Record of Meeting

Project No. 20219

PROJECT:	Don Mills Crossing MCEA Phases 3 & 4	**DATE:**	March , 2020
CLIENT:	City of Toronto	**TIME:**	1:00 – 3:00 PM
LOCATION:	Conference Call via Skype		

IN ATTENDANCE: Via Skype

NAME	REPRESENTING	NAME	REPRESENTING
Andrew Chislett (AC)	Transportation Services	Jason Diceman (JD)	Public Consultation
Wai Ming Lo (WML)	Transportation Services	Michelle Corcoran (MC)	Community Planning
Katie Wittman (KW)	Transp. Services Cycling	Dawn Hamilton (DH)	Urban Design
Jennifer Hyland (JH)	Transp. Services Cycling	Brian Costigan (BC)	CP Rail
Arthur Lo (AL)	Transportation Planning	Chris Sidlar (CS)	LEA Consulting
Hao Zhang (HZ)	ECS – Transp. Infra.	Mackenzie Riggin (MR)	LEA Consulting

MEETING TITLE TAC Meeting #1

ITEM	TOPIC	ACTION ITEM
1.0	**Introduction and Project Overview**	

- Project is undergoing MCEA process, completing Phases 3 and 4
- Pedestrian/Cycling bridge will be located adjacent to Celestica/Wynford Dr/Crosstown development
- Project was recommended by City's Don Mills Mobility Planning Study (MPS) and is being undertaken by City & Transportation Planning
- TAC members introduced themselves

2.0 Project Background – MPS

- MPS identified CP Rail Corridor as a barrier to closing gaps in existing trail system and pedestrian/cycling network
- One recommendation of MPS was to connect the trail system to the north and south of the rail corridor
- The parts of the MPS Problem & Opportunity statement that continue to be relevant to Crossing are highlighted, in particular the lack of connectivity
- MPS explored 3 options:
  - Tunnel Option

- Key Issues: would be below grade, presenting issues for drainage, safety and constructability – ultimately tunnel was not chosen to proceed

- Elevated (Developer Option)
  - Involved a bridge over the rail corridor with "straight" ramps connecting to the trail system on either side
  - Ultimately selected as preferred, with requirements for AODA etc.
- Elevated (Alternative Option)
  - Presented by project team at the time
  - Involved switchbacks
  - Since year-round maintenance was identified as a requirement of the Crossing, landings presented issues for maintenance vehicles
  - Ultimately not chosen despite compact form and direct Street C connection

3.0 Project Needs and Guiding Principles

- A review of MPS determined that MCEA Phase 1 & 2 were satisfied during MPS
- Policies – Urban Design
  - Identified elements to carry through to design of bridge
  - Natural heritage – bridge needs to work within ravine/natural heritage system while providing opportunities to connect to natural heritage system
  - Design Opportunities:
    - Modernist & Industrial design from Block 12 of Crosstown Development
    - Views of City, development and ravine system to be created
    - Overall, project team feels there are significant design opportunities for the bridge
- Policies – Cultural Heritage
  - Incorporate elements of identified heritage features (i.e. Parkin Building being partially retained through Crosstown Development) into bridge design

4.0 Alternatives Under Consideration

- Proceeding with an "a la carte" process – can evaluate options for different elements separately, then pick & choose preferred elements
- Alternatives include:
  - Structural Bridge Alternatives
  - Structural Ramp Alternatives
  - User Experience Considerations
    - Noted that MPS did not identify preferred Crossing width, etc.
- Structural Bridge Alternatives
  - Steel I-Girder Bridge
    - Allows opportunity for Cor-Ten steel to carry through rust colour and industrial feel of Block 12
    - Advantage: utilities can be placed in space between girders
    - Disadvantage: Opportunities for bird roosting & debris build-up between girders
    - Cost: ~$1,000,000
  - Pre-Cast Concrete Box Girder Bridge
    - Uniform materials
    - Shallower depth and overall look
    - Disadvantage: cannot get into box girder to easily inspect
    - Advantage: generally requires less maintenance overall
    - Similar cost to Steel I-Girder Bridge
  - Steel Truss Bridge
    - Liked idea from aesthetic perspective – offers same Cor-Ten steel look
    - Difficult from a maintenance perspective – high exposure to eroding and corroding materials
    - Highest cost
- Structural Ramp Alternatives
  - Highest cost for project will come from ramps as opposed to bridge
  - Elevated Ramp on Piers (Concrete Solid Slab)

        - Simple and common approach – can be seen at City Place bridge, etc.
        - Relatively low maintenance required
    - Elevated Ramp on Piers (Steel Girders)
        - Allows ramps to maintain Cor-Ten steel look
        - Options to reduce cost with fewer piers
    - RSS Wall
        - Constructed on land
        - Would create a continuous wall – graffiti target
        - Significantly more expensive than elevated options
- User Experience Alternatives
    - Shared Multi-Use Trail
        - Would include flat landings to reduce speed
        - Narrower option – 6.1m total – includes 1m buffer on either side, 4.1m path
    - Separated Pedestrian & Cycling Facilities
        - More desirable in areas with higher pedestrian and cyclist volumes
        - Wider option – includes 2.1m for pedestrians and 4m for bi-directional cyclist path

5.0 4.0 Evaluation Criteria

- Built on MPS criteria
    - Same overall criteria, but with more project-specific measures within them
    - Socioeconomic
        - 3 qualitative, 1 quantitative measure
    - Cultural
        - Considers any direct impacts to archaeology or designated built heritage resources
    - Accessibility
        - Measures are primarily separate from structural bridge design

        - Was required in Problem & Opportunity statement from MPS – carried through to this project phase
    - Public Realm & Aesthetics
        - Measures consider not only "what does one see from the bridge" but also "how does one see the bridge from adjacent properties"
    - Safety
        - Also includes constructability measures – quantitative
    - Maintenance
        - Includes year-round maintenance – vehicle "windrows"
    - Cost
- Evaluation of Bridge
    - Cost
        - 2 options are in the same ballpark
    - Preference is for the Steel I-Girder as option was found to best incorporate heritage elements from the Parkin Building
- Evaluation of Ramps
    - Given how closely the elevation options are evaluated, preference from urban design perspective was for I-Girder option to carry through design elements, despite higher cost
        - Want to open this discussion to the TAC to see if the trade-off of cost for urban design is considered "worth it"

6.0 Emerging Preferred Design

- Bridge
    - Overview of features
    - Truss is being considered as a decorative element – can have the appeal of truss without the long-term maintenance & associated costs
- Ramps
    - Steel I-Girder identified as preferred from project team to ensure consistent Cor-Ten steel elements and design aesthetic between ramps & bridge
    - Overhang and observation deck considered to provide both view opportunities and functional element by accommodating

maintenance vehicles required to turn around at the top of the ramp
    - Functional and Community element

- Costs
    - Feel we are within reasonable budget while still meeting key objectives and criteria

7.0 Discussion

- Areas for Discussion:
    - Evaluation criteria – does TAC think criteria are comprehensive? Did we miss anything?
    - Options – any questions regarding the options evaluated?
    - Preferred Design – Likes? Dislikes? Is everything the TAC wants to see included? What is missing?

- Hao Zhang (HZ):
    - Why is tunnel option not feasible?
        - CS: We thought the same at onset of the project
        - A review of option indicated that the tunnel presents a significant construction challenge to build under a live (main) rail corridor, since rail operation cannot be disrupted
        - General issues were also raised during public consultation – option was less preferred as it is less visible from main road
        - For these reasons tunnel was ranked lowest and deemed undesirable from MPS Phases
        - HZ: Tunnel would be preferred from maintenance perspective to bridge, but understand constraints
    - HZ: Slide 11 – AODA Requirements – higher ramp slope could be allowed?
        - CS: If 1:15 slope is used, more ramps and flat sections would be required
        - CS: Ramps are relatively long (~200m) so several flat sections would be needed to slow down cyclists
        - CS: Balance between getting slope as flat as possible while still meeting user experience criteria
        - CS: for accessibility, cycling experts on team desire as close to flat as possible

- HZ: Slide 15 – Generally City does not like utilities attached to bridge structure, might be best not to include this in features list – is anything planned for utilities yet?
  - CS: nothing planned, trail we are tying in to does not have utilities – just the live utilities in the rail corridor are there currently
  - CS: Only feature we'd be running conduit to is lighting on the bridge, so with I-girder option this could be tucked under – would be beneficial for aesthetics too, but this is a fairly minor point
  - HZ: Maybe don't mention as a feature for now then
- HZ: It was mentioned that clearance between rail and corridor is 8m?
  - CS: yes, 8m from top of rail below (7010mm clearance required, i-girders account for difference)
  - HZ: The higher the clearance, the more expensive the bridge
  - CS: This is a good point, everything gets longer with a higher clearance
  - CS: Project team's internal discussion ongoing as to whether there were enough cost savings between the 200mm difference of box vs. i-girder to negate aesthetic preferences
- HZ: Did you get precedents of what decorative truss would look like?
  - CS: Typical truss structure (images on slide are real bridges) is more robust – the actual look of the truss is not set in stone
  - CS: Renderings show an "upside down" truss
  - CS: Many examples of bridges with steel trusses, especially common for bridges over rail corridors
  - HZ: Like the look, was just curious to see real examples
- HZ: Potential Metrolinx corridor?
  - CS: Understanding from meeting with CP is that corridor currently is not under any Metrolinx jurisdiction and that there are no plans yet to identify it as a potential MX corridor in the future
  - CS: Based on this we did not incorporate MX requirements – would be more costly
- HZ: Question for AC and WML – will the bridge be under the responsibility of Transportation or Parks?

LEA Action Item: Remove ease of accommodating utilities from list of advantages

LEA Action Item: Provide more precedent images to demonstrate potential truss design

- AC: Currently, it will be under Transportation – will need to confirm this continues to be the case with the Director

- Dawn Hamilton – Representing Urban Design on behalf of Rong Yu
  - DH: Presentation eluded to this, but evaluation criteria doesn't indicate how RSS wall were excluded because of graffiti concern
    - DH: Typically graffiti would be considered under Crime Prevention Through Environmental Design
    - DH: Thinks it was correct approach to eliminate option, just doesn't think eval. criteria fully shows how
    - CS: We considered it through maintenance
    - MC: Would CPTED not fall under Safety?
    - CS: CPTED can be added as a specific measure – it isn't currently one

LEA Action Item: Add CPTED-specific measure under Safety Criterion

  - DH: Question about landing area as a feature and to the degree that it has been designed to date
    - CS: Is being explored further, but is functionally included at the moment
    - Example, options can be with the Developer for integrating public art to establish a landmark for the beginning of the ramp (ramp will actually tie into Street F, not Street C, so the terminus being a wayfinding role will be key)
  - DH: Likes that ramp and bridge are being considered to include consistent elements
    - DH: Renderings looks different than previous iterations – can I share with others who are away? (ex. Rong Yu)
    - CS: Yes
    - DH: When are comments needed by?
    - CS: Typically aim for 1 week from TAC
    - CS: We are in a bit of a grey area right now, public meeting was initially planned for end of April. Some municipalities are moving towards all digital consultation now. We are in a grey area in terms of schedule going forward.
    - AC: Not sure if Jason could reconnect to call – he's not confident that any in-person consultation could occur until May. We are flexible in receiving comments from TAC.

LEA Action Item: Ensure TAC presentation and most recent renderings of the emerging preferred design are available to all TAC members – to be circulated next week

- Jennifer Hyland - representing Cycling
  - JH: Was there a decision not to explore the switchback option? New to project and joined presentation halfway through.
    - CS: Yes – ultimately switchback was not the preferred option from MPS for maintenance and some access/safety concerns.
    - CS: We undertook a review of MPS – there was a consistent evaluation across the board so we did not feel a need to re-open discussion or evaluation from Phase 1 & 2, where straight ramp option was ultimately recommended.
  - JH: Maintenance vehicles would use this structure?
    - CS: Yes – requirement was that this structure could be snow cleared and used year-round
  - JH: Even though the Don Mills Trail is not cleared?
    - CS: Yes – still being designed to accommodate year-round and snow clearance vehicles.
- Michelle Corcoran (MC): Is there an idea of how much the tunnel option would cost?
  - CS: We did not cost the tunnel option for this project – it would be more expensive but relatively similar since the ramps would be shorter

LEA Action Item: Provide Order of Magnitude cost for tunnel option

- Arthur Lo
  - AL: Understanding was that MPS did not rule out the switchback option, but did make the note that there would be maintenance issues
    - CS: Our understanding was that a preference was indicated – so we will take this note and review
  - AL: Are stairs still an option being considered or have they been ruled out?
    - CS: We have looked into them as an option – stairs would add ~$500,000-750,000 in cost
  - CS: For context, Developers have earmarked $4,000,000, the City is to match this amount. We have been working to stay within $8,000,000 – current preferred design is just under $7,000,000 without public art or lighting costs included
    - AL: Would still be interested in seeing stairs option evaluated even if option is cost prohibitive

LEA Action Item: Project team to review MPS recommendations – update City within 1-1.5 weeks

- AL: Shared vs. separated structure – would be interested in seeing those options compared
  - CS: Not a major cost difference since the 4.1m deck structure can include 1m overhangs
  - CS: Alta is providing pedestrian and cyclist design input
  - CS: Choice really depends on volume & expected use – i.e. commuter vs. recreational
  - CS: Don Mills trail currently terminates so it's hard to forecast crossing volumes. We are foreseeing relatively low volumes so leaning towards shared option.

- Katie Wittmann
  - KW: Does 4.1m just refer to clearway?
    - CS: Yes, there is an additional 1m buffer on either side
    - CS: For separated option, 2.1m are for pedestrians and 4m for cyclists
    - KW: Might need a buffer for pedestrians too against the hand rail
    - CS: Our assumption was that a pedestrian would use & be right against the rail while cyclists will always need buffer for handle bars
    - CS: Providing a 2.1m for AODA already shows a relatively wide ramp
  - KW: In conversation with JH, typically it is preferred to avoid 90 degree angle to turn – for ex., where ramp meets the bridge
  - JH: Confirms this – KW and JH assume this discussion would happen more so at detailed design?
    - CS: would like to work out these details now since the angle affects the speed people can travel at – 90 degrees promotes slowing down
    - CS: Also affects constructability and cost since steel is harder to curve – might be more expensive and would require changes to design
    - CS: Is a non-right angle at this turn a requirement or just desired? Can it be acceptable?
    - JH: If adequate width is available it would be acceptable

- CS: Maybe solution can be to splay the corner (overhang) so it's not 90 degrees nor a smooth curve

- Brian Costigan (BC)
  - BC: What is the horizontal measurement from pier to pier for the bridge?
    - CS: About 30m – intent is to not do work within the corridor – bridge should extend out of it
    - BC: This works
- CS: Closing comments
  - Hoping to have PIC in April – maybe now this will be May – will provide updates on the format, etc.
  - Expectation is to have a follow-up TAC after the PIC to finalize more details for eventual designers to have
  - We are only taking this design to 10% - so key component is providing output specifications to ensure the ESR final design doesn't change significantly under detailed design
  - Comments – please provide comments to Andrew and Wai Ming by next Thursday
  - Thanks!

8.0 Next Steps

- LEA to follow up with City regarding a review of the MPS recommendations for alternative options
- Project team to follow up with Jason Diceman to see whether further comments have been provided regarding online engagement to replace typical in-person public consultation

LEA Action Items:
Follow up with City to confirm MPS review and engagement plan going forward – 1-1.5 weeks

The foregoing is considered to be a true and accurate record of all discussed. If any discrepancies or inconsistencies are noted, please contact the writer immediately.

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