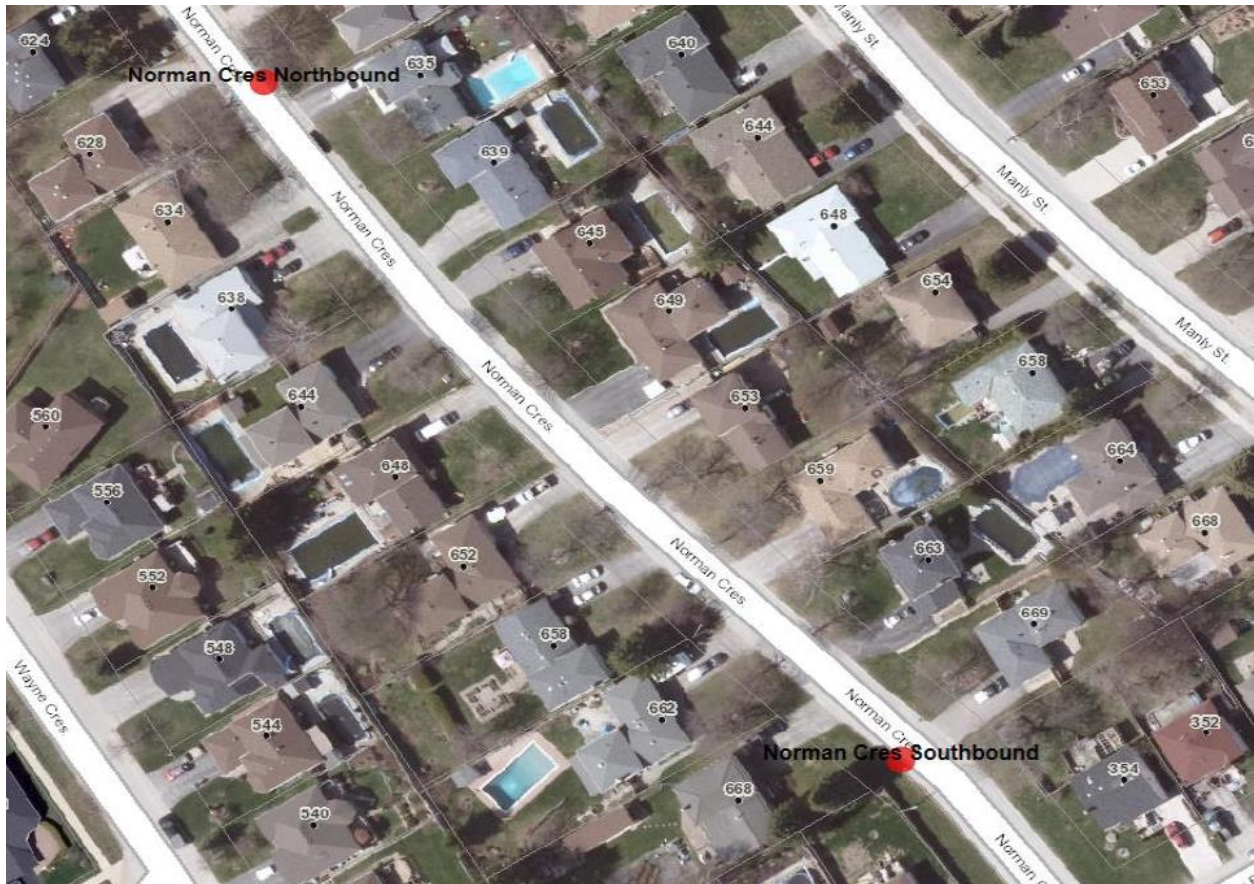


Traffic Data Analysis

Norman Cres.

Northbound & Southbound



Town of Midland

Engineering Department

October 24th, 2019

1.0 Introduction

A traffic count was conducted from **September 30th, 2019** to **October 7th, 2019** on **Norman Cres.** for both northbound and southbound directions. Vehicle speeds and traffic volumes were collected by a traffic trailer (model ATS-3). The purpose is to see if there are any speeding issue, raise safety awareness and help calm traffic by displaying speeds of approaching vehicles.

1.1 Location

The traffic trailer was placed on **Norman Cres.** for both northbound and southbound directions. The trailer was placed at the side of the road to record the speed and volume of vehicles passing by. Table 1 below shows the location of the traffic trailer and data collection period.

Table 1. Locations of Traffic Trailer

Direction	Location	Period
Northbound	635 Norman Cres., Midland, ON	12:00 pm on September 30 th , 2019 – 12:00 pm on October 4 th , 2019
Southbound	668 Norman Cres., Midland, ON	2:00 pm on October 4 th , 2019 – 11:00 am on October 7 th , 2019

1.2 Traffic Trailer

The traffic trailer used was a model ATS-3 as shown in Figure 1. The traffic trailer is set to show the speed of approaching vehicles and display short messages depending on the speed. The traffic trailer uses radar to detect vehicles and collect data and grouped data into one-hour intervals.



Figure 1. Traffic Trailer

2.0 Speed Summary

The posted speed limit on **Norman Cres.** is 50 km/h. However, generally it is accepted that vehicles travelling up to *10km/h above* the posted speed limit are not considered to be speeding. Table 2. below shows an overall speed summary of the data collected for eastbound and westbound directions.

Table 2. Speed Summary

Direction	Average Speed (km/h)	Minimum Speed (km/h)	Maximum Speed(km/h)
Northbound	24.40	10	46
Southbound	27.30	10	48

2.1 Northbound Speed Analysis

Figure 2 and 3 below show the speed summary for the **Northbound Traffic**.

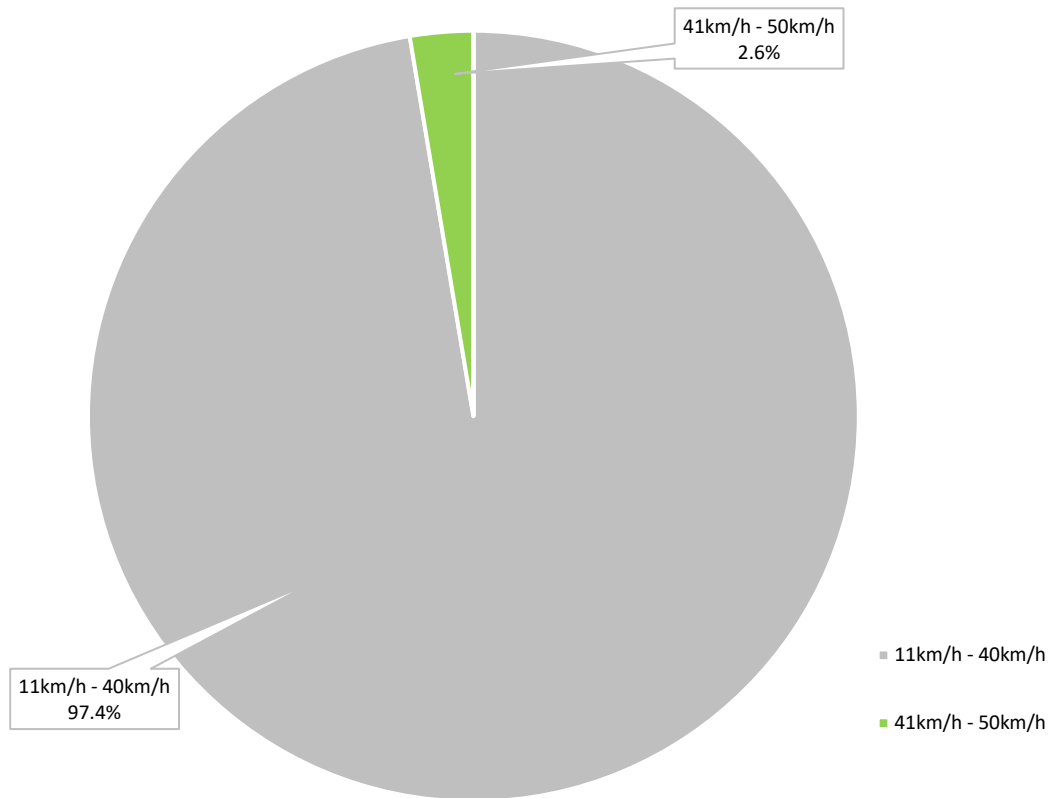


Figure 2. Norman Cres. Northbound Speed Breakdown

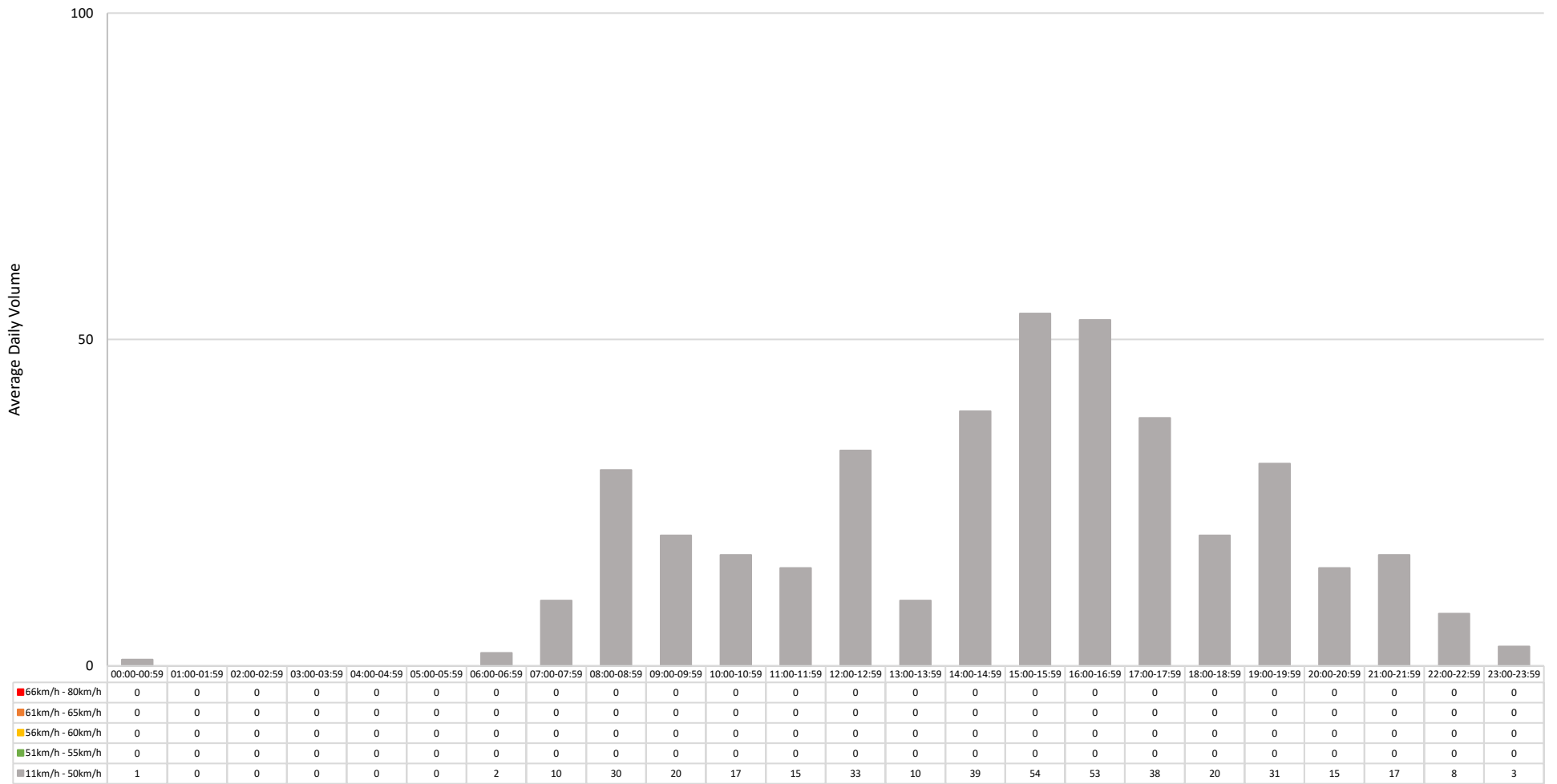


Figure 3. Speed by Hour Analysis for Northbound

From Figure 2 we can summarize that **all** vehicles were travelling below the posted speed limit, and **0%** of vehicles were travelling 51km/h or over. When we consider the accepted speed limit is 10km/h over the posted speed limit, we find that a total of **all** vehicles were travelling within the accepted speed limit in the Northbound direction.

2.2 Southbound Speed Analysis

Figure 4 and 5 below show the speed summary for the **Southbound traffic**.

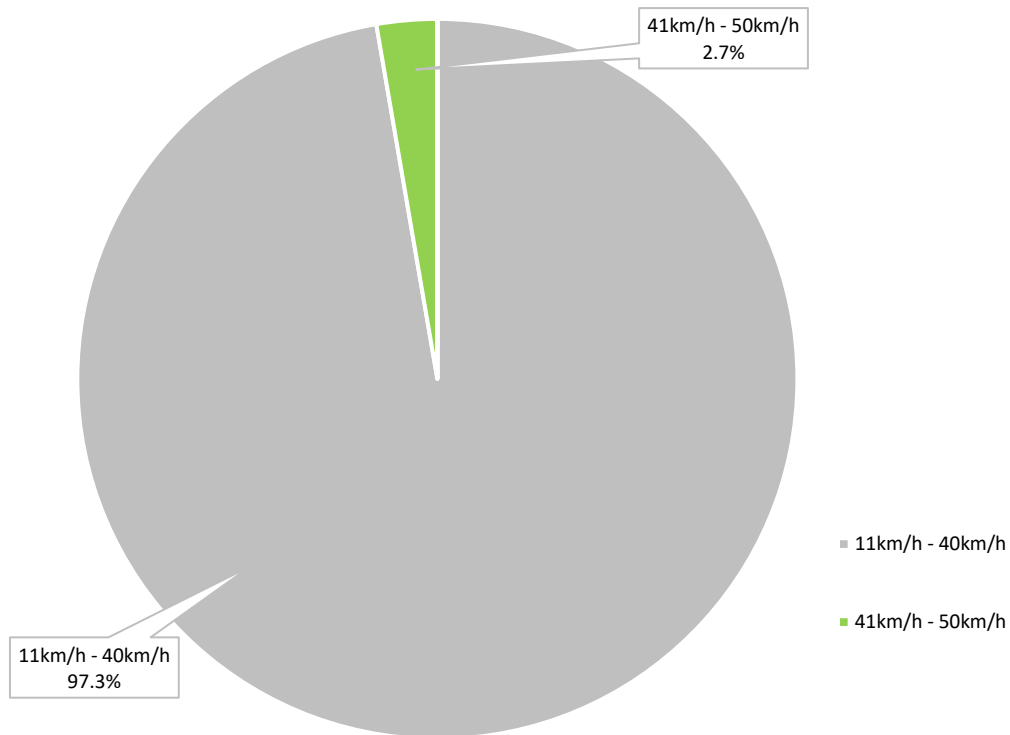


Figure 4. Norman Cres. Southbound Speed Breakdown

From Figure 4 we can summarize that **all** vehicles were travelling below the posted speed limit, and **0%** of vehicles were travelling between 51km/h or over. When we consider the accepted speed limit is 10km/h over the posted speed limit, we find **all** vehicles were travelling within the accepted speed limit in the Westbound direction.

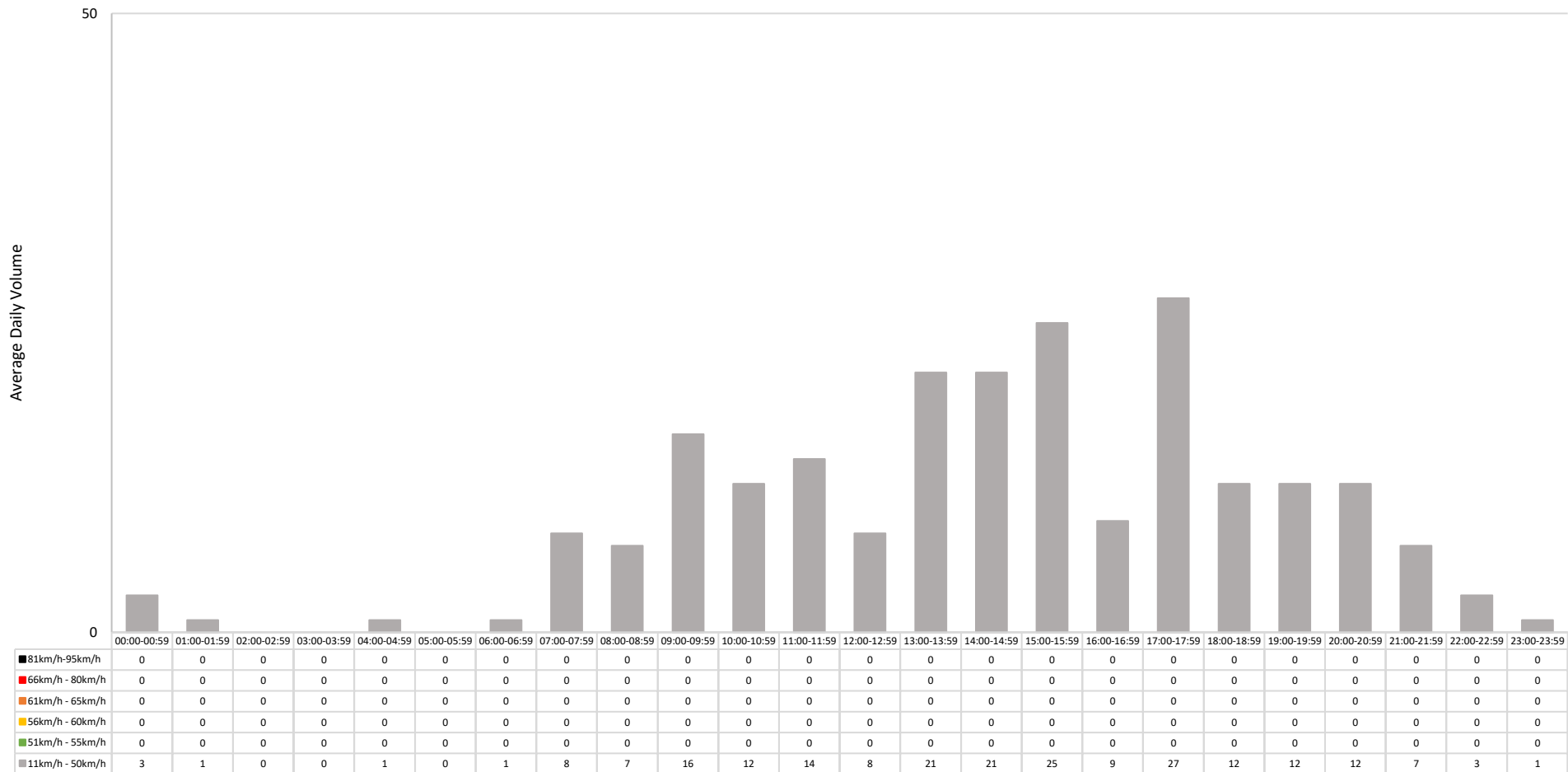


Figure 5. Speed by Hour Analysis for Southbound

3.0 Traffic Volume

Table 3. shows the average daily volume on **Norman Cres.** for Northbound and Southbound directions. Only the days when the traffic trailer was placed there for the full 24 hours are used in traffic volume analysis.

Direction	Period	Average Daily Traffic Volume
Northbound	Sept 30 th to Oct 3 rd (Mon – Thu)	104
Southbound	Oct 4 th to Oct 6 th (Fri - Sun)	73

Being located in a residential area of Midland, **Norman Cres** sees low daily traffic volumes. Average traffic volumes were consistent in both the **Northbound** and **Southbound** direction. Traffic volumes decrease during the weekend to about 70 - 75% of daily volumes on weekdays but are still relatively close to the daily average.

3.1 Northbound Volume by Hour

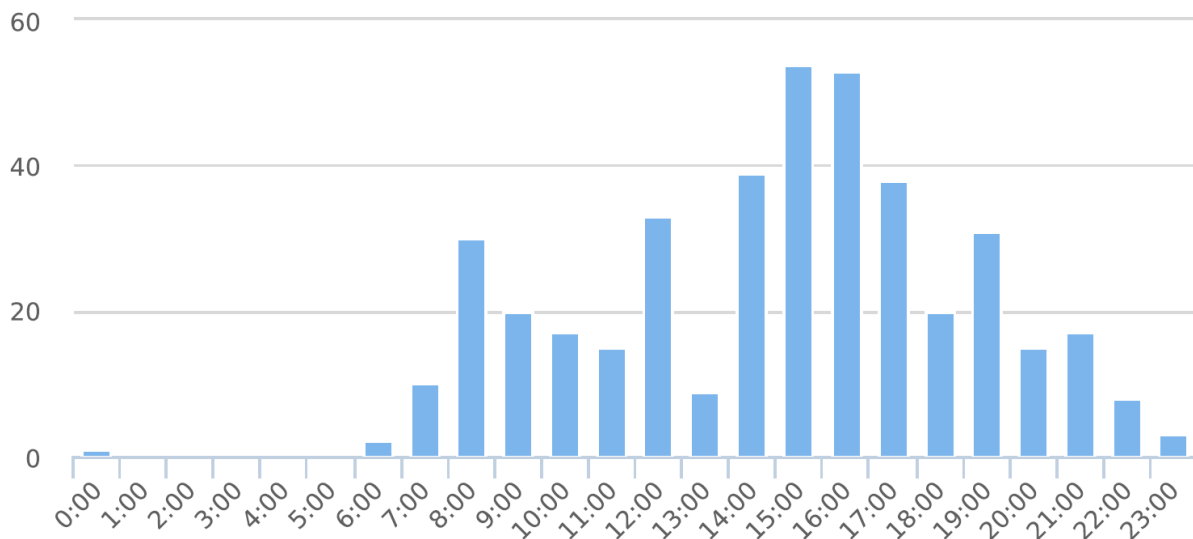


Figure 6. Average Volume by Hour (Northbound)

The data collected from **September 30th to October 3rd** is used to analyze the average traffic volume at different times of day in the northbound direction (Figure 6). From the graph, Norman Cres. has peak traffic volume in the early afternoon from 15:00 to 16:00 and low traffic volumes at 13:00. There is little to no traffic during the hours following midnight.

3.2 Southbound Volume by Hour

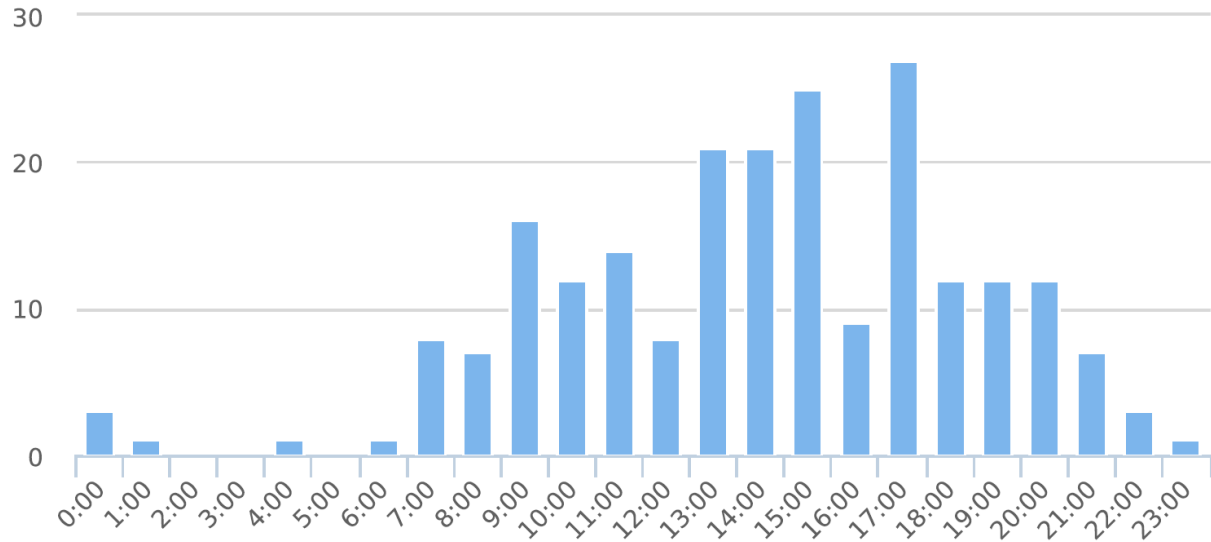


Figure 7. Average Volume by Hour (Southbound)

The data collected from **October 4th to October 7th** is used to analyze the average traffic volume at different times of day in the southbound direction (Figure 7). From the graph, Norman Cres. traffic volumes peak in the early afternoon and around afternoon rush hour, otherwise following a left skewed normal curve. Traffic volumes during the early morning hours following midnight are low.

4.0 Conclusion

The traffic study conducted on **Norman Cres.** for both Northbound and Southbound directions was successfully carried out on September 30th to October 7th, 2019. The speed analysis shows that all vehicles (**100% Northbound and Southbound**) travel **below** the posted speed limit and no vehicles **exceed** the speed. Average speeds are similar in both directions. Traffic volumes are 30% lower in the southbound direction due to being collected during the weekend.