

PUBLIC OPEN HOUSE

Preliminary Engineering Study to Upgrade the Pembina Highway Underpass



MAY 9, 2012

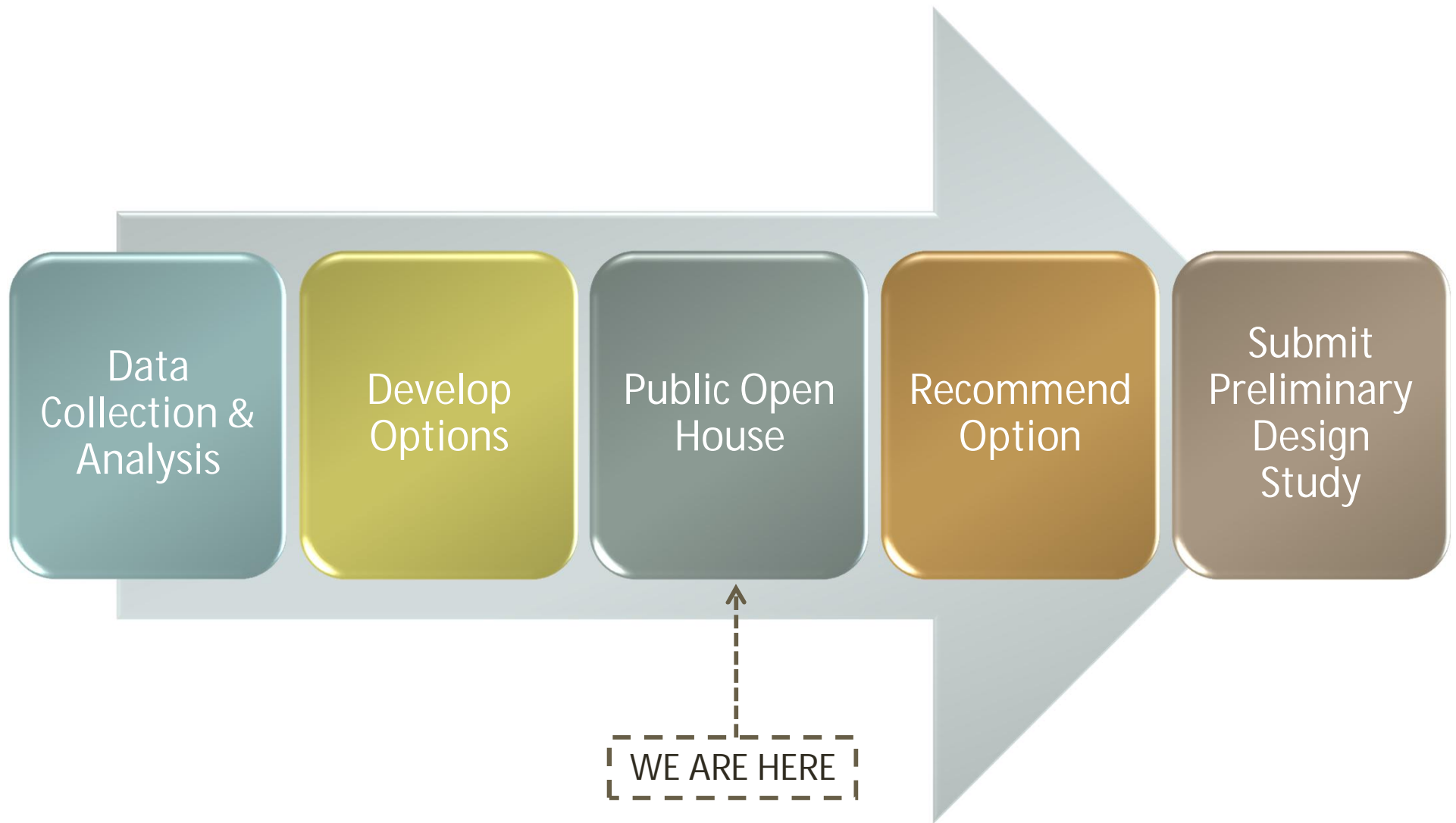
What is the Purpose of the Study?

- ❑ The number of northbound traffic lanes at the Pembina Highway Underpass need to be increased from two lanes to three lanes to improve traffic flow.
- ❑ Pedestrian and active transportation facilities along Pembina Highway at the underpass need to be improved to accommodate connections to the existing and future active transportation facilities and the future facilities that will be provided as part of the overall Winnipeg Active Transportation network.
- ❑ Land drainage needs to be improved to minimize underpass flooding during heavy rainfalls.
- ❑ Stage 2 of the Southwest Transitway must be accommodated at the location of the Pembina Underpass.

What is the Scope of the Study?

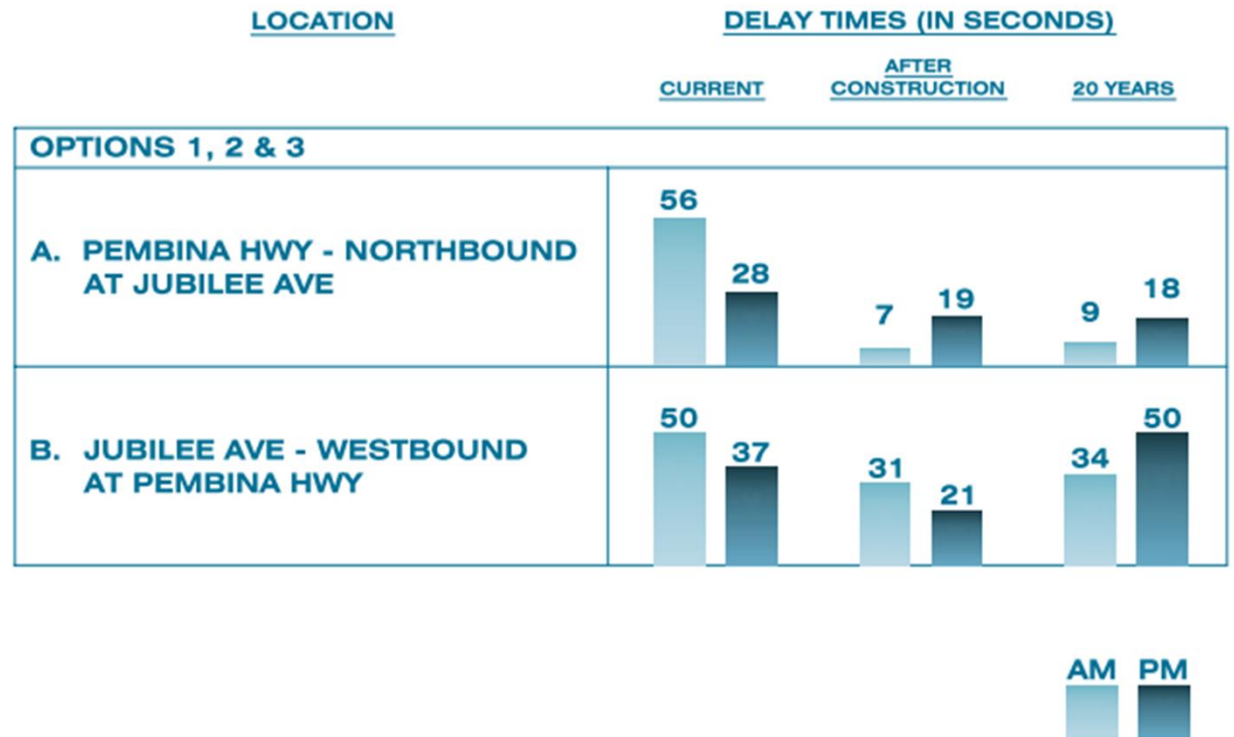
- ❑ The scope of the project is to study three options for the underpass improvements.
 - ❑ Remove the existing sidewalk on the east side of the underpass to provide space for a third northbound traffic lane and construct access for pedestrians/cyclists by tunneling through the railway embankments;
 - ❑ Replace the existing railway bridge to provide space for a third northbound lane and to provide access for pedestrians/cyclists; and,
 - ❑ Replace the existing railway bridge with a new bridge on a new alignment north of the existing bridge.
- ❑ The study also includes a conceptual design of a future grade separation crossing over Pembina Highway between the Jubilee Overpass and the Pembina Highway Underpass for Stage 2 of the Southwest Transitway.

Timeline



Operational Analysis

Pembina at Jubilee Intersection Delay Times



Evaluating the Pros and Cons of Options

Criteria	Option 1		Option 2		Option 3	
	Pro	Con	Pro	Con	Pro	Con
Project Costs (not including Property Acquisition)	\$45 to \$50 Million		\$75 to \$80 Million		\$65 to \$70 Million	
Property Impacts	<ul style="list-style-type: none"> ✓ Least private property impact. 	<ul style="list-style-type: none"> ✗ Resultant Southwest Transitway alignment may impact more properties in the future. 	<ul style="list-style-type: none"> ✓ Reduced impact on Taylor South commercial/multi-use development. 	<ul style="list-style-type: none"> ✗ Construction easement required for temporary detour bridge. ✗ Resultant Southwest Transitway alignment may impact more properties in the future. 	<ul style="list-style-type: none"> ✓ May reduce property impacts due to resultant Southwest Transitway alignment. 	<ul style="list-style-type: none"> ✗ Most significant property requirements, particular impact on Taylor South commercial/multi-use development.
Construction Schedule	<ul style="list-style-type: none"> ✓ Normal construction schedule. 			<ul style="list-style-type: none"> ✗ Longer construction schedule. 	<ul style="list-style-type: none"> ✓ Normal construction schedule. 	
Constructability	<ul style="list-style-type: none"> ✓ No railway track relocation. ✓ No combined sewer relocation. 	<ul style="list-style-type: none"> ✗ Complex tunnel construction. 		<ul style="list-style-type: none"> ✗ Relocate railway tracks twice. ✗ Requires relocation of combined sewer. 		<ul style="list-style-type: none"> ✗ Relocate railway tracks only once. ✗ Requires relocation of combined sewer.
Risk		<ul style="list-style-type: none"> ✗ Potential disruptions to train traffic. 		<ul style="list-style-type: none"> ✗ Potential interruptions to CN operation during relocation of tracks. 		<ul style="list-style-type: none"> ✗ Potential interruptions to CN operation during relocation of tracks.
Safety and Level of Services		<ul style="list-style-type: none"> ✗ Substandard lane widths and curve radii. ✗ Inadequate storage lane capacity for northbound left turn traffic at Stafford. 	<ul style="list-style-type: none"> ✓ Lane widths and curve radii meet modern standards. ✓ Adequate storage lane capacity for northbound left turn traffic at Stafford. 		<ul style="list-style-type: none"> ✓ Lane widths and curve radii meet modern standards. ✓ Adequate storage lane capacity for northbound left turn traffic at Stafford. 	
Active Transportation	<ul style="list-style-type: none"> ✓ Includes active transportation on both sides of Pembina. 	<ul style="list-style-type: none"> ✗ Potential security issues for pedestrians/cyclists through tunnel. ✗ Will not accommodate pedestrian/cyclist on future Southwest Transitway overpass. 	<ul style="list-style-type: none"> ✓ Includes active transportation on both sides of Pembina within the street right-of-way (Complete Streets). 	<ul style="list-style-type: none"> ✗ Will not accommodate pedestrian/cyclist on future Southwest Transitway overpass. 	<ul style="list-style-type: none"> ✓ Includes active transportation on both sides of Pembina within the street right-of-way (Complete Streets). ✓ Will accommodate pedestrian/cyclist on future Southwest Transitway overpass. 	
Future Southwest Transitway	<ul style="list-style-type: none"> ✓ Accommodates Southwest Transitway. 	<ul style="list-style-type: none"> ✗ Future Southwest Transitway speed limit compromised due to roadway geometry. 	<ul style="list-style-type: none"> ✓ Accommodates Southwest Transitway. 	<ul style="list-style-type: none"> ✗ Future Southwest Transitway speed limit compromised due to roadway geometry. 	<ul style="list-style-type: none"> ✓ Future Southwest Transitway speed limit not compromised by roadway geometry. 	

Issues/Response

Issues Identified by Stakeholders and Online Survey

Active Transportation

- Improved active transportation routes.
- Pathways on both sides of Pembina.
- Safety for cyclists/pedestrians.
- Preference against active transportation tunnels for safety.
- Active transportation connections parallel to Stage 2 of Southwest Transitway.



- Active Transportation has been considered from the start of the design study.
- Input from meetings with Active Transportation groups has been incorporated.
- Safety for pedestrians and cyclists is part of the design criteria.
- Traffic flow has been considered from the start of the design study.

Traffic Flow

- Extra lanes southbound and northbound to accommodate current and future traffic.
- Restrict parking along Pembina to prevent congestion.
- Lights at Stafford and Point Road cause congestion.



- Traffic Flow considered in design study.
- Traffic congestion will improve at the Jubilee and Stafford intersections:
 - A third lane will be constructed northbound through the underpass.
 - Northbound left turn lanes at Stafford Avenue will be extended.

Construction Impacts

- Work should be done in 2 shifts (evening).
- Work should not impede existing traffic flow.
- Time it the same as Southwest Transitway Stage 2.



- Construction impacts for each option have been taken into account.
- Roadway traffic volumes analysis determined that two lanes northbound and two lanes southbound will maintain traffic movements above the minimal acceptable levels during construction.
 - Construction should not significantly impact northbound traffic (no change from the existing situation).
 - Southbound traffic may experience slightly longer delays with the reduction to two lanes (from three) during construction.
- Some delays are expected during construction as a result of slower traffic speed and potential lane realignments.
- Construction scheduling will depend upon the option selected and adherence to the noise by-law respecting proximity to residential neighbourhoods.

Transit accessibility

- Connections with future Southwest Transitway.



- It is within the scope of the Pembina Underpass Upgrade Study to include provision for a Pembina Highway bridge crossing for the future extension of the Southwest Transitway. There is no decision at this time about the route the Southwest Transitway will take after it crosses Pembina Highway.

Flooding/water drainage



- Stormwater infrastructure improvements included in design.
- Upgrading will improve land drainage at the underpass.

Next Steps

1. Consider feedback from this open house.
2. Refine and recommend an option to the City of Winnipeg.
3. Submit the Preliminary Engineering Study to Upgrade the Pembina Highway Underpass Report.
4. Future stages
 1. Detailed Design
 2. Land Acquisition
 3. Construction

Thank you for your time and participation.

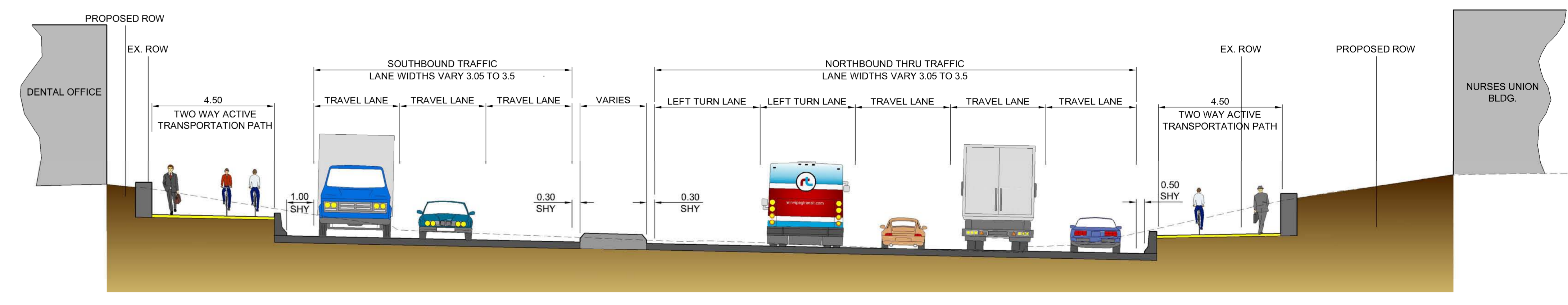
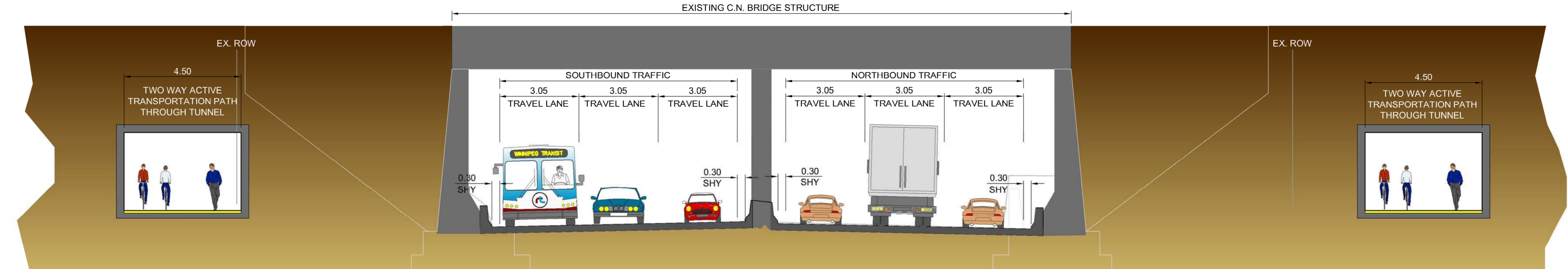
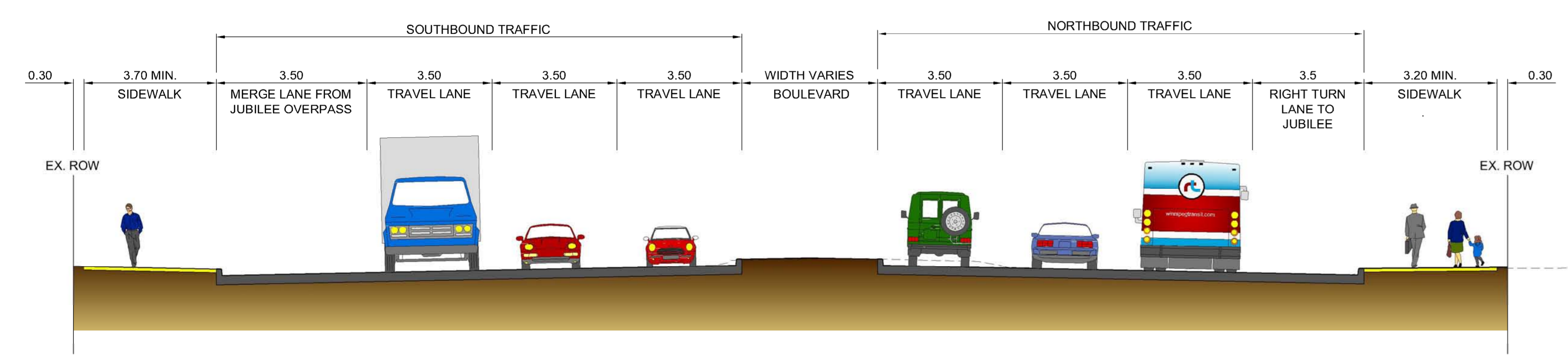
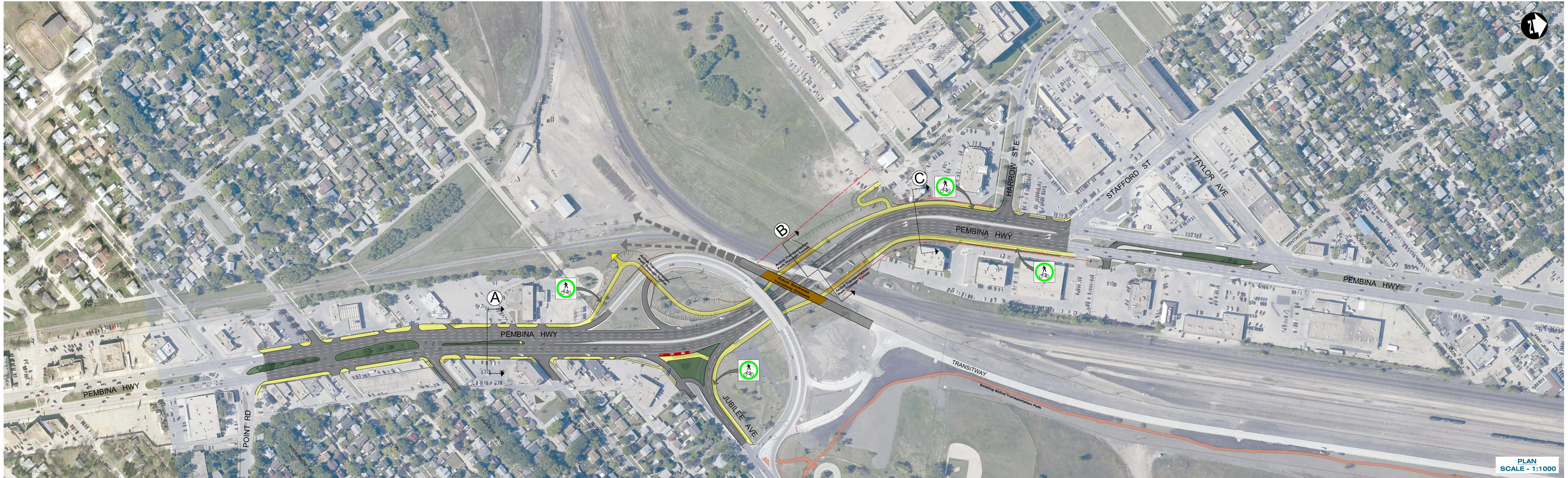
For more information, please contact:

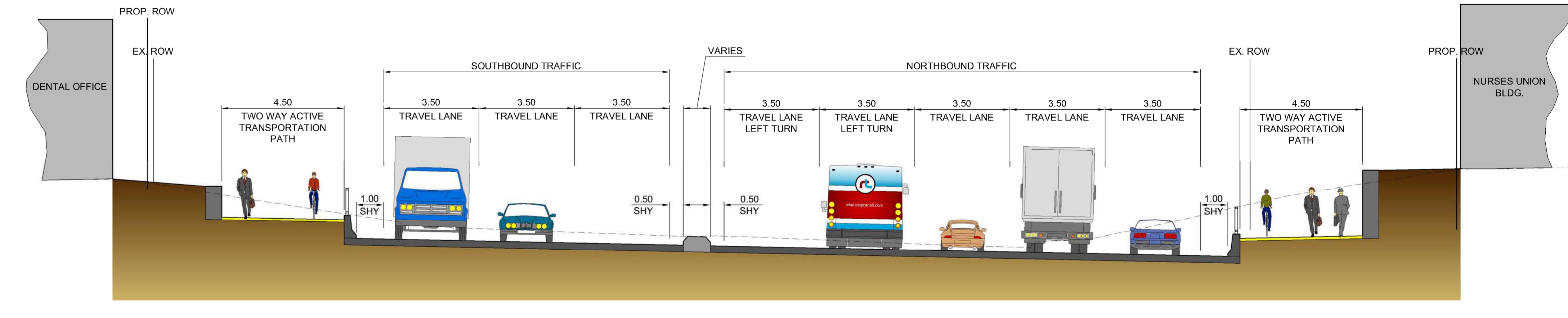
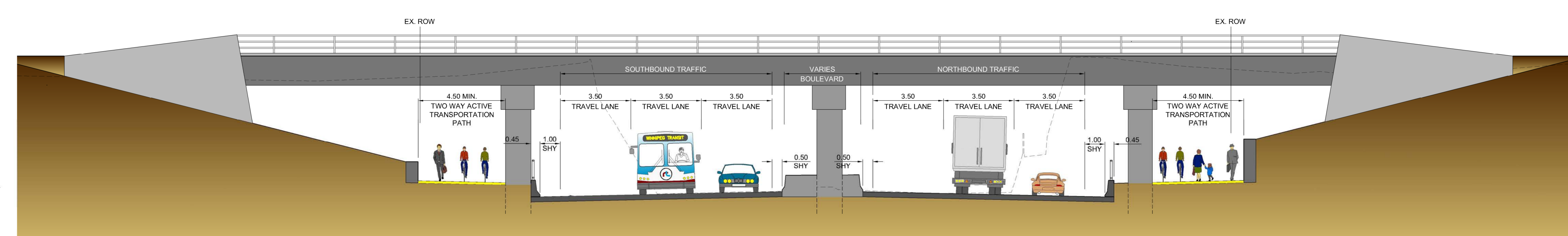
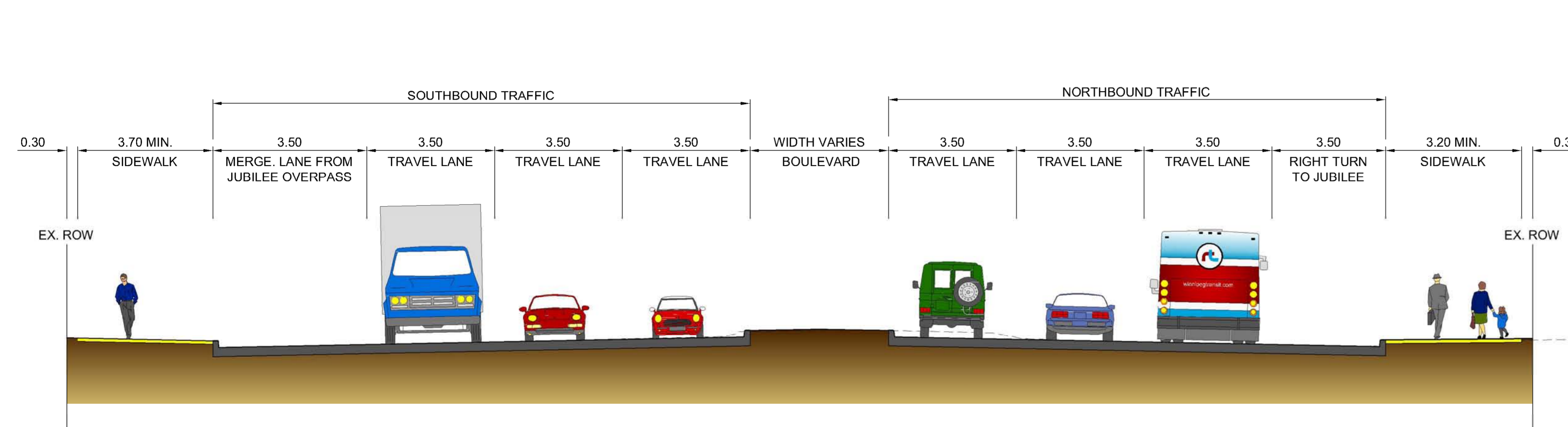
Jacqueline East, Planner (204) 453-2301, ext. 4048 or jeast@dillon.ca

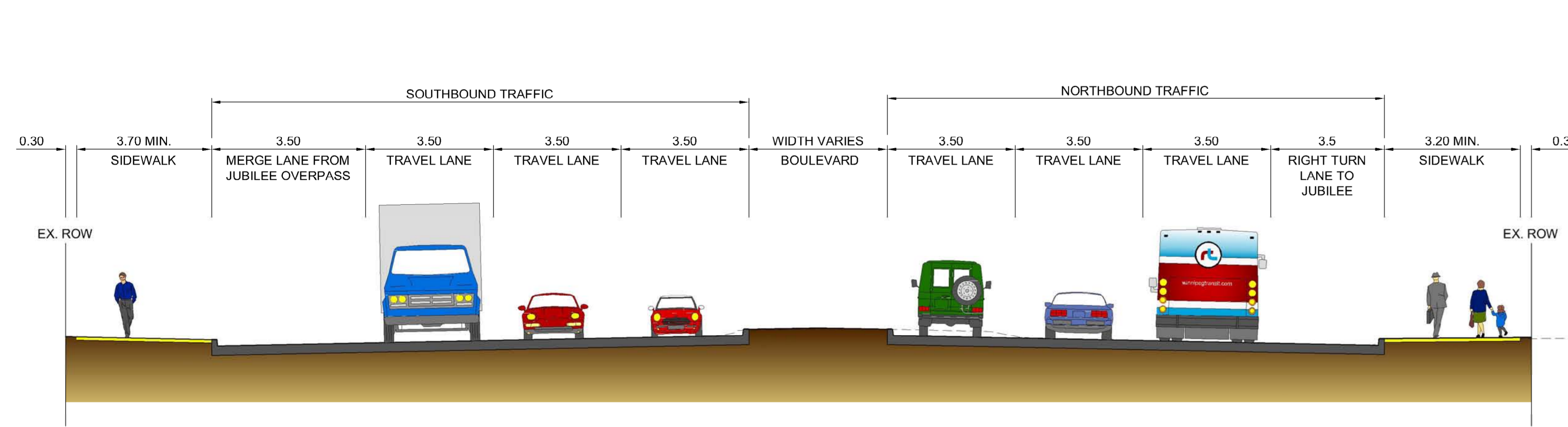
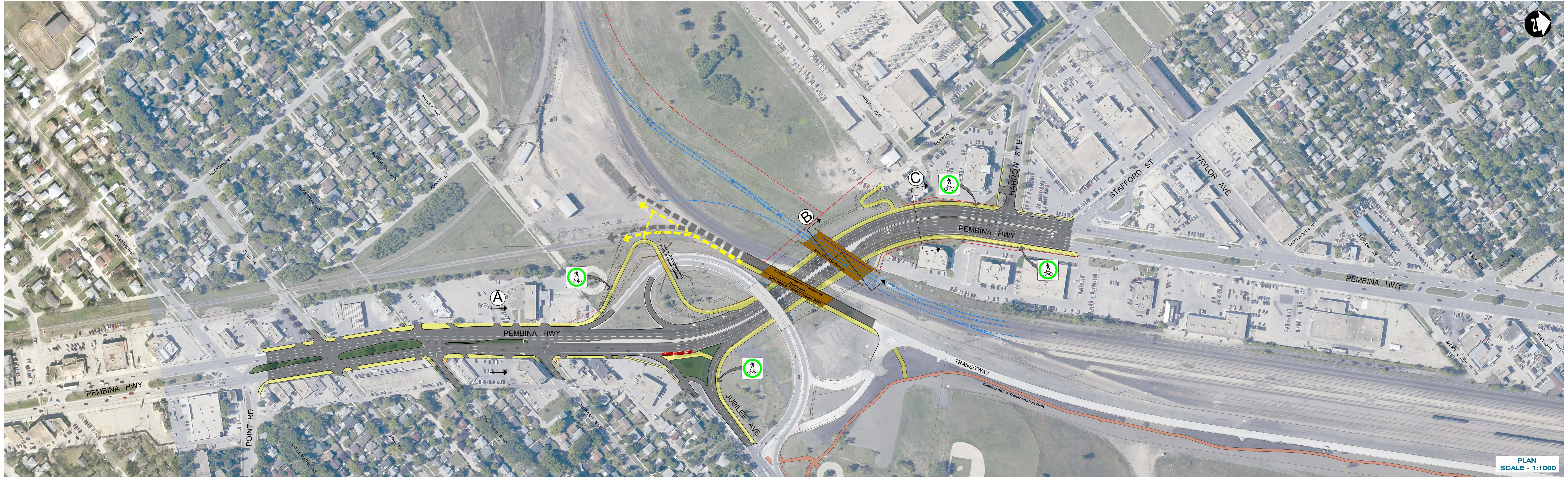
Or visit the webpage www.Winnipeg.ca/PembinaHighwayUnderpass



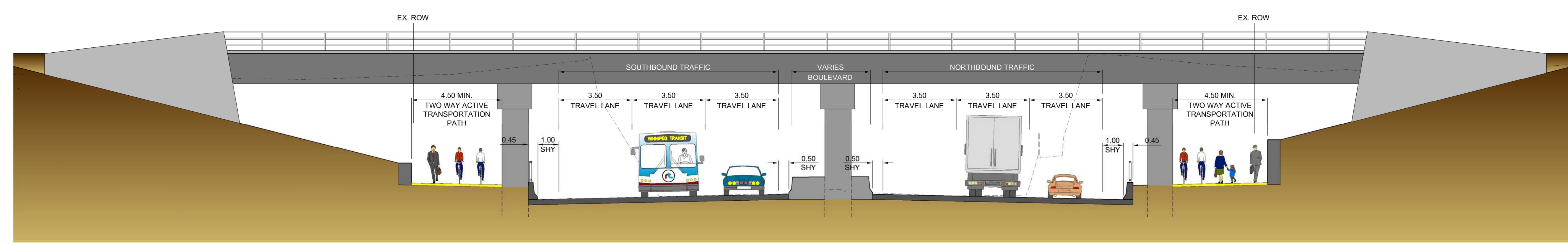
CONCEPT 1 - ALIGNMENT/CROSS SECTIONS



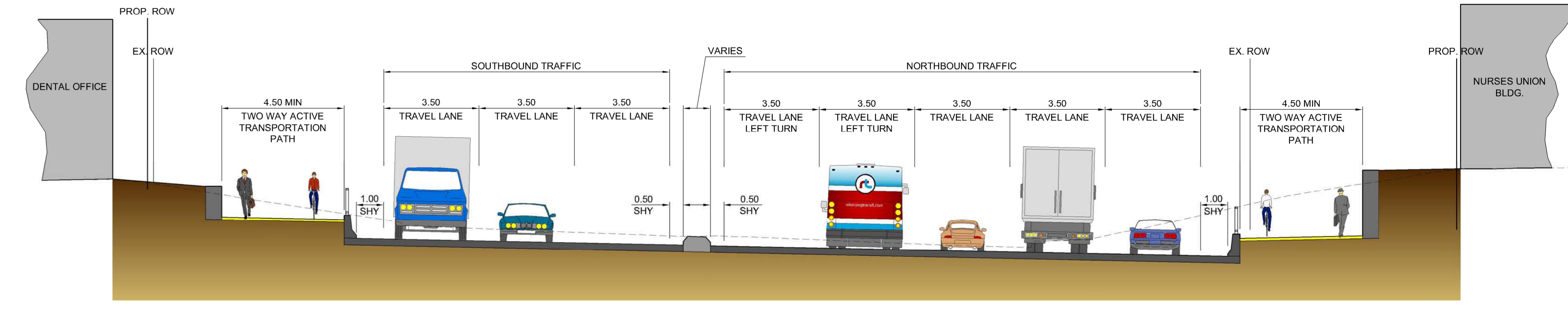




SECTION 'A'
SCALE - 1:100



SECTION 'B'
SCALE - 1:100



SECTION 'C'
SCALE - 1:100