



#310, 3016 – 5 Ave NE
Calgary, AB T2A 6K4

T 403.273.9001

F 403.273.3440

E. msydenham@wattconsultinggroup.com
wattconsultinggroup.com

Habitat for Humanity Southern Alberta
210, 805 Manning Road NE
Calgary, AB
By email: dkorchinski@habitatsouthernab.ca

September 12, 2018

Our File: 3482.T01

Attention: Dan Korchinski
Director of Construction

RE: HABITAT SILVER SPRINGS – TRAFFIC VOLUMES AND PARKING

Dear Dan,

Watt Consulting Group (WATT) is pleased to provide you with this latest letter summarizing the traffic and parking associated with the proposed Habitat Silver Springs development (a 32 residential unit stacked townhome development to be located at 84 Silvercreek Crescent NW). This review builds on the site traffic generation information from WATT's previous letter to Habitat for Humanity dated September 11, 2017. The intent of the previous letter was to outline the traffic generation potential of the development, and to confirm the City of Calgary's position that a Transportation Impact Assessment (TIA) and a parking study are not required. Based on the findings of the 2017 letter, WATT concurred with the City position that a TIA and a parking study are not required given the small trip generation potential of the site and the fact that its Land Use Bylaw parking requirement will be provided entirely on-site. The purpose of this letter is to address opposition from some residents in the immediate vicinity of the site by reaffirming our position on traffic generation and parking situation, and providing further technical demonstration of the traffic impact of the proposed development on Silvercreek Way.

EXISTING ROAD NETWORK

The site is located at 84 Silvercreek Crescent NW and currently has vehicular access/egress via both Silvercreek Crescent to the west and 64 Avenue NW to the east of the site. However, the proposed development will only have a single point of vehicular access/egress via 64 Avenue NW given the locations of the buildings, on-site parking lot, and driveway location on the east side of the site. Although the subject site is situated between Silvercreek Drive to the north and Silver Springs Road to the south, the road network in this part of Silver Springs is arranged such that there are no direct road connections to Silver Springs Road. As such, all vehicular traffic must use Silvercreek Drive NW to the north to enter and exit the area.

Figure 1 illustrates the road network in the vicinity of the subject site.



Figure 1: Area Context

Given the location of the site, its future driveway location, and the road network connections in the immediate area of the site, Silvercreek Way provides the most direct route between the subject site and Silvercreek Drive. Therefore, it is expected that **all traffic from/to the site will use Silvercreek Way NW to enter and exit the area**. Silvercreek Way NW is a residential street. Residential Streets had an environmental capacity of 1000 vehicles per day (vpd) back when the Silver Springs community was developed. The environmental capacity for Residential Streets in the city has increased since that time (now at 2000 vpd), but for the purpose of this letter we have identified the **environmental capacity for Silvercreek Way NW as 1000 vpd**.

EXISTING DAILY TRAFFIC VOLUME ON SILVERCREEK WAY NW

The north end of Silvercreek Way NW (just south of Silvercreek Drive NW) experiences the highest traffic along Silvercreek Way since it is the location where all vehicles coming into and going out of the area must pass through. In contrast, the south end of Silvercreek Way NW (just north of 64 Avenue NW) experiences the lowest traffic along the road because not all traffic to/from the area passes through this section of road. Therefore, the critical location in terms of traffic is Silvercreek Way NW just south of Silvercreek Drive. As such, WATT deployed an automatic traffic counter at this location to record the 24-hour traffic volume on Silvercreek Way. Figure 1 shows the location of the traffic counter deployed in the field. Two full days of traffic volume data was recorded on Wednesday August 8 and Thursday August 9, 2018. The daily traffic volume recorded on August 8 and 9 were 497 vpd and 492 vpd, respectively. **To be conservatively high on the daily traffic volume, we have rounded up the daily traffic volume on Silvercreek Way to 500 vpd.** Given that the environmental capacity for Silvercreek Way NW is 1000 vpd and the existing daily traffic volume on the road is only 500 vpd, **the roadway has spare environmental capacity to accommodate more traffic.**

DAILY TRAFFIC VOLUME WITH HABITAT SILVER SPRINGS

In the 2017 WATT letter prepared for the purpose of the Land Use Redesignation (attached to the back of this letter), the trip generation potential of the subject site was calculated using trip generation rates from the Institute of Transportation Engineer (ITE) Trip Generation Manual, 9th Edition. The AM peak hour, PM peak hour, and daily trip generation of the site were calculated. The AM and PM peak hour trip generation were 15 (3 inbound and 12 outbound) trips and 17 (11 inbound and 6 outbound) trips, respectively. The daily trip generation of the site using the ITE daily trip generation rate was 186 vpd (93 inbound and 93 outbound). Since the proposed number of residential units in the development for the Development Permit (DP) application remained the same, at 32 units, the trip generation outlined in the 2017 WATT letter and summarized above are still applicable to the development. Based on the above trip generation, the traffic impact of the proposed development on the surrounding road network is expected to be negligible. The City of Calgary has a rule of thumb that a TIA is required if a development generate more than 100 trips per hour at any given peak period. **Since the proposed development was expected to generate much less than 100 trips per hour, WATT concurred with the City that a TIA is not required for this proposed development.**

Assuming that 100% of the daily trip generated will use Silvercreek Way to enter and exit the area, the **future daily traffic volume on the road after the subject development is in place is 686 vpd.** It is noted that we have taken a conservative approach of not removing the existing traffic associated with the existing development on the subject site from the daily

volume on Silvercreek Way. **Since the environmental capacity for Silvercreek Way NW is 1000 vpd, the road will operate well within its environmental capacity following the development of the proposed Habitat Silver Springs site.**

PARKING

The 2017 WATT letter also summarized the Land Use Bylaw requirement for vehicular parking stalls for the proposed development. According to the City’s Land use Bylaw, the proposed development, with 32 residential units, required a total of 45 parking stalls. The proposed parking supply at the proposed development is 45 parking stalls. Since the development will be providing for its entire Bylaw parking requirement on-site, WATT concurred that a parking study is not required. **It is my professional opinion that the number of parking stalls for the proposed development is sufficient to accommodate the expected parking demand of the development.**

CONCLUSIONS

The **traffic generated** by the proposed development **can readily be accommodated by the road network** in the immediate vicinity of the site given the environmental capacity of Silvercreek Way NW. The **parking demand** of the development **can be sufficiently accommodated by the parking lot** at the proposed development.

* * * * *

I trust that this letter satisfactorily explains the methodology and results regarding the review of traffic volumes and parking. Please contact us if you have any question regarding this report or any other aspects of the study.

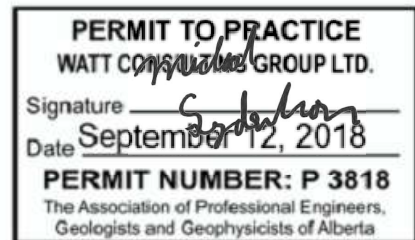
Sincerely,
Watt Consulting Group



Michael Sydenham, P.Eng.
Project Manager
Transportation



September 12, 2018





#310, 3016 – 5 Ave NE
Calgary, AB T2A 6K4

T 403.273.9001

F 403.273.3440

E. skong@wattconsultinggroup.com
wattconsultinggroup.com

Habitat for Humanity Southern Alberta
210, 805 Manning Road NE
Calgary, AB
By email: dkorchinski@habitatsouthernab.ca

September 11, 2017

Our File: 3482.T01

Attention: Dan Korchinski
Director of Construction

RE: HABITAT SILVER SPRINGS DEVELOPMENT – REVIEW OF TRAFFIC GENERATION AND PARKING REQUIREMENT

Dear Dan,

Watt Consulting Group (WATT) is pleased to provide you with this letter summarizing the traffic generation and the parking requirement of the proposed residential stacked townhome development at 84 Silver Creek Crescent in the northwest community of Silver Springs. The development will have 32 residential units and 45 parking stalls. Based on the review of the City comments on the Land Use Amendment, the City is not requiring a Transportation Impact Assessment (TIA) or parking study for this development. However, from our conversation, I understand that the community has raised traffic and parking concerns and Habitat for Humanity Southern Alberta would like to prepare a letter addressing these points.

TRIP GENERATION

Based on the most recent version of the site plan, the development will consist of four stacked townhome buildings with eight dwelling units each, giving a total of 32 residential units. The Institute of Transportation Engineers (ITE) publish a Trip Generation Manual of vehicular trip generation rates for a number of development types/uses including many residential uses. Through the review of the ITE Trip Generation Manual, 9th Edition, it was determined that the most appropriate ITE land use would be Residential Condominium/Townhouse (Land Use: 230). ITE trip generation rates for Residential Condominium/Townhouse land use are as follows:

- AM Peak Hour: 0.44 trips/dwelling unit (17% entering and 83% exiting)
- PM Peak Hour: 0.52 trips/dwelling unit (67% entering and 33% exiting)
- Daily: 5.81 trips/dwelling unit (50% entering and 50% exiting)

Table 1 shows the trips generated by the proposed Habitat Silver Springs development using the above ITE trip generation rates.

TABLE 1: TRIP GENERATION

PERIOD	INBOUND	OUTBOUND	TOTAL
AM Peak Hour	3	12	15
PM Peak Hour	11	6	17
Daily	93	93	186

Based on the above trip generation, the traffic impact of the proposed development on the surrounding road network is expected to be negligible. The City of Calgary has a rule of thumb that a TIA is required if a development generate more than 100 trips per hour at any given peak period. **Since the proposed development is expected to generate much less than 100 trips per hour** (15 in the AM peak hour and 17 in the PM peak hour), **WATT concurs with the City that a TIA is not required for this proposed development.**

BYLAW PARKING REQUIREMENT

Based on the location of the site (in Area 1 of the “Parking Area Map”) and the type of development, the City of Calgary Land Use Bylaw has the following applicable requirements for motor vehicle parking:

- Resident parking: 1.25 stalls per dwelling unit
- Visitor parking: 0.15 stalls per dwelling unit

With 32 residential dwelling units in the proposed development, WATT has calculated the Bylaw parking requirement for the site and a summary is provided in **Table 2**.

TABLE 2: BYLAW PARKING REQUIREMENT

USE	INTENSITY	RATE	STALLS
Multi-Residential	32 units	1.25 stalls / unit for resident parking	40
		0.15 stalls / unit for visitor parking	5
TOTAL			45

The City of Calgary Land Use Bylaw requires 45 parking stalls for the proposed development. The proposed parking supply at the proposed development is 45 parking stalls. **Since the development will be providing for its entire Bylaw parking requirement on-site, WATT concurs with the City that a parking study is not required.**

* * * * *

We trust that this letter satisfactorily explains the methodology and results regarding the review of site trip generation and parking requirement. Please contact us if you have any question regarding this report or any other aspects of the study.

Sincerely,
Watt Consulting Group

Simon Kong, M.Sc., P.Eng.
 Project Manager
 Transportation



September 11, 2017

