

23 July 2025
Project: (240500)

Ryan Oosterhoff
Mattamy Homes
6696 Financial Drive
Mississauga ON L5N 7J6

**RE: 132 CLAIR ROAD, BLOCK 1, GUELPH – TRANSPORTATION IMPACT
ASSESSMENT**

Paradigm Transportation Solutions Limited (Paradigm) has been retained to prepare a Transportation Impact Assessment for the proposed Residential Development located on Block 1 of the development lands at 132 Clair Road.

Figure 1 illustrates the location of the 132 Clair Road lands and the development to the south as well as the surrounding road system and land uses.

Background

The subject 132 Clair development and a proposed subdivision on the south side of Poppy Drive are the only developments on this section of Poppy Drive between Gosling Gardens to the east and the current terminus of Poppy Drive to the west located at 195 metres south of Clair Road.

The approved Clair-Maltby Secondary Plan (CMSP) provides for a new north-south road (Street A) that will extend from the current terminus of Poppy Drive in the north to Maltby Road in the south. The CMSP lands are generally located to the south of the developments along Poppy Drive.

Given the current stage of land use development and background road traffic along Poppy Drive west of Gosling Gardens, the transportation impact assessment for the subject subdivision is based on the base year (2015 and 2016) and future (2031) traffic projections included in the CMSP Transportation Study.¹

¹ Prepared by BA Group for the City of Guelph, *Clair-Maltby Secondary Plan Transportation Master Plan Study*, 06 March 2019.

The traffic projections and impact assessment in the CMSP Transportation Study are comprehensively based on existing land uses and proposed developments south of Clair Road in addition to future developments in the CMSP area.

The subject development is a moderate trip generator located on Poppy Drive that provides a new continuous connection between Clair Road and Gosling Gardens. The impact assessment for the subdivision is provided herein as a Transportation Impact Brief and includes the following:

- ▶ Poppy Drive – Roadway Specificities and Traffic Volumes
- ▶ Poppy Drive Developments & Trip Generation – West of Gosling Gardens
 - Subdivision Development north of Poppy Drive (subject development)
 - South Poppy Drive Subdivision
- ▶ Impact Assessment

Poppy Drive

Poppy Drive is a two-lane, east-west collector road located south of Clair Road, intersecting Gordon Street at approximately 180 metres south, and extending east and west of Gordon Street to connect with Clair Road on either side. The roadway provides access to developments located between Clair Road and the CMSP lands.

West of Gordon Street, Poppy Drive has been built up to Gosling Gardens 230 metres from Gordon Street, and for a length of 195 metres from south of Clair Road. The section of Poppy Drive in between is included in the Draft Plan of Subdivision (the Neumann Subdivision) for lands located to the north of Poppy Drive and west of Gosling Gardens.

As noted above and shown in **Figure 1**, Poppy Drive will also connect to the proposed north-south road (Street A) in the Clair-Maltby Secondary Plan (CMSP) area.

Background Traffic Volumes

The CMSP Transportation Study² provides base year (2015 and 2016) and future (2031) traffic volumes at the intersections along Poppy Drive, for the analytically significant weekday PM peak hour.

Figure 2 includes the base year intersection traffic volumes along Poppy Drive between Clair Road and Gordon Street, as provided in the CMSP Transportation Study.

² Prepared by BA Group for the City of Guelph, *Clair-Maltby Secondary Plan Transportation Master Plan Study*, 06 March 2019.



Figure 3 includes 2031 traffic volumes including background road traffic volumes, CMSP development traffic volumes, and background development traffic volumes for identified developments outside the CMSP, including Block 2 of the subject development.

As shown in **Figure 3**, the section of Poppy Drive fronting the subject (South Poppy Drive) subdivision is projected to carry 84 vph in the eastbound direction and 130 vph in the westbound direction during the PM peak hour in 2031.

Poppy Drive Developments

As noted, the subject development is part (Block 1) of the subdivision located between Clair Road to the north and Poppy Drive to the south, and west of Gosling Gardens.

A Transportation Impact Study³ was prepared in 2014 for the whole subdivision (i.e., Block 1 and Block 2). The land use assumptions included a 7.96-acre Business Park for Block 1, and a 2.41-acre Commercial use for Block 2.

Residential land uses are now proposed for both Block 1 and Block 2 along with the residential South Poppy Subdivision to the south.

Trip generation estimates for the three residential developments are outlined below.

132 Clair Road, Block 1 (Subject Development)

The Concept Plan for Block 1 of the development includes 522 apartment units between two 14-storey buildings and a single six-storey building, and 72 stacked townhouses. The site will have two driveways on Poppy Drive.

Figure 4 includes the proposed Concept Development Plan for Block 1.

The ITE Trip Generation Manual (11th Edition) rates were used to estimate the peak hour traffic volumes generated by the subject development based on the following ITE Land Use Codes:

- ▶ 210, Single-Family; and
- ▶ 220, Multifamily Housing (Low-Rise).

Table 1 summarizes the forecast number of net new trips generated by the proposed development.

³ Prepared by Paradigm Transportation Solutions Limited, *Neumann Subdivision, Guelph, ON Transportation Impact Study*, October 2014.



TABLE 1: 132 CLAIR ROAD TRIP GENERATION – BLOCK 1

Land Use Code	Units	AM Peak Hour				PM Peak Hour			
		Rate	In	Out	Total	Rate	In	Out	Total
215: Single-Family Attached Housing	72	Eq	8	24	32	Eq	23	16	39
221: Multifamily Housing (Mid-Rise)	82	Eq	6	18	24	Eq	20	12	32
222: Multifamily Housing (High-Rise)	440	Eq	30	86	116	Eq	86	52	138
Total Trip Generation			44	128	172		129	80	209

LUC 210 | AM: $\ln(T) = 0.91 \ln(X) + 0.12$ | PM: $\ln(T) = 0.94 \ln(X) + 0.27$

LUC 220 | AM: $T = 0.31(X) + 22.85$ | PM: $T = 0.43(X) + 20.55$

As shown in **Table 1**, the proposed dwelling units will generate 172 vehicle trips during the AM peak hour and 209 trips during the PM peak hour.

The site trips were split 50/50 east-west on Poppy Drive.

Figure 5 illustrates the Block 1 development traffic volumes for the AM and PM peak hours.

The peak-hour, peak directional trips on Poppy Drive are less than 70 vph.

132 Clair Road, Block 2

Block 2 at 132 Clair Road is proposed to comprise a 60-unit Townhouse Block.

The ITE Trip Generation Manual (11th Edition) equations were used to estimate the peak hour traffic volumes generated by the Townhouse Block based on ITE LUC 215, Single-Family Attached Housing.

Table 2 summarizes the trip generation for Block 2 of 132 Clair Road.

TABLE 2: 132 CLAIR ROAD TRIP GENERATION – BLOCK 2

Land Use Code	Units	AM Peak Hour				PM Peak Hour			
		Rate	In	Out	Total	Rate	In	Out	Total
215: Single-Family Attached Housing	60	Eq	7	19	26	Eq	19	13	32
Total Trip Generation			7	19	26		19	13	32

LUC 215 | AM: $T = 0.52(X) - 5.70$ | PM: $T = 0.60(X) - 3.93$

Figure 6 illustrates the site traffic volumes for Block 2.



South Poppy Subdivision

The Draft Plan for the South Poppy subdivision includes 24 single-detached lots (Blocks 1 to 24) and one medium density block (Block 25) that will accommodate between 11 and 48 dwelling units. In total, the subdivision will accommodate 35-72 dwelling units with frontage along Poppy Drive.

Each of the 24 single-detached lots will have individual driveway access to Poppy Drive. The multi-unit Block 25 will also have access to Poppy Drive that will be finalized through the Site Plan process.

The ITE Trip Generation Manual (11th Edition) rates were used to estimate the peak hour traffic volumes generated by the subject development based on the following ITE Land Use Codes:

- ▶ 210, Single-Family; and
- ▶ 220, Multifamily Housing (Low-Rise).

Table 3 summarizes the forecast number of net new trips generated by the proposed development.

TABLE 3: SOUTH POPPY SUBDIVISION TRIP GENERATION

Land Use Code	Units	AM Peak Hour				PM Peak Hour			
		Rate	In	Out	Total	Rate	In	Out	Total
210: Single-Family Detached Housing	24	Eq	5	15	20	Eq	16	10	26
220: Multifamily Housing (Low-Rise)	48	Eq	9	29	38	Eq	26	15	41
Total Trip Generation			14	44	58		42	25	67

LUC 210 | AM: $\ln(T) = 0.91 \ln(X) + 0.12$ | PM: $\ln(T) = 0.94 \ln(X) + 0.27$

LUC 220 | AM: $T = 0.31(X) + 22.85$ | PM: $T = 0.43(X) + 20.55$

As shown in **Table 3**, the proposed maximum of 72 dwelling units will generate 58 vehicle trips during the AM peak hour and 67 trips during the PM peak hour.

Figure 7 illustrates the South Poppy Subdivision traffic volumes for the AM and PM peak hours.

Figure 8 illustrates the total Poppy Drive traffic volumes, including the subject Block 1 development as well as the Block 2 development and the South Poppy Drive Subdivision.

As shown, the total development traffic volumes on the new section of Poppy Drive are projected to reach 95 vph in the eastbound and westbound directions during the PM peak hour.



Impact Assessment

The projected development traffic volumes for the PM peak hour – 95 vph westbound and 95 vph eastbound – compare with the CMSP 2031 projections for PM peak hour, viz., 130 vph westbound and 84 vph eastbound.

The projected volumes are moderate and are well within the single lane capacity of Poppy Drive.

The combined transportation impacts of the subject Block 1 and Block 2 of the 132 Clair Road development and the South Poppy Subdivision to the south are minimal and can be accommodated by the study area road system.

We trust that this Letter addresses the requirements for transportation impact assessment for the proposed Block 1 of the development at 132 Clair Road. Please do not hesitate to contact us if you need additional information.

Yours very truly,

PARADIGM TRANSPORTATION SOLUTIONS LIMITED

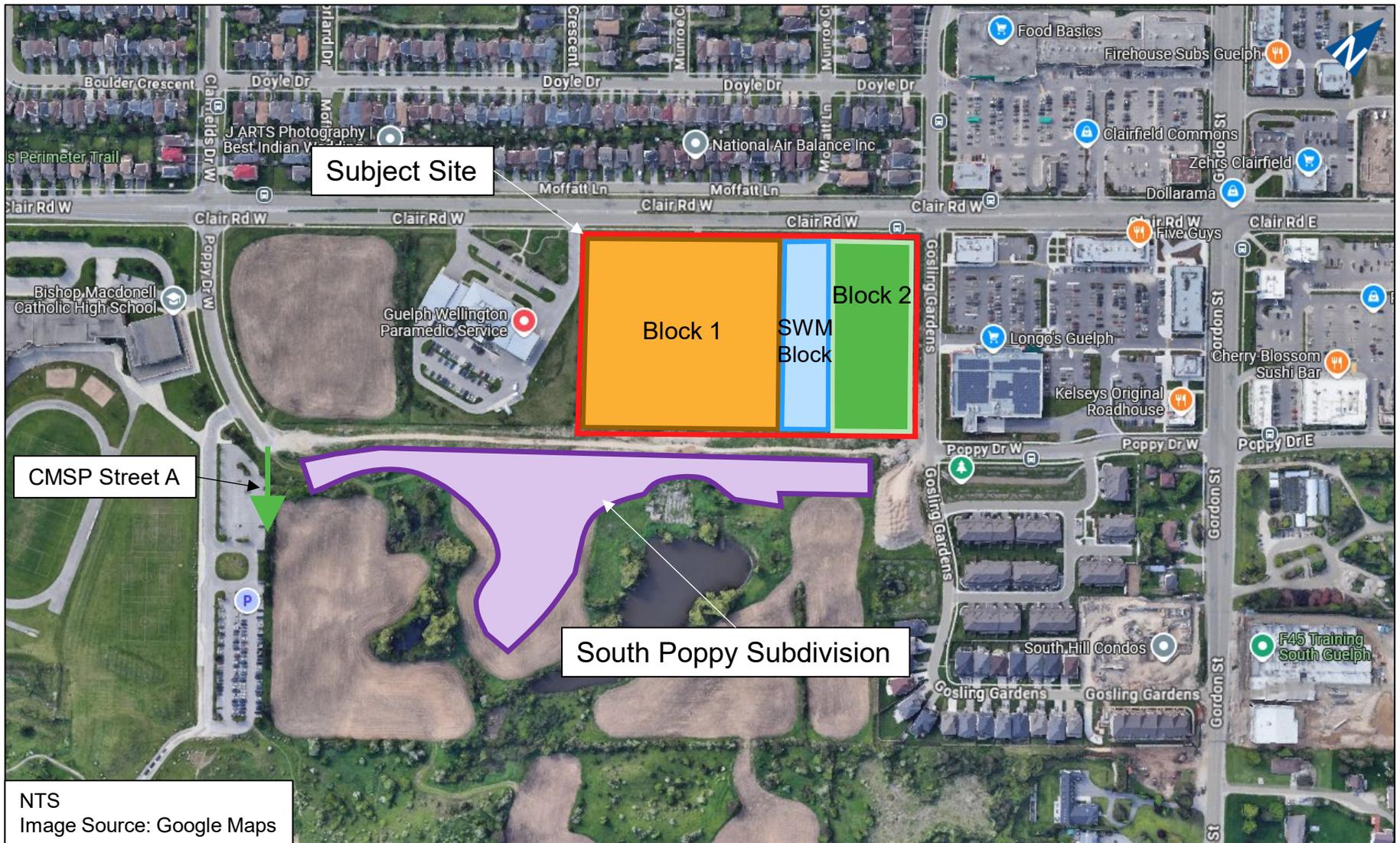


Rajan Philips
M.Sc. (PI), P.Eng.
Senior Transportation Consultant



Attachments



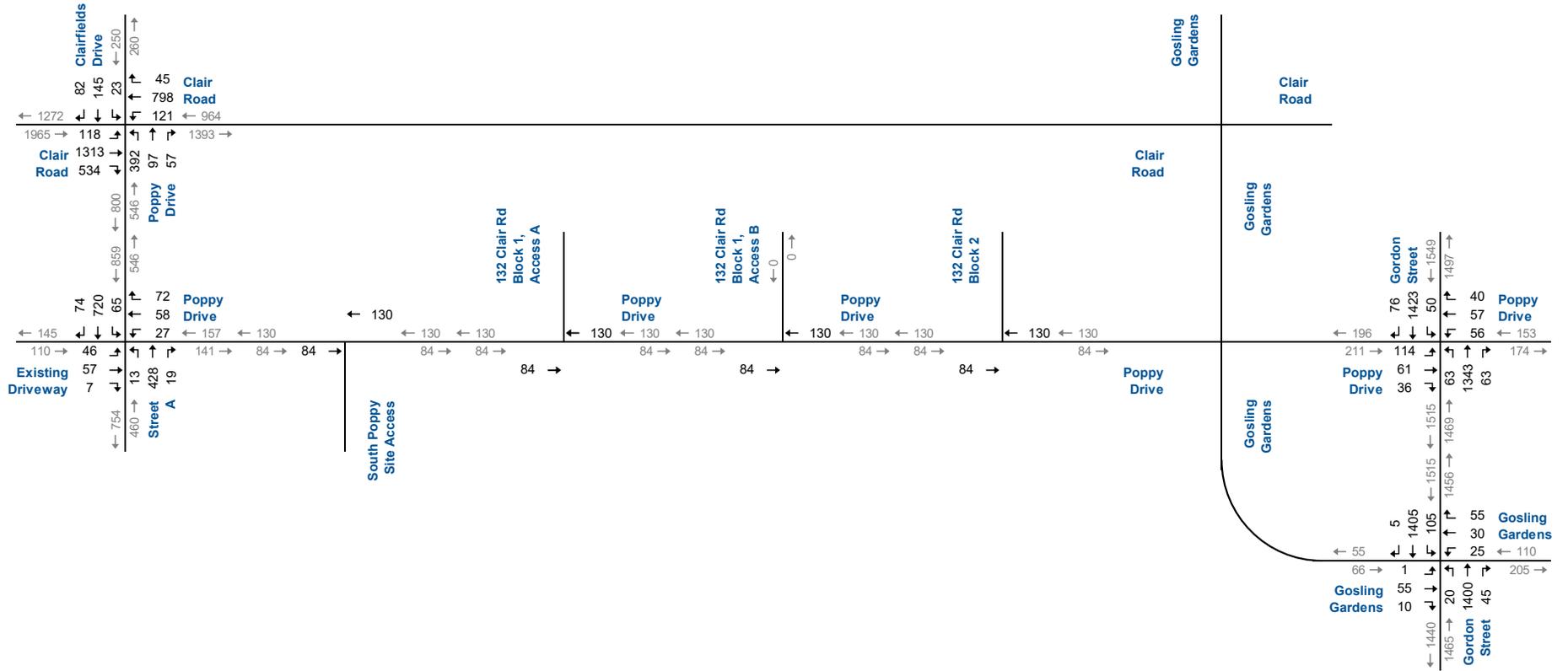


Location of Subject Site

132 Clair Road, Block 1 TIB
240500

Figure 1

PM Peak Hour



CMSP 2031 Traffic Volumes PM Peak Hour

132 Clair Road, Block 1 TIB
240500

Figure 3



CONCEPT PLAN

PART OF LOT 11, CONCESSION 7
BEING BLOCK 2 ON DRAFT APPROVED
PLAN OF SUBDIVISION 23T-15501

Subject Lands 26,207 m² (2.62 ha)

Proposed Units:

Apartment Units: 522
Stacked Units: 56
Back-to-Back Units: 16
Total Units: 594
Density: 227 units/ha

Proposed Parking:

Surface: 82 Spaces
Driveway: ± 72
Garage: ± 72
Total: 226 Spaces + Underground (TBD)

Notes:

- For discussion/ conceptual purposes only.
- Unit & parking estimates are approximate only/ subject to final building and underground parking design.
- Site area breakdown is approximate.
- Landscaped area includes sidewalks & common amenity area.

DATE: June, 2025

FILE: 06131AE

SCALE: 1:750

DRAWN: GC



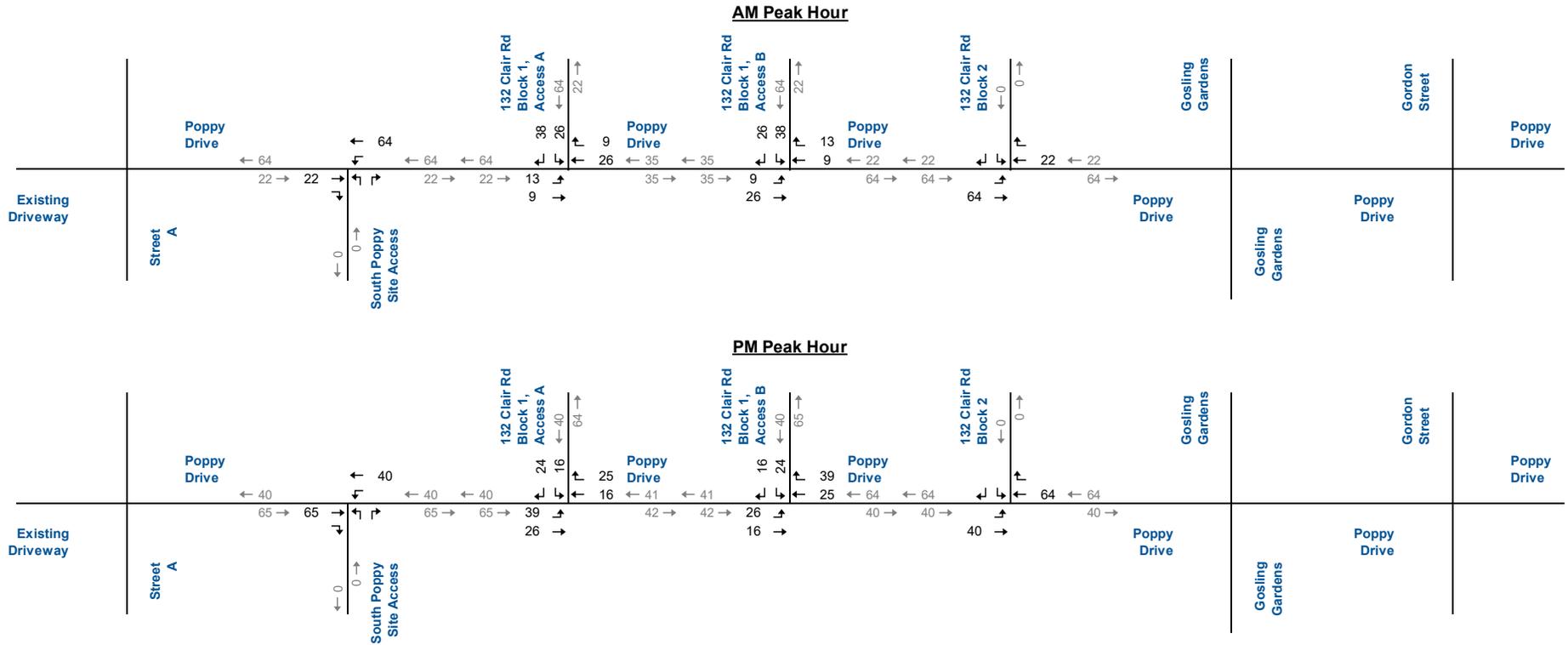
K:\2025\06131AE\06131AE_LANDSCAPE.DWG



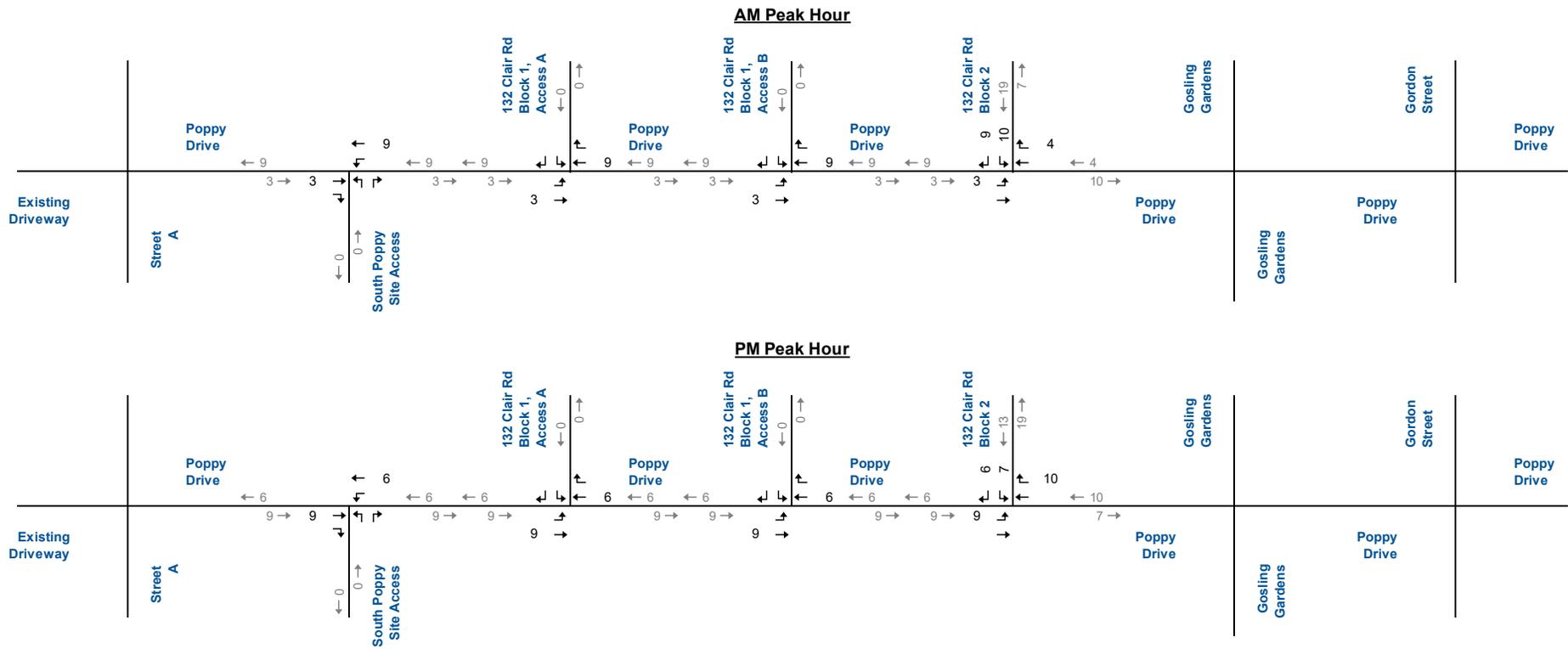
Concept Development Plan

132 Clair Road, Block 1 TIB
240500

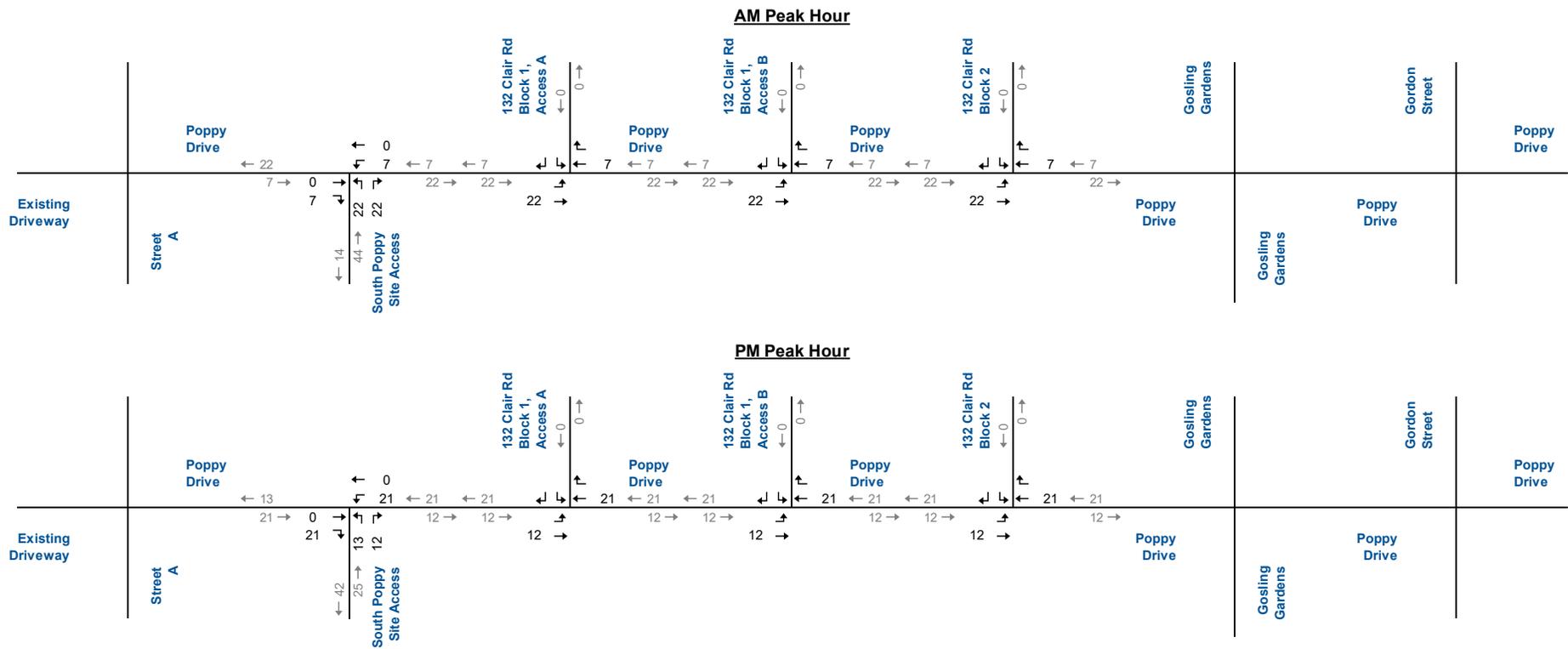
Figure 4



132 Clair Road, Block 1 Development Traffic Volumes

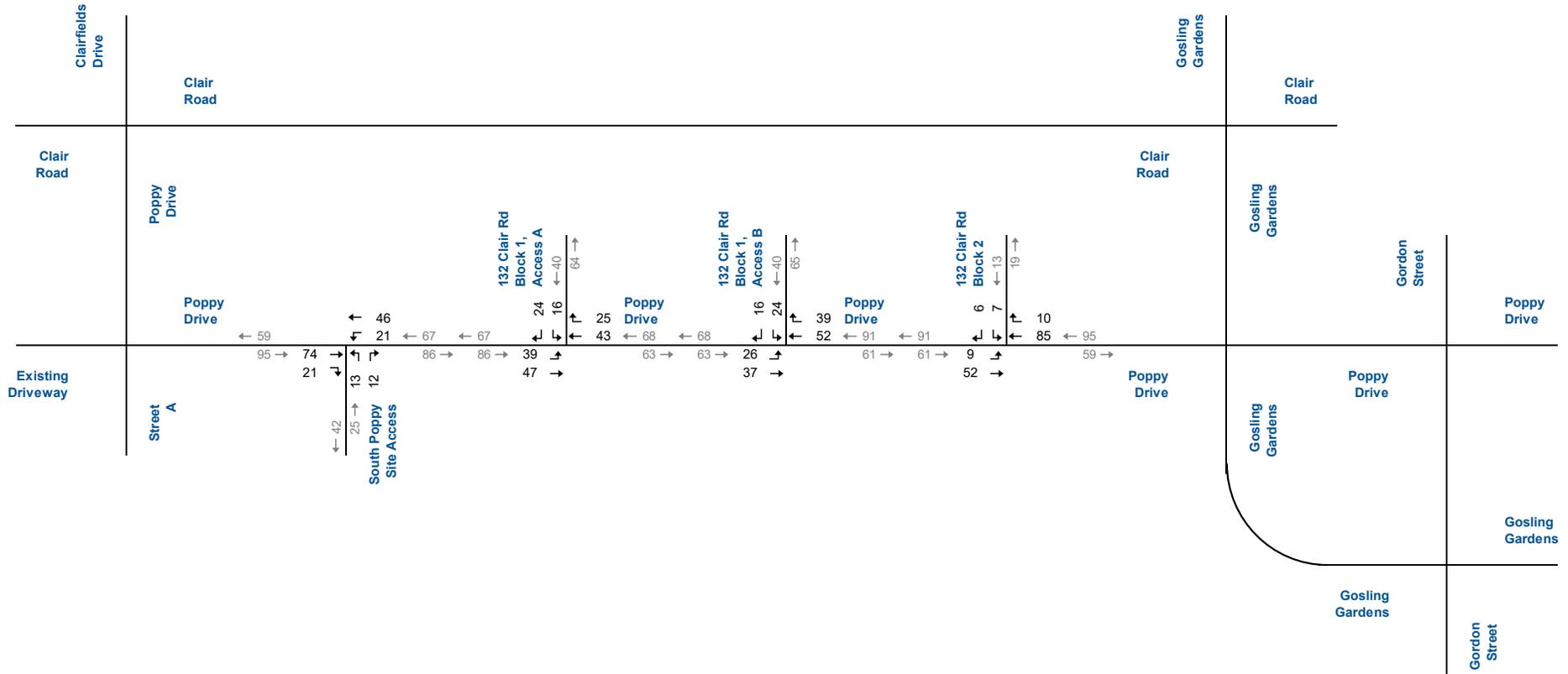


132 Clair Road, Block 2 Traffic Volumes



South Poppy Subdivision Traffic Volumes

PM Peak Hour



Poppy Drive Developments Total Traffic Volumes, PM Peak Hour