



**Castleglenn
Consultants**

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August 20th, 2025

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**Re: 390 Back Street – Lyndhurst, Ontario K0H 2N0
“DRAFT” Traffic Brief**

CC Weddings and Events retained Castleglenn Consultants Inc. to evaluate the traffic and transportation issues associated with the development of a proposed wedding/event venue that would be located at 390 Back Street in Lyndhurst, Ontario. This document is intended to support a Zoning By-Law Amendment application that would supplement a future site plan application.

Exhibit 1 illustrates the conceptual location of the proposed wedding venue which would connect to Back Street. The venue itself is located to the rear of the property. A full site plan is illustrated in Annex “A”. At this point in time the venue is intended to include the establishment of a catering and washroom area, a three season tent, provision of parking areas and the establishment of a gravel surface driveway that would provide access to the venue at the north end of the acreage.



Exhibit 1: Proposed Site Area

This document is intended to address inquiries related to traffic and transportation aspects associated with the proposed development.

It is currently proposed that the wedding venue driveway would share the existing laneway entrance to the 390 Back Street residential dwelling. The driveway would then run along the western and northern portions of the acreage to access the facilities of the wedding venue.

Back Street ...:

- is a gravel roadway with an overhead hydro corridor that runs along the south side of the corridor,
- a roadside ditch runs along the south side of Back Street,
- intersects with Highway 15, approximately 440m to the west of the 390 Back Street access,
- intersects with Lyndhurst Road CR 33, approximately 330m to the east of the access.

A) Traffic Volume Assessment:

One of the criteria use to evaluate roadway suitability to accommodate proposed land uses is anticipated traffic levels. To this end, manual traffic counts were undertaken on Tuesday April 22nd, 2025, over two “**peak periods**” (between 6:30-to-9:30 am and 3:00-to-6:30pm) along the Back Street corridor within the vicinity of the proposed site. The analyzed intersections included:

- Back Street and Highway 15; and
- Back Street and Lyndhurst Road (County Road 33).

The traffic count information was then converted to digital format and the “**peak hour**” traffic volumes were then determined. The existing traffic volume diagram is illustrated in Annex “B”.

Intersection capacity analysis for the two study area intersections was undertaken utilizing SynchroTM 10 analysis software. The software incorporates Highway Capacity Manual (HCM) 6th edition methodologies to determine level-of-service (delay-based) and volume-to-capacity (v/c) performance measures. Annex “C” documents the resulting Synchro result sheets indicating the existing traffic operational performance characteristics.

Table A summarizes the resulting intersection capacity analyses results for the critical movements along the minor legs of the two intersections. Since both Highway 15 and Lyndhurst Road operate as free-flow corridors, the only turning movements that are considered critical are the turning movements approaching from the minor legs of the intersections (Back Street).

Table A-1: Existing 2024 Intersection Capacity Analysis Results

Intersection <i>Back Street and...</i>		Control Type	Critical Approach/ Movement	Volume of Traffic (vph)	Weekday			
					Morning Peak Hour		(Afternoon Peak Hour)	
					Average Delay per Vehicle (Sec.)	Level of Service	95 th Percentile Queue (m)	Volume-to-Capacity Ratio (v/c)
1	Highway 15	Minor leg-STOP-Control	WB	6 (2)	10.7 (10.6)	B (B)	0.0 (0.0)	0.01 (0.01)
2	Lyndhurst Road (County Road 33)	Minor leg-STOP-Control	EB	5 (2)	9.2 (9.5)	A (A)	0.0 (0.0)	0.01 (0.01)

Morning peak hour operational parameters are indicated outside of brackets
(Afternoon peak hour operational parameters are indicated inside of brackets) vph – vehicles-per-hour

Conclusion: The existing weekday peak hour traffic levels at the Back Street intersections with the Highway 15 and Lyndhurst corridors currently indicate satisfactory levels of service (LOS “B” or greater) assuming the existing STOP-controlled approaches. There is no evidence of queues or congestion nor significant delays (average delays were only 9-to-11 seconds) in entering either corridor from Back Street at either intersection.

B) Traffic Generation:

The main purpose of the proposed site is to accommodate small wedding events. These types of events most often occur on weekends during the late Spring, Summer and early Fall. Most wedding events occur outside of the normal commuter peak periods, when adjacent street traffic is typically lower. The traffic generation characteristics of the venue were based on the following assumptions:

- **Maximum Capacity:** The maximum capacity for the venue would be 120 guests.
- **Vehicle Occupancy:** The average occupancy-per-vehicle for a typical wedding event was assumed to be an average of 2 persons-per-vehicle. Urban areas typically are characterized by vehicle occupancies in the range of 1.2-to-1.3 persons-per-vehicle. The higher value of vehicle occupancy was selected for the wedding venue in recognition of the rural location of the site (approximately 30km from Kingston) and the larger share of family travel associated with wedding attendance.
- **Potential Shuttle Service:** The development proponents indicated that a shuttle service may be arranged that would transport guests to and from the venue from a central meeting point. It was estimated that such a service could accommodate 30-40% (36-to-48) of the guests that would utilize the service. However, to remain conservative this analysis assumed a “worst case” event scenario where such a shuttle service would not be provided.
- **Wedding Event:** Wedding events are likely to extend for several hours and traditionally require 3-to-6 hours to set-up prior to the ceremony where vendors (caterers, decorators / floral arrangements, seating and table arrangements, sound systems, lighting, etc.) prepare for the event. Guests start arriving 30-to-60 minutes before the ceremony. The following reception can last from 5-to-6 hours. Guest departures normally occur within 15-to-30 minutes after the last dance. Clean-up normally takes place 1-to-2 hours after the event.

Table B-1 provides the anticipated traffic volumes generated from the proposed wedding venue.

Table B-1: Peak Hour of Event Vehicle Traffic Generation Results
(vehicles-per-hour)

Generator	Size	Vehicle Occupancy	Morning Peak Hour			Afternoon Peak Hour		
			Inbound	Outbound	Total	Inbound	Outbound	Total
Vendor Deliveries	8 vendors (trucks)	N/A	8	8	16	N/A	N/A	N/A
Wedding Guests	120 Attendees	2.0 persons per Vehicle	N/A	N/A	N/A	60	10	70
Forecast “Wedding Event” Traffic			8	8	16	60	10¹	70

1. These vehicles would drop off guests and leave. This accounts for guests that would be dropped off by a friend/uber/taxi/etc.

The above table was developed based on the following venue profile:

- A large wedding event was assumed to occur during a weekend day or civic holiday

- Event staff and vendors were assumed to arrive outside the peak hours of travel demand and perhaps the day before the wedding to arrange for delivery and set-up. Some vendors would arrive during the morning to deliver various equipment and supplies for the event. The analysis assumed a “worst case” scenario, where it was assumed that all vendors and those responsible for delivery of goods would arrive/coincide with the morning peak hour.
- Guest arrival to the wedding event would occur during the 3:30-to-4:30 pm arrival time.
- Guest departure was estimated to occur during the late evening at approximately 11p.m.

C) Traffic Distribution

Table C-1 indicates, and Exhibit 2 below illustrates, the percent traffic distribution trends applicable to the adjacent road network that were adopted to represent the distribution of vehicle traffic to the various roadways in the vicinity of the proposed site. The assumptions were determined based on proximity to populated areas to the site and confirmed with the development proponent’s expectations.

Most traffic was assumed to come from the south along Highway 15, as the City of Kingston (~35 km) and the Highway 401 corridor (~25km) are both located much closer to the venue than greater Ottawa. The site generated traffic diagram is illustrated within Annex “B”.

Table C-1: Traffic Distribution Trends

<i>Traffic Destination/Origin</i>	<i>Inbound</i>	<i>Outbound</i>
Highway 15 south (Kingston/Highway 401)	66%	66%
Highway 15 north (Smith Falls)	25%	25%
Lyndhurst Road (County Road 33)	9%	9%



Exhibit 2: Site Traffic Distribution Trends

D) Anticipated Effect of Venue Traffic on Service Levels**D-1: Horizon Year 2027: Initial Year of Operation**

For analysis purposes it was assumed that the proposed wedding venue would become operational by the Summer of 2027.

- A 1% annual growth rate was applied (2% total) to the existing (2025) balanced traffic counts.
- The site generated traffic was then superimposed upon the forecast 2027 background traffic volumes
- The sum of these layers provided an estimate of Total 2027 forecast traffic volume assuming the wedding venue would be operational. Annex “B” illustrates the forecast total 2027 traffic volumes

Table D-1 indicates the resulting intersection capacity analysis results for all critical movements along the Back Street corridor during the forecast 2027 horizon year. Annex “C” documents the resulting Synchro output sheets indicating the operational performance.

Table D-1: Forecast 2027 Intersection Capacity Analysis Results (Opening Day)

Intersection <i>Back Street and...</i>	Control Type	Critical Approach/ Movement	Volume of Traffic (vph)	Weekday Morning Peak Hour (Afternoon Peak Hour)			
				Average Delay per Vehicle (Sec.)	Level of Service	95 th Percentile Queue (m)	Volume-to-Capacity Ratio (v/c)
1 Highway 15	Minor leg- STOP-Control	WB	17 (12)	11.0 (10.6)	B (B)	0.8 (0.8)	0.03 (0.02)
2 Lyndhurst Road (County Road 33)	Minor leg- STOP-Control	EB	7 (5)	9.2 (9.6)	A (A)	0.0 (0.0)	0.01 (0.01)
3 Proposed Site Access	Minor leg- STOP-Control	SB	8 (10)	8.4 (8.6)	A (A)	0.0 (0.0)	0.01 (0.01)

D-2: Horizon Year 2032: +5-year Post Occupancy

Traffic impact assessment (TIA) guidelines indicate that a period 5-years after the commencement of operations is required for analyses and evaluation. Assuming a 2027 opening date for the wedding venue would imply that this +5 year period would take place in 2032. To simulate this an additional 1% average annual growth rate was assumed and applied (5% growth in total) to the background traffic volumes. The 2032 traffic volume diagram is illustrated in Annex “B”.

Table D-2 indicates the resulting intersection capacity analysis results for all critical movements along the Back Street corridor in 2032. Annex “C” documents the resulting Synchro output sheets indicating the operational performance.

Table D-2: Forecast 2032 Intersection Capacity Analysis Results (+5-Year Horizon)

Intersection <i>Back Street and...</i>	Control Type	Critical Approach Movement	Volume of Traffic (vph)	Weekday Morning Peak Hour (Afternoon Peak Hour)			
				Average Delay/ Vehicle (Sec.)	Level of Service	95 th Percentile Queue (m)	Volume-to-Capacity Ratio (v/c)
1 Highway 15	Minor leg- STOP-Control	WB	17 (12)	11.2 (10.8)	B (B)	0.8 (0.8)	0.03 (0.02)
2 Lyndhurst Road (County Road 33)	Minor leg- STOP-Control	EB	7 (5)	9.3 (9.6)	A (A)	0.0 (0.0)	0.01 (0.01)
3 Proposed Site Access	Minor leg- STOP-Control	SB	8 (10)	8.4 (8.6)	A (A)	0.0 (0.0)	0.01 (0.01)

Morning peak hour operational parameters are indicated outside of brackets
(Afternoon peak hour operational parameters are indicated inside of brackets) vph – vehicles-per-hour

Conclusion: The forecast 2032 traffic volume associated with proposed wedding venue can be accommodated by the surrounding roadways resulting in acceptable service levels (LOS “B”-or-greater) on the surrounding roadways and intersections. Average delays experienced by motorists wishing to enter the Highway 15 and County Road corridors would remain in the order of 8-to-11.2 seconds.

E) Back Street Roadway Structure

Back Street was built, and maintained, by Cavanagh Construction Ltd. on behalf of the Township of Leeds and the Thousand Islands as a gravel surface roadway. It is assumed that the roadway was designed to withstand heavy quarry vehicle traffic. The roadway width varies between 5.6-to-6.1 meters and has a culvert that ranges between 0.35-to-0.65 meters deep. Should a large vehicle be required to pull over, there is sufficient space for other vehicles to pass by safely.

E-1: Left Turn Lane Warrant

Traffic volumes westbound along Back Street do not exceed 100 vph (vehicles per hour); this is the minimum opposing volume required to consider a dedicated left turn lane. Therefore, a left turn lane into the side would **NOT** be warranted.

F) Driveway Construction

The Township of Leeds and the Thousand Islands requested that the private driveway to the wedding venue must ...:

- maintain a width of 6m,
- provide sufficient vertical clearance for two-way traffic,
- assure that construction of the driveway must be capable of accommodating the vehicle weight of a fire truck,
- does **NOT** need to be engineered to a “Private Road” design standard specification.

Eastern Engineering Group (EEG) was retained to produce a grading and road design plan for the proposed driveway access to the wedding venue. A copy of EEG’s proposed plan is available under Annex “D”.

EEG’s report concluded the following:

- The driveway would be composed of a 6.0-meter-wide road section, with a Granular B Type II (300 mm) subbase and a Granular A (150 mm) top base. This surface design can support fire trucks.
- The grading plan illustrates station positions and elevations for the entire length of the proposed driveway to the wedding venue. EEG has communicated verbally that the structural design of the gravel driveway would be acceptable for heavy vehicle (fire-truck) use.

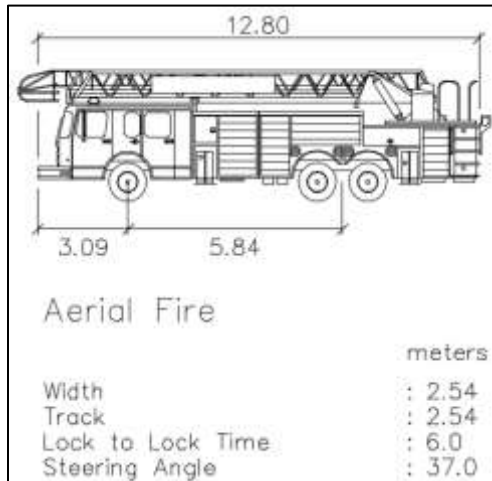
G) Parking Provisions

The site would provide for a total of 86 vehicle parking spaces:

- Along the west side of the proposed driveway, two lots are located that would provide for 40 stalls each; and
- A 6 stall parking area with accessible parking is provided in the vicinity of the catering/washroom area.

Based on the estimated number of guests and vehicle occupancy, 50 stalls are required for guests, with the remaining 36 stalls are available for event support staff.

H) Emergency Vehicle Circulation



Typical fire truck dimensions were referenced to assure that these vehicles could be accommodated at the access into the site.

The proposed driveway to the venue, as described in Section “F” was noted within EEG’s report indicated the proposed granular surface structure is adequate to support the vehicle weight of a fire truck. Annex “A” illustrates a planned “hammerhead” turnaround at the north corner of the property, as well as a circular turnaround at the end of the driveway, near the venue location to assure these vehicles have two locations where they can turn around without having to reverse out the driveway. The designs of the turnarounds are being finalized to ensure they are adequate for a fire truck to maneuver around safely.

I) Summary

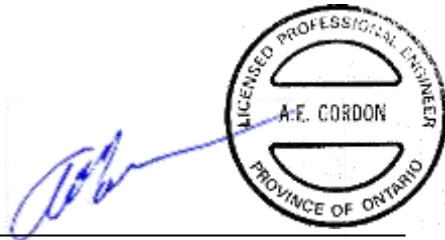
The anticipated forecast traffic created by proposed wedding venue would have negligible impact on traffic operations in the surrounding area. All critical turning movements at the Highway 15 /Back Street intersection and the Lyndhurst Road (County Road 33) intersection are anticipated to operate at acceptable levels of service (“B” or greater) with the development in place by 2027 and for the +5-year horizon (2032) after operations would commence.

In terms of the roadway upgrades required:

- Back Street is a gravel roadway capable of supporting heavy vehicles and does not require upgrades to support the proposed wedding venue.
- It is currently proposed that the wedding venue driveway would share the existing laneway entrance to the 390 Back Street residential dwelling. Modifications to this existing access configuration, if necessary, will be determined at the time of Site Plan application.
- Eastern Engineering Group’s design for the proposed driveway provides for a 6m wide gravel surface with a structure capable of supporting fire trucks.
- Two turnaround locations configured to accommodate emergency fire vehicles would be provided on site (a hammerhead turnaround at the north-west corner and a circular turnaround at the end of the driveway by the venue area). Modifications to the turnaround designs may be made, if necessary, at the time of Site Plan application.

In summary, the proposed 390 Back Street Wedding Venue can be accommodated by the surrounding roadway network while assuring satisfactory traffic operations.

Should you have any questions or concerns, please feel free to contact us at your convenience.

A circular stamp for a Licensed Professional Engineer in the Province of Ontario. The text around the circle reads "LICENSED PROFESSIONAL ENGINEER" at the top and "PROVINCE OF ONTARIO" at the bottom. In the center, it says "A.E. GORDON". A blue ink signature is written over the stamp.

Mr. Arthur Gordon B.A. P.Eng
Principal Engineer
Castleglenn Consultants Inc.

A handwritten signature in black ink that reads "Konstantin I.".

Mr. Konstantin Joulanov B.A.Sc., M. Eng
Transportation Planner
Castleglenn Consultants Inc.

Annex “A”

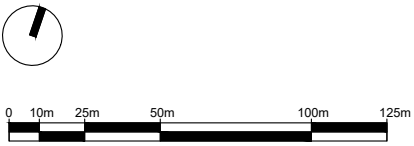
Proposed 390 Back Street Site Plan

[June 23rd, 2025]

390 BACK STREET
LYNDHURST, ON
PART OF LOT 14,
CONCESSION 9
CONCEPT PLAN



- LEGEND
- PATHWAYS
 - DRIVEWAY
 - TENT 20' X 30'
 - WILDFLOWER AREA
 - WETLAND / WATERCOURSE SETBACK (30m)



CLIENT
VALKENBORG, CHANTAL

FOTENN
Planning + Design

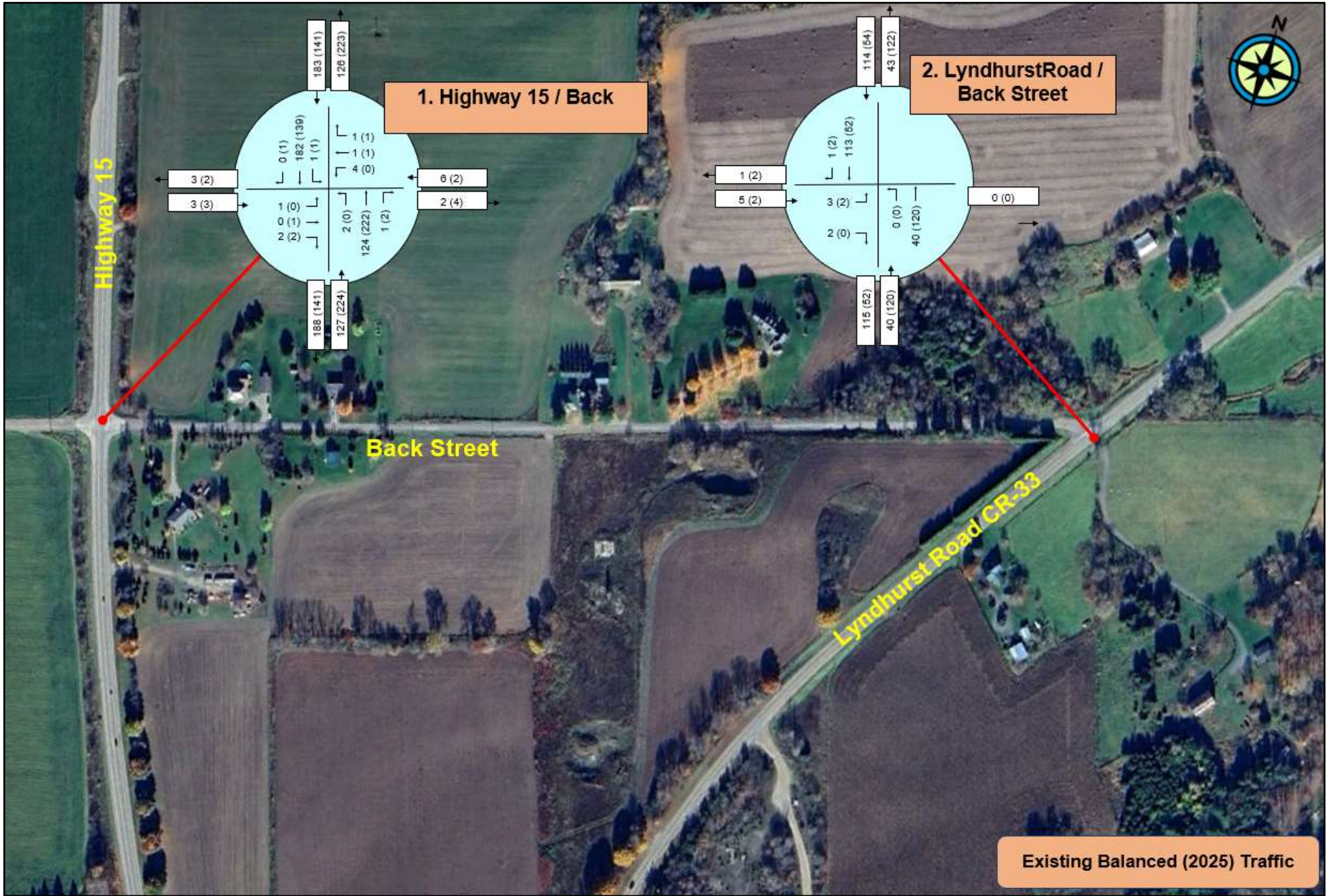
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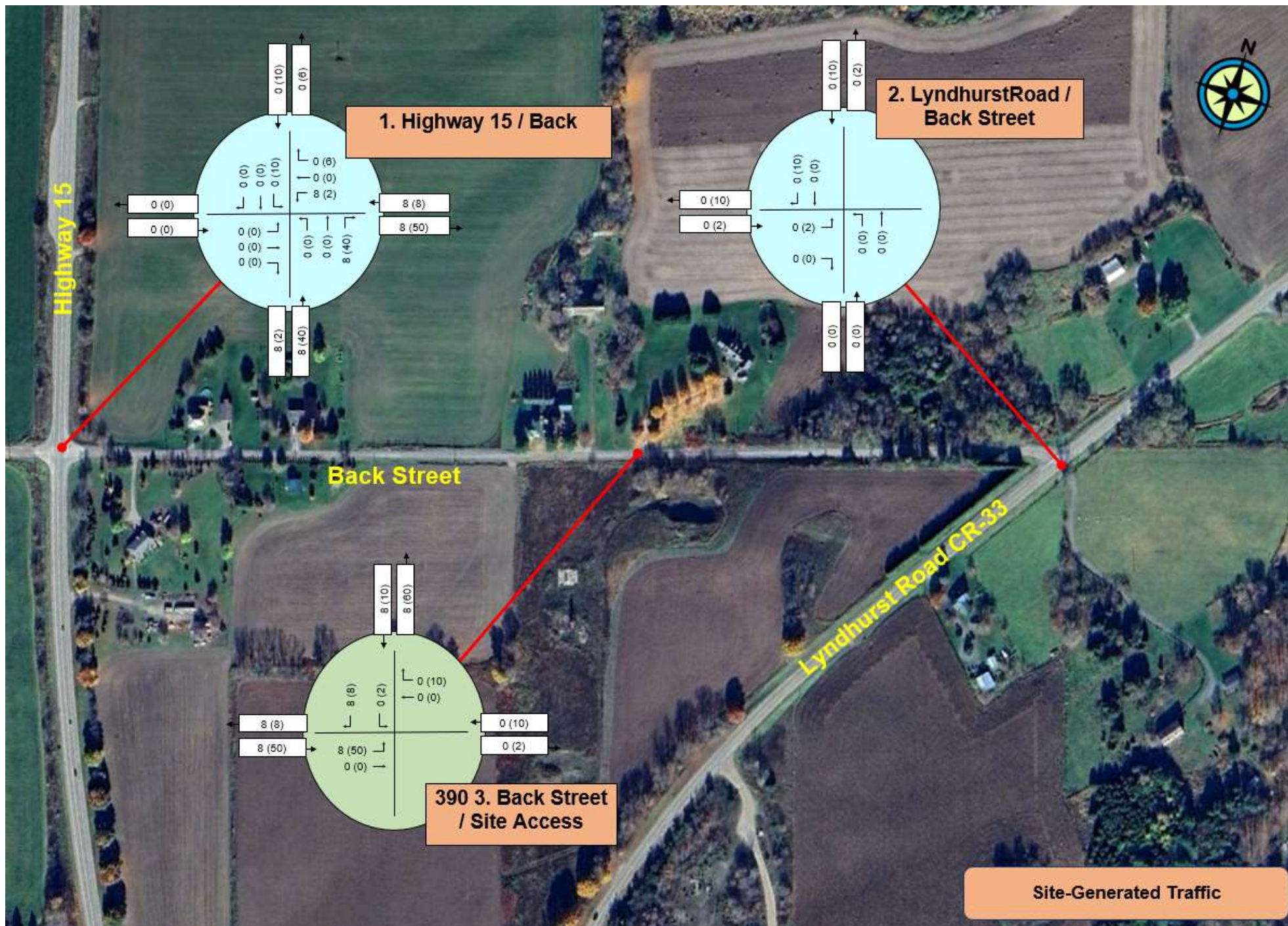
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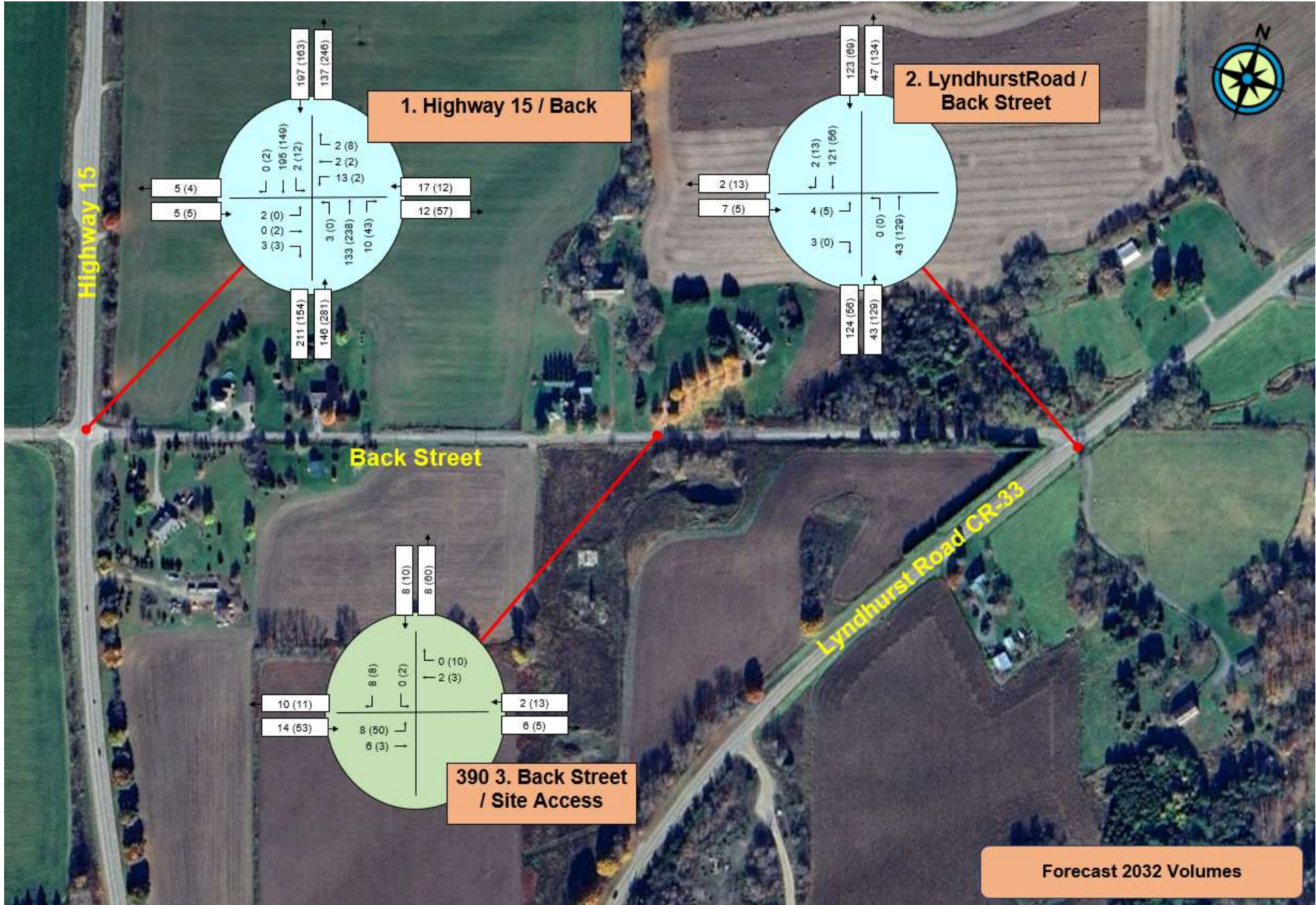
Annex “B”

Traffic Volume Diagrams:

- **Existing (2025)**
- **Site Generated**
- **Opening Day (2027)**
- **5-year horizon (2032)**







Annex “C”

Synchro Analysis Results:

- **Existing (2025)**
- **Opening Day (2027)**
- **5-year horizon (2032)**

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	0	2	4	1	1	2	124	1	1	182	0
Future Vol, veh/h	1	0	2	4	1	1	2	124	1	1	182	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	0	2	4	1	1	2	135	1	1	198	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	341	340	198	341	340	136	198	0	0	136	0	0
Stage 1	200	200	-	140	140	-	-	-	-	-	-	-
Stage 2	141	140	-	201	200	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	613	582	843	613	582	913	1375	-	-	1448	-	-
Stage 1	802	736	-	863	781	-	-	-	-	-	-	-
Stage 2	862	781	-	801	736	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	610	580	843	610	580	913	1375	-	-	1448	-	-
Mov Cap-2 Maneuver	610	580	-	610	580	-	-	-	-	-	-	-
Stage 1	800	735	-	861	779	-	-	-	-	-	-	-
Stage 2	858	779	-	798	735	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	9.8		10.7		0.1		0					
HCM LOS	A		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1375	-	-	748	640	1448	-	-				
HCM Lane V/C Ratio	0.002	-	-	0.004	0.01	0.001	-	-				
HCM Control Delay (s)	7.6	0	-	9.8	10.7	7.5	0	-				
HCM Lane LOS	A	A	-	A	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-				

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	2	0	40	113	1
Future Vol, veh/h	3	2	0	40	113	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	2	0	43	123	1
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	167	124	124	0	-	0
Stage 1	124	-	-	-	-	-
Stage 2	43	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	823	927	1463	-	-	-
Stage 1	902	-	-	-	-	-
Stage 2	979	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	823	927	1463	-	-	-
Mov Cap-2 Maneuver	823	-	-	-	-	-
Stage 1	902	-	-	-	-	-
Stage 2	979	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.2	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1463	-	862	-	-	
HCM Lane V/C Ratio	-	-	0.006	-	-	
HCM Control Delay (s)	0	-	9.2	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	1	2	0	1	1	0	222	2	1	139	1
Future Vol, veh/h	0	1	2	0	1	1	0	222	2	1	139	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1	2	0	1	1	0	241	2	1	151	1
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	397	397	152	397	396	242	152	0	0	243	0	0
Stage 1	154	154	-	242	242	-	-	-	-	-	-	-
Stage 2	243	243	-	155	154	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	563	540	894	563	541	797	1429	-	-	1323	-	-
Stage 1	848	770	-	762	705	-	-	-	-	-	-	-
Stage 2	761	705	-	847	770	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	561	539	894	560	540	797	1429	-	-	1323	-	-
Mov Cap-2 Maneuver	561	539	-	560	540	-	-	-	-	-	-	-
Stage 1	848	769	-	762	705	-	-	-	-	-	-	-
Stage 2	759	705	-	843	769	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	9.9		10.6			0			0.1			
HCM LOS	A		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1429	-	-	733	644	1323	-	-				
HCM Lane V/C Ratio	-	-	-	0.004	0.003	0.001	-	-				
HCM Control Delay (s)	0	-	-	9.9	10.6	7.7	0	-				
HCM Lane LOS	A	-	-	A	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-				

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	0	0	120	52	2
Future Vol, veh/h	2	0	0	120	52	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	0	0	130	57	2
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	188	58	59	0	-	0
Stage 1	58	-	-	-	-	-
Stage 2	130	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	801	1008	1545	-	-	-
Stage 1	965	-	-	-	-	-
Stage 2	896	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	801	1008	1545	-	-	-
Mov Cap-2 Maneuver	801	-	-	-	-	-
Stage 1	965	-	-	-	-	-
Stage 2	896	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.5	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1545	-	801	-	-	
HCM Lane V/C Ratio	-	-	0.003	-	-	
HCM Control Delay (s)	0	-	9.5	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

HCM 6th TWSC
3: Highway 15 & Back Street

390 Back Street
Forecast (2027) AM

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	0	3	13	2	2	3	127	10	2	188	0
Future Vol, veh/h	2	0	3	13	2	2	3	127	10	2	188	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	3	14	2	2	3	138	11	2	204	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	360	363	204	360	358	144	204	0	0	149	0	0
Stage 1	208	208	-	150	150	-	-	-	-	-	-	-
Stage 2	152	155	-	210	208	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	596	565	837	596	568	903	1368	-	-	1432	-	-
Stage 1	794	730	-	853	773	-	-	-	-	-	-	-
Stage 2	850	769	-	792	730	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	591	563	837	592	566	903	1368	-	-	1432	-	-
Mov Cap-2 Maneuver	591	563	-	592	566	-	-	-	-	-	-	-
Stage 1	792	729	-	851	771	-	-	-	-	-	-	-
Stage 2	844	767	-	787	729	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	10.1		11		0.2		0.1					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1368	-	-	718	614	1432	-	-				
HCM Lane V/C Ratio	0.002	-	-	0.008	0.03	0.002	-	-				
HCM Control Delay (s)	7.6	0	-	10.1	11	7.5	0	-				
HCM Lane LOS	A	A	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-				

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	3	0	41	116	2
Future Vol, veh/h	4	3	0	41	116	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	3	0	45	126	2
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	172	127	128	0	-	0
Stage 1	127	-	-	-	-	-
Stage 2	45	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	818	923	1458	-	-	-
Stage 1	899	-	-	-	-	-
Stage 2	977	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	818	923	1458	-	-	-
Mov Cap-2 Maneuver	818	-	-	-	-	-
Stage 1	899	-	-	-	-	-
Stage 2	977	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.2	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1458	-	860	-	-	
HCM Lane V/C Ratio	-	-	0.009	-	-	
HCM Control Delay (s)	0	-	9.2	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Intersection						
Int Delay, s/veh	5.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	6	2	0	0	8
Future Vol, veh/h	8	6	2	0	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	7	2	0	0	9
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	2	0	-	0	27	2
Stage 1	-	-	-	-	2	-
Stage 2	-	-	-	-	25	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1620	-	-	-	988	1082
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	998	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1620	-	-	-	982	1082
Mov Cap-2 Maneuver	-	-	-	-	982	-
Stage 1	-	-	-	-	1015	-
Stage 2	-	-	-	-	998	-
Approach	EB	WB		SB		
HCM Control Delay, s	4.1	0		8.4		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1620	-	-	-	1082	
HCM Lane V/C Ratio	0.005	-	-	-	0.008	
HCM Control Delay (s)	7.2	0	-	-	8.4	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0	

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	2	3	2	2	8	0	227	43	12	142	2
Future Vol, veh/h	0	2	3	2	2	8	0	227	43	12	142	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	3	2	2	9	0	247	47	13	154	2
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	457	475	155	455	453	271	156	0	0	294	0	0
Stage 1	181	181	-	271	271	-	-	-	-	-	-	-
Stage 2	276	294	-	184	182	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	514	488	891	515	503	768	1424	-	-	1268	-	-
Stage 1	821	750	-	735	685	-	-	-	-	-	-	-
Stage 2	730	670	-	818	749	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	502	483	891	507	497	768	1424	-	-	1268	-	-
Mov Cap-2 Maneuver	502	483	-	507	497	-	-	-	-	-	-	-
Stage 1	821	742	-	735	685	-	-	-	-	-	-	-
Stage 2	719	670	-	804	741	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	10.5		10.6		0		0.6					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1424	-	-	666	653	1268	-	-				
HCM Lane V/C Ratio	-	-	-	0.008	0.02	0.01	-	-				
HCM Control Delay (s)	0	-	-	10.5	10.6	7.9	0	-				
HCM Lane LOS	A	-	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-				

HCM 6th TWSC
4: Lyndhurst Road & Back Street

390 Back Street
Forecast (2027) PM

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	0	0	123	54	13
Future Vol, veh/h	5	0	0	123	54	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	0	0	134	59	14
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	200	66	73	0	-	0
Stage 1	66	-	-	-	-	-
Stage 2	134	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	789	998	1527	-	-	-
Stage 1	957	-	-	-	-	-
Stage 2	892	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	789	998	1527	-	-	-
Mov Cap-2 Maneuver	789	-	-	-	-	-
Stage 1	957	-	-	-	-	-
Stage 2	892	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.6	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1527	-	789	-	-	
HCM Lane V/C Ratio	-	-	0.007	-	-	
HCM Control Delay (s)	0	-	9.6	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Intersection						
Int Delay, s/veh	5.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	50	3	3	10	2	8
Future Vol, veh/h	50	3	3	10	2	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	3	3	11	2	9
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	14	0	-	0	120	9
Stage 1	-	-	-	-	9	-
Stage 2	-	-	-	-	111	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1604	-	-	-	876	1073
Stage 1	-	-	-	-	1014	-
Stage 2	-	-	-	-	914	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1604	-	-	-	846	1073
Mov Cap-2 Maneuver	-	-	-	-	846	-
Stage 1	-	-	-	-	980	-
Stage 2	-	-	-	-	914	-
Approach	EB	WB		SB		
HCM Control Delay, s	6.9	0		8.6		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1604	-	-	-	1018	
HCM Lane V/C Ratio	0.034	-	-	-	0.011	
HCM Control Delay (s)	7.3	0	-	-	8.6	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0.1	-	-	-	0	

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	3	13	2	2	3	133	10	2	195	0
Future Vol, veh/h	2	0	3	13	2	2	3	133	10	2	195	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	3	14	2	2	3	145	11	2	212	0
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	375	378	212	375	373	151	212	0	0	156	0	0
Stage 1	216	216	-	157	157	-	-	-	-	-	-	-
Stage 2	159	162	-	218	216	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	582	554	828	582	557	895	1358	-	-	1424	-	-
Stage 1	786	724	-	845	768	-	-	-	-	-	-	-
Stage 2	843	764	-	784	724	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	577	552	828	578	555	895	1358	-	-	1424	-	-
Mov Cap-2 Maneuver	577	552	-	578	555	-	-	-	-	-	-	-
Stage 1	784	723	-	843	766	-	-	-	-	-	-	-
Stage 2	837	762	-	779	723	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	10.1		11.2			0.2			0.1			
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1358	-	-	705	600	1424	-	-				
HCM Lane V/C Ratio	0.002	-	-	0.008	0.031	0.002	-	-				
HCM Control Delay (s)	7.7	0	-	10.1	11.2	7.5	0	-				
HCM Lane LOS	A	A	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-				

HCM 6th TWSC
4: Lyndhurst Road & Back Street

390 Back Street
Forecast (2032) AM

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	3	0	43	121	2
Future Vol, veh/h	4	3	0	43	121	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	3	0	47	132	2
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	180	133	134	0	-	0
Stage 1	133	-	-	-	-	-
Stage 2	47	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	810	916	1451	-	-	-
Stage 1	893	-	-	-	-	-
Stage 2	975	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	810	916	1451	-	-	-
Mov Cap-2 Maneuver	810	-	-	-	-	-
Stage 1	893	-	-	-	-	-
Stage 2	975	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.3	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1451	-	852	-	-	
HCM Lane V/C Ratio	-	-	0.009	-	-	
HCM Control Delay (s)	0	-	9.3	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Intersection						
Int Delay, s/veh	5.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	6	2	0	0	8
Future Vol, veh/h	8	6	2	0	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	7	2	0	0	9
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	2	0	-	0	27	2
Stage 1	-	-	-	-	2	-
Stage 2	-	-	-	-	25	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1620	-	-	-	988	1082
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	998	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1620	-	-	-	982	1082
Mov Cap-2 Maneuver	-	-	-	-	982	-
Stage 1	-	-	-	-	1015	-
Stage 2	-	-	-	-	998	-
Approach	EB	WB		SB		
HCM Control Delay, s	4.1	0		8.4		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1620	-	-	-	1082	
HCM Lane V/C Ratio	0.005	-	-	-	0.008	
HCM Control Delay (s)	7.2	0	-	-	8.4	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0	

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	2	3	2	2	8	0	238	43	12	149	2
Future Vol, veh/h	0	2	3	2	2	8	0	238	43	12	149	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	3	2	2	9	0	259	47	13	162	2
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	477	495	163	475	473	283	164	0	0	306	0	0
Stage 1	189	189	-	283	283	-	-	-	-	-	-	-
Stage 2	288	306	-	192	190	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	498	476	882	500	490	756	1414	-	-	1255	-	-
Stage 1	813	744	-	724	677	-	-	-	-	-	-	-
Stage 2	720	662	-	810	743	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	487	471	882	492	485	756	1414	-	-	1255	-	-
Mov Cap-2 Maneuver	487	471	-	492	485	-	-	-	-	-	-	-
Stage 1	813	736	-	724	677	-	-	-	-	-	-	-
Stage 2	709	662	-	796	735	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	10.6		10.8		0		0.6					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1414	-	-	654	639	1255	-	-				
HCM Lane V/C Ratio	-	-	-	0.008	0.02	0.01	-	-				
HCM Control Delay (s)	0	-	-	10.6	10.8	7.9	0	-				
HCM Lane LOS	A	-	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-				

HCM 6th TWSC
4: Lyndhurst Road & Back Street

390 Back Street
Forecast (2032) PM

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	0	0	129	56	13
Future Vol, veh/h	5	0	0	129	56	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	0	0	140	61	14
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	208	68	75	0	-	0
Stage 1	68	-	-	-	-	-
Stage 2	140	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	780	995	1524	-	-	-
Stage 1	955	-	-	-	-	-
Stage 2	887	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	780	995	1524	-	-	-
Mov Cap-2 Maneuver	780	-	-	-	-	-
Stage 1	955	-	-	-	-	-
Stage 2	887	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.6	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1524	-	780	-	-	
HCM Lane V/C Ratio	-	-	0.007	-	-	
HCM Control Delay (s)	0	-	9.6	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Intersection						
Int Delay, s/veh	5.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	50	3	3	10	2	8
Future Vol, veh/h	50	3	3	10	2	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	3	3	11	2	9
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	14	0	-	0	120	9
Stage 1	-	-	-	-	9	-
Stage 2	-	-	-	-	111	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1604	-	-	-	876	1073
Stage 1	-	-	-	-	1014	-
Stage 2	-	-	-	-	914	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1604	-	-	-	846	1073
Mov Cap-2 Maneuver	-	-	-	-	846	-
Stage 1	-	-	-	-	980	-
Stage 2	-	-	-	-	914	-
Approach	EB	WB		SB		
HCM Control Delay, s	6.9	0		8.6		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1604	-	-	-	1018	
HCM Lane V/C Ratio	0.034	-	-	-	0.011	
HCM Control Delay (s)	7.3	0	-	-	8.6	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0.1	-	-	-	0	

Annex “D”

Driveway Grading Plan

[June 25th, 2025]

× 92.30
EXISTING TOPO GRADE
 × **92.90**
92.90
PROPOSED GRADE
 ————
EXISTING GRADE
 ○ □
STORM SEWER
 ○
SANITARY SEWER
 ≡≡
WATERMAIN
 ≡≡
BELL UNDERGROUND
 ≡≡
GAS UNDERGROUND

CABLE UNDERGROUND

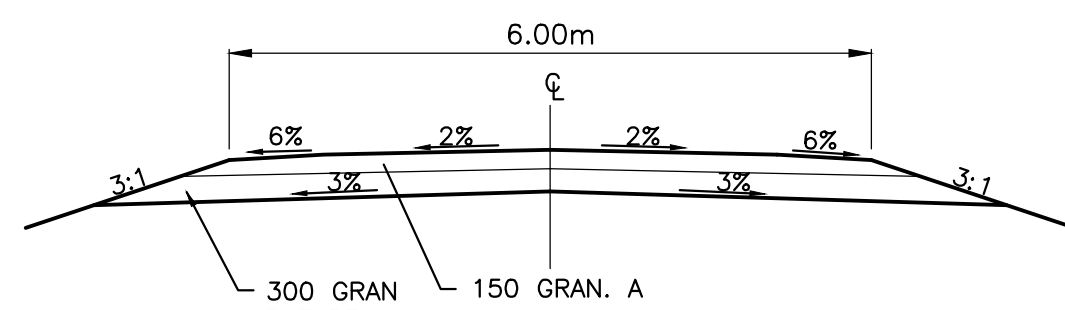
ELECTRICAL UNDERGROUND
 ○ BH ○ B ○ LS ○ H
 • AN
 ■ UTILITY PILE
 □ UTILITY ANCOR
 ▢ UTILITY PEDISTAL
 ▴ PROPERTY BAR FOUND
 ▸ RS
 FENCE
 TREELINE
 TREE

11.58
N49°15'50"E

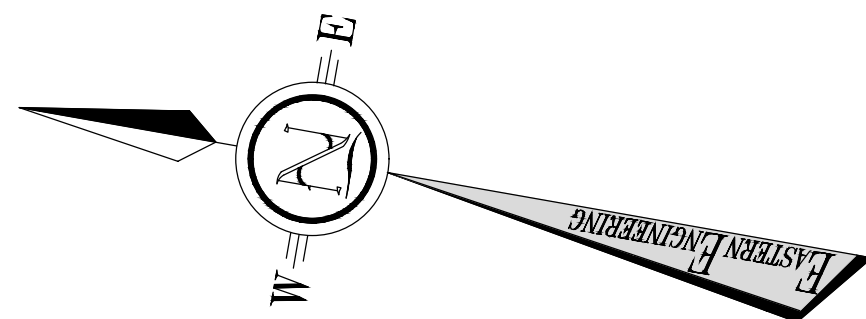
PROPERTY BOUNDARY

EXISTING BUILDING

 EXISTING BUILDING
TO BE REMOVED

 PROPOSED BUILDING

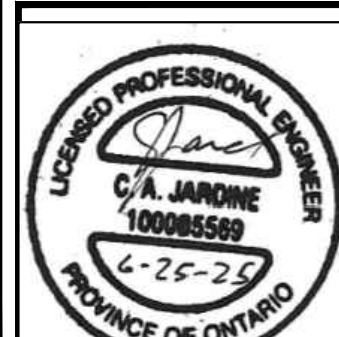
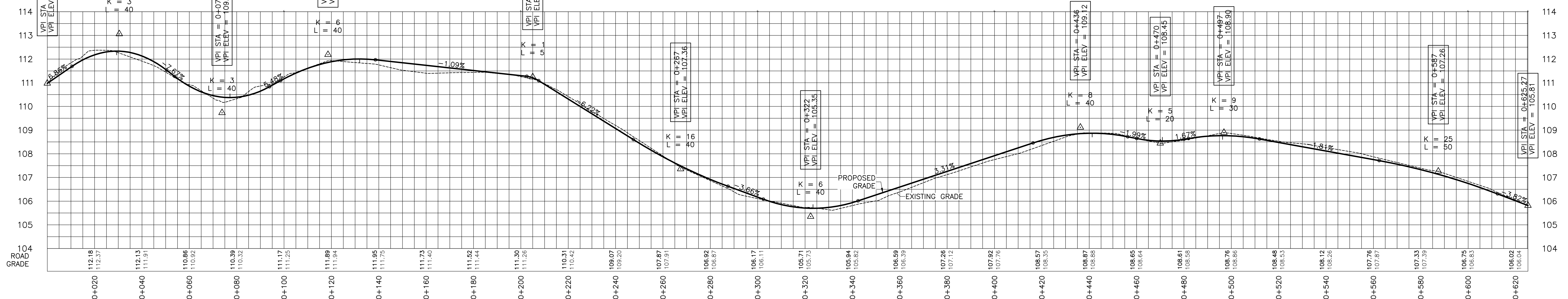
TYPICAL ROAD SECTION
N.T.S.



VPI STA = 0+030
 VPI ELEV = 113.06

VPI STA = 0+119
 VPI ELEV = 112.19

VPI	STA = 0+205
VPI	ELEV = 111.24



-	-	-	-
-	-	-	-
-	-	-	-
0	BAC	2025-06-25	FOR REVIEW
No.	By	Date	Revisions

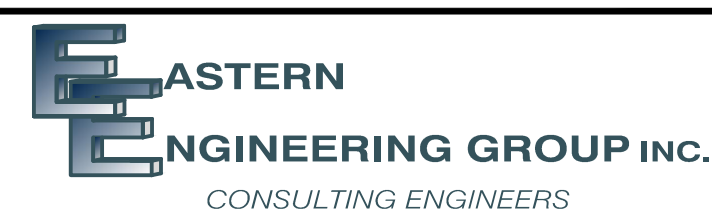
Scale:
0 15 30
Horizontal: 750
UNITS EQUAL METRES UNLESS OTHERWISE NOTED.

Design:	BAC	Checked:	CAJ
Drawn:	BAC	Checked:	CAJ
Approved:	CAJ	Project No.:	12109
Date:	2025-06-25	Contract No.:	.

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The contractor must check and verify all dimensions on the job prior to start of construction.

Drawings are not to be scaled.



Project Title:

CHANTAL VALKENBORG
390 BACK ST, LYNTHURST ON, K0H 2N0

Drawing Title:

DRIVEWAY PLAN

Drawing No.:

C1

dwg No.: 12109 Cr1.dwg