

2014

Mayfair/Kelsey-Woodlawn  
Neighbourhood Traffic  
Management Plan



*City of*  
**Saskatoon**

Transportation & Utilities Department

July 2014

## Executive Summary

The intent of the Neighbourhood Traffic Management Program is to address traffic concerns within neighbourhoods such as speeding, shortcutting, and pedestrian safety. Initially focusing on specific streets or small areas within neighbourhoods, the program was revised in August 2013 to address traffic concerns on a neighbourhood-wide basis. The revised program involves additional community and stakeholder consultation and provides the environment for the neighbourhood residents and City Staff to work together and develop solutions to address traffic concerns. The process is outlined in the ***City of Saskatoon Traffic Calming Guidelines and Tools*** (2013).

A public meeting was held in June of 2013 to identify traffic concerns and potential solutions or mitigation measures. Following the meeting a number of traffic assessments were completed to confirm and quantify the concerns raised by the residents. Based on the residents input provided at the initial public meeting, and the traffic data collected, a Traffic Management Plan was developed and presented to the community at a second public meeting held in October 2013.

Outlined in **Table ES-1** and **Table ES-2** is a summary of the proposed improvements for the Mayfair and Kelsey-Woodlawn neighbourhoods. The summary identifies the locations, the proposed improvement, and a schedule for implementation.

The schedule to implement the Traffic Management Plan can vary depending on the complexity of the proposed improvement. According to the ***City of Saskatoon Traffic Calming Guidelines and Tools*** document, the time frame may range from short (1 to 2 years); medium (1 to 5 years) and long (5 years plus). Accordingly, the specific time frame to implement the improvements for these neighbourhoods ranges from 1 to 5 years. The resulting proposed Mayfair/Kelsey-Woodlawn Traffic Management Plan is illustrated in **Exhibit ES-1**.

**Table ES-1: Mayfair Neighbourhood Improvements Summary**

Location	Proposed Measure	Time Frame
34 Street & Avenue E; 34 Street & Avenue F; 35 Street & Avenue E; 36 Street & Avenue E; 37 Street & Avenue D; 37 Street & Avenue E; and 37 Street & Avenue F	Zebra (ie. Striped) pedestrian crosswalk	1 to 2 years
34 Street & Avenue I	Standard pedestrian crosswalk	
34 Street & Avenue C; 35 Street & Avenue D; 37 Street & Avenue C; and 37 Street & Avenue F	Change yield signs to stop signs (not shown on map)	
37 Street & Avenue B	No parking signs 10m from intersection (not shown on map)	
Back Lanes between 38 Street/39 Street & Avenue B/Avenue C, and 37 <sup>th</sup> Street/38 <sup>th</sup> Street & Avenue C/ Avenue D	20kph speed signs (not shown on map)	
39 Street & Idylwyld Drive	Accessibility ramps	
34 Street & Avenue E	Curb extensions (northwest and southwest corners)	1 to 5 years (devices will be installed temporarily until proven effective)
34 Street & Avenue I	Median island	
35 Street & Avenue E	Curb extension (southwest corner)	
35 Street & Avenue I	Curb extensions (northwest and northeast corners)	
36 Street & Avenue C	Directional closure	
36 Street & Avenue E	Curb extensions (northwest and southeast corner)	
36 Street & Avenue G	Median island (east leg)	
37 Street & Avenue B	Median islands (north and south legs)	
37 Street & Avenue D	Curb extension (northwest corner)	
37 Street & Avenue E	Median island (west leg)	
38 Street & Avenue C	Directional closure	
38 Street & Avenue D	Median islands (east, west and south legs)	
38 Street & Avenue G	Median island (east leg)	
39 Street & Avenue E	Median island (east and west legs)	
Avenue C – south of railway tracks	Curb extension and median island	
36 Street & Idylwyld Drive	Operations improvement (not shown on map)	5 years plus
39 Street & Idylwyld Drive	Add left turn arrow phase (not shown on map)	
37 Street between Avenue B & Avenue D (both sides)	Sidewalk	
37 Street between Avenue F & Avenue I (north side)		
38 Street between Idylwyld Drive & Avenue G (both sides)		
Avenue D between 38 Street Alley near park (west side)		

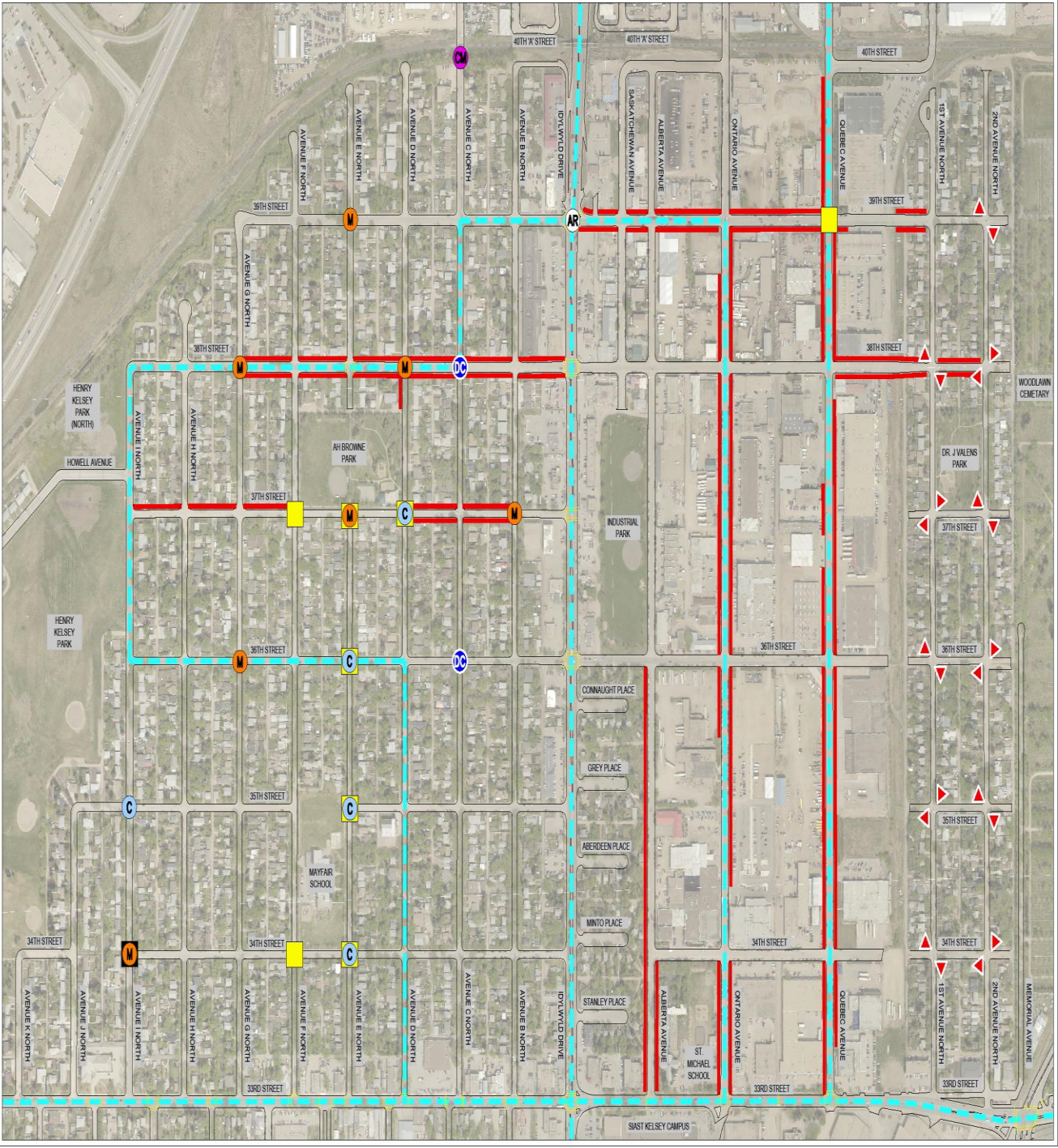
**Table ES-2: Kelsey-Woodlawn Neighbourhood Improvements Summary**

Location	Proposed Measure	Time Frame
1 Avenue between 34 Street & 38 Street; 2 Avenue between 34 Street & 39 Street	Yield signs	1 to 2 years
39 Street & Saskatchewan Avenue; 39 Street & Alberta Avenue	Change yield signs to stop signs (not shown on map)	
39 & Quebec Avenue	Zebra (ie. Striped) pedestrian crosswalk	
Alberta Avenue between 33 Street & 34 Street (both sides)	Sidewalk	5 year plus
Alberta Avenue between 34 Street & 36 Street (west side)		
39 Street between Idylwyld Drive & 1 Avenue (both sides)		
Quebec Avenue between 33 Street and 40 Street (both sides)		
Ontario Avenue Between 33 Street & 39 Street (both sides)		
38 Street between Quebec Avenue & 2 Avenue (both sides)		

# MAYFAIR/KELSEY - WOODLAWN TRAFFIC PLAN



- DC DIRECTIONAL CLOSURE
- C CURB EXTENSIONS
- M MEDIAN ISLAND
- ZEBRA CROSSWALK UPGRADE
- AR ACCESSIBILITY RAMP INSTALLATION
- ▼ YIELD SIGN INSTALLATION
- CM CURB EXTENSION WITH MEDIAN ISLAND
- R ROUNDABOUT
- STANDARD CROSSWALK UPGRADE
- BUS ROUTE
- SIDEWALK INSTALLATION



## TABLE OF CONTENTS

Executive Summary .....	i
1 Study Purpose.....	1
2 Issue Identification .....	1
3 Neighbourhood Traffic Management Plan Development.....	8
4 Presentation of Plan to Stakeholders .....	11
5 Plan Implementation .....	16

## LIST OF TABLES

Table 1: City of Saskatoon Roadway Classifications and Characteristics .....	8
Table 2: Speed Studies and Average Daily Traffic Counts (2013) .....	9
Table 3: All-way Stop Studies .....	10
Table 4: Pedestrian Studies .....	11
Table 5: Avenue C Recommendations.....	11
Table 6: Directional Closures Recommendations .....	12
Table 7: Pedestrian Safety Improvements – A.H. Browne Park.....	13
Table 8: Pedestrian Safety Improvements – School Sites.....	14
Table 9: Pedestrian Safety Improvements – Bus Routes .....	14
Table 10: Accessibility Improvements for Seniors / Disabled Users.....	15
Table 11: Traffic Control Improvements .....	15
Table 12: Permanent Traffic Calming Cost Estimate .....	17
Table 13: Marked Pedestrian Crosswalks Cost Estimate.....	18
Table 14: Traffic Control Signage – Stop & Yield Cost Estimate.....	18
Table 15: Parking and Speed Limit Signage Cost Estimate .....	18
Table 16: Sidewalks Cost Estimate.....	19
Table 17: Accessibility Ramps Cost Estimate .....	19
Table 18: Traffic Operation Improvements Cost Estimate.....	19

## 1 Study Purpose

The purpose of this project was to develop a Traffic Management Plan for the Mayfair and Kelsey-Woodlawn neighbourhoods following the procedure outlined in the **City of Saskatoon Traffic Calming Guidelines and Tools** document adopted by City Council in August 2013.

The development of the Traffic Management Plan includes four stages:

- **Stage 1** - Identify existing problems, concerns and possible solutions through initial neighbourhood consultation and the Shaping Saskatoon Website.
- **Stage 2** - Develop a traffic plan based on resident's input and traffic data collected.
- **Stage 3** - Present a traffic plan to the neighbourhood at a follow-up meeting; present a draft plan to the residents and other civic Divisions for feedback regarding the proposed measures in the plan; and forward to City Council for approval.
- **Stage 4** - Implement the proposed measures in a specific time frame, short term (1 to 2 years), medium term (1 to 5 years), or long term (5 years plus).

## 2 Issue Identification

A public meeting was held in June 2013 to identify traffic concerns within the neighbourhoods. At the meeting, residents were given the opportunity to express their concerns and identify possible solutions.

A majority of the residents were concerned about speeding, pedestrian safety and shortcutting as a result of the temporary diverter. The temporary diverter was installed at the intersection of Avenue C and 38 Street in 2011 to reduce the shortcutting traffic on Avenue C between 33<sup>rd</sup> Street and Circle Drive. Following its installation, there was little support for the diverter from the community, and the meeting gave them an opportunity to express their concerns and suggest other possible solutions.

The following pages contain summaries of the neighbourhood concerns collected during the initial neighbourhood consultation, and proposed solutions.

## CONCERN 1 - TRAFFIC VOLUME/SHORTCUTTING

Shortcutting through neighbourhoods is often caused by motorists avoiding arterial streets and trying to find the shortest route. Mayfair has experienced a high volume of traffic on Avenue C as a result of higher traffic volumes on Circle Drive, Idylwyld Drive, and 33<sup>rd</sup> Street.

To address this issue, a temporary diverter was installed at the intersection of Avenue C and 38<sup>th</sup> Street in 2011. Many of the residents felt that the diverter was causing traffic volume increases on the adjacent streets and back lanes. A majority of the concerns outlined below are believed to be due to the diverter.

### Neighbourhood Concerns

- Avenue D near A.H. Browne Park: shortcutting/increased traffic volumes
- 34<sup>th</sup> Street & Avenue E (south corner of Mayfair School): increased traffic volumes
- 35<sup>th</sup> Street, 36<sup>th</sup> Street, 39<sup>th</sup> Street, Avenue B, and Avenue G: high traffic volumes
- 39<sup>th</sup> Street & Idylwyld Drive: long queues; delays at the traffic signals; traffic spills back to 4-way stop at Avenue C; McDonalds and strip mall entrance make it worse
- 36<sup>th</sup> Street & Idylwyld Drive: long queues at traffic signals; road is too narrow to make right turn
- Avenue G north of 33<sup>rd</sup> Street
- Royal Bank and Co-Op on Avenue C: causes shortcutting and high traffic volumes on Avenue C

### Proposed Solutions

- Upgrade traffic signals at 39<sup>th</sup> Street & Idylwyld Drive to include a dedicated left-turn (arrow)
- 39<sup>th</sup> Street & Idylwyld Drive: change to right-in/right-out because left-turning cars from these businesses block traffic at McDonalds, Best Western, strip mall
- Make Avenue C and Avenue B one-way streets
- Install signs restricting trucks/semis
- Royal Bank and Co-Op on Avenue C: need to be removed because it's a nuisance to access; need to change exits to encourage use of Circle Drive



## **CONCERN 2 – SPEEDING**

A majority of the residents in the neighbourhood were concerned with speeding of traffic as a result of the diverter, specifically on 38<sup>th</sup> Street. In addition, speeding near school sites and parks was also raised as a concern since there are many children in the area who walk to schools and play in the parks.

The posted speed limit in the neighbourhood is 50kph, and 30kph in the school zone. The specific concerns are outlined below.

### **Neighbourhood Concerns**

- 38<sup>th</sup> Street between Avenue I to Avenue C
- Near A.H. Browne Park on Avenue D
- Avenue I
- Back lanes; particularly near traffic diverter (38<sup>th</sup> 39<sup>th</sup> Street & Avenue B/C; and 37<sup>th</sup> /38<sup>th</sup> Street Avenue C/D)
- Avenue F between 35<sup>th</sup> Street & 36<sup>th</sup> Street
- 39<sup>th</sup> Street between Idylwyld Drive & 1 Avenue
- Avenue G north of 33<sup>rd</sup> Street
- Avenue B between 38<sup>th</sup> Street & 39<sup>th</sup> Street

### **Proposed Solutions**

- Increase police presence

### CONCERN 3 - TRAFFIC CONTROL

Traffic control signs are used in order to assign the right-of-way and must meet guidelines in Council Policy C07-007 *Traffic Control – Use of Stop and Yield Signs*. Stop and yield signs are not to be used as speed control devices, to stop priority traffic over minor traffic, on the same approach to an intersection where traffic signals are operational, or as a pedestrian crossing device.

An all-way stop must meet the conditions for traffic volume, collision history and must have a balanced volume from each leg to operate sufficiently.

Stop and yield signs were installed throughout the Mayfair neighbourhood to address changing traffic patterns as a result of the diverter. A majority of the concerns outlined below were due to these changes.

#### Neighbourhood Concerns

- 37<sup>th</sup> Street & Avenue B: yield sign reorientation has increased speed
- 37<sup>th</sup> Street & Avenue C: yield sign reorientation has caused many near misses
- 37<sup>th</sup> Street & Avenue D: not in favour of stop signs that were removed (when diverter was installed); increased speeding on Avenue D between 36 Street & 38 Street
- 36<sup>th</sup> Street westbound from Idylwyld Drive is dangerous at every intersection (Avenue B, Avenue D, Avenue F, etc.)
- 39<sup>th</sup> Street & Avenue E: drivers ignoring yield signs
- 34<sup>th</sup> Street & Avenue E (south corner of Mayfair School): drivers not yielding; many near misses

#### Proposed Solutions

- 34<sup>th</sup> Street & Avenue I: 3-way stop
- 36<sup>th</sup> Street & Avenue I: 3-way stop
- 36<sup>th</sup> Street & Avenue C: 4-way stop
- Change yield signs to stop signs because people aren't slowing down
- More stop signs to slow drivers

#### **CONCERN 4 - PEDESTRIAN SAFETY**

A majority of the residents have children that attend Mayfair School and play in A.H. Browne Park. They expressed a concern that the area lacked safe pedestrian crosswalks and sidewalks.

Pedestrian crosswalks need to meet the City of Saskatoon's Pedestrian Crossing Policy (*C07-018 Traffic Control at a Pedestrian Crossing*).

##### **Neighbourhood Concerns**

- 34<sup>th</sup> Street & Avenue E; and 34<sup>th</sup> Street & Avenue F (Mayfair School): needs improved crosswalk
- A.H. Browne Park: crossings need to be improved
- 39<sup>th</sup> Street between 1 Avenue & Avenue C, 39<sup>th</sup> Street between Avenue C & Ontario Avenue; Ontario Avenue between 33<sup>rd</sup> Street & 39<sup>th</sup> Street; and Quebec Avenue between 33<sup>rd</sup> Street & Circle Drive: need sidewalks, especially near bus stops; pedestrians walking on street along bus routes
- 38<sup>th</sup> Street between Idylwyld Drive & Avenue G; 37<sup>th</sup> Street between Avenue B & Avenue D; 37<sup>th</sup> Street between Avenue F & Avenue I; Alberta Avenue between 33<sup>rd</sup> Street & 34<sup>th</sup> Street; all bus routes: need sidewalks
- Alberta Avenue between 33<sup>rd</sup> Street & 36<sup>th</sup> Street: students from SIAST and St. Michaels School walk on the street because there are no sidewalks
- 39<sup>th</sup> Street & Idylwyld Drive: unsafe to reach pedestrian lights because there are no ramps
- Temporary curbs used for traffic calming devices limit accessibility for scooters/wheelchairs
- 33<sup>rd</sup> Street & Avenue H: vehicles are turning when pedestrians are crossing 33<sup>rd</sup> Street and there has been near misses

##### **Proposed Solutions**

- Install sidewalks
- Install accessibility ramps at 39<sup>th</sup> Street & Idylwyld Drive

## CONCERN 5 - TRAFFIC DIVERTER

There were a number of concerns regarding the traffic diverter in addition to the shortcutting concerns previously mentioned. These included the appearance, location, and orientation of the diverter. More details are provided below.

### Neighbourhood Concerns

- Driving over lawn to get around diverter
- Pedestrians can't cross; barriers cut off access to sidewalks
- Diverter is unaesthetic/eyesore
- Accessibility for wheelchairs, scooters, cyclists etc.

### Proposed Solutions

- Change direction of diverter to direct towards Idylwyld Drive
- Re-route traffic to Avenue B, not Avenue D next to the park
- Move diverter to 37<sup>th</sup> Street
- Diverter should have been placed on 39<sup>th</sup> Street & Avenue C so drivers are directed to traffic signals at Idylwyld Drive instead of adjacent local side streets
- Move the diverter one block south so drivers won't speed by the park
- Install 4-way stop instead of diverter
- Traffic circle would be better option
- Use speed humps or rumble strips

### **CONCERN 6 – MAINTENANCE**

Residents feel that streets need improved maintenance.

#### **Neighbourhood Concerns**

- Potholes
- Icy conditions make trucks slide into diverter hitting signs
- During winter months roads are narrowed from snow buildup and cars park further onto street

#### **Proposed Solutions**

- Avenue C between 38<sup>th</sup> Street & Circle Drive; and 39<sup>th</sup> Street between Avenue C & Idylwyld Drive needs paving

### **CONCERN 7 – PARKING**

Parking is allowed on all city streets unless signage is posted. Under Bylaw 7200, The Traffic Bylaw, vehicles are restricted from parking within 10 metres of an intersection and one metre of a driveway crossing.

#### **Neighbourhood Concerns**

- Avenue D: parking on west side restricts visibility
- 36<sup>th</sup> Street: parked vehicles make it very narrow for 2-way traffic
- Avenue B: trucks illegally parking

#### **Proposed Solutions**

- Increase police presence and parking enforcement

### 3 Neighbourhood Traffic Management Plan Development

Stage 2 of the implementation process includes developing a Traffic Management Plan using the input received by the residents from the Mayfair and Kelsey-Woodlawn neighbourhoods and undertaking traffic assessments.

#### 1. Traffic Volumes and Travel Speeds

Traffic volumes and travel speeds were measured to determine the need for traffic calming devices. Neighbourhood streets are classified as either local or collector streets. Traffic volumes (referred to as Average Daily Traffic or ADT) on these streets should meet the City of Saskatoon guidelines shown in **Table 1**.

**Table 1: City of Saskatoon Roadway Classifications and Characteristics**

Characteristics	Classifications					
	Back Lanes		Locals		Collectors	
	Residential	Commercial	Residential	Commercial	Residential	Commercial
Traffic function	Access function only (traffic movement not a consideration)		Access primary function (traffic movement secondary consideration)		Traffic movement and land access of equal importance	
Average Daily Traffic (vpd)	<500	<1,000	<1,000	<5,000	<5,000	8,000-10,000
Typical Speed Limits (kph)	20		50		50	
Transit Service	Not permitted		Generally avoided		Permitted	
Cyclist	No restrictions or special facilities		No restrictions or special facilities		No restrictions or special facilities	
Pedestrians	Permitted, no special facilities		Sidewalks on one or both sides	Sidewalks provided where required	Typically sidewalks provided both sides	Sidewalks provided where required
Parking	Some restrictions		No restrictions or restriction on one side only		Few restrictions other than peak hour	

Travel speeds were measured to determine the 85<sup>th</sup> percentile speed (the speed at which vehicles are traveling at or below). The speed limit in the Mayfair/Kelsey-Woodlawn area is 50kph, except for school zones where the speed limit is 30kph between September and June (8:00am to 5:00pm) excluding weekends.

The speed studies and average daily traffic on streets where speeding was identified as an issue are summarized in **Table 2**.

**Table 2: Speed Studies and Average Daily Traffic Counts (2013)**

Location		Classification	Average Daily Traffic (vpd)	Speed (kph)	
Street	Between				
36 <sup>th</sup> Street	Avenue B & Avenue C	Collector	2,950	48	
38 <sup>th</sup> Street	Avenue D & Avenue E		2,430	50	
	Avenue E & Avenue F		2,115	52	
Avenue I	36 <sup>th</sup> Street & 37 <sup>th</sup> Street		1,808	51	
39 <sup>th</sup> Street	Alberta Avenue & Ontario Avenue	Local (Commercial)	3,560	51	
	Avenue B & Avenue C	Local	5,405	41	
	Avenue D & Avenue E		1,660	48	
Avenue B	between 34 <sup>th</sup> Street & 36 <sup>th</sup> Street		765	36	
	36 <sup>th</sup> Street & 37 <sup>th</sup> Street		930	43	
	38 <sup>th</sup> Street & 39 <sup>th</sup> Street		1,790	36	
Avenue C	36 <sup>th</sup> Street & 37 <sup>th</sup> Street		680	43	
	39 <sup>th</sup> Street & Railway tracks		5,305	47	
Avenue D	36 <sup>th</sup> Street & 37 <sup>th</sup> Street		900	39	
	37 <sup>th</sup> Street & 38 <sup>th</sup> Street		1,120	37	
	38 <sup>th</sup> Street & 39 <sup>th</sup> Street		410	38	
Avenue E	34 <sup>th</sup> Street & 35 <sup>th</sup> Street (School zone)		454	32 (school hours) & 41 (regular hours)	
Avenue F	35 <sup>th</sup> Street & 36 <sup>th</sup> Street		555	39	
Avenue G	33 <sup>rd</sup> Street & 34 <sup>th</sup> Street		573	43	
Back lane	Avenue B/Avenue C & 38 <sup>th</sup> Street/39 <sup>th</sup> Street		Back lane	9	30
	Avenue C/Avenue D & 37 <sup>th</sup> Street/38 <sup>th</sup> Street			3	31

## 2. Turning Movement Counts

Turning movement counts were completed to determine the need for an all-way (i.e. 3-way or 4-way) stop control. All-way stop controls need to meet Council Policy C07-007 *Traffic Control – Use of Stop and Yield Signs*. Criteria outlined in the policy that may warrant an all-way stop include a peak hour count greater than 600 vehicles or an ADT greater than 6,000 vehicles per day. Results of the studies are shown in **Table 3**.

**Table 3: All-way Stop Studies**

Location	Peak Hour Count	ADT (vehicles per day)	All-Way Stop Warrant
34 <sup>th</sup> Street & Avenue E	112	1,170	All-Way Stop Not Warranted
36 <sup>th</sup> Street & Avenue C	422	5,220	
36 <sup>th</sup> Street & Avenue D	439	5,370	
37 <sup>th</sup> Street & Avenue D	178	1,980	
37 <sup>th</sup> Street & Avenue B	151	2,100	
37 <sup>th</sup> Street & Avenue F	110	1,100	
38 <sup>th</sup> Street & Avenue C	429	5,460	
38 <sup>th</sup> Street & Avenue D	378	4,960	
38 <sup>th</sup> Street & Avenue G	367	4,670	
39 <sup>th</sup> Street & Quebec Avenue	1,320	13,710	

The intersection of 39<sup>th</sup> Street & Quebec Ave meets the traffic volume requirements for an all-way stop; however Council Policy C07-007 *Traffic Control – Use of Stop and Yield Signs* states that the traffic volume from the minor roadway must be no less than 35% of the total traffic volume entering the intersection for an all-way stop to be installed. In this case the traffic entering from the minor roadway was found to be 24% of the total volume; therefore, an all-way stop is not recommended as the traffic flows are not balanced and an all-way stop will create excessive delay for the majority of motorists.

## 3. Pedestrian Studies

Pedestrian studies are conducted to determine the need for pedestrian actuated signalized crosswalks; which are either active pedestrian corridor (flashing yellow lights) or pedestrian-actuated signals. A warrant system assigns points for a variety of conditions that exist at the crossing location, including: the number of traffic lanes to be crossed; the presence of a physical median; the posted speed limit of the street; the distance the crossing point is to the nearest protected crosswalk point; and the number of pedestrian and vehicles at the location. Pedestrian and traffic data is collected during the five peak hours 8:00am-9:00am, 11:30am-1:30pm, and 3:00pm-5:00pm.



In addition, if a pedestrian actuated crosswalk is not warranted, a marked pedestrian crosswalk such as the standard or a zebra (ie. striped) may be considered. A summary of the pedestrian studies are provided in **Table 4**.

**Table 4: Pedestrian Studies**

Location	Number of pedestrian crossings	Pedestrian Device Warrant
34 <sup>th</sup> Street & Avenue E	83	Not Warranted
37 <sup>th</sup> Street & Avenue F	47	
39 <sup>th</sup> Street & Quebec Avenue	23	

## 4 Presentation of Plan to Stakeholders

Stage 3 of the implementation process under the Neighbourhood Traffic Management Program is to draft a plan and present to the residents, and other Civic Divisions for feedback regarding the proposed improvements in the plan.

The tables in this section outline the details of the Traffic Management Plan, including the location, improvement, the reason for the improvement and a planned implementation date for each improvement.

### 1. Shortcutting on Avenue C

Motorists use Avenue C North as a shortcut between 33<sup>rd</sup> Street to Circle Drive, avoiding higher traffic volumes on Idylwyld Drive. The devices in **Table 5** are recommended as an alternative to the existing diverter.

**Table 5: Avenue C Recommendations**

Location	Improvement	Reason
Avenue C - south of railroad tracks (entrance to Mayfair)	Install curb extension* (west side) & median island	Reduce speed; passively inform drivers that they are entering neighbourhood
38 <sup>th</sup> Street & Avenue C	Install directional closure* southbound	Reduce shortcutting; encourage drivers to use 38 <sup>th</sup> Street (which is a collector roadway designed to carry higher traffic volumes)
36 <sup>th</sup> Street & Avenue C	Install directional closure* northbound	Reduce shortcutting; encourage drivers to use 36 <sup>th</sup> Street (which is a collector roadway designed to carry higher traffic volumes); encourage drivers to go to traffic signals at Idylwyld Drive

\*For details on these devices refer to the *City of Saskatoon Traffic Calming Guidelines and Tools*

**2. Changing Traffic Patterns Caused by Directional Closures**

Traffic patterns will change as a result of the directional closures. Motorists will choose to use other routes within the neighbourhood. As a result of the expected traffic pattern changes, a number of traffic calming devices have been recommended to be implemented at the locations identified in **Table 6**.

**Table 6: Traffic Calming Recommendations**

Location	Improvement	Reason
38 <sup>th</sup> Street & Avenue D	Install median islands* on east, west and south legs	Reduce shortcutting onto Avenue D (near park) caused by directional closure at 38 <sup>th</sup> Street & Avenue C; discourage drivers from turning left onto Avenue D
37 <sup>th</sup> Street & Avenue B	Install median islands on north and south legs; install signage to indicate "no parking" zone 10m from intersection on north and south legs	Reduce speed; discourage drivers from shortcutting onto Avenue B caused by directional closures on Avenue C – 38 <sup>th</sup> Street & 36 <sup>th</sup> Street; ensure motorists can pass between median island and parked vehicles
38 <sup>th</sup> Street & Avenue G; 36 <sup>th</sup> Street & Avenue G	Install median island (east leg)	Reduce speed
39 <sup>th</sup> Street & Avenue E	Install median island (east and west legs) with additional yield signs on median	Reduce speed; provide additional visibility for yield signs
36 <sup>th</sup> Street & Idylwyld Drive	Add left-turn arrow phase at traffic signals and widen 36 <sup>th</sup> Street to include Right-Turn lane (review after traffic calming measures are installed)	Prevent congestion on 36 <sup>th</sup> Street west of Idylwyld Drive
39 <sup>th</sup> Street & Idylwyld Drive	Add dedicated left-turn phase at traffic signals (review after traffic calming measures are installed)	Prevent congestion on 39 <sup>th</sup> Street west of Idylwyld Drive
Back lanes between 38 <sup>th</sup> Street/39 <sup>th</sup> Street & Avenue B/Avenue C; and 37 <sup>th</sup> Street/36 <sup>th</sup> Street & Avenue C/Avenue D	Install speed limit signs	Reduce speeds of motorists shortcutting through back lanes due to directional closure

\*For details on these devices refer to the *City of Saskatoon Traffic Calming Guidelines and Tools*

The proposed recommendation for the traffic signals and road widening are a result of the traffic impact that are expected from the directional closure. Typically arterial roadways are reviewed via a corridor study that considers multiple signalized intersections, transit, larger traffic volumes, access management, and adjacent land use. Upon implementation of the traffic calming measures within the neighbourhoods, a review will be undertaken to determine the extent of the modifications required at the signalized intersections.

**3. Pedestrian Safety**

**A.H. Browne Park:**

Residents in the area have children that attend the park on a daily basis. The improvements listed in **Table 7** are recommended to improve pedestrian safety and mobility. When the sidewalks have been constructed, accessible ramps will be included.

**Table 7: Pedestrian Safety Improvements – A.H. Browne Park**

Location	Improvement	Reason
37 <sup>th</sup> Street & Avenue D	Install curb extension* & zebra crosswalk (northwest corner)	Reduce speed & improve pedestrian safety near park
37 <sup>th</sup> Street & Avenue E	Install median island (west leg) & zebra crosswalk (east and west leg)	
37 <sup>th</sup> Street & Avenue F	Install zebra crosswalk (north and south leg)	Improve pedestrian safety near park
Avenue D between 38 <sup>th</sup> Street & alley (between 38 <sup>th</sup> Street & 37 <sup>th</sup> Street)	Install sidewalk on west side	
37 <sup>th</sup> Street between Avenue B & D	Install sidewalk on both sides	Improve pedestrian safety (connects to park)
37 <sup>th</sup> Street between Avenue F & Avenue I	Install sidewalk on north side	

\*For details on these devices refer to the *City of Saskatoon Traffic Calming Guidelines and Tools*

**School Sites (Mayfair, St. Michael, SIAST/Kelsey):**

It is important to address the school sites where students are encouraged to walk instead of being dropped off. Mayfair/Kelsey-Woodlawn is considered a walkable neighbourhood and by implementing the improvements shown in **Table 8**, pedestrian safety will be enhanced.

**Table 8: Pedestrian Safety Improvements – School Sites**

Location	Improvement	Reason
36 <sup>th</sup> Street & Avenue E	Install curb extensions (northwest and southeast corners) & zebra crosswalk (west leg)	Reduce speed; improve pedestrian safety (connection between park and school)
34 <sup>th</sup> Street & Avenue I	Install median island & standard crosswalk	Reduce speed; improve pedestrian safety (walkway between Avenue I & Avenue J will be paved in 2014 which connects Henry Kelsey Park/Henry Kelsey School and Mayfair School)
35 <sup>th</sup> Street & Avenue I	Install curb extensions (northwest and northeast corners)	Reduce speed; improve pedestrian safety
35 <sup>th</sup> Street & Avenue E	Install curb extension (southeast corner) & zebra crosswalk (north and south leg)	Reduce speed; improve pedestrian safety near school
34 <sup>th</sup> Street & Avenue E	Install curb extension (northwest and southwest corner) & zebra crosswalk (west leg)	Improve pedestrian safety (connects to school)
34 <sup>th</sup> Street & Avenue F	Install zebra crosswalk (east leg)	Improve pedestrian safety (connects to school)
Alberta Avenue between 33 <sup>rd</sup> Street & 36 Street	Install sidewalk on both sides between 33 <sup>rd</sup> Street & 34 <sup>th</sup> Street; west side only between 34 <sup>th</sup> Street & 36 <sup>th</sup> Street	Improve pedestrian safety (connects to SIAST/Kelsey Campus)

**Bus Routes:**

The improvements shown below are for the bus routes that run through the Mayfair and Kelsey-Woodlawn neighbourhoods. The improvements shown in **Table 9** will enhance pedestrian safety, notably for those who take the bus.

**Table 9: Pedestrian Safety Improvements – Bus Routes**

Location	Improvement	Reason
39 <sup>th</sup> Street & Quebec Avenue	Install zebra crosswalk (north and south leg); installed in 2013	Improve pedestrian safety along bus route/near bus stop
39 <sup>th</sup> Street between Idylwyld Dr & 1 <sup>st</sup> Avenue	Install sidewalk on both sides	Improve pedestrian safety on bus route
38 <sup>th</sup> Street between Idylwyld Dr & Avenue I; Quebec Avenue & 2 <sup>nd</sup> Avenue		
Quebec Avenue between 33 <sup>rd</sup> Street & 40 <sup>th</sup> Street		
Ontario Avenue between 33 <sup>rd</sup> Street & 39 <sup>th</sup> Street		

Accessibility for Seniors/Disabled Users:

Improving accessibility for seniors and disabled users is very important; therefore, the following recommendation is made to have a ramp installed at the intersection noted below.

**Table 10: Accessibility Improvements for Seniors/Disabled Users**

Location	Improvement	Reason
39 <sup>th</sup> Street & Idylwyld Drive	Install accessibility ramps on southeast and southwest corners	Improve pedestrian safety; improve accessibility for scooters and wheelchairs

**4. Traffic Control**

The recommendation below to install traffic control clearly assigns the right-of-way and will improve the safety at intersections.

**Table 11: Traffic Control Improvements**

Location	Improvement	Reason
1 <sup>st</sup> Avenue between 34 <sup>th</sup> Street & 38 <sup>th</sup> Street; and 2 <sup>nd</sup> Avenue between 34 <sup>th</sup> Street & 39 <sup>th</sup> Street	Install yield signs at all uncontrolled intersections	Provide guidance; improve safety
35 <sup>th</sup> Street & Avenue D; 39 <sup>th</sup> Street & Saskatchewan Avenue; and 39 <sup>th</sup> Street & Alberta Avenue	Change yield signs to stop signs	Improve safety on bus route; encourage compliance
34 <sup>th</sup> Street & Avenue C; 37 <sup>th</sup> Street & Avenue C; and 37 <sup>th</sup> Street & Avenue F	Change yield signs to stop signs	Improve safety; encourage compliance

**Follow up Consultation – Presentation of Traffic Management Plan**

The other civic Divisions supported the Traffic Management Plan with the following specific comments:

- The Fire Department requested limiting the number of locations for roundabouts and speed humps as they may decrease response times
- Transit requested that all devices installed allow them to manoeuvre around them without causing damage to their vehicles

In a meeting with the residents held in October 2013, further feedback was collected. In general, the Traffic Management Plan was well received with only a few minor changes required.

## 5 Plan Implementation

Stage 4, the last stage of the process, is to install the improvements for the Mayfair and Kelsey-Woodlawn neighbourhoods within the specified time line. The time frame for the installations depends upon the complexity of the solution. A short term time frame is defined by implementing the improvements within 1 to 2 years; medium-term is 1 to 5 years; and long-term is 5 years plus.

All traffic calming measures will be installed temporarily using rubber curbing and will be implemented in the short-term (1 to 2 years).

Prior to replacing the rubber curbing with concrete, and making the traffic calming permanent, the effectiveness of the measure will be evaluated. The time frame to install permanent traffic calming may depend on the complexity of the device. The permanent device installation will be in the medium-term (1 to 5 years) and depends on the availability of funding.

The placement of pedestrian signage, ramps, and traffic control can be completed in the short-term frame (1 to 2 years), while the traffic signal and sidewalk improvements will be addressed in the long-term (5 years plus) due to the higher cost of construction.

The estimated costs of the improvements included in the Neighbourhood Traffic Management Plan are outlined in the following tables:

- Table 12: Permanent Traffic Calming Cost Estimate
- Table 13: Marked Pedestrian Crosswalks Cost Estimate
- Table 14: Traffic Control Signage – Stop & Yield Cost Estimate
- Table 15: Parking and Speed Limit Signage Cost Estimate
- Table 16: Sidewalks Cost Estimate
- Table 17: Accessibility Ramps Cost Estimate
- Table 18: Traffic Operation Improvements Cost Estimate

**Table 12: Permanent Traffic Calming Cost Estimate**

Location	Traffic Calming Device (s)	Cost Estimate		Time Frame
		Temporary	Permanent	
34 <sup>th</sup> Street & Avenue E	Curb extensions (northwest and southwest corners)	\$1,000	\$60,000	1 to 5 years
34 <sup>th</sup> Street & Avenue I	Median island	\$500	\$6,000	
35 <sup>th</sup> Street & Avenue E	Curb extension (southwest corner)	\$500	\$30,000	
35 <sup>th</sup> Street & Avenue I	Curb extensions (northwest and northeast corners)	\$1,000	\$60,000	
36 <sup>th</sup> Street & Avenue C	Directional closure	\$500	\$30,000	
36 <sup>th</sup> Street & Avenue E	Curb extensions (northwest and southeast corner)	\$1,000	\$60,000	
36 <sup>th</sup> Street & Avenue G	Median island (east leg)	\$500	\$6,000	
37 <sup>th</sup> Street & Avenue B	Median islands (north and south leg)	\$1,000	\$12,000	
37 <sup>th</sup> Street & Avenue E	Median island (west leg)	\$500	\$6,000	
37 <sup>th</sup> Street & Avenue D	Curb extension (northwest corner)	\$500	\$30,000	
38 <sup>th</sup> Street & Avenue C	Directional closure	\$500	\$30,000	
38 <sup>th</sup> Street & Avenue D	Median islands (east, west and south legs)	\$1,500	\$18,000	
38 <sup>th</sup> Street & Avenue G	Median island (east leg)	\$500	\$6,000	
39 <sup>th</sup> Street & Avenue E	Median islands (east and west leg)	\$1,000	\$12,000	
Avenue C – south of railway tracks	Curb extension	\$500	\$30,000	
Avenue C – south of railway tracks	Median island	\$500	\$6,000	
<b>Total</b>		<b>\$11,500</b>	<b>\$402,000</b>	

Temporary traffic calming will be installed in 2015 and will be monitored to determine its effectiveness. If proven effective, the devices will be made permanent upon approval of sufficient funding. Prior to becoming permanent, the devices will remain temporary and will be maintained on a yearly basis. An estimated cost for maintenance is about \$5,000 per year. The maintenance typically involves the replacement of damaged curbs as result of the winter-snow removal, damage from vehicle impact, etc.

**Table 13: Marked Pedestrian Crosswalks Cost Estimate**

Location	Pedestrian Signs & Pavement Markings	Cost Estimate	Time Frame
34 <sup>th</sup> Street & Avenue E	4 signs and zebra markings	\$1,200	1 to 2 years
34 <sup>th</sup> Street & Avenue F	4 signs and zebra markings	\$1,200	
34 <sup>th</sup> Street & Avenue I	4 signs and standard markings	\$1,200	
35 <sup>th</sup> Street & Avenue E	4 signs and 2 zebra markings	\$1,400	
36 <sup>th</sup> Street & Avenue E	4 signs and zebra markings	\$1,200	
37 <sup>th</sup> Street & Avenue D	4 signs & zebra markings	\$1,200	
37 <sup>th</sup> Street & Avenue E	4 signs and zebra markings	\$1,200	
37 <sup>th</sup> Street & Avenue F	4 signs and 2 zebra markings	\$1,400	
<b>Total</b>		<b>\$10,000</b>	

The operating impact on an annual basis to maintain the painted crosswalks is \$12,000, which includes 2 rounds of paint per year.

**Table 14: Traffic Control Signage – Stop & Yield Cost Estimate**

Location	Number of signs	Cost Estimate	Time Frame
1 <sup>st</sup> Avenue between 34 <sup>th</sup> Street & 38 <sup>th</sup> Street; and 2 <sup>nd</sup> Avenue between 34 <sup>th</sup> Street & 39 <sup>th</sup> Street	30	\$7,500	1 to 2 year
39 <sup>th</sup> Street & Saskatchewan Avenue; and 39 <sup>th</sup> Street & Alberta Avenue	4	\$1,000	
34 <sup>th</sup> Street & Ave C; 35 <sup>th</sup> Street & Avenue D; 37 <sup>th</sup> Street & Avenue C; and 37 <sup>th</sup> Street & Avenue F	8	\$2,000	
<b>Total</b>		<b>\$10,500</b>	

**Table 15: Parking and Speed Limit Signage Cost Estimate**

Location	Number of signs	Cost Estimate	Time Frame
37 <sup>th</sup> Street & Avenue B	2 No parking (north and south leg corners)	\$500	1 to 2 year
Back lanes between Avenue B/Avenue C & 38 <sup>th</sup> Street/39 <sup>th</sup> Street and Avenue C/Avenue D & 37 <sup>th</sup> Street/38 <sup>th</sup> Street	4 speed limits signs indicating 20kph	\$1,000	
<b>Total</b>		<b>\$1,500</b>	



**Table 16: Sidewalks Cost Estimate**

Location	Estimated Length of Sidewalk	Cost Estimate	Time Frame
37 <sup>th</sup> Street between Avenue B & Avenue D (both sides)	320 m	\$140,800.00	5 years plus
37 <sup>th</sup> Street between Avenue F & Avenue I (north side)	240 m	\$105,600.00	
38 <sup>th</sup> Street between Idylwyld Drive & Avenue G (both sides)	960 m	\$422,400.00	
3 <sup>th</sup> Street between Quebec Avenue & 2 <sup>nd</sup> Avenue (both sides)	400 m	\$176,000.00	
39 <sup>th</sup> Street between Idylwyld Drive & 1 <sup>st</sup> Avenue (both sides)	900 m	\$396,000.00	
Alberta Avenue between 33 <sup>rd</sup> Street & 34 <sup>th</sup> Street (both sides)	220 m	\$96,800.00	
Alberta Avenue between 34 <sup>th</sup> Street & 36 <sup>th</sup> Street (west side)	340 m	\$149,600.00	
Avenue D between 38 <sup>th</sup> Street & alley near park (west side)	40 m	\$17,600.00	
Ontario Avenue between 33 <sup>rd</sup> Street & 39 <sup>th</sup> Street (both sides)	1400 m	\$616,000.00	
Quebec Avenue between 33 <sup>th</sup> Street & 40 <sup>th</sup> Street (both sides)	1800 m	\$792,000.00	
<b>Total</b>	<b>6280 m</b>	<b>\$2,912,800.00</b>	

**Table 17: Accessibility Ramps Cost Estimate**

Location	Number of ramps	Cost Estimate	Time Frame
39 <sup>th</sup> Street & Idylwyld Drive	2 (south east and southwest corners)	\$6,400	1 to 2 years
<b>Total</b>		<b>\$6,400</b>	

**Table 18: Traffic Operation Improvements Cost Estimate**

Location	Improvement	Cost Estimate	Time Frame
36 <sup>th</sup> Street & Idylwyld Drive	Add Left turn arrow phase	\$5,000	5 years plus
36 <sup>th</sup> Street & Idylwyld Drive	Widen 36 <sup>th</sup> Street to include right turn lane	\$75,000	
39 <sup>th</sup> Street & Idylwyld Drive	Add left turn phase	\$5,000	
<b>Total</b>		<b>\$85,000</b>	