



Regina City Square Plaza: Executing a Plan for Shared Space

Outline

1. History of Regina's First Shared Street
2. Options Examined
3. Challenges and Successes
4. Operations Experience
5. Lessons Learned

The Beginning

Concept for City Square Plaza was identified in Regina's Downtown Neighbourhood Plan – Walk to Work



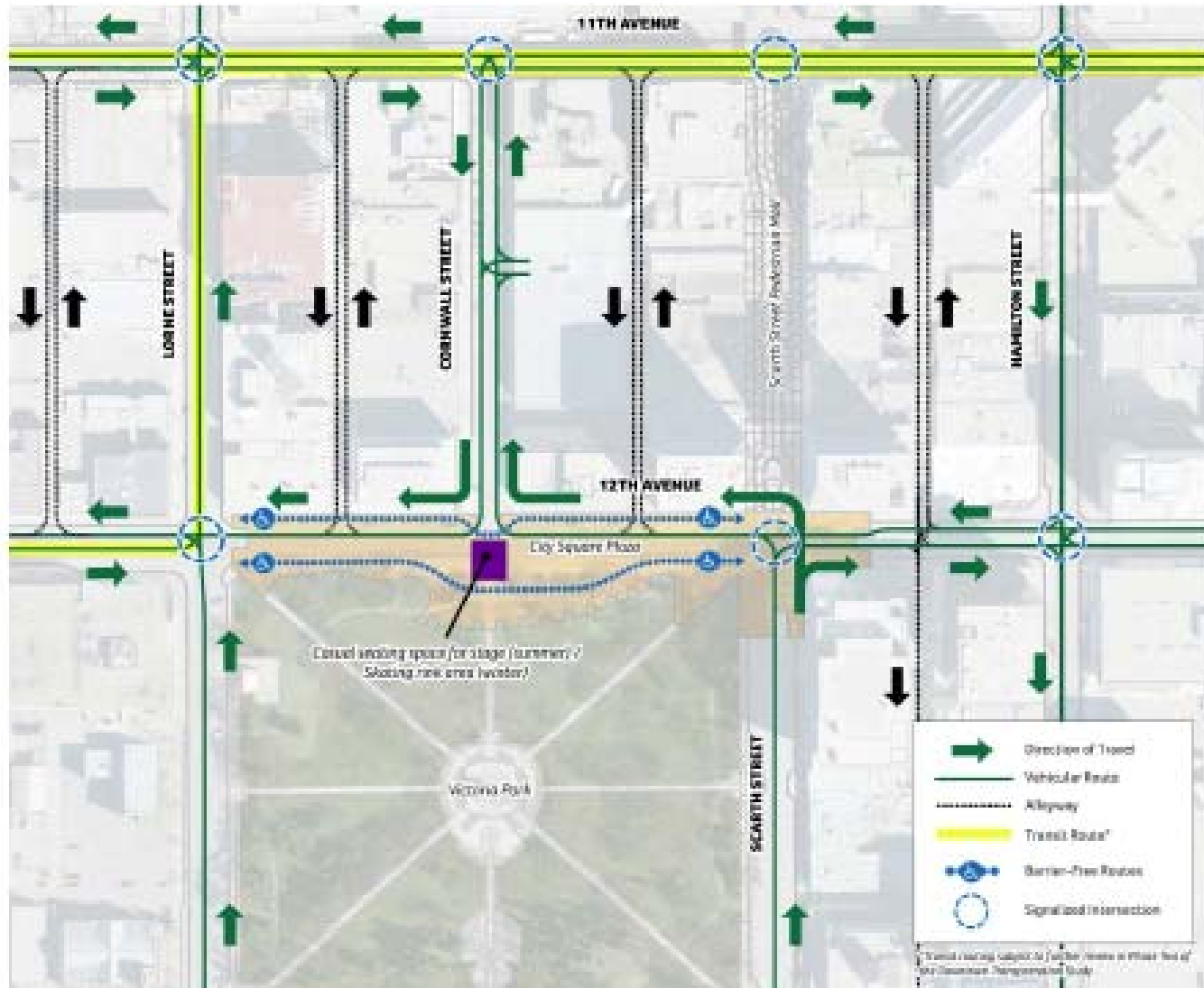
Artist's concept of 12th Avenue - traffic can move slowly through the WOW Project space, defined by a consistent plaza treatment and enhanced streetscaping around its edges.

The (Almost) Final Plaza

Upon Completion, a decision had to be made on whether to open the plaza to vehicles



Final Traffic Management Plan



Consultation

- Three Public Open Houses held in on March 1st, April 5th and May 8th, 2012.
- Meetings with 6 stakeholder groups and organizations
- Opportunities for input via a project specific e-mail
- Regular study updates via the City of Regina website



Stakeholders:

- Regina Downtown BID
- Police, fire and ambulance representatives
- Cornwall Centre
- Building owners and tenants
- Accessibility Advisory Committee
- Blind and low vision community reps
- Chamber of commerce

Key Messages from Consultation

- A wide range of opinions! Some people feel that the Plaza should be opened to traffic immediately. Just as many expressed a desire to remain closed to traffic.
- The greatest dissatisfaction stemmed from the *lack of circulation and accessibility for vehicles*.

Despite differing opinions on the square with respect to its use by traffic, the majority of the public and key stakeholders stated that the square is visually attractive



Evaluation of Alternatives

- Evaluation criteria follow from public and stakeholder consultations, and same procedure as used for existing conditions
 - Traffic operations
 - Transit operations
 - Walking
 - Cycling
 - Accessibility
 - Parking and Loading
- Technical evaluation
 - *Detailed Simulation Model*

Option 1: Remain Closed

Criteria	Evaluation
Traffic operations	<ul style="list-style-type: none"> Does not address congestion issues on 11th Avenue
Circulation and access	<ul style="list-style-type: none"> Forced u-turns along north edge of square at Cornwall Street/alleys No vehicular access to properties fronting on 12th Avenue Limits movements from Scarth Street
Parking and loading	<ul style="list-style-type: none"> Continued limited access to Cornwall Street parkade Limited access to alleys between Lorne and Scarth Streets for servicing and loading Vehicles unable to complete u-turn at south end would not be able to access alleyways No impact on on-street parking
Pedestrian safety	<ul style="list-style-type: none"> No motorized vehicles on City Square Plaza, increasing safety Low pedestrian volumes in off-peak periods result in reduced passive surveillance
Accessibility	<ul style="list-style-type: none"> Key issue is safety of crossings at Scarth Street and Lorne Street No conflicts with motorized vehicles in City Square Plaza
Pedestrian environment	<ul style="list-style-type: none"> Maximizes pedestrian priority and space Reduced noise and emissions from vehicles
Maintenance	<ul style="list-style-type: none"> Reduced maintenance requirements due to less wear and tear from no vehicular traffic
Programming	<ul style="list-style-type: none"> Maximizes availability of City Square Plaza for programming and events Added pressure to program square aggressively to maintain a minimum level of activity

Option 2: Open to Traffic One-way Eastbound or Westbound

Criteria	Evaluation
Traffic operations	<ul style="list-style-type: none"> • Provides limited off-loading of westbound traffic from 11th Avenue to 12th Avenue • Improves operation of Cornwall Street/ 11th Avenue intersection
Circulation and access	<ul style="list-style-type: none"> • Provides exit routes at south end of Cornwall Street and the alleyways immediately to its east and west • Provides vehicular access to buildings fronting on 12th Avenue/City Square Plaza • Eliminates need for u-turns
Parking and loading	<ul style="list-style-type: none"> • Improves access to Cornwall Street parkade • Facilitates loading and servicing of businesses in alleys • Does not impact on-street parking
Pedestrian safety	<ul style="list-style-type: none"> • Motorized vehicle movements limited to one direction and on one side of City Square Plaza • Minimizes conflict points between pedestrians and motorists • Allowing through traffic may increase vehicular speeds (could be reduced by limiting through traffic) • Slow moving vehicular traffic could serve as passive surveillance
Accessibility	<ul style="list-style-type: none"> • Large zone on south side of City Square Plaza remains free of motorized vehicles, allowing for barrier-free route • Signalized intersections with audible signals required at Scarth and Lorne • Improves access for specialized transit by allowing direct access to buildings on 12th Avenue
Pedestrian environment	<ul style="list-style-type: none"> • Increases animation of City Square Plaza by adding visual element • Large number of vehicles may create negative impacts due to exhaust, emissions, and noise
Maintenance	<ul style="list-style-type: none"> • Increased risk of damage, higher rate of wear and tear • Higher snow clearing standard for vehicular operation (without using plows)
Programming	<ul style="list-style-type: none"> • Maintains a large section of City Square Plaza free of vehicular traffic for programming • Traffic in front of permanent stage area would limit usability

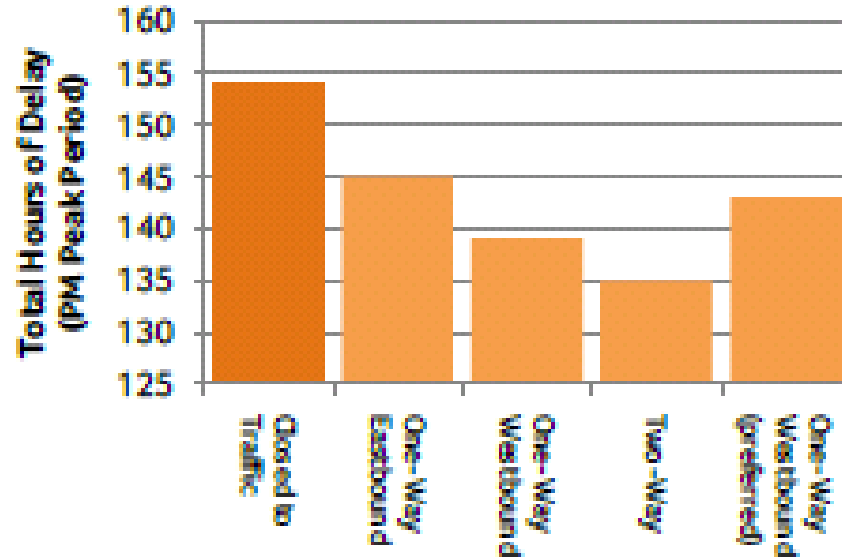
Option 3 Open to Traffic Two-Way

Criteria	Evaluation
Traffic operations	<ul style="list-style-type: none"> • Shifts traffic from 11th Avenue to City Square Plaza even if not essential (i.e. eastbound movements that are less congested) • Amount of vehicular traffic still limited by design and speed of shared space • Closing of square for events would create greater impacts on traffic
Circulation and access	<ul style="list-style-type: none"> • Maximizes vehicular circulation by allowing for full two-way traffic and all turning movements through the square • Provides vehicular access to buildings fronting on 12th Avenue/City Square Plaza • Eliminates need for u-turns
Parking and loading	<ul style="list-style-type: none"> • Maximizes access to Cornwall Street parkade from both 11th Avenue and 12th Avenue • Allows for full access to alleyways to provide additional loading capacity
Pedestrian safety	<ul style="list-style-type: none"> • Two-way vehicular traffic with full access to intersecting streets significantly increases potential conflicts between pedestrians and automobiles • Through traffic increases the risk of higher travel speeds through City Square Plaza
Accessibility	<ul style="list-style-type: none"> • Two-way traffic reduces potential area for barrier-free routes; increases in potential turning movements increases safety risk • No physical separation from two-way traffic • Signalized intersections with audible signals required at Scarth and Lorne
Pedestrian environment	<ul style="list-style-type: none"> • Large number of vehicles may create negative impacts due to exhaust, emissions, and noise • Area dedicated for pedestrians reduced
Maintenance	<ul style="list-style-type: none"> • Increased risk of damage, higher rate of wear and tear • Higher snow clearing standard for vehicular operation (without using plows)
Programming	<ul style="list-style-type: none"> • Potential conflicts and less flexibility for use of City Square Plaza for events due to need to close roadway on regular basis

Transportation Network Evaluation

Summary of VISSIM Analysis, PM Peak Hour

- None of the options 'fix' 11th Avenue on their own
- 1 way westbound offers nearly the same benefit of 2-way
- Preferred alternative also provides notable benefits

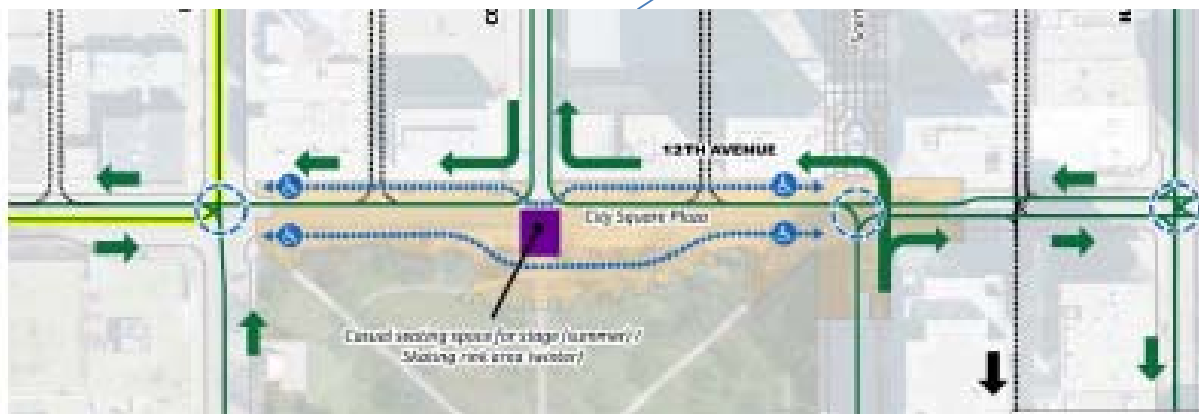
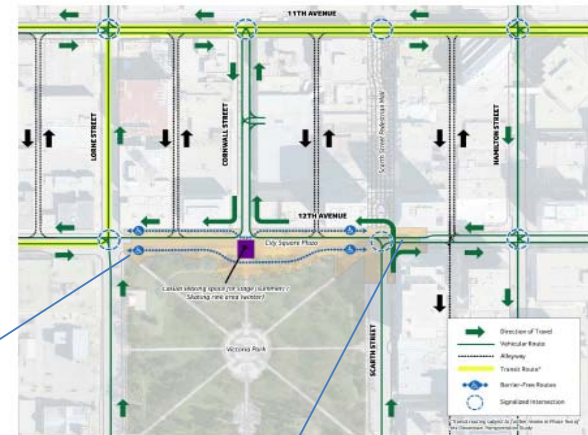


VISSIM Models - Traffic Results	Total Network Delay (hrs)	% Difference
Base (Closed)	154	n/a
1-Way Eastbound	145	-5%
1-Way Westbound	139	-10%
2-Way	135	-15%
1-Way Westbound, Preferred	143	-7%

Preferred Approach

Key guidance from Evaluation and Consultations:

- Balance the competing needs of users:
 - Preserve the Plaza
 - Improve vehicular accessibility
 - Maintain safety
 - Limit through traffic
 - Ensure slow speeds
 - Improve 11th Avenue
 - Provide operational and event flexibility



Operation of City Square Plaza

Signage



Key operational recommendations:

- Signage, education and awareness
- Barrier-free route
- Opening and closing of Square
- Speed limits and enforcement
- Maintenance

Tactile Surface



Removable Bollards



Accessibility Issues

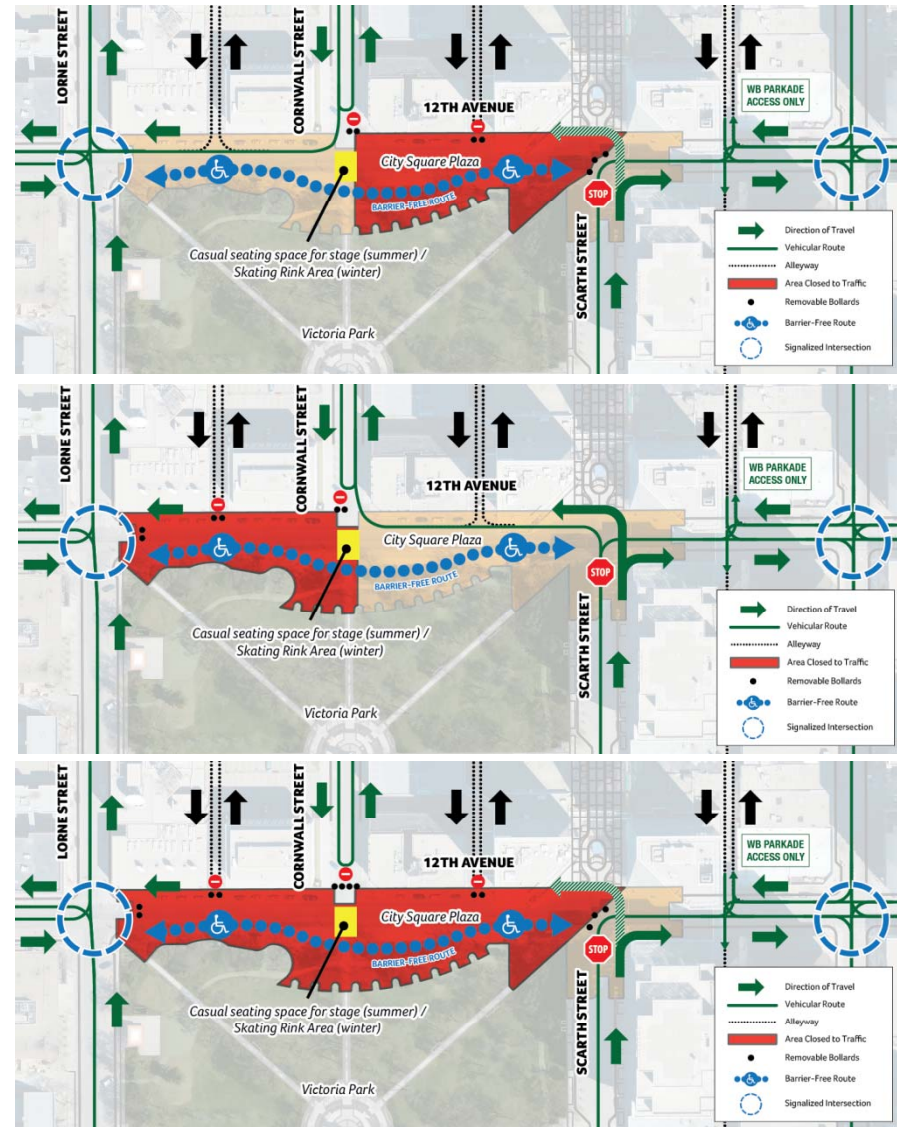


Accessibility Issues



Opening and Closing of Square

- Potential for flexible opening and closing the Square or sections of the Square



The Result

- A balanced alternative for 12th Avenue at City Square Plaza
- Minor improvements to address geometric and accessibility concerns
- It works!



Questions

