quality treatment with direct discharge to the Ottawa River which will not be permissible once the infrastructure is upgraded. The OE explained that bioswales are a potential option and requested NCC provide feedback if this is an acceptable solution. NCC re-iterated its desire to minimize the SWM footprint within the SJAM.</p> | |
| <p>2.</p> | <p><u>SJAM 4 vs 2 Lanes</u></p> <p>-NCC requested an extension of the Aug 15, 2016 deadline to commit to 4 or 2 lanes for the SJAM design. CW advised that a letter is forthcoming from Chris Swail advising extension will be granted. AK noted that NCC has board meeting in early September to make decision on 4 lane vs 2 lane for SJAM. CW explained that OE team has proceeded based on 4 lane design as per NCC instructions. CW further explained that should NCC resort to 2 lanes there will be significant re-work and cost implications.</p> | <p>Martin B.</p> |
| <p>3.</p> | <p><u>Detour Segments</u></p> <p><u>W1 – Tunney’s Pasture to Dominion Station</u></p> <p>-CW presented detour segment W1 between Tunney’s Pasture and Dominion station which highlighted the need for potential usage of SJAM for busses. At present OE strategy for detour is a “hybrid option” with usage of Scott St combined with SJAM between Tunney’s Pasture and Dominion Station during LRT construction. ED to provide a copy of the presentation.</p> <p>-NCC commented that there is interest to use dedicated bus lanes along SJAM as a precursor/test-run of potentially reducing lanes from 4 to 2 in the future. BC requested that detour segment include impacts of segregated bus lanes on SJAM.</p> <p>-NCC would like to know tree impacts immediately north of Dominion Station due to construction of temporary bailey bridge to detour bus traffic. VB commented that a tree survey is warranted and OE team should check for possibility of butternuts.</p> <p><u>SW2 – Lincoln Fields to Iris</u></p> <p>-CW presented detour segment between Lincoln Fields and Iris which contained the latest junction crossing of the tracks. CW explained that Woodroffe Ave is a challenging route to use as a detour segment to get busses to baseline from Lincoln Fields. As a result, the OE team will need to keep the transitway open as long as possible during construction to allow busses unabated access. ED to provide copy of presentation for segment SW2.</p> | <p>Elie D.</p> <p>Stan M.</p> <p>Kim E.</p> <p>Elie D.</p> |

| | | |
|-----|--|--------------------------|
| 4. | <u>No-Go Zones</u> -Group collectively agreed to use terminology of “protected areas” rather than no-go zone. NCC requested to see impacts of 3:1 slopes on shoreline which OE team will provide. | Stan M. |
| 5. | <u>Update to SJAM Parkway Design</u> -NCC explained that consideration is currently being made for elimination of SJAM Underpass adjacent to Dominion Station. NCC asked how much the SJAM Underpass structure would cost and if funds can be transferred to NCC. CW explained that the agreement in principle between the City of Ottawa and NCC calls for an underpass at this location and such a request would be in contravention of agreement. Nonetheless, the OE team will provide estimate for underpass structure including grading and MUP re-alignment. | Elie D. |
| 6. | <u>Storm Water Management Options for SJAM</u> -BC has requested input from SWM team on preferred options within SJAM and whether bioswales are recommended or not. | Stan M. / Eric E. |
| 7. | <u>Update to Lincoln Fields Alignment</u> -Senior OE management to be briefed on latest Lincoln Fields triple track, double platform concept on Monday. NCC to be briefed shortly thereafter on August 25, 2016. | Charles W. |
| 8. | <u>Commencement of ORPP Inspection</u> -Inspection has been delayed until to beginning of September due to structural group deliverables. | |
| 9. | <u>Update at Iris</u> -More detailed information was provided by OE team on proposed wetlands option of re-aligning Pinecrest Creek. A copy of presentation will be provided by ED. | Elie D. |
| 10. | <u>New Business</u> -NCC requested a list of bundled projects within Stage 2 program which has potential to impact NCC lands. KE to prepare a list and send to NCC. | Kim E. |

Prepared by: Elie Dagher
Reviewed by:

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.

STAGE 2 LRT

NCC Functional Design & Working Group Meeting – August 25, 2016

2:30-4:00pm

Minutes

| | | |
|-----------------|--|--------------------------------|
| Status: | Draft | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | August 25, 2016 | |
| Time: | 2:30-4:00pm | |
| Present: | <p>Martin Barakengera MB – NCC Arto Keklikian AK - NCC Susan Fisher SF – NCC Valerie Bedard VB – NCC Yoland Charette YC - NCC Marc Magierowicz MMZ – City of Ottawa Charles Wheeler CW - AECOM Elie Dagher ED – AECOM Kim Eaton KE – MH Martha Lush ML – CSW Nadia El Dabee ND – City of Ottawa Rich Piloseno RP – AECOM Stan McGillis SM – MH John Boadway JB – AECOM Eric Emery EE – MH (teleconference) Morgan Ryan MR – Jacobs (teleconference)</p> | |
| Regrets | <p>Bina Chakraborty BC – NCC Michael Muir MM – NCC Blaise Tongacé Traoré BT - NCC Greg Kehoe GK – NCC Elaine Bergeron EB – NCC Allison Bergin AB – City of Ottawa Keith Mackenzie KM - STV</p> | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | <p><u>Review of Minutes from August 11, 2016 Meeting</u></p> <p>-The SWM team presented to NCC a number of water management options for SJAM. Central to the presentation was the need to replace existing corrugated steel pipes (CSP) under the SJAM which have reached the end of their service life. At present there is no water quality treatment with direct discharge to the Ottawa River which will not be</p> | <p>Stan M / Eric E.</p> |

| | | |
|-----------|--|--|
| | <p>permissible once the infrastructure is upgraded. The OE explained that bioswales are a potential option and requested NCC provide feedback if this is an acceptable solution. NCC re-iterated its desire to minimize the SWM footprint within the SJAM.</p> <p>- Detour segment SW2, Lincoln Fields to Iris. CW presented detour segment between Lincoln Fields and Iris which contained the latest junction crossing of the tracks. CW explained that Woodroffe Ave is a challenging route to use as a detour segment to get busses to baseline from Lincoln Fields. As a result, the OE team will need to keep the transitway open as long as possible during construction to allow busses unabated access. ED to provide copy of presentation for segment SW2.</p> <p>-Update to Lincoln fields alternative alignment and station platform. NCC to be briefed on design refinements made to Lincoln Fields station platform footprint and track configuration.</p> | <p>Elie D.</p> <p>Elie D.</p> |
| <p>2.</p> | <p><u>SJAM 4 vs 2 Lanes</u></p> <p>-NCC requested an extension of the Aug 15, 2016 deadline to commit to 4 or 2 lanes for the SJAM design. AK advised that NCC does not intend to request 2 lanes for SJAM during the short-term and OE team should proceed as earlier communicated based on 4 lane design concept. The OE team will await NCC's official letter in this regard.</p> | <p>Martin B.</p> |
| <p>3.</p> | <p><u>Detour Segments</u></p> <p><u>W1 – Tunney's Pasture to Dominion Station</u></p> <p>-CW presented an updated detour segment W1 between Tunney's Pasture and Dominion station which highlighted the need for potential usage of SJAM for busses. The updated presentation showed the difference between dedicated bus lanes and mixed use traffic along the SJAM. The OE team is recommending using a detour segment between Tunney's Pasture and Dominion Station as follows:</p> <ul style="list-style-type: none"> • Revenue service busses along Scott Street with intersection improvements • Dead head busses along SJAM in mixed traffic without intersection improvements <p>AK requested the OE team provide the number of dead head busses contemplated along SJAM as a result of the detour.</p> <p>-CW to draft a letter addressed to NCC requesting endorsement of the suggested detour route for segment W1 which includes details about the temporary bailey bridge adjacent to Dominion Station.</p> <p>-ED to provide a copy of the updated W1 detour presentation.</p> | <p>Stan M.</p> <p>Charles W. / Stan M.</p> <p>Elie D.</p> |

| | | |
|----|--|---|
| 4. | <p><u>Update to SWM plan for SJAM</u></p> <p>-EE provided an update to the SWM plan along the SJAM. EE explained the existing City of Ottawa outfalls within the SJAM were designed before 1965 for only a 1-2 years storm event. This means they do not have sufficient capacity as a connection point for new SJAM drainage. There are two solutions contemplated:</p> <ol style="list-style-type: none"> I. Reconstruct existing NCC CSP outfalls with larger diameter concrete pipes for additional capacity II. Replace NCC CSP's with bioswales <p>-MB to court NCC's opinion and preference on the above given that Bina C. is currently away on vacation. CW re-iterated the time sensitivity of needing to make a decision on the SWM for SJAM.</p> | <p>Martin B. / Bina C.</p> |
| 5. | <p><u>Update to SJAM Parkway Design</u></p> <p>-Drawing showing impacts to NCC shoreline as a result of 3:1 slopes has been supplied by OE team to SF. NCC will send surveyors on site to document potential impacts to trees as a result of slope regrading limits. MM asked if there are any commemorative trees along SJAM. NCC to advise and share findings of their survey.</p> <p>-CW advised that a high level cost estimate for a grade separated structure (i.e. underpass) opposite of Dominion Station along with construction of MUP's and regrading is in the order of \$3.2M. A grade crossing alone is in the order of \$900K.</p> <p>-NCC advised that they are currently contemplating eliminating the crossing opposite of Dominion Station and will advise the OE team of their decision in coming weeks. CW advised that there is concern of community backlash should grade crossing be eliminated as the community has been promised a grade crossing at this location during public meetings.</p> | <p>Martin B. / Susan F.</p> <p>Martin B. / Susan F.</p> |
| 6. | <p><u>Upcoming NCC presentation to Senior Management</u></p> <p>-MB explained that NCC prefers that NCC staff brief their senior management pertaining to Stage 2 LRT design refinements. ED offered support as needed from the OE team in terms of background drawings and information.</p> | |
| 7. | <p><u>Iris NCC Pathway Update</u></p> <p>-NCC re-iterated concerns with pathway connection through Iris Station and their preference with having a crossing via Iris St. NCC prefers a ramp option at the NW quadrant of the intersection. ML to provide updated pathway drawing at Iris.</p> | <p>Martha L / Marc M.</p> |
| 8. | <p><u>Update to Tree Surveys</u></p> <p>-KE explained the need and extent of Tree Surveys within the Stage 2 program including the need to inform bidders of any compensation requirements or SARS issues. The OE team will continue to share</p> | <p>Kim E.</p> |

| | | |
|-----|--|-----------------------------------|
| | <p>results of Tree Surveys with NCC. -NCC advised that they are undertaking invasive species inventory along SJAM and results will be shared with OE team in due course.</p> | <p>Martin B. / Susan F</p> |
| 9. | <p><u>Bundled Projects Impacting NCC Lands</u></p> <p>- NCC requested a list of bundled projects within Stage 2 program which has potential to impact NCC lands. KE is the process of preparing a detailed list for submission to NCC. However, NCC has been advised that there appears to be a limited number of projects which will impact NCC lands such as:</p> <ul style="list-style-type: none"> • Woodroffe Pond • Carling Ave Bridge Rehabilitation • Green's Creek Culvert Replacement • Montreal Rd Bridge Replacement | <p>Kim E.</p> |
| 10. | <p><u>New Business</u></p> <p>-CW will provide a copy of the presentation given to Cleary Working Group meeting held on August 23, 2016 which details fan plant options for Cleary Station.</p> | <p>Kim E.</p> |

Prepared by: Elie Dagher

Reviewed by:

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.

STAGE 2 LRT

NCC Functional Design & Working Group Meeting – September 8, 2016

2:30-4:00pm

Minutes

| | | |
|-----------------|---|-------------------------|
| Status: | Draft | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | September 8, 2016 | |
| Time: | 2:30-4:00pm | |
| Present: | Martin Barakengera MB – NCC Bina Chakraborty BC – NCC Arto Keklikian AK - NCC Susan Fisher SF – NCC Valerie Bedard VB – NCC Charles Wheeler CW - AECOM Elie Dagher ED – AECOM Kim Eaton KE – MH Martha Lush ML – CSW Kim Howie KH - AECOM Stan McGillis SM – MH Arash Koshghalb AK - MH | |
| Regrets | Michael Muir MM – NCC Blaise Tongacé Traoré BT - NCC Greg Kehoe GK – NCC Elaine Bergeron EB – NCC Allison Bergin AB – City of Ottawa Keith Mackenzie KM - STV Yoland Charette YC - NCC Marc Magierowicz MMZ – City of Ottawa Nadia El Dabee ND – City of Ottawa Rich Piloseno RP – AECOM John Boadway JB – AECOM Eric Emery EE – MH Morgan Ryan MR – Jacobs | |
| | | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | <u>Review of Minutes from August 25, 2016 Meeting</u> -The SWM team presented to NCC a number of water management options for SJAM. Central to the presentation was the need to replace existing corrugated steel pipes (CSP) under the SJAM which have | Stan M / Eric E. |

| | | |
|----|--|--|
| | <p>reached the end of their service life. At present there is no water quality treatment with direct discharge to the Ottawa River which will not be permissible once the infrastructure is upgraded. The OE explained that bioswales are a potential option and requested NCC provide feedback if this is an acceptable solution. NCC re-iterated its desire to minimize the SWM footprint within the SJAM. OE team to present recommended solution to NCC and show impacts of bioswales on land.</p> <p>-NCC requested an estimate for the SJAM underpass at Dominion as well as at Churchill where a future grade separated structure is being contemplated. OE team to supply a cost estimate during the next functional design meeting.</p> | Elie D. |
| 2. | <p><u>Green's Creek Culvert Replacement</u></p> <p>-NCC has requested the consideration of Option 3 which is an arch open-bottom bridge while the report recommends an Option 2 box culvert configuration due to cost. NCC re-iterated concerns with long term maintenance and environmental impacts of a new structure. OE team has requested formal comments from NCC so the OE team can proceed with detailed design and have more detailed discussions with City of Ottawa ISD.</p> <p>-CW explained that Green's Creek will be bundled as part of the Stage 2 program along with Montreal Road bridge replacement. Green's creek falls along the critical path of Confederation Line East.</p> | Martin B. |
| 3. | <p><u>Cleary Fan Plant Presentation</u></p> <p>-CW presented fan plant presentation previously addressed to the Cleary Working Group. OE team is proceeding with base case condition (i.e. fan plant building) due to significant \$8-15M cost of burying enclosure.</p> <p>-RP to send e-mail relating to relaxation of architectural restrictions and treatment that can be applied to fan plant building. OE team will provide architectural treatment suggestions to NCC. NCC to provide 4-5 bullets describing criteria and desire for fan plant treatment.</p> <p>-OE team will share needs, wants and desires of Cleary Working group with NCC.</p> | <p>Elie D.</p> <p>Rich P. Susan F.</p> <p>Charles W.</p> |
| 4. | <p><u>Update to SJAM Parkway Design</u></p> <p>-NCC is currently leaning towards a Churchill grade separated crossing and an at-grade crossing at Dominion. NCC has requested a cost estimate of Churchill structure which the OE team will supply. CW re-iterated the time sensitivity of the matter and that a decision will be needed shortly.</p> | |
| 5. | <p><u>Update to SWM plan for SJAM</u></p> <p>-The OE team will hold an internal meeting and prepare a</p> | Stan M. / |

| | | |
|-----|--|------------------|
| | recommendation to formally put forth before NCC relating to the design of SJAM SWM. NCC again re-iterated concern with long term maintenance and would like to see footprint of bioswales within SJAM. | Eric E. |
| 6. | <p><u>Lincoln Fields Alignment and Station Refinements</u></p> <p>-OE team will be holding three public presentations in coming weeks pertaining to alternative alignment at Lincoln Fields, new station location and revised junction. The OE team will provide copy of display boards and presentations once available.</p> | Elie D. |
| 7. | <p><u>East Portal</u></p> <p>-ED explained that the location of the East Portal is largely defined in the agreement in principle between NCC and the City of Ottawa. It was one of the first items resolved during the commencement of functional design meeting. ED showed previous renderings provided to NCC which showed the sight lines along Rochester Field looking towards the Ottawa River.</p> | |
| 8. | <p><u>Iris NCC Pathway Update</u></p> <p>-ML presented an update to the NCC pathway around Iris Station which contains grade crossing at western side of Iris Rd. NCC is satisfied with the proposed design and crossing. -SF requested a copy of the latest pathway drawings at Iris.</p> | Martha L. |
| 9. | <p><u>ORPP Inspection Commencement</u></p> <p>-ED to reach out to BC and coordinate the initiation of the ORPP inspection. Inspection is intended to take place before the end of the month.</p> | Elie D. |
| 10. | <p><u>New Business</u></p> <p>-None</p> | |

Prepared by: Elie Dagher

Reviewed by:

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.

STAGE 2 LRT

NCC Functional Design & Working Group Meeting – September 22, 2016

2:30-4:00pm

Minutes

| | | |
|-----------------|---|------------------|
| Status: | Draft | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | September 22, 2016 | |
| Time: | 2:30-4:00pm | |
| Present: | Martin Barakengera MB – NCC Bina Chakraborty BC – NCC Arto Keklikian AK - NCC Susan Fisher SF – NCC Valerie Bedard VB – NCC Charles Wheeler CW - AECOM Elie Dagher ED – AECOM Rich Piloseno RP – AECOM Kim Eaton KE – MH Martha Lush ML – CSW Stan McGillis SM – MH Arash Koshghalb AK – MH Kelly Roberts KR - MH Eric Emery EE – MH Bryan Kipp BK – MH | |
| Regrets | Michael Muir MM – NCC Blaise Tongacé Traoré BT - NCC Greg Kehoe GK – NCC Elaine Bergeron EB – NCC Allison Bergin AB – City of Ottawa Keith Mackenzie KM - STV Yoland Charette YC - NCC Marc Magierowicz MMZ – City of Ottawa John Boadway JB – AECOM Morgan Ryan MR – Jacobs | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | Review of Minutes from September 8, 2016 Meeting - No action items | |

| | | |
|----|--|--|
| 2. | <p><u>Green's Creek Culvert Replacement & Pathway Connectivity</u></p> <p>-ML presented preliminary drawing showing the need to use NCC land adjacent to Green's Creek Culvert for pathway connectivity. The OE team requested comment from NCC with respect to what is acceptable in terms of land use within this area.</p> <p>-ED to provide copy of preliminary drawing to NCC and present more detailed drawings once available.</p> <p>-CW requested from MB letter confirming NCC's preference and formal comments relating to Option 3 which is an arch open-bottom bridge so the OE team can proceed with detailed design.</p> | <p>Martin B.</p> <p>Elie D.</p> <p>Martin B.</p> |
| 3. | <p><u>Update to SWM plan for SJAM</u></p> <p>-EE and BK presented SWM recommendation for SJAM. Recommended solution proposes bioswales in median of WB and EB lanes along SJAM. Reconstruction of NCC outfalls necessary but new locations will be proposed for outfalls. BC commented that NCC accepts the concept in principle but a cost estimate is required which details capital and maintenance costs of bioswales vs oil grit separators. In addition, NCC requested bioswales be designed for 1:100 flood return period.</p> <p>-NCC expressed concern with impact to trees in median, particularly in areas east of Dominion and west of Cleary. NCC requested OE team to look into the possibility of retaining existing trees.</p> <p>-ED to supply copy of latest SWM plan which includes cross-sections along SJAM.</p> | <p>Stan M. / Eric E.</p> <p>Eric E. / Kim E.</p> <p>Elie D.</p> |
| 4. | <p><u>Public Consultation at Lincoln Fields, Queensview Terrace North and Byron Linear Park.</u></p> <p>-CW explained that the OE team, over the past two weeks, has provided three public consultation sessions to the areas of:</p> <ul style="list-style-type: none"> - Byron Linear Park: Change of Alignment from Richmond Rd to Byron Linear Park. - West Portal to Lincoln Fields Station: Adoption of alternative alignment out of flood plain and Lincoln Fields Triple Track, Double Platform Station - Lincoln Fields Junction & Connaught Tunnel : Revised over/under LRT alignment with Bayshore leg elevated over Baseline SB Track and refinements to Connaught Tunnel <p>-CW further explained that the overall response was generally positive with support from community of proposed changes. CW noted that one of the comments from the community was the possibility to re-use excavated soil and create localized berming to houses adjacent to the Lincoln Fields junction which may help mitigate noise, vibration and visual concerns. NCC will study this request and comment during the next functional design meeting.</p> <p>-ED will supply a copy of the presentation material including display boards.</p> | <p>Martin B.</p> <p>Elie D.</p> |

| | | |
|-----|---|---|
| | | |
| 5. | <p><u>Cleary Working Group Update</u></p> <p>-CW explained that the community has largely accepted the base case of a Cleary fan plant due to significant costs associated with buried enclosure.</p> <p>-ML presented MUP and Landscape drawing at Cleary which showed berming and tree planting around station and fan plant. Renderings were also shown to NCC and examples for fan plant treatments were displayed. CW requested NCC's input on the MUP's, Green Roof, fan plant, building treatment and overall landscape.</p> <p>-ED will provide a copy of presented material at Cleary Station.</p> | <p>Martin B.</p> <p>Elie D.</p> |
| 6. | <p><u>Update to SJAM Parkway Design</u></p> <p>-NCC has requested the OE team to scrap a grade separation at Dominion in favor of a Churchill Overpass and an at-grade crossing at Dominion. MB will supply letter detailing NCC's official position.</p> | <p>Martin B.</p> |
| 7. | <p><u>Bridges at Lincoln Fields</u></p> <p>-ED explained that three new bridges are currently planned immediately adjacent to Lincoln Fields Station which are as follows:</p> <ul style="list-style-type: none"> -Carling Ave Bridge for LRT -Woodroffe High school pedestrian bridge -Lincoln Fields Junction Bridge <p>-A preliminary GA for all three structures was displayed showing progress to date of their design.</p> | |
| 8. | <p><u>ORPP Inspection</u></p> <p>-ED noted that the ORPP inspection by MH is currently underway and expected to be completed by the end of the month. BC is facilitating from NCC's end.</p> | |
| 9. | <p><u>Agreement in Principle</u></p> <p>-MB explained that NCC's September 23 letter is forthcoming and will support 4 lanes on SJAM with future vision to reduce to 2 lanes.</p> <p>-MB commented that NCC will provide list of bundled projects as part of SJAM Linear Park concept this Friday.</p> | <p>Martin B.</p> <p>Martin B.</p> |
| 10. | <p><u>New Business</u></p> <p>-BC requested clarification regarding SWM plan for LRT between Lincoln Fields and Iris where transitway is being converted to LRT. EE to follow up with OE team.</p> | <p>Eric E.</p> |

Prepared by: Elie Dagher
Reviewed by:



PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.

STAGE 2 LRT

NCC Functional Design & Working Group Meeting – October 6, 2016

2:30-4:00pm

Minutes

| | | |
|-----------------|---|------------------|
| Status: | Draft | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | October 6, 2016 | |
| Time: | 2:30-4:00pm | |
| Present: | Martin Barakengera MB – NCC Bina Chakraburttty BC – NCC Arto Keklikian AK - NCC Susan Fisher SF – NCC Valerie Bedard VB – NCC Charles Wheeler CW - AECOM Elie Dagher ED – AECOM Rich Piloseno RP – AECOM Kim Eaton KE – MH Martha Lush ML – CSW Marc Magierowicz MMZ – City of Ottawa Arash Koshghalb AK – MH Kelly Roberts KR - MH Eric Emery EE – MH Bryan Kipp BK – MH Karine Bertrand KB – MH Karyn Cornfield KC – MH | |
| Regrets | Michael Muir MM – NCC Blaise Tongacé Traoré BT - NCC Greg Kehoe GK – NCC Elaine Bergeron EB – NCC Allison Bergin AB – City of Ottawa Keith Mackenzie KM - STV Yoland Charette YC - NCC John Boadway JB – AECOM Stan McGillis SM – MH Morgan Ryan MR – Jacobs | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | Review of Minutes from September 22, 2016 Meeting - OE team requested comment from NCC with respect to what is acceptable in terms of land use for MUP's within Green's Creek Culvert | Martin B. |

| | | |
|----|--|---|
| | <p>area.</p> <p>-ED to send BC a copy of the display boards used during the latest round of public consultation sessions. BC is interested in showing the changes to the LF alignment since the EA to NCC senior management.</p> | <p>Elie D.</p> |
| 2. | <p><u>Update – SWM Design along SJAM</u></p> <p>-Presentation made by EE and KP which shows the latest footprint of bioswales and their impacts to greenspace on SJAM between Dominion and Cleary. BC commented that NCC would like to see volume calculations for 1:100 year return period as ponding within median is not desired. BC to send allowable percentage of ponding within median to OE design team. BC commented that MOE to be advised as notice will be triggered.</p> <p>-ED to send a copy of the latest presentation to NCC.</p> | <p>Eric E.</p> <p>Bina C.</p> <p>Elie D.</p> |
| 3. | <p><u>NCC Linear Park Concept Submission - Bundled Projects</u></p> <p>-The OE team has received the submission from NCC which details the preliminary SJAM Park design concept and bundled project list. The OE team will respond within 20 days in accordance with the requirements of the agreement in principle (AIP).</p> <p>-MB commented that NCC is in the process of preparing a new letter requesting advance of funds for design efforts.</p> | <p>Charles W.</p> <p>Martin B.</p> |
| 4. | <p><u>Initiation of Design for Churchill Overpass and Dominion at-grade crossing</u></p> <p>-ED advised that OE team is proceeding with Churchill Overpass option and at-grade crossing at Dominion. Work plans by PE team are underway and to be finalized by EOB this Friday. OE team will revise roadway design of SJAM and use 3x5m clearance envelope for conceptual design of new Churchill structure.</p> | |
| 5. | <p><u>Air Quality, Noise and Vibration Assessment along SJAM and Dominion</u></p> <p>-KE is currently in the process of preparing a detailed work plan, scope and budget to undertake an air quality, noise and vibration assessment along SJAM and Dominion Station. KE and VB coordinating to develop a scope that is agreeable by both the OE team and NCC.</p> | <p>Kim E.</p> |
| 6. | <p><u>Agreement in Principle</u></p> <ul style="list-style-type: none"> i. OE response to September 23, 2016 NCC Letter: Currently underway and will be delivered to NCC within 20 days ii. 4 vs 2 Lanes Letter: Letter received from NCC iii. Request for Advance: CW will await letter from MB | |
| 7. | <p><u>Pathway Connectivity near Green’s Creek</u></p> <p>-ML gave a brief update of the pathway connectivity opposite of Green’s Creek Culvert. NCC to inform in writing their position next week.</p> | <p>Martin B.</p> |
| 8. | <p><u>New Business</u></p> <p>-None</p> | |

Prepared by: Elie Dagher
Reviewed by:



PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.

STAGE 2 LRT

NCC Functional Design & Working Group Meeting – October 20, 2016

2:30-4:00pm

Minutes

| | | |
|-----------------|---|------------------|
| Status: | Draft | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | October 20, 2016 | |
| Time: | 2:30-4:00pm | |
| Present: | Martin Barakengera MB – NCC Bina Chakraburttty BC – NCC Susan Fisher SF – NCC???? Valerie Bedard VB – NCC Marc Magierowicz MMZ – City of Ottawa Charles Wheeler CW - AECOM Rich Piloseno RP – AECOM Kim Eaton KE – MH Kim Howie KH - AECOM | |
| Regrets | Michael Muir MM – NCC Blaise Tongacé Traoré BT - NCC Greg Kehoe GK – NCC Elaine Bergeron EB – NCC Arto Keklikian AK - NCC Allison Bergin AB – City of Ottawa Keith Mackenzie KM - STV Yoland Charette YC - NCC Elie Dagher ED – AECOM Martha Lush ML – CSW | |
| | | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | <u>Review of Minutes from October 6, 2016 Meeting</u> - No minutes available | <u>ED</u> |
| 2. | <u>Noise Wall at Lincoln Fields Bus Terminal</u> - The existing bus terminal does not have any noise walls. The proposed plan for the station reconfigures the existing bus station and the difference is minor, <u>however, noise standards have changed since the</u> | |

| | | |
|-----------|--|--|
| | <p><u>bus terminals was originally constructed-</u></p> <ul style="list-style-type: none"> - The analysis regardless recommends a <u>noise wall to reflect current standards at this time since the standards have been updated.</u> - A drawing showing the extent, height and design <u>of the proposed noise wall</u> is being developed to be communicated at a future meeting. - The mitigation may be a combination berm/wall. NCC will comment once received. | <p>C. Wheeler</p> |
| <p>3.</p> | <p><u>NCC Linear Park Concept Submission – 20 Day City Response</u></p> <ul style="list-style-type: none"> • <u>20 Day City Response- City staff responded by Oct 18 with respect to conflicts with the LRT design constraints(minor in nature) and the extent of design development of the NCC and City scopes of work</u> • Timing of Additional Submissions from NCC <ul style="list-style-type: none"> - Need to discuss what/when submissions are coming from NCC. It is acknowledged that additional <u>design funding</u> is required to complete the work but the timing <u>of final scope submissions remains unchanged(Feb 1,2017) is needed.</u> - SF indicated that the next submission is expected to be Jan 23. The plan was to provide 60% design for the portion of work to be done by the City and 30% for NCC work. CW indicated that some things need to be completed before <u>that date en-</u>so they can be included in the RFP documentation. - The OE team can help complete some of these things or NCC needs to commit to the completion <u>dates and required scope.</u> The list of items that are required before <u>Jan-Feb 1,2017</u> needs to be developed at a future meeting. The meetings will be set-up for review. • Timing of Independent Cost Estimate to Verify \$30M Park Budget Envelope <ul style="list-style-type: none"> - The agreement does not specify the date so the date needs to be agreed upon for the independent cost estimate. Before the RFP goes out, some certainty is needed on the cost estimates <u>to ensure that scope matches the park budget envelope.</u> - SF inquired whether there is a rule of thumb for contingencies for costs estimates depending on design level. CW will follow-up with some info on how much contingency should be included in estimates <u>based on the level of design completion .</u> - It was expected that the estimate should be done by the end of 2016 but that date is not firm at this time. • Permits and Approvals/Additional Design for City Scope <ul style="list-style-type: none"> - One of the issues is related to permits for sewers, etc. NCC doing permits? City doing permits? Project Co? NCC will provide comment <u>particularly for the City defined -scope.</u> <p>The plan will be to set up a few separate meetings for targeted</p> | <p>E. Dagher</p> <p>C. Wheeler/ M. Barakengera</p> <p>C. Wheeler</p> <p>M. Barakengera</p> <p>E. Dagher</p> |

| | | |
|----|---|------------------|
| | discussion on comments the City' 20 days comments, permit responsibilities and further scope definition to achieve the Feb 1 date for final material to be included in the City RFP. | |
| 4. | <p><u>Design Effort for Churchill Overpass and Dominion at-grade crossing</u></p> <ul style="list-style-type: none"> - The OE team is in the process of developing and having a budget approved for the design effort. The fee is now with the <u>Project Director D</u> for review and approval is expected next week. The fee is expected to be absorbed within the contingency identified for the work. | |
| 5. | <p><u>Air Quality, Noise and Vibration Assessment along SJAM and Dominion</u></p> <ul style="list-style-type: none"> - KE has prepared a scope of work that requires approval from the client (approx. \$50,000). - Need to get some feedback on the scope from NCC so the team can make sure the fee request to the client is <u>reasonable</u> is expected. - VB has had a preliminary review and will forward detailed comments by Monday, Oct 24, but feels that <u>the scope description</u> it is in line with what was expected. | V. Bedard |
| 6. | <p><u>PSPC Revised Agreement at Tunney's Pasture</u></p> <p>CW outlined the current discussions with PSPC for NCC info.</p> <ul style="list-style-type: none"> -It is desired to put <u>deadhead</u> buses on SJAM. PSPC is in control of Tunney's Pasture. Discussions with PSPC have included bus terminal, staging of terminal construction to give back land that is not required, and Goldenrod Bridge study/<u>cost sharing</u>. <u>Traffic study underway in two phases</u> ; <ul style="list-style-type: none"> • Phase 1 – development of <u>Tunney's</u> complex and when does development level cause intersections to fail (— seems that 55% buildout is the tipping point for needing the Goldenrod Bridge) • Phase 2 – review of the width of Goldenrod Bridge. - Once study is done, discussions <u>related to bridge width and cost sharing for future plans</u> can be started. - There is an existing Stage 1 agreement in place - It can be modified or a new agreement can be drafted. <u>Stage 2 staff are leaning</u> toward drafting a new agreement. PSPC acknowledges that NCC <u>and PSPC</u> approval is required but also their approval. - Goldenrod Bridge needs to be open before 2023 <u>revenue service date to avoid constructing bridge over live LRT opening operations</u> .-Cost sharing discussions are underway with PSPC. - MB indicated that an <u>NCC</u> design approval will be required for the bridge. | Info |
| 7. | <p><u>City Response Regarding Protected Zones</u></p> <ul style="list-style-type: none"> - Martha Lush has discussed protection zones with NCC and has | |

| | | |
|----|--|--|
| | <p>prepared an updated drawing showing the zones in consultation with SF. The drawing needs to be reviewed by the OE with Martha and the revised drawing will be brought to NCC at a future meeting.</p> <ul style="list-style-type: none"> - The drawing needs to be pulled into the agreement as well. It cannot be absolute that the areas are fixed – Project Co will have the ability to tweak their alignments so this may affect the locations/<u>size/configuration</u> of the protected zone. The requests <u>to alter the protected zones by Project</u> do not necessarily <u>need</u> be accepted but will be reviewed <u>in consultation with NCC</u>. - The OE team needs to understand the degree of flexibility on the part of NCC for the zone to allow for Project Co changes to alignment. - The OE will outline the process for NCC. - MB pointed out that NCC still has approval power for the functional design. - SF indicated that the reason that the grading limits have not been adjusted on the submitted plan is that the tree survey is not completed yet. They will be adjusted after. This may affect the protected zones desired by NCC. - SF indicated that Marth Lush indicated that the protected zones may be affected by additional staging areas. - CW indicated that a mobilization sire report is being prepared and will be shared with NCC for info <u>and will inform the protected zone drawing</u>. - VB indicated that SARS needs to be considered for Rochester Fields as well. It is thought that bats are a concern <u>on-in</u> some areas that are already excluded from the protected zones. This will need to be considered <u>in the finalization of the drawing</u>. - KE indicated that there is more work to be done related to bat surveys and how we can better define the requirements. | <p>C. Wheeler/ M. Lush</p> <p>C. Wheeler</p> |
| 8. | <p><u>Potential Berming Opportunities – Houses Behind Connaught Avenue</u></p> <ul style="list-style-type: none"> - The OE team had a public meeting with the community near Connaught three weeks ago and there are concerns related to the <u>the visual impact of the</u> alignment. - One of the concerns raised is the visual impact of the elevated structure. Some cross sections have been developed showing what the view lines look like and <u>the City has have</u> identified two areas that may benefit from <u>berms and or tree planting on top of the bermss</u>. - A plan should be available for review by NCC showing the areas in the next few weeks. - This work would potentially be done at the start of construction so <u>tree</u> growth can be <u>take place established</u> before the line is open <u>in 2023</u>. - VB cautioned that material should <u>desirably</u> be from this project to meet fill import requirements and to reduce liability from contamination <u>potentialsoil</u>. | <p>M. Lush</p> |
| 9. | <p><u>New Business</u></p> <p><u>CEAA Response:</u></p> | |

| | | |
|--|---|---|
| | <p>- KE advised that a response was received back from CEAA related to the approach to the project approvals. The response includes a request for additional information on the MSF. The current plan for the MSF does not include the Woodroffe MSF</p> <p>- They have asked for additional info on the project in general.</p> <p><u>SARS</u></p> <p>- KE outlined that the team is currently doing a SARS permit application for the bat issues at the airport at the request of Environment Canada. It is not known yet whether a permit will be required but the request was made to submit the application.</p> <p><u>Working Group Meeting</u></p> <p>- MM indicated that the approval schedule will be discussed at the next Working Group meeting and so<u>NCC was</u> requested NCC to review prior to meeting.</p> <p>- MM also advised that Nicolas Delahousse has returned to the <u>OE</u> team.</p> <p><u>MB comment</u></p> <p>CW is to respond to MB in writing related to the inclusion of Churchill and Dominion pedestrian crossings.</p> <p><u>Lincoln Field Drainage</u></p> <p>- NCC understands that there may be a need for storage to be included at the Lincoln Fields area and may have a suggestion for a solution. Perhaps the <u>Lincoln Fields alignment</u>Baseline/Bayshore track and <u>required</u> local drainage can sit on surface as a dry creek/open water feature channel.</p> <p>-CW confirmed that the SWM team has advised that the criterion identified has resulted in the need for a storage tank below ground or surface storage of a certain volume.</p> <p>- SF indicated that this approach will be easier if the portion of the existing BRT that will be turned into a service road be moved out of the lowest area.</p> <p>- NCC should provide some criteria for the reinstatement of the BRT and have indicated that they will be expecting something more than grassed area.</p> <p><u>Tunnel under SJAM</u></p> <p>- BC inquired if there was an opportunity for SJAM to be moved off the tunnel by Project Co. CW indicated that the documentation will be put together to prevent this in the PSOS.</p> <p><u>OCS Visuals</u></p> <p>- BC requested whether there will be any visual renderings available of the OCS. CW indicated that some renderings will be developed and the list will be reviewed with NCC to see if there are any of interest.</p> | <p>NCC</p> <p>C. Wheeler</p> <p>NCC</p> <p>C. Wheeler</p> |
|--|---|---|



Prepared by: Kim Howie
Reviewed by:

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.

STAGE 2 LRT

NCC Functional Design & Working Group Meeting – November 3, 2016

2:30-4:00pm

Minutes

| | | |
|-----------------|--|------------------|
| Status: | Draft | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | November 3, 2016 | |
| Time: | 2:30-4:00pm | |
| Present: | Martin Barakengera MB – NCC Bina Chakraborty BC – NCC Susan Fisher SF – NCC Valerie Bedard VB – NCC Marc Magierowicz MMZ – City of Ottawa Charles Wheeler CW - AECOM Elie Dagher ED – AECOM Rich Piloseno RP – AECOM Kim Eaton KE – MH Martha Lush ML – CSW Stan McGillis SM – MH Arash Koshghalb AK – MH Eric Emery EE – MH Bryan Kipp BK – MH | |
| Regrets | Michael Muir MM – NCC Blaise Tongacé Traoré BT - NCC Greg Kehoe GK – NCC Elaine Bergeron EB – NCC Arto Keklikian AK - NCC Yoland Charette YC - NCC | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | <u>Review of Minutes from October 6 & October 20, 2016 Meetings</u> -Green's Creek Culvert: NCC requested CAD file which shows alignment of MUP in this area before commenting/approving pathway. | Martha L. |
| 2. | <u>Noise Walls at Lincoln Fields Bus Terminal</u> - CW commented that drawings are not yet available to share with NCC | |

| | | |
|----|---|---|
| | <p>which show physical extend of wall and type. Attempts will be made to limit visibility of noise walls.</p> <ul style="list-style-type: none"> - A drawing showing the extent, height and design of the proposed noise wall is being developed which will be communicated to NCC at a future meeting. - The mitigation strategy will involve a combination berming and wall. NCC will comment once received drawing has been received. | <p>Charles W. / Rich P.</p> |
| 3. | <p><u>NCC Park Concept Submission – 20 Day City Response</u></p> <ul style="list-style-type: none"> -Efforts are ongoing between the OE Team and NCC. Focused meetings have been established to discuss NCC SJAM park concept and City response. | |
| 4. | <p><u>Design Effort for Churchill Overpass and Dominion at-grade crossing</u></p> <ul style="list-style-type: none"> - Work plan has been prepared by OE team for additional effort at Churchill which is about to be approved by the City. Preliminary engineering kick-off meeting scheduled and planning for geotechnical borehole drilling has commenced. -AK commented that assumptions pertaining to the roadway and drainage design will need to be made which will be shared with NCC. -OE team will investigate the storm water management implications of future Churchill pathway that is potentially below 100 year flood of Ottawa River. Findings to be shared with NCC during the next functional design meeting. | <p>Stan M. Eric E.</p> |
| 5. | <p><u>SJAM Design Finalization & Input Into PSOS</u></p> <ul style="list-style-type: none"> - ED advised that the OE team has reached a point where the SJAM roadway design has been finalized and now needs to be incorporated into the PSOS. The intent is to be prescriptive to Project Co. with respect to the horizontal alignment vertical profile of both the SJAM and Tunnel. -NCC expressed an interest in having mild sloping for ditching. AK advised that the current design contains 6:1 sloping which is quite mild. -NCC further advised that cross-walks at Rochester field and Dominion will be signalized. SM to share signalized lighting examples from other locations used in Ottawa. -SM asked for formal comments from NCC pertaining to the SJAM roadway design. NCC to supply official comments after internal review. -ED to circulate the latest SJAM roadway design drawings including the preliminary general arrangement drawing for Cleary. | <p>Stan M. Martin B. Elie D.</p> |
| 6. | <p><u>SJAM SWM Design Update</u></p> <ul style="list-style-type: none"> -BC inquired if storage capacity can be demonstrated for different storm events for bioswales design in median. EE to provide calculations for storage capacity of bioswales to NCC. -NCC commented that the commission prefers to be prescriptive in | <p>Info Eric E.</p> |

| | | |
|----|---|---|
| | <p>relation to the bioswales design to Project Co. -BC asked about water gradient along the SJAM given the construction of the tunnel. ED to supply HydroG report to NCC which contains this information.</p> <p>-ED to send latest design drawings and SWM presentation</p> | <p>Elie D.</p> <p>Elie D.</p> |
| 7. | <p><u>City Response Regarding Protected Zones</u></p> <p>- ML presented an update to protected zones drawings. NCC commented the commission would like to include tree removals within drawings. In addition, consideration should be given to expanding the drawings in geography to include other zones such as Churchill, Westboro and Atlantis.</p> <p>- NCC requested a CAD file of the protected zones which ED will supply.</p> | <p>Martha L.</p> <p>Elie D.</p> |
| 8. | <p><u>Potential Berming Opportunities – Houses Behind Connaught Avenue</u></p> <p>-CW explained that based on feedback from community, OE team has looked more closely into berming opportunities for residents between Lincoln Fields Junction and Connaught Tunnel.</p> <p>-Preliminary cross sections have been developed by ML which were shown during the meeting and indicated berming opportunities exist adjacent to the LRT alignment.</p> <p>-CW asked if NCC is amenable to such opportunity. NCC commented that the commission would like to see existing trees preserved as much as possible. NCC to reply formally after reviewing cross-sections.</p> <p>-ED to supply cross-sections</p> | <p>Martin B.</p> <p>Elie D.</p> |
| 9. | <p><u>New Business</u></p> <p>-MB announced that NCC is interested in the possibility of creating a “T-Intersection” at SJAM and Carling Ave to reduce asphaltic footprint of roads within the Pinecrest creek valley. This would involve the removal and re-configuration of on-ramps and off-ramps at Carling Ave. MB shared a preliminary drawing showing what a future intersection would look like. MB further commented that such a request is coming from the CEO and NCC would like the Stage 2 office to absorb the costs of its design and construction.</p> <p>-CW expressed reservations about such a request primarily due to two reasons:</p> <ol style="list-style-type: none"> a. Such effort is not part of the scope or budget of the Stage 2 office and the AIP does not refer to such work b. Budget aside, such a request requires design effort and time to develop which is a problem from a schedule perspective for the Stage 2 office. <p>-CW commented that he will raise and escalate this issue to the City Director who will likely involve the Mayors effort to resolve.</p> | |



Prepared by: Elie Dagher
Reviewed by:

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.

STAGE 2 LRT

NCC Functional Design & Working Group Meeting – December 15, 2016

2:30-4:00pm

Minutes

| | | |
|-----------------|---|--|
| Status: | Draft | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | December 15, 2016 | |
| Time: | 2:30-4:00pm | |
| Present: | Bina Chakraborty BC – NCC Valerie Bedard VB – NCC Susan Fisher SF – NCC Marc Magierowicz MMZ – City of Ottawa Charles Wheeler CW - AECOM Elie Dagher ED – AECOM Kim Eaton KE – MH Martha Lush ML – CSW | |
| Regrets | Martin Barakengera MB – NCC Michael Muir MM – NCC Blaise Tongacé Traoré BT - NCC Greg Kehoe GK – NCC Elaine Bergeron EB – NCC Arto Keklikian AK - NCC Yoland Charette YC - NCC Rich Piloseno RP – AECOM Stan McGillis SM – MH Eric Emery EE – MH | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | <u>Review of Minutes from November 17, 2016 Meetings</u> -Green’s Creek Culvert: OE team requested comments from NCC on proposed placement of MUP on NCC land. Item carried forward -NCC to formally comment on potential berming opportunities between Lincoln Fields junction and east portal of Connaught Tunnel. OE team to prepare tree loss estimate as a result of berming. Item carried forward. -OE team requested input from NCC of state of “re-naturalization” necessary for reinstatement of SJAM transitway that will be decommissioned. Item carried forward on agenda. | Martin B. Martha L. Martin B. |

| | | |
|-----------|--|--|
| <p>2.</p> | <p><u>Timing of “Letter of Endorsement” relative to in-market period</u></p> <p>-OE team expressed concern with timing of “agreement of endorsement” letter from NCC, specifically as it relates to confed east and trillium. The Stage 2 team is in need of an endorsement by January 23, 2017 for all three lines</p> <p>-CW noted that conditions can be placed within the letter of endorsement and requested that NCC advise if more information is needed to make a decision.</p> <p>-MM offered support in drafting letter of endorsement if needed.</p> | <p>Martin B.</p> |
| <p>3.</p> | <p><u>Memo for groundwater conditions post construction of SJAM tunnel</u></p> <p>-ED advised that a memo is currently being finalized which describes the ground water levels along the SJAM before and after construction of the tunnel. In the meantime the OE team has developed a groundwater hydraulic model which describes the gradient south of the Ottawa River.</p> | <p>Elie D.</p> |
| <p>4.</p> | <p><u>Watermain relocation at Cleary Station</u></p> <p>-The OE provided an updated watermain re-location adjacent to Cleary Station due to concerns with ability planting trees above previous utility location. Both NCC and the OE team are interested in re-growing trees within berm to screen the fan plant building from SJAM parkway. As a result, the OE team requested easement from NCC to re-locate watermain away from future berm. NCC commented that there is no objection with this approach and OE team should proceed to engage City of Ottawa water department.</p> | |
| <p>5.</p> | <p><u>Timing of feedback for ACPDR presentation</u></p> <p>-OE team requested update on feedback/timing of ACPDR comments. NCC advised that the board has not yet provided comments and will forward to OE team once in their possession.</p> <p>-SF raised the idea of having vines adjacent to LRT fence. Prefer not to have deciduous trees that shed annually within close proximity to tracks which would represent operational and maintenance challenges. NCC would like to see low grown coniferous trees.</p> | <p>Martin B.</p> <p>Marth L.</p> |
| <p>6.</p> | <p><u>NCC Board Approval of Reference Concept Design and Required Background</u></p> <p>-NCC advised that the commission has received the necessary background documents from OE team to seek their board approval.</p> | |
| <p>7.</p> | <p><u>NCC request for additional funds letter</u></p> <p>-CW noted that the OE team has received letter from NCC requesting additional funds. CW to meet with Chris Swail and will advise outcome. CW noted that his expectation is there will be no issues.</p> | <p>Charles W.</p> |

| | | |
|-----|---|--|
| 8. | <p><u>Update to Noise wall at Lincoln Fields Station</u></p> <p>-Original noise wall between MUP and bus terminal has now been moved east adjacent to residential community. This will better screen and mitigate noise limiting from bus terminal. Project Co to be responsible for detailed design. NCC requested that option with least impact to trees be selected.</p> | |
| 9. | <p><u>Elimination of gravel service road between Lincoln Fields & Iris</u></p> <p>-OE team to prepare a drawing which describes location and limits of transitway reinstatement between Lincoln Fields and Iris. -OE team needs principles from NCC on reinstatement criteria. ML suggested same naturalized meadow at SJAM be used at Lincoln Fields area. CW noted that should NCC desire to have more stringent criteria for reinstating the transitway, the commission needs to let OE team know. OE team needs slopping details and ecological crossing information. NCC committed to providing information by end of month.</p> | <p>Martha L.</p> <p>Martin B.</p> |
| 10. | <p><u>Update to Potential Berming Opportunities – Houses Behind Connaught Avenue</u></p> <p>-CW explained that based on feedback from community, OE team has looked more closely into berming opportunities for residents between Lincoln Fields Junction and Connaught Tunnel. -Preliminary cross sections have been developed by ML which were shown during the meeting and indicated berming opportunities exist adjacent to the LRT alignment. -CW asked if NCC is amenable to such opportunity. NCC commented that the commission would like to see existing trees preserved as much as possible. NCC to reply formally after reviewing cross-sections. -NCC further requested that the OE team provide impacts to existing trees resulting from construction of said berms.</p> | <p>Martin B.</p> <p>Martha L. / Kim E.</p> |

Prepared by: Elie Dagher
Reviewed by:

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.

STAGE 2 LRT

NCC Functional Design & Working Group Meeting – January 12, 2017

2:30-4:00pm

Minutes

| | | |
|-----------------|--|--|
| Status: | Draft | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | January 12, 2017 | |
| Time: | 2:30-4:00pm | |
| Present: | Martin Barakengera MB – NCC Bina Chakraborty BC – NCC Valerie Bedard VB – NCC Susan Fisher SF – NCC Marc Magierowicz MMZ – City of Ottawa Charles Wheeler CW - AECOM Elie Dagher ED – AECOM Stan McGillis SM – MH Martha Lush ML – CSW Kelly Roberts KR – MH Rich Piloseno RP – AECOM (Teleconference) | |
| Regrets | Michael Muir MM – NCC Blaise Tongacé Traoré BT - NCC Greg Kehoe GK – NCC Elaine Bergeron EB – NCC Arto Keklikian AK - NCC Yoland Charette YC - NCC Eric Emery EE – MH Kim Eaton KE – MH | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | <u>Review of Minutes from December 15, 2016 Meetings</u> -Green's Creek Culvert: OE team requested comments from NCC on proposed placement of MUP on NCC land. Item carried forward -NCC to formally comment on potential berming opportunities between Lincoln Fields junction and east portal of Connaught Tunnel. OE team to prepare tree loss estimate as a result of berming. Item carried forward. | Martin B. Martha L. |
| 2. | <u>ACPDR Comments & Feedback</u> -ACPDR comments have been received by the OE team from the Board. | |

| | | |
|----|--|-------------------------------|
| | <p>CW noted that comments are reasonable and nothing in there is surprising. OE team will proceed with implementation of reference concept design into PSOS.</p> | |
| 3. | <p><u>Timing of “Letter of Endorsement” relative to in-market period</u></p> <p>-OE team has acknowledged receipt of letter of endorsement for confederation line west from NCC. OE team will review and provide comments within 72 hours back to NCC</p> | Elie D. |
| 4. | <p><u>NCC request for additional funds letter</u></p> <p>-CW has final version for execution. MB requested draft version to review, which CW consented to. NCC to review next week and provide comments. City Manager to sign off on letter upon Chris Swail return from vacation.</p> | Charles W. |
| 5. | <p><u>Memo for groundwater conditions post construction of SJAM tunnel</u></p> <p>-ED provided copy of groundwater conditions memo which concluded no significant or long term impacts to groundwater levels post construction of SJAM tunnel.</p> | |
| 6. | <p><u>Update to Potential Berming Opportunities – Houses Behind Connaught Avenue</u></p> <p>-CW explained that based on feedback from community, OE team has looked more closely into berming opportunities for residents between Lincoln Fields Junction and Connaught Tunnel.</p> <p>-Preliminary cross sections have been developed by ML which were shown during the meeting and indicated berming opportunities exist adjacent to the LRT alignment.</p> <p>-CW asked if NCC is amenable to such opportunity. NCC commented that the commission would like to see existing trees preserved as much as possible. NCC to reply formally after reviewing cross-sections.</p> <p>-NCC further requested that the OE team provide impacts to existing trees resulting from construction of said berms.</p> <p>-OE team is still working on response which will be shared with NCC during the next functional design meeting. Some of the proposed berming does have impacts to NCC trees and concept will be revised.</p> <p>-CW noted that a working group with Queensview Terrace North community has been setup. Several complaints/concerns have been expressed by residents due to visual impacts of LRT. As a result, screening measures such as berming is important.</p> | Martha L. / Charles W. |
| 7. | <p><u>SW-1 Detour Segment</u></p> <p>-ED presented the anticipated bus detour for segment SW-1 between Lincoln Fields and baseline. The OE team has been able to find a construction staging configuration at Iris which allows busses to continue onto baseline during the majority of construction. This will avoid the need of requiring busses from Lincoln Fields to terminate at Iris and drive on Woodroffe Ave. ED further noted that in order to make the concept work, a temporary meander through the re-alignment Pinecrest creek will be</p> | Stan M / Karyn C. |

| | | |
|-----|--|--------------------------------|
| | required. NCC requested that impacts to existing trees be minimized as much as possible and that OE team obtain geomorphological input to two stage creek construction approach. OE to provide more information pertaining to creek construction approach and invite John Beebe to future functional design meeting. | |
| 8. | <p><u>Draft Principles of Project Co Land Use</u></p> <p>-NCC requested that land use draft principles documents be finalized for submission to NCC for review and comment. NCC requested that the document address:</p> <ul style="list-style-type: none"> • Protection of water courses and streams • Storm water management | Kim E. |
| 9. | <p><u>ORPP Condition Assessment Report Findings</u></p> <p>-ED shared OSIM inspection report and executive summary for ORPP condition assessment. Asset is generally in better condition than anticipated but does require minor rehabilitation within the next 1-5 years.</p> | |
| 10. | <p><u>Update to Churchill Overpass</u></p> <p>-OE team shared latest concept of Churchill Overpass and MUP connectivity. SF noted that NCC would like to see smoother curves for MUP's. ML committed to providing MUP island, specifically for the NW MUP going south. OE team proceeding with design and progress updates to be given to NCC at milestones. New PRP will be required.</p> | Martha L. / Elie D. |
| 11. | <p><u>NCC SJAM Parkway Scope Submission</u></p> <p>-ML and SF to coordinate and submit to OE team their comments prior to the Feb 6, 2017 due date for parkway scope submission.</p> | Marth L. / Susan F. |
| 12. | <p><u>New Business</u></p> <p>-NCC inquired about the possibility of a Moodie LRT extension and potential MSF site within the greenbelt. MB recommended a robust engagement strategy with NCC in relation to this topic is required. MB advised that a letter be prepared addressed to the executive director of NCC summarizing the potential sites and approach. CW to draft letter and submit to NCC</p> <p>-SF requested that width of Cleary and Churchill Overpass be included on next meeting agenda.</p> | Charles W. |

Prepared by: Elie Dagher

Reviewed by:

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.

STAGE 2 LRT

NCC Functional Design & Working Group Meeting – January 26, 2017

2:30-4:00pm

Minutes

| | | |
|-----------------|--|------------------|
| Status: | Draft | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | January 26, 2017 | |
| Time: | 2:30-4:00pm | |
| Present: | Martin Barakengera MB – NCC Bina Chakraborty BC – NCC Valerie Bedard VB – NCC Jason Hutchinson JH – NCC Marc Magierowicz MMZ – City of Ottawa Charles Wheeler CW - AECOM Elie Dagher ED – AECOM Martha Lush ML – CSW Kim Eaton KE – MH Karine Bertrand KB – MH Karyn Cornfield KC – MH | |
| Regrets | Susan Fisher SF – NCC Michael Muir MM – NCC Blaise Tongacé Traoré BT - NCC Greg Kehoe GK – NCC Elaine Bergeron EB – NCC Arto Keklikian AK - NCC Yoland Charette YC - NCC Eric Emery EE – MH Rich Piloseno RP – AECOM | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | <u>Review of Minutes from January 12, 2017 Meetings</u> -Green’s Creek Culvert: OE team requested comments from NCC on proposed placement of MUP on NCC land. Item carried forward | Martin B. |
| 2. | <u>WLRT Approval in Principle</u> -AIP to be signed by NCC at the end of the week and transmitted to | |

| | | |
|----|---|---|
| | <p>Stage 2 office. The OE team and NCC agreed to setup meetings to discuss conditions of AIP and implementations of conditions within PSOS of Stage 2 contract.</p> <p>-NCC confirmed that SJAM Park scope to be submitted February 7, 2017.</p> | Marc M. |
| 3. | <p><u>Update to Potential Berming Opportunities – Houses Behind Connaught Avenue</u></p> <p>-ML presented updated grading plans and cross-sections for berming opportunities adjacent to the east portal of Connaught Tunnel.</p> <p>-The new drawings represent a refined berm design which minimizes impacts to mature trees and decreases visual impact of LRT by up to 75%. ML noted that residents of Queensview Terrace North will still be able to see the Lincoln Fields Junction bridge over Pinecrest Creek.</p> <p>-Chris Swail has inquired about the possibility of transplanting trees from the Byron Linear park to other areas. NCC was requested to comment on the possibility of moving said trees to area adjacent to east portal of Connaught Tunnel.</p> <p>-ED to provide a copy of the refined berming design drawings to NCC.</p> | <p>Martin B.</p> <p>Martin B.</p> <p>Elie D.</p> |
| 4. | <p><u>Lincoln Fields Water Feature</u></p> <p>-KC presented drawings that show drainage of Lincoln Fields Station, relocation of sewer and connection to ORPP. ML to develop scope and budget to undertake landscape design for water feature at Lincoln Fields.</p> <p>-ED to provide NCC with copy of water feature presentation</p> | Elie D. |
| 5. | <p><u>Subsurface Utility Survey of ORPP & Potential Impacts to Alignment</u></p> <p>-ED provided update on ORPP sub surface utility survey which shows asset is 3.5m further east than what's shown on record drawings.</p> <p>-OE is contemplating two options. First is to make modifications to the track alignment to eliminate conflict with ORPP. Second is to locally relocate the ORPP for approximately 100m. OE team to provide further information on progress during next functional design meeting.</p> <p>-ED to provide copy of SUE drawing of ORPP.</p> <p>-In the meantime, the OE team advised NCC that should the reference concept design call for ORPP relocation, it would make sense for the commission to delay ORPP rehabilitation works post 2023.</p> | Elie D. |
| 6. | <p><u>NCC comments re Width at Cleary and Churchill Underpass</u></p> <p>-NCC advised that a 5m functional width is needed for the underpass structures at Cleary and Churchill. At present, the top slab haunches encroach upon the necessary vertical clearance and as a result reduce the functional width of the structure. The OE team will prescribe within the PSOS that a 5m functional width with 3m minimum vertical clearance is required for Cleary and Churchill.</p> | Elie D. |
| 7. | <u>New Business</u> | |

| | | |
|--|---|--------------------------|
| | <p>i. <u>Moodie LRT Extension & MSF Facility</u></p> <p>CW still drafting letter to NCC re Moodie LRT extension and MSF facility which will be sent to the commission by Tuesday of next week.</p> <p>ii. <u>Funding Letter</u></p> <p>MB inquired if funding advances to NCC becomes a liability if Stage 2 project is cancelled. No – the agreement calls for returning funds to the City that have not been spent.</p> <p>iii. <u>Independent Cost Estimate</u></p> <p>MB asked who will be undertaking the independent cost estimating for the NCC parkway scope. CW explained that Hanscomb will be retained to provide such service. In addition, MB inquired about what happens whether there is disagreement pertaining to the independent cost estimate. CW explained that the agreement does not contain a recourse for either the City or NCC to dispute the independent cost estimate. Should a de-scoping exercise be needed, both the NCC and the City will be involved in such exercise.</p> | <p>Charles W.</p> |
|--|---|--------------------------|

Prepared by: Elie Dagher
Reviewed by:

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.

STAGE 2 LRT

NCC Functional Design & Working Group Meeting – February 9, 2017

2:30-4:00pm

Minutes

| | | |
|-----------------|--|------------------|
| Status: | Draft | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | February 9, 2017 | |
| Time: | 2:30-4:00pm | |
| Present: | Martin Barakengera MB – NCC Susan Fisher SF – NCC Bina Chakraborty BC – NCC Valerie Bedard VB – NCC Charles Wheeler CW - AECOM Elie Dagher ED – AECOM Martha Lush ML – CSW Kim Eaton KE – MH Raquel Gold - AECOM Karine Bertrand KB – MH (teleconference) Karyn Cornfield KC – MH (teleconference) Rich Piloseno RP – AECOM (teleconference) Stan McGillis – MH (teleconference) | |
| Regrets | Marc Magierowicz MMZ – City of Ottawa Eric Emery EE – MH Michael Muir MM – NCC Blaise Tongacé Traoré BT - NCC Greg Kehoe GK – NCC Elaine Bergeron EB – NCC Arto Keklikian AK - NCC Yoland Charette YC - NCC Jason Hutchinson JH – NCC | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | <u>Review of Minutes from January 26, 2017 Meetings</u> -Green’s Creek Culvert: OE team requested comments from NCC on proposed placement of MUP on NCC land. Item carried forward -Independent Parkway Estimate: It was agreed that Hanscomb will be retained to prepare an independent cost estimate for the Parkway Works | Martin B. |

| | | |
|----|--|--|
| | <p>which include City Scope of work and NCC Scope of work. OE team to prepare a scoping document which summarizes the estimate Hanscomb will undertake. OE to provide NCC a copy of scoping document prior to submitting to Hanscomb for cost estimating.</p> | Elie D. |
| 2. | <p><u>WLRT Approval in Principle</u></p> <ul style="list-style-type: none"> -The OE team has noted receipt of signed AIP from NCC for confederation line west. The OE team and NCC agreed to setup meetings to discuss conditions of AIP and implementations of conditions within PSOS of Stage 2 contract. - The OE team has also confirmed receipt of SJAM Parkway scope which includes City Scope of Work and NCC Scope of Work. | Elie D. |
| 3. | <p><u>Next Steps following SJAM Parkway Scope Submission</u></p> <ul style="list-style-type: none"> -The OE team will commence preparation of scoping documents for independent cost estimating purposes and circulate to NCC for comment/review prior to Hanscomb submission. -The OE team will commence incorporating the City Scope of Work for the Parkway within the Stage 2 LRT contract. | <p>Elie D.</p> <p>Rich P.</p> |
| 4. | <p><u>Update to Bus Ramp Detour at Iris Station</u></p> <ul style="list-style-type: none"> -The OE has revised the temporary bus detour around Iris Station which allows busses to use the existing transitway during construction. The revised concept does not require a two stage construction approach to create the necessary meandering for the re-alignment Pinecrest creek. Instead, the temporary ramp was moved slightly east to allow sufficient space for a full creek meander in a one stage approach. NCC noted their consent with such an approach. -OE team to provide copy of update detour concept | Elie D. |
| 5. | <p><u>Overland Flow Channel at Lincoln Fields</u></p> <ul style="list-style-type: none"> -KC presented an update relating to the overland flow channel at Lincoln fields. BC requested that details of utility relocation and connection to ORPP be provided to NCC. -ML noted that a landscaping plan will be developed which shows proof of concept and grading plan. ML to coordinate with SF during this process. | Martha L. |
| 6. | <p><u>Final SWM Deliverables</u></p> <ul style="list-style-type: none"> -KC noted that final SWM report and drawings have been finalized and submitted to Stage 2 PM team. BC requested that a copy be provided to NCC. -KC will present to NCC the final SJAM Bioswales design during the next | <p>Elie D.</p> <p>Karyn C.</p> |

| | | |
|----|---|---|
| | functional design meeting. | |
| 7. | <p><u>Update Subsurface Utility Survey of ORPP & Potential Impacts to Alignment</u></p> <p>-ED provided update on ORPP sub surface utility survey which shows asset is 3.5m further east than what's shown on record drawings.</p> <p>-OE is contemplating two options. First, to make modifications to the track alignment and eliminate conflict with ORPP. Second is to locally relocate the ORPP for approximately 100m.</p> <p>-ED noted that OE team is proceeding based on ORPP relocation scheme and such an approach will be used for the reference concept design.</p> | |
| 8. | <p><u>Update to Potential Berming Opportunities – Houses Behind Connaught Avenue</u></p> <p>-ML noted that butternut trees have been found within Connaught Park. New grading plans show reshaped berming for the purposes of LRT screening. VB questioned if the Butternut trees will maintain the same amount of sunlight exposure post construction of berming. CW requested an architectural concept be developed for the 3 houses being demolished along Connaught Ave.</p> <p>-SWM team identified swales on southwest quadrant of Connaught Park to drain LRT track. In addition, a pump station has been identified at Connaught with need for OGS. BC requested that the SWM team provide further information on the impacts of pumping groundwater and effects on Pinecrest creek.</p> <p>-ED to provide updated landscaping drawings to NCC.</p> | <p>Martha L</p> <p>Karyn C.</p> <p>Elie D.</p> |
| 9. | <p><u>New Business</u></p> <p>i. <u>Lawn Ave Parkette</u></p> <p>-CW noted that a meeting took place last week with community which Councilor Taylor and Mike Muir from NCC attended. In addition to community garden, community is interested in Parkette. Once concept is developed, OE team will look to NCC for comment on items impacting NCC lands.</p> <p>ii. <u>Agenda item for next meeting</u></p> <ul style="list-style-type: none"> • Moodie LRT presentation | <p>Martha L.</p> |

Prepared by: Elie Dagher

Reviewed by:

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.

STAGE 2 LRT

NCC Functional Design & Working Group Meeting – February 23, 2017

2:30-4:00pm

Minutes

| | | |
|-----------------|---|------------------|
| Status: | Draft | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | February 23, 2017 | |
| Time: | 2:30-4:00pm | |
| Present: | Martin Barakengera MB – NCC Susan Fisher SF – NCC Jason Hutchinson JH – NCC Valerie Bedard VB – NCC Charles Wheeler CW - AECOM Elie Dagher ED – AECOM Martha Lush ML – CSW Kim Eaton KE – MH Kelly Roberts KR – MH Eric Emery EE – MH Bryan Kipp BK – MH Kim Howie KH – AECOM Rich Piloseno RP – AECOM (teleconference) | |
| Regrets | Marc Magierowicz MMZ – City of Ottawa Michael Muir MM – NCC Blaise Tongacé Traoré BT - NCC Greg Kehoe GK – NCC Elaine Bergeron EB – NCC Arto Keklikian AK - NCC Bina Chakraborty BC – NCC Yoland Charette YC - NCC Raquel Gold RG - AECOM Stan McGillis SM – MH | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | <u>Review of Minutes from February 9, 2017 Meetings</u> <u>Items carried forward to next functional design meeting:</u> -Lawn Ave Parkette: Meeting took place with community which Councilor Taylor and Mike Muir from NCC attended. In addition to community | Martha L. |

| | | |
|----|--|--|
| | <p>garden, community is interested in Parkette. Once concept is developed, OE team will look to NCC for comment on items impacting NCC lands.</p> <p>- SWM team identified swales on southwest quadrant of Connaught Park to drain LRT track. In addition, a pump station has been identified at Connaught with need for OGS. BC requested that the SWM team provide further information on the impacts of pumping groundwater and effects on Pinecrest creek.</p> <p>- Overland Flow Channel at Lincoln Fields: KC presented an update relating to the overland flow channel at Lincoln fields. BC requested that details of utility relocation and connection to ORPP be provided to NCC. -ML noted that a landscaping plan will be developed which shows proof of concept and grading plan. ML to coordinate with SF during this process.</p> | <p>Karyn C.</p> <p>Martha L.</p> |
| 2. | <p><u>Moodie LRT Presentation</u></p> <p>-CW presented details of the Moodie LRT extension including potential MSF sites within the NCC Greenbelt. -ED to provide copy of presentation -MB to provide NCC feedback after receipt of presentation</p> | <p>Elie D. Martin B.</p> |
| 3. | <p><u>Scoping Document for Parkway Cost Estimate</u></p> <p>-ED provided MB a copy of the draft scoping document for Hanscomb intended to develop independent cost estimate for the Parkway City Scope of Work and NCC Scope of Work. MB to advise if there are any comments from NCC. -The OE team noted that Westboro beach drawings are currently missing and will be difficult to estimate without further information. NCC agreed to provide further information which the OE team will share with Hanscomb to determine if sufficient to develop costing. If not, NCC agreed to develop drawings. ED to advise on level of detail necessary.</p> | <p>Martin B.</p> <p>Elie D.</p> |
| 4. | <p><u>Items Carried Forward</u></p> <p>-Due to lack of time, the below items on the agenda were pushed to the next functional design meeting:</p> <ol style="list-style-type: none"> I. SJAM SWM Bioswales Final Design Presentation II. Update to Green's Greek MUP III. Incorporation of AIP Conditions Into PSOS and Future Meetings IV. Berming at Connaught Tunnel Update V. Timing of AIP for Confed East and Trillium Minutes) VI. New Business VII. Confederation Line East VIII. Trillium Line | |



Prepared by: Elie Dagher
Reviewed by:

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.

STAGE 2 LRT

NCC Functional Design & Working Group Meeting – March 9, 2017

2:30-4:00pm

Minutes

| | | |
|-----------------|---|------------------|
| Status: | Draft | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | March 9, 2017 | |
| Time: | 2:30-4:00pm | |
| Present: | Martin Barakengera MB – NCC Susan Fisher SF – NCC Jason Hutchinson JH – NCC Bina Chakraborty BC – NCC Ashley Goggin AG – NCC Charles Wheeler CW - AECOM Elie Dagher ED – AECOM Martha Lush ML – CSW Kim Eaton KE – MH Marc Magierowicz MMZ – City of Ottawa Eric Emery EE – MH Bryan Kipp BK – MH Stan McGillis SM – MH Arash Koshghalb AK – MH Raquel Gold RG - AECOM Rich Piloseno RP – AECOM (teleconference) Karyn Cornfield KC – MH (teleconference) Karine Bertrand KB – MH (teleconference) | |
| Regrets | Valerie Bedard VB – NCC Michael Muir MM – NCC Blaise Tongacé Traoré BT - NCC Greg Kehoe GK – NCC Elaine Bergeron EB – NCC Arto Keklikian AK - NCC Yoland Charette YC - NCC Kim Howie KH – AECOM | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | <u>Review of Minutes from February 23, 2017 Meetings</u> <u>Items carried forward to next functional design meeting:</u> -Lawn Ave Parkette: Meeting took place with community which Councilor | Martha L. |

| | | |
|-----------|---|---|
| | <p>Taylor and Mike Muir from NCC attended. In addition to community garden, community is interested in Parkette. Once concept is developed, OE team will look to NCC for comment on items impacting NCC lands.</p> <p>- SWM team identified swales on southwest quadrant of Connaught Park to drain LRT track. In addition, a pump station has been identified at Connaught with need for OGS. BC requested that the SWM team provide further information on the impacts of pumping groundwater and effects on Pinecrest creek.</p> <p>- Overland Flow Channel at Lincoln Fields: KC presented an update relating to the overland flow channel at Lincoln fields. BC requested that details of utility relocation and connection to ORPP be provided to NCC. ML noted that a landscaping plan will be developed which shows proof of concept and grading plan. ML to coordinate with SF during this process.</p> <p>-Moodie LRT Response by OE team to NCC Letter</p> | <p>Karyn C.</p> <p>Martha L.</p> <p>Charles W.</p> |
| <p>2.</p> | <p><u>SJAM Design & Staging Update</u> -SM and AK presented the following:</p> <ul style="list-style-type: none"> • Overview to SJAM Roadway Design • SJAM Staging Plans • Churchill Underpass Staging Plans <p>-OE team highlighted that this a reference concept design, ultimately DB Co will be responsible for staging through language in PSOS -OE team to highlight impacts to No go zones separately -MB requested for documented feedback from community as a result of the Workman Community presentation -NCC interested in knowing when commission will have access to lands to build “NCC Scope of Work”. CW advised that this issue will need to be discussed with NCC. AK to advise on timing and duration of SJAM re-alignment</p> | <p>Stan M. Charles W.</p> <p>Charles W.</p> |
| <p>3.</p> | <p><u>SJAM SWM Bioswales Final Design Presentation</u></p> <p>-EE and BK presented the final bioswale design along the SJAM median between Cleary and Dominion station. The design does not allow for ponding on the SJAM during 1:100 storm event. BC inquired whether design will be prescriptive in PSOS. SWM advised that bioswale criteria will be prescribed in PSOS. -ED to send presentation to NCC. -Roadways further advised that the horizontal and vertical alignment of the reconstructed SJAM will be prescribed in PSOS.</p> | <p>Elie D.</p> |
| <p>4.</p> | <p><u>CEAA Section 67 Process</u></p> <p>-KE prepared and circulated to NCC a draft document which describes the proposed approach to the CEAA Section 67 process. VB from NCC to comment within 2 weeks.</p> | <p>Valerie B.</p> |

| | | |
|----|---|---------------------|
| 5. | <p><u>Lincoln Fields Overland Flow Channel</u></p> <p>-ML provided an update to the grading and overall landscaping plan at Lincoln Fields around the overland flow channel. ML advised that a short MUP bridge will be required over the channel to maintain access to station during storm event. ML to confirm with Jim Hill that there are no utility conflicts.</p> <p>-The issue of who would maintain the MUP bridge was parked for further discussion at a later time.</p> <p>-ED to provide updated landscape drawings</p> | Elie D. |
| 6. | <p><u>Connaught Park Update</u></p> <p>-ML and KC presented the updated grading and drainage plan at Connaught Park. NCC expressed concern with groundwater impacts pumped from tunnel into Pinecrest Creek. BC requested confirmation from SWM team why design calls for storage of water in wet well. KC advised that this is due to low elevation of tunnel and the fact that it will be sealed. BC requested that SWM take NCC concerns into consideration and tweak design to address the commission's concerns.</p> <p>-ED to provide copy of updated SWM and landscaping drawings.</p> | Karyn C. Elie D. |
| 7. | <p><u>PSOS Challenges for Parkway City Scope of Work</u></p> <p>-ED advised that the OE team will be scheduling re-occurring bi-weekly meetings with NCC to discuss PSOS, particularly in relation to challenges with incorporating Parkway City Scope of Work.</p> | |
| 8. | <p><u>Hanscomb Scoping Document for Parkway Cost Estimate</u></p> <p>-NCC and the OE team both agreed to retain Hanscomb as the independent estimator for the Parkway Cost Estimate. A kick-off meeting will be scheduled with Hanscomb to discuss if the information at hand is sufficient to undertake an estimate and timeline/delivery of this work.</p> | Elie D. |

Prepared by: Elie Dagher

Reviewed by:

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.

STAGE 2 LRT

NCC Functional Design & Working Group Meeting – March 23, 2017

2:30-4:00pm

Minutes

| | | |
|-----------------|---|------------------|
| Status: | Draft | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | March 23, 2017 | |
| Time: | 2:30-4:00pm | |
| Present: | Martin Barakengera MB – NCC Susan Fisher SF – NCC Jason Hutchinson JH – NCC Jean Gilles JG – NCC Pascale Langevin PL – NCC Charles Wheeler CW - AECOM Elie Dagher ED – AECOM Martha Lush ML – CSW Kim Eaton KE – MH Marc Magierowicz MMZ – City of Ottawa Nicolas Delahousse ND – City of Ottawa Stan McGillis SM – MH Bina Chakraborty BC – NCC (teleconference) Rich Piloseno RP – AECOM | |
| Regrets | Valerie Bedard VB – NCC Michael Muir MM – NCC Blaise Tongacé Traoré BT - NCC Greg Kehoe GK – NCC Elaine Bergeron EB – NCC Arto Keklikian AK - NCC Yoland Charette YC - NCC Kim Howie KH – AECOM | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | <u>Review of Minutes from March 9, 2017 Meetings</u> <u>Items carried forward to next functional design meeting:</u> -Lawn Ave Parkette: Meeting took place with community which Councilor Taylor and Mike Muir from NCC attended. In addition to community garden, community is interested in Parkette. Once concept is developed, OE team will look to NCC for comment on items impacting NCC lands. | Martha L. |

| | | |
|----|---|--|
| | <p>- SWM team identified swales on southwest quadrant of Connaught Park to drain LRT track. In addition, a pump station has been identified at Connaught with need for OGS. BC requested that the SWM team provide further information on the impacts of pumping groundwater and effects on Pinecrest creek.</p> <p>-Moodie LRT Response by OE team to NCC Letter</p> <p>-Workman detour presentation held on March 7, 2017 information and feedback from community to be shared with NCC.</p> <p>-NCC access to SJAM lands following construction of confederation line west. Timing of access to lands needs to be discussed and agreed upon between NCC and OE team.</p> | <p>Karyn C.</p> <p>Charles W.</p> <p>Elie D.</p> <p>Charles W.</p> |
| 2. | <p><u>Feedback on Moodie LRT Public Presentation</u></p> <p>-CW advised that public presentation was positive overall. Community did provide feedback on preferred LMSF options in terms of location. There were lots of connectivity questions and comments, specifically relating to DND site. Concerns were expressed by residents as a result of Queensway widening and impacts from noise and vibration perspective. CW indicated that Station will likely be on East side of Moodie. OE team to engage NCC team in relation to Abbott Industries site.</p> | |
| 3. | <p><u>Update to CEAA Section 67 Process</u></p> <p>-KE advised that OE team is looking forward to NCC comments. MB agreed that a copy of draft document can be provided to other parties for comment.</p> | <p>Martin B.</p> |
| 4. | <p><u>AIP Conditions, PSOS Turns and NCC Engagement</u></p> <p>-ED advised that Turn 1 of the PSOS will be completed today and NCC will be given a copy to comment on. CW explained that timelines for NCC to comment on PSOS are tight. ED to provide a copy of the AIP conditions and Parkway City Scope of work excel tracking tables. These tables provide information on where NCC conditions are met within the PSOS.</p> | <p>Elie D.</p> |
| 5. | <p><u>PSOS Challenges for Parkway City Scope of Work</u></p> <p>-SF agreed to revise wording of drawings provided by NCC to remove “reliant” annotation since the drawings are not at 100% design level. It was generally understood that DB Co will need to be given some flexibility for design since the drawings provided by NCC are not at 100% design level, otherwise there is risk of claims by DB Co.</p> <p>-BC advised that she’s scheduled to meet with Exp to revise the site servicing drawings at Atlantis and Westboro beach. In addition, BC advised that a phase 2 ESA will be undertaken for the building demolition and DSS survey will be signed by Exp.</p> | <p>Susan F.</p> <p>Bina C.</p> |

| | | |
|----|--|--|
| | -Following revised documents from NCC, RP will update the excel table which tracks the incorporation of NCC bundled projects within the Stage 2 LRT base scope. | Rich P. |
| 6. | <p><u>Update to Hanscomb Scoping Document for Parkway Cost Estimate</u></p> <p>-ED advised that an updated scoping narrative document has been provided to hanscomb following kickoff meeting. In addition, the FLUDTA requirements stipulated in Table C have been submitted to hanscomb to commence their cost estimate.</p> | |
| 7. | <p><u>Property Team Coordination</u></p> <p>-JG advised the existing 100 day agreement between NCC and the City does not include lands association with the Moodie LRT extension and potential LMSF site.</p> <p>-NCC requested that they be given enough time to obtain board approval pertaining to any lands within the Greenbelt due to Moodie LRT extension. NCC further advised that an ACPDR presentation will need to be given should an LMSF facility be contemplated on NCC land.</p> <p>-ED advised that current PRP's developed internally by the OE team do not include lands for Parkway City Scope of Work (i.e. scope of work requested by the NCC).</p> | <p>Nicolas D.</p> <p>Charles W.</p> <p>Nicolas D.</p> |
| 8. | <p><u>New Business</u></p> <p>-MB requested that the City provide a letter once federal budget approval is granted for Stage 2 LRT project.</p> <p>-SF noted that 3% escalation cost by Hanscomb for NCC Scope of Work in 2023 is of concern and that further discussions are needed. ED advised that NCC, once granted the parkway funds, is free to invest funds to offset escalation (i.e. discount rate). The OE team will discuss this matter internally along with timing of payment to NCC.</p> | <p>Charles W.</p> <p>Elie D.</p> |

Prepared by: Elie Dagher
Reviewed by:

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.

STAGE 2 LRT

NCC Functional Design & Working Group Meeting – April 6, 2017

2:30-4:00pm

Minutes

| | | |
|-----------------|---|------------------|
| Status: | Draft | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | April 6, 2017 | |
| Time: | 2:30-4:00pm | |
| Present: | Martin Barakengera MB – NCC Susan Fisher SF – NCC Jason Hutchinson JH – NCC Charles Wheeler CW - AECOM Elie Dagher ED – AECOM Kim Eaton KE – MH Stan McGillis SM – MH (teleconference) Bina Chakraborty BC – NCC (teleconference) | |
| Regrets | Michael Muir MM – NCC Blaise Tongacé Traoré BT - NCC Greg Kehoe GK – NCC Arto Keklikian AK - NCC Yoland Charette YC - NCC Jean Gilles JG – NCC Pascale Langevin PL – NCC Rich Piloseno RP – AECOM Martha Lush ML – CSW Marc Magierowicz MMZ – City of Ottawa Nicolas Delahousse ND – City of Ottawa Kim Howie KH – AECOM | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | <u>Review of Minutes from March 23, 2017 Meetings</u> <u>Items carried forward to next functional design meeting:</u> -Lawn Ave Parkette: Meeting took place with community which Councilor Taylor and Mike Muir from NCC attended. In addition to community garden, community is interested in Parkette. Once concept is developed, OE team will look to NCC for comment on items impacting NCC lands. - SWM team identified swales on southwest quadrant of Connaught Park | Martha L. |

| | | |
|----|--|--|
| | <p>to drain LRT track. In addition, a pump station has been identified at Connaught with need for OGS. BC requested that the SWM team provide further information on the impacts of pumping groundwater and effects on Pinecrest creek</p> <p>-NCC access to SJAM lands following construction of confederation line west. Timing of access to lands needs to be discussed and agreed upon between NCC and OE team</p> <p>-MB requested that the City provide a letter once federal budget approval is granted for Stage 2 LRT project.</p> <p>-Preliminary Hanscomb Cost Estimate for Parkland Improvement Works</p> <p>-Resolution of payment timing for NCC scope of work and consensus on escalation percentage</p> | <p>Karyn C.</p> <p>Elie D.</p> <p>Charles W.</p> <p>Elie D.</p> <p>Charles W.</p> |
| 2. | <p><u>Goldenrod Bridge PSPC Engagement</u></p> <p>-CW briefed NCC that PSPC has been in discussions with Stage 2 in relation to Goldenrod Bridge. PSPC has requested the Stage 2 office increase the width of Goldenrod bridge from 2 lanes to 3 lanes in order to accommodate future traffic to the Tunney's Pasture complex.</p> <p>-PSPC will be applying for FLUDTA permit in relation to Goldenrod bridge, not the Stage 2 office.</p> <p>-ED to send NCC a copy of the general arrangement drawing for the bridge</p> | <p>Elie D.</p> |
| 3. | <p><u>Debrief on Woodpark Community Public Meeting</u></p> <p>-Public consultation meeting was held with Woodpark Community on March 27, 2017. Intent of meeting was to further explain the "alternative alignment" at Lincoln fields and evolution from EA alignment. Facts were given to somewhat angry community which felt blindsided by change despite numerous public consultations previously on this subject.</p> <p>-There is a desire from community to transplant trees from Byron Linear park to Lincoln fields to visually screen sight of LRT from residential condominiums and homes. There is also a desire by community to increase length of buried tunnel south of Richmond Rd which in all likelihood will be difficult.</p> <p>-ED to send copy of presentation to NCC.</p> | <p>Elie D.</p> |
| 4. | <p><u>Debrief on Scott St. Detour Public Meeting</u></p> <p>-Public consultation meeting was held with Workman Community on April 4, 2017. Intent of meeting was to present to community the planned detour of revenue service busses along Scott St and deadhead busses along SJAM. Meeting went well overall and community was generally positive. Reinstatement of trees and noise walls were discussed and commitments made to community will be translated into PSOS language.</p> | |

| | | |
|----|---|-------------------|
| | -ED to send copy of presentation to NCC. | Elie D. |
| 5. | <p><u>AIP Conditions, PSOS Turns and NCC Engagement</u></p> <p>-ED advised that Turn 2 of the PSOS will be completed on April 20th. NCC committed to providing comments on Turn 1 of the PSOS which has already been received by the commission.</p> | |
| 6. | <p><u>Update to Hanscomb Scoping Document for Parkway Cost Estimate</u></p> <p>-ED advised that an updated scoping narrative document has been provided to hanscomb following kickoff meeting. In addition, the FLUDTA requirements stipulated in Table C have been submitted to hanscomb to commence their cost estimate. The Stage 2 team is awaiting to receive a preliminary cost estimate from Hanscomb.</p> | |
| 7. | <p><u>AIP for Confed East and Trillium</u></p> <p>-MB commented that he is working with Peter Shwartzentruber for Trillium AIP. Confed East AIP is forthcoming</p> | Martin B. |
| 8. | <p><u>Moodie LRT Extension Update</u></p> <p>-CW advised that the Stage 2 office would like to reach out to Abbott Properties with permission from NCC. NCC to facilitate contact.</p> | Charles W. |

Prepared by: Elie Dagher
Reviewed by:

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.

STAGE 2 LRT

NCC Functional Design & Working Group Meeting – April 20, 2017

2:30-4:00pm

Minutes

| | | |
|-----------------|---|------------------|
| Status: | Draft | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | April 20, 2017 | |
| Time: | 2:30-4:00pm | |
| Present: | Martin Barakengera MB – NCC Susan Fisher SF – NCC Arto Keklikian AK - NCC Pascale Langevin PL – NCC Bina Chakraborty BC – NCC Charles Wheeler CW - AECOM Elie Dagher ED – AECOM Kim Eaton KE – MH Marc Magierowicz MMZ – City of Ottawa Mike Schmidt MS – City of Ottawa Martha Lush ML – CSW Rich Piloseno RP – AECOM | |
| Regrets | Michael Muir MM – NCC Blaise Tongacé Traoré BT - NCC Greg Kehoe GK – NCC Arto Keklikian AK - NCC Jason Hutchinson JH – NCC Yoland Charette YC - NCC Jean Gilles JG – NCC Nicolas Delahousse ND – City of Ottawa Kim Howie KH – AECOM Stan McGillis SM – MH | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | <u>Review of Minutes from April 4, 2017 Meeting</u> <u>Items carried forward to next functional design meeting:</u> -Lawn Ave Parkette: Meeting took place with community which Councilor Taylor and Mike Muir from NCC attended. In addition to community garden, community is interested in Parkette. Once concept is developed, | Martha L. |

| | | |
|----|--|--|
| | <p>OE team will look to NCC for comment on items impacting NCC lands.</p> <p>-NCC access to SJAM lands following construction of confederation line west. Timing of access to lands needs to be discussed and agreed upon between NCC and OE team</p> <p>-MB requested that the City provide a letter once federal budget approval is granted for Stage 2 LRT project.</p> <p>-Preliminary Hanscomb Cost Estimate for Parkland Improvement Works</p> <p>-Resolution of payment timing for NCC scope of work and consensus on escalation percentage</p> <p>-NCC has requested a copy of the air quality, noise and vibration study for the Scott St. detour once available</p> | <p>Elie D.</p> <p>Charles W.</p> <p>Elie D.</p> <p>Charles W.</p> <p>Kim E.</p> |
| 2. | <p><u>PSOS Update, NCC Comments and Turn 2</u></p> <p>-Turn 1 PSOS comments have been received from NCC. Due to timing, not all the PSOS comments can be addressed by the Stage 2 team for Turn 2; however a commitment has been made to address the comments thereafter. NCC to receive Turn 2 of PSOS this week and comment whether the commission is satisfied with resolution of their comments.</p> | <p>Elie D.</p> <p>Martin B.</p> |
| 3. | <p><u>Updates to Parkland Improvement Works</u></p> <p>-BC noted that updated drawings have been submitted to Stage 2 team however the below items are still forthcoming:</p> <ul style="list-style-type: none"> • Revised DSS Survey • Phase 2 ESA <p>-BC noted that NCC is concerned with the 60km/h posted speed for SJAM used as the basis for the reference concept design. NCC desires to have the posted speed at 50km/h. The Stage 2 team will review the matter and hold an internal meeting to discuss implications on drawings and PSOS.</p> | <p>Charles W.</p> |
| 4. | <p><u>Lincoln Fields Community Feedback</u></p> <p>-Residents backing onto the greenspace at Lincoln Fields have requested some LRT mitigation measures highlighted below:</p> <ul style="list-style-type: none"> • Lengthening of the tunnel immediately south of Richmond Rd. • Extending the tunnel floating slab system further south • Tree transplanting from Byron Linear Park to provide visual screening • Berming as a means to visually screen LRT <p>-The Stage 2 office has not yet responded to the community but will study the matter, draft a response and solicit NCC's opinion prior to release of response to community.</p> | <p>Charles W.</p> |

| | | |
|----|--|---|
| 5. | <p><u>Traffic Barrier Detail on NCC Bridges</u></p> <p>-ED noted the Stage 2 team needs NCC's input on the type of traffic barriers to be used on NCC bridges built as part of the Stage 2 program. These structures include the Cleary and Churchill underpasses. ED to provide NCC with concrete and steel barrier detail for NCC to comment on.</p> | <p>Elie D.</p> |
| 6. | <p><u>Independent Estimate for Parkland Improvement Works</u></p> <p>-ED to reach out to Hanscomb and provide update on schedule of independent estimate for Parkland Improvement works.</p> | <p>Elie D.</p> |
| 7. | <p><u>New Business</u></p> <ul style="list-style-type: none"> • Trillium AIP: MMZ working with MB on issuance of AIP. Design will likely have to go to ACPDR (primarily for alignment and stations). • Confed East AIP: Forthcoming as noted by MB • Butternut Tree Compensation: ML noted that more detailed conversation are needed with NCC in terms of the where compensated trees can be planted and how many. What are the criteria for tree planting which need to be translated into PSOS language? | <p>Martin B.</p> <p>Martin B.</p> |

Prepared by: Elie Dagher
Reviewed by:

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.



STAGE 2 LRT

NCC Functional Design & Working Group Meeting – May 4, 2017

2:30 p.m. - 4:00 p.m.

Minutes

| | | |
|-----------------|---|------------------|
| Status: | Draft | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | May 4, 2017 | |
| Time: | 2:30p.m. - 4:00 p.m. | |
| Present: | Martin Barakengera MB – NCC Susan Fisher SF – NCC Arto Keklikian AK - NCC Pascale Langevin PL – NCC Bina Chakraborty BC – NCC Jasmine Anderson JA – NCC Charles Wheeler CW - AECOM Elie Dagher ED – AECOM Kim Eaton KE – MH Marc Magierowicz MMZ – City of Ottawa Mike Schmidt MS – City of Ottawa Martha Lush ML – CSW Rich Piloseno RP – AECOM Valérie Bédard – MH Bassam Hamwi – MH Stan McGillis SM – MH Nicolas Delahousse ND – City of Ottawa Anthony West AW – MH | |
| Regrets | Michael Muir MM – NCC Blaise Tongacé Traoré BT - NCC Greg Kehoe GK – NCC Arto Keklikian AK - NCC Jason Hutchinson JH – NCC Yoland Charette YC - NCC Jean Gilles JG – NCC Kim Howie KH – AECOM | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | <u>Review of Minutes from April 20, 2017 Meeting</u> <u>Items carried forward to next functional design meeting:</u> -Lawn Ave Parkette: Meeting took place with community which Councilor | |



| | | |
|-----------|--|---|
| | <p>Taylor and Mike Muir from NCC attended. In addition to community garden, community is interested in Parkette. Once concept is developed, OE team will look to NCC for comment on items impacting NCC lands.</p> <p>-MB requested that the City provide a letter once federal budget approval is granted for Stage 2 LRT project.</p> <p>-Preliminary Hanscomb Cost Estimate for Parkland Improvement Works</p> <p>-Resolution of payment timing for NCC scope of work and consensus on escalation percentage</p> <p>-NCC has requested a copy of the air quality, noise and vibration study for the Scott St. detour once available</p> <p>-Residents backing onto the greenspace at Lincoln Fields have requested some LRT mitigation measures. The Stage 2 office has not yet responded to the community but will study the matter, draft a response and solicit NCC's opinion prior to release of response to community.</p> | <p>Martha L.</p> <p>Charles W.</p> <p>Elie D.</p> <p>Charles W.</p> <p>Kim E.</p> <p>Charles W.</p> |
| <p>2.</p> | <p><u>PSOS Update, NCC Comments and Turn 2</u></p> <p>- NCC would like 15 days to review documents for future submissions. ED noted that Stage 2 team will do what they can to accommodate this; however, the timelines prior to RFP release in June are tight for all third party reviews.</p> | <p>Elie D.</p> |
| <p>3.</p> | <p><u>Updates to Parkland Improvement Works</u></p> <p>-MB noted that FTP site includes the latest drawings, however, drawings are currently in process of being updated.</p> <p>i) <i>Updated Drawings from NCC</i></p> <ul style="list-style-type: none"> - DSS Survey and ESA are still outstanding - Atlantis parking lot a continuous issue because the park has now become parking - Delay or change may be coming from NCC. Stage 2 to proceed with inclusion in contract until notified otherwise by NCC. <p>ii) <i>SJAM Design and Posted Speed</i></p> <ul style="list-style-type: none"> - Stage 2 noted that Traffic Calming letter does not contain definite recommendations - RCD based on 60 km/hr. which has been provided to NCC and agreed upon - Complications of changing RCD and delays to design (addendum) - MH preparing two partial estimates for submission prior to next NCC meeting - Stage 2 feels 60 km/hr. was brought in by NCC and cost should not be responsibility of OE team | |



| | | |
|-----|---|-------------------|
| | <ul style="list-style-type: none"> - There is a risk that 50 km/hr. cannot be achieved - NCC is concerned with safety of crossings along SJAM <p>iii) <i>Hanscomb Cost Estimates</i></p> <ul style="list-style-type: none"> - Meeting with Hanscomb on Monday to which NCC has been invited - Need to make assumption on Category “C” FLUDTA to proceed | |
| 4. | <p><u>Iris/Woodroffe Community Feedback</u></p> <ul style="list-style-type: none"> -Overall response was positive -Bus stop and location of entrances was a concern by community -OE to develop refined concept for NCC to comment on -ED to send presentation to NCC | Elie D. |
| 5. | <p><u>Pinecrest Creek Abandonment</u> – criteria not discussed, to be included on next agenda</p> | Elie D. |
| 6. | <p><u>Hard Facilities Property Impacts</u></p> <ul style="list-style-type: none"> -Need to address legacy agreements. Need to remove “hard facilities” except bus stop, SWM, etc. -More detailed meeting needs to be scheduled by Jean-Gilles, Pascale, Land Manager, Nicolas D., Elie, etc. -There are environmental concerns. | Nicolas D. |
| 7. | <p><u>Excavation Management</u></p> <ul style="list-style-type: none"> -Trail Road interested in having material excavated from Stage 2. Stage 2 will not require proponent to use Trail Road. Negotiating with Trail Road for rates. -Eric Soullard – Language in AIP about excavated material management reflected in Schedule 17. AW feels we have sufficient language to address NCC’s/Soullard’s comments. AIP states that all material will be sent to MOECC approved facilities. This will be a problem because there are limited facilities with this designation. -MB to provide new condition concerning AIP | Martin B. |
| 8. | <p><u>Green’s Creek Watermain Conflict</u> – not discussed</p> | |
| 9. | <p><u>Timing of NCC Access to SJAM Lands</u></p> <ul style="list-style-type: none"> -Provision to be added to allow NCC to “request access” with discretion left to City and DB Co to grant such request. -PSOS language to be shared with NCC | |
| 10. | <p><u>Moodie LRT Extension Update</u></p> <ul style="list-style-type: none"> -Late next week or the following week, arrange a meeting with NCC to brief on analysis and preferred station and LMSF site -Public meeting on Monday, June 12 | Charles W. |
| 11. | <p><u>New Business</u></p> <p>ii) Trillium Line AIP</p> <ul style="list-style-type: none"> -Letter can be finalized within 1 week by NCC -But ACPDR presentations will be needed. Can conceptual designs be | |



| | | |
|--|--|--|
| | <p>approved by NCC? -NCC will grant AIP but ACPDR will be required once concept has further been developed -OE concerned with element of risk of ACPDR causing additional costs or delays - Possibility remains to go to ACPDR in August</p> | |
|--|--|--|

Prepared by: Catherine Burden

Reviewed by: Elie Dagher

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.



STAGE 2 LRT

NCC Functional Design & Working Group Meeting – May 4, 2017

2:30 p.m. - 4:00 p.m.

Minutes

| | | |
|-----------------|---|------------------|
| Status: | Draft | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | May 4, 2017 | |
| Time: | 2:30p.m. - 4:00 p.m. | |
| Present: | Martin Barakengera MB – NCC Susan Fisher SF – NCC Arto Keklikian AK - NCC Pascale Langevin PL – NCC Bina Chakraborty BC – NCC Charles Wheeler CW - AECOM Elie Dagher ED – AECOM Kim Eaton KE – MH Marc Magierowicz MMZ – City of Ottawa Mike Schmidt MS – City of Ottawa Martha Lush ML – CSW Rich Piloseno RP – AECOM Valérie Bédard – MH Bassam Hamwi – MH Stan McGillis SM – MH Nicolas Delahousse ND – City of Ottawa Jasmine Anderson JA – NCC Anthony West AW – MH | |
| Regrets | Michael Muir MM – NCC Blaise Tongacé Traoré BT - NCC Greg Kehoe GK – NCC Arto Keklikian AK - NCC Jason Hutchinson JH – NCC Yoland Charette YC - NCC Jean Gilles JG – NCC Kim Howie KH – AECOM | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | <u>Review of Minutes from April 20, 2017 Meeting</u> <u>Items carried forward to next functional design meeting:</u> -Lawn Ave Parkette: Meeting took place with community which Councilor | |



| | | |
|-----------|--|---|
| | <p>Taylor and Mike Muir from NCC attended. In addition to community garden, community is interested in Parkette. Once concept is developed, OE team will look to NCC for comment on items impacting NCC lands.</p> <p>-NCC access to SJAM lands following construction of confederation line west. Timing of access to lands needs to be discussed and agreed upon between NCC and OE team</p> <p>-MB requested that the City provide a letter once federal budget approval is granted for Stage 2 LRT project.</p> <p>-Preliminary Hanscomb Cost Estimate for Parkland Improvement Works</p> <p>-Resolution of payment timing for NCC scope of work and consensus on escalation percentage</p> <p>-NCC has requested a copy of the air quality, noise and vibration study for the Scott St. detour once available</p> <p>-Residents backing onto the greenspace at Lincoln Fields have requested some LRT mitigation measures. The Stage 2 office has not yet responded to the community but will study the matter, draft a response and solicit NCC's opinion prior to release of response to community.</p> | <p>Martha L.</p> <p>Elie D.</p> <p>Charles W.</p> <p>Elie D.</p> <p>Charles W.</p> <p>Kim E.</p> <p>Charles W.</p> |
| <p>2.</p> | <p><u>PSOS Update, NCC Comments and Turn 2</u></p> <p>- NCC would like 15 days to review documents.</p> | <p>Martin B.</p> |
| <p>3.</p> | <p><u>Updates to Parkland Improvement Works</u></p> <p>-FTP site includes the latest drawings</p> <p>i) <i>Updated Drawings from NCC</i></p> <p>- Ask Evelyn to provide updated drawings</p> <ul style="list-style-type: none"> - However the drawings are being updated - DSS Survey and ESA are still outstanding - Atlantis parking lot a continuous issue because the park has now become parking - Delay or change may be coming <p>ii) <i>SJAM Design and Posted Speed</i></p> <ul style="list-style-type: none"> - Traffic Calming letter - no definite recommendations - RCD based on 60 km/hr. which has been accepted by NCC - Complications of changing RCD and delays to design (addendum) - MH preparing two partial estimates for submission prior to next NCC meeting - Stage 2 feels 60 km/hr. was brought in by NCC and cost should not be responsibility of OE team - There is a risk that 50 km/hr. cannot be achieved - NCC is concerned with safety of crossings | <p>Charles W.</p> |



| | | |
|-----|--|-------------------|
| | <p>iii) <i>Hanscomb Cost Estimates</i></p> <ul style="list-style-type: none"> - Meeting with Hanscomb on Monday to which NCC has been invited - Need to make assumption on Category “C” FLUDTA to proceed | |
| 4. | <p><u>Iris/Woodroffe Community Feedback</u></p> <ul style="list-style-type: none"> -Overall response was positive -Bus stop and location of entrances was a concern by community -OE to develop refined concept for NCC to comment on -ED to send presentation | Elie D. |
| 5. | <p><u>Pinecrest Creek Abandonment</u> – not discussed</p> | |
| 6. | <p><u>Hard Facilities Property Impacts</u></p> <ul style="list-style-type: none"> -Need to address legacy agreements. Need to remove “hard facilities” except bus stop, SWM, etc. -More detailed meeting needs to be scheduled by Jean-Gilles, Pascale, Land Manager, Nicolas D., Elie, etc. -There are environmental concerns. | |
| 7. | <p><u>Excavation Management</u> – not discussed</p> | |
| 8. | <p><u>Green’s Creek Watermain Conflict</u></p> <ul style="list-style-type: none"> -Trail Road interested in having material excavated from Stage 2. Stage 2 will not require proponent to use Trail Road. Negotiating with Trail Road for rates. -Eric Soullard – Language in AIP about excavated material management reflected in Schedule 17. AW feels we have sufficient language to address NCC’s/Soullard’s comments. AIP states that all material will be sent to MOECC approved facilities. This will be a problem because there are limited facilities with this designation. -MB to provide new condition concerning AIP | Martin B. |
| 9. | <p><u>Timing of NCC Access to SJAM Lands</u></p> <ul style="list-style-type: none"> -Provision to be added to allow NCC to “request access” -PSOS language to be shared with NCC | |
| 10. | <p><u>Moodie LRT Extension Update</u></p> <ul style="list-style-type: none"> -Late next week or the following week, arrange a meeting with NCC to brief on analysis and preferred station and LMSF site -Public meeting on Monday, June 12 | Charles W. |
| 11. | <p><u>New Business</u></p> <p>ii) <i>Confederation Line</i></p> <ul style="list-style-type: none"> -Letter can be finalized within 1 week by NCC -But ACPDR presentations will be needed. Can conceptual designs be approved by NCC? -NCC will grant AIP but ACPDR will be required once concept has further been developed -OE concerned with element of risk of ACPDR causing additional costs or delays - Possibility remains to go to ACPDR in August | |



Prepared by: Elie Dagher
Reviewed by:

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.



STAGE 2 LRT

NCC Functional Design & Working Group Meeting – May 18, 2017

2:30 p.m. - 4:00 p.m.

Minutes

| | |
|-----------------|---|
| Status: | Draft |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom |
| Date: | May 18, 2017 |
| Time: | 2:30 p.m. - 4:00 p.m. |
| Present: | Martin Barakengera MB – NCC Susan Fisher SF – NCC Bina Chakraburttty BC – NCC Jasmine Anderson JA - NCC Elie Dagher ED – AECOM Kim Eaton KE – MH Marc Magierowicz MMZ – City of Ottawa Ken Wasserman KW - STV Rich Piloseno RP – AECOM Nicolas Delahousse ND – City of Ottawa |
| Regrets | Michael Muir MM – NCC Blaise Tongacé Traoré BT - NCC Greg Kehoe GK – NCC Charles Wheeler CW –AECOM Arto Keklikian AK - NCC Jason Hutchinson JH – NCC Yoland Charette YC - NCC Jean Gilles JG – NCC Kim Howie KH – AECOM Anthony West AW - MH Stan McGillis SM – MH Bassam Hamwi BH – MH Valérie Bédard VB – MH Mike Schmidt MS – City of Ottawa Martha Lush ML – CSW Pascale Langevin PL – NCC |
| | |



| ITEM # | COMMENTS | ACTION BY |
|--------|--|---|
| 1. | <p><u>Review of Minutes from April 20, 2017 Meeting</u></p> <p><u>Items carried forward to next functional design meeting:</u></p> <ul style="list-style-type: none"> -Lawn Ave Parkette: Meeting took place with community which Councilor Taylor and Mike Muir from NCC attended. In addition to community garden, community is interested in Parkette. Once concept is developed, OE team will look to NCC for comment on items impacting NCC lands. -MB requested that the City provide a letter once federal budget approval is granted for Stage 2 LRT project. -Preliminary Hanscomb Cost Estimate for Parkland Improvement Works -Resolution of payment timing for NCC scope of work and consensus on escalation percentage -NCC has requested a copy of the air quality, noise and vibration study for the Scott St. detour once available -Residents backing onto the greenspace at Lincoln Fields have requested some LRT mitigation measures. The Stage 2 office has not yet responded to the community but will study the matter, draft a response and solicit NCC's opinion prior to release of response to community. -NCC would like 15 day to review documents for future submissions. ED noted that Stage 2 team will do what they can to accommodate this; however, the timelines prior to RFP release in June are tight for all third party reviews. -OE to develop refined concept for NCC to comment on -ED to send presentation to NCC -More detailed meeting needs to be scheduled by Jean-Gilles, Pascale, Land Manager, Nicolas D., Elie, etc. -MB to provide new condition concerning AIP - Late next week or the following week, arrange a meeting with NCC to brief on analysis and preferred station and LMSF site -Public meeting on Monday, June 12 | <p>Martha L.</p> <p>Charles W.</p> <p>Elie D.</p> <p>Charles W.</p> <p>Kim E.</p> <p>Charles W.</p> <p>Elie D.</p> <p>Elie D.</p> <p>Nicolas D.</p> <p>Martin B.</p> <p>Charles W.</p> |
| 2. | <p><u>PSOS Update, NCC Comments and Turn 2</u></p> <ul style="list-style-type: none"> - Turn 3 due by end of day, to be shared with NCC on May 23, 2017 - PA Schedules to be shared with NCC on May 25, 2017 | |



| | | |
|----|--|--|
| 3. | <u>Updates to Parkland Improvement Works</u> i) <i>Updated Drawings from NCC</i> - SF noted the version sent 1.5 weeks ago stands - BC – still updating drawings – Atlantis and Kitchissippi - DSS Report – Environmental office assigned - Needs to be stamped and sealed at NCC - Phase 2 ESA Atlantis Building – still ongoing ii) <i>SJAM Design and Posted Speed</i> - Direction from Chris Swail is that Stage 2 should not be responsible for additional cost - CW to respond to Martin’s email – Elie’s delegated task iii) <i>Hanscomb Cost Estimates</i> - NCC to send comments - Set up meeting with Hanscomb early next week | <p>Elie D.</p> <p>Martin B. Elie D.</p> |
| 4. | <u>Criteria for Pinecrest Creek Abandonment</u> -“Reinstate to its original condition” -Would NCC like it to be filled in? -“Natural condition” – would be about grading -Decision is to fill it in -NCC to provide further information at the end of next week | <p>Martin B.</p> |
| 5. | <u>Woodroffe SWM Pond Update</u> -Meeting with Public held on May 17, 2017 -Some opposition to the pond – June 28 th Council -Linkage between Baseline Station and Pond provided -CW to send report to NCC early next week -ED to provide copy of presentation -NCC would like “as you heard” report -NCC will issue FLUDA after 90% drawings | <p>Elie D.</p> |
| 6. | <u>Cycling Pathway South of SJAM</u> -Interest in widening pathway south of SJAM to 3 m -NCC responded no. The pathway at north is purposefully segregated for cyclists. Want to leave pathway to south for pedestrians instead of high speed conflicts. -SF to share language with Marc M. | <p>Susan F.</p> |
| 7. | <u>Woodroffe High School Pedestrian Bridge Aesthetics and FLUDA</u> -NCC does not expect “improvements to material and aesthetics”, the would like something similar | |
| 8. | <u>Lighting on Rideau River Pedestrian Bridge</u> -NCC asked to comment on if lighting is acceptable for pedestrian bridge -Not just a bridge but pathway to and from bridge -NCC noted they will need to approve, and possible ACPDR implications | |
| 9. | <u>Green’s Creek Watermain Conflict Resolution</u> -Proceeding with open toe arch -May need separate pedestrian structure north of Green’s Creek for MUP | |



| | | |
|-----|--|-------------------|
| 10. | <u>Moodie LRT Extension Update</u> -Option 2 preferred – Major issues with Options 3 and 4 -Refined noise and vibration ongoing -Meeting with Abbott Industries needed -Would like to meet with NCC and Abbott during week of May 29 th | Charles W. |
| 11. | <u>New Business</u> <i>Hard Facilities</i> – BC noted that certain hard facilities will need to be removed as part of Carling ramp decommissioning -BC further noted that clarification will be given before open market period | |

Prepared by: Catherine Burden

Reviewed by: Elie Dagher

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.



STAGE 2 LRT

NCC Functional Design & Working Group Meeting – June 1, 2017

2:30 p.m. - 4:00 p.m.

Minutes

| | |
|-----------------|--|
| Status: | Draft |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom |
| Date: | June 1, 2017 |
| Time: | 2:30 p.m. - 4:00 p.m. |
| Present: | <p>Martin Barakengera MB – NCC Susan Fisher SF – NCC Bina Chakraburttty BC – NCC Jasmine Anderson JA - NCC Elie Dagher ED – AECOM Kim Eaton KE – MH Marc Magierowicz MMZ – City of Ottawa Ken Wasserman KW - STV Rich Piloseno RP – AECOM Nicolas Delahousse ND – City of Ottawa Mike Schmidt MS – City of Ottawa Charles Wheeler CW –AECOM Natelie Ognibene NO – NCC? Martha Lush ML – CSW Arash Khoshghalb AK - MH</p> |
| Regrets | <p>Michael Muir MM – NCC Blaise Tongacé Traoré BT - NCC Greg Kehoe GK – NCC Arto Keklikian AK - NCC Jason Hutchinson JH – NCC Yoland Charette YC - NCC Jean Gilles JG – NCC Kim Howie KH – AECOM Anthony West AW - MH Stan McGillis SM – MH Bassam Hamwi BH – MH Valérie Bédard VB – MH Pascale Langevin PL – NCC</p> |
| | |



| ITEM # | COMMENTS | ACTION BY |
|--------|---|---|
| 1. | <p data-bbox="332 308 938 340"><u>Review of Minutes from May 18, 2017 Meeting</u></p> <p data-bbox="332 375 1052 407"><u>Items carried forward to next functional design meeting:</u></p> <ul style="list-style-type: none"> <li data-bbox="332 409 1276 541">-Lawn Ave Parkette: Meeting took place with community which Councilor Taylor and Mike Muir from NCC attended. In addition to community garden, community is interested in Parkette. Once concept is developed, OE team will look to NCC for comment on items impacting NCC lands. <li data-bbox="332 577 1159 642">-MB requested that the City provide a letter once federal budget approval is granted for Stage 2 LRT project. <li data-bbox="332 678 1263 709">-Preliminary Hanscomb Cost Estimate for Parkland Improvement Works <li data-bbox="332 745 1268 810">-Resolution of payment timing for NCC scope of work and consensus on escalation percentage <li data-bbox="332 846 1248 911">-NCC has requested a copy of the air quality, noise and vibration study for the Scott St. detour once available <li data-bbox="332 947 1235 1113">-Residents backing onto the greenspace at Lincoln Fields have requested some LRT mitigation measures. The Stage 2 office has not yet responded to the community but will study the matter, draft a response and solicit NCC's opinion prior to release of response to community. <li data-bbox="332 1148 1276 1276">-NCC would like 15 day to review documents for future submissions. ED noted that Stage 2 team will do what they can to accommodate this; however, the timelines prior to RFP release in June are tight for all third party reviews. <li data-bbox="332 1312 1052 1344">-OE to develop refined concept for NCC to comment on <li data-bbox="332 1365 764 1396">-ED to send presentation to NCC <li data-bbox="332 1432 1256 1497">-More detailed meeting needs to be scheduled by Jean-Gilles, Pascale, Land Manager, Nicolas D., Elie, etc. <li data-bbox="332 1533 919 1564">-MB to provide new condition concerning AIP <li data-bbox="332 1600 1248 1665">- Late next week or the following week, arrange a meeting with NCC to brief on analysis and preferred station and LMSF site <li data-bbox="332 1667 812 1698">-Public meeting on Monday, June 12 <li data-bbox="332 1734 1235 1799">-LF berming of retaining wall concept being developed by ML for west portal. <li data-bbox="332 1814 812 1845">-Moodie Public Meeting on June 13th | <p data-bbox="1328 443 1463 474">Martha L.</p> <p data-bbox="1317 575 1474 606">Charles W.</p> <p data-bbox="1349 676 1443 707">Elie D.</p> <p data-bbox="1317 743 1474 774">Charles W.</p> <p data-bbox="1349 844 1443 875">Kim E.</p> <p data-bbox="1317 976 1474 1008">Charles W.</p> <p data-bbox="1349 1180 1443 1211">Elie D.</p> <p data-bbox="1349 1312 1443 1344">Elie D.</p> <p data-bbox="1349 1379 1443 1411">Elie D.</p> <p data-bbox="1317 1446 1474 1478">Nicolas D.</p> <p data-bbox="1328 1514 1463 1545">Martin B.</p> <p data-bbox="1317 1614 1474 1646">Charles W.</p> <p data-bbox="1328 1747 1463 1778">Martha L.</p> <p data-bbox="1317 1814 1474 1845">Charles W.</p> |



| | | |
|-----|---|-------------------|
| | -NCC to fund SJAM speed reduction | Martin B. |
| 2. | <p><u>PSOS Update, NCC Comments and Turn 3</u> NCC to give their comments for Turn 2 on June 2nd. -Outcome of Hard Facilities meeting</p> <ul style="list-style-type: none"> • Repaving of SJAM between Cleary to Lincoln Fields • Capping of SWM pipes to ORPP • If lighting removed, electrical conduits to be removed • Removal of Hwy 417 ramps. NCC would like to see “re-naturalizing” | Martin B. |
| 3. | <p><u>Independent Estimate for Parkland Improvement Works</u> -NCC to send comments to Hanscomb</p> | Martin B. |
| 4. | <p><u>SJAM Design Speed Update</u> -OE Team to proceed with Phase 4. NCC will fund.</p> | Elie D. |
| 5. | <p><u>Criteria for Pinecrest Creek Abandonment</u> NCC to provide information</p> | Martin B. |
| 6. | <p><u>Woodroffe SWM Pond Update</u> -Letter to be received from Transport Canada allowing Woodroffe pond but with a number of mitigation measures. -BC seeking explanation from Karyn Cornfield on design changes since Transport Canada information [redacted]</p> | Bina C. |
| 7. | <p><u>Rideau River Pedestrian Bridge</u></p> <ol style="list-style-type: none"> i) If lighted, NCC would like all pathways to be the same. Bridge surface lighting would be low level. ii) Likely will need ACPDR presentation. | |
| 8. | <p><u>Final Churchill Overpass Drawings</u> -Final drawings are ready for roadway including staging. ED to send to NCC.</p> | Elie D. |
| 9. | <p><u>Paving on SJAM</u> -Repaving of SJAM between Cleary and Lincoln Fields. -NCC to confirm if night-time paving is allowed.</p> | Martin B. |
| 10. | <p><u>Moodie LRT Extension Update</u> -Presentation to Abbott and School prior to public meeting.</p> | Charles W. |
| 11. | <p><u>Moodie LRT Extension Update</u> -Option 2 preferred – Major issues with Options 3 and 4 -Refined noise and vibration ongoing -Meeting with Abbott Industries needed -Would like to meet with NCC and Abbott during week of May 29th</p> | Charles W. |
| 12. | <p><u>New Business</u></p> <ol style="list-style-type: none"> i) Confederation Line East ii) Trillium Line iii) Wetlands at Carling v) Remic Rapids Intersection v) Hard Facilities | |

Prepared by: Catherine Burden

Reviewed by: Elie Dagher



PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.



STAGE 2 LRT

NCC Functional Design & Working Group Meeting – July 13, 2017

2:30 p.m. - 4:00 p.m.

Minutes

| | | |
|-----------------|---|--|
| Status: | Draft | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | July 13, 2017 | |
| Time: | 2:30 p.m. - 4:00 p.m. | |
| Present: | Martin Barakengera MB – NCC Natalie Ognibene – NCC Valérie Bédard VB – MH Martha Lush ML – CSW Marc Magierowicz MMZ – City of Ottawa Mike Schmidt MS – City of Ottawa Nicolas Delahousse ND – City of Ottawa Andrew Antoun AA – AECOM Elie Dagher ED – AECOM Rich Piloseno RP – AECOM Arash Khoshghalb AK – MH Kelly Roberts KR – MH Karyn Cornfield – MH | |
| Regrets | Jason Hutchinson JH – NCC Bina Chakraborty BC – NCC Heather Thomson HT – NCC Susan Fisher SF – NCC Michael Muir MM – NCC Arto Keklikian AK - NCC | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | <u>Review of Minutes from June 1, 2017 Meeting</u> <ul style="list-style-type: none"> - ED or VB to share noise, vibration and air quality assessment for Scott St. Detour with NCC. - NCC to resend Pinecrest creek abandonment criteria to OE. - MB to confirm if night-time paving is allowed for SJAM (item 9 in June 1, 2017 minutes) - Carling Wetlands to be treated separately and to be deleted from New Business. | Elie D./ Valerie B. Natalie O. Martin B. Info |



| | | |
|----|--|--|
| 2. | <p><u>Confed RFP Update and Addendum Timing:</u></p> <ul style="list-style-type: none"> - The RFP for confederation line was released on June 26, 2017 - Addendum #1 is scheduled for August 4, 2017 - Addendum #2 is scheduled for September 9, 2017 | Info |
| 3. | <p><u>Independent Estimate for Parkland Improvement Works</u></p> <ul style="list-style-type: none"> - ED noted that a meeting has been scheduled with Hanscomb and NCC next week to finalize the independent cost estimate for the Parkland Improvement Works. ED commented that general agreement between Stage 2 and NCC has been reached and what's left is to finalize the details of the cost estimate. | Elie D. |
| 4. | <p><u>SJAM Design Speed Update:</u></p> <ul style="list-style-type: none"> - AK to give an update on design progress in 2 – 3 weeks' time. | Arash K. |
| 5. | <p><u>Woodroffe SWM Pond Update:</u></p> <ul style="list-style-type: none"> i) KC noted that council approved Woodroffe SWM Pond. 30 day period ends in August 11, 2017 ii) Letter from Transport Canada received advising of relocation of Pond and proposing a number of mitigation measures if the Pond was built at its current proposed location. A response letter is being prepared by OE team and will be submitted to NCC for review prior to submission to Transport Canada. | Karyn C. |
| 6. | <p><u>Green's Creek Update:</u></p> <ul style="list-style-type: none"> - ED noted that the Montreal road interchange SWM Pond is not expected to be required. ED to confirm if any NCC land would be needed in this area. - ED explained that OR174 realignment is necessary to avoid 914mm watermain and is the most cost effective solution. Realignment would be within the city's right of way and no NCC land impacts are anticipated. <p><u>Environmental update:</u></p> <ul style="list-style-type: none"> - West most culvert barrel has been confirmed to be used as a deer crossing. - Mussel relocation will be required during construction | Elie D. Info |
| 7. | <p><u>NCC Vibration Monitoring Request:</u></p> <ul style="list-style-type: none"> - NCC noted that heavy equipment and construction vibrations could impact Maple lawn heritage building. - ED to send VB information received about vibration monitoring by MB. - VB noted that vibration monitoring language has already been included within PSOS but will confirm that information shared by NCC is included into Confed Line contract language. | Info Elie D. Valerie B. |



| | | |
|----|---|-------------------------------|
| 8. | <u>Moodie LRT Extension Update:</u> <ul style="list-style-type: none">- There has been public resistance to Site 2. Site 3 is being considered for being further away from residents.- Criteria for site selection to be sent by NCC for OE team by Monday. | Elie D. NCC |
| 9. | <u>New Business</u> <ul style="list-style-type: none">ii) <u>Trillium Line:</u><ul style="list-style-type: none">- Alignment will be shifted further South. Bowesville station will be pulled out of NCC and federal lands. Alignment would use existing corridor.- ND is considering PRP implications- An EA amendment is needed.- MM to send alignment drawing to ML | Info Marc M. |

Prepared by: Andrew Antoun

Reviewed by: Elie Dagher

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.



STAGE 2 LRT

NCC Functional Design & Working Group Meeting – July 13, 2017

2:30 p.m. - 4:00 p.m.

Minutes

| | | |
|-----------------|--|--|
| Status: | Draft | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | July 13, 2017 | |
| Time: | 2:30 p.m. - 4:00 p.m. | |
| Present: | Martin Barakengera MB – NCC Natalie Ognibene – NCC Valérie Bédard VB – OE Martha Lush ML – OE Marc Magierowicz MMZ – OE Mike Schmidt MS – OE Nicolas Delahousse ND – OE Andrew Antoun AA – OE Elie Dagher ED – OE Rich Piloseno RP – OE Arash Khoshghalb AK – OE Kelly Roberts KR – OE Karyn Cornfield – OE | |
| Regrets | Jason Hutchinson JH – NCC Bina Chakraborty BC – NCC Heather Thomson HT – NCC Susan Fisher SF – NCC Michael Muir MM – NCC Arto Keklikian AK - NCC | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | <u>Review of Minutes from June 1, 2017 Meeting</u> - ED or VB to share noise, vibration and air quality assessment for Scott St. Detour with NCC. - NCC to resend Pinecrest Creek abandonment criteria to OE. - MB to confirm if night-time paving is allowed for SJAM (Item 9 in June 1, 2017 minutes) - Carling Wetlands to be treated separately and to be deleted from New Business. | Elie D./ Valerie B. Natalie O. Martin B. Info |
| 2. | <u>Confed RFP Update and Addendum Timing:</u> - The RFP for Confederation Line was released on June 26, 2017 - Addendum #1 is scheduled for August 4, 2017 - Addendum #2 is scheduled for September 9, 2017 | Info |



| | | |
|----|--|--|
| 3. | <u>Independent Estimate for Parkland Improvement Works</u> - ED noted that a meeting has been scheduled with Hanscomb and NCC next week to finalize the independent cost estimate for the Parkland Improvement Works. ED commented that a general agreement between Stage 2 and NCC has been reached. Final details of the cost estimate are outstanding. | Elie D. |
| 4. | <u>SJAM Design Speed Update:</u> - AK to provide an update on design progress in 2 – 3 weeks' time. | Arash K. |
| 5. | <u>Woodroffe SWM Pond Update:</u> - KC noted that Council approved Woodroffe SWM Pond Class EA. The 30 day public review period ends August 11, 2017. - Letter from Transport Canada was received requesting relocation of Pond and proposing a number of mitigation measures if the Pond was built at its current proposed location. A response letter is being prepared by OE team and will be submitted to NCC for review prior to submission to Transport Canada. • <i>Post-meeting note: Response letter drafted by Stage 2 and submitted by NCC to Transport Canada on July 17.</i> | Karyn C. |
| 6. | <u>Green's Creek Update:</u> - ED noted that the Montreal Road interchange SWM Pond will not likely be required. ED to confirm if any NCC land would be needed in this area. - ED stated that OR174 realignment is necessary to avoid 914mm watermain and is the most cost effective solution. Realignment would be within the City's right of way and no NCC land impacts are anticipated. <u>Environmental update:</u> - Western most culvert barrel has been confirmed to be used as a deer crossing. - Mussel relocation will be required during construction. | Elie D. Info |
| 7. | <u>NCC Vibration Monitoring Request:</u> - NCC noted that heavy equipment and construction vibrations could impact Maple Lawn heritage building. - ED to send VB information received about vibration monitoring by MB. - VB noted that vibration monitoring language has already been included within PSOS but will confirm that information shared by NCC is included into Confederation Line contract language. | Info Elie D. Valerie B. |
| 8. | <u>Moodie LRT Extension Update:</u> - There has been public resistance to Site 2. Site 3 is being considered as it is further away from residents. | Elie D. |



| | | |
|----|---|-----------------------------------|
| | - Criteria for site selection to be sent by NCC to OE team by Monday. | NCC |
| 9. | <u>New Business</u> <u>Trillium Line:</u> <ul style="list-style-type: none">- Alignment will be shifted further south. Bowesville station will be pulled out of NCC and Federal lands. Alignment would use existing corridor.- ND is considering PRP implications- An EA amendment is needed.- MM to send alignment drawing to ML | Info Marc M. |

Prepared by: Andrew Antoun

Reviewed by: Elie Dagher, Karyn Cornfield

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.

STAGE 2 LRT

NCC Functional Design & Working Group Meeting – November 17, 2016

2:30-4:00pm

Minutes

| | | |
|-----------------|--|---|
| Status: | Draft | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | November 17, 2016 | |
| Time: | 2:30-4:00pm | |
| Present: | Martin Barakengera MB – NCC Bina Chakraborty BC – NCC Susan Fisher SF – NCC Valerie Bedard VB – NCC Marc Magierowicz MMZ – City of Ottawa Charles Wheeler CW - AECOM Elie Dagher ED – AECOM Kim Eaton KE – MH Martha Lush ML – CSW Eric Emery EE – MH | |
| Regrets | Michael Muir MM – NCC Blaise Tongacé Traoré BT - NCC Greg Kehoe GK – NCC Elaine Bergeron EB – NCC Arto Keklikian AK - NCC Yoland Charette YC - NCC Rich Piloseno RP – AECOM Stan McGillis SM – MH | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | <u>Review of Minutes from November 3, 2016 Meetings</u> -Green’s Creek Culvert: NCC requested CAD file which shows alignment of MUP in this area before commenting/approving pathway. Item carried forward -ED to send BC hydraulic gradient of ground water through SJAM. Item carried forward -A drawing showing the extent of noise walls at Lincoln Fields including height and design to be developed by OE team and shown to NCC. Item carried forward. | Martha L. Elie D. Charles W. / Rich P. |

| | | |
|----|---|---|
| | -NCC to formally comment on potential berming opportunities between Lincoln Fields junction and east portal of Connaught Tunnel. Item carried forward. | NCC |
| 2. | <p><u>ACPDR Presentation</u></p> <p>-Following a dry run of the ACPDR presentation by CW to NCC on November 15, 2016 the OE team received formal comments and suggestions pertaining to the content and length of the slides. The OE team is in the process of revising the presentation and making modifications in line with NCC's recommendations prior to the official ACPDR presentation on December 1, 2016.</p> | Charles W. |
| 3. | <p><u>SJAM Design Finalization & Input Into PSOS</u></p> <p>-ED advised that the OE team has reached a point where the SJAM roadway design has been finalized and needs to be incorporated into the PSOS. The intent is to be prescriptive to Project Co. with respect to the horizontal alignment vertical profile of both the SJAM and Tunnel.</p> <p>-The OE team has requested formal comments and endorsement from NCC of the proposed roadway design of SJAM. BC commented that the NCC has received comments from their subconsultant and that an internal NCC meeting is being held next week on this topic. BC advised that NCC should be in a position to comment on SJAM roadway design during or before the next functional design meeting.</p> <p>-Update to Churchill Underpass: EE from OE team highlighted SWM challenges with proposed location of Churchill underpass to NCC. Due to the low elevation of the MUP in comparison with flood levels and the Ottawa River, extensive ponding is anticipated at the low point of MUP below proposed grade crossing at Churchill. Three options were presented which varied from the base case to moving the underpass slightly west. NCC commented that the OE should proceed with the option of moving the grade crossing slightly west (Option 3) as it avoids utility conflicts and resolves ponding concerns by having positive drainage to the Ottawa River.</p> <p>-ED to send NCC a copy of the material presented which includes the three options developed.</p> | <p>NCC</p> <p>Elie D.</p> |
| 4. | <p><u>Update to SJAM Protected Zones Drawing</u></p> <p>-CW & KE described the typical process of Project Co submittal of works and ability for OE team (with NCC input) to specify the permitted land use by Project Co. KE further explained the requirements that will be detailed in the Project Agreement to ensure the desired outcome pertaining to Project Co and tree removals and protection and other potential areas that require environmental protection.</p> <p>-CW commented that the expansion of protected zones drawings to areas other than SJAM (i.e. Lincoln Fields and Iris) should be avoided.</p> | |

| | | |
|----|--|--|
| | <p>-ED presented typical property request plans for Lincoln Fields and explained that such plans have been prepared by OE team for entire Stage 2 project.</p> <p>-MB suggested that, rather than expanding protected zones drawings, the OE team should develop draft “principles” for land use by Project Co to share and discuss with NCC. The agreement of such principles in writing can be translated into letter of endorsement by NCC. The OE team concurred and agreed to prepare draft principles for discussion with NCC.</p> | <p>Charles W. / Elie D.</p> |
| 5. | <p><u>Potential Berming Opportunities – Houses Behind Connaught Avenue</u></p> <p>-CW explained that based on feedback from community, OE team has looked more closely into berming opportunities for residents between Lincoln Fields Junction and Connaught Tunnel.</p> <p>-Preliminary cross sections have been developed by ML which were shown during the meeting and indicated berming opportunities exist adjacent to the LRT alignment.</p> <p>-CW asked if NCC is amenable to such opportunity. NCC commented that the commission would like to see existing trees preserved as much as possible. NCC to reply formally after reviewing cross-sections.</p> <p>-NCC further requested that the OE team provide impacts to existing trees resulting from construction of said berms.</p> | <p>Martin B.</p> <p>Martha L. / Kim E.</p> |
| 6. | <p><u>Removal & Reinstatement of Transitway</u></p> <p>-CW requested clarification from NCC on what the commission what would like to see as re-instatement for the transitway after decommissioning post 2023. Are there general principles that the OE team should be following?</p> <p>-CW committed to providing NCC with graphics depicting re-instatement of transitway at Lincoln Fields junction.</p> | <p>NCC</p> <p>Charles W.</p> |

Prepared by: Elie Dagher
Reviewed by:

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.

STAGE 2 LRT

NCC Functional Design Meeting – April 7, 2016

2:30pm-4pm

Minutes

| | | |
|-----------------|--|--|
| Status: | Final | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | April 7, 2016 | |
| Time: | 2:30-4pm | |
| Present: | <p>Greg Kehoe GK – NCC Arto Keklikian AK - NCC Martin Barakengera MB – NCC Julie Mulligan JM – NCC Bina Chakraborty - NCC Marc Magierowicz MMZ– City of Ottawa Charles Wheeler CW - AECOM Elie Dagher ED - AECOM Rich Piloseno RP – AECOM (Teleconference) Morgan Ryan MR – Jacobs (Teleconference)</p> | |
| Regrets | <p>John Boadway JB - AECOM Michael Muir MM – NCC Stan McGillis SM – MH</p> | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | <p><u>Review of Minutes from March 7, 2016 Meeting</u></p> <p>-Mansfield outfall within SJAM appears to be resolved via inverted syphon which has least impact to NCC (no easement required for relocated sewer). Internal Memo has been prepared which is being presented to City of Ottawa ISD. NCC to be supplied with drawings showing location of inverted syphon</p> <p>-East portal graphics following March 7, 2016 have since been updated and provided to NCC. NCC is primarily interested in view through Rochester Field and will therefore provide greater clarity with regards to line sights and which tree's they wish to retain or remove in the images.</p> <p>-Connectivity study comments received and currently being reviewed by OE team who will provide a response. CW explained that Stage 2 LRT currently being reviewed by third party (Hanscomb) which will take into account connectivity costs for stations.</p> | <p>Charles W.</p> <p>Greg K.</p> <p>Marc M.</p> |

| | | |
|----|--|------------------|
| | | |
| 2. | <p><u>Status of Cleary Station Alternative Alignment</u></p> <p>-Presentation has been made to property owners impacted by new alternate alignment at Cleary with overall response positive thus far. -OE team is proceeding with PE efforts at Cleary station considering revised alignment will be accepted and implemented. Fan plants are expected to be at grade at east end of Cleary station (half buried, half above ground). Chris Swail and Steve Willis have agreed on this approach considering the lack of depth of cover directly above the tunnel box for the fans and the impractical costs associated with completely burying the fan plant at the east end of Cleary Station on either side of the tunnel. OE will provide drawings showing architectural treatments of at grade fan plant and coordinate with NCC to find an acceptable architectural solution to the at grade fan plant enclosure. NCC expressed a desire to see continuity in pathway connectivity between the parkway and Cleary Station. -OE team is proceeding with the acquisition of 747 Richmond property which falls along the alternative Cleary alignment.</p> | Rich P. |
| 3. | <p><u>Clarification on Tree Survey within Parkway Lands</u></p> <p>-NCC does not need a detailed arborist report which details an inventory of every tree within the parkway. NCC is interested in OE team identifying exceptional trees and their location as well as implementation of measures to avoid impacting the exceptional trees It is understood that Project Co. will be responsible for developing an inventory of trees. NCC explained that they have recently undertaken efforts to create an inventory for trees over 10cm which they will share with the Stage 2 office.</p> | Martin B. |
| 4. | <p><u>2 lanes vs 4 Lanes on SJAM</u></p> <p>Based on discussion and agreement between Chris Swail and Steve Willis it has been understood that 4 lanes will be operation for SJAMP during construction and following revenue service in 2023. As such, the OE team will proceed with PE efforts based on 4 lanes with the understanding that 2 lanes is a long term objective for NCC. NCC has advised that a median will be required between the eastbound and westbound lanes and asked that the OE team assume a 5m width as a starting point. NCC expressed their desire to see better pathway connectivity within close proximity of Dominion station to ensure geographic continuity.</p> | |
| 5. | <p><u>Available Borehole Information within NCC Lands</u></p> <p>-ED advised and subsequently sent NCC updated borehole logs extracted from NCC lands.</p> | Elie D. |

| | | |
|----|--|---|
| | | |
| 6. | <p><u>Utility Mapping through Linear Park</u></p> <p>-OE Team advised that T2 utility engineers have been retained as a sub –consultant to undertake detailed utility locates of the river outfalls within the SJAM parkway. OE team needs to confirm the presence and location of outfalls to outline mitigation measures for Project Co in PSOS. -OE to advise NCC prior to commencement of work and will share results and findings of utility locates.</p> | Elie D. |
| 7. | <p><u>FLUDTA/Stage 2 RFP Workshop</u></p> <p>-CW explained that a draft agenda has been prepared (distributed by hand at the meeting)for FLUDTA/Stage 2 RFP workshop which is intended to be a “tutorial” on P3’s and procurement methods. CW has asked that NCC provide comments on the agenda, possible workshop dates and a list of NCC attendees. A meeting notice will be sent once NCC has provided a preferred date/attendees.</p> | Greg K. |
| 8. | <p><u>New Business</u></p> <p>-NCC advised that OE team is currently looking at options to rehabilitate or replace Green’s Creek (CL East). Should the replacement option be agreed to with City of Ottawa ISD a FLUDTA process will have to be initiated and NCC approval will be required. In the coming weeks the OE team will have more formal discussions with NCC pertaining to Green’s Creek.</p> <p>-NCC expressed interest in hydrogeological impacts of the Tunnel on the ground water flow through NCC SJAM. CW explained that the OE team will be looking at this at a high level in the coming months and Project Co will be required to undertake a more detailed study upon project award as per the requirements in the PSOS.</p> <p>-NCC advised on ongoing work at the Lincoln Fields Junction pertaining to track alignment, bridge structures, flood plain modelling and flood proofing measures. At present the OE team does not have sufficient information to present to NCC but in the coming weeks and months a more formal presentation will be made to NCC informing the approach and findings of PE efforts.</p> | <p>Charles W.</p> <p>Elie D.</p> <p>Charles W.</p> |
| 9. | <p>Next Meeting: April 21th 2:30-4pm. Stage 2 office, Trillium Boardroom.</p> | Charles W. |

Prepared by: Elie Dagher

Reviewed by: Charles Wheeler / Marc Magierowicz

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.

STAGE 2 LRT

NCC Functional Design Meeting – April 21, 2016

2:30pm-4pm

Minutes

| | | |
|-----------------|---|--|
| Status: | Final | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | April 21, 2016 | |
| Time: | 2:30-4:00pm | |
| Present: | Martin Barakengera MB – NCC Julie Mulligan JM – NCC Bina Chakraborty BC – NCC Susan Fisher SF - NCC Marc Magierowicz MMZ– City of Ottawa Charles Wheeler CW - AECOM Elie Dagher ED – AECOM John Boadway JB - AECOM Rich Piloseno RP – AECOM (Teleconference) | |
| Regrets | Michael Muir MM – NCC Stan McGillis SM – MH Greg Kehoe GK – NCC Arto Keklikian AK - NCC Morgan Ryan MR – Jacobs | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | <p><u>Review of Minutes from April 7, 2016 Meeting</u></p> <p>-Tree Survey: NCC currently compiling CAD drawings for existing tree surveys. NCC forewarned that information is limited.</p> <p>-Green's Creek: Structural evaluation has been completed. Hydraulic study necessary to determine if lining the culverts is possible is underway. Meeting with ISD has been held and preliminary indications seem to show the lining option may not work from a hydraulic perspective. NCC expressed concern with multi-cell system should existing culverts be replaced. CW explained that OE team is aware of NCC preference for single structure replacement. Discussions currently being undertaken internally within Stage 2 office about maintenance regime and if Project Co. or City will be responsible for maintenance. Geomorphologist (John Beebe) has been retained.</p> | <p>Martin B.</p> <p>Charles W.</p> <p>Elie D.</p> |

| | | |
|----|---|----------------|
| | <p>-Inverted syphon memo for Mansfield outfall to be sent to NCC. ED subsequently sent report to MB after meeting.</p> <p>-Architectural treatments for fan plants at Cleary station to be sent to NCC. Currently in draft form, to be sent when revised images are available.</p> | Rich P. |
| 2. | <p><u>Cleary Station Open House Public Consultation</u></p> <p>-Open house public consultation meeting held April 14, 2016 re new Cleary alignment. Overall, the meeting went well and was attended by local councilors and MP's. Attendance by public was in order of 200 persons with majority of written responses received being positive and in favor of revised station location and alignment. Some concerns received from business owners and condominium boards but overall response was positive. OE team believes there is a high likelihood that revised Cleary alignment will be adopted by City Council on May 13. Details for station such as passenger pick-up and drop-off are still currently being looked at.</p> <p>-Some concerns were expressed about bedrock elevation and potential need to excavate rock which may cause elevated noise and vibrations issues during construction. OE team looked into borehole samples drilled by Golder and concluded that bedrock depth is greater than 16m and is not a concern at all at the Cleary station although rock excavation/blasting for the tunnel west of Cleary will be required.</p> | |
| 3. | <p><u>NCC Pathways During Construction</u></p> <p>-ED explained that due to close proximity of the tunnel to NCC pathway south of SJAM, the south MUP will need to be closed during cut and cover construction. MUP traffic will need to be temporarily diverted to the pathway to the north of SJAM along the Ottawa River. As a result of this, the OE team will likely need to specify within the PSOS that the two new underpasses for SJAM be constructed early within Stage 2 works to allow pedestrian North-South access.</p> <p>-MUP access will be required either through Dominion station or immediately west of Dominion station via a pedestrian bridge. Details are currently being worked out and Martha Lush (CSW) is providing input into the pathway connectivity before a solution is presented to NCC. This issue will be on the agenda for the next functional working group meeting.</p> | Rich P. |
| 4. | <p><u>New SJAM Underpasses</u></p> <p>-OE team is proceeding with 4 lane configuration of SJAM and assumption that 5m median is required between WB and EB lanes. A general arrangement drawing for the two new bridge underpasses along the SJAM (one north of Dominion Station and the other north of Cleary) along with the relationship of SJAMP both during construction and operation will be presented to NCC for comment and feedback at future functional working group meetings.</p> | Stan M. |

| | | |
|----|---|------------------|
| 5. | <p><u>Preliminary Graphics & Renderings</u></p> <p>-NCC provided with preliminary rendering of NCC SJAM with 5m median. View is shown looking west towards the East Portal with Rochester Field as the backdrop.</p> | |
| 6. | <p><u>Inverted Syphon at Mansfield Outfall</u></p> <p>-A memo has been prepared highlighting an inverted syphon solution and approval of this solution is currently being sought from the City of Ottawa ISD Dept. The inverted syphon would avoid a scenario where an easement would be required to take the outfall in conflict with the tunnel further to the east to connect to the river. OE team has subsequently received confirmation by City of Ottawa that an inverted syphon is acceptable. A copy of the memo has been provided to MB by ED. No further action necessary.</p> | |
| 7. | <p><u>Intersection at Rochester Field and SJAM</u></p> <p>-NCC advised that a signalized intersection at Rochester field and SJAM is preferred over a bridge. MH team working on SJAM design has been advised by NCC to proceed based on that assumption.</p> | |
| 8. | <p><u>Request for Information on Existing Bridges Along SJAM Detour</u></p> <p>-OE team has requested existing bridge drawings of two NCC bridges along SJAM between Dominion Station and Tunney's Pasture Station which is being considered as potential detour route for BRT traffic during construction. At present OE team does not have any bridge drawings, condition assessment reports or structural evaluation of these structures.</p> | Martin B. |
| 9. | <p><u>Pinecrest Creek Flooding Issues at Lincoln Fields</u></p> <p>-CW explained ongoing PE efforts pertaining to the 100 year flood levels at Lincoln Fields and its direct impact to the Stage 2 LRT project. The EA conclusion, which recommends building a flood wall throughout Lincoln Fields, has been determined to be an unfeasible option. As such, the OE team is currently exploring a number of options at Lincoln Fields which includes the possibility of daylighting large sections of the Pinecrest creek drain to behave as a retention pond in the event of a 100 year flood. NCC has expressed openness to considering alternative options to the one presented in the EA. As such, the OE will invite its SWM team to the next NCC functional design meeting to better explain ongoing efforts to address and mitigate concerns with 100 year flood levels at Lincoln Fields. Similarly, NCC has agreed to invite personnel within the agency which are familiar with flood level problems at Lincoln Fields to have a more elaborate and detailed conversation.</p> | |

| | | |
|-----|--|-------------------|
| 10. | <p><u>Circulation of Stage 2 Alignment Files and Sensitivity of Information</u></p> <p>-NCC has requested the Stage 2 OE office to provide alignment files with station location along Confederation west, Confederation east and Trillium line. The OE team has agreed to provide these files on the condition that NCC will handle these files with the utmost confidentiality and care to make sure they are not unintentionally made available to a third party. The OE team further explained that the alignment files are not yet finalized and any circulation of files at this point in time represent a work-in-progress which is subject to further changes.</p> | |
| 11. | Next Meeting: May 5 th , 2016 at 2:30pm at Stage 2 office, Trillium Boardroom. | Charles W. |

Prepared by: Elie Dagher

Reviewed by: Charles Wheeler / Marc Magierowicz

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.

STAGE 2 LRT

NCC Functional Design Meeting – July 14, 2016

2:30pm-4pm

Minutes

| | | |
|-----------------|---|-------------------|
| Status: | Draft | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | July 14, 2016 | |
| Time: | 2:30-4:00pm | |
| Present: | Arto Keklikian AK - NCC Martin Barakengera MB – NCC Blaise Tongacé Traoré BT - NCC Valerie Bedard VB - NCC Susan Fisher SF – NCC Heather Thompson HT - NCC Nadia El Dabee ND – City of Ottawa Charles Wheeler CW - AECOM Elie Dagher ED – AECOM Rich Piloseno RP – AECOM Stan McGillis SM – MH Kelly Roberts KR - MH Kim Eaton KE – MH Eric Emery EE – MH Arash Koshghalb AK - MH | |
| Regrets | Bina Chakraborty BC – NCC Michael Muir MM – NCC Greg Kehoe GK – NCC Elaine Bergeron EB – NCC Marc Magierowicz MMZ – City of Ottawa Keith Mackenzie KM - STV John Boadway JB - AECOM Morgan Ryan MR – Jacobs | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | <u>Review of Minutes from June 30, 2016 Meeting</u> -Segment W1 to be presented to NCC once recommendations and conclusions for traffic and transit detours are made by OE team. | Charles W. |
| 2. | <u>No-Go Zones</u> -A further revised no-go zone drawing is being prepared by the OE team to present during the next functional design meeting. The OE team | |

| | | |
|----|---|---|
| | <p>agreed to provide a more refined drawing that looks into the possibility of reducing the mobilization site footprint within Rochester Field to respect NCC's no go areas to the extent possible. Outside of Rochester Fields, some of the no go zones identified by NCC require modification to affect LRT construction. NCC stressed the need to maintain the heritage character of Maple Lawn within Rochester Field.</p> | Elie D. |
| 3. | <p><u>Update to SJAM Parkway Design</u></p> <p>-Location of pedestrian bridge crossing labelled as SJAM underpasses to be optimized. OE team is proceeding with a "half-up, half-down" by raising the SJAM and lowering the MUP profile. OE team will present options for bridge skew angles in a forthcoming functional design meeting.</p> <p>-Cross-walk design proceeding based on an at-grade signalized intersection. OE acknowledged receipt of NCC comments and desire to have continuous sight lines from Rochester Field to the Ottawa River. OE team is working on the details of the cross-walk to present to NCC during the next functional design meeting. SF to send CAD file for Rochester field concept design</p> | <p>David L.</p> <p>Stan M.</p> <p>Susan F.</p> |
| 4. | <p><u>Rochester Field PSOS</u></p> <p>-NCC submitted design concept for Rochester Field which they'd like incorporated into the PSOS. Concept is still preliminary and will be modified in future but the current concept requires berming based on reuse of tunnel excavated material.</p> | |
| 5. | <p><u>Storm Water Management Options for SJAM</u></p> <p>-The SWM team presented to NCC a number of water management options for SJAM. Central to the presentation was the need to replace existing corrugated steel pipes (CSP) under the SJAM which have reached the end of their service life. At present there is no water quality treatment with direct discharge to the Ottawa River which will not be permissible once the infrastructure is upgraded. The OE explained that bioswales are a potential option and requested NCC provide feedback if this is an acceptable solution. NCC re-iterated its desire to minimize the SWM footprint within the SJAM. CW requested input from NCC on SWM options before proceeding with design.</p> <p>-ED to send a copy of the SWM plan and presentation to NCC.</p> | <p>Martin B.</p> <p>Elie D.</p> |
| 6. | <p><u>MUP Connectivity Update</u></p> <p>-Dominion Station: Bridge has been widened to accommodate pass through traffic as well as station traffic. OE team explained that vertical separation is not recommended and desired effect of segregating the two path systems can be achieved by alternative means.. OE team to investigate option and report back at a future meeting</p> <p>-Cleary Station: OE team will proceed to combine 1.5m stone dust pathway and 2m asphalt pathway into one continuous 3m MUP as requested by NCC.</p> <p>-Iris Station: Grading, plan and profiles as well as cross sections for Iris</p> | Elie D. |

| | | |
|-----|--|-----------------------------------|
| | and MUP's were shown to NCC. SF requested a digital copy of the plan and profile drawings to examine ways to improve Capital pathway connectivity. | |
| 7. | <u>Traffic & Transit Detours</u> -No update. OE team to present findings in coming weeks. | Charles W. |
| 8. | <u>Update to Lincoln Fields LRT Alignment</u> -City of Ottawa Mayor to be briefed on alternative alignment and integrated LRT/BRT station at Lincoln Fields shortly. OE team is preparing a drawing which shows the net area impacts on NCC land. NCC expressed a desire to minimize the impacts to the lands west of the future Lincoln Fields Station. | Elie D. |
| 9. | <u>Update to Condition Assessment of ORPP</u> -Agreement reached between OE team and NCC to split cost 50-50 for condition assessment of ORPP with NCC being responsible for acting on results of the assessment. With Bina away, OE team has been requested to hold off on commencing site work until she's back from vacation. | |
| 10. | <u>Update to Re-aligned Pinecrest Creek at Iris</u> -OE team is proceeding with the agreed upon Option #3 for the re-aligned creek at Iris. ED presented to NCC the cost differential between Options 2 and 3 as a follow-up from last functional design meeting. ED to send VB a copy of the butternut tree survey findings. SF requested the OE team provide more detail pertaining to the wetlands area within Option 3. | Elie D. Karyn K. |
| 11. | <u>Woodroffe Pond Bundling</u> -CW to give a presentation highlighting the implementation strategy for the Woodroffe Pond to NCC during upcoming meeting including a recommendation on the level of design above 30% that is necessary to achieve City and NCC objectives recognizing that NCC believes that 90 % design is required to achieve NCC objectives. | Charles W. |
| 12. | <u>Exp Subconsultant Kick-off Meeting</u> -The OE team has commenced sharing information with Exp. | |
| 13. | <u>Upcoming August 15, 2016 Deadline for Bundled Projects</u> -MB to send e-mail requesting extension of Aug 15, 2016 deadline. OE team to setup meeting to discuss bundled projects. | Martin B. |
| 14. | Next Meeting: July 28 th , 2016 at 2:30pm at Stage 2 office, Trillium Boardroom. | |
| 15. | <u>New Business</u> -SF requested to include "Cantilever MUP at Westboro" as topic of discussion for next agenda. | Elie D. |



Prepared by: Elie Dagher
Reviewed by: Charles Wheeler

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.

STAGE 2 LRT

NCC Functional Design Meeting – June 2, 2016

2:30pm-4pm

Minutes

| | | |
|-----------------|--|------------------|
| Status: | Draft | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | June 2, 2016 | |
| Time: | 2:30-4:00pm | |
| Present: | Arto Keklikian AK - NCC Martin Barakengera MB – NCC Julie Mulligan JM – NCC Bina Chakraborty BC – NCC Blaise Tongacé Traoré BT - NCC Valerie Bedard VB - NCC Susan Fisher SF – NCC Elaine Bergeron EB – NCC Marc Magierowicz MMZ – City of Ottawa Nadia El Dabee ND – City of Ottawa Keith Mackenzie KM - STV Charles Wheeler CW - AECOM Elie Dagher ED – AECOM Kim Howie KH – AECOM Stan McGillis SM – MH Kim Eaton KE - MH Rich Piloseno RP – AECOM (Teleconference) Morgan Ryan MR – Jacobs (Teleconference) | |
| Regrets | Michael Muir MM – NCC Greg Kehoe GK – NCC John Boadway JB - AECOM | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | <u>Review of Minutes from May 19, 2016 Meeting</u> -SJAM Bridge Drawings: David Graham, previous employee of NCC, to be contacted for information on SJAM Bridge Drawings. SM advised that MH structures team is prepared to undertake structural assessment of the two bridges. -Cost Estimate for Condition Assessment of ORPP: NCC requested that | Martin B. |

| | | |
|-----------|---|---|
| | <p>the Stage 2 office provide a cost estimate to undertake a condition assessment of ORPP. Stage 2 is in the process of preparing cost estimate which will be addressed to NCC and available in coming week.</p> <ul style="list-style-type: none"> -SJAM Tree Survey: KE advised that results of tree survey results won't be available for another 4-6 weeks as the field team has not yet begun. -Green's Creek Hydraulic Study: to be presented during today's meeting. -Communications protocol: details still being worked out by group outside of the functional design meeting forum. | <p>Elie D.</p> |
| <p>2.</p> | <p><u>Green's Creek Culvert Update</u></p> <ul style="list-style-type: none"> -KH gave presentation highlighting findings of Green's Creek hydraulic study and renewal options analysis. A number of options were investigated which ranged from lining the existing culvert, to a new multi-cell box or arch bridge. It was found the lining option may not be feasible as it decreases the available radius of the existing culvert which likely will require a replacement scenario. Stage 2 advised that internal meeting with ISD has already taken place and their comments received. Stage 2 is looking for comments from NCC before proceeding. Decision to be made by early July. -ED to send NCC a copy of the presentation and hydraulic study report. | <p>Kim H.</p> <p>Elie D.</p> |
| <p>3.</p> | <p><u>SJAM Roadway Design</u></p> <ul style="list-style-type: none"> -NCC expressed concern with location of south pathway immediately west of Dominion Station. NCC prefers the pathway belocated in an area with minimal tree impact. Stage 2 will investigate alternative locations for pathway. -NCC requested a copy of preliminary SJAM roadway design in CAD and PDF format. ED to provide. -NCC expressed a desire to move the at grade crossing of SJAMP near Rochester Field further east. Stage 2 requested that NCC mark up the roadway drawing and provide feedback for next round of design drawings. NCC to provide comments next week. -Stage 2 requested that NCC provide comments on proposed separation between SJAM and Tunnel alignment. Stage 2 re-iterated that PE team is proceeding based on eastbound lanes being stacked on top of the tunnelas per MOU and that maintenance of the tunnel with the available clearances is less of concern than previously thought. Confirmation of the alignment of the SJAMP lanes on top of the tunnel is needed to allow design of the roof of the tunnel/waterproofing to proceed. - Stage 2 requested that NCC provide comments on proposed location of SJAM underpasses and required vertical clearance for pedestrians. PE will proceed based on 3m unless advised otherwise by NCC. - NCC prefers south pathway to cross south of Cleary fan plant and continue above Cleary station before merging into the SJAM underpass pathway. - Revised Cleary fan plant graphics were shown to NCC. CW to work with NCC on how to best prescribe to Project Co the architectural treatment of building to reflect the design of the park. NCC prefers a | <p>Rich P.</p> <p>Elie D.</p> <p>Martin B.</p> <p>Martin B.</p> <p>Martin B.</p> <p>Rich P.</p> |

| | | |
|----|--|---|
| | <p>wood façade and a screened building with conifers.</p> <p>-CW explained that a noise analysis was undertaken for the Cleary station fan plant. The fans will work at full capacity if there is an emergency, at reduced capacity to cool the tunnel during the summer months and once a month for testing.</p> | |
| 4. | <p><u>Update to Lincoln Fields Alignment</u></p> <p>-Stage 2 team is currently in the process of developing a cost estimate for the alternative alignment. In addition, the EA cost estimate for Lincoln Fields has been found to be inaccurate and will be revised to make a proper comparison with the alternative alignment.</p> <p>-Stage 2 shared with NCC high level drawings which show an integrated Lincoln Fields station and surface BRT facility. Concept is still being worked on and further refined drawings to be presented to NCC in coming meetings.</p> | <p>Rich P. / Stan M.</p> |
| 5. | <p><u>Update to Re-Aligned Pinecrest Creek at Iris</u></p> <p>-Stage 2 team is currently revising option 3 to better address the meandering stream envisioned in this area. Internal meeting with geomorphologist John Beebe to take place next week for recommendation on creek re-alignment options.</p> <p>-JM to comment on pathway connectivity at Iris Station as per previous discussion had during EA process.</p> <p>-Butternut Tree Survey to be initiated by KE with results shared with NCC.</p> | <p>Elie D.</p> <p>Julie M.</p> <p>Kim E.</p> |
| 6. | <p>Next Meeting: June 16th, 2016 at 2:30pm at Stage 2 office, Trillium Boardroom.</p> | |

Prepared by: Elie Dagher
Reviewed by: Charles Wheeler

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.

STAGE 2 LRT

NCC Functional Design Meeting – June 16, 2016

2:30pm-4pm

Minutes

| | | |
|-----------------|---|------------------|
| Status: | Draft | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | June 16, 2016 | |
| Time: | 2:30-4:00pm | |
| Present: | Arto Keklikian AK - NCC Martin Barakengera MB – NCC Julie Mulligan JM – NCC Bina Chakraborty BC – NCC Blaise Tongacé Traoré BT - NCC Valerie Bedard VB - NCC Susan Fisher SF – NCC Nadia El Dabee ND – City of Ottawa Elie Dagher ED – AECOM Kim Howie KH – AECOM Stan McGillis SM – MH Arash Koshghalb AK - MH Kim Eaton KE - MH John Boadway JB - AECOM Rich Piloseno RP – AECOM (Teleconference) Morgan Ryan MR – Jacobs (Teleconference) | |
| Regrets | Michael Muir MM – NCC Greg Kehoe GK – NCC Elaine Bergeron EB – NCC Marc Magierowicz MMZ – City of Ottawa Charles Wheeler CW - AECOM Keith Mackenzie KM - STV | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | <u>Review of Minutes from June 2, 2016 Meeting</u> -SJAM Bridge Drawings: Request for information on existing structures has been found to be inconclusive. Stage 2 to proceed based on assumption that drawings are not available. -Green's Creek Culvert: Discussion with ISD on replacement of Green's Creek ongoing. Comments received from NCC on preferred replacement | |

| | | |
|----|---|-------------------------------------|
| 4. | <p><u>Update to Cost Estimate for Condition Assessment of ORPP</u></p> <p>-Stage 2 team has received a preliminary cost estimate for undertaking a condition assessment of ORPP. The cost estimate is currently being reviewed internally before it can be forwarded to NCC. NCC requested that the Stage 2 team consider cost sharing the condition assessment of ORPP. Stage 2 did not comment but committed to consider NCC's request. Post meeting note; Any cost sharing considered by the City for the condition assessment would have to be on the understanding that the responsibility for acting on any recommendations arising from the survey would rest entirely with NCC.</p> | Elie D. |
| 5. | <p><u>Update to Re-Aligned Pinecrest Creek at Iris</u></p> <p>-Stage 2 team met with John Beebe and agreed to carry forward two options for Pinecrest Creek relocation. The first is a revised Option 3 solution which shows a meandering stream to the east of the LRT alignment while the second option is a culvert under the soccer field to the west of the LRT alignment. Both options are being explored in more detail by the Stage 2 team before a presentation can be made to NCC in detail.</p> <p>-Butternut survey is halfway complete and shows species are present on both the east and west sides of the transitway where the Pinecrest Creek is proposed to be relocated. It appears that avoiding impacts to butternut trees will be difficult if not impossible with the pending creek relocation. The Stage 2 team will complete the survey and share further results with NCC.</p> | Elie D. Kim E. |
| 6. | Next Meeting: June 30 th , 2016 at 2:30pm at Stage 2 office, Trillium Boardroom. | |

Prepared by: Elie Dagher
Reviewed by: Charles Wheeler

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.

STAGE 2 LRT

NCC Functional Design Meeting – June 30, 2016

2:30pm-4pm

Minutes

| | | |
|-----------------|--|------------------|
| Status: | Draft | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | June 30, 2016 | |
| Time: | 2:30-4:00pm | |
| Present: | Arto Keklikian AK - NCC Martin Barakengera MB – NCC Julie Mulligan JM – NCC Bina Chakraborty BC – NCC Blaise Tongacé Traoré BT - NCC Valerie Bedard VB - NCC Susan Fisher SF – NCC Marc Magierowicz MMZ – City of Ottawa Nadia El Dabee ND – City of Ottawa Charles Wheeler CW - AECOM Elie Dagher ED – AECOM Stan McGillis SM – MH Kelly Roberts KR - MH Kim Eaton KE – MH Martha Lush ML - CSW | |
| Regrets | Michael Muir MM – NCC Greg Kehoe GK – NCC Elaine Bergeron EB – NCC Keith Mackenzie KM - STV John Boadway JB - AECOM Rich Piloseno RP – AECOM Morgan Ryan MR – Jacobs | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | <u>Review of Minutes from June 16, 2016 Meeting</u> -Multi-Use Pathways: Adjustments have been made to OE drawings based on previous comments by NCC. Martha Lush to present MUP design approach at Dominion, Cleary and Iris Station during today's meeting. | |

| | | |
|-----------|--|---|
| | <p>-Rochester Field Crossing: SJAM roadway design team does not have an update for NCC at this time. NCC re-iterated their desire to see one continuous line of sight from Rochester Field to the Ottawa River. CW explained the importance of safety for the cross-walk for pedestrians and vehicles. OE to prepare several alternatives/configurations of the crosswalk at Rochester Field and present to NCC during next functional design meeting.</p> <p>-Green's Creek Culvert: Discussion with ISD on replacement of Green's Creek ongoing. Further meetings to be undertaken with City to prepare and finalize scope. No update to NCC at this time.</p> <p>-SJAM Underpasses: OE team is currently preparing general arrangement drawings for these structures with the assumption of 3m vertical x 5m horizontal clearance.</p> <p>-Storm Water Management: OE team to present SWM options along SJAM during next functional design meeting as part of update to the SJAM design.</p> | <p>Stan M.</p> <p>Kim H.</p> <p>David L.</p> <p>Stan M.</p> |
| <p>2.</p> | <p><u>No-Go Zones</u></p> <p>-In response to being supplied with no-go zones drawing by NCC for SJAM, the OE team has highlighted potential areas of conflict within the drawing. OE team requested that future MUP's, mobilization sites and potential regrading along the rebuilt SJAM be incorporated within the drawing to provide a more complete picture of space requirements. OE team has overlaid these additional components within the no-go zones and found there are several areas of conflict that need to be resolved with NCC. The OE team agreed to provide a more refined drawing that looks into the possibility of reducing the mobilization site footprint within Rochester Field to respect NCC's no go areas to the extent possible.</p> <p>-VB to provide information on old trees within Rochester Field to help OE teams efforts in refining no-go zones.</p> <p>-ML explained that the new SJAM alignment and profile is critical in determining the need for re-grading existing portions of the parkway to match new grade.</p> | <p>Elie D.</p> <p>Valerie B.</p> <p>Stan M.</p> |
| <p>3.</p> | <p><u>MUP Connectivity Update</u></p> <p>-Dominion Station: ML explained that there will be a 6m wide bridge at Dominion Station to accommodate an unpaid pass through traffic in addition to station traffic. Pathway at SW quadrant has been moved closer to LRT alignment to minimize impact on trees. NCC expressed desire to see protection for 3m pathway at Dominion Station with possibility of painted floor markings to separate station traffic from pass through traffic.</p> <p>-Cleary Station: NCC requested that 1.5m stone dust pathway and 2m asphalt pathway be combined into one 3m MUP at Cleary Station. Furthermore, NCC requested to see grades for MUP's tying into existing pathways in this area.</p> | <p>Rich P.</p> <p>Martha L.</p> |

| | | |
|-----------|---|---|
| | <p>-Iris Station: ML explained challenges with MUP at Iris Station and importance for allowing direct connectivity to/from station. Baseline Bridge is too narrow to allow for another MUP which creates the need to allow for a MUP along the western edge of the transitway connecting to Iris Station.</p> <p>-OE team will investigate the possibility of shifting LRT alignment on transitway slightly to the east to allow more space for a future MUP to the west and to minimize the extent of the retaining walls required</p> | <p>Elie D.</p> |
| <p>4.</p> | <p><u>Update to Re-aligned Pinecrest Creek at Iris</u></p> <p>-ED explained that the OE team has held a number of meetings with Dr. John Beebe to reach a solution for the re-alignment of Pinecrest Creek that is neutral or an improvement over the current creek alignment. The intention is to find a solution that does not negatively impact the creek but still addresses Stage 2 concerns from an LRT operations and Iris Bridge/Station perspective and address NCC concerns about the existing situation and the long term objectives for the health of the creek.</p> <p>-A revised Option 3 (endorsed by John Beebe) was presented to NCC. NCC advised that notwithstanding a more complete grading plan, they are in support of Option 3. As a result, the OE team will proceed with PE efforts based on Option 3 and make the necessary refinements to address NCC's remaining comments. NCC requested more detailed grading plan and cross-sections.</p> <p>-OE will present to NCC the cost differential between the latest Option 3 for the re-aligned creek and the option of having culvert under the soccer field during the next Functional Design meeting.</p> <p>-KE to present complete butternut tree survey findings once complete and the results of this work will also be presented at the next meeting.</p> | <p>Rich P. / Martha L. / Arash K.</p> <p>Elie D.</p> <p>Kim E.</p> |
| <p>5.</p> | <p><u>Update to SJAM Parkway Design</u></p> <p>-OE team is currently revising the SJAM parkway design as per NCC comments. A revised version of the plan and profile for SJAM, MUPS, Rochester cross-walk and underpasses will be presented during the July 14th, 2016 meeting.</p> <p>-OE team has received a high-level concept for Rochester Field from NCC and will highlight potential soil re-use opportunities for this area for further discussion.</p> | <p>Elie D.</p> <p>Kim E.</p> |
| <p>6.</p> | <p><u>Traffic and Transit Detours for Segment W1</u></p> <p>-Stage 2 team is currently in the process of finalizing recommendations for traffic and transit detours during construction for segment W1. Segment W1 extends from Tunney's Pasture Station to Dominion station and may include the possibility of detours along SJAM and or Scott St. Once the traffic and transit detour recommendations are finalized a</p> | <p>Charles W.</p> |

| | | |
|-----|---|---|
| | formal presentation will be made to NCC indicating whether use of the SJAM will be part of the equation or not. | |
| 7. | <p><u>Update to Lincoln Fields LRT Alignment</u></p> <p>-OE team to provide NCC with drawings that shows the net land impacts resulting from the alternative alignment at Lincoln Fields.</p> | Rich P. |
| 8. | <p><u>Cost Estimate for Condition Assessment of ORPP</u></p> <p>-NCC advised that they would like to proceed with the condition assessment without a “pre-inspection” and initiate a full condition assessment as soon as possible. CW agreed that the City will split the cost of the condition assessment but any findings that trigger the need for repairing or rehabilitating the asset shall be the full responsibility of NCC. CW to provide NCC a copy of the final proposal and a covering letter/e mail outlining cost sharing and future responsibilities as soon as possible.</p> | Charles W. |
| 9. | <p><u>Woodroffe Pond Bundling</u></p> <p>-CW explained that the OE team originally started with a list of approximately 150 projects to potentially bundle with Stage 2 LRT program. That list has not been reduced to about 50 projects which are critical to be bundled with Stage 2 for various reasons. CW re-iterated the importance of being able to influence/control the schedule for both engineering and construction of bundled project so they don’t adversely impact the schedule of Stage 2. As a result, Stage 2 has decided that to address the schedule risks the will City bundle the Woodroffe Pond construction as part of the Stage 2 LRT program.</p> <p>-NCC requested that should the pond be bundled as part of Stage 2, engineering should be advanced to 90% design before handover to Project Co. NCC expressed a concern with losing control over the construction of the pond and being left with an asset different than what has been negotiated with the City. CW explained that Stage 2 can be prescriptive in writing the PSOS so there is little flexibility for Project Co to deliver an alternative design for the pond regardless of the level of design undertaken by the OE team. None the less, CW indicated that the Stage 2 team is prepared to undertake additional design of the pond beyond 30 % to accelerate the schedule to bundle the project as part of Stage 2 and to address NCC’s concerns about ensuring that the design of the pond achieves NCC objectives.</p> <p>-CW to give a presentation highlighting the implementation strategy for the Woodroffe Pond to NCC during upcoming meeting including a recommendation on the level of design above 30 % that is necessary to achieve City and NCC objectives.</p> | <p>Charles W.</p> <p>Charles W.</p> |
| 10. | <p><u>Exp Subconsultant Kick-off Meeting</u></p> <p>-ED explained that a subconsultant kick-off meeting has been held with</p> | |

| | | |
|-----|---|----------------|
| | Exp who has been retained by NCC. The OE team understands that NCC may request the Stage 2 office to bundle site servicing for Rochester Field and Westboro Beach as part of the Stage 2 program. The OE team will commence sharing drawings and background information with Exp now that NDA's have been signed. CW noted that the sooner NCC can identify NCC bundled project's the better from a preliminary engineering perspective | Elie D. |
| 11. | Next Meeting: July 14 th , 2016 at 2:30pm at Stage 2 office, Trillium Boardroom. | |

Prepared by: Elie Dagher

Reviewed by: Charles Wheeler

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.

STAGE 2 LRT

NCC Functional Design Meeting – March 7, 2016

1:30pm-3pm

Minutes

| | | |
|-----------------|--|-------------------|
| Status: | Final | |
| Place: | 180 Elgin St. Suite 601, Trillium Boardroom | |
| Date: | March 7, 2016 | |
| Time: | 1:30-3pm | |
| Present: | Michael Muir MM – NCC Greg Kehoe GK – NCC Martin Barakengera MB – NCC Marc Magierowicz MMZ– City of Ottawa Charles Wheeler CW - AECOM Elie Dagher ED - AECOM Rich Piloseno RP – AECOM (Teleconference) Stan McGillis SM – MH | |
| Regrets | Julie Mulligan JM – NCC John Boadway JB - AECOM | |
| | | |
| ITEM # | COMMENTS | ACTION BY |
| 1. | <u>Review of Minutes from Feb 9, 2016 Meeting</u> -Update to working groups being undertaken by MM | Marc M. |
| 2. | <u>Status of Cleary Station Alternative Alignment</u> -A number of presentations have been made to the City of Ottawa, Mayor, Deputy Mayor, Councilors and OC Transpo. Overall response has been positive with expectation that the revised 747 Richmond Rd alignment will be supported politically. The proposed alternative alignment will be sent to City Council in early May. Public notification of the alternative alignment direction (where impacted property owners will be notified) will take place in late March. Following notification of affected property owners, there will be a public announcement and technical briefing for Council followed by a public meeting in early April. -Wheel squeal and ventilation shafts noise analysis currently being undertaken with findings appended to final EPR report | Charles W. |

| | | |
|-----------|--|---|
| <p>3.</p> | <p><u>East Portal Location & Tunnel Alignment</u></p> <p>-A preliminary plan and profile drawing was prepared by the Stage 2 team and presented to NCC for comment. The drawing showed the latest information pertaining to the 3 outfalls in conflict with the tunnel, the east portal location, Cleary station and the horizontal and vertical alignment of the tunnel through the SJAM parkway.</p> <p>-The 3 outfalls within the SJAM tunnel limit starting east and heading west are Highland, Mansfield and Wavell. Utility mitigation measures for these outfalls are currently underway and meetings with City of Ottawa ISD are forthcoming. NCC will be advised on recommended solutions to these outfalls once PE efforts have sufficiently advanced. Easements for the relocation of the appropriate outfalls will be required from NCC and the OE team will attempt to minimize the impact on trees from the outfall relocation to the extent possible</p> <p>-CW & ED explained the presence of a major watermain that conflicts with future Cleary Station which the City has advised must be bypassed prior to construction of the tunnel. CW further explained that the conflict with watermain exists whether the EA or alternative alignment at Cleary is adopted. As a result of this, the Stage 2 team intends to bypass the watermain underneath the station and slightly to the north of the existing water main alignment. Again, revised watermain easements will likely be required.</p> | <p>John B.</p> |
| <p>4.</p> | <p><u>Preliminary Graphics for East portal</u></p> <p>-3 draft graphics (renderings) were provided of the above as follows:</p> <ol style="list-style-type: none"> I. View through Rochester Field looking perpendicularly towards SJAM II. Birdseye view of SJAM, future LRT, OCS poles and East portal with Ottawa River as a backdrop III. Close-up view of east portal showing depressed elevation of LRT, concrete parapet walls and fencing. <p>It was noted that these renderings are a work in progress and that more detailing of OCS, OCS poles, the height of the parapet wall, extent of fencing, fire control panels, lighting etc. is required. With this caveat, the City agreed to post the draft renderings to the project FTP site for illustration purposes</p> <p>NCC observed that there are a number of existing trees in the area beyond Rochester Fields leading to the Ottawa River. This blocked the majority of the view to the north which has the SJAM, LRT and River. NCC advised that they will discuss this issue with their landscape architect to ascertain whether view of river or trees is preferred.</p> <p>RP committed to modify graphic 2 to include Rochester Field in the Birdseye view.</p> <p>- NCC to comment on whether any additional views of the portal</p> | <p>Marc M.</p> <p>Rich P.</p> <p>Martin B.</p> |

| | | |
|-----|---|----------------|
| | are required | |
| 5. | <p><u>Status of NCC SJAM Analysis: 2 lanes vs 4</u></p> <p>-Analysis still ongoing by MH which has been retained by NCC. No results yet presented to Stage 2 relating to 2 lanes vs 4. NCC explained the MH is currently waiting for study from City of Ottawa to validate traffic numbers. Stage 2 requested that a formal overview on this issue be provided at the next functional design working group meeting</p> | Greg K. |
| 6. | <p><u>Updated Geotechnical Information</u></p> <p>-Stage 2 is still working with their Geotechnical subconsultant Golder to provide NCC with updated borehole information re: soil strength and environmental test results.</p> | Elie D. |
| 7. | <p><u>Connectivity Study</u></p> <p>-MM explained that the City is currently undertaking four studies in parallel with SJAM narrowing/park concept. MM provided a plan which shows the parallel studies as follows:</p> <ul style="list-style-type: none"> • Richmond Road Complete Street Study • LRT Stage 2 Connectivity Study • Byron Avenue Traffic Calming Implementation • Cleary & New Orchard Station Scoped Planning Study <p>-MB will be point of contact and invited to the TAC for the Richmond Complete Street Project for NCC.</p> | Marc M. |
| 8. | <p><u>Working Committee</u></p> <p>-MB edits have been incorporated and working groups have been re-named during last meeting.</p> | |
| 9. | <p><u>New Business</u></p> <p>-None noted</p> | |
| 10. | <p>Next Meeting: April 7th 2:30-4pm. Stage 2 office, Trillium Boardroom.</p> | Marc M |

Prepared by: Elie Dagher
Reviewed by: Charles Wheeler

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.

| | | |
|----|---|--|
| | ORPP is an NCC asset. | |
| 2. | <p><u>Update to Cleary Fan Plant Location and Rendering</u></p> <p>-CW presented a revised fan plant location for Cleary Station pushing the building slightly to the NE away from the residential condominiums and more in line with the lobby entrance of 727 Richmond. CW explained that the footprint of the fan plant shown on the drawing has not been reduced in size from what has previously been shown and that any reduction in the footprint of the building will not be possible until mid-June when the Subway Emergency Simulation (SES) analysis is available. NCC expressed concerns with the architectural treatment and location of the fan plant. CW explained that the rendering is not intended to show the architectural treatments of the building but more so it's size and location. Stage 2 committed to providing NCC with a drawing which shows the old and new location of the fan plant in relation to the SJAMP and in addressing the architectural issues of NCC</p> | Rich P. |
| 3. | <p><u>Feedback on Presentation Highlighting Potential Solutions to 100 Year Flood Levels at Pinecrest Creek</u></p> <p>-NCC was asked to provide some feedback following the presentation made by the Stage 2 team pertaining to the potential solutions to flood levels at Pinecrest Creek in the vicinity of Lincoln Fields station. NCC is concerned with a 100% daylighting solution as well as the potential maintenance implications of such an option. Under ideal circumstances, NCC prefers to see an overland flow solution but wants to know more about what happens downstream and upstream of Lincoln Fields (i.e. a more complete picture of advantages and disadvantages). It is preferred that the ORPP is not touched considering its condition, which at this time is unknown. In addition, NCC disclosed that the alternative alignment option which integrates a Station and BRT facility is an interesting option which should be investigated further.</p> <p>-Stage 2 committed to undertaking a preliminary tree survey at Lincoln Fields and sharing this information with NCC. JM is not too concerned with trees as those potentially impacted by an alternative alignment are old.</p> <p>-NCC committed to providing a more formal written response on their preferred options at Lincoln Fields within the coming week.</p> | <p>Elie. D</p> <p>Kim E.</p> <p>Martin B.</p> |
| 4. | <p><u>Re-Aligned Pinecrest Creek at Iris</u></p> <p>-Stage 2 team presented a number of options, including the preferred Option #3 that is being investigated to re-align Pinecrest Creek at Iris. ED explained the half-over, half –under concept at Iris which would require the existing transitway be lowered and in turn means the removal of the existing culvert under Iris. The Stage 2 team further explained that it is their opinion that Option #3 presents an environmental improvement over the EA concept at Iris which currently creates an undesirable hump in the vertical profile and bridge clearance issues.</p> <p>-NCC expressed concerns with re-aligning the creek in this area and</p> | |

| | | |
|----|--|--------------------------------|
| | disclosed that even the EA concept presents challenges which NCC does not necessarily approve of. -ED committed to providing NCC with all four options which were investigated along with a decision matrix which shows the criteria used to weight the various options. NCC in turn would provide their comments on their preferred options. | Elie D. / Martin B. |
| 5. | <u>Update to Tree Inventory</u> -Stage 2 acknowledged receipt of CAD file from NCC detailed trees within Rochester field corridor. Stage 2 will undertake a more extensive tree survey beyond the boundaries of Rochester Field from Cleary to Dominion station along the SJAM. The results of the survey will be shared with NCC. | Kim E. |
| 6. | <u>Update to Green's Creek</u> -No update. Hydraulic report will become available next week and shared with NCC. | Charles W. |
| 7. | <u>Progress Update to SJAM Lane Roadway Design</u> -Stage 2 will present an update to roadway design, location and alignment of underpasses, offset to fan plant building, etc of SJAM during next functional design meeting. | Stan M. |
| 8. | <u>Public Communication Policy Discussion</u> -CW iterated the importance of developing a joint communication protocol document between NCC and Stage 2. CW prefers stakeholder relations develop said document outside of NCC functional design meeting. Chris Swail to talk with Steve Willis in relation to this matter. | Charles W. |
| 9. | Next Meeting: June 2 nd , 2016 at 2:30pm at Stage 2 office, Trillium Boardroom. | |

Prepared by: Elie Dagher
Reviewed by: Charles Wheeler

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer within 2 days, otherwise the contents of this document shall be assumed accurate and correct.

Ferenaz Raheem

From: Kelly Boudreau
Sent: Wednesday, August 2, 2017 4:43 PM
To: Louis Tay (MTO)
Subject: Stage2 LRT - Proposed Maintenance & Storage Facility (MSF)
Attachments: 2017-07-28_Moodie_MSF_4-StubTrk-Future.pdf; 2017-07-28_Moodie_MSF_4-StubTrk-Proposed.pdf

Hi Louis,

I trust this email finds you well. We spoke a few years ago during early days of the Ottawa Stage 1 LRT Project.

Stage 2 LRT requires a Maintenance & Storage Facility (MSF) in the Moodie Drive area. The design team has been challenged to find a suitable location for this facility and are seeking MTO opinion/input regarding the attached. The two drawings illustrate a proposed MSF facility and future mainline LRT track to extend to Kanata. All are located within MTO 417 corridor between the south limit of Corkstown Road ROW and the north limit of the edge of pave of the 417 WB lanes.

The proposed MSF would happen in two stages. Proposed opening day is shown on 2017-07-28_Moodie_MSF_4-StubTrk-Proposed and full build out at a future date is shown on 2017-07-28_Moodie_MSF_4-StubTrk-Future.

Perhaps it would be best to have a face to face meeting once you have had a chance to review the attached drawings.

There is some urgency to this matter as the project team would like to publish a Notice of Study Commencement shortly. The project team is proposing that the study would include the attached concept.

I understand you will likely circulate/share the attached internally and it would be appreciated if the drawings were treated as confidential by all that will see them.

I look forward to hearing from you.

Regards,

Kelly

Kelly Boudreau, C.E.T., SR/WA

Discipline Lead, Property

Ottawa Stage 2 LRT Project Office

tel: 613-580-2424, ext. 30835 | cell: 613-899-6426

email: kelly.boudreau@ottawa.ca

OTTAWA LIGHT RAIL TRANSIT PROJECT
MOODIE YARD - FUTURE
INTERIM STUB-ENDED YARD (4 TRACKS)

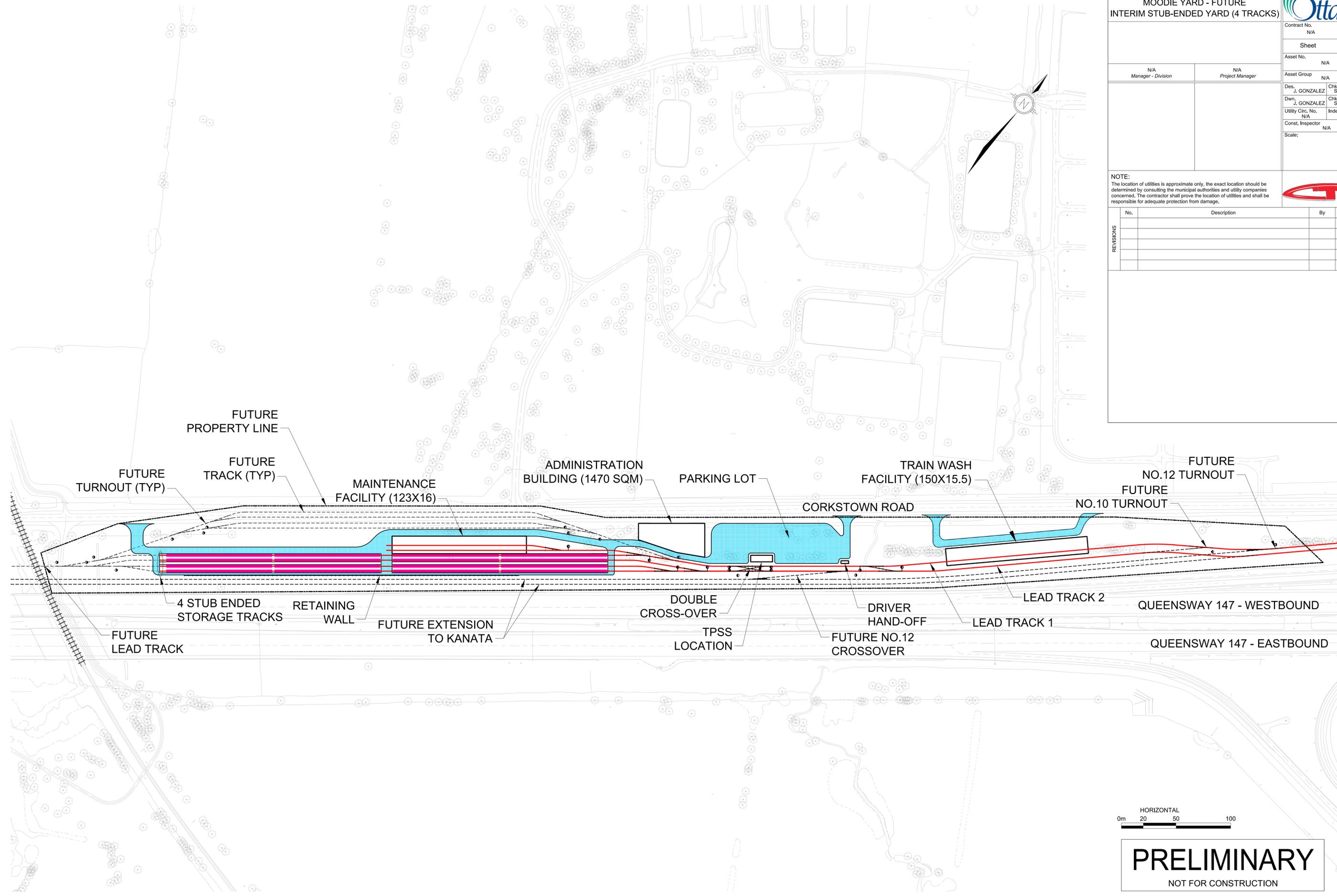


| | |
|---------------------------|------------------------|
| Contract No. N/A | Dwg. No. |
| Sheet of \$TOT | |
| Asset No. N/A | Asset Group N/A |
| Manager - Division N/A | Project Manager N/A |
| Des. J. GONZALEZ | CHK'd. S. MAGALLON |
| Dwn. J. GONZALEZ | CHK'd. S. MAGALLON |
| Utility Circ. No. N/A | Index No. N/A |
| Const. Inspector N/A | Scale: |

NOTE:
The location of utilities is approximate only, the exact location should be determined by consulting the municipal authorities and utility companies concerned. The contractor shall prove the location of utilities and shall be responsible for adequate protection from damage.



| No. | Description | By | Date (ddmm/yy) |
|-----|-------------|----|----------------|
| | | | |
| | | | |
| | | | |



PRELIMINARY
NOT FOR CONSTRUCTION

User Name: \$USER\$ DATE/TIME: \$DATE\$ / \$TIME\$ Path and File Name: \$FILE\$. \$

OTTAWA LIGHT RAIL TRANSIT PROJECT
 MOODIE YARD - PROPOSED
 INTERIM STUB-ENDED YARD (4 TRACKS)

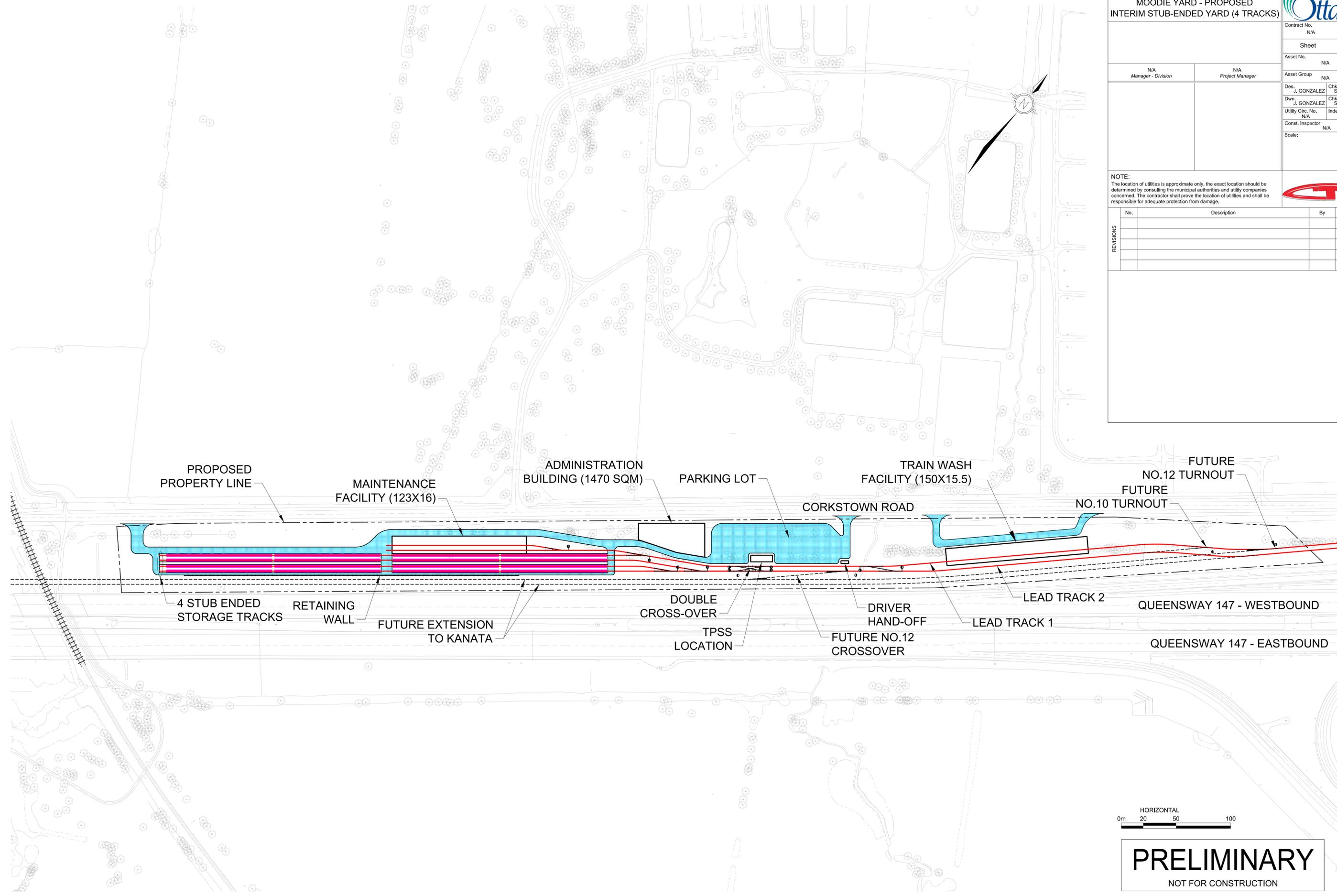


| | |
|---------------------------|------------------------|
| Contract No. N/A | Dwg. No. |
| Sheet of \$TOT | |
| Asset No. N/A | Asset Group N/A |
| Manager - Division N/A | Project Manager N/A |
| Des. J. GONZALEZ | CHK'd. S. MAGALLON |
| Dwn. J. GONZALEZ | CHK'd. S. MAGALLON |
| Utility Circ. No. N/A | Index No. N/A |
| Const. Inspector N/A | Scale: |

NOTE:
 The location of utilities is approximate only, the exact location should be determined by consulting the municipal authorities and utility companies concerned. The contractor shall prove the location of utilities and shall be responsible for adequate protection from damage.



| No. | Description | By | Date (dd/mm/yy) |
|-----|-------------|----|-----------------|
| | | | |
| | | | |
| | | | |



PRELIMINARY
 NOT FOR CONSTRUCTION

User Name: \$USER\$ DATE/TIME: \$DATE\$ / \$TIME\$ Path and File Name: \$FILE\$. \$

Moodie LRT Station Connectivity Workshop

October 16th, 2017

← STAGE
ETAPE ↓ ② →

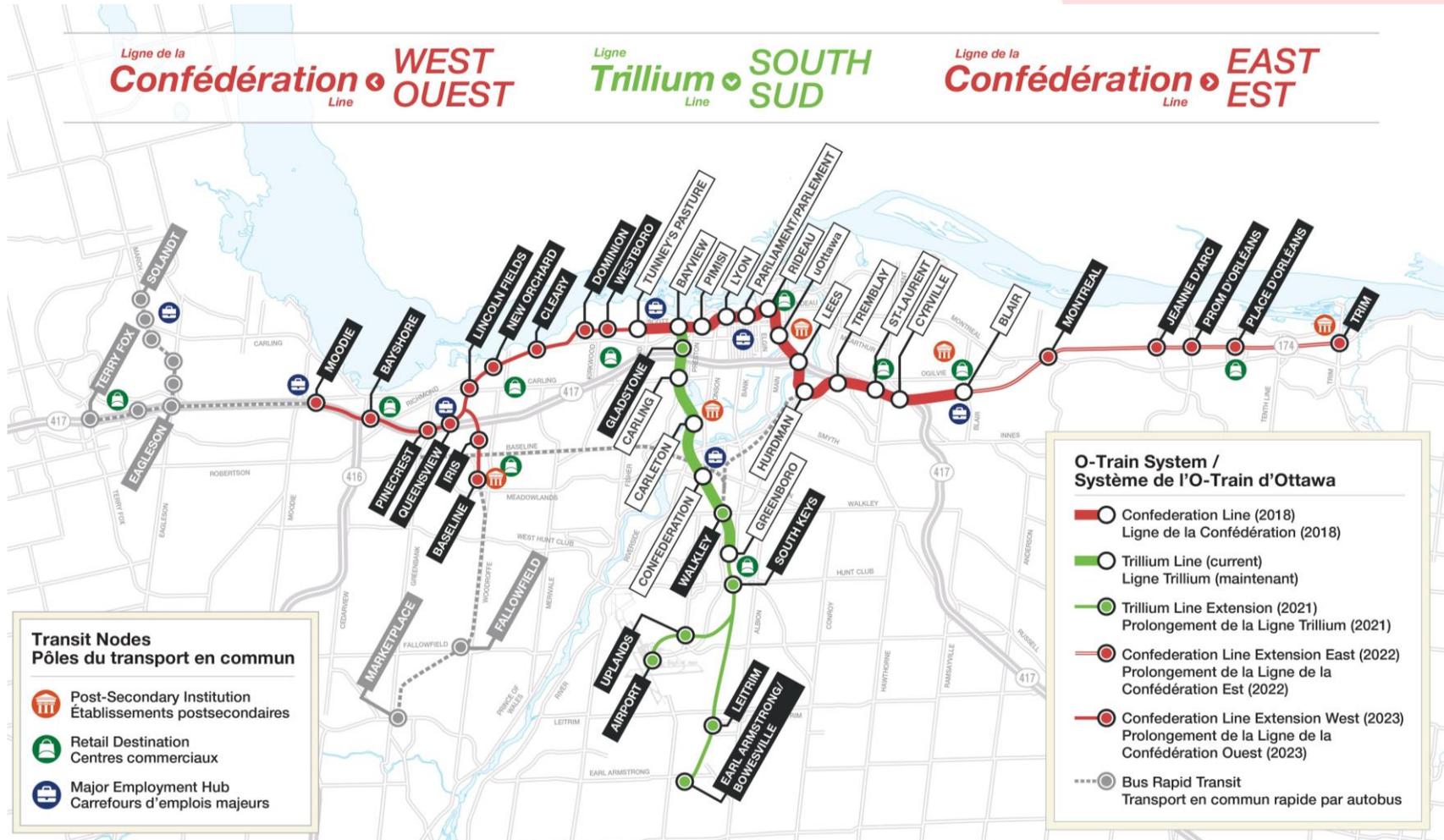


Agenda

- Presentation
 - Background
 - Workshop objectives
 - Connectivity assessment
 - Workshop format
 - Next steps
- Workshop



Stage 2 LRT Project



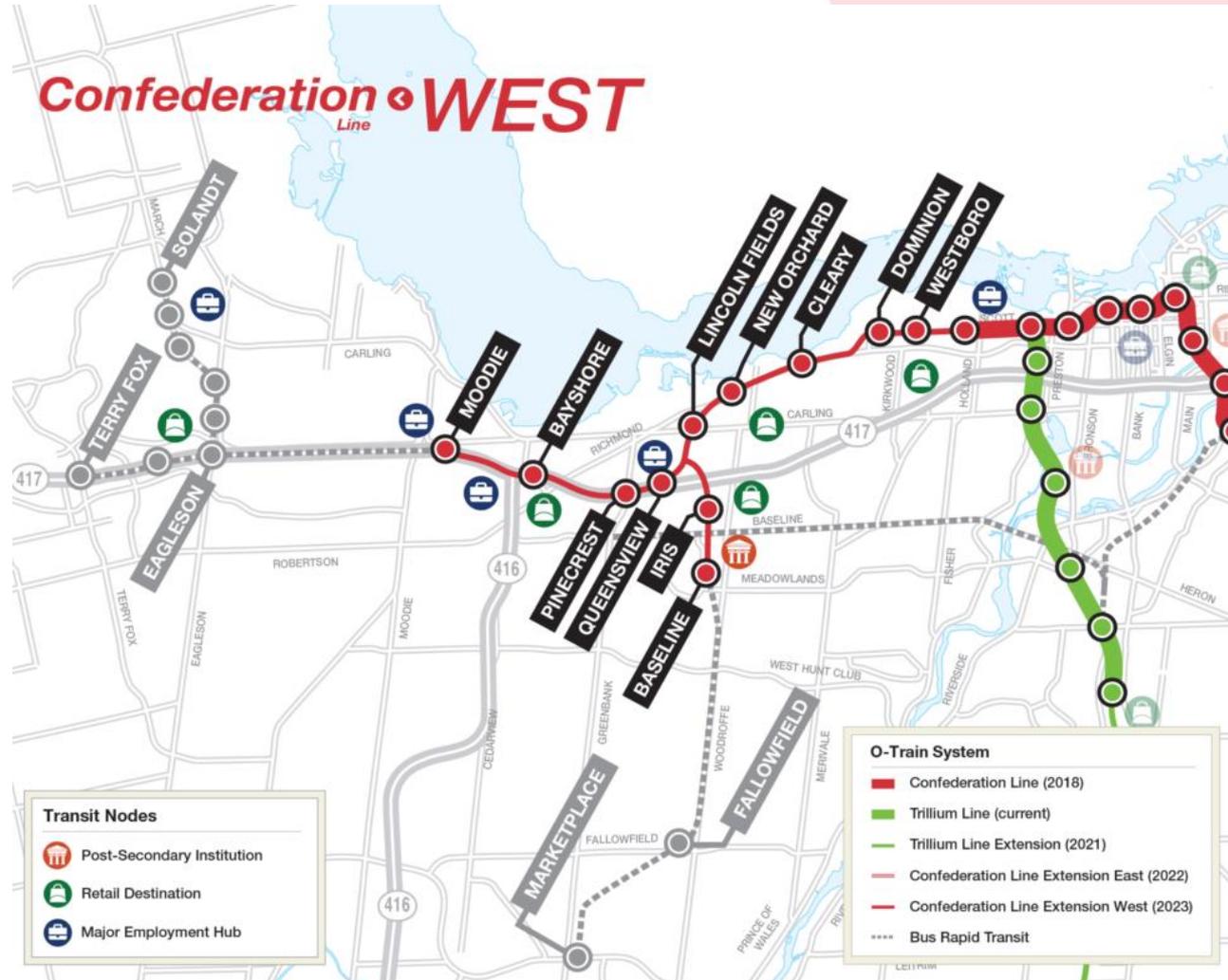
Stage 2 Confederation Line West Extension



New LRT stations



KM of new rail



Background

- Connectivity studies and workshops have occurred for all Stage 2 Light Rail Transit (LRT) stations.
- Conversion of Bayshore to Moodie BRT to LRT adds a new LRT Station at Moodie.
- Connectivity study and consultation required for new Moodie LRT station.

Moodie LRT Station Connectivity Study

- Builds on previous Moodie BRT connectivity study
- Focusses on identifying pedestrian and cycling connections to the future Moodie LRT Station
- Examines broader connectivity issues and opportunities
- Input into Study:
 - Technical Advisory Committee (TAC)
 - Public Workshop
 - Comment sheets / email

Workshop Objectives

- Review existing pedestrian and cycling infrastructure
- Review works to be completed by BRT
- Review what the study has identified so far
- Receive input from community and other interested stakeholders



Community Consultation

Public Consultation August 21st

- East Station Preference
- Active Streets
- Enhanced Community Connections to Station
- Traffic calming on Corkstown Road



Workshop Objectives

We want to hear from you on:

- Carling Campus Connections from the Moodie Station;
- How would you connect other destinations?
- Do you have any suggested connectivity improvements?
- What is missing?



Pedestrian and Cyclist Facility Options



Existing Conditions – Corkstown Road (east of Moodie)



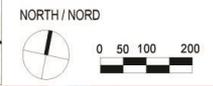
Existing Conditions – Carling Avenue



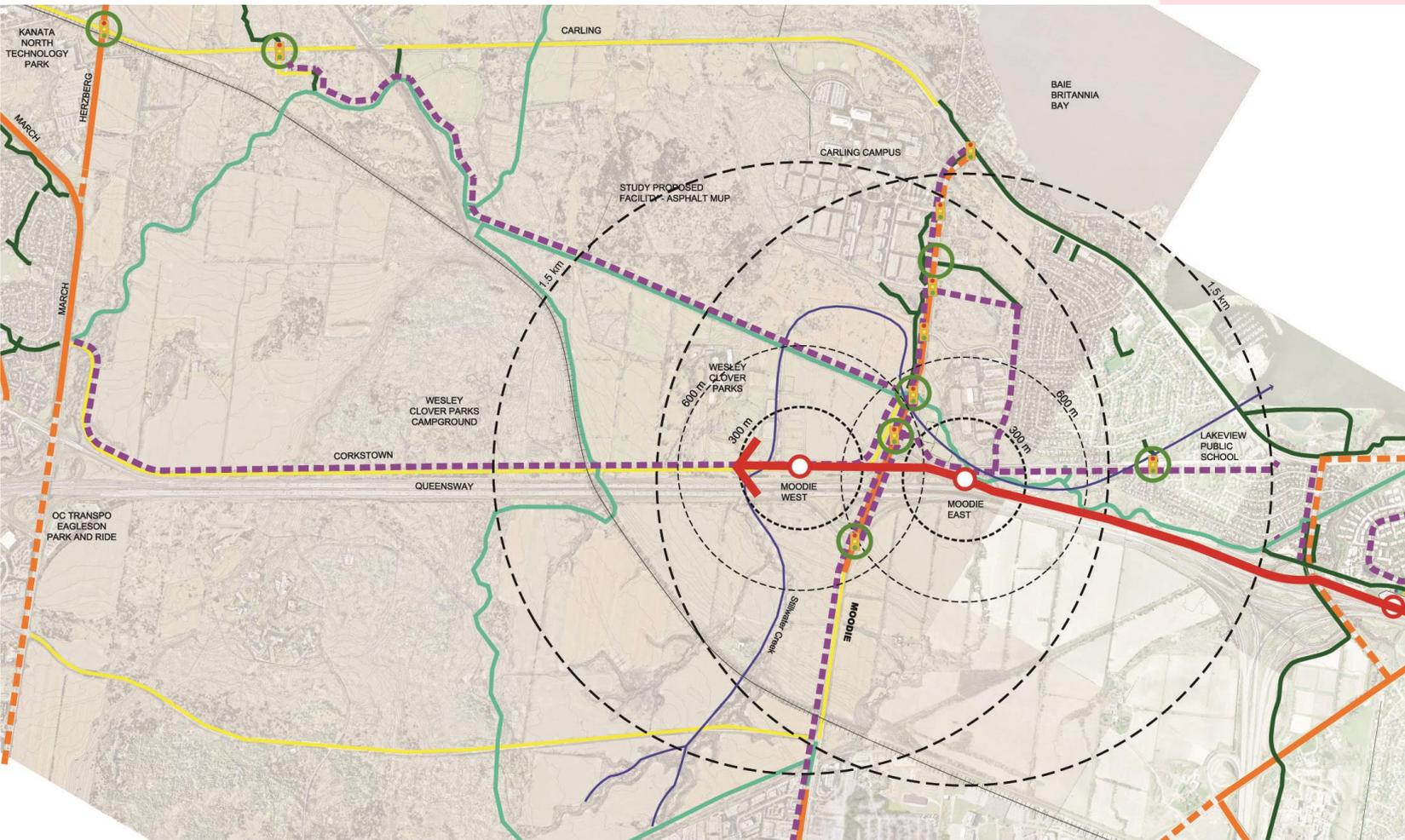
Site Analysis



- LEGEND / LÉGENDE**
- PROPOSED BUS RAPID TRANSIT (BRT) / LE TRANSPORT EN COMMUN RAPIDE PAR AUTOBUS PROPOSÉ
 - PROPOSED BRT STATION / LA STATION PROPOSÉE DE TRANSPORT EN COMMUN RAPIDE PAR AUTOBUS
 - VIEWS / VUE
 - RESTRICTED OR POOR VIEWS / VISIBILITÉ LIMITÉE OU MAUVAISE
 - WIND EXPOSURE / EXPOSITION AU VENT
 - TOPOGRAPHY / TOPOGRAPHIE
 - TRAFFIC CONTROL SIGNAL / FEUX DE CIRCULATION
 - DENSE VEGETATION / VÉGÉTATION DENSE
 - ZONING / ZONAGE:**
 - GREENBELT / CEINTURE DE VERDURE
 - RESIDENTIAL / RÉSIDENTIELLES
 - RURAL COMMERCIAL / COMMERCE RURAUX
 - BUSINESS PARK AND INDUSTRIAL / INDUSTRIELS ET PARCS D'AFFAIRES
 - INSTITUTIONAL / INSTITUTIONNELLES
 - COMMUNITY LEISURE / LOISIRS COMMUNAUTAIRE
 - PARKS AND OPEN SPACE / PARCS ET ESPACES VERTS



Pedestrian and Cyclist Connections



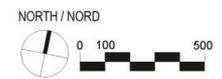
LEGEND / LÉGENDE

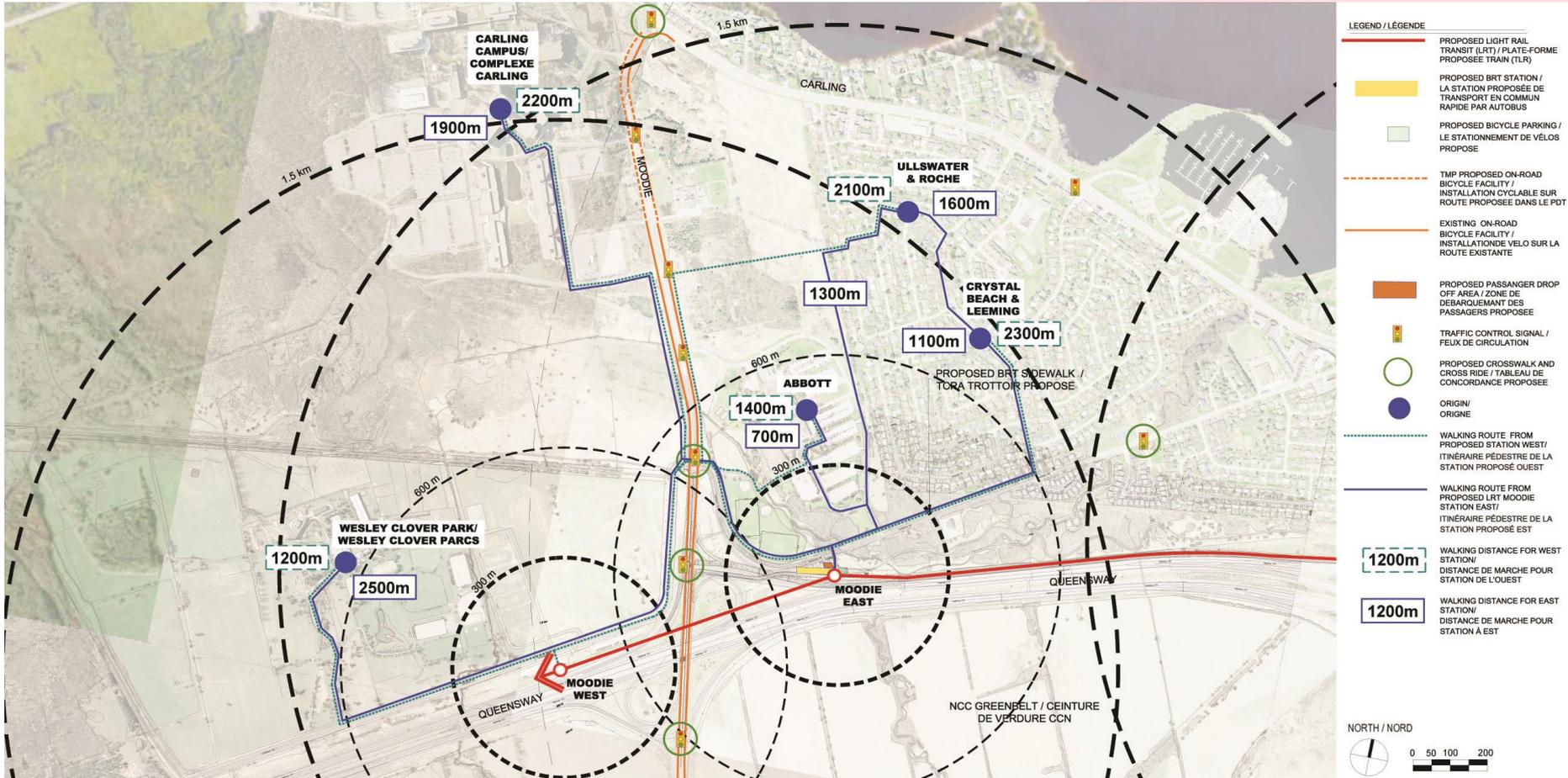
- STUDY AREA RADIUS / RAYON ZONE D'ETUDE
- PROPOSED LIGHT RAIL TRANSIT (LRT) / PLATE-FORME PROPOSEE TRAIN (TLR)
- CREEK/RUISSEAU
- PROPOSED LRT STATION / STATION DE TLR PROPOSEE
- TMP PROPOSED ON-ROAD BICYCLE FACILITY / INSTALLATION CYCLABLE SUR ROUTE PROPOSEE DANS LE PDT
- EXISTING ON-ROAD BICYCLE FACILITY / INSTALLATION DE VELO SUR LA ROUTE EXISTANTE
- EXISTING PAVED SHOULDER / UN ACCOTEMENT ASPHALTE EXISTANTE
- STUDY PROPOSED FACILITY / INSTALLATION PROPOSEE DANS L'ETUDE
- PROPOSED MULTI-USE PATHWAY (MUP) UNDER CONSTRUCTION / LE SENTIER POLYVALENT PROPOSE EN CONSTRUCTION
- EXISTING PATHWAY / SENTIER EXISTANT
- EXISTING NCC TRAIL SYSTEM / RESEAU DE SENTIERS DE LA CCN EXISTANT
- PROPOSED CROSSWALK AND CROSS RIDE / TABLEAU DE CONCORDANCE PROPOSEE
- TRAIN TRACKS/ VOIES FERRÉES

NORTH / NORD



- LEGEND / LÉGENDE**
- STUDY AREA RADIUS / RAYON ZONE D'ÉTUDE
 - PROPOSED LIGHT RAIL TRANSIT (LRT) / PLATE-FORME PROPOSÉE TRAIN (TLR)
 - PROPOSED BUS RAPID TRANSIT (BRT) / LE TRANSPORT EN COMMUN RAPIDE PAR AUTOBUS PROPOSÉ
 - PROPOSED LRT STATION / STATION DE TLR PROPOSÉE
 - TMP PROPOSED ON-ROAD BICYCLE FACILITY / INSTALLATION CYCLABLE SUR ROUTE PROPOSÉE DANS LE PDT
 - EXISTING ON-ROAD BICYCLE FACILITY / INSTALLATION DE VELO SUR LA ROUTE EXISTANTE
 - EXISTING PAVED SHOULDER / UN ACCOTEMENT ASPHALTÉ EXISTANTE
 - STUDY PROPOSED FACILITY / INSTALLATION PROPOSÉE DANS L'ÉTUDE
 - PROPOSED MULTI-USE PATHWAY (MUP) UNDER CONSTRUCTION / LE SENTIER POLYVALENT PROPOSÉ EN CONSTRUCTION
 - EXISTING PATHWAY / SENTIER EXISTANT
 - EXISTING NCC TRAIL SYSTEM / RESEAU DE SENTIERS DE LA CCN EXISTANT
 - TRANS CANADA TRAIL / NCC CAPITAL PATHWAY / LE SENTIER TRANSCANADIEN ET LE SENTIER DE LA CAPITALE





Site Opportunities



Workshop Goals

Review the Study area to identify:

- Opportunities to access the LRT Station;
- Connectivity opportunities to enhance connections to and from Kanata;
- Additional opportunities not yet identified through the study.



Next Steps

- Confirm opportunities to integrate the Moodie LRT Connectivity Study within the Stage 2 LRT;
- Identify which opportunities to be pursued by the City outside of Stage 2 LRT
- Information from the TAC, Public Workshop and other public comments received will be used to assess the connectivity requirements

Questions or comments

Mike Schmidt

Planner II, O-Train Planning

Mike.Schmidt@ottawa.ca

Stage 2 Office

www.stage2lrt.ca

Stage2@ottawa.ca



DATE: Wed 2017-Oct-18 4:15 PM

SUBJECT: Follow up - Stage 2 Connectivity Meeting

TO: 'vance.bedore@tpsgc-pwgsc.gc.ca'; 'julie.st-jean@tpsgc-pwgsc.gc.ca';
'VALERIE.BAILLARD@forces.gc.ca'; 'rosie-anne.thibodeau@forces.gc.ca'

CC: Wolstenholme, Matthew <Matthew.Wolstenholme@ottawa.ca>; Connelly, Colleen
<Colleen.Connelly@ottawa.ca>; 'Swail, Chris' <Chris.Swail@ottawa.ca>; 'Magierowicz, Marc'
<Marc.Magierowicz@ottawa.ca>; Schmidt, Mike <Mike.Schmidt@ottawa.ca>; 'lush@csw.ca';
'kroberts@morrisonhershfield.com'; 'Kimberley.Howie@aecom.com'

Hello,

Thank you all for the productive discussion earlier this week (Monday, October 15, 2017).

While there were several questions and comments regarding the long term plans at the DND Carling Campus, and the potential to have future LRT service closer to the campus, the goal of the meeting was to have a discussion on connections to the campus for all modes, including walking, cycling and bus service from the future Moodie Station. With that in mind, below are the action items we noted for follow up:

1. For your files, **attached is the presentation** that was made by Martha Lush at the meeting. As indicated at the meeting, please provide your comments to me on the connections between the future Moodie LRT station and the DND campus before October 25.
2. DND to provide the City with any pertinent information on security / access restrictions that might impact pathway connectivity to the site. Previous OC Transpo discussions, we believe, have already worked the bus routes around the perimeter road; if there is follow up on this, please follow up with the OC contact below.
3. **OC Transpo contact:** While I am your main conduit through the Stage 2 Office on this file, Matthew Wolstenholme will be your lead OC Transpo contact. I followed up with OC Transpo after the meeting, and have copied Matthew to this email. Matthew is the right contact for your questions related to bus service to the campus (route, timing, etc). As indicated at the meeting, the provision of a schedule for the campus to OC Transpo would be useful.
4. **Opportunities to communicate with DND staff:** Communication was identified as key to ensuring that staff are aware of how to access the campus via public transit, and to highlight the future active transportation connections to the DND site. There were several areas identified through which we can collaborate, including:

- a. **Staff survey:** a staff survey is being developed by DND. DND reached out to Transportation Planning through the Travel Wise initiative; Kathleen Wilker from the City's program provided comment to Angela Flemming on October 16. The Stage 2 office would be pleased to provide some suggested content for the survey. If there is still an opportunity to input into this survey, please let us know.
 - b. **Communication on connections from BRT and LRT to the DND campus:** The City will provide details on transfers from the future BRT station in the immediate, as well as information on the future transfer from the LRT station to the bus service to DND. Please advise of any upcoming internal publication deadlines that you would like to see us feed into. Alternatively, we can provide some standalone material to use when it makes sense. Please let us know.
 - c. **Staff presentation:** The City is available to make a presentation to DND staff on the Stage 2 project and future connections from the LRT station to the DND campus. Please let us know when, and we will make ourselves available.
5. Background information on the Stage 2 project, including our project resources and previous Committee and Council reports can be found at www.stage2lrt.ca.
 6. Chris Swail will be at next month's meeting (November 16, 2017) being organized by the City's Planning department, and will be able to speak to the questions and comments at our meeting on connectivity. As indicated at our meeting, next month's meeting will focus on the long term plans for the DND site.
 7. Kelly Roberts will be in touch with Irv Marucelj separately to provide the names of the Technical Advisory Committee (TAC) members from DND.
 8. The City will take back some of the questions posed by DND staff at the meeting – including will the pathways be winter maintained and lit - and will get back to you once the answers have been identified. We will do so through Rosie-Anne.

Rosie-Anne, can you please forward this meeting summary to the additional people you invited to the meeting, including LCol Paul Martin (CFSU-O), Angela Flemming (Carling Campus project team), Irv Marucelj (urban planner); and your consultants from Cima+, Tony Sroka and Christopher Lyon?

Also, please advise if there are any additional action items that we may have missed. And of course, do not hesitate to contact me with any questions or concerns.

Thank you,

Jana

Jana Trembinski-Milburn
Program Manager, Special Projects | Gestionnaire de Programme, Projets Spéciaux

O-Train Planning | Planification de l'O-Train
Transportation Services Department | Direction générale des transports
City of Ottawa | Ville d'Ottawa
jana.trembinski@ottawa.ca
(613)580-2424 x12854

DATE: Fri 2017-Nov-03 1:04 PM

SUBJECT: Follow up - Stage 2 Connectivity meeting with DND

TO: ROSIE-ANNE.THIBODEAU@forces.gc.ca

CC: Wolstenholme, Matthew <Matthew.Wolstenholme@ottawa.ca>; Connelly, Colleen <Colleen.Connelly@ottawa.ca>; Swail, Chris <Chris.Swail@ottawa.ca>; Magierowicz, Marc <Marc.Magierowicz@ottawa.ca>; Schmidt, Mike <Mike.Schmidt@ottawa.ca>; lush@cs.wisc.edu; kroberts@morrisonhershfield.com; Kimberley.Howie@aecom.com; Vance.Bedore@tpsgc-pwgsc.gc.ca; Julie.St-Jean@tpsgc-pwgsc.gc.ca; DWAYNE.JAMES@forces.gc.ca; Christopher.Lyon@cima.ca; tony.sroka@cima.ca; Taylor, Angela <Angela.Taylor@ottawa.ca>; ANGELA.FLEMING3@forces.gc.ca; PAUL.MARTIN@forces.gc.ca; Duncanson, Keith <Keith.Duncanson@ottawa.ca>

Hi Rosie-Anne,

Thank you for your response ([attached to this email for reference](#)).

As I indicated previously, the long term discussion will be part of the November conversation being organized by the City's Planning Services. As I indicated in my previous email, our Stage 2 Director, Chris Swail, will be in attendance in that meeting. He can speak to the LRT planning process, including the rationale for the location of the future Moodie station.

In terms of specific remaining follow up items:

1. Connectivity comments on the presentation:

- a) 417 Overpass on Moodie Drive – Connectivity for pedestrians and cyclists continues to be explored with the MTO

We are continuing to work with MTO to integrate the both the pedestrian and cycling requirements for the bridge, and anticipate that within the next few months, can provide greater information on the design parameters.

- b) CP Railroad overpass on Carling Ave

The CP overpass on Carling Avenue is beyond the scope of work for the Stage 2 project. It has been identified by the community as a concern in the past, and this comment has been noted within the Connectivity Study, to be forwarded to the Transportation Department for further consideration through the Transportation Master Plan.

- c) Pathway and sidewalk along Moodie Drive -

There is a pathway, on the west side of Moodie Drive, from the TransCanada Trail at Corkstown/Moodie, north towards the Carling Campus. As noted in the Connectivity Study, it is recommended that this pathway be continuous from

Corkstown north through to Carling Avenue as part of the longer term plans and for further consideration through the Transportation Master Plan. It is not included in the scope of work for the Stage 2 LRT extension.

- d) We reiterate the fact that pathway and sidewalk along Moodie Drive and Carling Ave should be appropriately lit and well maintained year round.

There is currently lighting on Moodie Drive, that provides some lighting for the pathway. As this pathway is on NCC lands, there needs to be further discussion with the landowner, as this would need their approval prior to any work being completed or winter maintenance occurring.

- e) Need for No parking signs on Moodie Dr and Carling Ave

Noted, not Stage 2 scope of work, but we have passed information along internally.

- f) DND is requesting a schedule and timeline for the rehabilitation of those infrastructures.

Stage 2 works would be delivered by end of 2023.

2. Security parameters for pathway access to site.

I apologize, as I should have been clearer in my initial email. Rosie-Ann, can you please let us know if there are any security / access restrictions that might impact pathway connectivity to the DND site?

3. Communications Opportunities

- a) Survey comments:

- Consider adding a question for respondents to specify their postal code for point of origin/where they live (“From where in the City are you travelling to work?”)
- Consider adding a question that is open ended: “Bus Rapid Transit service to Moodie is anticipated to begin in late 2017, and a new Light Rail Transit Station is set to open in 2023 with direct bus connections to the Moodie campus. Does this new public transit connectivity influence your decision to consider transit? Y/N? Why?”

- b) We are finalizing a document outlining service with the new BRT and future LRT, which we will share when we attend the staff opportunities in November and December. I copied you on my response to Angela Fleming earlier yesterday afternoon confirming our availability, and subsequently met with Angela this morning (November 3). We are working on confirming details of our attendance for an upcoming working group and info fairs (November 28 and December 5).

4. TAC representation

- a) Kelly sent the list to Irv
- c) See responses to your September submission in the attached email from Mike Schmidt from the Stage 2 Office.

Jana Trembinski-Milburn
Program Manager, Special Projects | Gestionnaire de Programme, Projets Spéciaux
O-Train Planning | Planification de l'O-Train
Transportation Services Department | Direction générale des transports
City of Ottawa | Ville d'Ottawa
jana.trembinski@ottawa.ca
(613)580-2424 x12854