

**Date:** February 23, 2024  
**Project #:** 02-24-0010  
**Project:** 6412-6428 Bowwood Drive NW  
**Subject:** Transportation Memo

**To:** RNSDQR  
**From:** Amrit Uppal, P.Eng.

A land use redesignation is proposed to accommodate 52 dwelling units at 6412-6428 Bowwood Drive NW. This Transportation Memo is prepared to provide a transportation overview of the proposal.

Located within the community of Bowness, the site is situated mid-block on Bowwood Drive NW between 64 and 63 Street NW. At-grade vehicle parking will be provided from the Lane. The rezoning application would change the land use district from Multi-Residential – Contextual Low Profile (M-C1) to Housing – Grade Oriented (H-GO). The site context is illustrated in **Figure 1.1**.

Development details are summarized in **Table 1.1**. The site plan is illustrated in **Figure 1.2**.

DETAIL	DENSITY
Density	52 dwellings (24 townhomes + 24 at-grade flats + 4 basement suites)
Vehicle Parking	26 stalls
Bicycle Parking	26 stalls (Class 1 or Mobility storage units)

**Figure 1.2: Site Plan**

## 2. TRAFFIC

### 2.1 Trip Generation

The City of Calgary's *Transportation Impact Assessment (TIA) Guidelines* states a TIA will be required if a development may generate more than 100 new hourly trips. Expected vehicle trips are summarized in **Table 2.1** based on the Institute of Transportation Engineers (ITE) *Trip Generation Manual (11<sup>th</sup> Edition)*.

**Table 2.1: Trip Generation (Vehicle)**

DENSITY	TRIP GENERATION RATES			TRIP GENERATION		
	AM Peak Hour	PM Peak Hour	Daily	AM Peak Hour	PM Peak Hour	Daily
52 dwellings	0.40 per unit	0.51 per unit	6.74 per unit	21	27	350

\*Trip Generation Source: ITE #220 (Multi-Family Low-Rise)

The development will generate up to 27 new peak hour trips, which is below the 100 trips per hour threshold identified by the City of Calgary for requiring a TIA. This level of trip generation is not significant enough to impact the road network's operation.

## 2.2 Roadway Capacity

Anticipated daily vehicle volumes on nearby residential roadways are compared with City guidelines in **Table 2.2**. The review confirms daily vehicle volumes will remain below City guidelines.

**Table 2.2: Roadway Daily Volumes**

ROADWAY	SECTION	DAILY VEHICLE VOLUMES				
		Guideline	Existing	Other	Site	After
64 Street NW	Bowness Rd – Lane	≤ 2,000	1,600	-	+50	1,650
	South of Lane		550	-	+50	600
63 Street NW	Bowness Rd – Lane		1,225	+75	+150	1,450
	South of Lane		700	+25	+100	820
Bowwood Dr NW	64 Street – 63 Street		775	+25	+150	950

\*Existing – Daily volumes obtained from City data. Standard factor of 2.4 applied to 6-hour volumes.

\*Site – Site traffic applied primarily to/from Lane. Additional traffic added to Bowwood Drive to be conservative.

\*Other area developments will increase network volumes. Traffic associated with adjacent Townhome development included. Capacity remains to accommodate additional developments.

## 2.3 Intersection Safety

An intersection safety review was completed for 63 Street & Bowwood Drive NW to assess concerns raised in community comments.

### 2.3.1 Collision History

Collision history for Bowwood Drive NW (64 Street – 63 Street) was obtained from the City of Calgary for the most recent available 10-year period (2013 – 2022). All collisions recorded were property damage only. The following number of collisions were identified in this history:

- 63 Street & Bowwood Drive NW – 10 collisions (9 failure to yield + 1 stolen vehicle)
- 64 Street & Bowwood Drive NW – 1 collision (failure to yield)
- Bowwood Drive NW (Mid-Block) – 1 collision (parked vehicle)

The collision history for 63 Street & Bowwood Drive identified the following:

- **Stop Sign Visibility** – Two collisions noted the lack of visibility of the northbound stop sign on 63 Street NW.
- **Northbound Sightlines** – The majority of collisions involved vehicles travelling in the northbound direction failing to yield to vehicles travelling on Bowwood Drive NW.

### 2.3.2 Sightlines

A site visit was completed to review sightlines at the intersection of 63 Street & Bowwood Drive NW. Figures include StreetView (spring/summer) and site visit (February 2024) images to identify seasonal variations.

#### Stop Sign Visibility

The location of a playground end zone sign restricts the visibility of the stop sign when travelling northbound on 63 Street NW. This restricted stop sign visibility is illustrated in **Figure 2.1**.



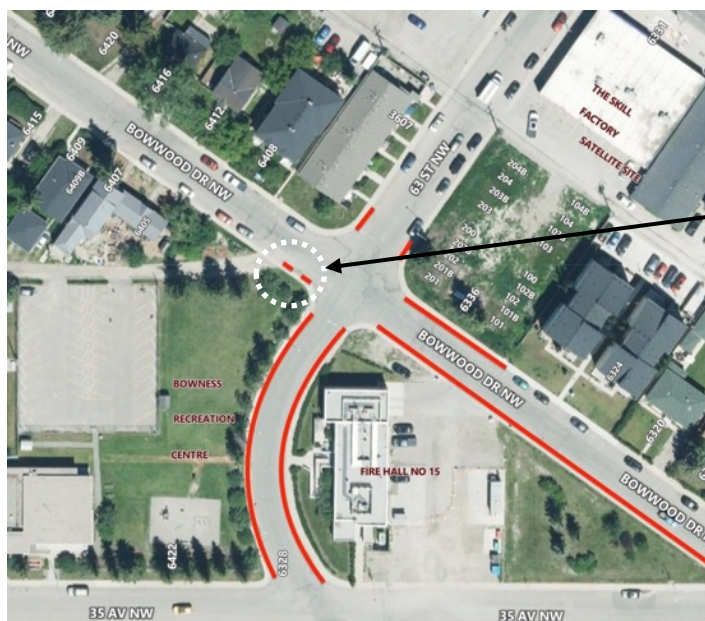
**Figure 2.1: Northbound Stop Sign Visibility**



### Parked Vehicles

Parking restrictions near the intersection are illustrated in **Figure 2.2**. Vehicles are prohibited from parking near the intersection on 3 out of 4 Bowwood Drive NW corners (2 corners with no parking signage; 1 corner due to the close spacing of a Lane access preventing a vehicle from legally parking). The parking condition on the 1 out of 4 corners with no restriction is not any different from other similar intersections.

During a site visit, a vehicle was observed parking illegally on the south side of Bowwood Drive NW (west of intersection). No signage is provided prohibiting parking on this section, but the close spacing of the Lane to 63 Street NW results in a vehicle parking in this location blocking access to the Lane. The addition of 'No Parking' signage is recommended at this location to maintain Lane access.

**Figure 2.2: Parking Restrictions near Intersection**

\*Red lines identify no parking zones.

### Shrub (Bowness Seniors Centre)

A shrub located at the southwest corner of the intersection is illustrated in **Figure 2.3**. This shrub can impact sightlines for vehicles travelling northbound on 63 Street NW in the spring/summer.

**Figure 2.3: Shrubs Restricting Visibility**



### 2.3.3 Recommendations

To improve safety at the intersection of 63 Street & Bowwood Drive NW, Bunt & Associates recommends the City of Calgary consider:

- **Playground Signage Relocation** – Relocating the ‘playground zone end’ sign from the sidewalk into the boulevard.
- **No Parking Signage** – Adding new No Parking signage on Bowwood Drive NW (south side) between the Lane and 63 Street NW.
- **Shrub Removal** – Removing the shrub located on the southwest corner of the intersection.

## 3. ACTIVE TRANSPORTATION

### 3.1 Pedestrian

Pedestrian infrastructure within the study area is illustrated in **Figure 3.1**. Amenities including a grocery store, restaurants, and shops are located within walking distance. A review identified:

- **Sidewalks** – There are no missing links impacting site connectivity.
- **Crossings** – Controlled crossings of Bowness Road NW are provided. New controlled crossings are not warranted.

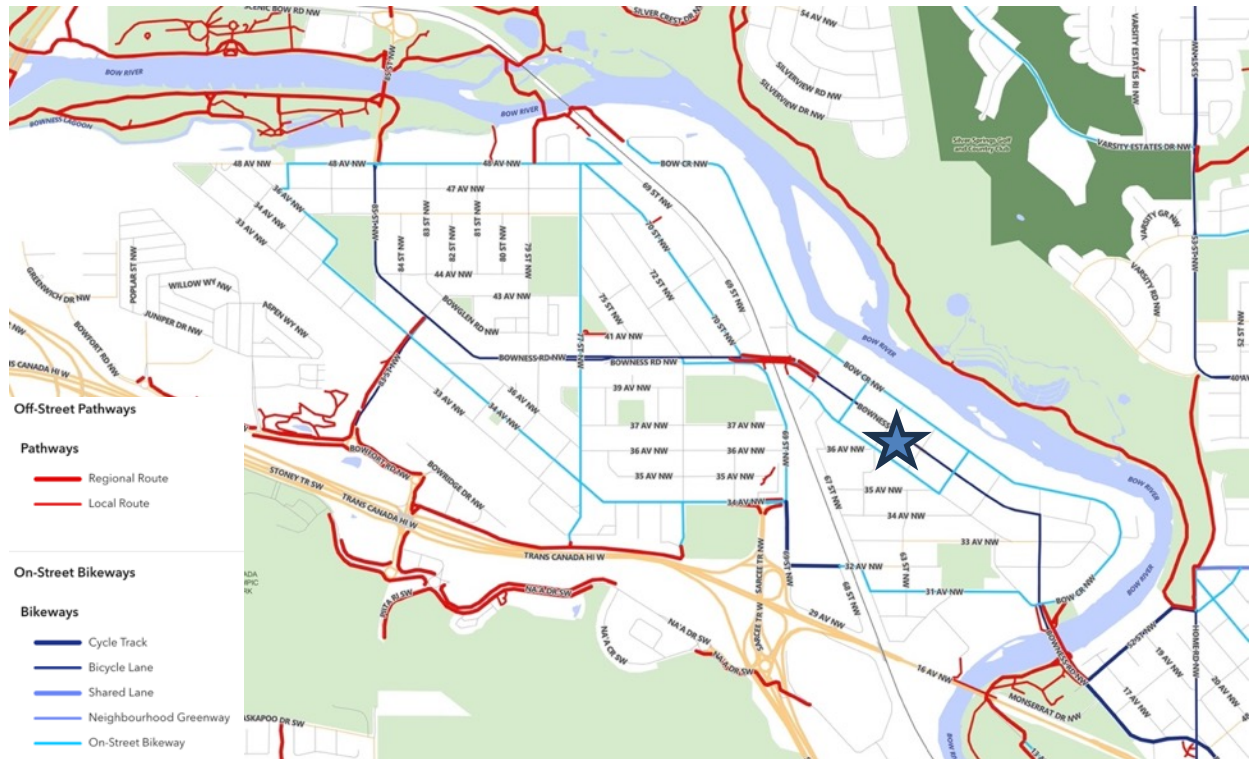
**Figure 3.1: Pedestrian Network**



### 3.2 Cycling

Cycling facilities near the site are illustrated in **Figure 3.2**. The site is located adjacent to Bowwood Drive NW (on-street bikeway) and half a block from Bowness Road NW (bike lanes).

**Figure 3.2: Cycling Network**



### 3.3 Transit

The area transit network is summarized in **Table 3.1** and illustrated in **Figure 3.3**. The *Calgary Transportation Plan* identifies Bowness Road NW as part of the City's Primary Transit Network. The City's *RouteAhead Plan* identifies a future West Bow BRT route on Bowness Road NW with a stop at 63 Street NW.

**Table 3.1: Transit Frequency**

ROUTE		DISTANCE TO STOP	FREQUENCY	
#	Name		Peaks	Off-Peak
1	Bowness – Forest Lawn	125m	16 minutes	16-25 minutes
53	Brentwood – Greenwood		30 minutes	30 minutes

**Figure 3.3: Transit Network**

\*Route 305 cancelled September 2023. Calgary Transit system map has not yet been updated to illustrate this change.

#### 4. PARKING

##### 4.1 Bylaw

Bylaw parking requirements are calculated in **Table 4.1** in accordance with Land Use Bylaw 1P2007 (H-GO). The development will meet all bylaw parking requirements.

**Table 4.1: Bylaw Parking Requirement**

DENSITY	STALL TYPE	BYLAW MINIMUM RATIO	STALLS		
			Bylaw	Proposed	Difference
52 dwellings	Vehicle	0.5 per unit or suite	26	26	-
	Bicycle	1 per unit without vehicle stall	26	26	-

##### 4.2 On-Street

On-street parking restrictions near the site are illustrated in **Figure 4.1**. The site on-street frontage accommodates 11 vehicles and has no current parking restrictions.



**Figure 4.1: Existing On-Street Parking Restrictions**

## 5. CONCLUSIONS

Study findings are identified below.

### Traffic

- **Trip Generation** – The development will generate up to 27 new peak hour trips. This level of trip generation is not expected to impact network operation.
- **Road Capacity** – Daily volumes on residential roadways will remain within the City's guidelines.
- **Intersection Safety** – Sightline improvements (relocating a playground sign, adding no parking signage and removing shrubs) are recommended at 63 Street & Bowwood Drive NW to address collision history.

### Active Transportation

- **Pedestrian** – The site is within a walkable mixed-use community near amenities.
- **Cycling** – The site is served by bike lanes on Bowness Road NW.
- **Transit** – Frequent bus service is provided on Bowness Road NW (#1, #53). Service will be enhanced in the future with the RouteAhead identified West Bow BRT.

### Parking

- **Bylaw** – Parking requirements will be met.
- **On-Street** – The site frontage accommodates 11 vehicles.