

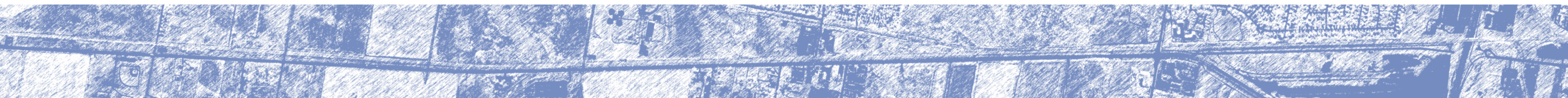
**Welcome**

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# **Charleswood Area Transportation Study**

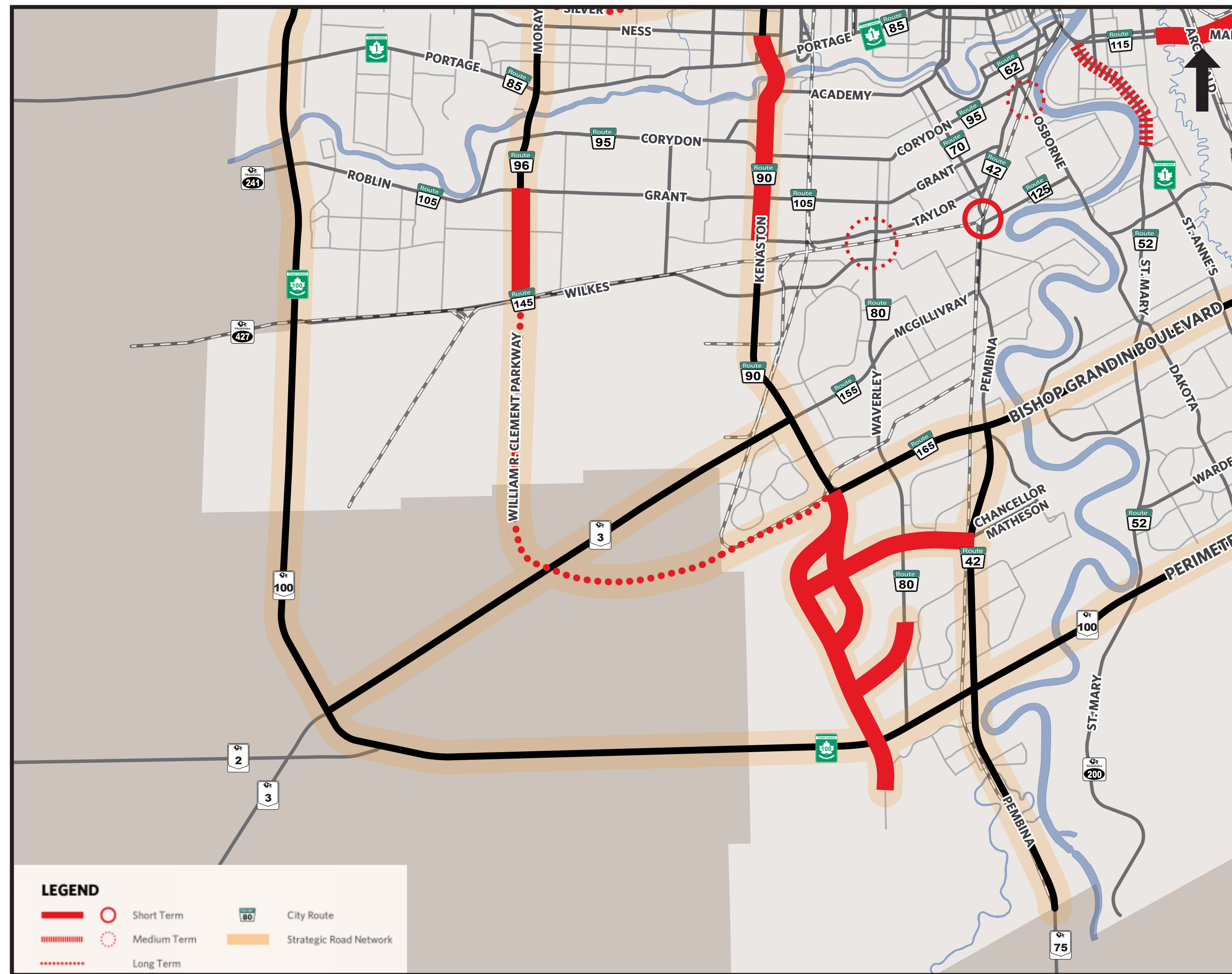
**Public Interactive Display Session**

**October 10, 2012**

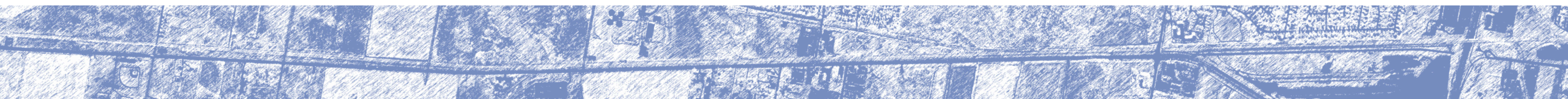


# Winnipeg Transportation Master Plan

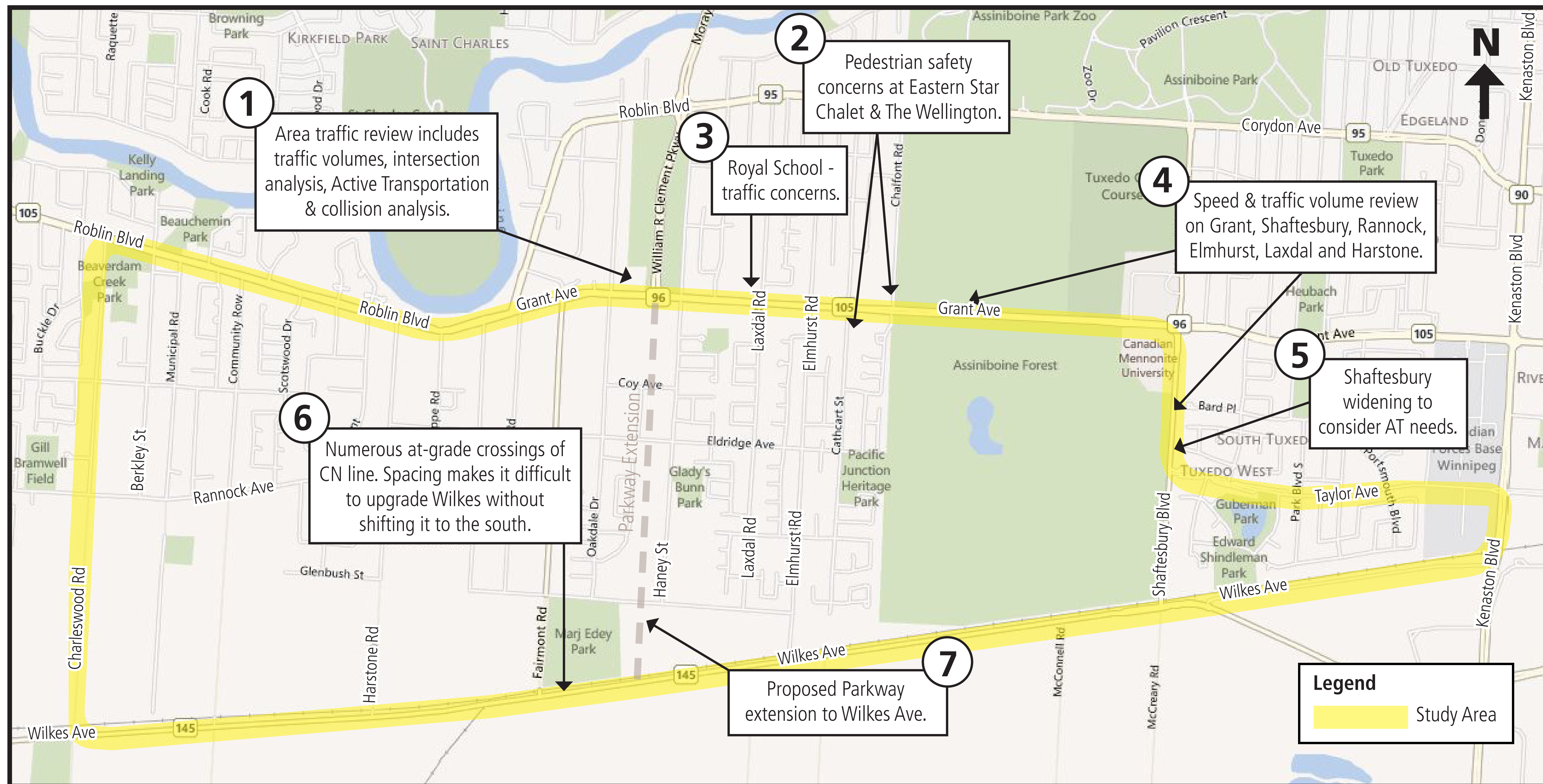
## Proposed Road Network - Southwest Winnipeg



Note:  
Short Term - Road work completed by 2016  
Medium Term - Road work completed by 2021  
Long Term - Road work completed by 2031

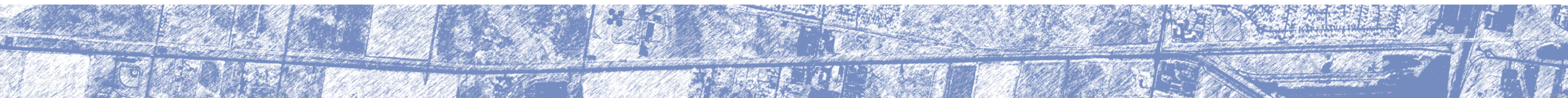


# Study Area



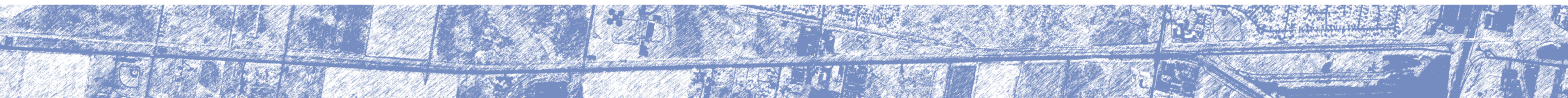
## **Conduct a series of sub-studies to deal with specific transportation issues within the Charleswood area.**

- ▶ Study area traffic review.
- ▶ School transportation safety analysis around Royal School.
- ▶ Pedestrian safety around the Eastern Star Chalet and The Wellington seniors care facilities on Grant Avenue.
- ▶ Speed and traffic volume review on Grant Avenue, Shaftesbury Boulevard, Rannock Avenue, Elmhurst Road, Laxdal Road, and Harstone Road.
- ▶ Widening of Shaftesbury Boulevard from Wilkes Avenue to Grant Avenue.
- ▶ Widening of Wilkes Avenue from Shaftesbury Boulevard to Charleswood Road.



# Study Area Traffic Review

- ▶ Existing traffic volumes within the study area were obtained from the City of Winnipeg Public Works Department.
- ▶ Weekday a.m. and p.m. peak hours were analyzed as these are generally the busiest times and therefore the most critical periods for on-street traffic.
- ▶ Year 2012 and forecast year 2031 traffic operations were analyzed for intersections within the study area.
- ▶ A collision analysis was also conducted within the study area.
- ▶ Active Transportation (AT) facilities within the study area were also reviewed.



## 2012 Intersection Operations

**Legend**

**Level of Service (LOS)**

**LOS A - C**  
 Represents a constrained constant flow below speed limits, with additional attention required by the drivers to maintain safe operations. Comfort and convenience levels of the driver decline noticeably.


**LOS D**  
 Represents traffic operations approaching unstable flow with high passing demand and passing capacity near zero, characterized by drivers being severely restricted in maneuverability.


**LOS E**  
 Represents unstable flow near capacity. LOS E often changes to LOS F very quickly because of disturbances (road conditions, accidents, etc.) in traffic flow.


**LOS F**  
 Represents the worst conditions with heavily congested flow and traffic demand exceeding capacity, characterized by stop-and-go waves, poor travel time, low comfort and convenience, and increased accident exposure.

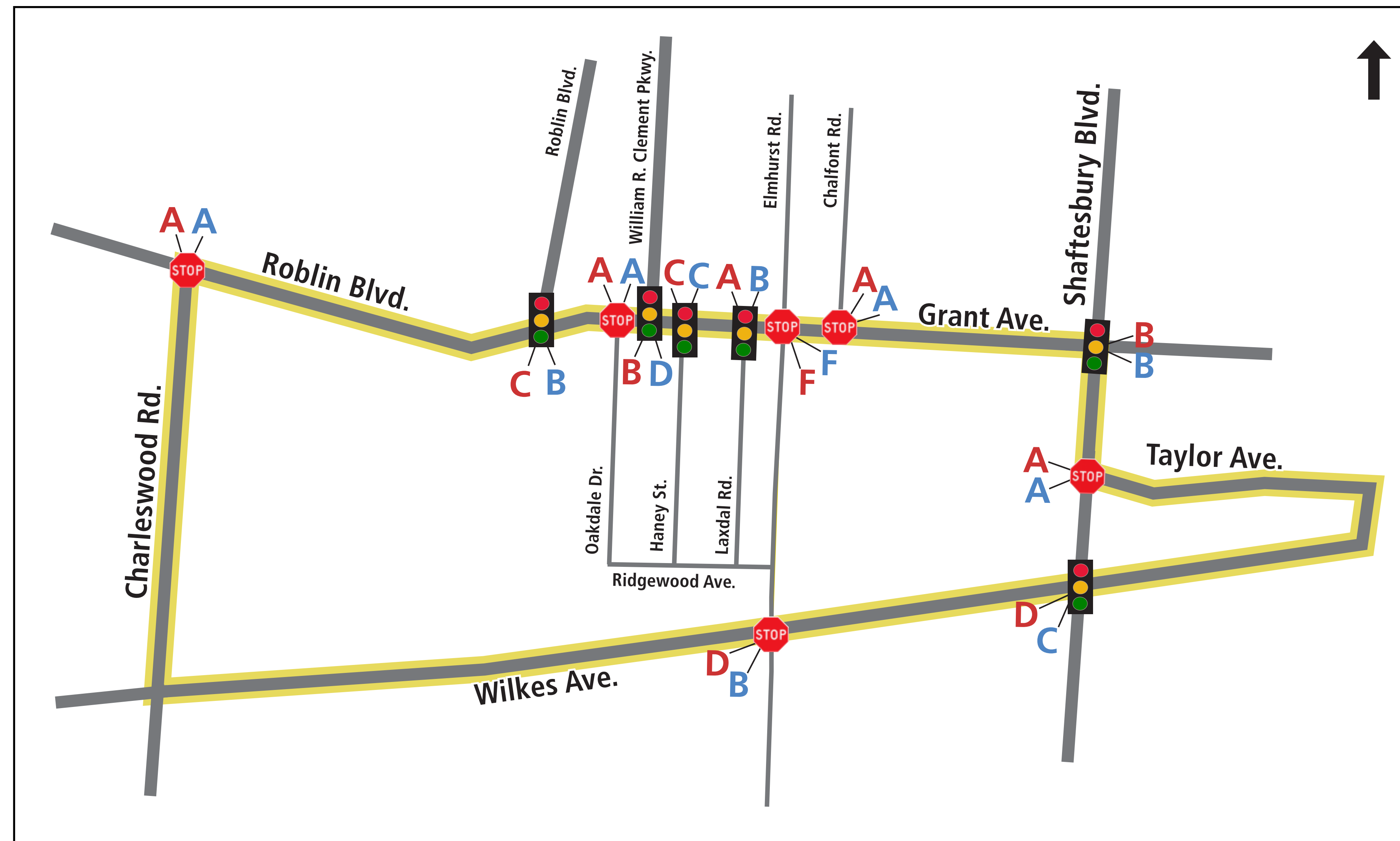
**Morning Rush Hour LOS**  
 Busiest one hour, typically sometime between 7:00 and 9:00 a.m.

**Afternoon Rush Hour LOS**  
 Busiest one hour, typically sometime between 3:00 and 6:00 p.m.

 Unsignalized Intersections\*  
 \*LOS at unsignalized intersections is for stop controlled approaches only.

 Signalized Intersections

 Study Area



LOS D or better for signalized intersections is desirable during peak hour conditions. At unsignalized intersections, LOS E or better is generally considered acceptable for minor streets accessing a major arterial during peak hour conditions, with LOS F not uncommon.

# Intersection Operations

## 2031 Intersection Operations

**Legend**

**Level of Service (LOS)**

**LOS A - C**  
 Represents a constrained constant flow below speed limits, with additional attention required by the drivers to maintain safe operations. Comfort and convenience levels of the driver decline noticeably.

**LOS D**  
 Represents traffic operations approaching unstable flow with high passing demand and passing capacity near zero, characterized by drivers being severely restricted in maneuverability.

**LOS E**  
 Represents unstable flow near capacity. LOS E often changes to LOS F very quickly because of disturbances (road conditions, accidents, etc.) in traffic flow.

**LOS F**  
 Represents the worst conditions with heavily congested flow and traffic demand exceeding capacity, characterized by stop-and-go waves, poor travel time, low comfort and convenience, and increased accident exposure.

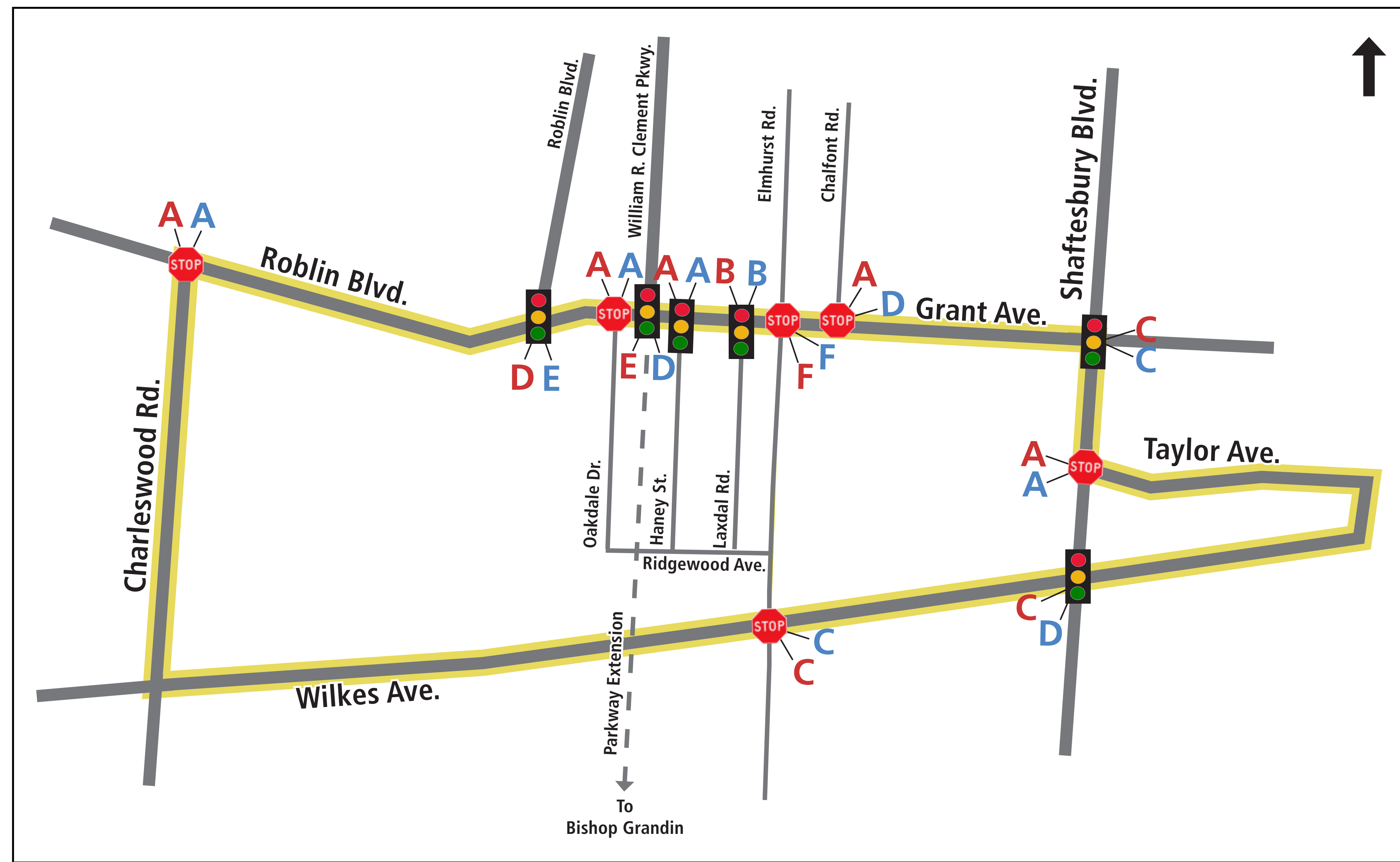
**Morning Rush Hour LOS**  
 Busiest one hour, typically sometime between 7:00 and 9:00 a.m.

**Afternoon Rush Hour LOS**  
 Busiest one hour, typically sometime between 3:00 and 6:00 p.m.

**STOP** Unsignalized Intersections\*  
 \*LOS at unsignalized intersections is for stop controlled approaches only.

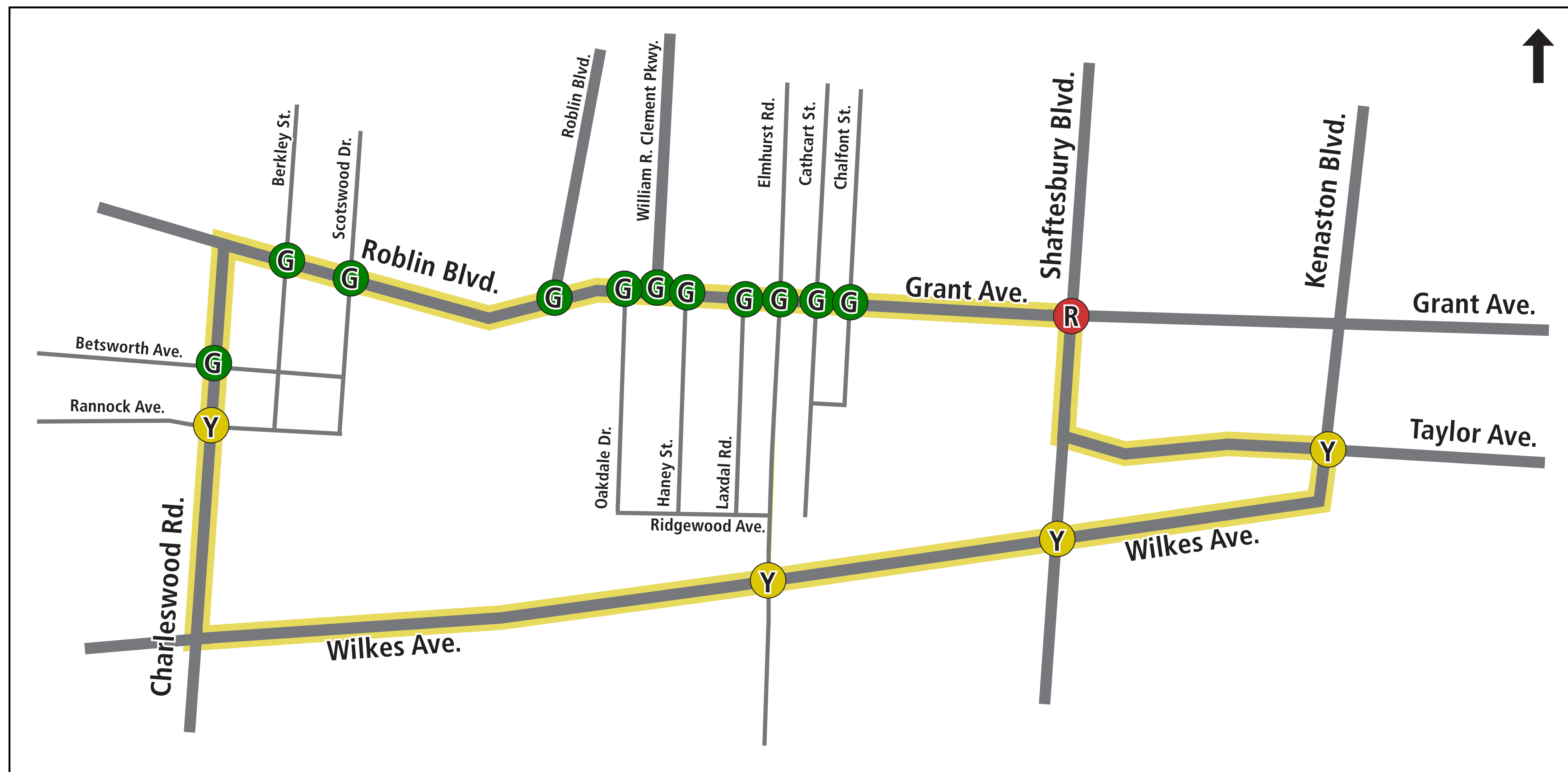
**Signalized Intersections**

**Study Area**



LOS D or better for signalized intersections is desirable during peak hour conditions. At unsignalized intersections, LOS E or better is generally considered acceptable for minor streets accessing a major arterial during peak hour conditions, with LOS F not uncommon.

# Collision Analysis

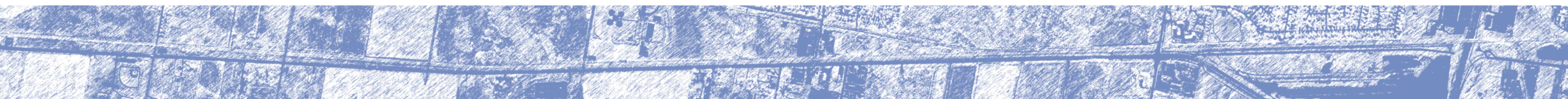


Collision Rates at Study Area Intersections	
<b>R</b>	Collision Rate > 1.5 collisions per MEV* = Warrants further review
<b>Y</b>	Collision Rate between 1.0 to 1.5 per MEV = Ongoing monitoring
<b>G</b>	Collision Rate < 1.0 per MEV

\* MEV - Million Entering Vehicles.  
Note: Collision rates are based on reported collisions from 2006-2010

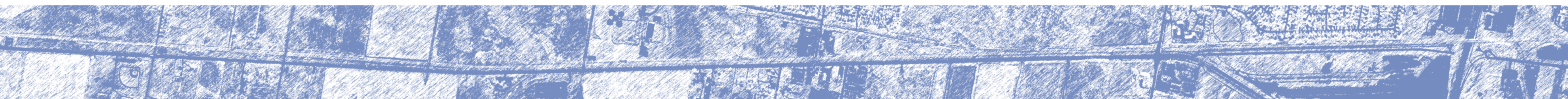
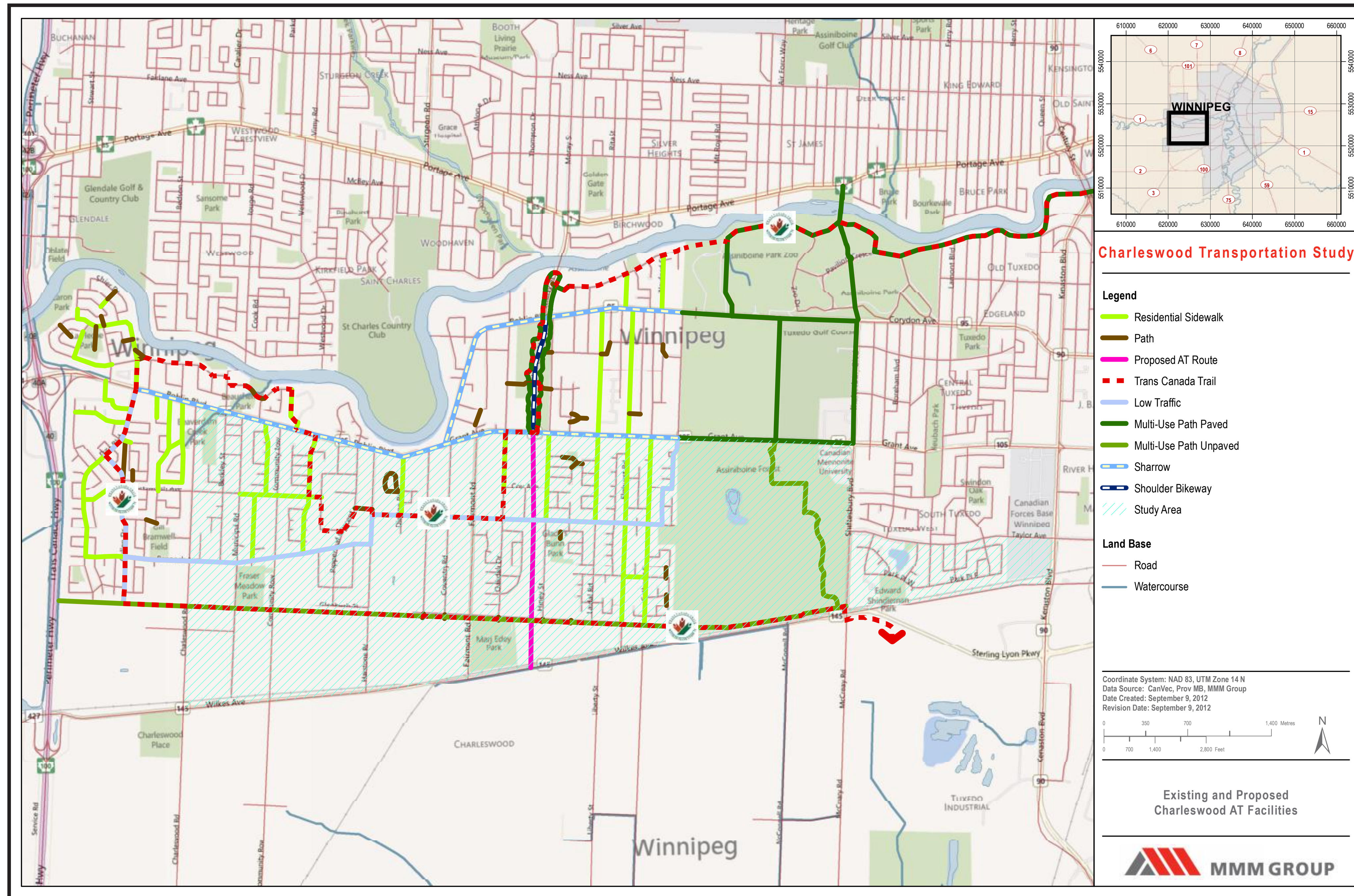
The collision rate at the intersection of Grant & Shaftesbury is 1.55 collisions per MEV.

- ▶ 50% of all reported collisions were rear end collisions.
- ▶ There were no reported pedestrian or cyclist collisions during the analysis period.
- ▶ 84% of reported collisions were property damage only and 16% resulted in injuries. There were no fatalities at the intersection.





# Active Transportation



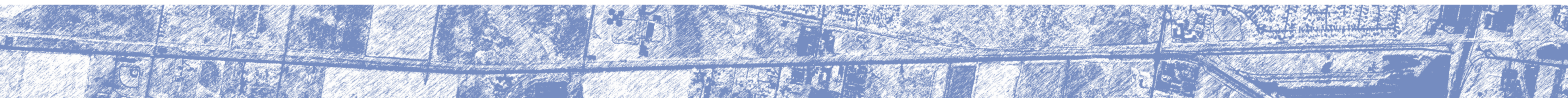
# Royal School

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- ▶ Royal School is a kindergarten to Grade 6 public elementary school located at the intersection of Grant Avenue and Laxdal Road.
- ▶ Students walk and bicycle to school, and also arrive in school buses and private vehicles.
- ▶ MMM met with the principal to discuss transportation concerns at the school.
- ▶ Operating conditions immediately before and after school were observed in late September to document existing transportation issues.
- ▶ Recorded speeds near Royal School are consistent with the posted speed limit.



- ▶ Main issue is crossing Grant Avenue at the signalized intersection of Grant and Laxdal.
  - ▶ Crossing guards and patrols help students cross Grant Avenue, a busy four-lane divided roadway with a 60 KPH speed limit.
  - ▶ Large volumes of pedestrians; including outside the period with crossing guards and patrols.
  - ▶ 6 seconds of leave curb (walk symbol) and 20 seconds of clearance (flashing orange hand).
  - ▶ No right-turn on red restriction for vehicles on Laxdal to protect pedestrians in the crosswalks; however, this creates vehicle queues on Laxdal.
- ▶ Potential measures:
  - ▶ Extend green time for pedestrians and motorists on Laxdal; this would increase delay to motorists on Grant.
  - ▶ Extend time period when crossing guards and patrols are present.
  - ▶ Eliminate the no right-turn on red restriction on Laxdal.
  - ▶ Two southbound approach lanes.



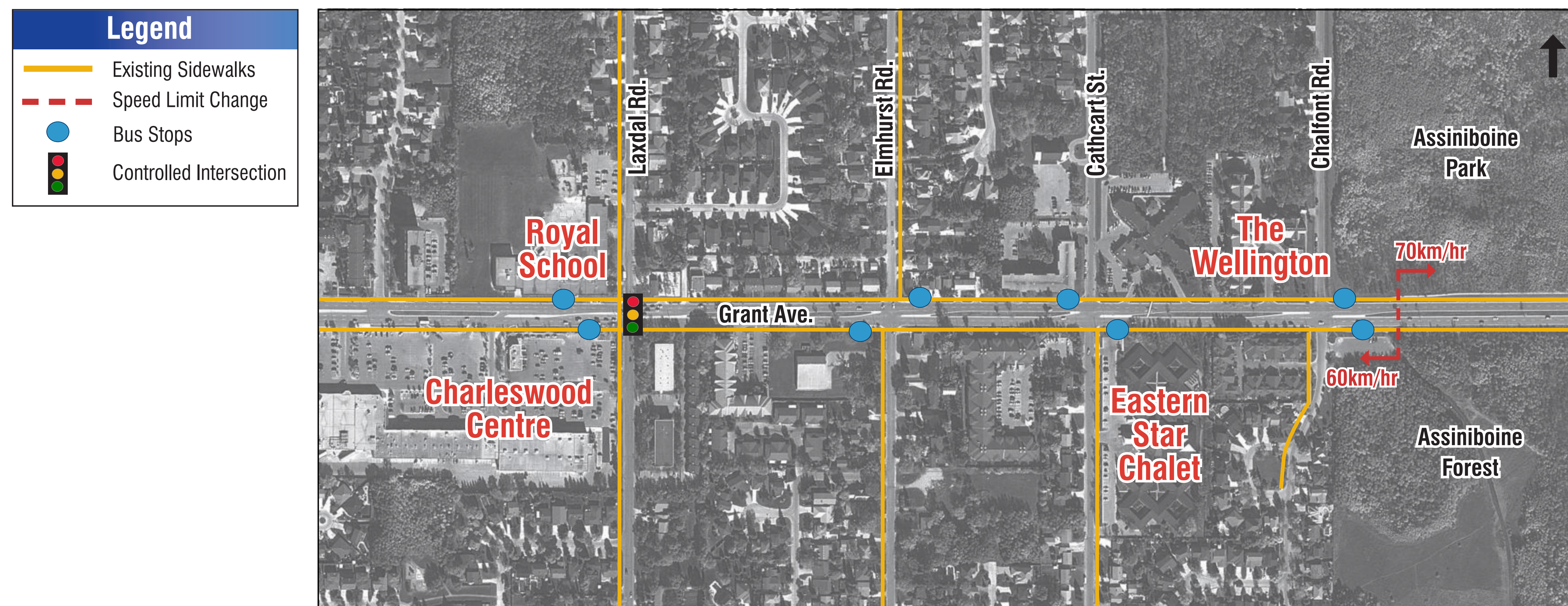
- ▶ Additional transportation operations at the school are also under review as part of this study:
  - ▶ Parking of private vehicles at school lot and nearby (such as on Bloomer Crescent and at the Manitoba Hydro substation).
  - ▶ School bus loading practices.
  - ▶ School parking lot operation.
  - ▶ Laxdal Road & Bloomer Crescent crosswalk.



Pedestrian Crossing of Laxdal Road at Bloomer Crescent

# Eastern Star Chalet & The Wellington

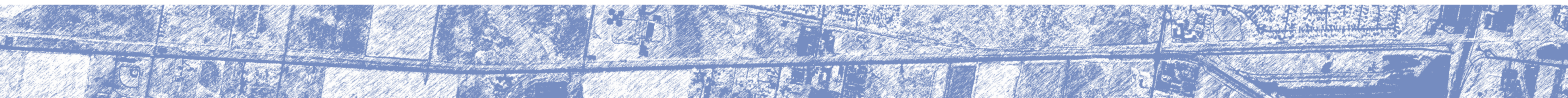
- ▶ The Eastern Star Chalet is a residence for seniors fifty-five years of age and over and The Wellington is an assisted living residence. Both facilities are located on Grant Avenue between Cathcart Street and Chalfont Road.



# Eastern Star Chalet & The Wellington

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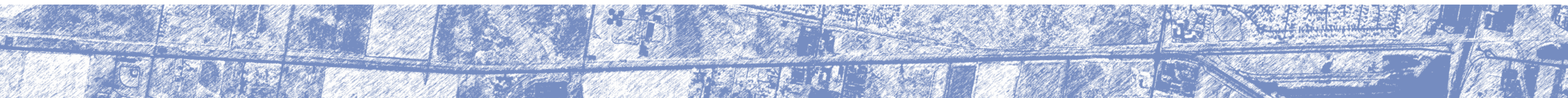
- ▶ MMM met with residents at each location to discuss their existing issues.
- ▶ Residents expressed concern over pedestrian safety when crossing Grant Avenue to access destinations in the area.
- ▶ Two major concerns were noted with crossing Grant Avenue:
  - ▶ Not having designated pedestrian facilities to cross Grant Avenue.
  - ▶ The speed of vehicles on Grant Avenue.



# Eastern Star Chalet & The Wellington

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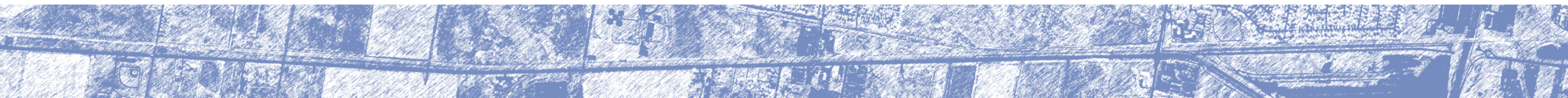
- ▶ A speed study was conducted in July of 2012 on Grant Avenue adjacent to the two facilities (posted speed limit of 60 KPH).
- ▶ Data shows eastbound speeds were slightly higher than westbound speeds.
- ▶ The average recorded speed during the count was 57 KPH.
- ▶ The 85th percentile speed – speed at or below which 85% of all vehicles travel – was measured at approximately 64 KPH.
- ▶ Approximately 3% of vehicles were recorded travelling faster than 70 KPH.



# Eastern Star Chalet & The Wellington

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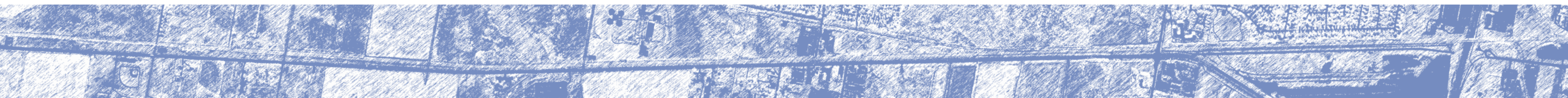
- ▶ MMM performed a Transportation Association of Canada (TAC) traffic signal warrant analysis for Grant and Chalfont. The intersection does not meet the warrant for traffic signal control.
- ▶ MMM performed a City of Winnipeg pedestrian corridor warrant analysis for Grant and Chalfont. The intersection does not meet the warrant for a pedestrian corridor.
- ▶ The City of Winnipeg is currently preparing revisions to its guidelines for pedestrian crossing control in response to a recent update to the TAC Pedestrian Crossing Control Guide, and it is recommended that the City review this location once revised guidelines are formally adopted and City-wide priorities for pedestrian crossing control are reassessed.
- ▶ Although the intersection of Grant and Chalfont did not meet the current warrants for a traffic signal or pedestrian corridor, MMM is recommending that some form of formal pedestrian crossing facility be installed based on the existing pedestrian demand combined with the geometry, traffic volumes and speed on Grant Avenue.



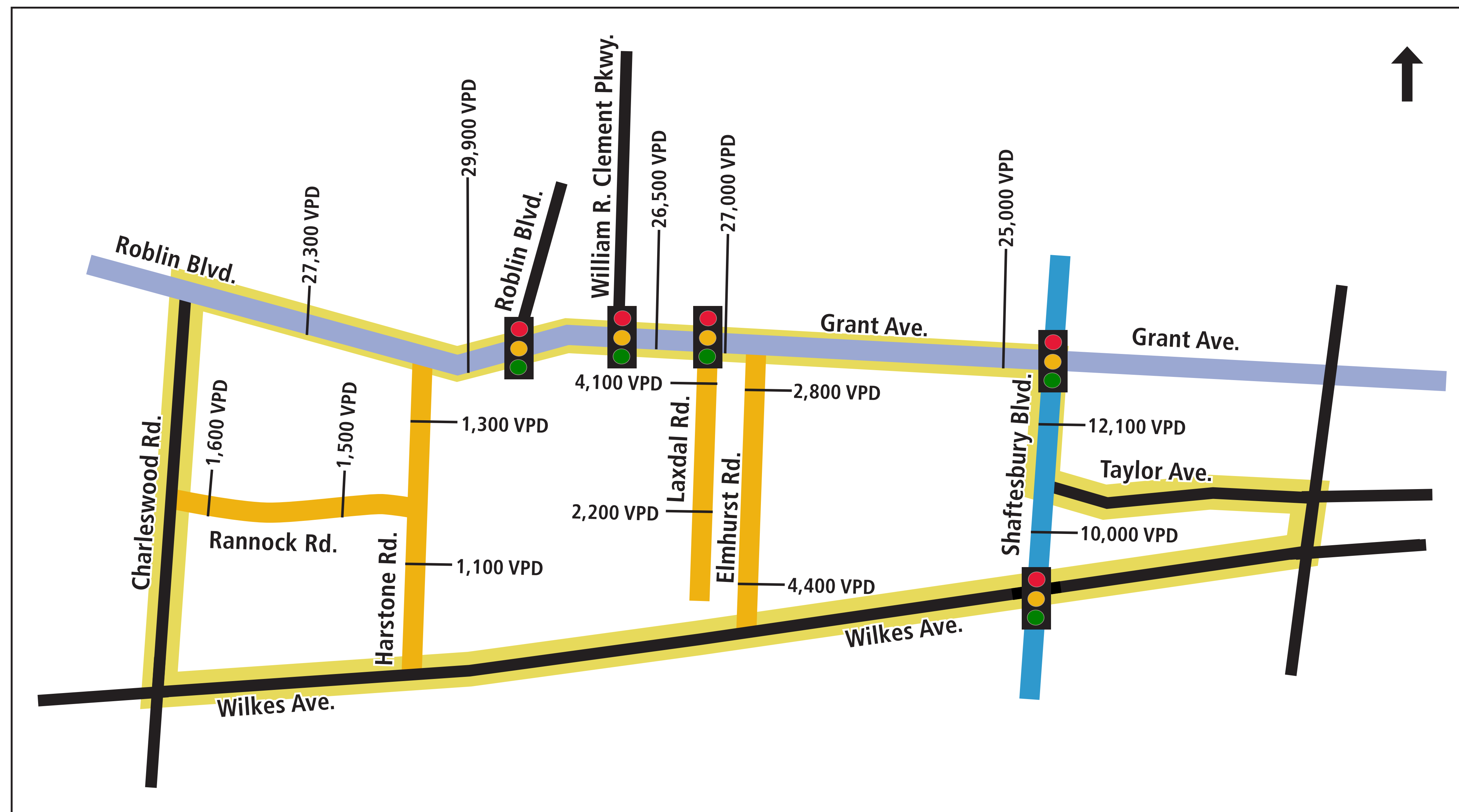


**Speeds and traffic volumes were examined on six identified streets within the study area:**

- ▶ Grant Avenue
- ▶ Shaftesbury Boulevard
- ▶ Rannock Avenue
- ▶ Elmhurst Road
- ▶ Laxdal Road
- ▶ Harstone Road



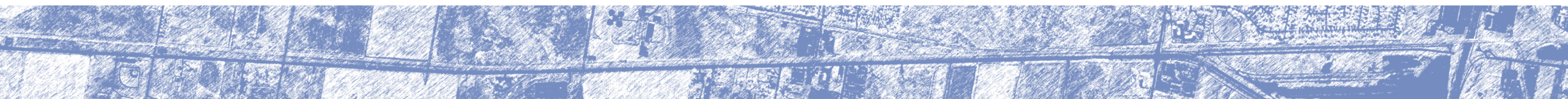
## Daily Traffic Volumes (Vehicles per day - VPD)



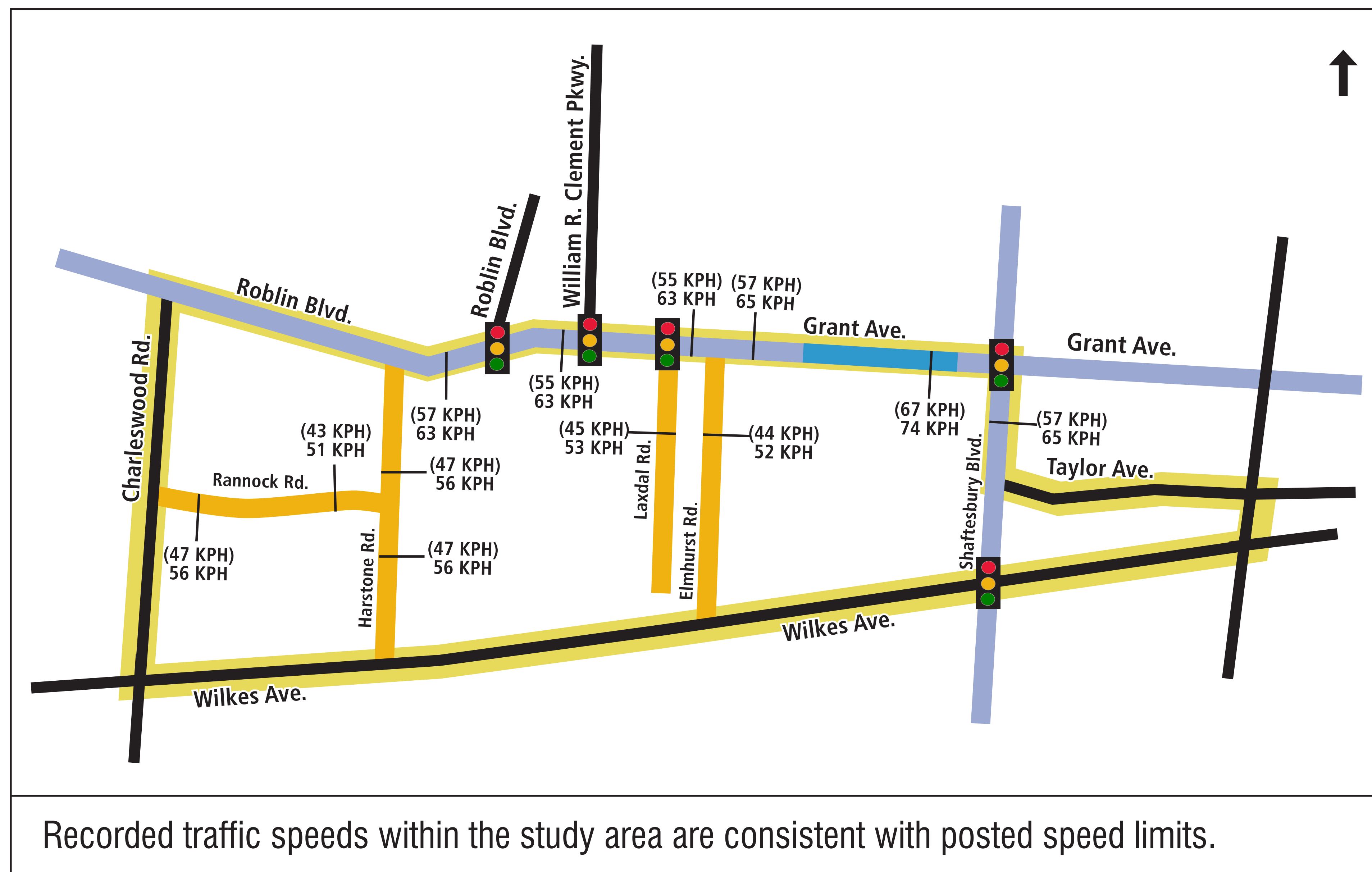
### Roadway Classification

- Major Arterial
- Minor Arterial
- Residential Collector
- Signalized Intersections

Daily traffic volumes within the study area are consistent with roadway classifications.



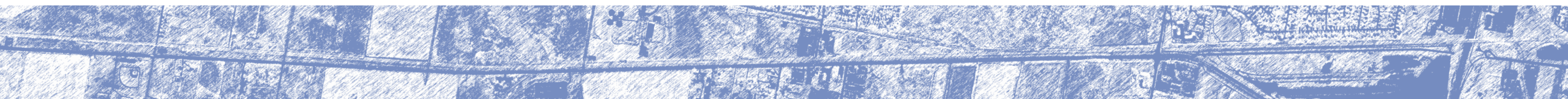
## 85th Percentile Speed (Average Speed)



### Posted Speed Limits

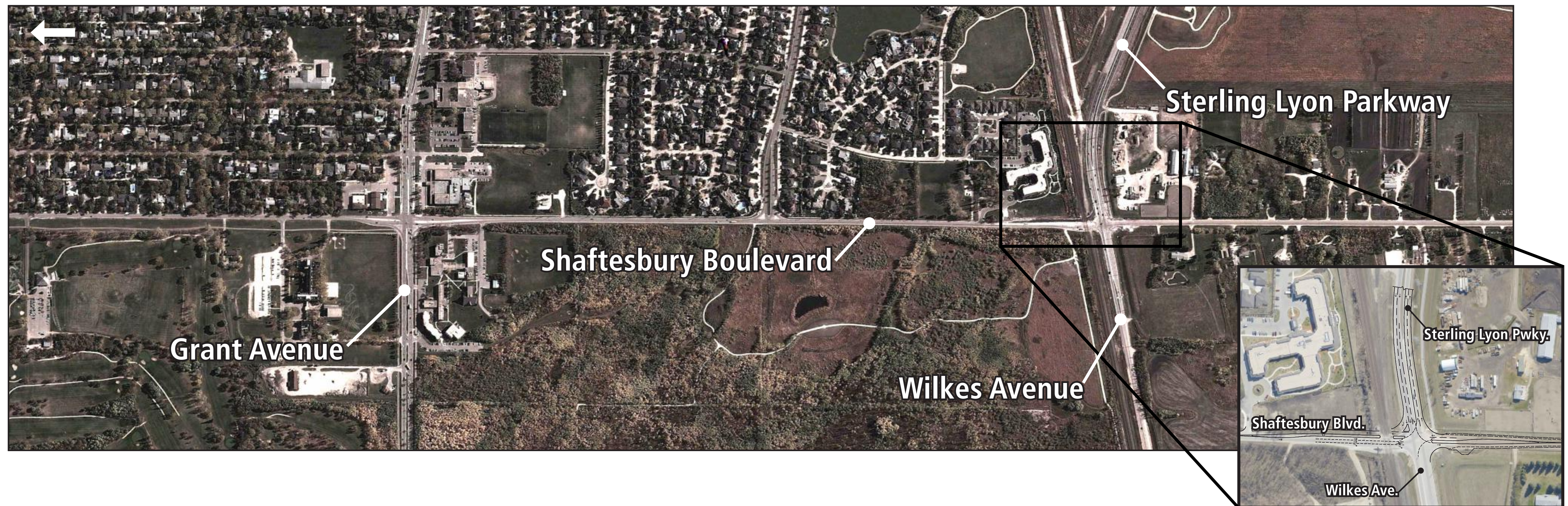
- Speed Limit - 50 KPH
- Speed Limit - 60 KPH
- Speed Limit - 70 KPH
- Signalized Intersections

**Note:** 85<sup>th</sup> Percentile Speed: the speed at or below which 85% of all vehicles travel under free flow conditions.



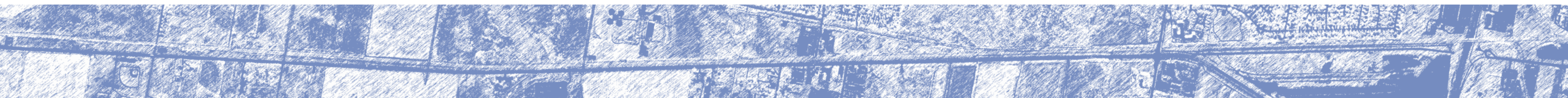
## Existing Conditions

- ▶ There have been some recent modifications to the Shaftesbury Boulevard geometry and rail crossing protection at the Wilkes Avenue intersection.



## Proposed Widening

- ▶ The proposed widened cross-section extends from Wilkes Avenue to Grant Avenue. All widening would occur along the west side of Shaftesbury within the existing right-of-way.
- ▶ The missing section of sidewalk along the east side of Shaftesbury south of West Taylor Boulevard is incorporated into the widening plans.
- ▶ Although the proposed widening occurs within the existing City of Winnipeg right-of-way, a number of trees along the west side of Shaftesbury would need to be removed to accommodate the widening.

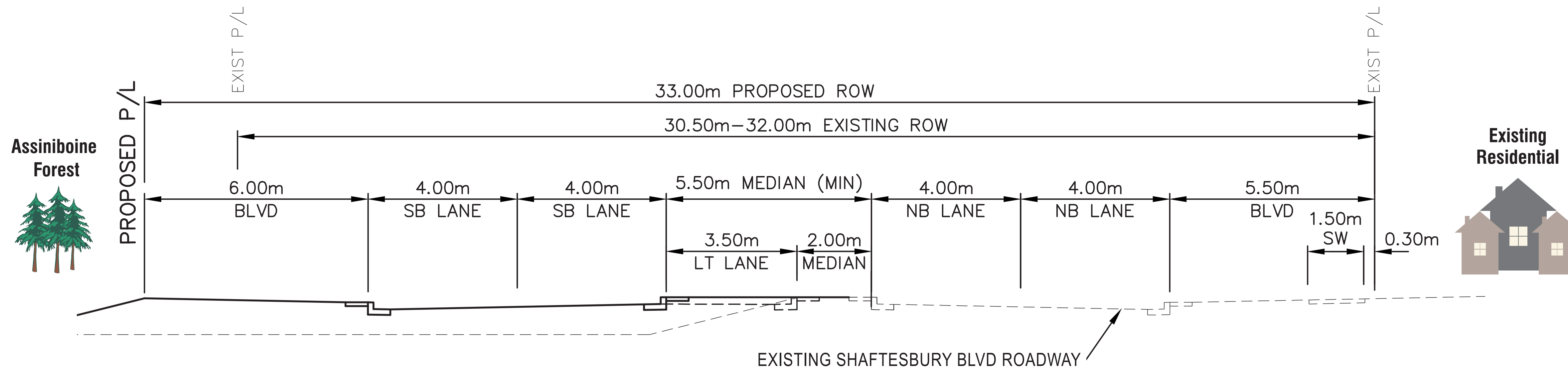


# Shaftesbury Boulevard Widening

## Proposed Shaftesbury Widening

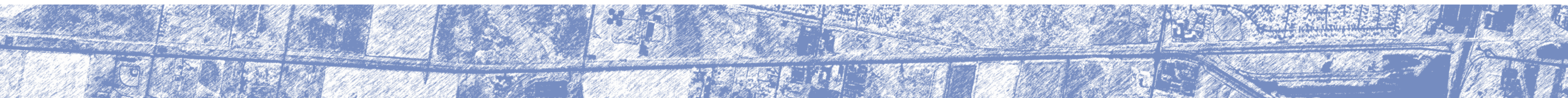


## Proposed Shaftesbury Widening Cross-Section - Looking North



## Issues

- ▶ Forecast traffic volumes indicate that widening of Wilkes Avenue will be required, especially when lands to the south develop.
- ▶ A major issue is the close proximity of the CN Mainline, which impacts traffic operations at Wilkes Avenue intersections and means all widening must occur to the south of the existing roadway.
- ▶ As a result, the proposed widening would result in a requirement for substantial additional land from properties along the south side of Wilkes.

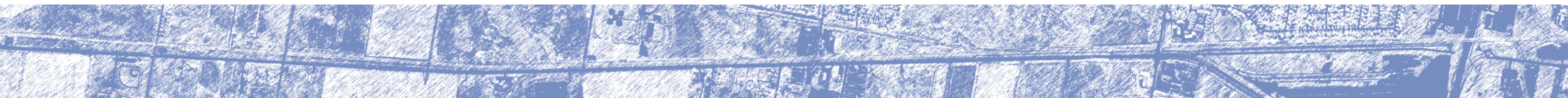


## Recommendation

- ▶ The impacts on adjacent properties and intersection operations related to the proximity of the CN mainline were determined to be very significant.

**It is therefore recommended that Wilkes Avenue not be widened along its existing alignment.**

- ▶ An alternate east-west arterial south of Wilkes Avenue is recommended to service the Charleswood area.
- ▶ The exact location of the future east-west arterial route is not known at this time.

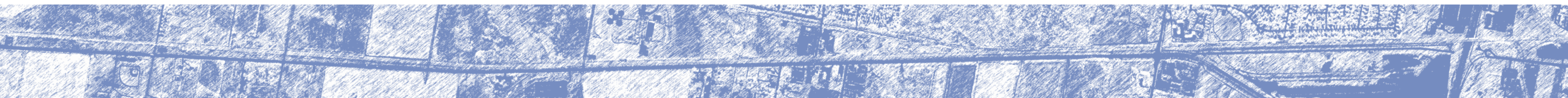




# Next Steps

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- ▶ The story boards will be available on the City of Winnipeg's website following this Public Interactive Display Session.
- ▶ The comments received will be summarized and posted on the City of Winnipeg's website.
- ▶ MMM will submit a draft report to the City of Winnipeg at the end of October, 2012.
- ▶ The report will go to the Assiniboia Community Committee on December 4, 2012.



# Thank You

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Thank you for your attendance and participation at today's Public Interactive Display Session.

**Please fill out a comment sheet or visit the on-line survey for this project at:**

<http://www.surveymonkey.com/s/charleswoodtransportationstudy>

