Osborne Bridge NAC Meeting #3 Notes – October 28th, 2009

The third meeting of the Osborne Bridge NAC was held October 28th, 2009. We received reports from the Design team on the following subjects:

- Project Goals and Analysis of the Project
- Roadway Engineering
- The Pedestrian and Cycling Environment

Following these presentations, we were divided into three smaller groups for further discussion on goals and opportunities. Highlights of the presentations and discussions on project goals are listed below. Feedback on the project goals would be appreciated.

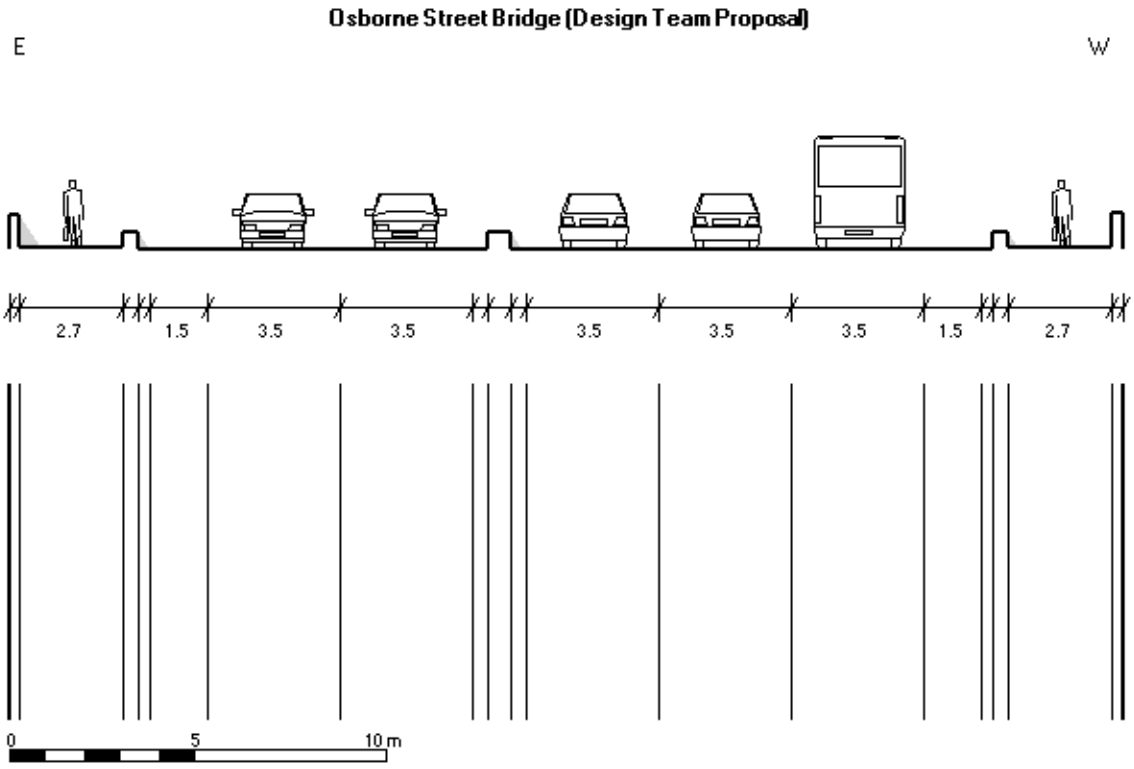
Project Goals and Analysis of the Project

The City of Winnipeg has set the following goals for the project:

1. Preserve and upgrade the facility to current City of Winnipeg standards
2. Extend the service life for additional 75 years
3. Carry the Design Vehicle and check for overload capacity
4. Improve Active Transportation across the facility
5. Widen the Bridge without adding girders

What the Project Team is proposing for Cyclists

The initial design being proposed for the bridge would see a barrier protected 2.7m wide sidewalk plus a 1.5m bike lane (unprotected) on both sides of the bridge (see diagram I have created below to see what that might look like).



BttF diagram on what proposed configuration would look like.

They are also looking at opportunities to improve the intersections at Osborne & Roslyn and Osborne @ Assiniboine/Mostyn to make them more bicycle and pedestrian friendly. This includes an at grade crossing at the intersection of Osborne @ Assiniboine/Mostyn.

Project Goals

The overall project goal is: the plan shall be technically sound; reflect the needs of the community and City in general; be cost effective; environmentally responsible; and be generally understood and accepted by most of those affected.

We broke off into groups to discuss the following aspects of the project goals.

Be environmentally responsible
- promote AT; better services for pedestrians and cyclists
- use existing structure
- uses solar lights and methods to control pollution
- maximize use of recycled materials (reuse asphalt/concrete for other uses; handrails)
- flexible lanes to minimize idle times
- functional trees to dampen noise and be self-sustaining
- take into account growth of AT
- capture run-off water and filter before releasing into river

Be cost effective
- Prioritize spending dollars

- Create 3P type partnerships to help cover extra costs (e.g. toll route?)
- Maximize recycling materials
- Smart design features: multi- uses, functional, standard units
- Low maintenance costs
- Energy-efficient lighting
- Coordinating bridge rehab with city's Active Transportation strategy
- Use lifecycle cost analysis (e.g. lots of stainless steel?)
- Prioritize structure/function cost over aesthetic cost (pay attention to detail, e.g. different type of handrails)
- If getting value for money, maintain aesthetics as a goal
- Functional response can be beautiful - low maintenance perennials (native plants) - durable materials to last longer - directional, low watt lighting (LED)
- adopt a LEEDS type of approach
- potential habitat for wildlife

Reflect needs of the community

- smooth flow (balance of treatment) of all modes of transportation: don't sacrifice one mode to make another work
- aesthetically pleasing bridge – to match the feel of the village
- traffic flow during construction
- consider the homeless during the construction and in the long term
- universal accessibility of the bridge design
- safe environment
- take advantage of public attention to catalyze change (around social issues)
- make provision for emergency service needs
- respectful of neighbourhood identities

There was a brief general discussion to ensure everyone felt the lists were complete.

- Idling cars are not environmentally effective (fuel consumption and emissions) and this also means Transit is sitting and cyclists (on the roadway).
- At a certain (low) level of service people stop waiting and look for alternatives.
- With five lanes – could we not sometimes flow four in one direction and one in the other
- not always two and three? There is a moveable barrier that exists but there are issues for NAC Meeting No. 3 Page 27 using in our climate. Middle bi-directional ("suicide") lane like on St. James creates safety concerns.

Design Team Presentations

Structural Analysis

Major Structural Design Opportunities

• Widening the bridge deck and curb F shape barrier
• Joining the two bridges together and a median F Barrier
• Handrail/Sidewalk curb detail alternatives
• Median Traffic Barrier and Mostyn Pl.
• Under Bridge Crane requirements
• Options

Where widening can take place

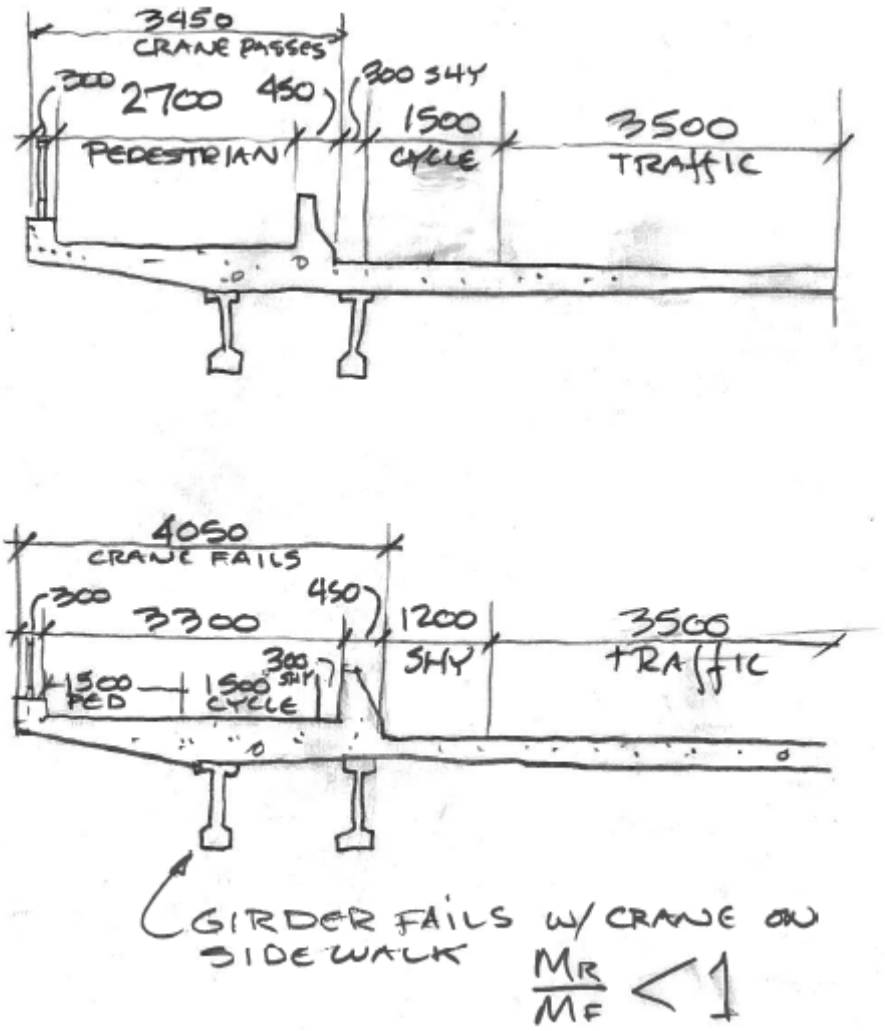
- 750mm widening of sidewalks on both sides
- Joining two structures together gains about 3900 mm (4572-600 for barrier)
    - BttF measurements suggest a narrower median, but this matches what the city had previously suggested for the median width. I will follow up
    - They also have the existing sidewalks listed at 1725 mm (about 5 ft.), which they feel they can widen by 3ft. BttF measurements had the sidewalks at 7’3’’ or 7’6’’
- 300mm widening may be possible on both sides if handrails can be attached to the side of the bridge [however the additional space would likely only be allocated to the separated sidewalk].

Restrictions imposed by under bridge crane

- Limit on clearance width from outside concrete edge to inside face of barrier to a maximum of 3.75 m.

We were shown two options that were looked at for placement of barrier separating Pedestrian sidewalk and road surface

- Option 1 – 2700mm Separated Pedestrian Sidewalk, On Road Bike Lane
- Option 2 – 4050mm Separated Pedestrian Sidewalk and Bike Lane



Under the second option, the under bridge crane would need to be positioned in the separated pedestrian/cyclist area, and that would exceed the load limitations of the bridge, so that the bridge would fail.

Discussion

- The 1200mm shy lane is the City of Winnipeg minimum for traffic next to a barrier.
- The barrier along the sidewalk is a City standard (to separate pedestrians from the traffic on bridges for safety).
- I asked about the possibility of 10ft (3m) traffic lanes being used to increase space for cyclists. The design team has replied that aalthough with this rehabilitation new construction standards will not be met, this is not recommended. (Basic minimum requirements for driving lanes on a rehabilitated bridge is 3.5 m; 3.7 m for new construction.
- The sidewalk could be narrowed to add to the cycling lane (shy distance) but due to pedestrian volumes leading to and from the downtown it would be necessary to keep the sidewalks as wide as possible. There would also be some structural

considerations of moving the barrier nearer to the last girder – the girder cannot be overloaded. . The widening could really only be shortened on the outside of the sidewalk on a structural basis.

Roadway Engineering

Goals

- Accommodate multiple modes of traffic - vehicles, transit, cyclists, pedestrians,
- Consider points of conflict
- Consider impact on emergency services during construction

Roadway Design Objectives

- Improve the roadway geometry - approaches to the bridge and intersections where possible
- Maintain roadway lane widths
- Maintain sidewalk width – clear path for sidewalk users
- Minimize conflict between cyclists and pedestrians and road users
- Provide room for transit and maintain transit priority measures (diamond lane, TP signal)

Condition of Existing Roadway (quick summary)

- Generally good condition - (except in isolated locations)
- Pavement failed around some manholes
- Old streetcar tracks in the pavement at Broadway

Opportunities

Northbound

at River

- Wide bus bay at River Ave.
- Wide lane approach and access to A&W / Mac's

At Roslyn

- Conflict between sidewalk users and right turning vehicles at Roslyn
- Realign ramp curbs at crosswalks
- Move light standards to property line

On north side of bridge

- Conflict between sidewalk users and right turning vehicles at Assiniboine
- View of pedestrians and cyclists partly blocked by retaining wall on the bridge
- Need to maintain median crossover for emergency vehicles
- Need to accommodate pedestrians/cyclists crossing between Mostyn and Assiniboine

Southbound

At Mostyn

- Conflict between sidewalk users and right turning vehicles

At Roslyn

- One lane EB from Roslyn being used as two narrow lanes

At River

- Right turn to River Avenue – can be blocked by queue of buses or by pedestrians
- Pedestrians cross right turn lane at any location

Traffic Collisions

- The City of Winnipeg publishes statistics every year on the 100 intersections with the

highest collision rate
• Only one intersection on this project has made the list* (Osborne & River was ranked #73 with 20 collisions/7 injuries and 0 fatalities)
• There is no history of vehicle-pedestrian or vehicle-cyclist collisions within the project limits except for one reported pedestrian-vehicle collision on the bridge (which did result in a fatality – additional information can be made available)

Discussion

Approximately ¼ of the southbound traffic turns right onto Roslyn to avoid Osborne.

The Pedestrian and Cycling Environment

Primary Issues
• Lack of bicycle accommodation
• Congestion and conflicts between modes
• Obstacles & intrusions in the sidewalks
• Informal crossings
• Lack of traffic barriers (on bridge)
• Security concerns at bridge ends
• Inaccessible under-bridge crossings (referring to Universal Design)
• Sterile bridge structure and approaches

Pedestrian Environment - Physical Attributes
• Narrow Sidewalks
• Patterned paving does not guide people; no benefit
• Character lighting can create obstacles…
• Wayfinding messages are lost
• Street trees in Osborne Village are rare and precious
• Under bridge passages: not accessible, poorly lit, no access on SW side, and homeless community
• Lack of bicycle facilities; bikes on sidewalks
• No separation from traffic on bridges
• Sub-standard curb ramps
• Nice tree canopy north of bridge
• Gentle grades on bridge approaches
• Osborne Village has distinct and consistent character that weakens at bridge
• Osborne Street North is open and simple; it benefits from well-tended grounds
• Landmark architecture lends strong identity to both sides of bridge
• Vibrant street life and storefronts: visual interest, inviting scale
• Bridge architecture: simple, modern, style does not speak of place
• Bridge affords rare view of well treed, attractive river corridor

Accommodating Different Modes
• Give each mode (bikes, pedestrians) its space
• Reconfigure conflict points, open sight lines
• Traffic calming is not just for cars
• Add periodic rest areas for pedestrians, seniors

• Where possible, make changes incrementally to allow users to adjust and designers to refine (make changes adaptable)

Improve Accessibility

• Simplify sidewalks
• Add indicator surfaces
• Improve crossing ramps and alignments
• Better railings
• Safer, more usable under-bridge connections
• Rest areas

Unify the Corridor

• Continuity in details, materials, and fixtures
• Integrate signs and other roadside elements
• Links to the community

Design Strategies - Announce Important Locations

• Treat bridge as gateway feature
• Mark ends of bridge and other significant locations

Plant Sparingly and Strategically

• Functional plantings (provide shade, mitigate noise, screening undesirable views, etc.)
• Feature plantings

Celebrate Culture & Heritage

• Dig into the history; significance of communities; integrate this into the design
• Integrate art, ‘pageantry’ and event banners; mirror flamboyant community
• Ensure design supports street festival and other programming