

Date: September 23, 2020

Our File No: 7255-01

BY EMAIL

Eric Hughes
VP of Development
Onni Group
Suite 200, 1010 Seymour Street
Vancouver, BC
V6B 3M6

Dear Mr. Hughes,

Re: Golden Ears Business Park, Pitt Meadows – FINAL Access Assessment

1.0 BACKGROUND

Onni is currently seeking development permits for the last two phases i.e. Phase 3 and Phase 4, of its Golden Ears Business Park (GEBP) development in Pitt Meadows. The Phase 3 property is 1,761,795 ft² in area and the Phase 4 property is 1,927,003 ft² in area.

The current development permit application proposes the following:

- Phase 3 – 19265 Airport Way
 - Building 3100 – 145,518 ft²
 - Building 3200 – 236,272 ft²
 - Building 3300 – 111,581 ft²
- Phase 4 – 11208 Harris Road
 - Building 4000 - 748,530 ft²

Both GEBP - Phase 3 and Phase 4 front Airport Way (approximate 425 meters of frontage) and Harris Road (approximately 475 meters and 425 meters of frontage respectively). **FIGURE 1** illustrates the location of Phase 3 and Phase 4 within the context of the local road network. A site/access plan for GEBP - Phase 3 and Phase 4 is included as **APPENDIX A**.

FIGURE 1
GEBP - PHASE 3 AND PHASE 4



2.0 SCOPE

CTS was tasked with undertaking an access assessment which rationalizes the proposed site/access plan for GEBP - Phase 3 and Phase 4 by Onni with consideration for:

- Adjacent road network including City of Pitt Meadows truck routes
- On-site building, drive aisle and parking layout;
- Location of parking and loading areas;
- Operational requirements by the tenant of each building/space;
- Type of motorist i.e. visitor, staff/personnel, delivery person, equipment/vehicle operator;
- Type of vehicle i.e. passenger car, pick-up truck, delivery van, light/medium/heavy single unit truck, tractor with semi-trailer;
- Driveway access type;
- Driveway access spacing;
- Driveway access offset from intersections;
- Driveway access location relative to the adjacent property;
- Sight lines;
- Site safety;
- Proposed road geometry; and
- Capacity analysis.

The site/access plan for GEBP - Phase 3 and Phase 4 is included as **APPENDIX A**.

3.0 ROAD NETWORK

3.1 Existing Road Network

The following can be stated about Airport Way and Harris Road adjacent to GEBP - Phase 3 and Phase 4:

Airport Way

- Is an arterial road connecting Golden Ears Way in the east with Baynes Road (Pitt Meadows Regional Airport) in the west. Airport Way is also a City of Pitt Meadows Truck Route.
- Two lanes with paved shoulder.
- Bicycle route i.e. bicycle lanes.
- Illuminated at Bonson Road, Harris Road and Baynes Road.
- The posted speed on Airport Way is 60 km/h.

Bonson Road

- An arterial road connecting Lougheed Highway in the north with Fraser Way in the south.
- Two lanes with paved shoulder.
- Bicycle route i.e. shared bikeway.
- Illuminated.
- The posted speed on Bonson Road is 50 km/h.

Harris Road

- An arterial road connecting Lougheed Highway in the north with Fraser Way in the south.
- Two lanes with paved shoulder from Fraser Way to Hammond Road.
- Bicycle route i.e. bicycle lanes.
- Illuminated at Airport Way and south of Airport Way.
- The posted speed on Harris Road is 50 km/h.

Baynes Road

- An arterial road connecting Lougheed Highway in the north with Fraser Way in the south. Baynes Road is also a City of Pitt Meadows Truck Route.
- Two lanes with paved shoulder.
- Bicycle route i.e. shared bikeway.
- Illuminated at Airport Way.
- The posted speed on Baynes Road is 50 km/h.

Airport Way at Golden Ears Way

- Intersection is controlled by a roundabout.
- There are signed and marked pedestrian crossings on all four approaches to the intersection.
- The intersection is illuminated.

Airport Way at Bonson Road Intersection

- Intersection is controlled by a roundabout.
- There are signed and marked pedestrian crossings on all four approaches to the intersection.
- The intersection is illuminated.

Airport Way at Harris Road Intersection

- Intersection is controlled by a roundabout.
- There are signed and marked pedestrian crossings on all four approaches to the intersection.
- The intersection is illuminated.

Airport Way at Baynes Road Intersection

- Intersection is STOP controlled on Baynes Road.
- The intersection is illuminated.

3.1 Proposed Road Network

The following improvements are proposed for Airport Way between Bonson Road and Baynes Road adjacent to GEBP - Phase 3 and Phase 4:

Airport Way

- Four lanes with paved shoulder.
- Multi-user pathway along the north boulevard connecting the proposed park amenity with a midpoint between Harris Road and Baynes Road.
- Multi-user pathway along the south boulevard connecting Bonson Road with Harris Road
- Street lighting.

Airport Way at Bonson Road Intersection

- Traffic signal control.
- Pedestrian controlled crossings on all four approaches to the intersection.
- Street lighting.

Airport Way at Sutton Development/Park Amenity Access

- New full movement access to the proposed park amenity.
- Sutton Development access restricted to right-in/right-out only.
- Pedestrian controlled crossing on the west approach to the intersection.
- Street lighting.

Airport Way at Harris Road Intersection

- Traffic signal control.
- Pedestrian controlled crossings on all four approaches to the intersection.
- Street lighting.

4.0 ACCESS ASSESSMENT

CTS undertook the following access assessment with reference to Onni's site/access plan for GEBP - Phase 3 and Phase 4 included as **APPENDIX A**.

Adjacent Road Network

Routing to/from GEBP - Phase 3 and Phase 4 is intended to be along the adjacent arterial roads i.e. Airport Way, Harris Road and Baynes Road and City of Pitt Meadows Truck Routes i.e. Airport Way and Baynes Road. The City of Pitt Meadows Truck Route Network is included as **APPENDIX B**.

Given vehicles routing to GEBP - Phase 3 and Phase 4 from the north and west along Harris Road and Baynes Road, and from the south and east along Airport Way and Harris Road, it is reasonable to expect that the majority those vehicles route from GEBP - Phase 3 and Phase 4 in the direction from which they originated.

Also, it is therefore reasonable to expect that vehicles routing to/from GEBP - Phase 3 and Phase 4 require a pre-requisite number of direct and functional access points and turns to accommodate ingress to/egress from GEBP - Phase 3 and Phase 4 to/from the adjacent arterial roads and truck routes.

Note - GEBP – Phase 1 and Phase 2 have a total of ten all movement access points along Baynes Road, Airport Way and Harris Road. The much smaller City of Pitt Meadows Works Yard has two access points on Harris Road, presumably to accommodate their operational requirements i.e. one access point for visitors, staff/personnel and deliveries and the other for work related vehicles and equipment.

GEBP – Phase 3 and Phase 4 Site Layout

The on-site building, drive aisle parking and loading layout have been designed to not only meet the City's land use, parking and loading requirements but also to align the on-site operation of GEBP – Phase 3 and Phase 4 with a pre-requisite number of direct and functional access points along the adjacent arterial road and truck route by directly connecting the motorist/vehicle with the associated land use, parking or loading area.

- Visitors and delivery persons require access to the main public entrance for each building. The main public entrance is typically at the front of the building facing the adjacent road and is where the business/company name and unit number/address are displayed.

Operationally, there is typically a public parking area at the front of the building as well as access to that parking to accommodate visitors and delivery persons who might be unfamiliar with the GEBP.

The driveway, drive aisle and parking area are typically designed to accommodate a passenger car, pick-up truck or delivery van.

Onni is proposing two all movement driveways on Airport Way i.e. one for GEBP - Phase 3 and one for GEBP - Phase 4, and one all movement driveway on Harris Road i.e. one for GEBP - Phase 3, for this purpose.

- Parking for staff/personnel is typically removed from the main public entrance and delivery and loading areas so not to “take away” from parking and/or conflict with their operation.

Staff/personnel parking is proposed for the northeast quadrant of GEBP – Phase 3 and for the western half of GEBP – Phase 4.

The driveway, drive aisle and parking area are typically designed to accommodate a passenger car, pick-up truck or delivery van.

Onni is proposing two all movement driveways on Harris Road i.e. one for GEBP - Phase 3 and one for GEBP - Phase 4, for this purpose.

- Delivery persons and operators require access to delivery and loading bays typically at the back of the building facing away from the adjacent street. The vehicle type could be a delivery van, light/medium/heavy single unit truck, tractor with semi-trailer or a piece of equipment such as a fork lift and the delivery person or operator is typically familiar with their location being a frequent user.

The area associated with delivery/loading bays is typically designated as a work area which might require the use of personal protective equipment (PPE) such as hard hats, visi-vests, protective footwear, etc.

Delivery and loading areas are not intended to be associated with public and/or staff/personnel access given they are typically active works areas, there is a disparity in vehicle size and operation, larger vehicles have a larger blind spot, etc.

The driveway, drive aisle and parking area is typically designed to accommodate a tractor with semi-trailer.

Onni is proposing three all movement driveways on Airport Way i.e. one for GEBP - Phase 3 and two for GEBP - Phase 4, and one all movement driveway on Harris Road i.e. one for GEBP - Phase 3, for this purpose.

Driveway Design

The Transportation Association of Canada (TAC) *Geometric Design Guide for Canadian Roads 2017* provides typical driveway dimensions based on operation i.e. one-way or two-way, and land use i.e. residential, commercial or industrial. Their dimensions can vary dramatically if accommodating a passenger car or a tractor with semi-trailer. Per *Table 8.9.1: Typical Driveway Dimensions*, the recommended width of a two-way industrial driveway is 9.0 to 15.0 meters.

The three all movement driveways on Airport Way and one all movement driveway on Harris Road intended for the movement of delivery van, light/medium/heavy single unit trucks, tractors with semi-trailer or a pieces of equipment will be designed to

accommodate the manoeuvring of a WB20. A swept path analysis illustrating a WB20 ingressing and egressing each driveway is included as **APPENDIX C**.

The one all movement driveway on Airport Way and three all movement driveways on Harris Road intended for the movement of a passenger car, pick-up truck and delivery van will be designed to accommodate those vehicle types.

Note – In the rare event where two WB20 vehicles wish to egress/ingress the same driveway at the exact same time, one or the other WB20 operators would typically hold their position while the other WB20 operator clears the driveway. To design a driveway crossing where both WB20 vehicles could clear simultaneously would result in an unacceptably wide crossing from an operational and safety perspective. For example, a pedestrian crossing the driveway would be exposed to vehicular traffic for a longer distance and time period than is reasonably expected or design for.

Driveway Frequency

Per the Transportation Association of Canada (TAC) *Geometric Design Guide for Canadian Roads 2017* the maximum number of driveways based on frontage is four or more for properties having a frontage greater than 150 meters. As mentioned, the frontage for GEBP – Phase 3 and Phase 4 along both Airport Way and Harris Road exceeds 400 meters. The maximum number of driveways on the GEBP - Phase 3 frontages is two on Airport Way and three on Harris Road. The maximum number of driveways on the GEBP - Phase 4 frontages is two on Airport Way and one on Harris Road.

Adjacent Driveway Spacing

Per the Transportation Association of Canada (TAC) *Geometric Design Guide for Canadian Roads 2017* the minimum driveway spacing along an arterial road in an industrial area is 25 meters.

The driveway spacing on Airport Way exceeds 160 meters for GEBP – Phase 3 and GEBP – Phase 4. The driveway spacing on Harris Road exceeds 75 meters for GEBP – Phase 3.

Opposite Driveway Spacing

Per the Transportation Association of Canada (TAC) *Geometric Design Guide for Canadian Roads 2017* driveways should be offset such that left turns in and the left turns out do not overlap.

Of the driveways on Airport Way all four (two and two) are aligned directly opposite one another.

Of the driveways on Harris Road two are offset. The two driveways that are offset, are offset such that the left turns in and the left turns out do not overlap.

Note - The driveways on the west side of Harris Road belongs to the City of Pitt Meadows Works Yard.

Corner Clearance

Per the Transportation Association of Canada (TAC) *Geometric Design Guide for Canadian Roads 2017* the minimum clearance from a driveway to the intersection of two arterial roads i.e. Airport Way and Harris Road, is 70 meters.

The driveways proposed for GEBP – Phase 3 and Phase 4 along Airport Way and Harris Road exceed 70 meters by 30 to 50 meters on all approaches to the intersection of Airport Way and Harris Road.

Sight Lines

Per the Transportation Association of Canada (TAC) *Geometric Design Guide for Canadian Roads 2017*, the Stopping Sight Distance (SSD) for a road posted a 60 km/h is 85 meters whereas the SSD for a road posted at 50 km/h is 65 meters.

Per the Transportation Association of Canada (TAC) *Geometric Design Guide for Canadian Roads 2017*, the Intersection Sight Distance (ISD) for a truck for a road posted a 60 km/h is 195 meters whereas the ISD for a road posted at 50 km/h is 160 meters.

The sight distance to/from the proposed driveway crossings along Airport Way and Harris Road exceed the SSD and ISD.

Proposed Road Geometry

Airport Way is proposed to be widened from two lanes to four lanes by 2024. The benefits to traffic operations along Airport Way include:

- Additional lane capacity and improved levels of service.
- Turns from Airport Way to GEBP – Phase 3 and Phase 4 can be made without impeding through traffic.
- Turn availability from GEBP – Phase 3 and Phase 4 to Airport Way is approximately doubled.

The intersection of Airport Way and Harris Road is proposed to be signalized by 2024. The benefits to traffic operations and safety include:

- Additional lane capacity and improved levels of service.
- Improved left turn radius through the intersection on all approaches.
- Signalized pedestrian and bicycle movements on all approaches.

5.0 PARK AMENITY ACCESS ASSESSMENT

A park dedication is proposed for the northeast quadrant of GEBP – Phase 3. The park dedication also abuts the Pitt Meadows Arena Complex and Athletic Park. The Pitt Meadows Arena Complex and Athletic Park are accessed from Bonson Road.

Access to the park is proposed on Airport Way opposite the Sutton Development. A preliminary design of the proposed access point is include as **APPENDIX D**. It is expected that the proposed driveway and parking area would operate at their peak, evenings and weekends i.e. outside of the peak operational periods for GEBP – Phase 3 and Phase 4. No operational conflict is expected.

Adjacent Driveway Spacing

Per the Transportation Association of Canada (TAC) *Geometric Design Guide for Canadian Roads 2017* the minimum driveway spacing along an arterial road in an industrial area is 25 meters.

The driveway spacing on Airport Way between the proposed park amenity access and GEBP – Phase 3 and GEBP – Phase 4 exceeds 140 meters.

Sight Lines

Per the Transportation Association of Canada (TAC) *Geometric Design Guide for Canadian Roads 2017*, the Stopping Sight Distance (SSD) for a road posted a 60 km/h is 85 meters whereas the SSD for a road posted at 50 km/h is 65 meters.

Per the Transportation Association of Canada (TAC) *Geometric Design Guide for Canadian Roads 2017*, the Intersection Sight Distance (ISD) for a truck for a road posted a 60 km/h is 195 meters whereas the ISD for a road posted at 50 km/h is 160 meters.

The sight distance to/from the proposed park amenity access along Airport Way exceeds the SSD and ISD.

6.0 CITY OF PITT MEADOWS WORKS YARD ACCESS ASSESSMENT

At the request of the City of Pitt Meadows, CTS assessed the driveway points of access to/from the City of Pitt Meadows works yard, with reference to **FIGURE 2**.

FIGURE 2
CITY OF PITT MEADOWS WORKS YARD



Currently there are driveway two points of access along Harris Road, servicing the works yard. The north driveway access point is full movement whereas the south driveway access point is right-in/right-out/left-in. Left turns out are prohibited at the south access point by signage. Also, the north driveway access point is primarily for staff, deliveries and visitors whereas the south driveway access point is primarily for the movement of work related vehicles and equipment and larger deliveries.

In assessing the design and operation of both driveway points of access, CTS applied the corner clearance criterion. Per the Transportation Association of Canada (TAC) *Geometric Design Guide for Canadian Roads 2017* the minimum clearance from a

driveway to the intersection of two arterial roads i.e. Airport Way and Harris Road, is 70 meters.

The north driveway access point is offset approximately 79 meters from Airport Way and the south driveway access point is offset approximately 21 meters from Airport Way. The south driveway access point does not meet the TAC corner clearance criterion. Left-in turns and left-out turns would conflict with the operation of the intersection of Airport Way and Harris Road e.g. left-in turns and left-out turns would track through the southbound left turn storage lane. The south driveway access point would operate best as right-in/right-out.

7.0 TRIP GENERATION

The number of vehicle trips expected to be generated by GEBP – Phase 3 and Phase 4 for 2024 is summarized by **TABLE 1**. The ITE *Trip Generation Manual 10th Edition* trip generation rates for an Industrial Park, were referenced.

TABLE 1
GEBP – PHASE 3 and PHASE 4
YEAR 2024

Land Use		Peak Hour	Trip Generation Variable	Scope of Development	Vehicle Trip Generation Rate	Trip Rate Source	Directional Split		Peak Hour Volumes (vph)		
							% in	% out	in	out	total
Industrial Park Phase 3	Building 3100	Weekday Morning	1,000 Sq. Ft. GFA	145.4	0.40	ITE 10th Edition Code 130	81%	19%	48	11	59
		Weekday Afternoon		145.4	0.40		21%	79%	12	47	59
Industrial Park Phase 3	Other Buildings	Weekday Morning	1,000 Sq. Ft. GFA	347.9	0.40	ITE 10th Edition Code 130	81%	19%	113	27	140
		Weekday Afternoon		347.9	0.40		21%	79%	29	111	140
Industrial Park Phase 4	Phase 4 Buildings	Weekday Morning	1,000 Sq. Ft. GFA	748.5	0.40	ITE 10th Edition Code 130	81%	19%	243	57	300
		Weekday Afternoon		748.5	0.40		21%	79%	63	237	300
TOTAL WEEKDAY MORNING PEAK HOUR									404	95	499
TOTAL WEEKDAY AFTERNOON PEAK HOUR									104	395	499

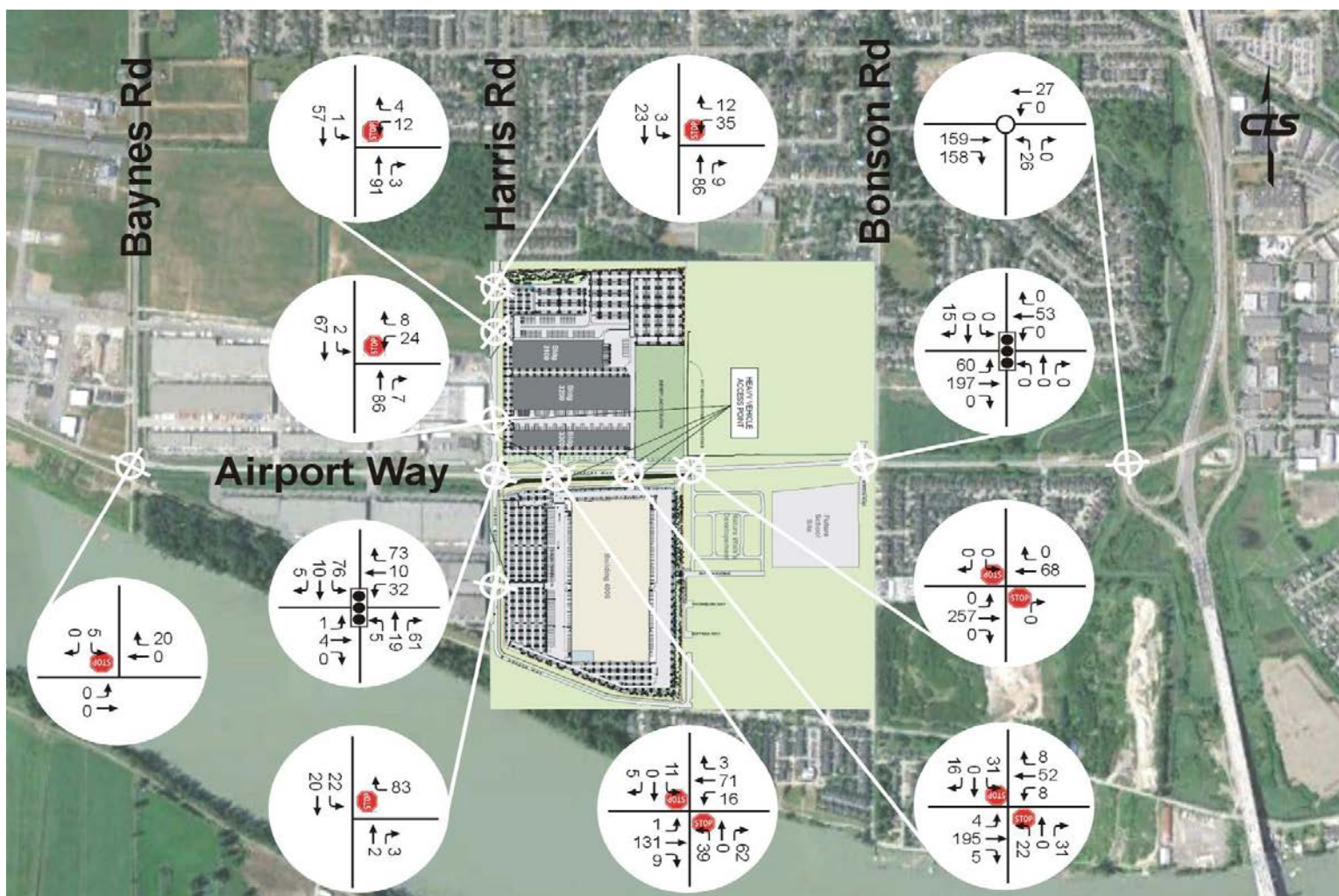
For the year 2024, GEBP – Phase 3 and Phase 4 are expected to generate 499 (404 inbound and 95 outbound) vehicle trips in the morning peak hour and 499 (104 inbound and 395 outbound) vehicle trips in the afternoon peak hour.

FIGURE 2 and **FIGURE 3** illustrate the site generated traffic for the year 2024 during the weekday morning and afternoon peak hours. The same site generated traffic was assumed for the year 2035 during the weekday morning and afternoon peak hours.

Baynes Rd



FIGURE 3
2024 WEEKDAY AFTERNOON PEAK HOUR SITE GENERATED TRAFFIC VOLUMES



8.0 CAPACITY ANALYSIS

8.1 Assumptions

In addition to the Access Assessment undertaken in Section 4.0, capacity analysis was performed for each of the GEBP – Phase 3 and Phase 4 access points on Airport Way and Harris Road as well as for the intersection of Airport Way and Harris Road, to determine the overall intersection and individual movement Level of Service (LOS) that is provided to motorists. The LOS for intersections and movements is defined in terms of delay (seconds per vehicle) which is a measure of driver discomfort and frustration, fuel consumption and lost travel time.

An intersection or movement LOS can range from "A" (Excellent) to "E" (Capacity). A LOS of "F" indicates that an intersection or movement is failing because the intersection or movement is over capacity and delays are excessive. A LOS of "D" or better is considered acceptable by many public agencies for overall intersection, through and right turn movements and a LOS of "E" or better is considered acceptable for left turn movements, at signalized intersections.

Synchro (Version 10.0) was used to analyze the intersection and movement level of service for signalized intersections. Highway Capacity Software (HCS) was used to analyze the intersection and movement Level of Service for unsignalized intersections. SIDRA INTERSECTION 6.1 was used for the roundabout intersection analysis.

With respect to the access point and intersection analyses, the following assumptions were made:

- Saturation flow rate → 1,900 passenger cars/hour of green/lane (pcphgpl).
- Heavy truck i.e. 3+ axles, percentage → 15% for all truck access point movements and on Airport Way and Harris Road. All other access points were assumed to be zero heavy trucks.
- Peak Hour Factor (PHF) → 0.93 for the weekday morning peak hour and 0.86 for the weekday PM peak hour which were the average PHF's from the traffic turning movement counts.
- All access points were assumed to be all movement i.e. right-in, right-out, left-in and left-out.
- All access points outbound were assumed to be shared left turn/right turn movements.
- CTS based the capacity analysis on background traffic data collected by CTS on February 28, 2017. Copies of the turning movement summary count data are included as **APPENDIX E**. The weekday morning peak hour was 0745 to 0845. The weekday afternoon peak hour was 1615 to 1715.
- Per direction received from the City of Pitt Meadows, CTS studied the 2024 and 2035 horizon years with GEBP – Phase 3 and Phase 4.

- The 2017 background data was grown to the 2024 and 2035 study years at 2% per annum simple straight line, consistent with McElhanney's *South Bonson Traffic Study – Final Report, April 2016*.
- Vehicle trips generated by the Sutton Development residential community were included as background traffic in the years 2024 and 2035. The Sutton Development generated vehicle trips are summarized by **TABLE 2**.

**TABLE 2
SUTTON DEVELOPMENT VEHICLE TRIP GENERATION**

Land Use		Peak Hour	Trip Generation Variable	Scope of Development	Vehicle Trip Generation Rate	Trip Rate Source	Directional Split		Peak Hour Volumes (vph)		
							% in	% out	in	out	total
Residential	Townhouse	Weekday Morning	Dwelling Units	220	0.36	ITE 10th Edition Code 221	26%	74%	21	59	80
		Weekday Afternoon	Dwelling Units	220	0.44	ITE 10th Edition Code 221	61%	39%	59	38	97
TOTAL WEEKDAY MORNING PEAK HOUR									21	59	80
TOTAL WEEKDAY AFTERNOON PEAK HOUR									59	38	97

The vehicle trip generation data is based on that assumed by the City of Pitt Meadows in their *Staff Report to Council – Temporary Commercial Use Permit Application for 19451 Sutton Avenue, April 2019*.

- Vehicle trips generated by the proposed park amenity were assumed to be 20 vehicle trips inbound and 20 vehicle trips outbound for both the morning and afternoon peak hours.
- Vehicle trips generated by the proposed elementary school on the southwest corner of Airport Way and Bonson Road were included as background traffic in the year 2035. The school generated vehicle trips are summarized by **TABLE 3**.

**TABLE 3
SCHOOL VEHICLE TRIP GENERATION**

Land Use		Peak Hour	Trip Generation Variable	Scope of Development	Vehicle Trip Generation Rate	Trip Rate Source	Directional Split		Peak Hour Volumes (vph)		
							% in	% out	in	out	total
School	Elementary	Weekday Morning	1,000 Square Feet GFA	15	6.97	ITE 10th Edition Code 520	55%	45%	58	47	105
		Weekday Afternoon	1,000 Square Feet GFA	15	1.37		45%	55%	9	12	21
TOTAL WEEKDAY MORNING PEAK HOUR									58	47	105
TOTAL WEEKDAY AFTERNOON PEAK HOUR									9	12	21

The vehicle trip generation data is based on that assumed by McElhanney in their *South Bonson Traffic Study – Final Report, April 2016*.

- Vehicle trips generated by the GEBP Phase 1 and Phase 2 were included as background traffic. The vehicle trip generation data is based on that assumed by MMM in their *Golden Ears Business Park – Phase 3 Transportation Impact Study, April 2015*.
- Trip distribution parameters for distributing GEBP – Phase 3 and Phase 4 generated vehicle trips to/from the site are summarized by **TABLE 4**. The traffic distribution is based on that assumed by McElhanney in their *South Bonson Traffic Study, April 2016*.

Note - The distribution percentage for North - Harris Road was changed from 30% to 25% and the distribution percentage for West – Airport Way was changed from 0% to 5%.

TABLE 4
TRIP DISTRIBUTION PERCENTAGES

FROM / TO	WEEKDAY MORNING PEAK HOUR		WEEKDAY AFTERNOON PEAK HOUR	
	INBOUND	OUTBOUND	INBOUND	OUTBOUND
North - Bonson Rd	15.0%	15.0%	15.0%	15.0%
North - Harris Rd	25.0%	25.0%	25.0%	25.0%
East Airport Way	50.0%	50.0%	50.0%	50.0%
South - Harris Rd	5.0%	5.0%	5.0%	5.0%
West - Airport Way	5.0%	5.0%	5.0%	5.0%
TOTAL	100.0%	100.0%	100.0%	100.0%

- CTS analyzed Airport Way as a four-lane cross-section for both the 2024 and 2035 scenarios.
- CTS analyzed the intersections of Airport Way and Bonson Road and Airport Way and Harris Road as traffic signal controlled for both the 2024 and 2035 scenarios. For the traffic signal controlled intersection, CTS assumed protected/permissive phasing on all approaches and optimized the signal timing.
- CTS analyzed the intersection of Airport Way and the Sutton Development/Park Amenity access and Airport Way and Baynes Road as STOP controlled for both the 2024 and 2035 scenarios.
- CTS analyzed the intersection of Airport Way and Golden Ears Way as roundabout control with no geometric or laning improvements. The link volumes established for the east approach to the intersection of Airport Way and Bonson Road for 2024 were used as basis for the west approach to the intersection of Airport Way and Golden Ears Way. The link volumes were distributed to the

east and south approaches to the intersection of Airport Way and Golden Ears Way 50%/50%.

- The preliminary geometry and laning assumed for Airport Way is illustrated by the preliminary design included as **APPENDIX D**.

8.2 Analysis

With consideration for the preceding assumptions, capacity analysis was performed for each of the GEBP – Phase 3 and Phase 4 access points on Airport Way and Harris Road as well as for the intersections of:

- Airport Way and Bonson Road;
- Airport Way and Harris Road;
- Airport Way and Baynes Road;
- Airport Way and Sutton Development/Park Amenity access; and
- Airport Way and Golden Ears Way.

TABLE 5 summarizes and compares the delay in seconds and the 95th percentile queue for all GEBP – Phase 3 and Phase 4 unsignalized access points on Harris Road (two lane cross-section) for the 2024 and 2035 morning and afternoon peak hours.

TABLE 6 summarizes and compares the delay in seconds and the 95th percentile queue for all GEBP – Phase 3 and Phase 4 unsignalized access points on Airport Way (four lane cross-section) for the 2024 and 2035 morning and afternoon peak hours.

TABLE 7 summarizes and compares the delay in seconds and the 95th percentile queue for the unsignalized intersection of Airport Way (four lane cross-section) and the Sutton Development/Park Amenity access for the 2024 and 2035 morning and afternoon peak hours.

TABLE 8 summarizes and compares the delay in seconds and the 95th percentile queue for the unsignalized intersection of Airport Way and Baynes Road for the 2024 and 2035 morning and afternoon peak hours.

TABLE 9 summarizes and compares the main performance parameters of the capacity analysis for the signalized intersection of Airport Way (four lane cross-section) and Bonson Road and Airport Way (four lane cross-section) and Harris Road for the 2024 and 2035 morning and afternoon peak hours.

The capacity analysis summary sheets are included as **APPENDIX F**.

TABLE 5
UNSIGNALIZED INTERSECTION CAPACITY ANALYSIS SUMMARY
HARRIS ROAD (TWO LANE CROSS-SECTION) AND ACCESS POINTS

Intersection	Time of Day	Scenario	Performance Measure	Eastbound			Westbound			Northbound			Southbound			LOS	Notes
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
Harris Road (N/S) & North Access - Phase 3 (E/W)	Weekday Morning Peak Hour	2024 Base + Site (Phase 3 & 4)	Volumes				8		3			372	36	12	520	A	OK
			Delay				16.9					0.0		8.2			
			95% Queue (veh)				0.1					0.0		0.0			
		2035 Base + Site (Phase 3 & 4)	Volumes				8		3			449	36	12	623	A	OK
			Delay				20.3					0.0		8.5			
			95% Queue (veh)				0.2					0.0		0.0			
	Weekday Afternoon Peak Hour	2024 Base + Site (Phase 3 & 4)	Volumes				35		12			614	9	3	421	A	WB Movements are approaching capacity
			Delay				25.2					0.0		9.1			
			95% Queue (veh)				0.9					0.0		0.0			
		2035 Base + Site (Phase 3 & 4)	Volumes				35		12			717	9	3	498	A	WB Movements are approaching capacity
			Delay				34.2					0.0		9.5			
			95% Queue (veh)				1.2					0.0		0.0			
Harris Road (N/S) & Middle Access - Phase 3 (E/W)	Weekday Morning Peak Hour	2024 Base + Site (Phase 3 & 4)	Volumes				3		1			407	13	4	529	A	OK
			Delay				16.9					0.0		8.2			
			95% Queue (veh)				0.0					0.0		0.0			
		2035 Base + Site (Phase 3 & 4)	Volumes				3		1			484	13	4	627	A	OK
			Delay				20.2					0.0		8.5			
			95% Queue (veh)				0.1					0.0		0.0			
	Weekday Afternoon Peak Hour	2024 Base + Site (Phase 3 & 4)	Volumes				12		4			619	3	1	455	A	OK
			Delay				22.7					0.0		9.1			
			95% Queue (veh)				0.3					0.0		0.0			
		2035 Base + Site (Phase 3 & 4)	Volumes				12		4			722	3	1	532	A	WB Movements are approaching capacity
			Delay				29.0					0.0		9.5			
			95% Queue (veh)				0.4					0.0		0.0			
Harris Road (N/S) & South Access - Phase 3 (E/W)	Weekday Morning Peak Hour	2024 Base + Site (Phase 3 & 4)	Volumes				6		2			418	24	8	524	A	OK
			Delay				18.4					0.0		8.6			
			95% Queue (veh)				0.1					0.0		0.0			
		2035 Base + Site (Phase 3 & 4)	Volumes				6		2			495	24	8	622	A	OK
			Delay				22.3					0.0		8.8			
			95% Queue (veh)				0.1					0.0		0.0			
	Weekday Afternoon Peak Hour	2024 Base + Site (Phase 3 & 4)	Volumes				24		8			614	7	2	465	A	WB Movements are approaching capacity
			Delay				26.5					0.0		9.4			
			95% Queue (veh)				0.6					0.0		0.0			
		2035 Base + Site (Phase 3 & 4)	Volumes				24		8			717	7	2	542	A	WB Movements are approaching capacity
			Delay				35.7					0.0		9.9			
			95% Queue (veh)				0.9					0.0		0.0			
Harris Road (N/S) & Site Access - Phase 4 (E/W)	Weekday Morning Peak Hour	2024 Base + Site (Phase 3 & 4)	Volumes						20			170	12	85	149	A	OK
			Delay						9.3			0.0		7.8			
			95% Queue (veh)						0.1			0.0		0.2			
		2035 Base + Site (Phase 3 & 4)	Volumes						20			199	12	85	177	A	OK
			Delay						9.5			0.0		7.9			
			95% Queue (veh)						0.1			0.0		0.2			
	Weekday Afternoon Peak Hour	2024 Base + Site (Phase 3 & 4)	Volumes						83			171	3	22	148	A	OK
			Delay						9.8			0.0		7.7			
			95% Queue (veh)						0.4			0.0		0.1			
		2035 Base + Site (Phase 3 & 4)	Volumes						83			203	3	22	175	A	OK
			Delay						10.1			0.0		7.7			
			95% Queue (veh)						0.4			0.0		0.1			

Delay = Average Delay (seconds/vehicle)

Intersection approaching capacity (LOS 'D' or 'E'); or medium approach delays (25sec to <50sec)

Intersection equals or exceeds capacity (LOS 'F'); or high approach delays (>= 50sec)

95% Queue = UNSIGNALIZED QUEUE IS PER VEHICLE

TABLE 6
UNSIGNALIZED INTERSECTION CAPACITY ANALYSIS SUMMARY
AIRPORT WAY (FOUR LANE CROSS-SECTION) AND ACCESS POINTS

Intersection	Time of Day	Scenario	Performance Measure	Eastbound			Westbound			Northbound			Southbound			LOS	Notes
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
Airport Way (E/W) & West Access - Phase 3 & 4 (N/S)	Weekday Morning Peak Hour	2024 Base + Site (Phase 3 & 4)	Volumes	6	441	34	63	806	10	10	0	15	2	0	2	A	OK
			Delay	9.7	9.7	0.0	9.0	9.0	0.0	19.8			24.5				
			95% Queue (veh)	0.0	0.0	0.0	0.2	0.2	0.0	0.3			0.1				
		2035 Base + Site (Phase 3 & 4)	Volumes	6	494	34	63	948	10	10	0	15	2	0	2	A	SB movements are approaching capacity.
			Delay	10.3	10.3	0.0	9.2	9.2	0.0	23.9			31.6				
			95% Queue (veh)	0.0	0.0	0.0	0.2	0.2	0.2	0.4			0.1				
	Weekday Afternoon Peak Hour	2024 Base + Site (Phase 3 & 4)	Volumes	1	932	9	16	498	3	39	0	62	11	0	5	B	NB is over capacity. SB movements are approaching capacity.
			Delay	8.6	8.6	0.0	11.6	11.6	0.0	68.0			29.4				
			95% Queue (veh)	0.0	0.0	0.0	0.1	0.1	0.0	4.3			0.4				
		2035 Base + Site (Phase 3 & 4)	Volumes	1	1087	9	16	584	3	39	0	62	11	0	5	C	NB is over capacity. SB movements are approaching capacity.
			Delay	8.9	8.9	0.0	12.9	12.9	0.0	163.7			41.3				
			95% Queue (veh)	0.0	0.0	0.0	0.1	0.1	0.0	6.8			0.5				
Airport Way (E/W) & East Access - Phase 3 & 4 (N/S)	Weekday Morning Peak Hour	2024 Base + Site (Phase 3 & 4)	Volumes	16	395	17	32	871	32	5	0	7	8	0	3	A	SB is approaching capacity.
			Delay	10.9	10.9	0.0	8.6	8.6	0.0	17.6			35.3				
			95% Queue (veh)	0.1	0.1	0.0	0.1	0.1	0.0	0.1			0.3				
		2035 Base + Site (Phase 3 & 4)	Volumes	16	478	17	32	1013	32	5	0	7	8	0	3	A	SB movements are over capacity.
			Delay	11.8	11.8	0.0	8.9	8.9	0.0	21.5			50.2				
			95% Queue (veh)	0.1	0.1	0.0	0.1	0.1	0.0	0.2			0.4				
	Weekday Afternoon Peak Hour	2024 Base + Site (Phase 3 & 4)	Volumes	4	996	5	8	479	8	22	0	31	31	0	16	B	NB & SB movements are approaching capacity.
			Delay	8.9	8.9	0.0	12.0	12.0	0.0	47.6			37.2				
			95% Queue (veh)	0.0	0.0	0.0	0.0	0.0	0.0	1.9			1.3				
		2035 Base + Site (Phase 3 & 4)	Volumes	4	1151	5	8	565	8	22	0	31	31	0	16	B	NB & SB movements are over capacity.
			Delay	9.3	9.3	0.0	13.3	13.3	0.0	88.4			59.6				
			95% Queue (veh)	0.0	0.0	0.0	0.1	0.1	0.0	3.0			2.1				

Delay = Average Delay (seconds/vehicle)

Intersection approaching capacity (LOS 'D' or 'E'); ; or medium approach delays (25sec to <50sec)

Intersection equals or exceeds capacity (LOS 'F'); or high approach delays (>= 50sec)

95% Queue = UNSIGNALIZED QUEUE IS PER VEHICLE

TABLE 7
UNSIGNALIZED INTERSECTION CAPACITY ANALYSIS SUMMARY
AIRPORT WAY (FOUR LANE CROSS-SECTION) AND THE SUTTON DEVELOPMENT/PARK
AMENITY ACCESS

Intersection	Time of Day	Scenario	Performance Measure	Eastbound			Westbound			Northbound			Southbound			LOS	Notes
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
Townhouse Access / Park Access (N/S) & Airport Way (E/W)	Weekday Morning Peak Hour	2024 Base + Site (Phase 3 & 4)	Volumes	7	396	7		928	13			20	13		7	A	OK, SB is approaching capacity
			Delay	11.1	11.1	0.0		0.0	0.0			9.7	28.6				
			95% Queue (veh)	0.0	0.0	0.0		0.0	0.0			0.1	0.4				
		2035 Base + Site (Phase 3 & 4)	Volumes	7	479	7		1070	13			20	13		7	A	OK, SB is approaching capacity
			Delay	11.1	11.1	0.0		0.0	0.0			10.0	39.2				
			95% Queue (veh)	0.0	0.0	0.0		0.0	0.0			0.1	0.6				
	Weekday Afternoon Peak Hour	2024 Base + Site (Phase 3 & 4)	Volumes	7	1033	18		488	13			13	13		7	A	OK, SB is approaching capacity
			Delay	8.7	8.7	0.0		0.0	0.0			13.5	26.7				
			95% Queue (veh)	0.0	0.0	0.0		0.3	0.3			0.1	0.4				
		2035 Base + Site (Phase 3 & 4)	Volumes	7	1188	18		574	13			13	13		7	A	OK, SB is approaching capacity
			Delay	9.0	9.0	0.0		0.0	0.0			14.8	36.4				
			95% Queue (veh)	0.0	0.0	0.0		0.3	0.3			0.1	0.6				

Delay = Average Delay (seconds/vehicle)

Intersection approaching capacity (LOS 'D' or 'E'); ; or medium approach delays (25sec to <50sec)

Intersection equals or exceeds capacity (LOS 'F'); or high approach delays (>= 50sec)

95% Queue = UNSIGNALIZED QUEUE IS PER VEHICLE

TABLE 8
UNSIGNALIZED INTERSECTION CAPACITY ANALYSIS SUMMARY
AIRPORT WAY AND BAYNES ROAD

Intersection	Time of Day	Scenario	Performance Measure	Eastbound			Westbound			Northbound			Southbound			LOS	Notes
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
Baynes Road (N/S) & Airport Way (E/W)	Weekday Morning Peak Hour	2024 Base + Site (Phase 3 & 4)	Volumes	8	9			49	115				89		24	A	OK
			Delay	7.6				0.0	0.0		9.6						
			95% Queue (veh)	0.0				0.0	0.0		0.5						
		2035 Base + Site (Phase 3 & 4)	Volumes	9	11			59	138				105		28	A	OK
			Delay	7.7				0.0	0.0			9.8					
			95% Queue (veh)	0.0				0.0	0.0		0.6						
	Weekday Afternoon Peak Hour	2024 Base + Site (Phase 3 & 4)	Volumes	21	48			15	108				131		6	A	OK
			Delay	7.5				0.0	0.0			10.3					
			95% Queue (veh)	0.1				0.0	0.0			0.7					
		2035 Base + Site (Phase 3 & 4)	Volumes	25	58			17	126				156		7	A	OK
			Delay	7.6				0.0	0.0			10.8					
			95% Queue (veh)	0.1				0.0	0.0		0.9						

Delay = Average Delay (seconds/vehicle)

 Intersection approaching capacity (LOS 'D' or 'E'); ; or medium approach delays (25sec to <50sec)

 Intersection equals or exceeds capacity (LOS 'F'); or high approach delays (>= 50sec)

95% Queue = UNSIGNALIZED QUEUE IS PER VEHICLE

TABLE 9
SIGNALIZED INTERSECTION CAPACITY ANALYSIS SUMMARY
AIRPORT WAY (FOUR LANE CROSS-SECTION) AND BONSON ROAD

Intersection	Time of Day	Scenario	Performance Measure	Eastbound			Westbound			Northbound			Southbound			LOS	Notes
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
Bonson Road (N/S) and Airport Way (E/W)	Weekday Morning Peak Hour	2024 Base	Volumes	34	317	21	106	541	139	34	109	191	186	50	93	B	Optimized singal timing with 75s Cycle length
			V/C	0.14	0.42	0.42	0.29	0.66	0.66	0.13	0.65		0.62	0.21			
			95% Queue (m)	7.8	30.7	30.7	18.3	63.5	63.5	10.5	47.0		38.6	14.8			
		2024 Base +Site	Volumes	49	464	21	106	744	139	34	109	191	186	50	153	C	Optimized singal timing with 75s Cycle length
			V/C	0.22	0.48	0.48	0.30	0.79	0.79	0.14	0.68		0.75	0.31			
			95% Queue (m)	9.7	43.8	43.8	17.8	100.1	100.1	10.4	46.2		43.0	16.8			
		2035 Base	Volumes	39	375	43	154	645	166	52	137	249	222	68	110	C	Optimized singal timing with 80s Cycle length
			V/C	0.20	0.52	0.52	0.48	0.79	0.79	0.18	0.80		0.76	0.24			
			95% Queue (m)	9.7	42.6	42.6	29.2	98.9	98.9	15.2	73.7		54.6	17.9			
		2035 Base + Site	Volumes	54	422	43	154	848	166	52	137	249	222	68	170	C	Optimized singal timing with 90s Cycle length. WBTH, WBRT are near capacity.
			V/C	0.33	0.54	0.54	0.42	0.91	0.91	0.20	0.84		0.80	0.32			
			95% Queue (m)	12.6	54.8	54.8	30.4	143.6	143.6	17.6	91.8		63.5	23.7			
	Weekday Afternoon Peak Hour	2024 Base	Volumes	124	640	43	150	366	203	19	63	131	99	66	44	B	Optimized singal timing with 75s Cycle length
			V/C	0.39	0.72	0.72	0.54	0.50	0.50	0.10	0.55		0.44	0.24			
			95% Queue (m)	16.6	57.2	57.2	20.1	36.8	36.8	7.3	23.3		19.5	16.1			
		2024 Base +Site	Volumes	184	837	43	150	419	203	19	63	131	99	66	59	B	Optimized singal timing with 80s Cycle length
			V/C	0.52	0.78	0.78	0.60	0.58	0.58	0.11	0.60		0.52	0.29			
			95% Queue (m)	24.4	83.5	83.5	27.0	49.1	49.1	7.7	26.4		21.1	17.9			
		2035 Base	Volumes	147	762	54	178	436	243	26	77	161	118	78	53	C	Optimized singal timing with 80s Cycle length
			V/C	0.46	0.79	0.79	0.63	0.63	0.63	0.14	0.67		0.66	0.29			
			95% Queue (m)	22.2	94.0	94.0	37.8	57.5	57.5	9.4	35.9		24.3	20.5			
		2035 Base + Site	Volumes	207	959	54	178	489	243	26	77	161	118	78	68	C	Optimized singal timing with 90s Cycle length. EBTH & EBRT are near capacity.
			V/C	0.61	0.87	0.87	0.72	0.66	0.66	0.14	0.73		0.73	0.33			
			95% Queue (m)	32.4	136.2	136.2	51.7	78.1	78.1	10.7	45.4		32.6	27.1			
Intersection approaching capacity (LOS 'D' or 'E'); or approach demand near capacity (v/c 0.85 to 0.99)																	
Intersection equals or exceeds capacity (LOS 'F'); or high approach demand over capacity (v/c => 1.0)																	
95% Queue length exceeds the capacity of existing storage bay.																	

TABLE 9 CONTINUED
SIGNALIZED INTERSECTION CAPACITY ANALYSIS SUMMARY
AIRPORT WAY (FOUR LANE CROSS-SECTION) AND HARRIS ROAD

Intersection	Time of Day	Scenario	Performance Measure	Eastbound			Westbound			Northbound			Southbound			LOS	Notes
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
Harris Road (N/S) and Airport Way (E/W)	Weekday Morning Peak Hour	2024 Base	Volumes	38	118	16	36	411	225	28	89	45	185	92	159	B	Optimized singal timing with 70s Cycle length
			V/C	0.14	0.14	0.14	0.09	0.64	0.64	0.08	0.33		0.47	0.44			
			95% Queue (m)	7.6	11.8	11.8	7.3	46.3	46.3	6.8	24.1		31.3	34.9			
		2024 Base +Site	Volumes	43	128	21	105	414	299	29	100	61	262	108	160	B	Optimized singal timing with 70s Cycle length
			V/C	0.17	0.20	0.20	0.26	0.64	0.64	0.09	0.39		0.74	0.48			
			95% Queue (m)	8.6	13.2	13.2	17.5	47.7	47.7	7.0	28.1		63.0	40.8			
		2035 Base	Volumes	46	144	19	43	493	278	33	105	53	234	110	190	B	Optimized singal timing with 70s Cycle length
			V/C	0.19	0.17	0.17	0.10	0.74	0.74	0.11	0.39		0.68	0.54			
			95% Queue (m)	9.5	15.0	15.0	9.0	66.6	66.6	7.5	28.1		47.9	44.6			
		2035 Base + Site	Volumes	51	154	24	112	496	352	34	116	69	311	126	191	B	Optimized singal timing with 75s Cycle length
			V/C	0.25	0.21	0.21	0.29	0.79	0.79	0.12	0.53		0.76	0.51			
			95% Queue (m)	10.8	16.6	16.6	20.2	80.4	80.4	7.8	35.8		67.4	51.0			
	Weekday Afternoon Peak Hour	2024 Base	Volumes	195	477	31	13	169	245	14	88	67	257	84	57	B	Optimized singal timing with 75s Cycle length
			V/C	0.64	0.48	0.48	0.05	0.56	0.56	0.05	0.48		0.76	0.27			
			95% Queue (m)	35.1	44.5	44.5	3.6	18.8	18.8	4.4	29.0		60.5	25.0			
		2024 Base +Site	Volumes	196	481	31	45	179	318	19	107	128	333	94	62	C	Optimized singal timing with 90s Cycle length
			V/C	0.72	0.61	0.61	0.19	0.68	0.68	0.07	0.72		0.80	0.24			
			95% Queue (m)	52.0	63.8	63.8	12.2	29.5	29.5	5.6	55.5		73.5	29.4			
		2035 Base	Volumes	233	570	38	16	203	294	17	104	80	306	101	68	C	Optimized singal timing with 90s Cycle length
			V/C	0.71	0.60	0.60	0.09	0.72	0.72	0.07	0.64		0.77	0.29			
			95% Queue (m)	57.9	69.0	69.0	5.4	31.5	31.5	5.8	45.5		74.3	34.6			
		2035 Base + Site	Volumes	234	574	38	48	213	367	22	123	141	382	111	73	C	Optimized singal timing with 90s Cycle length. EBLT, SBLT are near capacity.
			V/C	0.88	0.70	0.70	0.28	0.75	0.75	0.08	0.78		0.93	0.28			
			95% Queue (m)	73.3	75.6	75.6	12.8	34.7	34.7	6.4	65.5		108.0	35.9			
Intersection approaching capacity (LOS 'D' or 'E'); or approach demand near capacity (v/c 0.85 to 0.99)																	
Intersection equals or exceeds capacity (LOS 'F'); or high approach demand over capacity (v/c => 1.0)																	
95% Queue length exceeds the capacity of existing storage bay.																	

Based on the capacity analysis summarized by **TABLE 5** to **TABLE 9** the following observations can be made:

Harris Road (N/S) and Phase 3 North Access (E/W)

- Under 2024 base + site and 2035 base + site conditions, this access point is expected to operate at an overall LOS A (Excellent) during the weekday morning and afternoon peak hours. The east approach experiences some delay under 2024 base + site conditions and 2035 base + site conditions during the afternoon peak hour.
- There are no operational issues expected for Harris Road i.e. delay is acceptable and there is no vehicle queuing.

Harris Road (N/S) and Phase 3 Middle Access (E/W)

- Under 2024 base + site and 2035 base + site conditions, this access point is expected to operate at an overall LOS A (Excellent) during the weekday morning and afternoon peak hours. The east approach experiences some delay under 2035 base + site conditions during the afternoon peak hour.
- There are no operational issues expected for Harris Road i.e. delay is acceptable and there is no vehicle queuing.

Harris Road (N/S) and Phase 3 South Access (E/W)

- Under 2024 base + site and 2035 base + site conditions, this access point is expected to operate at an overall LOS A (Excellent) during the weekday morning and afternoon peak hours. The east approach experiences some delay under 2024 base + site conditions and 2035 base + site conditions during the afternoon peak hour.
- There are no operational issues expected for Harris Road i.e. delay is acceptable and there is no vehicle queuing.

Harris Road (N/S) and Phase 4 Access (E/W)

- Under 2024 base + site and 2035 base + site conditions, this access point is expected to operate at an overall LOS A (Excellent) during the weekday morning and afternoon peak hours.
- There are no operational issues expected for Harris Road i.e. delay is acceptable and there is no vehicle queuing.

Airport Way (E/W) and Phase 3 and 4 West Access (N/S)

- Under 2024 base + site conditions, this access point is expected to operate at an overall LOS A (Excellent) during the weekday morning peak hour and LOS B (Very Good) during the afternoon peak hour.
- Under 2035 base + site conditions, this access point is expected to operate at an overall LOS A (Excellent) during the weekday morning peak hour and LOS C (Good) during the afternoon peak hour.
- Both the north and south approaches are experiencing some delay and some vehicle queuing.
- There are no operational issues expected for Airport Way i.e. delay is acceptable and there is no vehicle queuing.

Airport Way (E/W) and Phase 3 and 4 East Access (N/S)

- Under 2024 base + site conditions, this access point is expected to operate at an overall LOS A (Excellent) during the weekday morning peak hour and LOS B (Very Good) during the afternoon peak hour.
- Under 2035 base + site conditions, this access point is expected to operate at an overall LOS A (Excellent) during the weekday morning peak hour and LOS B (Very Good) during the afternoon peak hour.
- Both the north and south approaches are experiencing some delay and some vehicle queuing.
- There are no operational issues expected for Airport Way i.e. delay is acceptable and there is no vehicle queuing.

Airport Way (E/W) and Sutton Development/Park Amenity Access (N/S)

- Under 2024 base + site conditions, this unsignalized intersection is expected to operate at an overall LOS A (Excellent) during the weekday morning and afternoon peak hours.
- Under 2035 base + site conditions, this unsignalized intersection is expected to operate at an overall LOS A (Excellent) during the weekday morning and afternoon peak hours.
- Both the north and south approaches are experiencing some delay.
- There are no operational issues expected for Airport Way i.e. delay is acceptable and there is no vehicle queuing.

Airport Way (E/W) and Baynes Road (N/S)

- Under 2024 base + site conditions, this unsignalized intersection is expected to operate at an overall LOS A (Excellent) during the weekday morning and afternoon peak hours. All movements are under capacity.
- Under 2035 base + site conditions, this unsignalized intersection is expected to operate at an overall LOS A (Excellent) during the weekday morning and afternoon peak hours. All movements are under capacity.
- There are no operational issues expected for Airport Way i.e. delay is acceptable and there is no vehicle queuing.

Airport Way (E/W) and Bonson Road (N/S) Signalized

- Signalization of the intersection gives LOS B (Very Good) for the 2024 base weekday morning peak hour and the 2024 base and 2024 base + site weekday afternoon peak hours. The 2024 base + site, 2035 base and 2035 base + site weekday morning peak hours and the 2035 base and 2035 base + site weekday afternoon peak hours are LOS C (Good). The eastbound through and right turn and the westbound through and right turn are approaching capacity for the 2035 base + site weekday morning and afternoon scenarios.

Airport Way (E/W) and Harris Road (N/S) Signalized

- Signalization of the intersection gives LOS B (Very Good) for the 2024 base, 2024 base + site, 2035 base and 2035 base + site weekday morning peak hours and the 2024 base afternoon peak hour. The level of service for the 2024 base + site, 2035 base and 2035 base + site weekday afternoon peak hours, is LOS C (Good). The eastbound left turn and southbound left turn are approaching capacity for the 2035 base + site weekday afternoon peak hours and the southbound left turn 95th percentile queue exceeds 100 meters.

Airport Way (E/W) and Golden Ears Way Roundabout

- A table for this capacity analysis was not presented given the inputs were largely assumed. Based on the inputs stated in *Section 7.1*, the intersection fails in 2024.

General

The capacity analysis for all intersections along Airport Way and Harris Road gives excellent results in terms of delay i.e. no delay, and queuing i.e. no queuing, no further analysis was undertaken i.e. left turn warrant.

In support of the preceding statement, CTS checked left turn gap availability for scenarios where the opposing traffic volume was 500 vehicles per hour and 1,000 vehicles per hour. For the 500 vehicles per hour opposing volume scenario it was determined that there could be up to 200 left turn gaps available within which to turn. For the 1,000 vehicles per hour opposing volume scenario it was determined that there could be up to 120 left turn gaps available within which to turn. For none of the scenarios analyzed, were there left turn volumes close to the left turn gap availability thresholds identified.

9.0 ANALYSIS BY OTHERS

Throughout this report CTS has referenced a study undertaken by McElhanney specifically, their *South Bonson Traffic Study Final Report 2016* which assessed impacts of future developments on road network performance, intersection control and pedestrian safety/accessibility. In particular the future planned development of Golden Ears Business Park (GEBP) and other residential/industrial land uses along Airport Way were considered. McElhanney's report assumed GEBP - Phase 3 and Phase 4 would be improved with approximately 1,867,700 ft² of GFA. This assumption was based on a plan previously provided by Onni which anticipated GEBP - Phase 3 and Phase 4 would be improved with eight industrial buildings.

Also, within the report McElhanney references background traffic data from 2016, vehicle trip generation data from the *ITE Trip Generation Manual 9th Edition* and assumes gross floor areas and horizon years at build-out for GEBP – Phase 3 and Phase 4 based on the best available information at the time.

Onni's current development application proposes 1,241,901 ft² of GFA based on four industrial buildings with build-out in 2024. For the 2035 build-out scenario this report assumes no additional development.

Note that constructing additional GFA beyond the current application would require a future development permit application and approval by Council.

The report by CTS updates much of the analysis undertaken by McElhanney by referencing more recent background traffic data from 2017 and the *ITE Trip Generation Manual 10th Edition* and applying the most recent site plan gross floor areas and time line for build-out of GEBP – Phase 3 and Phase 4. For example, **TABLE 11** compares the vehicle trip generation for GEBP – Phase 3 and Phase 4 for 2021, 2024 and 2031.

TABLE 11
GEBP – PHASE 3 AND PHASE 4 TRIP GENERATION

FIRM	GEBP	GFA	Year of Build-out		
			Total Vehicle Trips		
			2021	2024	2031
McElhanney	Phase 3 (50%)	443,000 ft ²	306		
	Phase 4 (50%)	491,000 ft ²	332		
	Phase 3 (100%)	886,000 ft ²			529
	Phase 4 (100%)	981,000 ft ²			573
CTS	Phase 3 (100%)	493,371 ft ²		199	199
	Phase 4 (100%)	748,530 ft ²		300	300

The GEBP – Phase 3 and Phase 4 50% build-out vehicle trip generation in 2021 by McElhanney is 638 vehicles. The GEBP – Phase 3 and Phase 4 100% build-out vehicle trip generation in 2024 by CTS is 499 vehicles. The CTS GEBP – Phase 3 and Phase 4 100% build-out vehicle trip generation number is 21.8% less than the McElhanney GEBP – Phase 3 and Phase 4 50% build-out vehicle trip generation number. The difference between the two vehicle trip generation numbers is primarily the result of application of the new trip generation rate for an industrial park i.e. 0.4 trips per 1,000 ft² of GFA.

Note that given the CTS 100% build-out vehicle trip generation by GEBP – Phase 3 and Phase 4 in 2024 is less than the McElhanney 50% vehicle trip generation by GEBP – Phase 3 and Phase 4 in 2021, presumes that all agreed upon road improvements could be delayed until as late as 2024.

Further, CTS understands Onni and the City of Pitt Meadows previously agreed to numerous traffic improvements recommended by McElhanney in their 2016 report including:

- Four laning of Airport Way between Baynes Road and Golden Ears Way;
- Signalization of Airport Way and Bonson Road;
- Signalization of Airport Way and Harris Road; and
- Numerous improvements for pedestrians and cyclists i.e. sidewalks and multi-user pathways, bike lanes, pedestrian crossings and bus shelters.

Despite the reduction in density between Onni's current application and what was considered in 2016, CTS understands the traffic improvements previously agreed to between Onni and the City will be constructed. Per the agreement between Onni and the City of Pitt Meadows, the traffic improvements will be constructed when the City confirms that 50% of build-out of both phases has been completed as previously agreed to. As a result, the traffic improvements need to be completed prior to the proposed building on Phase 4 being completed. However the timing of the traffic improvements may be altered based on the findings of this report as agreed to by the City and Onni.

10.0 CONCLUSIONS AND RECOMMENDATIONS

10.1 Conclusions

CTS assessed the site/access plan for GEBP – Phase 3 and Phase 4 and proposed park amenity with reference to the Transportation Association of Canada (TAC) *Geometric Design Guide for Canadian Roads 2017*. Design criteria included:

- Adjacent road network classification and function;
- Site layout and function;
- Driveway design;
- Driveway frequency;
- Adjacent driveway spacing;
- Opposite driveway spacing;
- Corner clearance; and
- Sight lines.

Based on the preceding assessments, all design criteria were exceeded.

CTS undertook capacity analysis for the purpose of confirming the operation of Airport Way and Harris Road with GEBP – Phase 3 and Phase 4 site traffic for 2024 and 2035. An Airport Way four lane cross-section was assumed. Based on the analysis, there are no operational issues expected for Airport Way and Harris Road i.e. delay is acceptable and there is no vehicle queuing for all laning scenarios.

CTS also undertook capacity analysis for the intersections of:

- Airport Way and Bonson Road;
- Airport Way and Harris Road;
- Airport Way and Baynes Road;
- Airport Way and Sutton Development/Park Amenity Access; and
- Airport Way and Golden Ears Way.

With GEBP – Phase 3 and Phase 4 site traffic for 2024 and 2035. Based on the analysis, there are no operational issues expected for Airport Way or Harris Road and all of the intersections operate at acceptable levels of service other than the intersection of Airport Way and Golden Ears Way.

Note - The intersection of Airport Way and Harris Road southbound left turn 95th percentile queue exceeds 100 meters for the 2035 base + site scenario and queuing i.e. 108 meters. That said, the most southerly driveway access point on Harris Road north of Airport Way is offset approximately 135 meters north of Airport Way.

CTS also assessed the two driveway access points for the City of Pitt Meadows works yard. The south driveway access point does not meet the minimum corner clearance criterion.

Lastly, CTS provided a summary and comparison of the studies undertaken by McElhanney for the City of Pitt Meadows and by CTS for Onni. The two key difference between the studies were:

- The GFA assumed by CTS in their 2020 study was substantially less than that assumed by McElhanney in their 2016 study; and
- The vehicle trip generation rate per 1,000 ft² of GFA applied by CTS in their study was approximately half of that applied by McElhanney in their study.

10.2 Recommendations

Based on this Golden Ears Business Park access assessment it is recommended that:

1. The City of Pitt Meadows accept the assessment and conclusions as documented by this report.
2. The City of Pitt Meadows accept the Golden Ears Business Park – Phase 3 and Phase 4 site/access plan. That is four all movement access points on Airport Way and four all movement access points on Harris Road.
3. All eight access points be permitted as all movement.
4. A proposed park amenity all movement access on Airport Way opposite the Sutton Development access is recommended and that the intersection be pedestrian signal controlled.
5. Airport Way be widened to four lanes and the intersection of Airport Way and Harris Road be re-constructed with signalization, before build-out of GEBP Phase 3 and Phase 4 in 2024.
6. The capacity analysis 95th percentile queue be considered for the design of all left turn storage lanes for the signalized intersections of Airport Way and Bonson Road and Airport Way and Harris Road.
7. The City of Pitt Meadows consider restricting the turning movements at the south driveway access point to their works yard, to right-in/right-out only.

Please call the undersigned should there be questions and/or comments pertaining to this FINAL Traffic Study.

Yours truly,

CREATIVE TRANSPORTATION SOLUTIONS LTD.



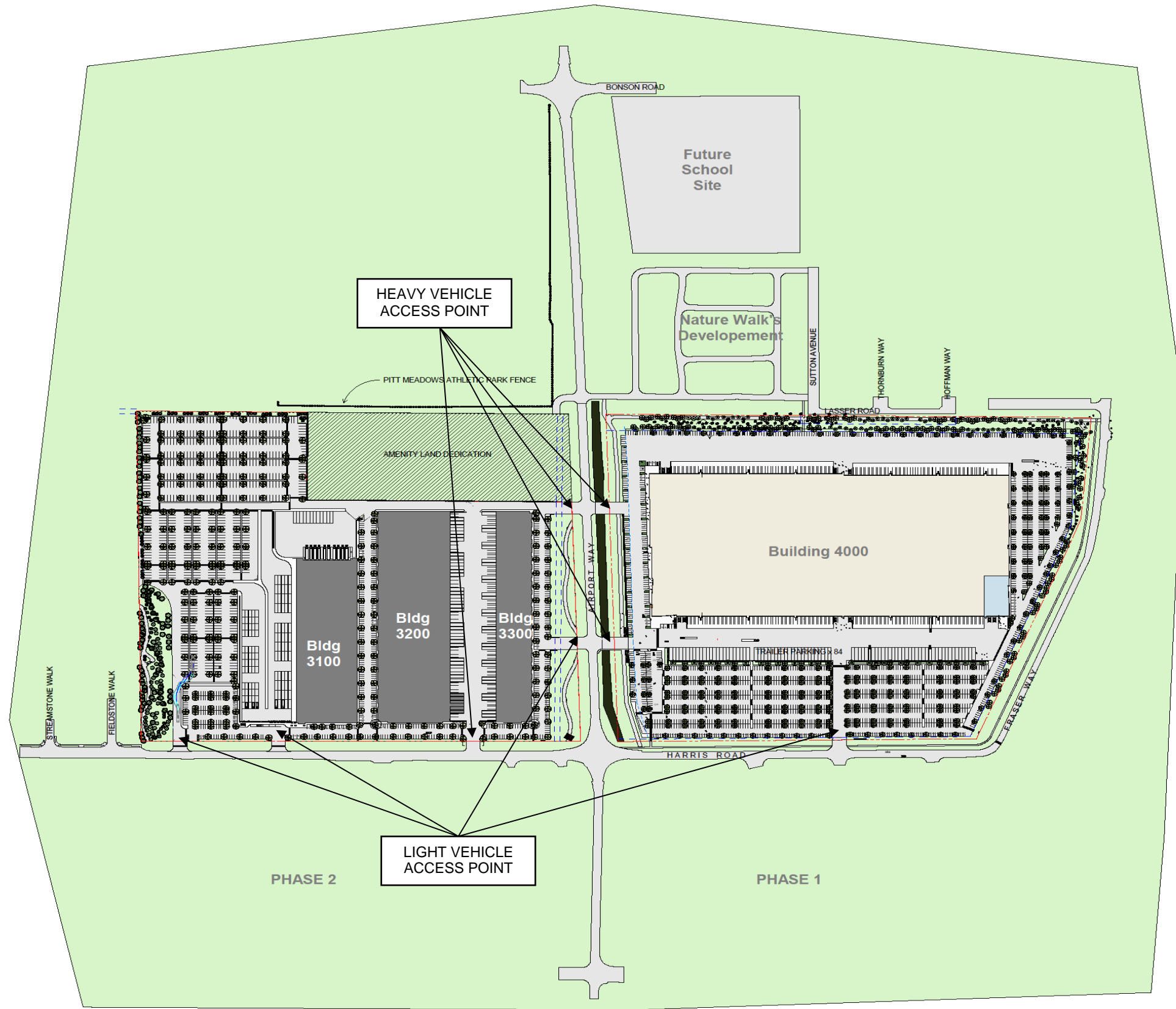
Brent A. Dozzi, P.Eng.
Project Manager

Phone: (604) 936-6190 x237
Email: bdozzi@cts-bc.com

APPENDICES

APPENDIX A

Phase 3 and Phase 4 Site/Access Plan



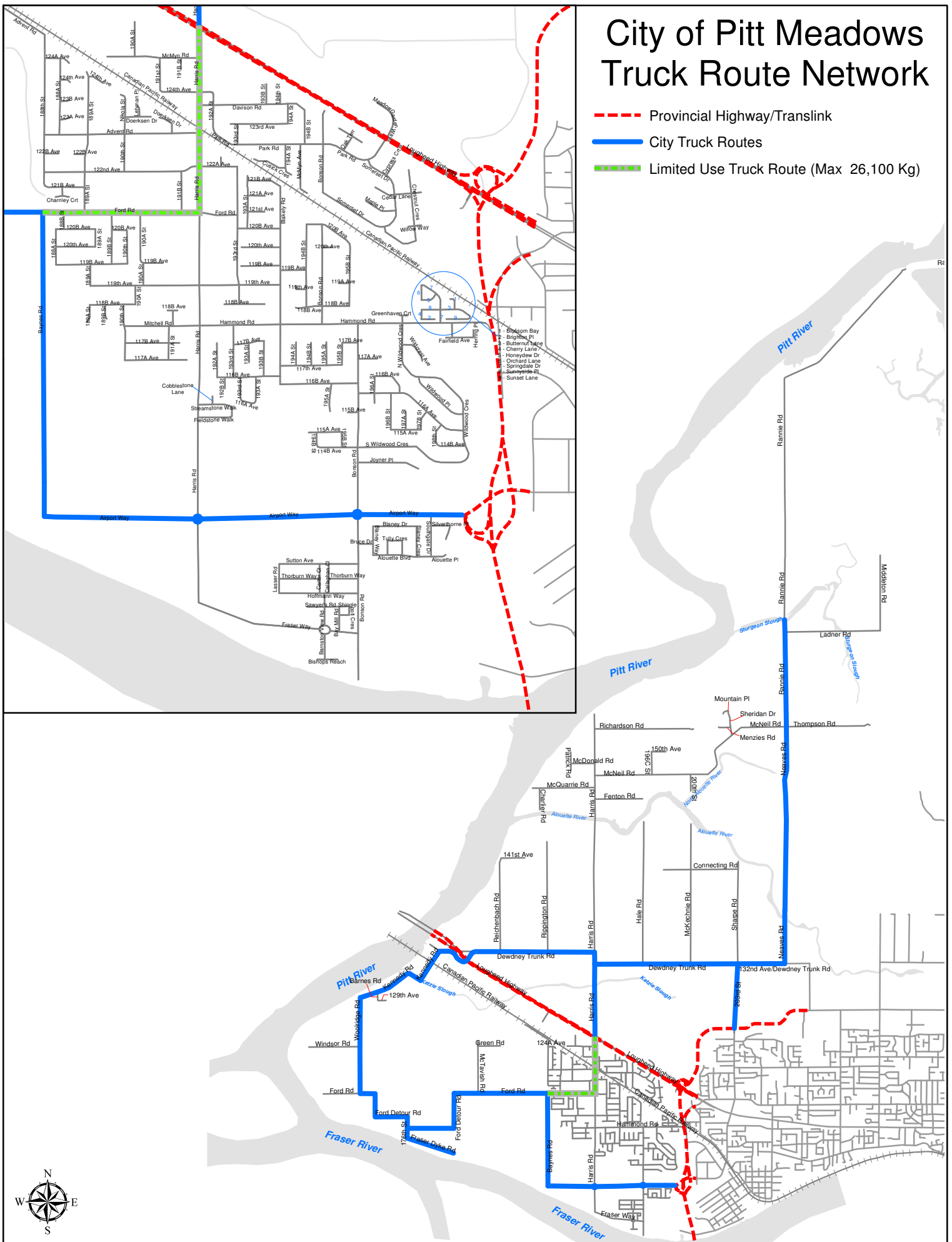
① **Context Plan -PH3 4**
1" = 160'-0"

APPENDIX B

City of Pitt Meadows Truck Route Network

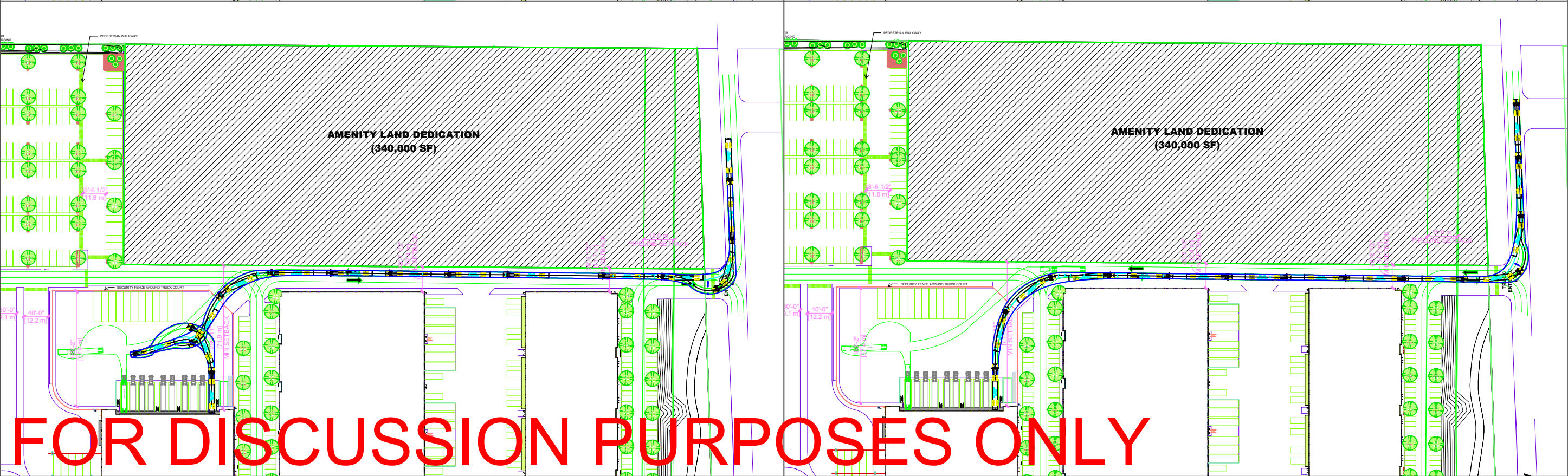
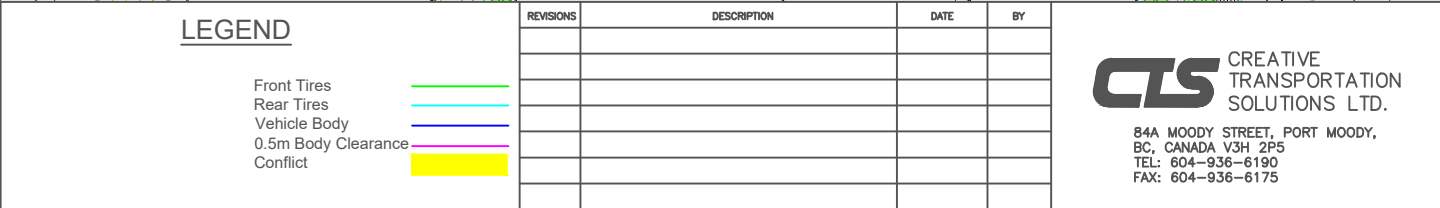
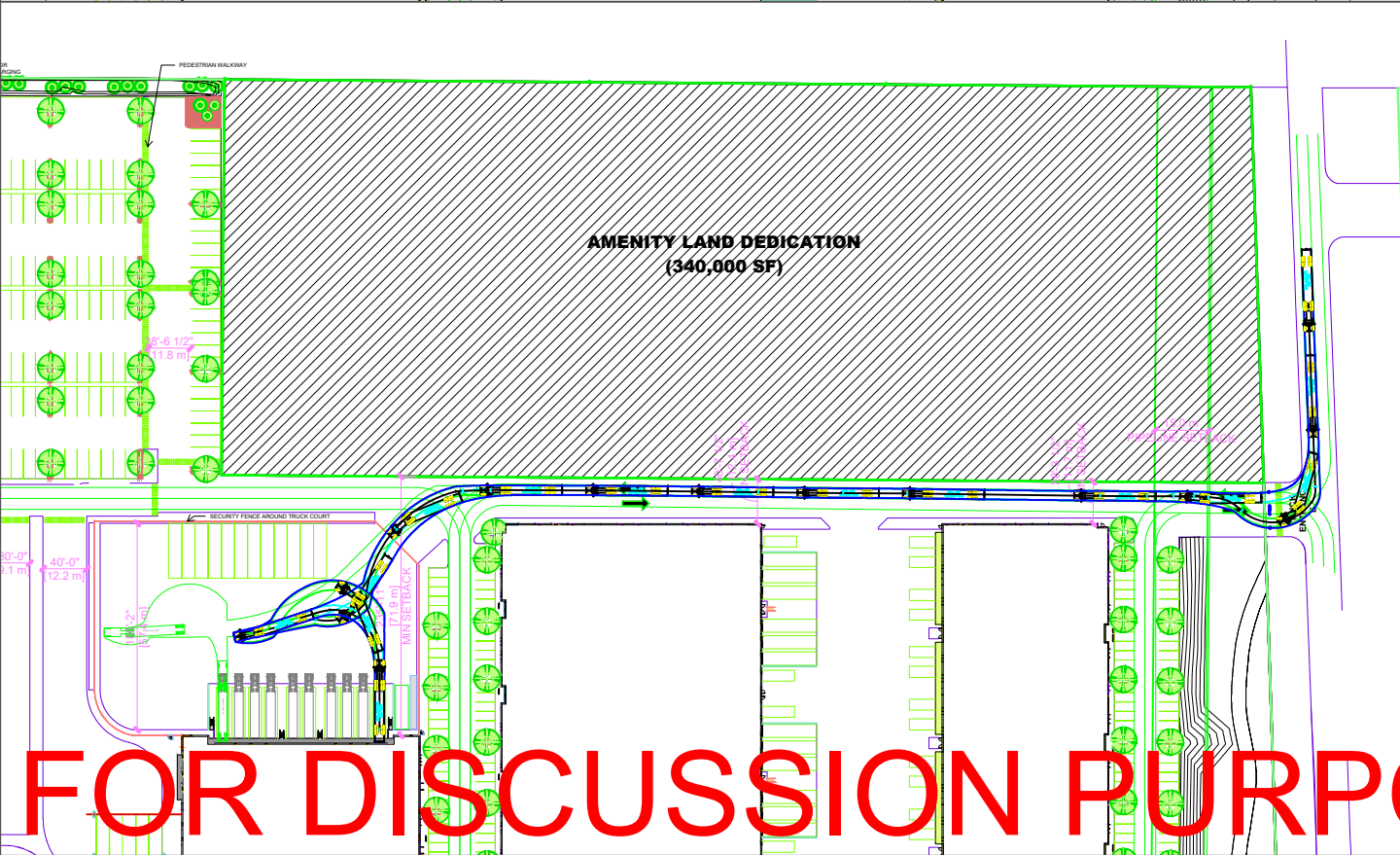
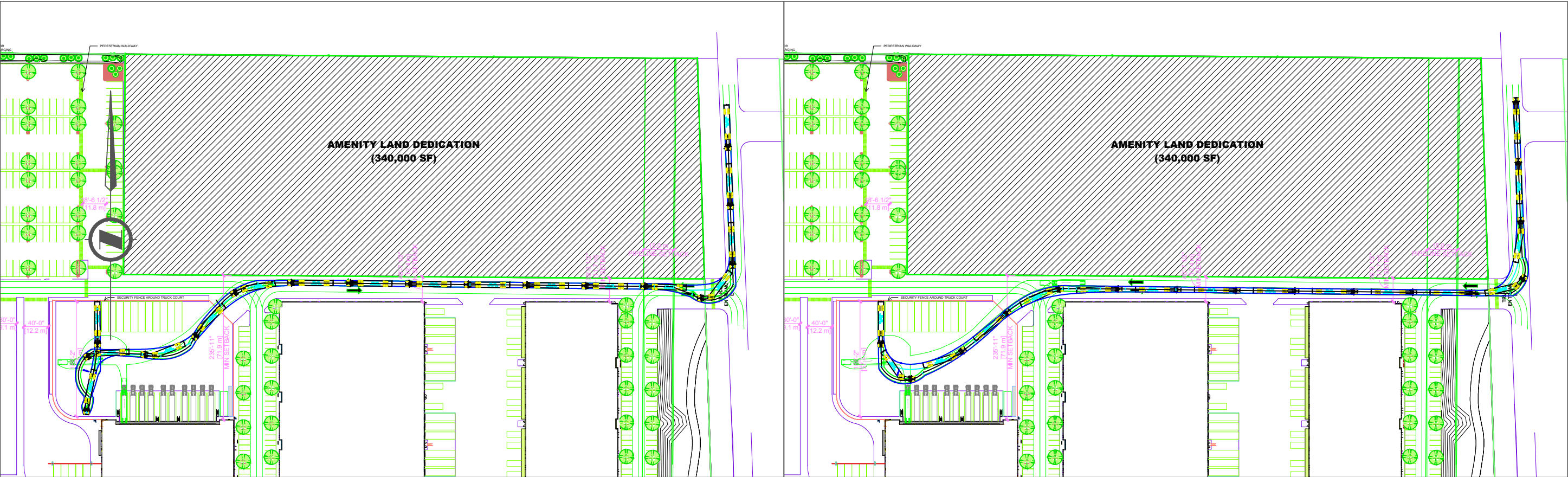
City of Pitt Meadows Truck Route Network

- Provincial Highway/Translink
- City Truck Routes
- Limited Use Truck Route (Max 26,100 Kg)



APPENDIX C

Swept Path Analysis



FOR DISCUSSION PURPOSES ONLY

LEGEND

Front Tires
Rear Tires
Vehicle Body
0.5m Body Clearance
Conflict



REVISIONS	DESCRIPTION	DATE	BY

CTS CREATIVE
TRANSPORTATION
SOLUTIONS LTD.
84A MOODY STREET, PORT MOODY,
BC, CANADA V3H 2P5
TEL: 604-936-6190
FAX: 604-936-6175

ONNI GROUP
1010 Seymour St #200,
Vancouver, BC V6B 3M6

GOLDEN EARS BUSINESS PARK- ACCESS
STUDY
TRUCK ENTRANCE SWEEP PATH ANALYSIS

Stamp:

Scale:

NTS

Designed:

J.J.

Drawn:

J.J.

Reviewed:

B.D.

Project Number:

Drawing Number:

CTS Project Number:
7255

Date:

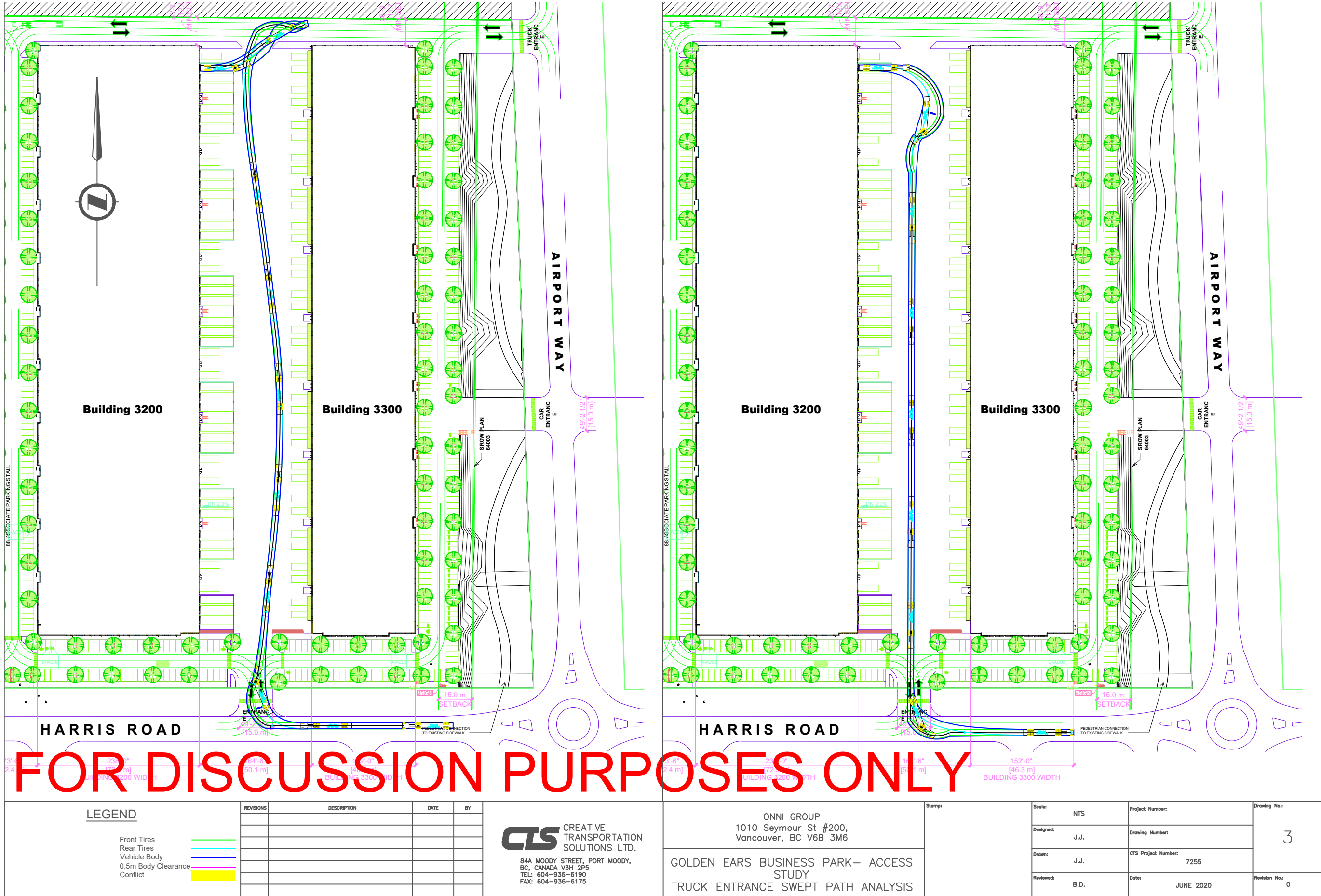
JUNE 2020

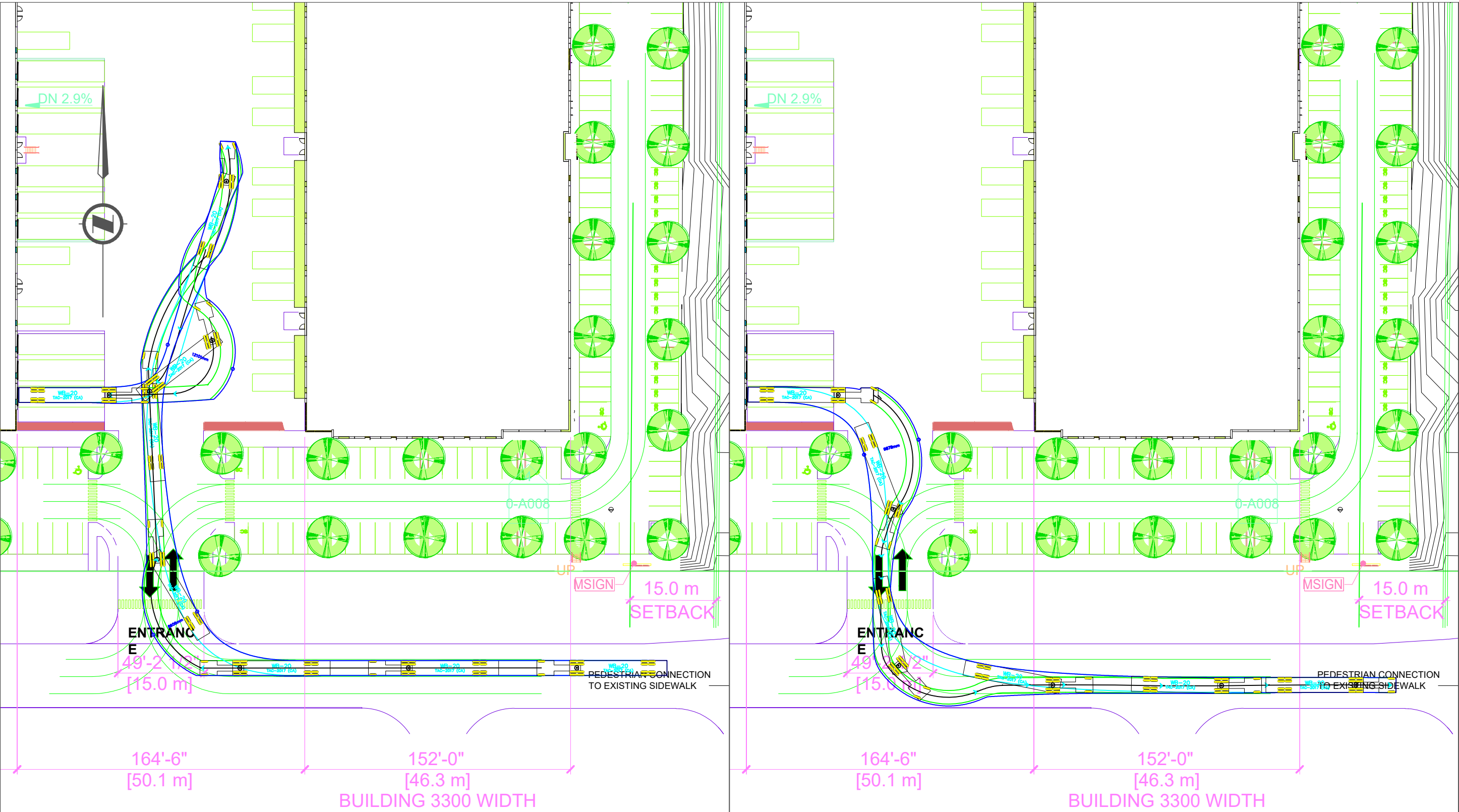
Drawing No.:

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Revision No.:

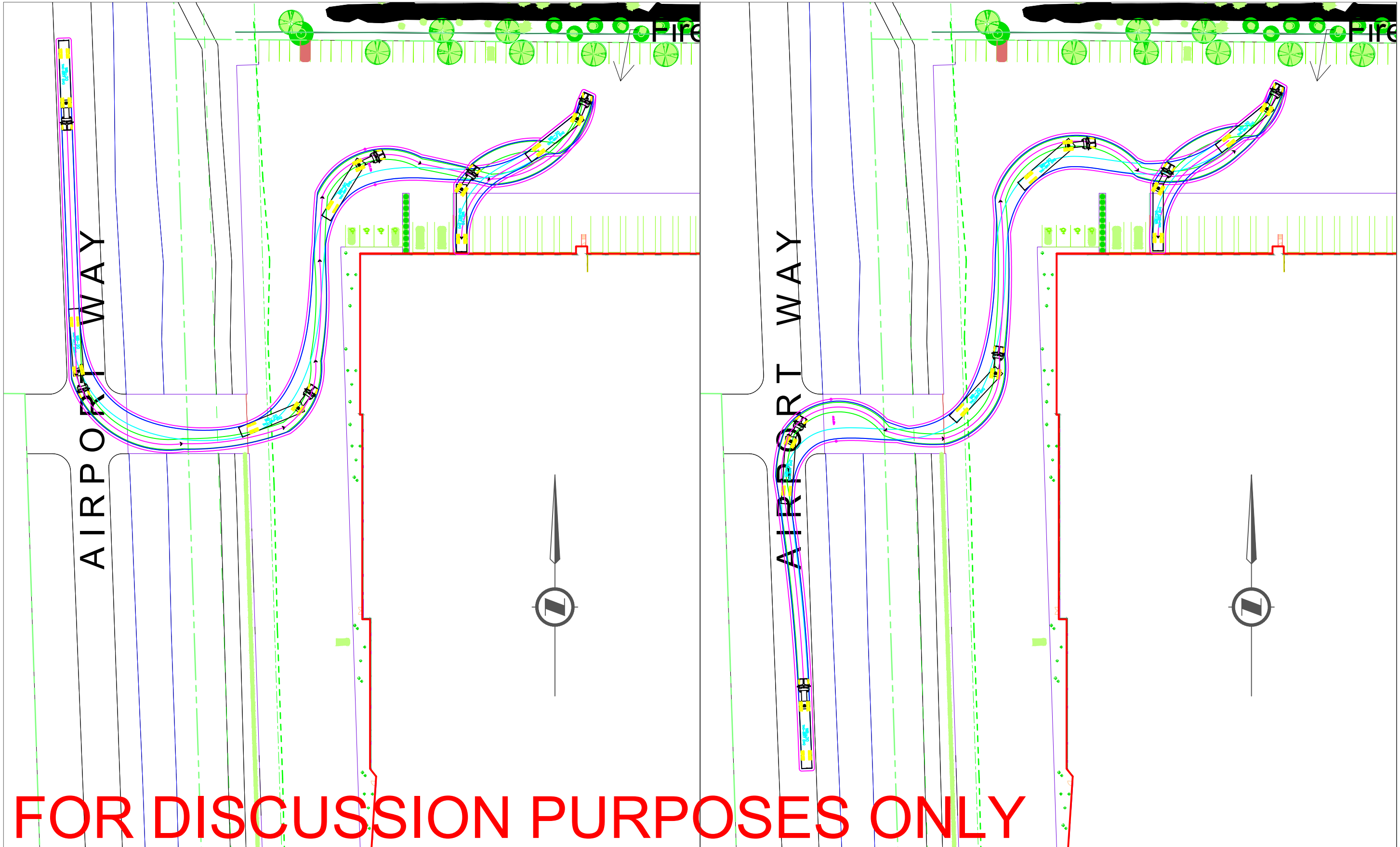
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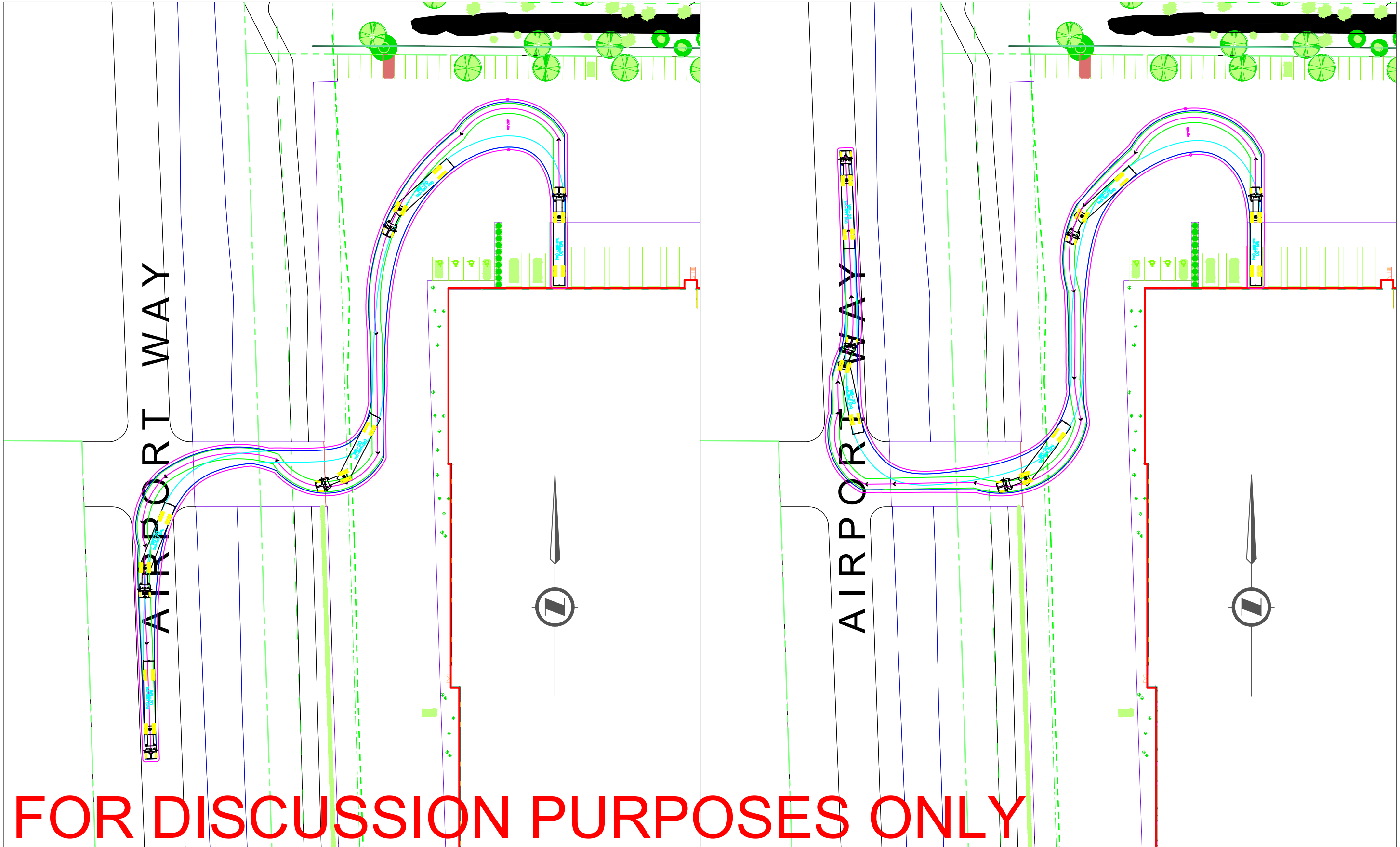
FOR DISCUSSION PURPOSES ONLY

<div>LEGEND</div> <div><div>Front Tires</div><div>Rear Tires</div><div>Vehicle Body</div><div>0.5m Body Clearance</div><div>Conflict</div></div> <div><div></div><div></div><div></div><div></div><div></div></div>	REVISIONS	DESCRIPTION	DATE	BY	<div><div>CTS</div><div>CREATIVE TRANSPORTATION SOLUTIONS LTD.</div><div>84A MOODY STREET, PORT MOODY, BC, CANADA V3H 2P5</div><div>TEL: 604-936-6190</div><div>FAX: 604-936-6175</div></div>	ONNI GROUP 1010 Seymour St #200, Vancouver, BC V6B 3M6	Stamp:	Scale: NTS	Project Number:	Drawing No.: 2
						Designed: J.J.		Drawing Number:		
						Drawn: J.J.		CTS Project Number: 7255		
						Reviewed: B.D.		Date: JUNE 2020		
									Revision No.: 0	
									GOLDEN EARS BUSINESS PARK- ACCESS STUDY TRUCK ENTRANCE SWEEP PATH ANALYSIS	



FOR DISCUSSION PURPOSES ONLY

<div>LEGEND</div> <div><div>Front Tires</div><div>Rear Tires</div><div>Vehicle Body</div><div>0.5m Body Clearance</div><div>Conflict</div></div>	REVISIONS	DESCRIPTION	DATE	BY	<div><div>CTS</div><div>CREATIVE TRANSPORTATION SOLUTIONS LTD.</div><div>84A MOODY STREET, PORT MOODY, BC, CANADA V3H 2P5 TEL: 604-936-6190 FAX: 604-936-6175</div></div>	<div>Stamp:</div> <div>ONNI GROUP 1010 Seymour St #200, Vancouver, BC V6B 3M6</div>	Scale: NTS	Project Number:	Drawing No.: 4
	Designed: J.J.	Drawing Number:	7255						
	Drawn: J.J.	CTS Project Number:		Revision No.: 0					
	Reviewed: B.D.	Date: JULY 2020							
	GOLDEN EARS BUSINESS PARK- ACCESS STUDY								
	TRUCK ENTRANCE SWEEP PATH ANALYSIS								



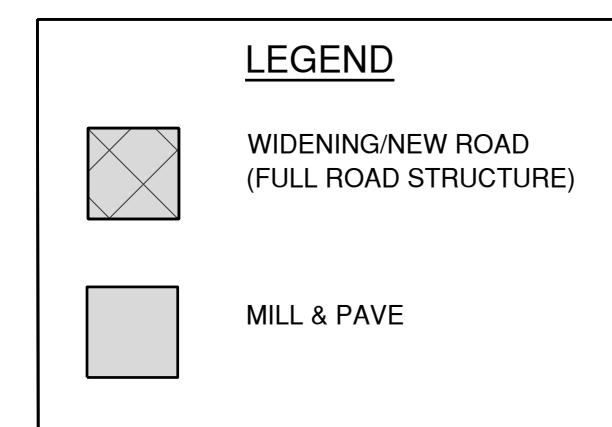
FOR DISCUSSION PURPOSES ONLY

<div>LEGEND</div> <div><div>Front Tires</div><div>Rear Tires</div><div>Vehicle Body</div><div>0.5m Body Clearance</div><div>Conflict</div></div>	REVISIONS	DESCRIPTION	DATE	BY	<div><div>CTS</div><div>CREATIVE TRANSPORTATION SOLUTIONS LTD.</div><div>84A MOODY STREET, PORT MOODY, BC, CANADA V3H 2P5 TEL: 604-936-6190 FAX: 604-936-6175</div></div>	<div>ONNI GROUP</div> <div>1010 Seymour St #200, Vancouver, BC V6B 3M6</div>	<div>Stamp:</div>	Scale:	NTS	Project Number:	Drawing No.: 5
	Designed:	J.J.	Drawing Number:								
	Drawn:	J.J.	CTS Project Number:	7255							
	Reviewed:	B.D.	Date:	JULY 2020		Revision No.: 0					
								<div>GOLDEN EARS BUSINESS PARK- ACCESS STUDY</div> <div>TRUCK ENTRANCE SWEPT PATH ANALYSIS</div>			

APPENDIX D

Airport Way and Harris Road Preliminary Design

82HAW017
NORTH WESTERLY CORNER OF THE ELECTRICAL
HOUSE FOR THE PUMPSTATION AT THE INTERSECTION
OF BAYNES ROAD AND AIRPORT WAY
5.429



- NOTE: PAVEMENT STRUCTURE BASED ON PITT MEADOWS DESIGN CRITERIA
[B.5.4]. ADEQUACY TO BE CONFIRMED BY GEOTECHNICAL ENGINEER.

PRELIMINARY

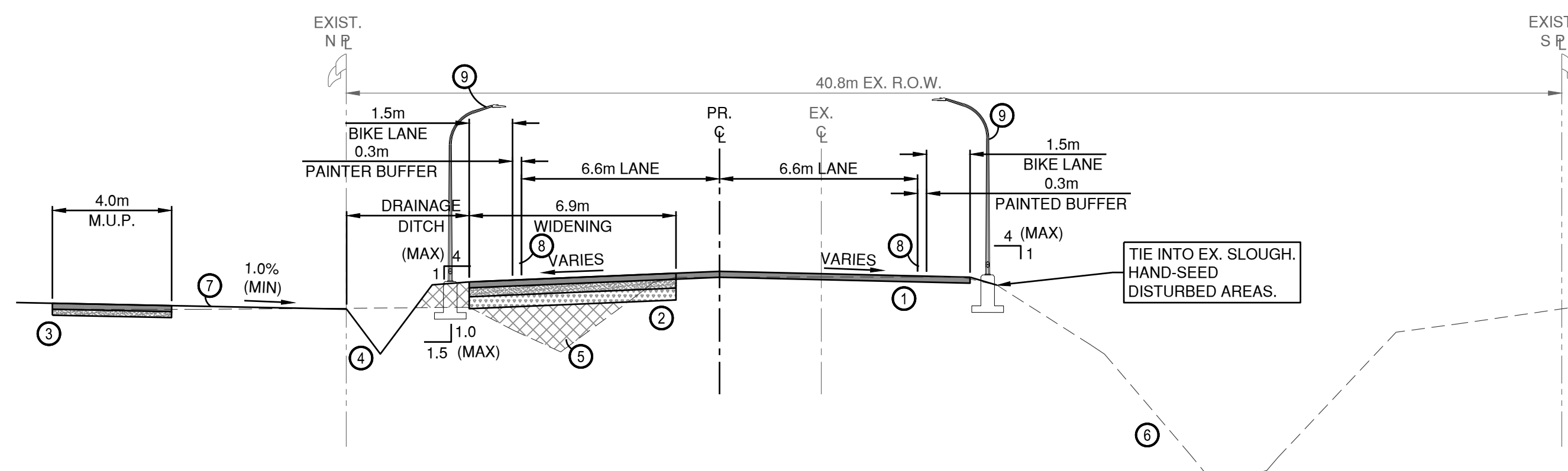
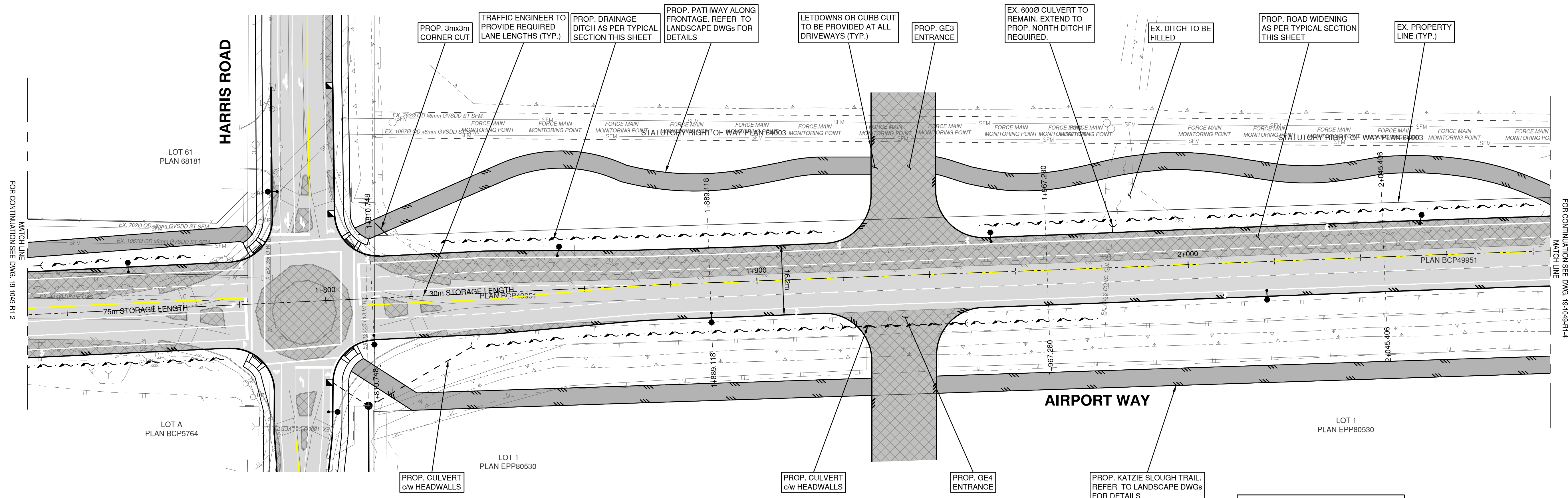


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CLIENT	ONNI GROUP 200-1010 SEYMOUR STREET, VANCOUVER, BC, V6B 3M6		SURVEYED BY DRAWN BY KF DESIGNED BY VL CHECKED BY NP	DATE 2020-05-07 DRAWING No. 19-1049-R1-2
	DRAWING DESCRIPTION GOLDEN EARS BUSINESS PARK 19265 & 19300 AIRPORT WAY AIRPORT WAY ROADWORKS			
			SCALES 0 1:500 20m	SHEET 06 OF 13 DESTROY ALL PRINTS BEARING PREVIOUS No.

BENCHMARK:
82HAW017
NORTH WESTERLY CORNER OF THE ELECTRICAL
HOUSE FOR THE PUMPSTATION AT THE INTERSECTION
OF BAYNES ROAD AND AIRPORT WAY
5.429




TYPICAL SECTION - AIRPORT WAY
(STN. 1+745 - 2+320)
SCALE: 150H
75V

- ① MIN. 40mm MILL AND PAVE c/w UC#1 (DEPTH TO BE CONFIRMED)
- ② WIDENING c/w FULL STRUCTURE:
 - 50mm UC#1
 - 50mm LC#1
 - 150mm BASE GRAVELS
 - 300mm SUB-BASE GRAVELS
- ③ MULTI-USE PATHWAY (SEE LANDSCAPE DWGS FOR DETAILS)
- ④ DRAINAGE DITCH (DIMENSIONS & SIDE SLOPES TO BE CONFIRMED)
- ⑤ EX. DITCH TO BE OVER-EXCAVATED AND REPLACED WITH STRUCTURAL FILL (TO BE CONFIRMED BY GEOTECHNICAL ENGINEER)
- ⑥ EX. DITCH TO BE RETAINED
- ⑦ GRASSED BOULEVARD c/w 450mm TOPSOIL
- ⑧ PHYSICAL SEPARATION BETWEEN TRAVEL LANE AND BIKE LANE TO BE REVIEWED AND CONFIRMED DURING DETAILED DESIGN
- ⑨ PROP. STREET LIGHT

NOTE: PAVEMENT STRUCTURE BASED ON PITT MEADOWS DESIGN CRITERIA [B.5.4]. ADEQUACY TO BE CONFIRMED BY GEOTECHNICAL ENGINEER

LEGEND

- 
- WIDENING/NEW ROAD
(FULL ROAD STRUCTURE)
- MILL & PAVE

DRAFT

PRELIMINARY

DATE 2020-05-07

19-1049-R1-3

SHEET	07	OF	12	REV.
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200-1010 SEYMOUR STREET, VANCOUVER, BC, V6B 3M6

**GOLDEN EARS BUSINESS PARK
19265 & 19300 AIRPORT WAY
AIRPORT WAY ROADWORKS**

DRAWING DESCRIPTION

SURVEYED BY

DRAWN BY KF

DESIGNED BY VL

CHECKED BY NP

SCALES

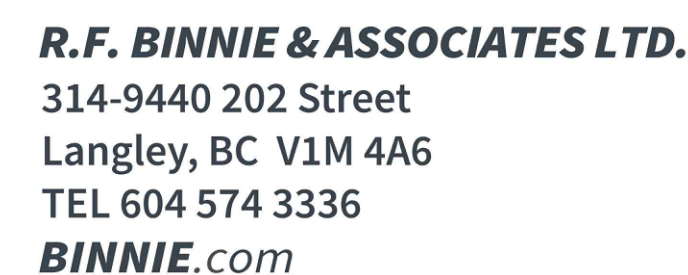
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82HAW017
NORTH WESTERLY CORNER OF THE ELECTRICAL
HOUSE FOR THE PUMPSTATION AT THE INTERSECTION
OF BAYNES ROAD AND AIRPORT WAY
5.429



No.	DATE	REVISION	



AIRPORT WAY ROADWORKS

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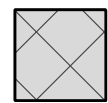
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SHEET	08	OF	12	REV.
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DESTROY ALL PRINTS BEARING PREVIOUS No.

BENCHMARK:
82HAW017
NORTH WESTERLY CORNER OF THE ELECTRICAL
HOUSE FOR THE PUMPSTATION AT THE INTERSECTION
OF BAYNES ROAD AND AIRPORT WAY
5.429

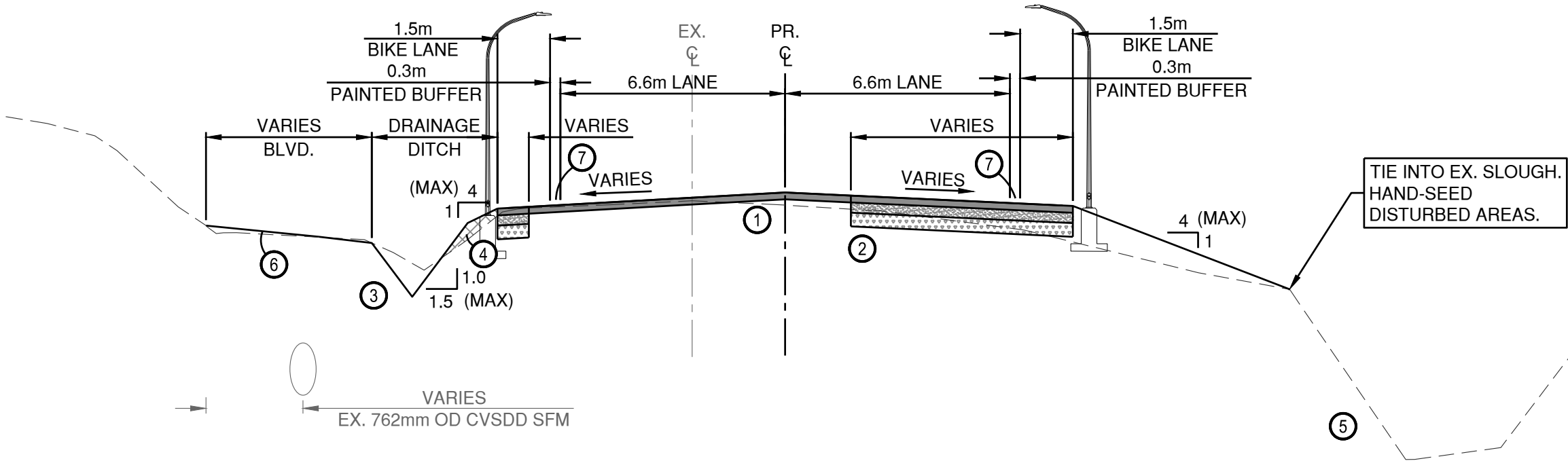
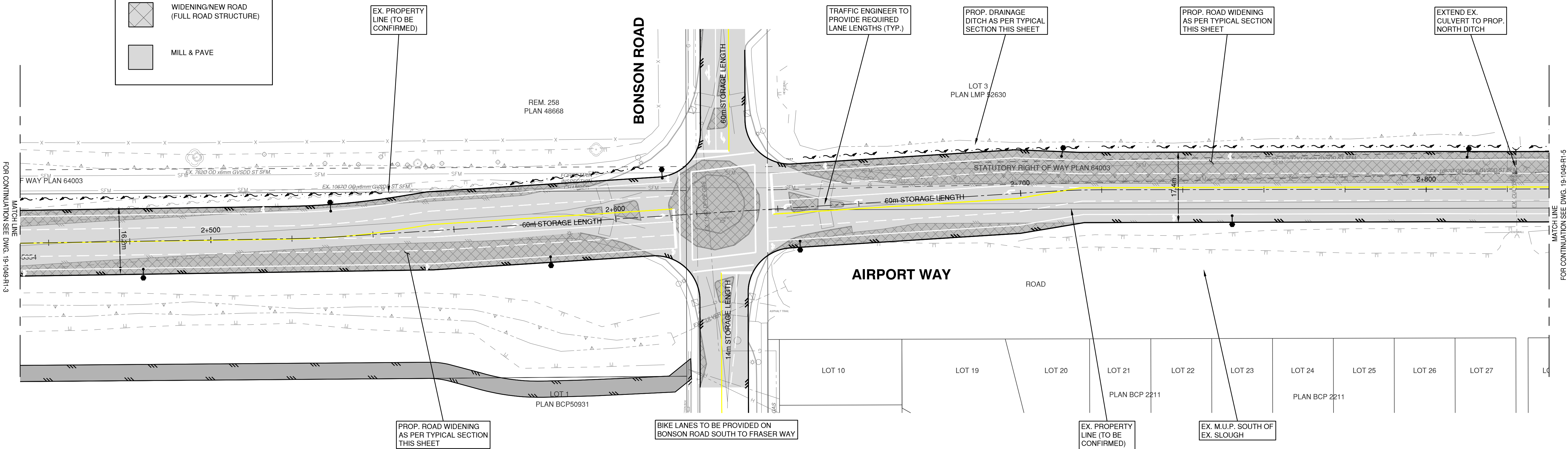
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WIDENING/NEW ROAD
(FULL ROAD STRUCTURE)



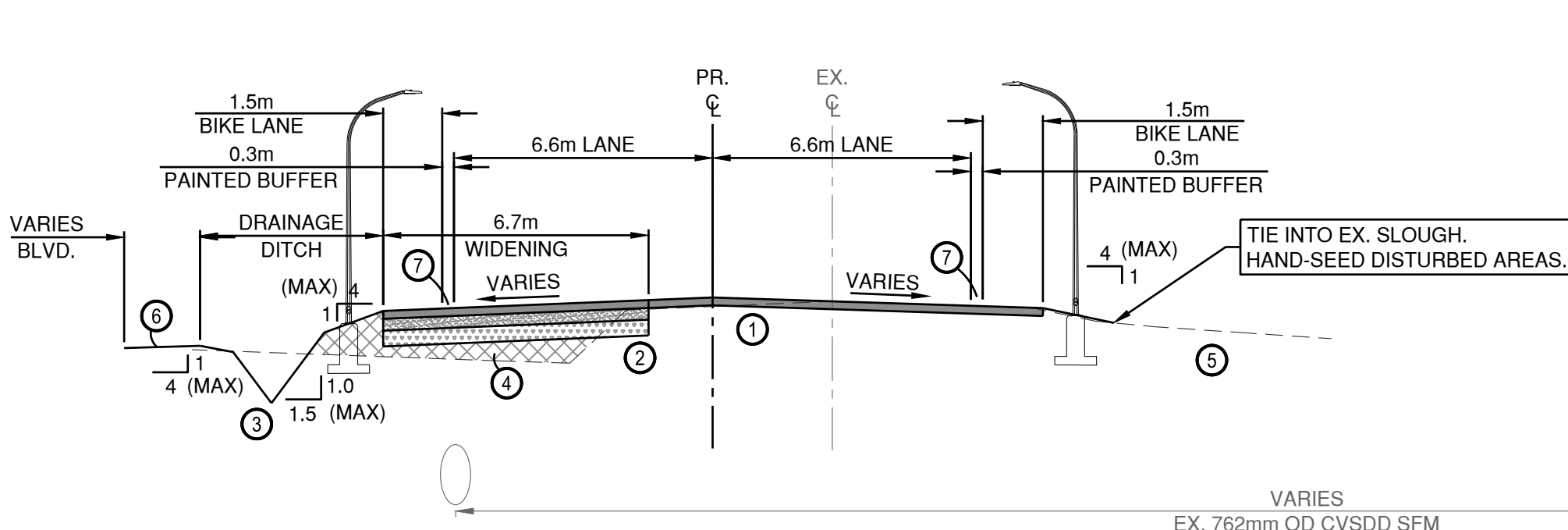
MILL & PAVE



TYPICAL SECTION - AIRPORT WAY
(STN. 2+320 - 2+580)
SCALE: 150H
75V

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- WIDENING c/w FULL STRUCTURE:
 - 50mm UC#1
 - 50mm LC#1
 - 150mm BASE GRAVELS
 - 300mm SUB-BASE GRAVELS
- DRAINAGE DITCH (DIMENSIONS & SIDE SLOPES TO BE CONFIRMED)
- EX. DITCH TO BE OVER-EXCAVATED AND REPLACED WITH STRUCTURAL FILL (TO BE CONFIRMED BY GEOTECHNICAL ENGINEER)
- EX. DITCH TO BE RETAINED
- GRASSED BOULEVARD c/w 450mm TOPSOIL
- PHYSICAL SEPARATION BETWEEN TRAVEL LANE AND BIKE LANE TO BE REVIEWED AND CONFIRMED DURING DETAILED DESIGN

NOTE: PAVEMENT STRUCTURE BASED ON PITT MEADOWS DESIGN CRITERIA [B.5.4]. ADEQUACY TO BE CONFIRMED BY GEOTECHNICAL ENGINEER



TYPICAL SECTION - AIRPORT WAY
(STN. 2+675 - 3+140)
SCALE: 150H
75V

- MIN. 40mm MILL AND PAVE c/w UC#1 (DEPTH TO BE CONFIRMED)
- WIDENING c/w FULL STRUCTURE:
 - 50mm UC#1
 - 50mm LC#1
 - 150mm BASE GRAVELS
 - 300mm SUB-BASE GRAVELS
- DRAINAGE DITCH (DIMENSIONS & SIDE SLOPES TO BE CONFIRMED)
- EX. DITCH TO BE OVER-EXCAVATED AND REPLACED WITH STRUCTURAL FILL (TO BE CONFIRMED BY GEOTECHNICAL ENGINEER)
- EX. DITCH TO BE RETAINED
- GRASSED BOULEVARD c/w 450mm TOPSOIL
- PHYSICAL SEPARATION BETWEEN TRAVEL LANE AND BIKE LANE TO BE REVIEWED AND CONFIRMED DURING DETAILED DESIGN

NOTE: PAVEMENT STRUCTURE BASED ON PITT MEADOWS DESIGN CRITERIA [B.5.4]. ADEQUACY TO BE CONFIRMED BY GEOTECHNICAL ENGINEER

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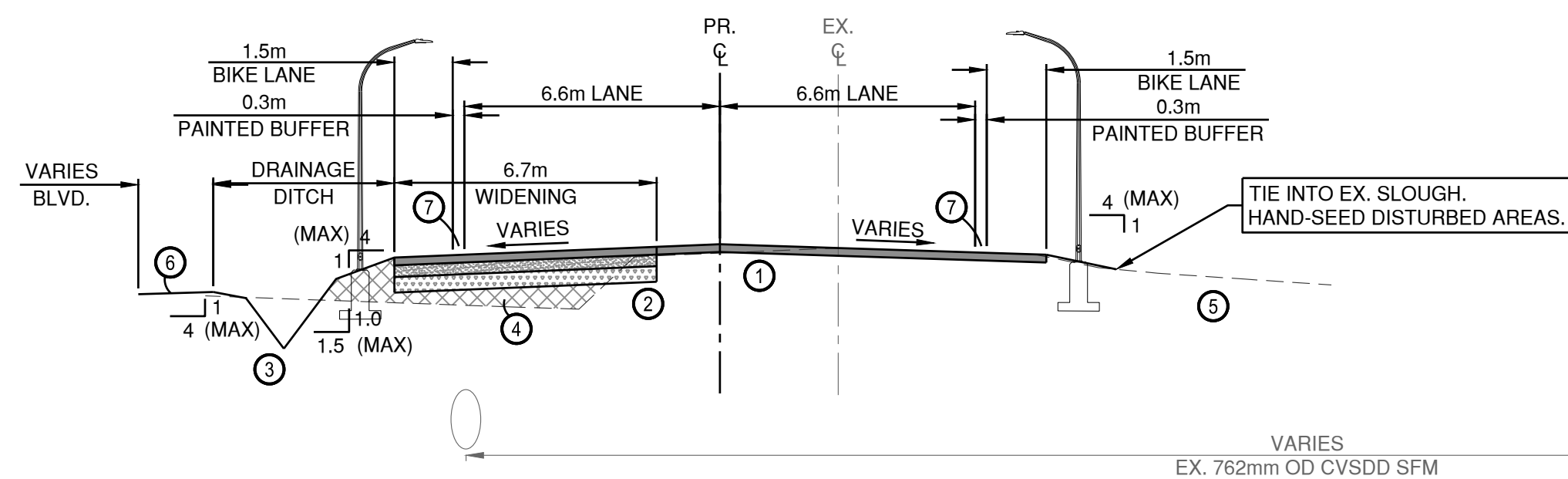
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TEL 604 574 3336
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CLIENT	ONNI GROUP 200-1010 SEYMOUR STREET, VANCOUVER, BC, V6B 3M6
DRAWING DESCRIPTION	GOLDEN EARS BUSINESS PARK 19265 & 19300 AIRPORT WAY AIRPORT WAY ROADWORKS

SURVEYED BY	
DRAWN BY	KF
DESIGNED BY	VL
CHECKED BY	NP
SCALES	1:500 20m

DATE	2020-05-07
DRAWING No.	19-1049-R1-5
SHEET 09 OF 13	REV.
DESTROY ALL PRINTS BEARING PREVIOUS No.	

82HAW017
NORTH WESTERLY CORNER OF THE ELECTRICAL
HOUSE FOR THE PUMPSTATION AT THE INTERSECTION
OF BAYNES ROAD AND AIRPORT WAY
5.429



SCALE: 150H
75V

- NOTE: PAVEMENT STRUCTURE BASED ON PITT MEADOWS DESIGN CRITERIA [B.5.4]. ADEQUACY TO BE CONFIRMED BY GEOTECHNICAL ENGINEER

NOTE: PAVEMENT STRUCTURE BASED ON PITT MEADOWS DESIGN CRITERIA
[B.5.4]. ADEQUACY TO BE CONFIRMED BY GEOTECHNICAL ENGINEER



R.F. BINNIE &

VNIE 314-9440 202

WNE Langley, BC V

TEL 604 574 3300

and your infrastructure. **BINNIE.com**

-  WIDENING/NEW ROAD
(FULL ROAD STRUCTURE)
-  MILL & PAVE

DRAFT

PRELIMINARY

19-1049-R1-6

DESTROY ALL PRINTS BEARING PREVIOUS No.



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ONNI GROUP

**GOLDEN EARS BUSINESS PARK
19265 & 19300 AIRPORT WAY
AIRPORT WAY WIDENING**

CHECKED BY NP

0 1:500 20m

PLOTTED: 2020-09-25 3:01:48 PM USER: KTEG
 FILE: \\BRY-FLEET\PROJECTS\2019\19-1049\00 - CAO FILES\CWG\FINAL\COMBINED PH&A\19-1049-ROADWORKS-AIRPORT WAY\CWG\LAYOUT: 19-1049-81-6



SCALE: 150H
75V



(STN. 1+720 - 1+930)
SCALE: 150H
75V


- NOTE: PAVEMENT STRUCTURE TO BE CONFIRMED BY GEOTECHNICAL ENGINEER

DRAFT

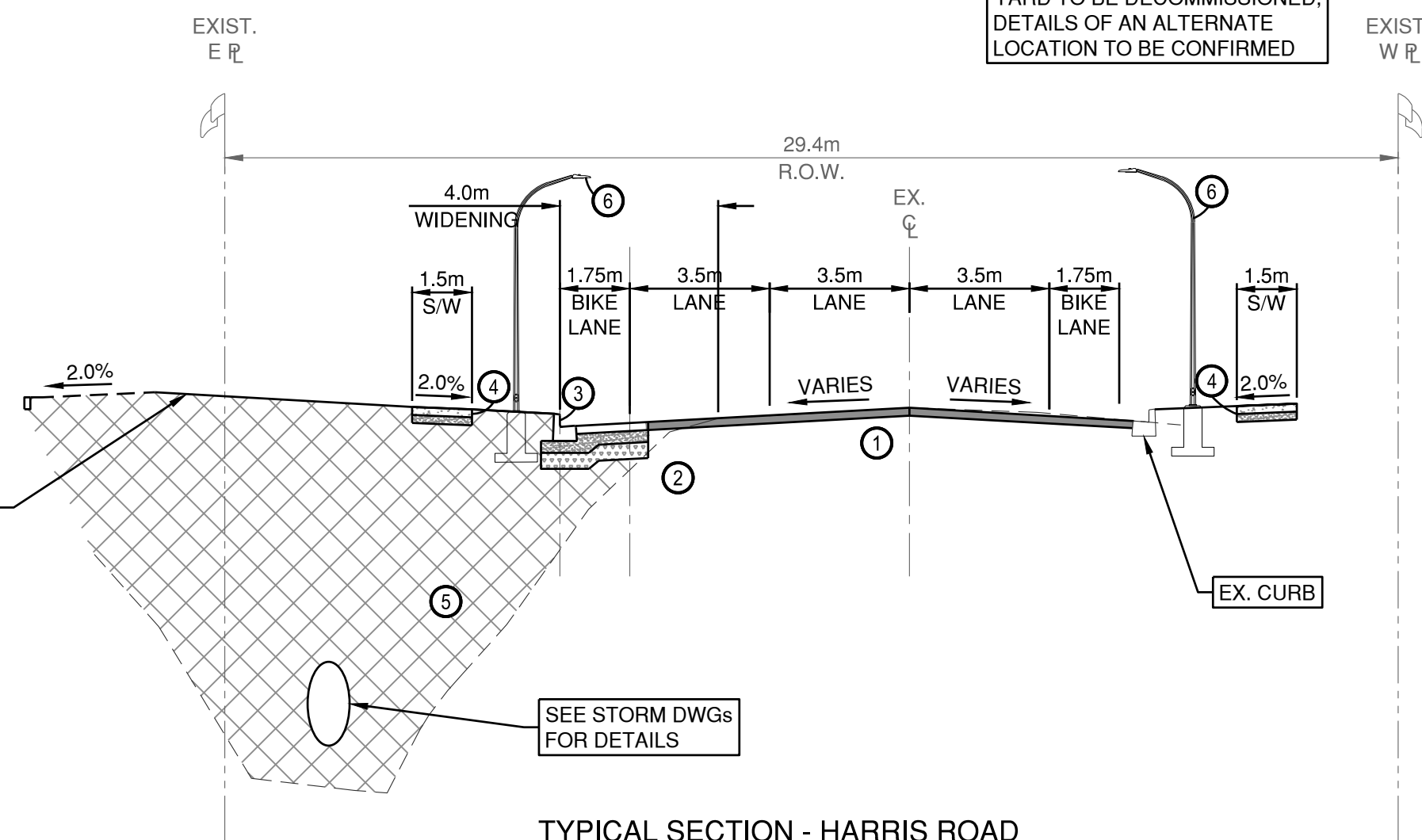
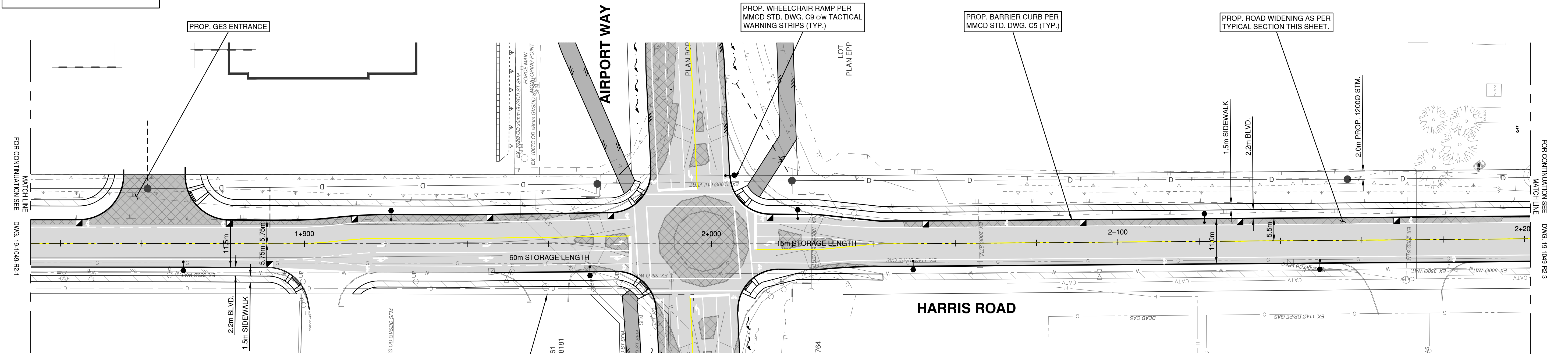
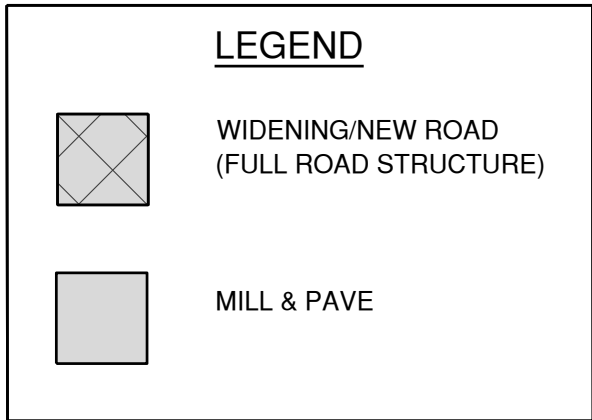


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CLIENT	ONNI GROUP 200-1010 SEYMOUR STREET, VANCOUVER, BC, V6B 3M6
DRAWING DESCRIPTION	GOLDEN EARS BUSINESS PARK 19265 & 19300 AIRPORT WAY HARRIS ROAD ROADWORKS

<div>SURVEYED BY</div> <div>DRAWN BY KF</div> <div>DESIGNED BY VL</div> <div>CHECKED BY NP</div>			DATE2020-05-07
			DRAWING No. <div>19-1049-R2-1</div>
			<div>SHEET11</div> <div>OF13</div> <div>REV.</div>
			DESTROY ALL PRINTS BEARING PREVIOUS No. 

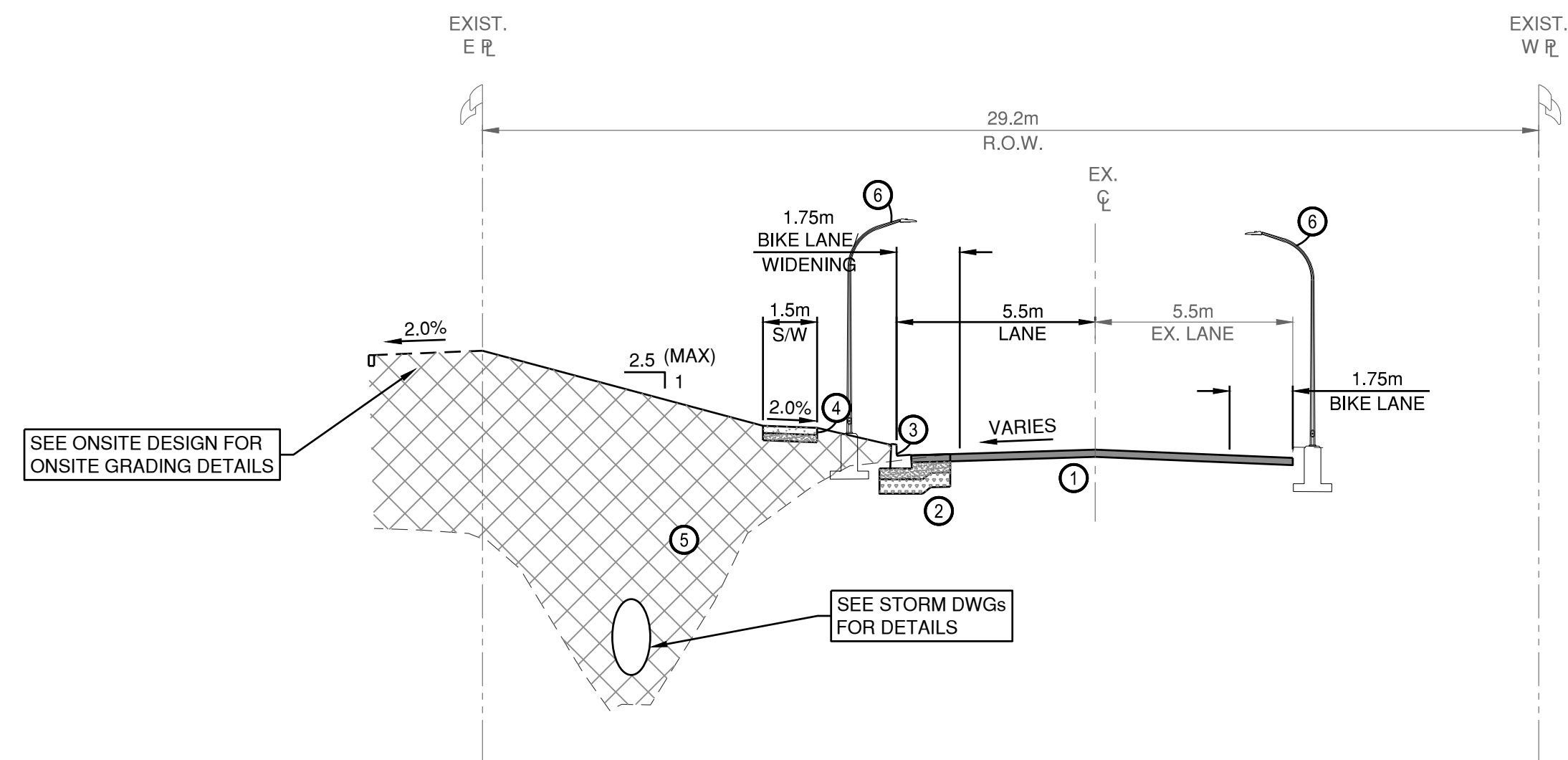
BENCHMARK:
82HAW017
NORTH WESTERLY CORNER OF THE ELECTRICAL
HOUSE FOR THE PUMPSTATION AT THE INTERSECTION
OF BAYNES ROAD AND AIRPORT WAY
5.429



TYPICAL SECTION - HARRIS ROAD
(STN. 1+720 - 1+935)
SCALE: 150H
75V

- MIN. 40mm MILL AND PAVE c/w UC#1 (DEPTH TO BE CONFIRMED)
- WIDENING c/w FULL STRUCTURE:
 - 50mm UC#1
 - 50mm LC#1
 - 150mm BASE GRAVELS
 - 300mm SUB-BASE GRAVELS
- BARRIER CURB PER MMCD STD. DWG. C5
- 1.50m WIDE CONCRETE SIDEWALK AS PER MMCD STD. DWG. C1
 - 100mm THICK CONCRETE
 - 100mm THICK - BASE GRAVELS
- EX. DITCH TO BE OVER-EXCAVATED AND REPLACED WITH STRUCTURAL FILL (TO BE CONFIRMED BY GEOTECHNICAL ENGINEER)
- PROP. STREET LIGHT

NOTE: PAVEMENT STRUCTURE TO BE CONFIRMED BY GEOTECHNICAL ENGINEER



TYPICAL SECTION - HARRIS ROAD
(STN. 2+040 - 2+402)
SCALE: 150H
75V

- MIN. 40mm MILL AND PAVE c/w UC#1 (DEPTH TO BE CONFIRMED)
- WIDENING c/w FULL STRUCTURE:
 - 50mm UC#1
 - 50mm LC#1
 - 150mm BASE GRAVELS
 - 300mm SUB-BASE GRAVELS
- BARRIER CURB PER MMCD STD. DWG. C5
- 1.50m WIDE CONCRETE SIDEWALK AS PER MMCD STD. DWG. C1
 - 100mm THICK CONCRETE
 - 100mm THICK - BASE GRAVELS
- EX. DITCH TO BE OVER-EXCAVATED AND REPLACED WITH STRUCTURAL FILL (TO BE CONFIRMED BY GEOTECHNICAL ENGINEER)
- PROP. STREET LIGHT

NOTE: PAVEMENT STRUCTURE TO BE CONFIRMED BY GEOTECHNICAL ENGINEER

NOTE: CROSS SECTION OF HARRIS ROAD NORTH OF AIRPORT
WAY IS UNDER REVIEW AND SUBJECT TO CHANGE

DRAFT

PRELIMINARY

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No.	DATE	REVISION	BY

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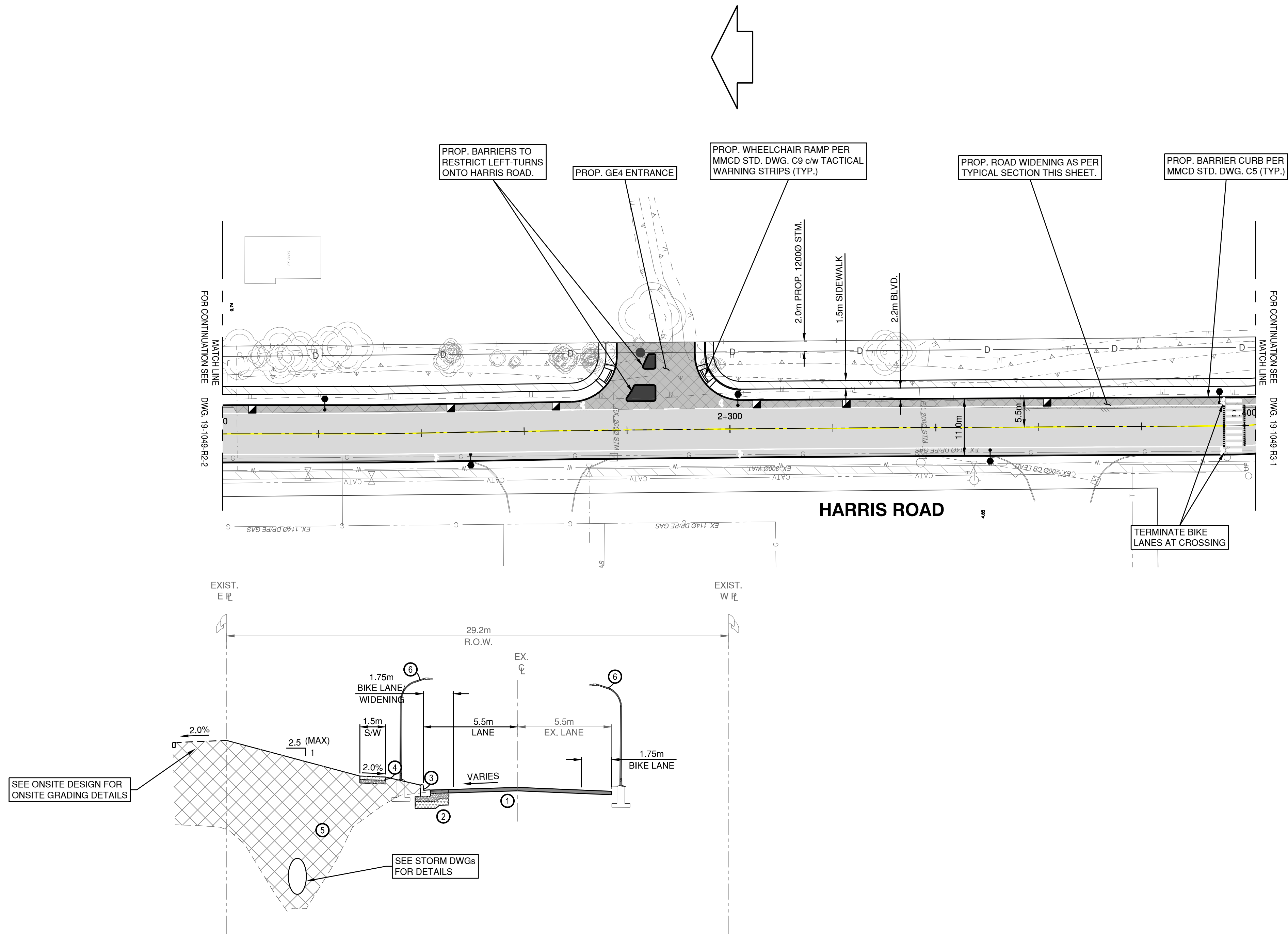
R.F. BINNIE & ASSOCIATES LTD.
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Langley, BC V1M 4A6
TEL 604 574 3336
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CLIENT	ONNI GROUP 200-1010 SEYMOUR STREET, VANCOUVER, BC, V6B 3M6
DRAWING DESCRIPTION	GOLDEN EARS BUSINESS PARK 19265 & 19300 AIRPORT WAY HARRIS ROAD ROADWORKS


SURVEYED BY	
DRAWN BY	KF
DESIGNED BY	VL
CHECKED BY	NP
SCALES	
0 1:500 20m	
0 1:50 2m	


DATE	2020-05-07
DRAWING No.	19-1049-R2-2
SHEET 12 OF 13	REV.
DESTROY ALL PRINTS BEARING PREVIOUS No.	

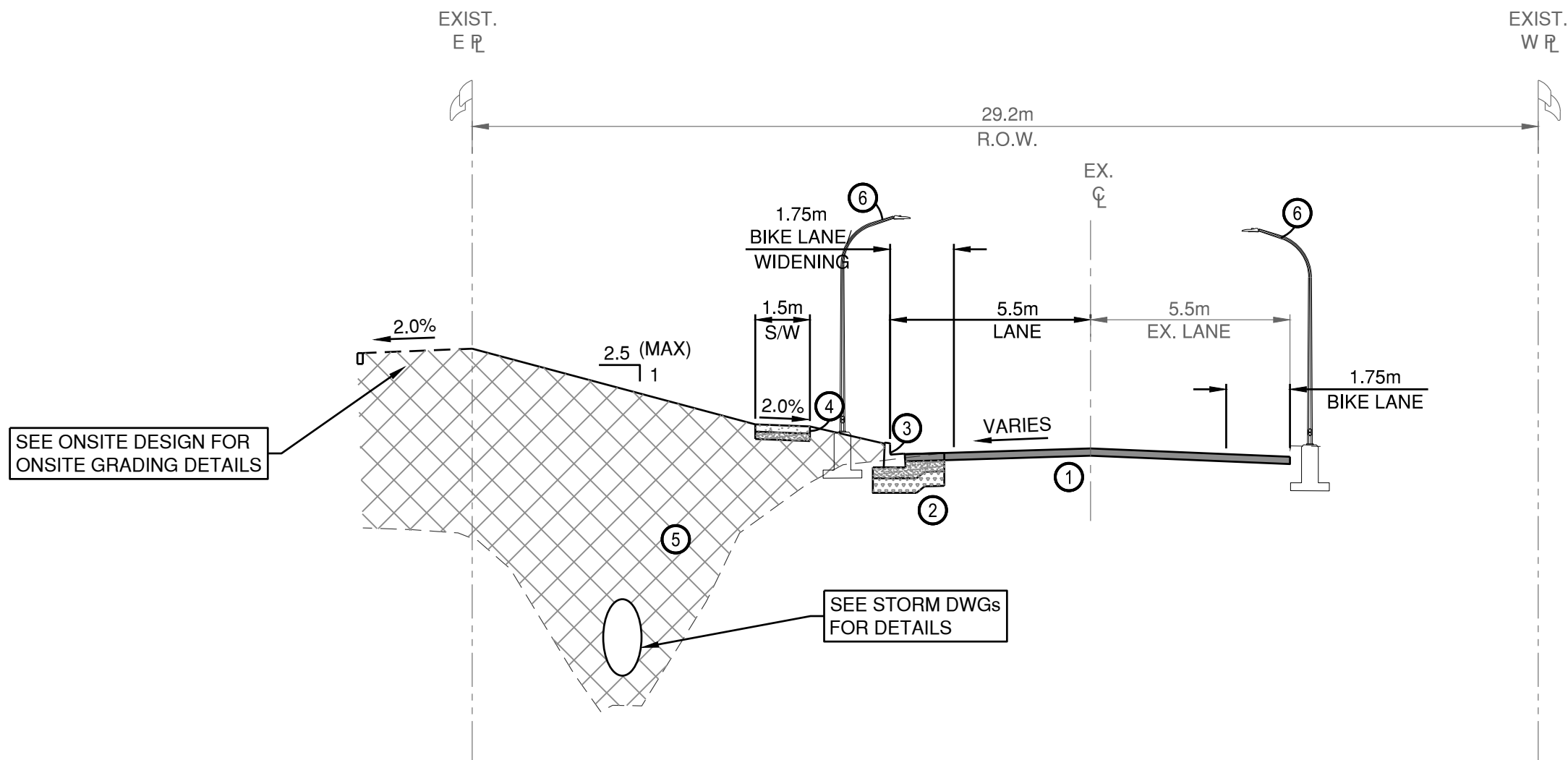
BENCHMARK:
82HAW017
NORTH WESTERLY CORNER OF THE ELECTRICAL
HOUSE FOR THE PUMPSTATION AT THE INTERSECTION
OF BAYNES ROAD AND AIRPORT WAY
5.429



LEGEND

 WIDENING/NEW ROAD
(FULL ROAD STRUCTURE)

 MILL & PAVE



TYPICAL SECTION - HARRIS ROAD
(STN. 2+040 - 2+402)
SCALE: 150H
75V

- MIN. 40mm MILL AND PAVE c/w UC#1 (DEPTH TO BE CONFIRMED)
- WIDENING c/w FULL STRUCTURE:
 - 50mm UC#1
 - 50mm LC#1
 - 150mm BASE GRAVELS
 - 300mm SUB-BASE GRAVELS
- BARRIER CURB PER MMCD STD. DWG. C5
- 1.50m WIDE CONCRETE SIDEWALK AS PER MMCD STD. DWG. C1
 - 100mm THICK CONCRETE
 - 100mm THICK - BASE GRAVELS
- EX. DITCH TO BE OVER-EXCAVATED AND REPLACED WITH STRUCTURAL FILL (TO BE CONFIRMED BY GEOTECHNICAL ENGINEER)
- PROP. STREET LIGHT

NOTE: PAVEMENT STRUCTURE TO BE CONFIRMED BY GEOTECHNICAL ENGINEER

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No.	DATE	REVISION	BY

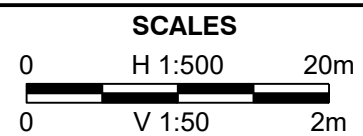


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CLIENT
ONNI GROUP
200-1010 SEYMOUR STREET, VANCOUVER, BC, V6B 3M6


DRAWING DESCRIPTION
GOLDEN EARS BUSINESS PARK
19265 & 19300 AIRPORT WAY
HARRIS ROAD ROADWORKS

SURVEYED BY
DRAWN BY KF
DESIGNED BY VL
CHECKED BY NP

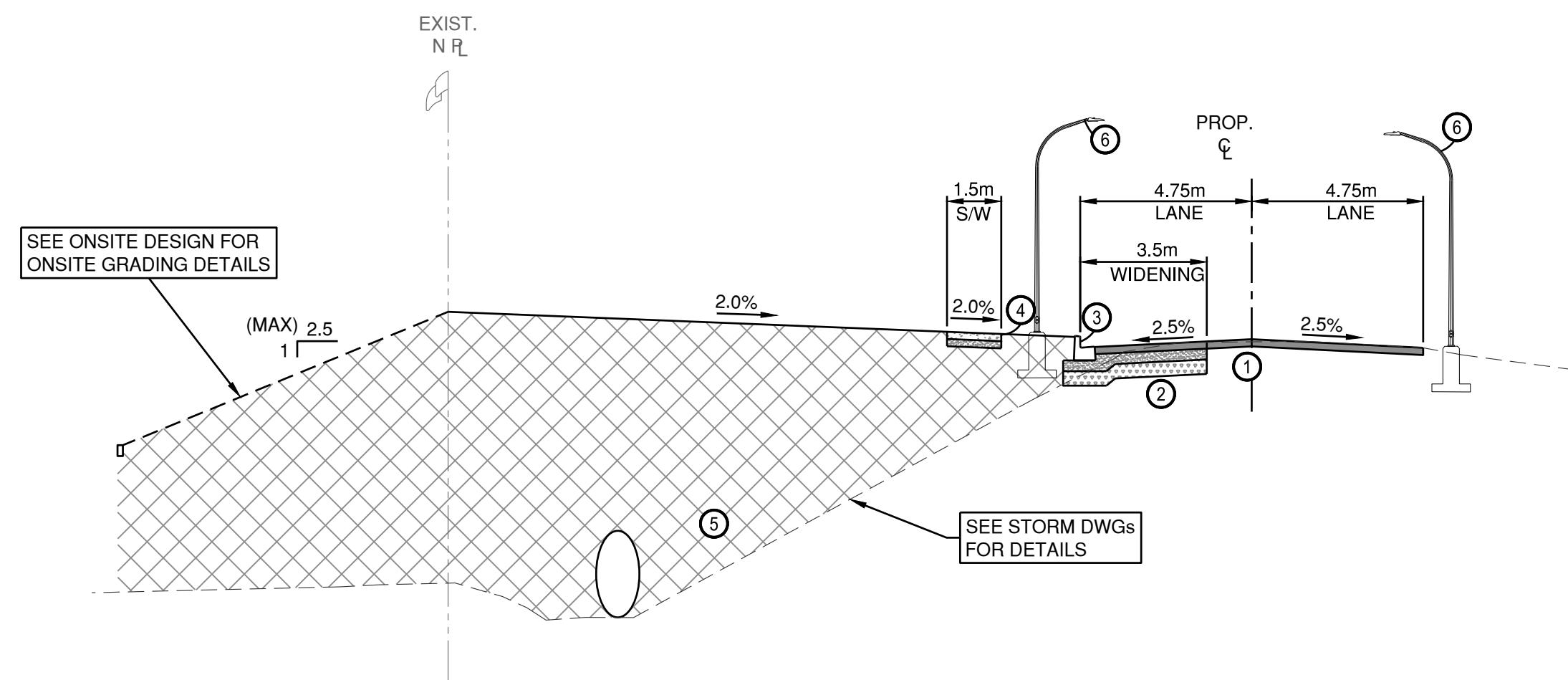
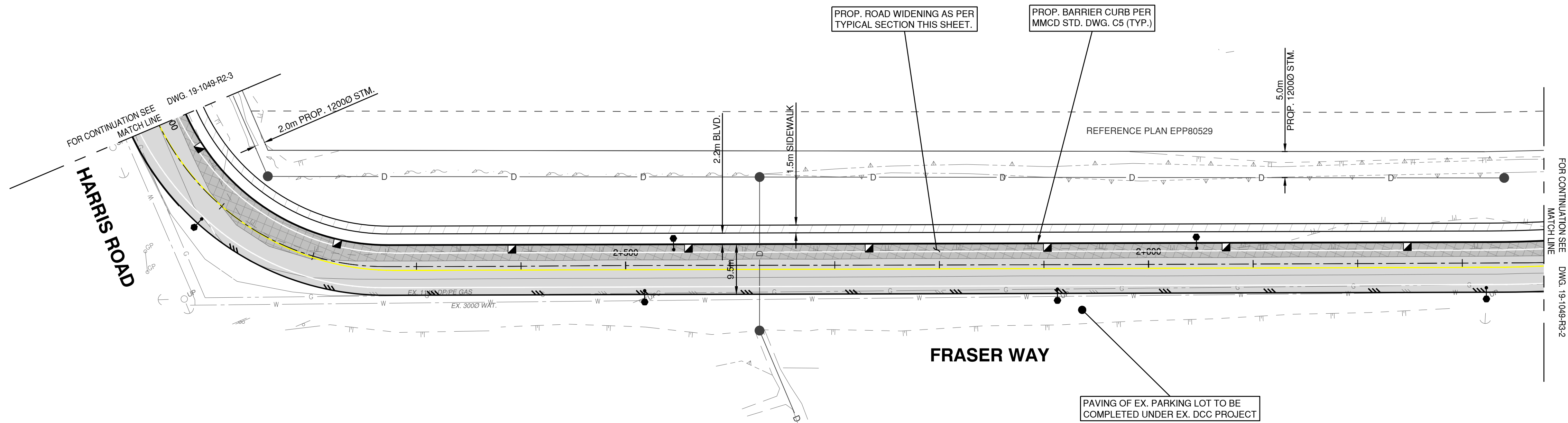


DATE 2020-05-07
DRAWING No.
19-1049-R2-3

SHEET 13 **OF** 13 **REV.**

DESTROY ALL PRINTS BEARING PREVIOUS No. 

BENCHMARK:
82HAW017
NORTH WESTERLY CORNER OF THE ELECTRICAL
HOUSE FOR THE PUMPSTATION AT THE INTERSECTION
OF BAYNES ROAD AND AIRPORT WAY
5.429



LEGEND	
	WIDENING/NEW ROAD (FULL ROAD STRUCTURE)
	MILL & PAVE

TYPICAL SECTION - FRASER WAY
(STN. 2+040 - 2+722)
SCALE: 150H
75V

- MIN. 40mm MILL AND PAVE c/w UC#1 (DEPTH TO BE CONFIRMED)
- WIDENING c/w FULL STRUCTURE:
 - 50mm UC#1
 - 50mm LC#1
 - 150mm BASE GRAVELS
 - 300mm SUB-BASE GRAVELS
- BARRIER CURB PER MMCD STD. DWG. C5
- 1.50m WIDE CONCRETE SIDEWALK AS PER MMCD STD. DWG. C1
 - 100mm THICK CONCRETE
 - 100mm THICK - BASE GRAVELS
- EX. DITCH TO BE OVER-EXCAVATED AND REPLACED WITH STRUCTURAL FILL (TO BE CONFIRMED BY GEOTECHNICAL ENGINEER)
- PROP. STREET LIGHT

NOTE: PAVEMENT STRUCTURE TO BE CONFIRMED BY GEOTECHNICAL ENGINEER

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No.	DATE	REVISION	BY

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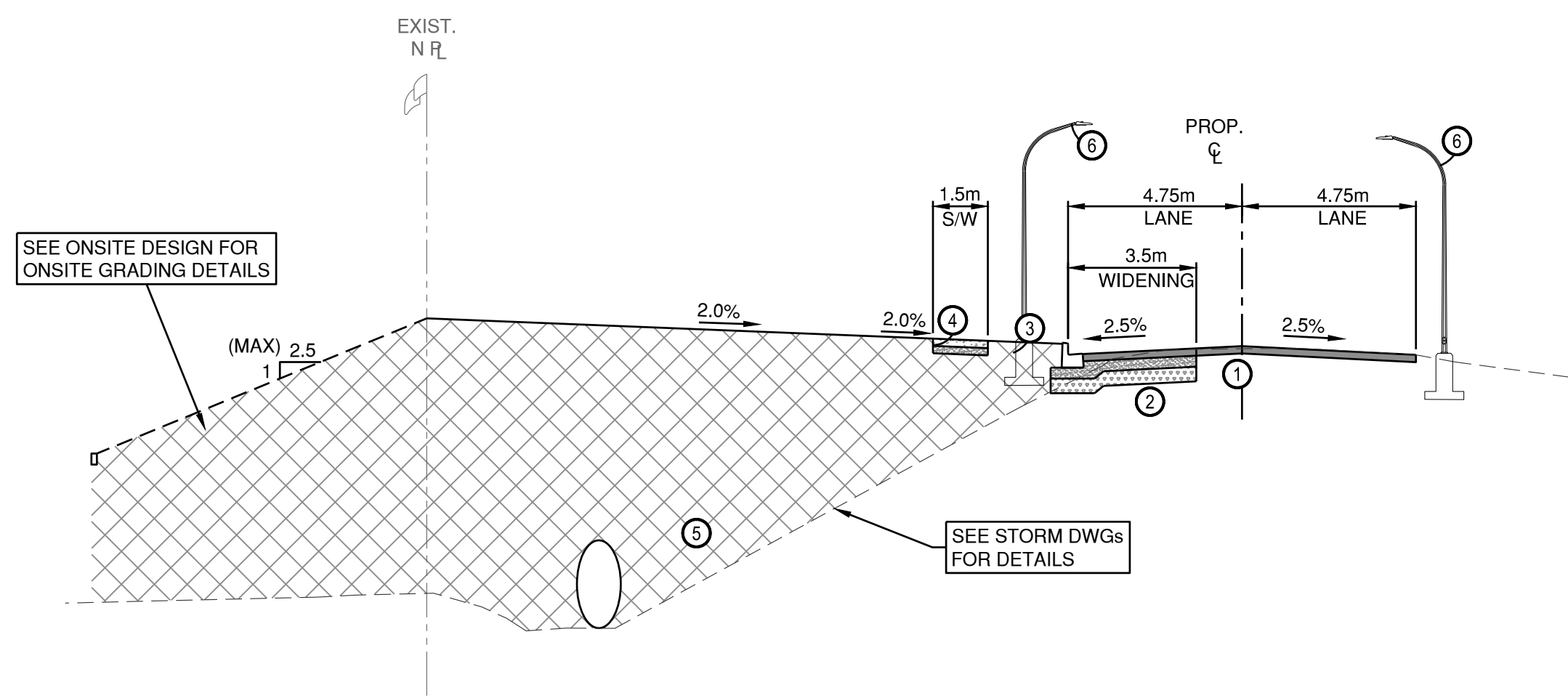
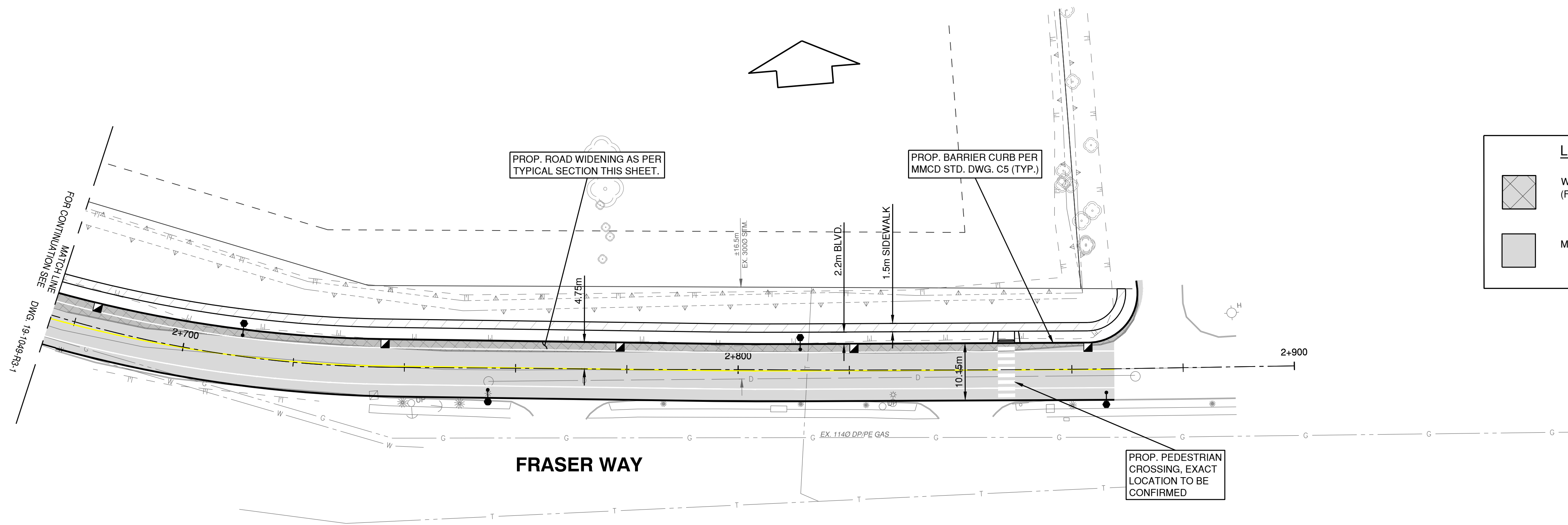
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CLIENT	ONNI GROUP 200-1010 SEYMOUR STREET, VANCOUVER, BC, V6B 3M6
DRAWING DESCRIPTION	GOLDEN EARS BUSINESS PARK 19265 & 19300 AIRPORT WAY FRASER WAY ROADWORKS

SURVEYED BY	
DRAWN BY	KF
DESIGNED BY	VL
CHECKED BY	NP
SCALES	
0 1:500 20m	
0 1:50 2m	

DATE	2020-05-07
DRAWING No.	19-1049-R3-1
SHEET 14 OF 13	REV.
DESTROY ALL PRINTS BEARING PREVIOUS No.	

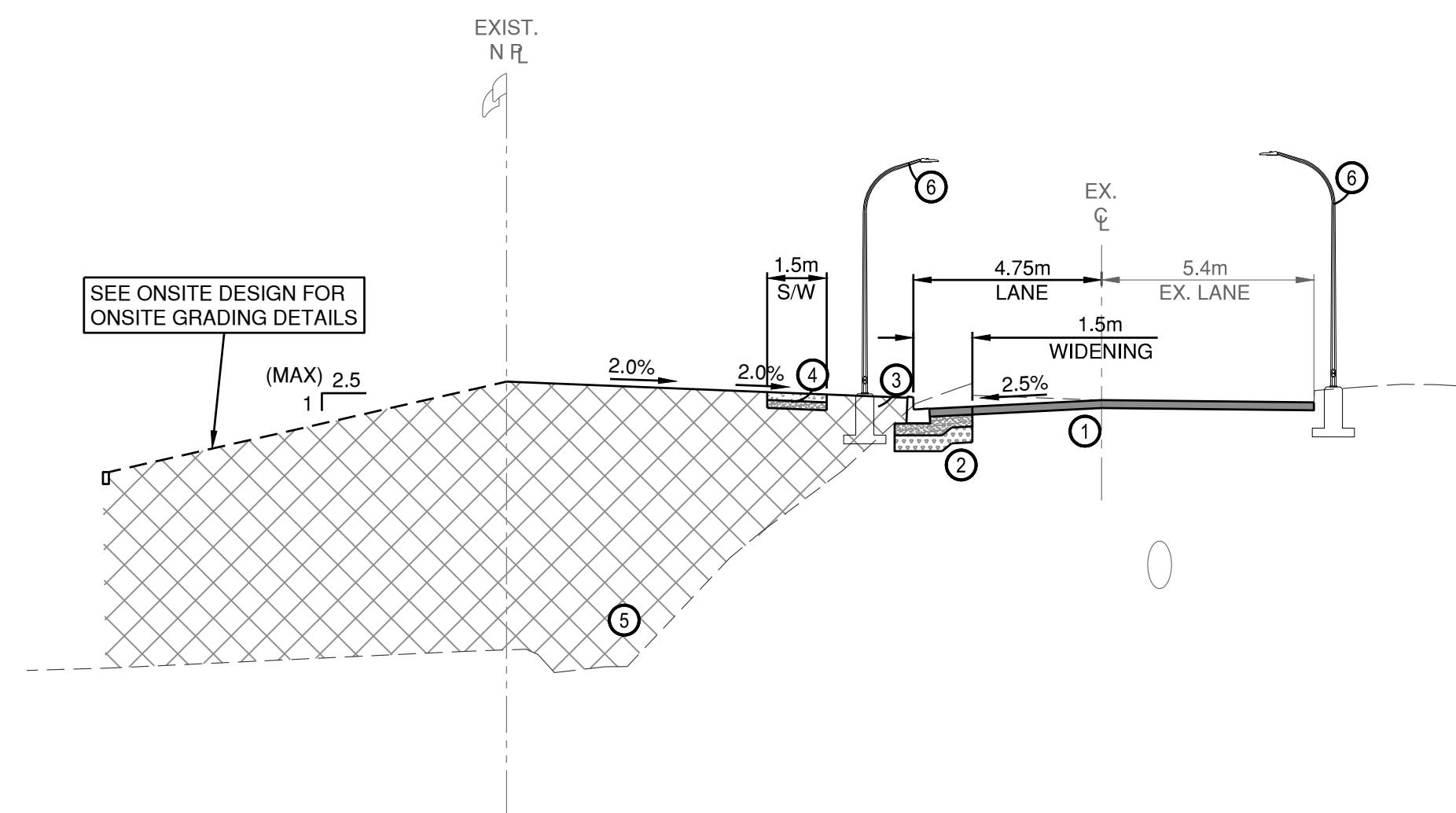
BENCHMARK:
82HAW017
NORTH WESTERLY CORNER OF THE ELECTRICAL
HOUSE FOR THE PUMPSTATION AT THE INTERSECTION
OF BAYNES ROAD AND AIRPORT WAY
5.429



TYPICAL SECTION - FRASER WAY
(STN. 2+040 - 2+722)

- SCALE: 150H
75V
- MIN. 40mm MILL AND PAVE c/w UC#1 (DEPTH TO BE CONFIRMED)
 - WIDENING c/w FULL STRUCTURE:
 - 50mm UC#1
 - 50mm LC#1
 - 150mm BASE GRAVELS
 - 300mm SUB-BASE GRAVELS
 - BARRIER CURB PER MMCD STD. DWG. C5
 - 1.50m WIDE CONCRETE SIDEWALK AS PER MMCD STD. DWG. C1
 - 100mm THICK CONCRETE
 - 100mm THICK - BASE GRAVELS
 - EX. DITCH TO BE OVER-EXCAVATED AND REPLACED WITH STRUCTURAL FILL (TO BE CONFIRMED BY GEOTECHNICAL ENGINEER)
 - PROP. STREET LIGHT

NOTE: PAVEMENT STRUCTURE TO BE CONFIRMED BY GEOTECHNICAL ENGINEER



TYPICAL SECTION - FRASER WAY
(STN. 2+722 - 2+770)

- SCALE: 150H
75V
- MIN. 40mm MILL AND PAVE c/w UC#1 (DEPTH TO BE CONFIRMED)
 - WIDENING c/w FULL STRUCTURE:
 - 50mm UC#1
 - 50mm LC#1
 - 150mm BASE GRAVELS
 - 300mm SUB-BASE GRAVELS
 - BARRIER CURB PER MMCD STD. DWG. C5
 - 1.50m WIDE CONCRETE SIDEWALK AS PER MMCD STD. DWG. C1
 - 100mm THICK CONCRETE
 - 100mm THICK - BASE GRAVELS
 - EX. DITCH TO BE OVER-EXCAVATED AND REPLACED WITH STRUCTURAL FILL (TO BE CONFIRMED BY GEOTECHNICAL ENGINEER)
 - PROP. STREET LIGHT

NOTE: PAVEMENT STRUCTURE TO BE CONFIRMED BY GEOTECHNICAL ENGINEER

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No.	DATE	REVISION	BY



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CLIENT	ONNI GROUP 200-1010 SEYMOUR STREET, VANCOUVER, BC, V6B 3M6
DRAWING DESCRIPTION	GOLDEN EARS BUSINESS PARK 19265 & 19300 AIRPORT WAY FRASER WAY ROADWORKS

SURVEYED BY	
DRAWN BY	KF
DESIGNED BY	VL
CHECKED BY	NP
SCALES	
0	H 1:500 20m
0	V 1:50 2m

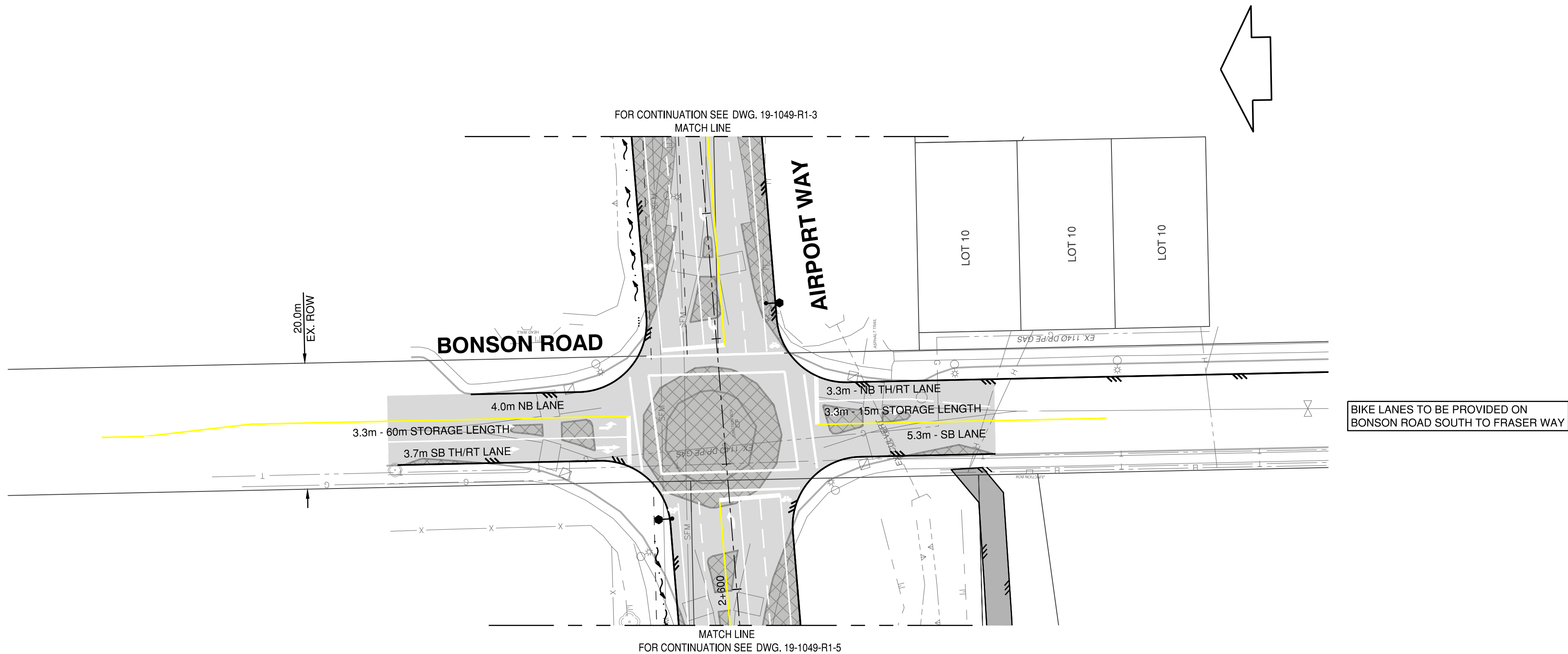
DATE	2020-05-07
DRAWING No.	19-1049-R3-2
SHEET	15 OF 13
REV.	
DESTROY ALL PRINTS BEARING PREVIOUS No.	

BENCHMARK:
82HAW017
NORTH WESTERLY CORNER OF THE ELECTRICAL
HOUSE FOR THE PUMPSTATION AT THE INTERSECTION
OF BAYNES ROAD AND AIRPORT WAY
5.429

LEGEND

WIDENING/NEW ROAD
(FULL ROAD STRUCTURE)

MILL & PAVE



DRAFT

PRELIMINARY

PROJECT: 2020-05-07 4:31:44 PM USER: RENG
FILE: 19-1049-R4-1.dwg PLOT DATE: 2020-05-07 14:50:01 PLOT: 19-1049-R4-1

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No.	DATE	REVISION	BY

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CLIENT	ONNI GROUP 200-1010 SEYMOUR STREET, VANCOUVER, BC, V6B 3M6
DRAWING DESCRIPTION	GOLDEN EARS BUSINESS PARK 19265 & 19300 AIRPORT WAY BONSON ROAD ROADWORKS

SURVEYED BY	
DRAWN BY	KF
DESIGNED BY	VL
CHECKED BY	NP
SCALES	0 1:500 20m

DATE	2020-05-07
DRAWING No.	19-1049-R4-1
SHEET 16 OF 13	REV.
DESTROY ALL PRINTS BEARING PREVIOUS No.	

APPENDIX E

Turning Movement Count Data Summary Sheets

**Vehicle Classification Summary**

Project: #5623: Golden Ears Business Park Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Light snow

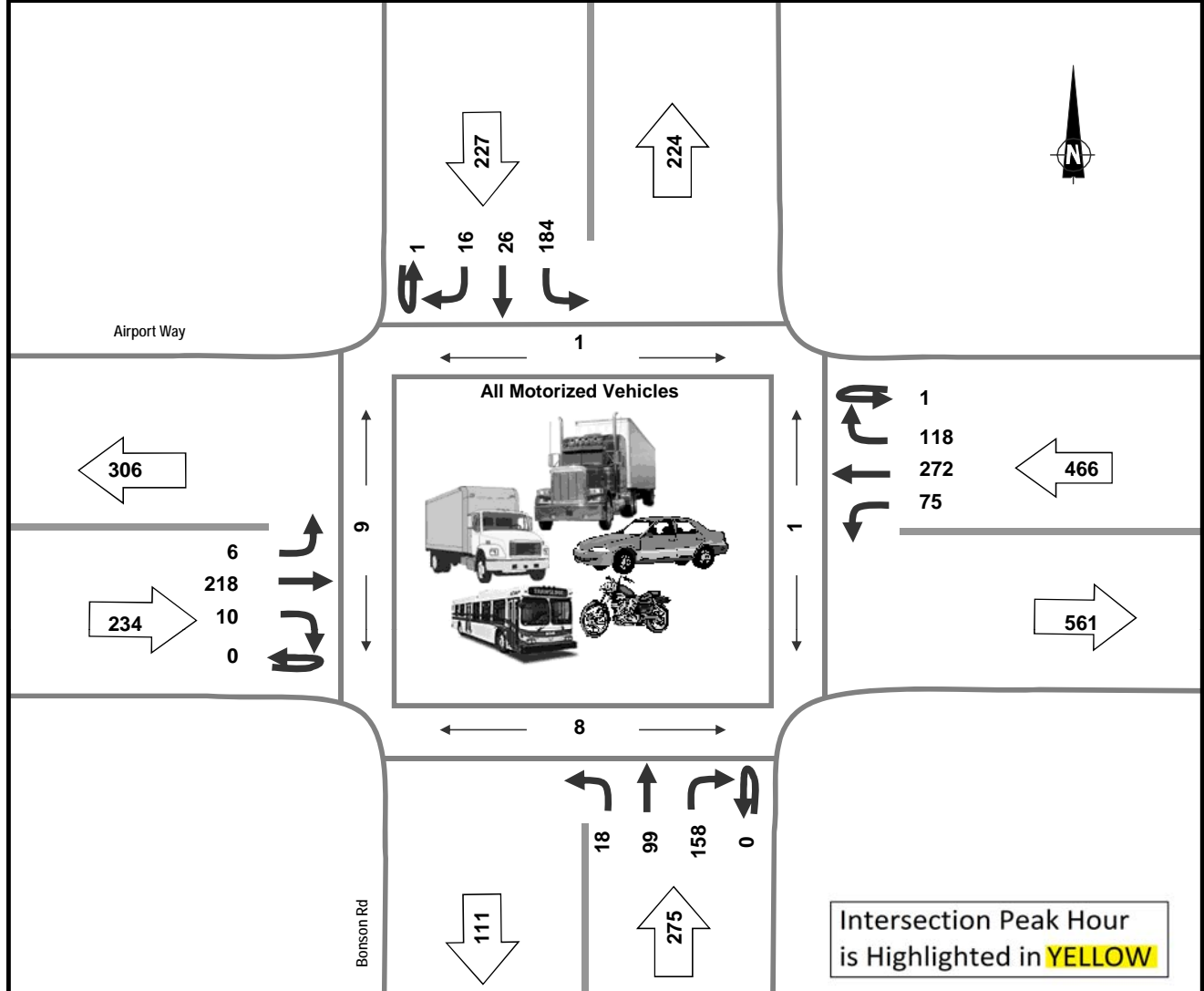
Time Period	Entering Intersection	Vehicle Classification					Total
		Passenger Cars	Heavy Vehicles (3 or more axles)				
Morning (07:00 - 09:00)	Volume	1,987	67				2,054
	%	96.7%	3.3%				100.0%
Afternoon (15:00 - 18:00)	Volume	3,073	52				3,125
	%	98.3%	1.7%				100.0%
Total (5 Hours)	Volume	5,060	119				5,179
	%	97.7%	2.3%				100.0%

Project: #5623: Golden Ears Business Park Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Light snow
Vehicle Class: All Motorized Vehicles

Morning Peak Period

Peak Hour Traffic by Movement

7:30 AM to 8:30 AM



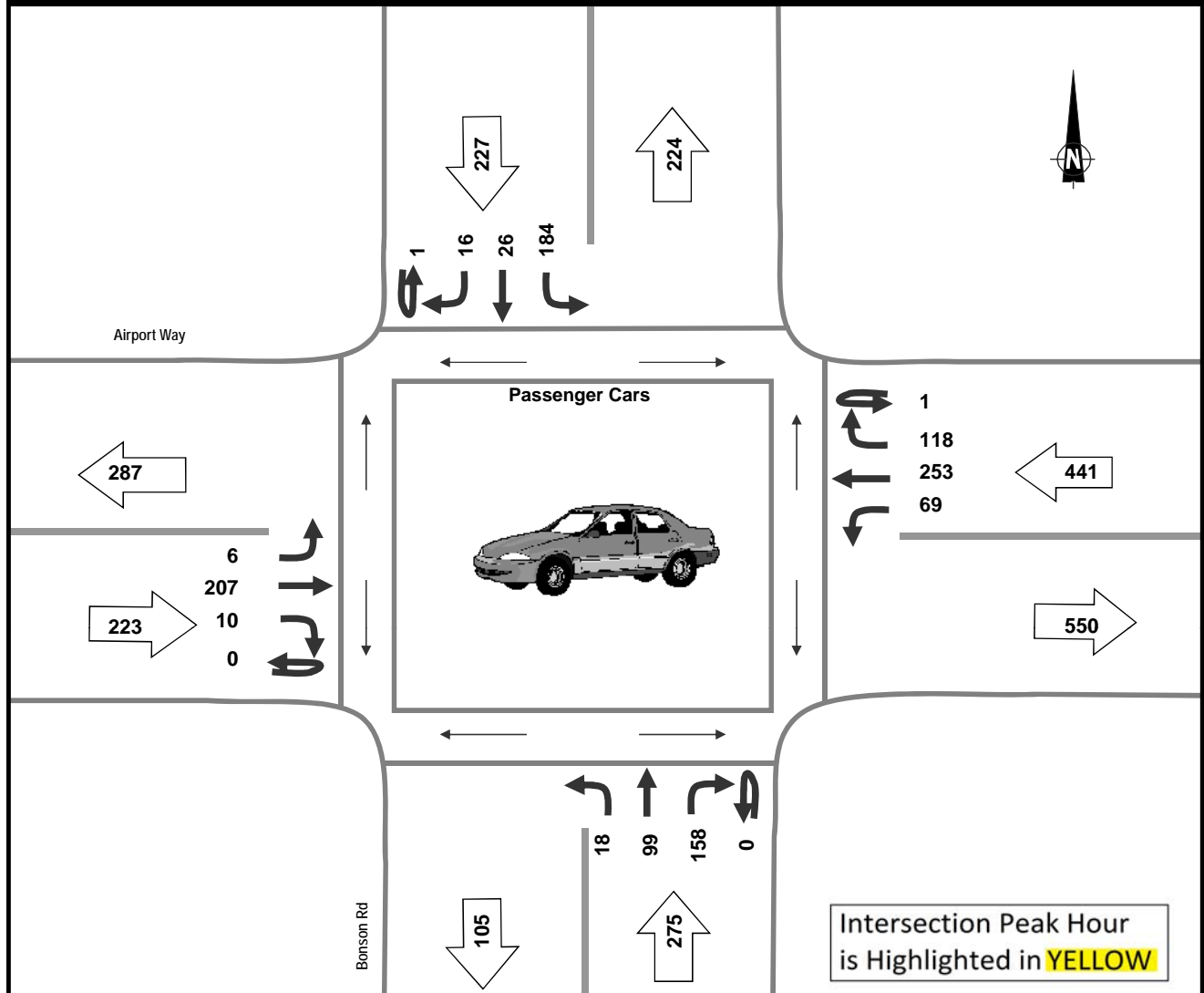
Time	NORTH Approach				SOUTH Approach				WEST Approach				EAST Approach				PEDESTRIANS				Total Volumes
	left	thru	right	U	left	thru	right	U	left	thru	right	U	left	thru	right	U	N	S	W	E	
Peak Hour	184	26	16	1	18	99	158	0	6	218	10	0	75	272	118	1	1	8	9	1	1,202
PHF	0.92	0.93	0.67	0.25	0.56	0.75	0.69	0.00	0.75	0.87	0.50	0.00	0.85	0.91	0.70	0.25	0.25	0.67	0.56	0.25	0.87
Peak 15 X 4	200	28	24	4	32	132	228	0	8	252	20	0	88	300	168	4	4	12	16	4	1,380
Average Hour	166	36	14	1	14	72	128	0	7	198	13	1	70	230	81	1	1	5	6	1	1,031
Survey Total	331	72	28	1	27	144	255	0	13	395	25	2	139	459	162	1	1	9	11	1	2,054
7:00	41	7	0	0	1	10	21	0	1	36	4	0	6	37	7	0	0	0	0	0	171
7:15	53	9	2	0	2	12	19	0	1	52	1	0	14	54	7	0	0	0	1	0	226
7:30	49	5	3	0	1	15	32	0	1	51	0	0	16	66	11	0	0	1	1	0	250
7:45	38	7	2	0	8	18	32	0	2	45	1	0	18	73	29	0	0	3	3	0	273
8:00	50	7	5	1	2	33	57	0	2	59	5	0	19	58	36	0	1	3	4	1	334
8:15	47	7	6	0	7	33	37	0	1	63	4	0	22	75	42	1	0	1	1	0	345
8:30	27	20	4	0	3	8	27	0	3	44	8	1	24	54	14	0	0	0	1	0	237
8:45	26	10	6	0	3	15	30	0	2	45	2	1	20	42	16	0	0	1	0	0	218

Project: #5623: Golden Ears Business Park Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Light snow
Vehicle Class: Passenger Cars

Morning Peak Period

Peak Hour Traffic by Movement

7:30 AM to 8:30 AM



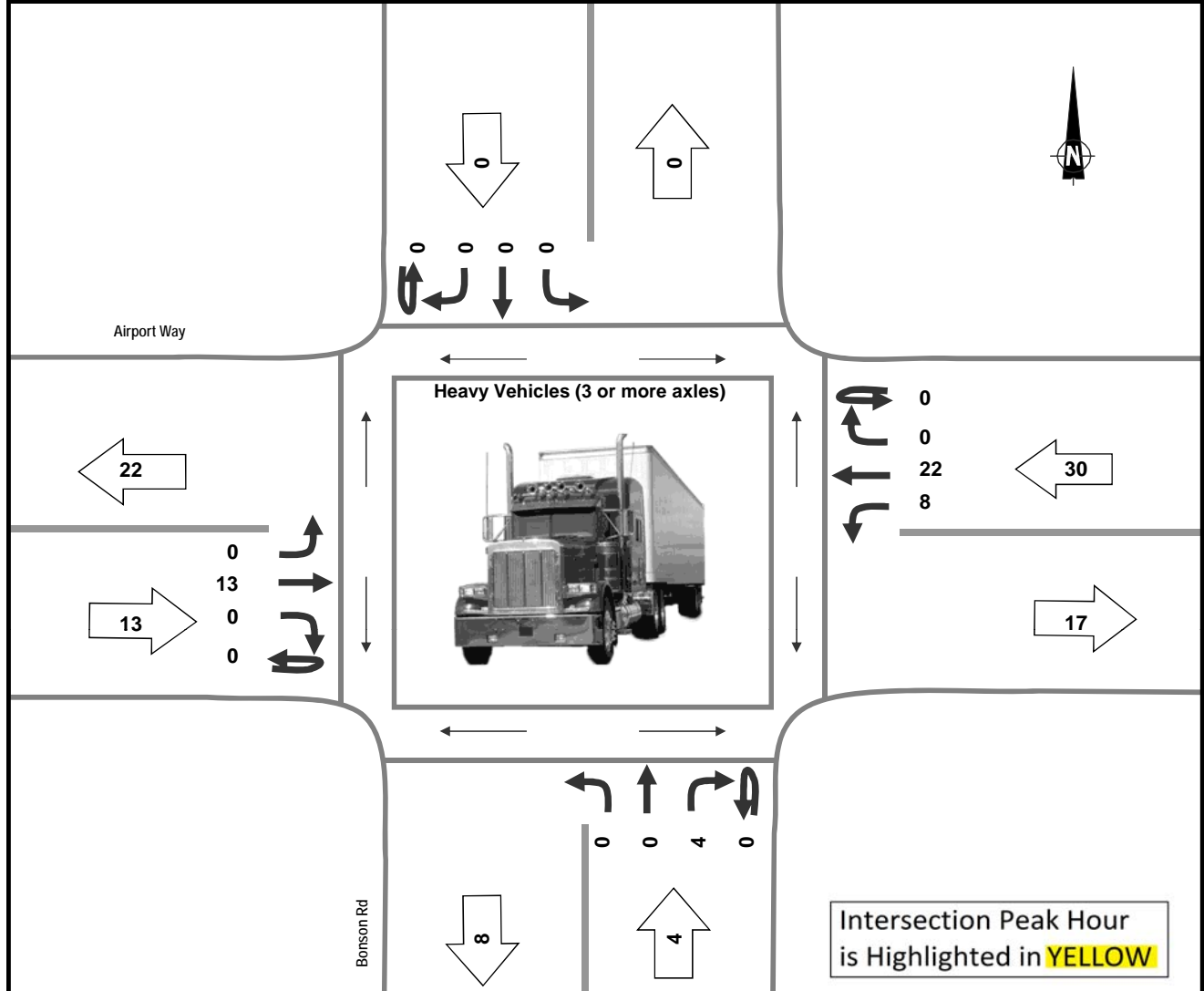
Time	NORTH Approach				SOUTH Approach				WEST Approach				EAST Approach				PEDESTRIANS				Total Volumes
	left	thru	right	U	left	thru	right	U	left	thru	right	U	left	thru	right	U	N	S	W	E	
Peak Hour	184	26	16	1	18	99	158	0	6	207	10	0	69	253	118	1					1,166
PHF	0.92	0.93	0.67	0.25	0.56	0.75	0.69	0.00	0.75	0.86	0.50	0.00	0.86	0.90	0.70	0.25					0.87
Peak 15 X 4	200	28	24	4	32	132	228	0	8	240	20	0	80	280	168	4					1,340
Average Hour	166	36	14	1	14	72	124	0	7	187	13	1	65	216	81	1					997
Survey Total	331	72	28	1	27	144	247	0	13	374	25	2	129	431	162	1					1,987
7:00	41	7	0	0	1	10	21	0	1	36	4	0	6	37	7	0					171
7:15	53	9	2	0	2	12	18	0	1	50	1	0	14	51	7	0					220
7:30	49	5	3	0	1	15	32	0	1	48	0	0	16	63	11	0					244
7:45	38	7	2	0	8	18	32	0	2	43	1	0	18	67	29	0					265
8:00	50	7	5	1	2	33	57	0	2	56	5	0	15	53	36	0					322
8:15	47	7	6	0	7	33	37	0	1	60	4	0	20	70	42	1					335
8:30	27	20	4	0	3	8	23	0	3	39	8	1	22	48	14	0					220
8:45	26	10	6	0	3	15	27	0	2	42	2	1	18	42	16	0					210

Project: #5623: Golden Ears Business Park Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Light snow
Vehicle Class: Heavy Vehicles (3 or more axles)

Morning Peak Period

Peak Hour Traffic by Movement

7:45 AM to 8:45 AM

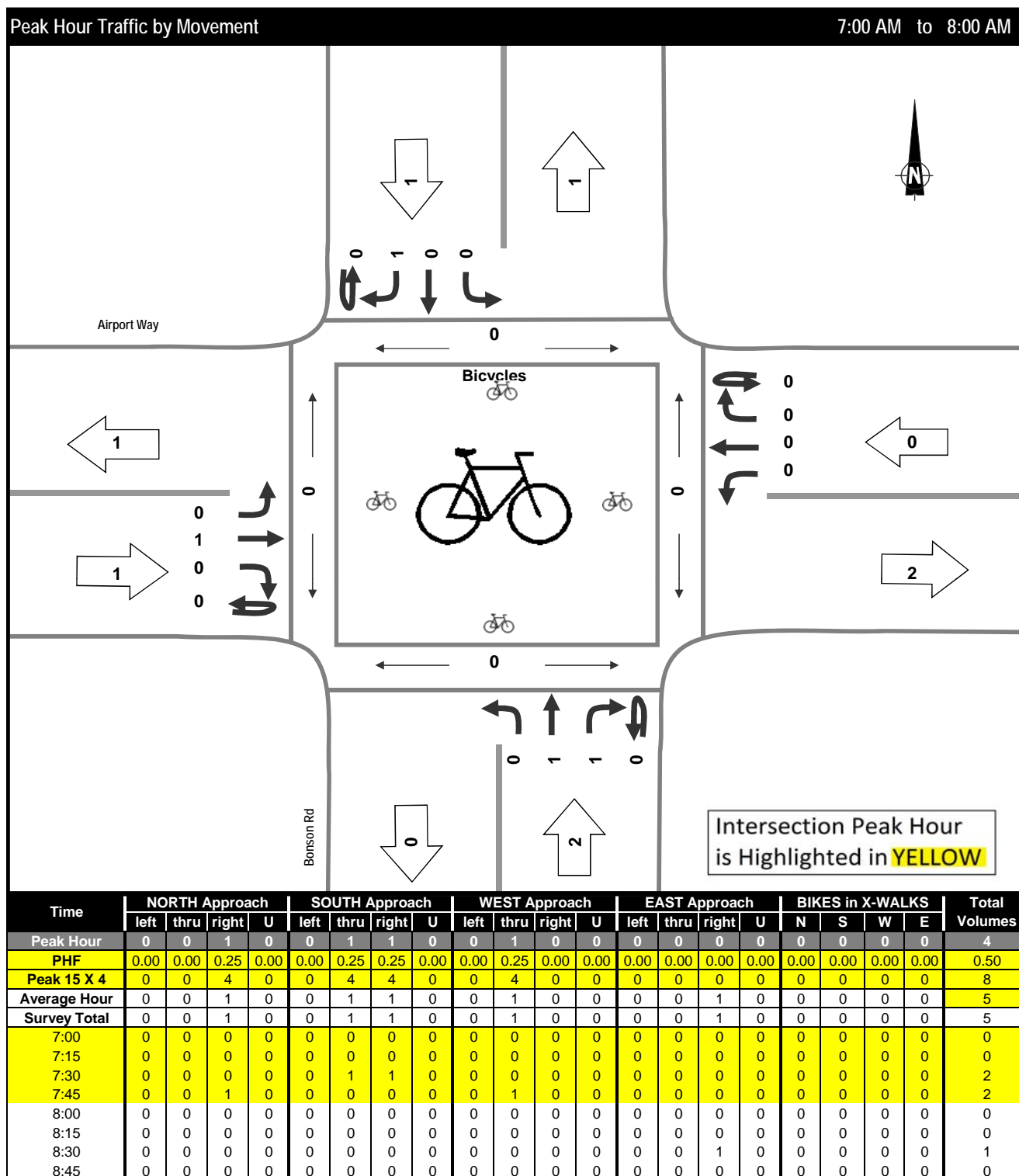


Time	NORTH Approach				SOUTH Approach				WEST Approach				EAST Approach				PEDESTRIANS				Total Volumes
	left	thru	right	U	left	thru	right	U	left	thru	right	U	left	thru	right	U	N	S	W	E	
Peak Hour	0	0	0	0	0	0	4	0	0	13	0	0	8	22	0	0					47
PHF	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.65	0.00	0.00	0.50	0.92	0.00	0.00					0.69
Peak 15 X 4	0	0	0	0	0	0	16	0	0	20	0	0	16	24	0	0					68
Average Hour	0	0	0	0	0	0	4	0	0	11	0	0	5	14	0	0					34
Survey Total	0	0	0	0	0	0	8	0	0	21	0	0	10	28	0	0					67
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					0
7:15	0	0	0	0	0	0	1	0	0	2	0	0	0	3	0	0					6
7:30	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0					6
7:45	0	0	0	0	0	0	0	0	0	2	0	0	0	6	0	0					8
8:00	0	0	0	0	0	0	0	0	0	3	0	0	4	5	0	0					12
8:15	0	0	0	0	0	0	0	0	0	3	0	0	2	5	0	0					10
8:30	0	0	0	0	0	0	4	0	0	5	0	0	2	6	0	0					17
8:45	0	0	0	0	0	0	3	0	0	3	0	0	2	0	0	0					8

Project: #5623: Golden Ears Business Park Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Light snow
Vehicle Class: Bicycles

Morning Peak Period

Note: Crosswalk bike volumes shown are cyclists who walked their bike and are not included in the pedestrian volume totals

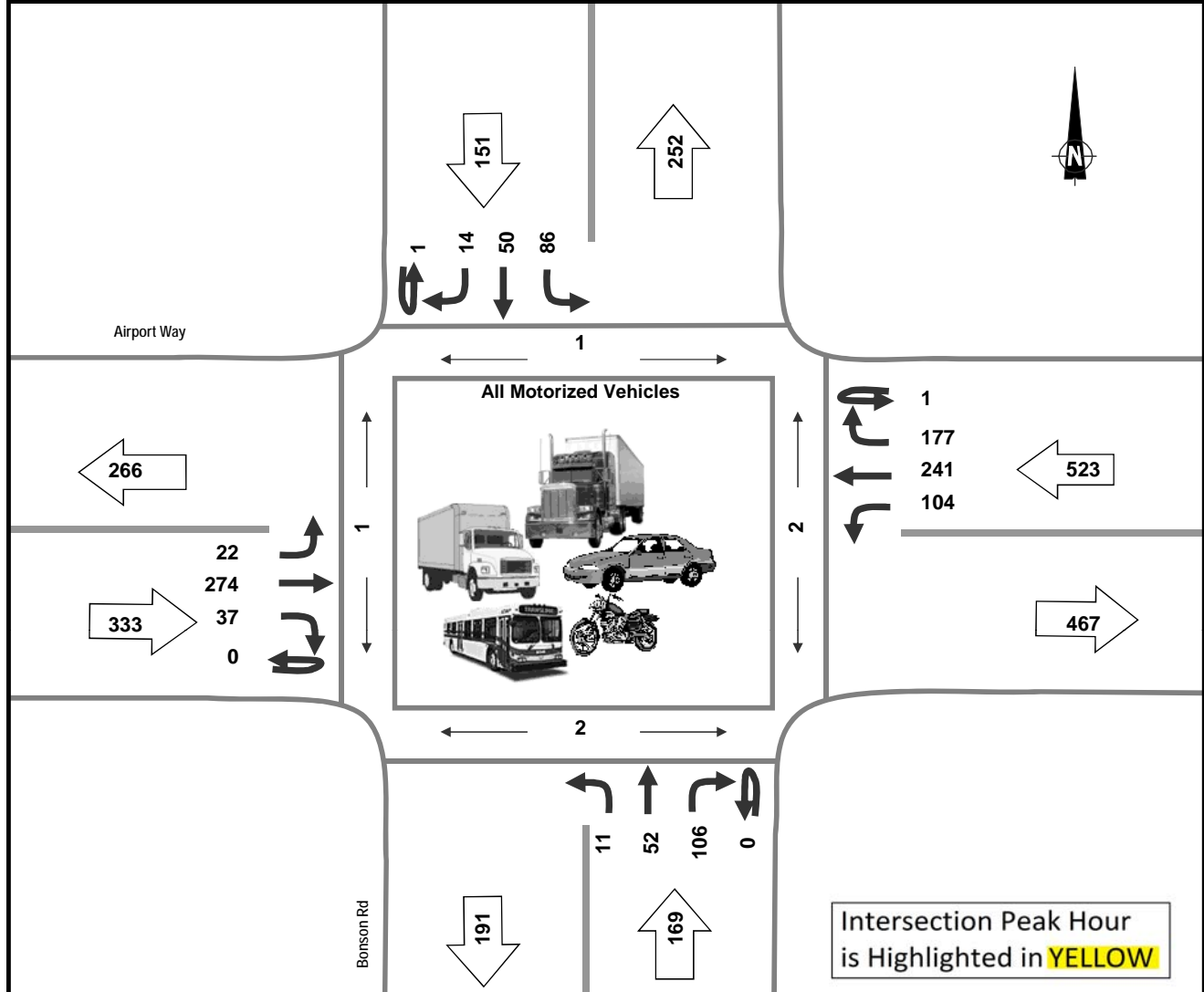


Project: #5623: Golden Ears Business Park Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Light snow
Vehicle Class: All Motorized Vehicles

Afternoon Peak Period

Peak Hour Traffic by Movement

4:15 PM to 5:15 PM



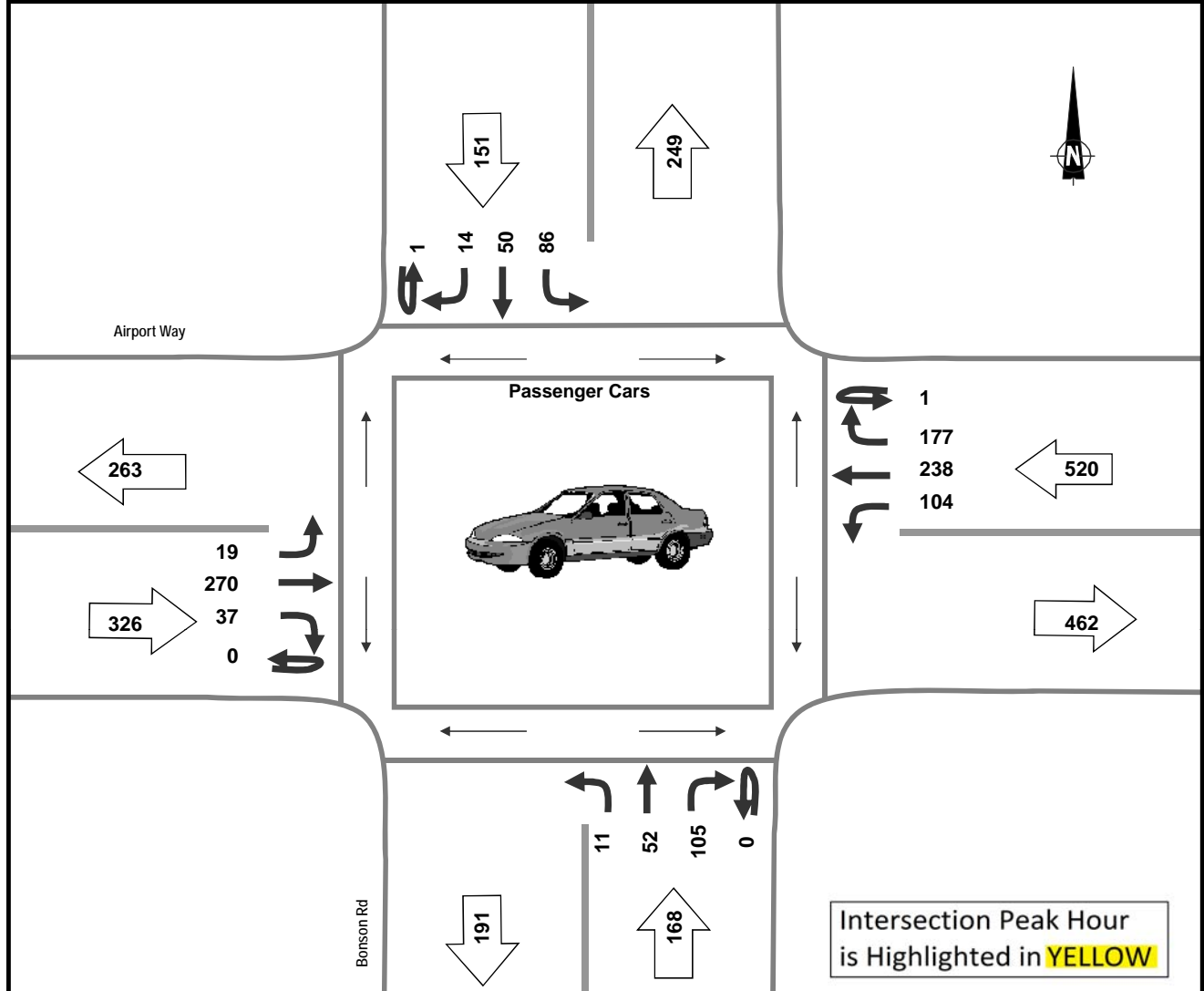
Time	NORTH Approach				SOUTH Approach				WEST Approach				EAST Approach				PEDESTRIANS				Total Volumes
	left	thru	right	U	left	thru	right	U	left	thru	right	U	left	thru	right	U	N	S	W	E	
Peak Hour	86	50	14	1	11	52	106	0	22	274	37	0	104	241	177	1	1	2	1	2	1,176
PHF	0.83	0.89	0.70	0.25	0.55	0.76	0.78	0.00	0.61	0.70	0.93	0.00	0.90	0.89	0.96	0.25	0.25	0.50	0.25	0.25	0.86
Peak 15 X 4	104	56	20	4	20	68	136	0	36	392	40	0	116	272	184	4	4	4	4	8	1,364
Average Hour	78	48	13	1	10	45	91	0	15	237	34	0	93	207	170	0	1	6	5	4	1,042
Survey Total	235	143	39	2	31	136	272	0	45	711	101	0	278	622	509	1	4	17	14	13	3,125
15:00	20	16	5	0	2	10	22	0	3	50	9	0	23	48	32	0	2	0	2	3	240
15:15	15	5	3	1	0	12	10	0	3	49	5	0	20	66	38	0	0	2	1	2	227
15:30	16	11	3	0	1	6	20	0	4	86	7	0	21	61	29	0	0	1	3	2	265
15:45	23	12	3	0	2	6	17	0	3	57	3	0	25	46	39	0	0	1	1	1	236
16:00	15	14	3	0	2	18	32	0	2	68	7	0	19	47	46	0	0	3	2	2	273
16:15	19	12	5	0	2	9	31	0	4	50	9	0	29	61	46	1	0	1	0	0	278
16:30	26	12	3	1	2	16	34	0	5	98	9	0	28	68	39	0	1	0	0	2	341
16:45	22	14	4	0	2	17	20	0	4	54	10	0	21	59	46	0	0	1	0	0	273
17:00	19	12	2	0	5	10	21	0	9	72	9	0	26	53	46	0	0	0	1	0	284
17:15	30	11	4	0	4	10	24	0	1	52	11	0	24	51	51	0	1	2	2	1	273
17:30	11	15	1	0	2	12	22	0	3	44	7	0	21	32	54	0	0	1	1	0	224
17:45	19	9	3	0	7	10	19	0	4	31	15	0	21	30	43	0	0	5	1	0	211

Project: #5623: Golden Ears Business Park Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Light snow
Vehicle Class: Passenger Cars

Afternoon Peak Period

Peak Hour Traffic by Movement

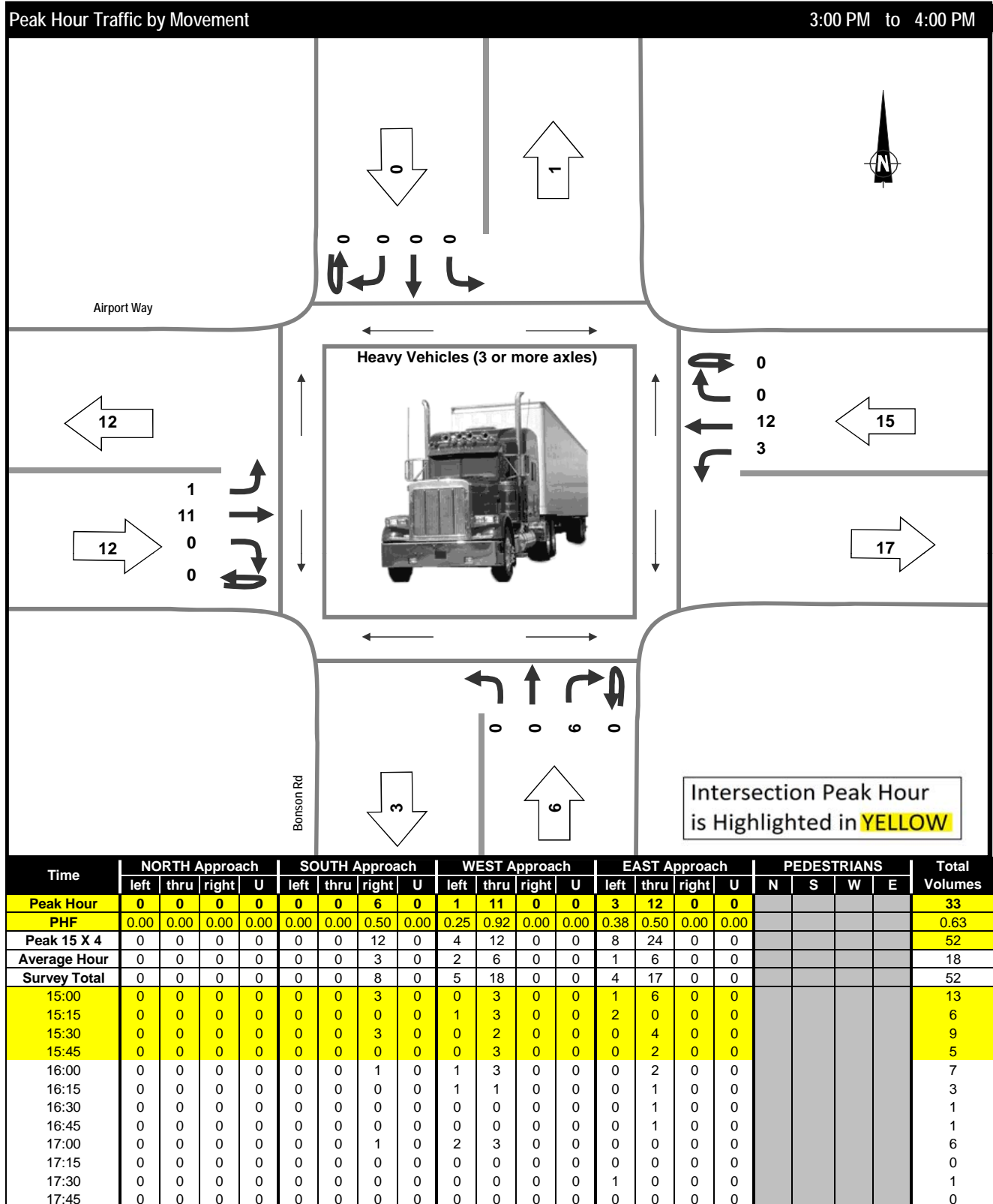
4:15 PM to 5:15 PM



Time	NORTH Approach				SOUTH Approach				WEST Approach				EAST Approach				PEDESTRIANS				Total Volumes
	left	thru	right	U	left	thru	right	U	left	thru	right	U	left	thru	right	U	N	S	W	E	
Peak Hour	86	50	14	1	11	52	105	0	19	270	37	0	104	238	177	1					1,165
PHF	0.83	0.89	0.70	0.25	0.55	0.76	0.77	0.00	0.68	0.69	0.93	0.00	0.90	0.89	0.96	0.25					0.86
Peak 15 X 4	104	56	20	4	20	68	136	0	28	392	40	0	116	268	184	4					1,360
Average Hour	78	48	13	1	10	45	88	0	13	231	34	0	91	202	170	0					1,024
Survey Total	235	143	39	2	31	136	264	0	40	693	101	0	274	605	509	1					3,073
15:00	20	16	5	0	2	10	19	0	3	47	9	0	22	42	32	0					227
15:15	15	5	3	1	0	12	10	0	2	46	5	0	18	66	38	0					221
15:30	16	11	3	0	1	6	17	0	4	84	7	0	21	57	29	0					256
15:45	23	12	3	0	2	6	17	0	3	54	3	0	25	44	39	0					231
16:00	15	14	3	0	2	18	31	0	1	65	7	0	19	45	46	0					266
16:15	19	12	5	0	2	9	31	0	3	49	9	0	29	60	46	1					275
16:30	26	12	3	1	2	16	34	0	5	98	9	0	28	67	39	0					340
16:45	22	14	4	0	2	17	20	0	4	54	10	0	21	58	46	0					272
17:00	19	12	2	0	5	10	20	0	7	69	9	0	26	53	46	0					278
17:15	30	11	4	0	4	10	24	0	1	52	11	0	24	51	51	0					273
17:30	11	15	1	0	2	12	22	0	3	44	7	0	20	32	54	0					223
17:45	19	9	3	0	7	10	19	0	4	31	15	0	21	30	43	0					211

Project: #5623: Golden Ears Business Park Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Light snow
Vehicle Class: Heavy Vehicles (3 or more axles)

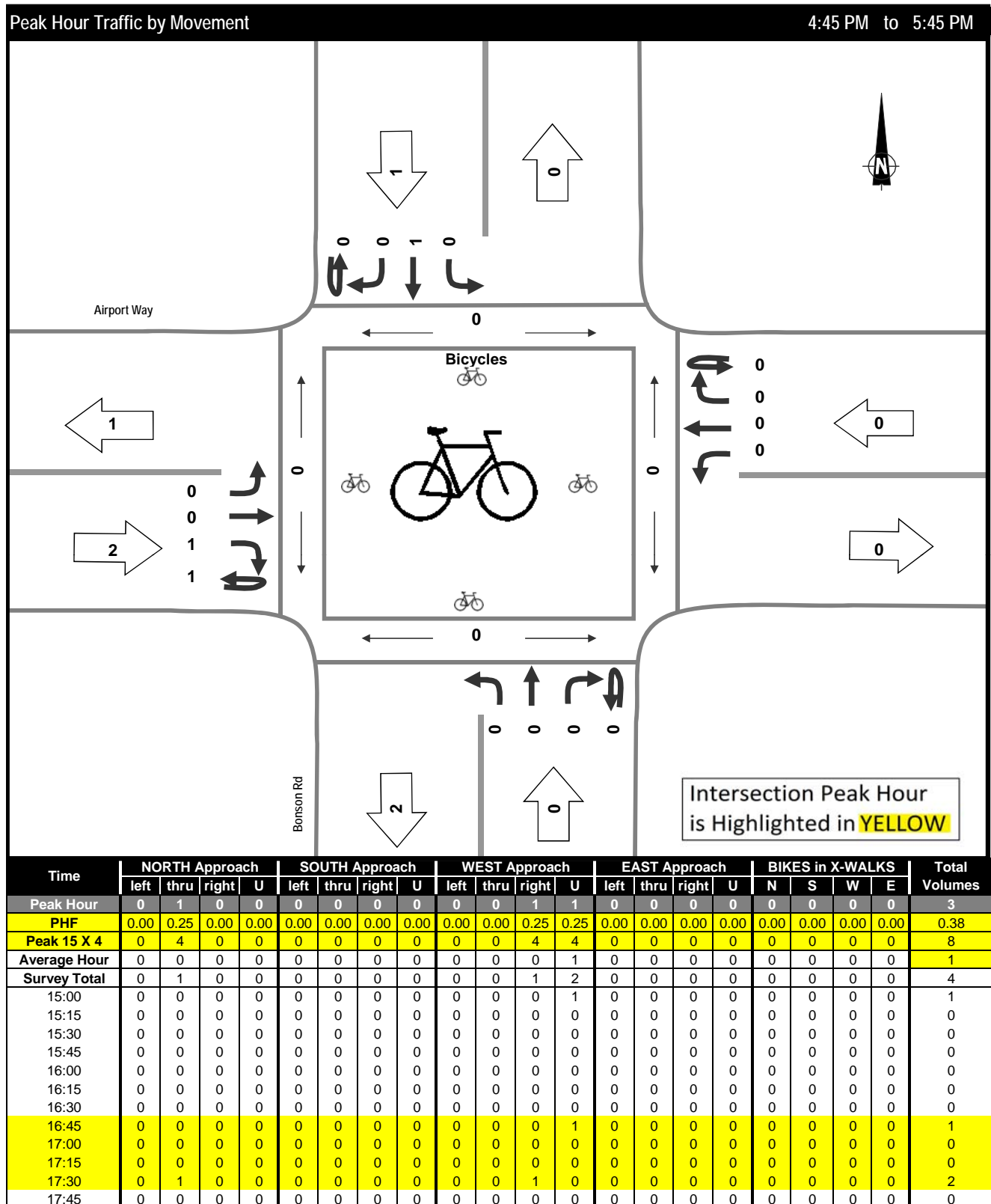
Afternoon Peak Period



Project: #5623: Golden Ears Business Park Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Light snow
Vehicle Class: Bicycles

Afternoon Peak Period

Note: Crosswalk bike volumes shown are cyclists who walked their bike and are not included in the pedestrian volume totals



**Vehicle Classification Summary**

Project: #5623: Golden Ears Business Park Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Light snow

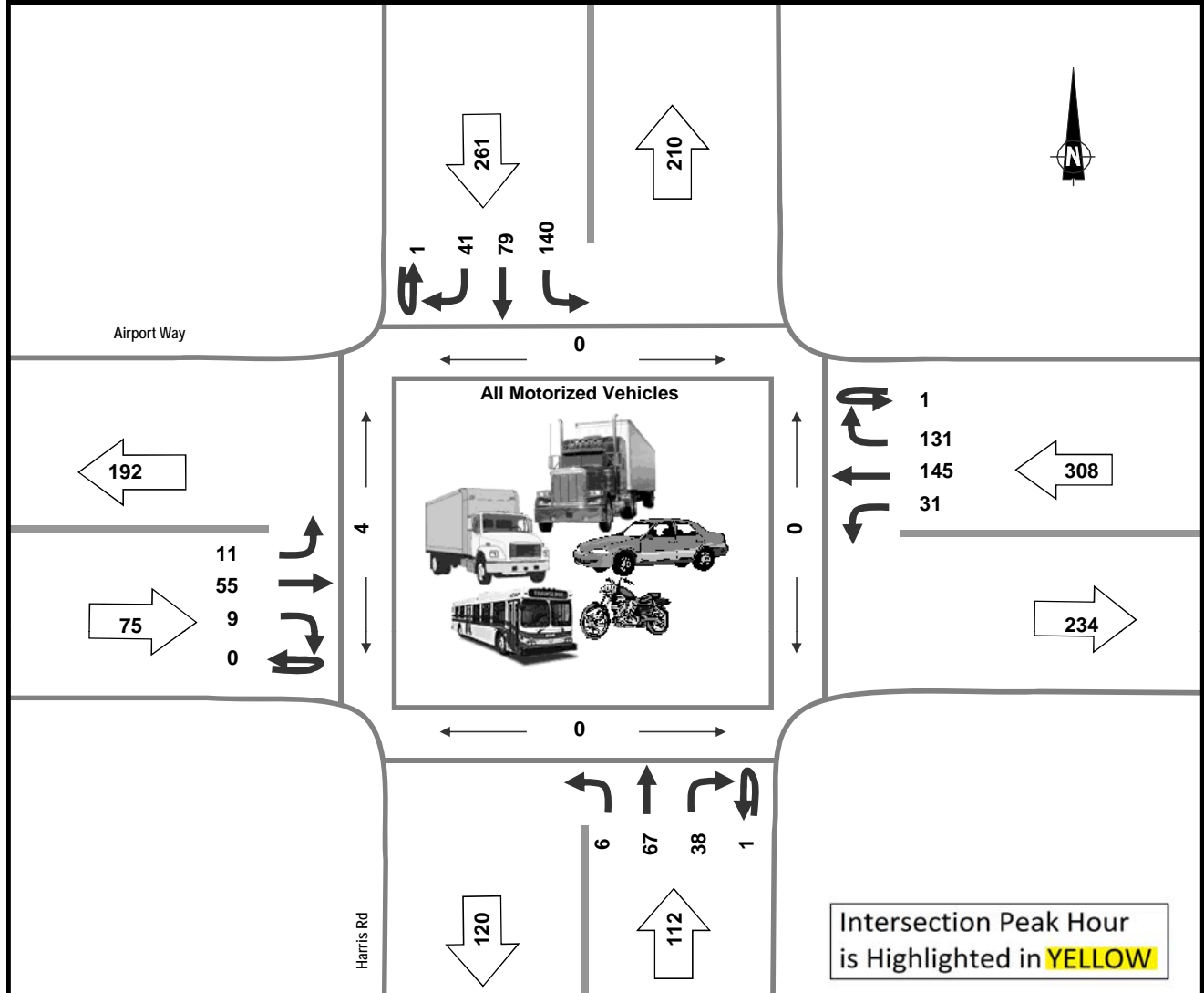
Time Period	Entering Intersection	Vehicle Classification					Total
		Passenger Cars	Heavy Vehicles (3 or more axles)				
Morning (07:00 - 09:00)	Volume	1,270	53				1,323
	%	96.0%	4.0%				100.0%
Afternoon (15:00 - 18:00)	Volume	2,153	38				2,191
	%	98.3%	1.7%				100.0%
Total (5 Hours)	Volume	3,423	91				3,514
	%	97.4%	2.6%				100.0%

Project: #5623: Golden Ears Business Park Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Light snow
Vehicle Class: All Motorized Vehicles

Morning Peak Period

Peak Hour Traffic by Movement

7:45 AM to 8:45 AM



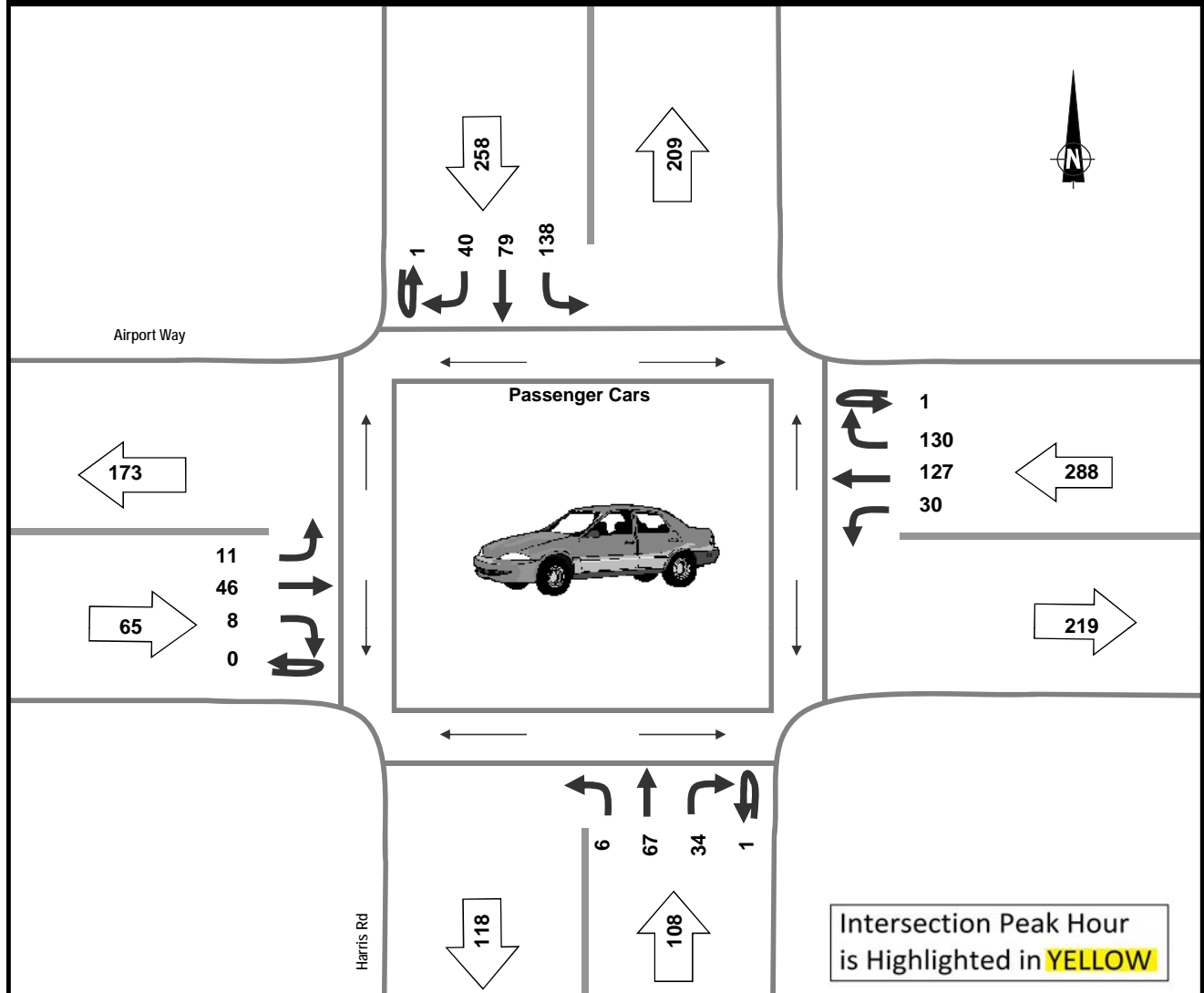
Time	NORTH Approach				SOUTH Approach				WEST Approach				EAST Approach				PEDESTRIANS				Total Volumes
	left	thru	right	U	left	thru	right	U	left	thru	right	U	left	thru	right	U	N	S	W	E	
Peak Hour	140	79	41	1	6	67	38	1	11	55	9	0	31	145	131	1	0	0	4	0	756
PHF	0.80	0.71	0.73	0.25	0.38	0.70	0.63	0.25	0.46	0.86	0.75	0.00	0.65	0.84	0.73	0.25	0.00	0.00	0.50	0.00	0.93
Peak 15 X 4	176	112	56	4	16	96	60	4	24	64	12	0	48	172	180	4	0	0	8	0	816
Average Hour	134	59	45	1	4	54	30	2	10	55	6	0	26	140	98	1	0	0	5	1	664
Survey Total	267	118	90	1	8	107	60	3	19	109	12	0	52	280	196	1	0	0	10	2	1,323
7:00	28	7	15	0	0	10	4	0	2	11	1	0	3	31	7	0	0	0	1	0	119
7:15	39	9	11	0	1	13	4	1	1	12	0	0	6	37	21	0	0	0	0	0	155
7:30	38	10	11	0	0	5	8	1	2	14	1	0	5	39	20	0	0	0	2	2	154
7:45	35	28	11	0	4	12	5	0	2	12	1	0	12	42	30	0	0	0	1	0	194
8:00	31	18	14	0	0	24	15	1	2	13	3	0	7	31	33	0	0	0	1	0	192
8:15	44	12	7	0	2	17	8	0	1	16	3	0	5	43	45	1	0	0	0	0	204
8:30	30	21	9	1	0	14	10	0	6	14	2	0	7	29	23	0	0	0	2	0	166
8:45	22	13	12	0	1	12	6	0	3	17	1	0	7	28	17	0	0	0	3	0	139

Project: #5623: Golden Ears Business Park Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Light snow
Vehicle Class: Passenger Cars

Morning Peak Period

Peak Hour Traffic by Movement

7:45 AM to 8:45 AM



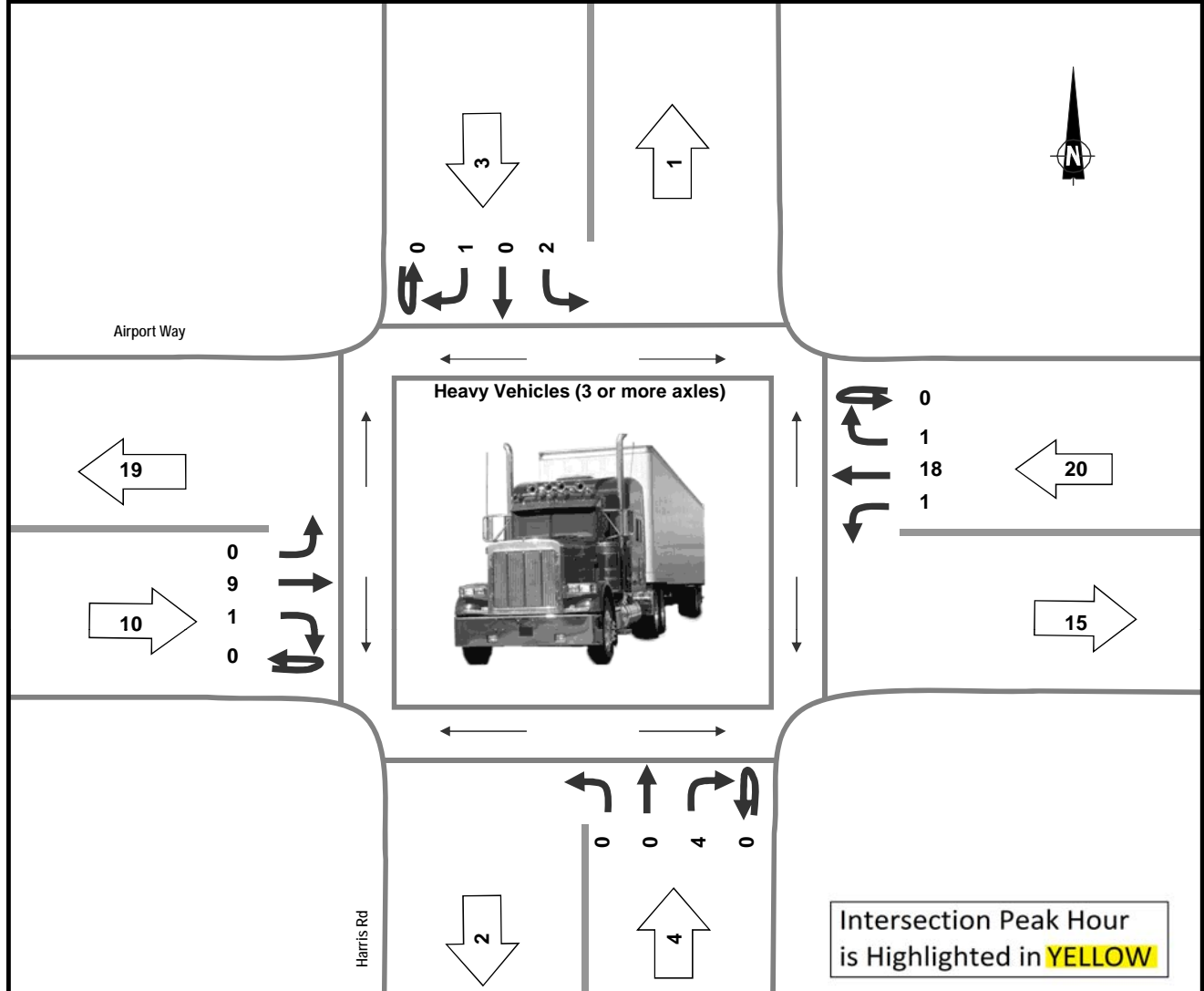
Time	NORTH Approach				SOUTH Approach				WEST Approach				EAST Approach				PEDESTRIANS				Total Volumes
	left	thru	right	U	left	thru	right	U	left	thru	right	U	left	thru	right	U	N	S	W	E	
Peak Hour	138	79	40	1	6	67	34	1	11	46	8	0	30	127	130	1					719
PHF	0.80	0.71	0.71	0.25	0.38	0.70	0.61	0.25	0.46	0.77	0.67	0.00	0.68	0.81	0.72	0.25					0.93
Peak 15 X 4	172	112	56	4	16	96	56	4	24	60	12	0	44	156	180	4					776
Average Hour	132	59	45	1	4	54	27	2	10	47	6	0	26	128	98	1					639
Survey Total	264	118	89	1	8	107	54	3	19	93	11	0	51	256	195	1					1,270
7:00	28	7	15	0	0	10	4	0	2	11	1	0	3	31	7	0					119
7:15	38	9	11	0	1	13	4	1	1	11	0	0	6	34	21	0					150
7:30	38	10	11	0	0	5	8	1	2	11	1	0	5	37	20	0					149
7:45	34	28	11	0	4	12	5	0	2	11	1	0	11	36	30	0					185
8:00	31	18	14	0	0	24	14	1	2	10	3	0	7	28	33	0					185
8:15	43	12	6	0	2	17	6	0	1	15	2	0	5	39	45	1					194
8:30	30	21	9	1	0	14	9	0	6	10	2	0	7	24	22	0					155
8:45	22	13	12	0	1	12	4	0	3	14	1	0	7	27	17	0					133

Project: #5623: Golden Ears Business Park Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Light snow
Vehicle Class: Heavy Vehicles (3 or more axles)

Morning Peak Period

Peak Hour Traffic by Movement

7:45 AM to 8:45 AM

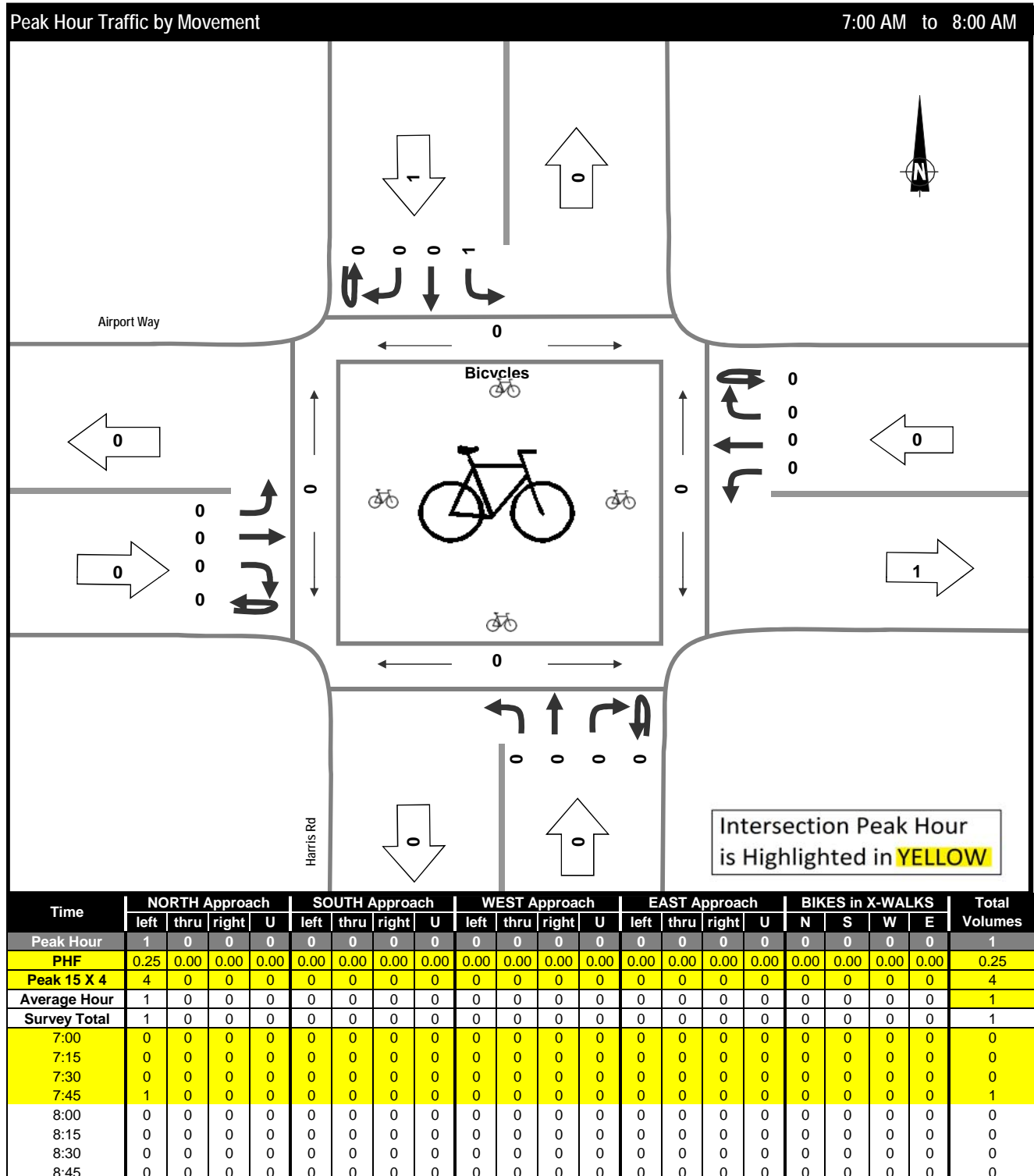


Time	NORTH Approach				SOUTH Approach				WEST Approach				EAST Approach				PEDESTRIANS				Total Volumes
	left	thru	right	U	left	thru	right	U	left	thru	right	U	left	thru	right	U	N	S	W	E	
Peak Hour	2	0	1	0	0	0	4	0	0	9	1	0	1	18	1	0					37
PHF	0.50	0.00	0.25	0.00	0.00	0.00	0.50	0.00	0.00	0.56	0.25	0.00	0.25	0.75	0.25	0.00					0.84
Peak 15 X 4	4	0	4	0	0	0	8	0	0	16	4	0	4	24	4	0					44
Average Hour	2	0	1	0	0	0	3	0	0	8	1	0	1	12	1	0					29
Survey Total	3	0	1	0	0	0	6	0	0	16	1	0	1	24	1	0					53
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					0
7:15	1	0	0	0	0	0	0	0	0	1	0	0	0	3	0	0					5
7:30	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	0					5
7:45	1	0	0	0	0	0	0	0	0	1	0	0	1	6	0	0					9
8:00	0	0	0	0	0	0	1	0	0	3	0	0	0	3	0	0					7
8:15	1	0	1	0	0	0	2	0	0	1	1	0	0	4	0	0					10
8:30	0	0	0	0	0	0	1	0	0	4	0	0	0	5	1	0					11
8:45	0	0	0	0	0	0	2	0	0	3	0	0	0	1	0	0					6

Project: #5623: Golden Ears Business Park Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Light snow
Vehicle Class: Bicycles

Morning Peak Period

Note: Crosswalk bike volumes shown are cyclists who walked their bike and are not included in the pedestrian volume totals

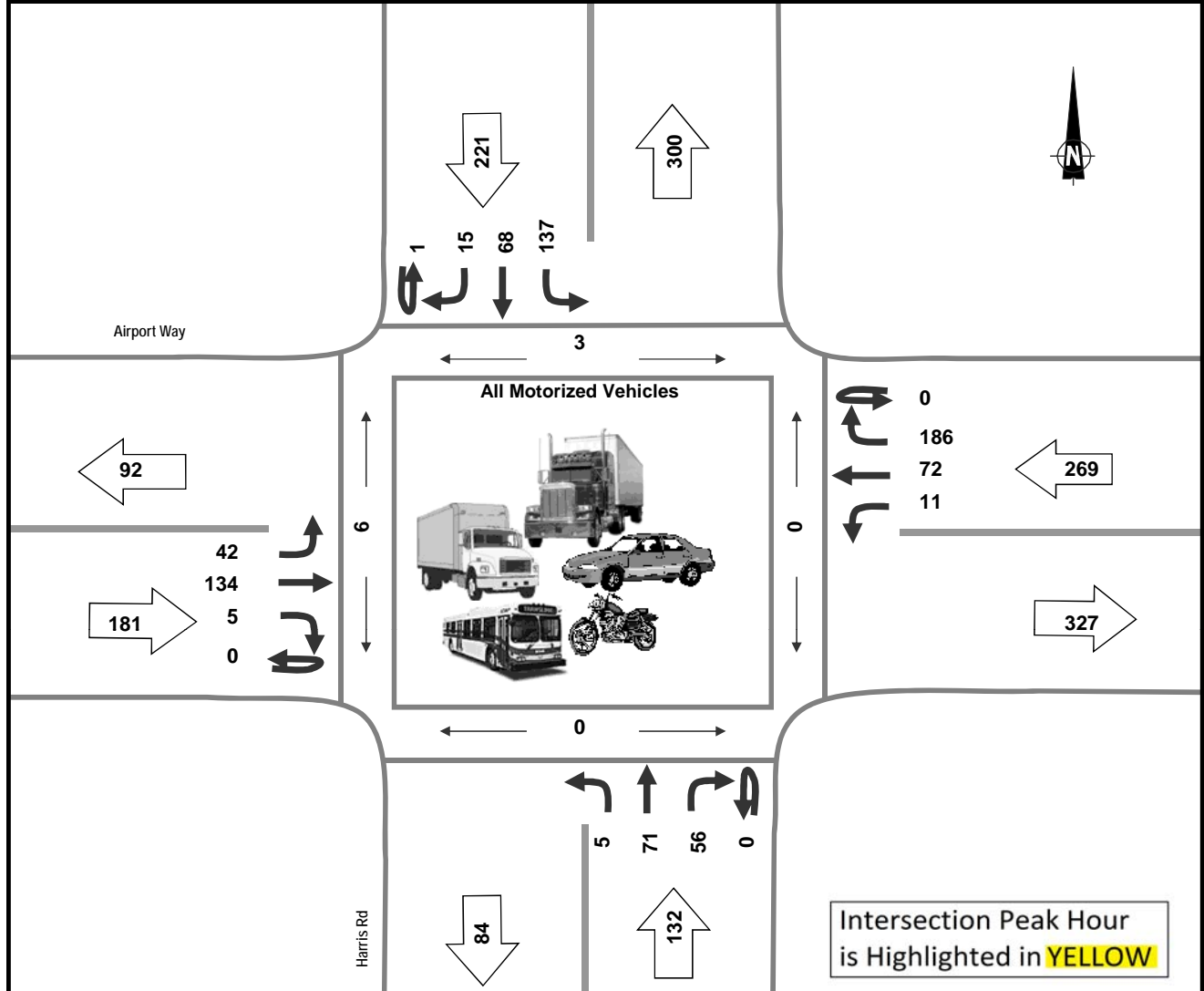


Project: #5623: Golden Ears Business Park Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Light snow
Vehicle Class: All Motorized Vehicles

Afternoon Peak Period

Peak Hour Traffic by Movement

4:15 PM to 5:15 PM



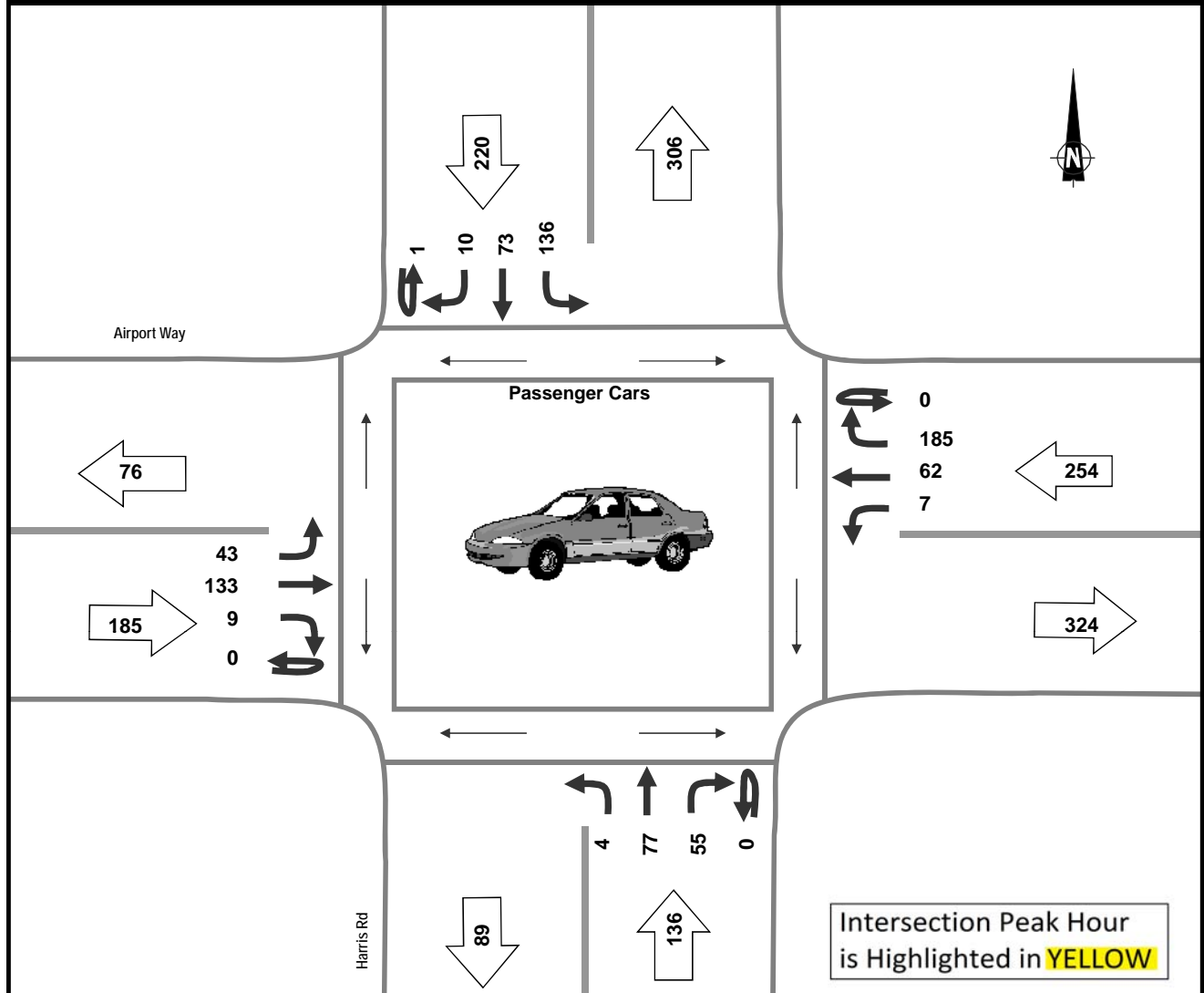
Time	NORTH Approach				SOUTH Approach				WEST Approach				EAST Approach				PEDESTRIANS				Total Volumes
	left	thru	right	U	left	thru	right	U	left	thru	right	U	left	thru	right	U	N	S	W	E	
Peak Hour	137	68	15	1	5	71	56	0	42	134	5	0	11	72	186	0	3	0	6	0	803
PHF	0.84	0.65	0.63	0.25	0.63	0.74	0.74	0.00	0.55	0.67	0.63	0.00	0.55	0.78	0.93	0.00	0.38	0.00	0.50	0.00	0.86
Peak 15 X 4	164	104	24	4	8	96	76	0	76	200	8	0	20	92	200	0	8	0	12	0	936
Average Hour	109	79	15	1	4	69	52	0	36	124	7	0	18	70	145	0	1	0	4	0	729
Survey Total	327	237	46	2	12	207	155	0	109	372	21	0	55	211	436	1	3	0	13	0	2,191
15:00	16	18	2	0	1	18	12	0	6	21	2	0	6	24	30	0	0	0	3	0	156
15:15	23	18	8	0	0	7	11	0	5	24	0	0	10	25	32	1	0	0	0	0	164
15:30	26	19	5	0	1	34	27	0	17	61	1	0	5	22	37	0	0	0	0	0	255
15:45	22	27	7	0	1	20	14	0	8	20	3	0	8	13	31	0	0	0	1	0	174
16:00	26	19	3	0	2	20	11	0	8	43	2	0	6	16	31	0	0	0	1	0	187
16:15	26	16	6	0	1	12	12	0	9	26	0	0	5	23	42	0	0	0	1	0	178
16:30	38	13	4	0	2	24	19	0	9	50	2	0	4	20	49	0	1	0	3	0	234
16:45	32	26	2	1	2	15	10	0	5	19	1	0	2	17	50	0	2	0	2	0	182
17:00	41	13	3	0	0	20	15	0	19	39	2	0	0	12	45	0	0	0	0	0	209
17:15	25	21	1	0	1	18	13	0	10	26	4	0	2	14	41	0	0	0	0	0	176
17:30	29	24	2	1	1	9	6	0	8	22	1	0	4	11	26	0	0	0	1	0	144
17:45	23	23	3	0	0	10	5	0	5	21	3	0	3	14	22	0	0	0	1	0	132

Project: #5623: Golden Ears Business Park Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Light snow
Vehicle Class: Passenger Cars

Afternoon Peak Period

Peak Hour Traffic by Movement

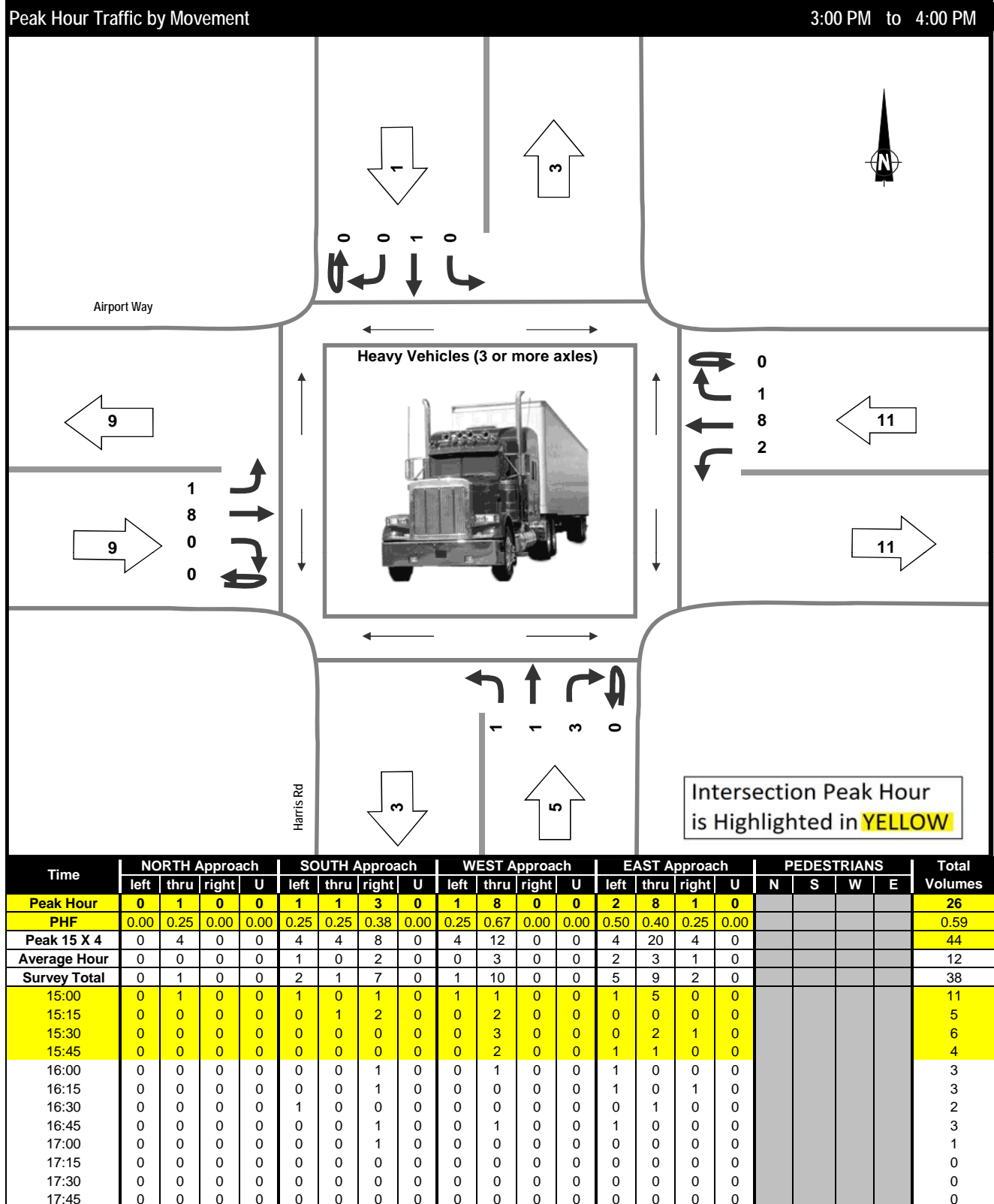
4:30 PM to 5:30 PM



Time	NORTH Approach				SOUTH Approach				WEST Approach				EAST Approach				PEDESTRIANS				Total Volumes
	left	thru	right	U	left	thru	right	U	left	thru	right	U	left	thru	right	U	N	S	W	E	
Peak Hour	136	73	10	1	4	77	55	0	43	133	9	0	7	62	185	0					795
PHF	0.83	0.70	0.63	0.25	0.50	0.80	0.72	0.00	0.57	0.67	0.56	0.00	0.44	0.82	0.93	0.00					0.86
Peak 15 X 4	164	104	16	4	8	96	76	0	76	200	16	0	16	76	200	0					928
Average Hour	109	79	15	1	3	69	49	0	36	121	7	0	17	67	145	0					718
Survey Total	327	236	46	2	10	206	148	0	108	362	21	0	50	202	434	1					2,153
15:00	16	17	2	0	0	18	11	0	5	20	2	0	5	19	30	0					145
15:15	23	18	8	0	0	6	9	0	5	22	0	0	10	25	32	1					159
15:30	26	19	5	0	1	34	27	0	17	58	1	0	5	20	36	0					249
15:45	22	27	7	0	1	20	14	0	8	18	3	0	7	12	31	0					170
16:00	26	19	3	0	2	20	10	0	8	42	2	0	5	16	31	0					184
16:15	26	16	6	0	1	12	11	0	9	26	0	0	4	23	41	0					175
16:30	38	13	4	0	1	24	19	0	9	50	2	0	4	19	49	0					232
16:45	32	26	2	1	2	15	9	0	5	18	1	0	1	17	50	0					179
17:00	41	13	3	0	0	20	14	0	19	39	2	0	0	12	45	0					208
17:15	25	21	1	0	1	18	13	0	10	26	4	0	2	14	41	0					176
17:30	29	24	2	1	1	9	6	0	8	22	1	0	4	11	26	0					144
17:45	23	23	3	0	0	10	5	0	5	21	3	0	3	14	22	0					132

Project: #5623: Golden Ears Business Park Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Light snow
Vehicle Class: Heavy Vehicles (3 or more axes)

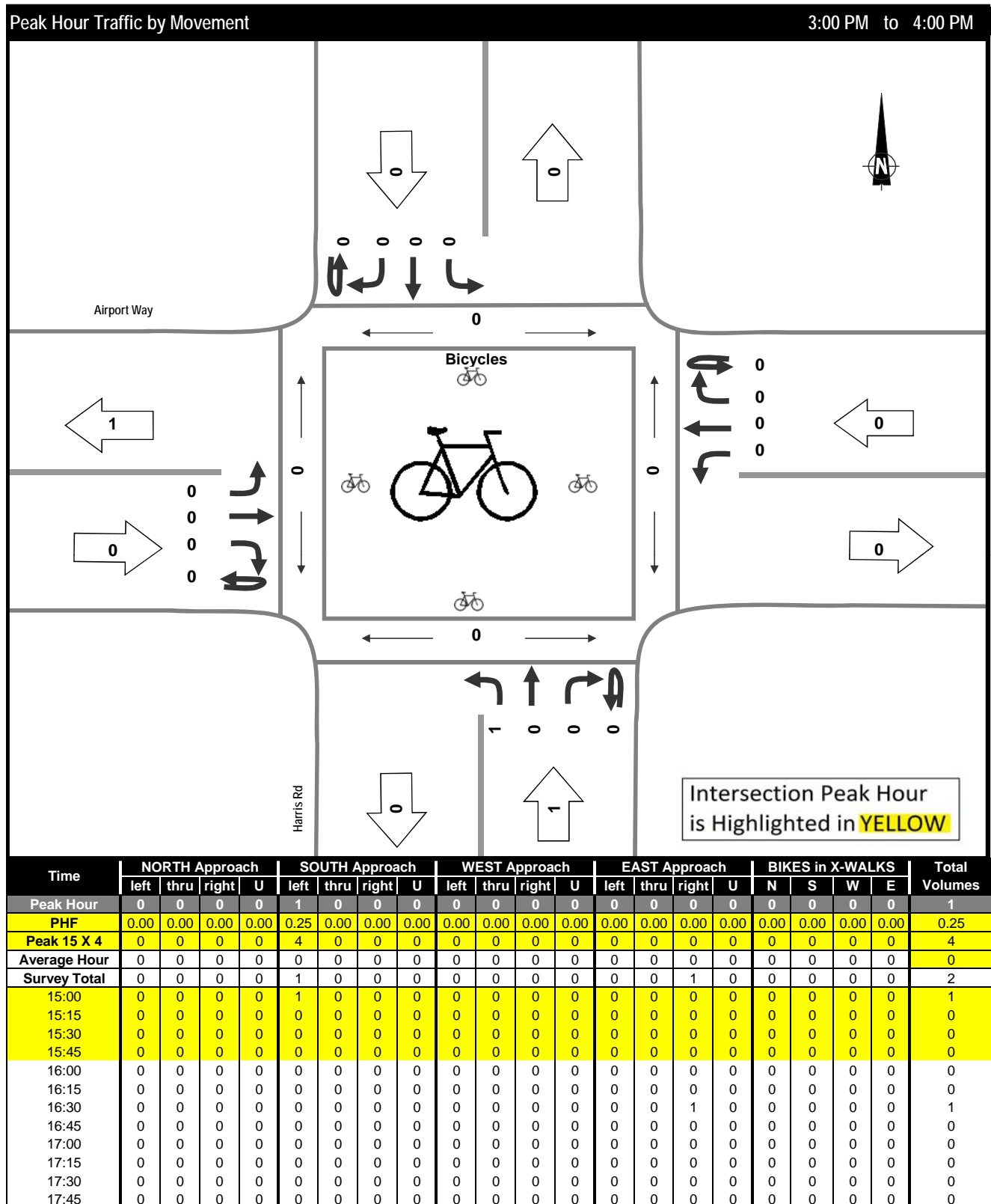
Afternoon Peak Period



Project: #5623: Golden Ears Business Park Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Light snow
Vehicle Class: Bicycles

Afternoon Peak Period

Note: Crosswalk bike volumes shown are cyclists who walked their bike and are not included in the pedestrian volume totals





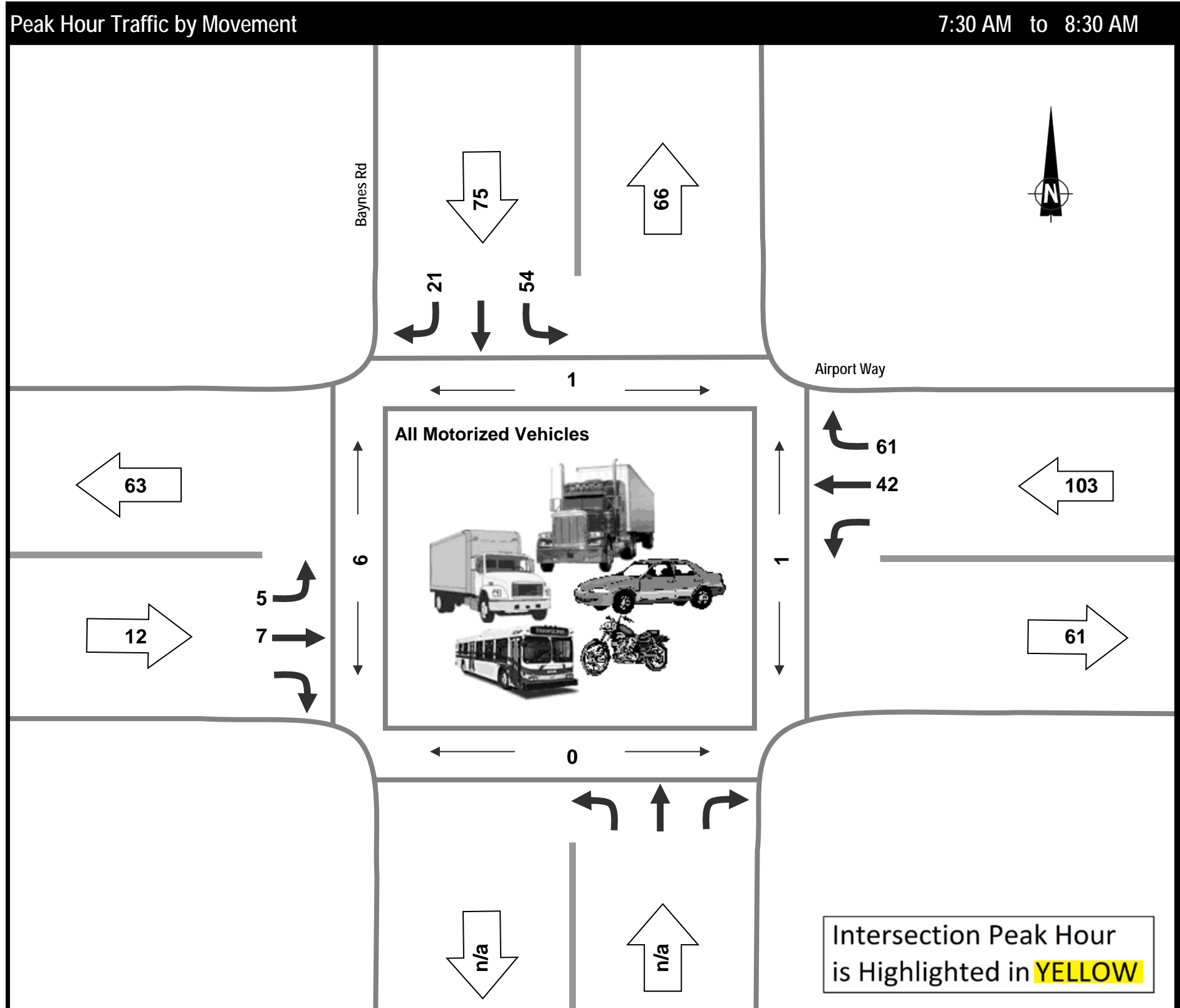
Vehicle Classification Summary

Project: #5623: Golden Ears Business Park Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Light snow

Time Period	Entering Intersection	Vehicle Classification					Total
		Passenger Cars	Heavy Vehicles (3 or more axles)				
Morning (07:00 - 09:00)	Volume	304	29				333
	%	91.3%	8.7%				100.0%
Afternoon (15:00 - 18:00)	Volume	555	11				566
	%	98.1%	1.9%				100.0%
Total (5 Hours)	Volume	859	40				899
	%	95.6%	4.4%				100.0%

Project: #5623: Golden Ears Business Park Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Light snow
Vehicle Class: All Motorized Vehicles

Morning Peak Period



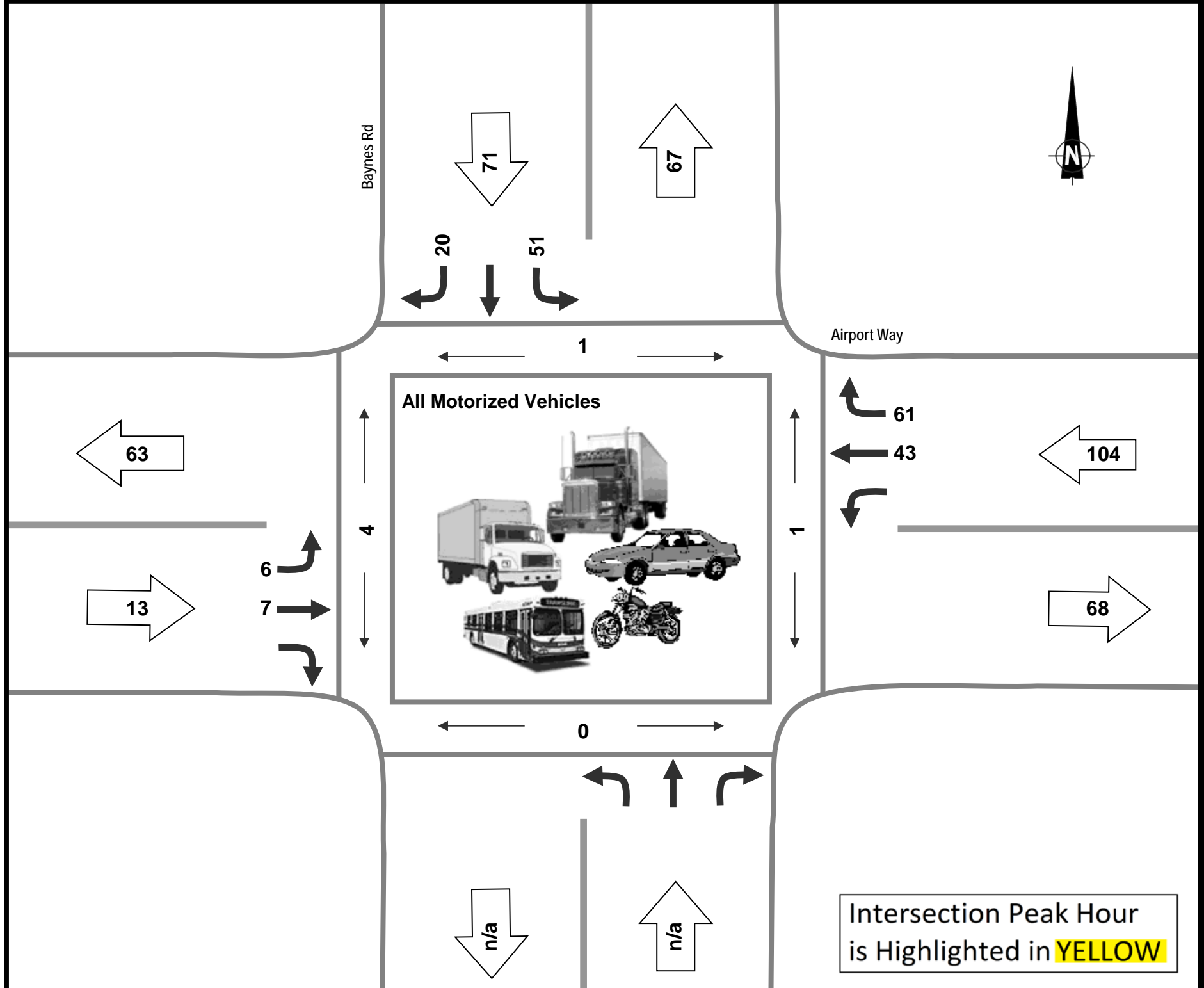
Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	54		21				5	7			42	61	1	0	6	1	190
PHF	0.79		0.75				0.42	0.44			0.81	0.69	0.25	0.00	0.75	0.25	0.93
Peak 15 X 4	68		28				12	16			52	88	4	0	8	4	204
Average Hour	47		16				4	7			39	55	1	1	4	1	168
Survey Total	93		32				7	14			78	109	1	1	8	2	333
7:00	7		0				0	3			9	9	0	0	0	1	28
7:15	9		1				0	0			6	14	0	1	2	0	30
7:30	15		7				0	0			11	14	0	0	2	0	47
7:45	12		4				0	3			12	14	0	0	2	0	45
8:00	10		7				2	4			13	11	1	0	2	1	47
8:15	17		3				3	0			6	22	0	0	0	0	51
8:30	12		6				1	0			12	14	0	0	0	0	45
8:45	11		4				1	4			9	11	0	0	0	0	40

Project: #5623: Golden Ears Business Park Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Light snow
Vehicle Class: All Motorized Vehicles
Note: Shifted peak hour

Morning Peak Period

Peak Hour Traffic by Movement

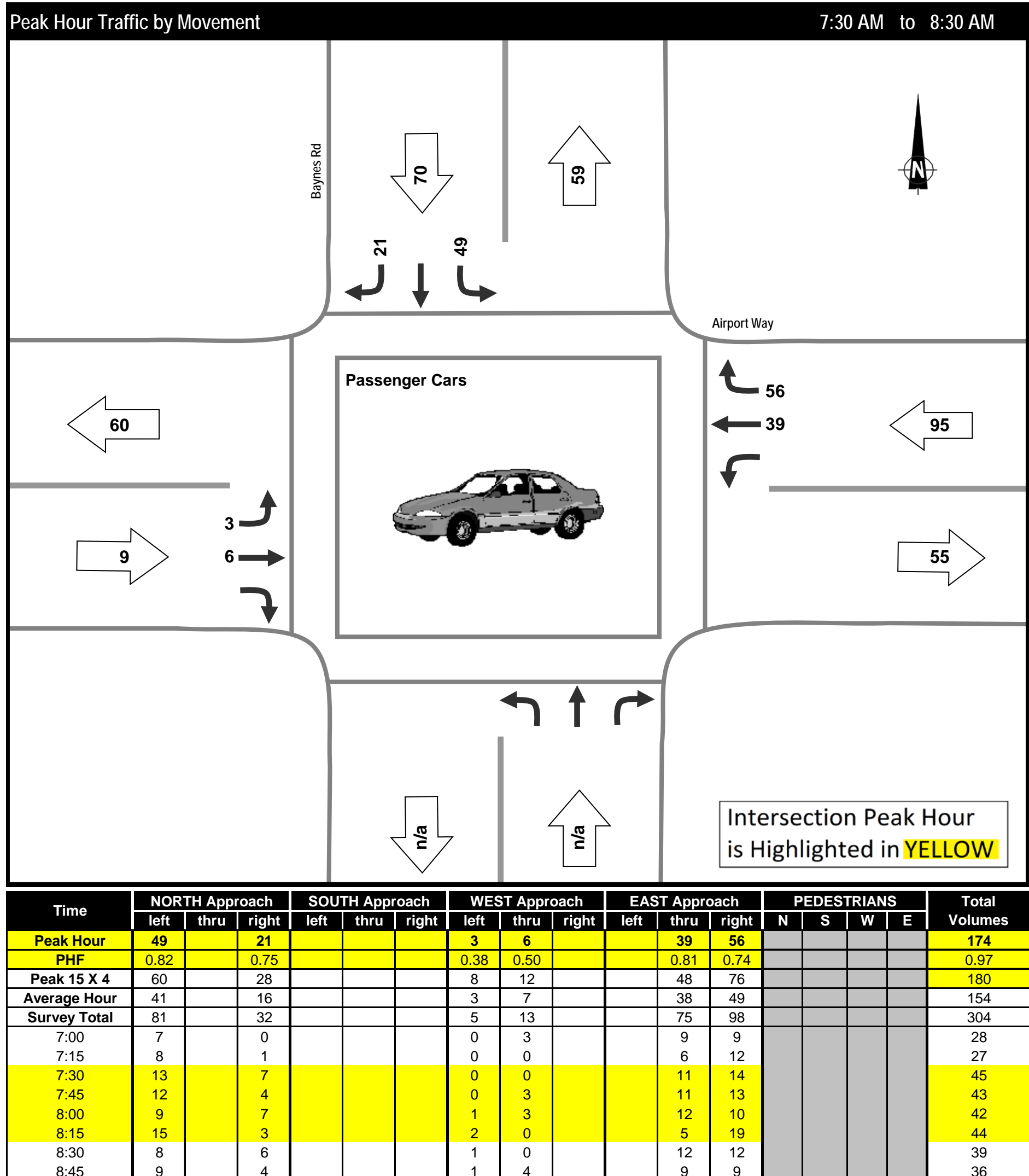
7:45 AM to 8:45 AM



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	51		20				6	7			43	61	1	0	4	1	188
PHF	0.75		0.71				0.50	0.44			0.83	0.69	0.25	0.00	0.50	0.25	0.92
Peak 15 X 4	68		28				12	16			52	88	4	0	8	4	204
Average Hour	47		16				4	7			39	55	1	1	4	1	168
Survey Total	93		32				7	14			78	109	1	1	8	2	333
7:00	7		0				0	3			9	9	0	0	0	1	28
7:15	9		1				0	0			6	14	0	1	2	0	30
7:30	15		7				0	0			11	14	0	0	2	0	47
7:45	12		4				0	3			12	14	0	0	2	0	45
8:00	10		7				2	4			13	11	1	0	2	1	47
8:15	17		3				3	0			6	22	0	0	0	0	51
8:30	12		6				1	0			12	14	0	0	0	0	45
8:45	11		4				1	4			9	11	0	0	0	0	40

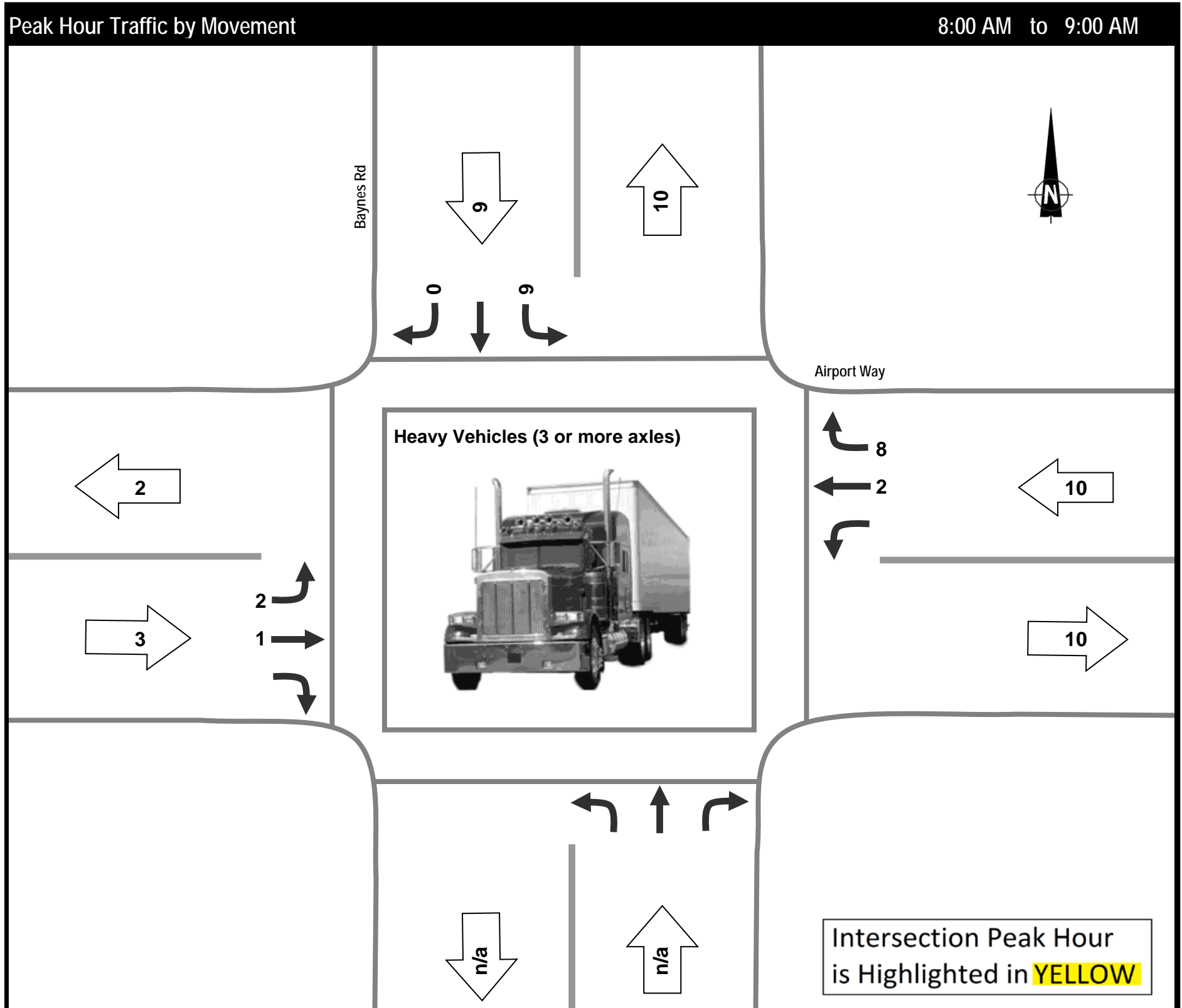
Project: #5623: Golden Ears Business Park Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Light snow
Vehicle Class: Passenger Cars

Morning Peak Period



Project: #5623: Golden Ears Business Park Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Light snow
Vehicle Class: Heavy Vehicles (3 or more axles)

Morning Peak Period

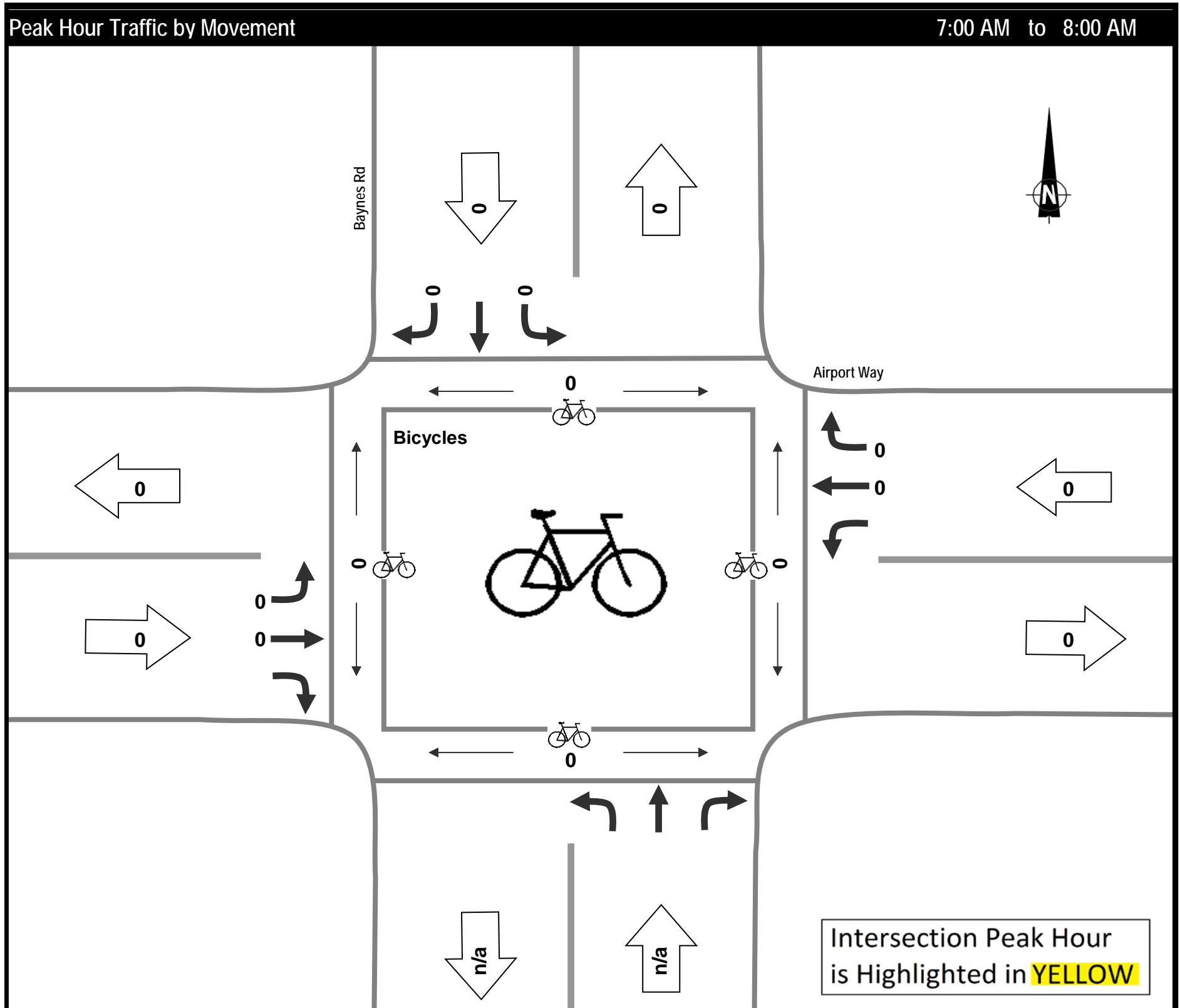


Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	9		0				2	1			2	8					22
PHF	0.56		0.00				0.50	0.25			0.50	0.67					0.79
Peak 15 X 4	16		0				4	4			4	12					28
Average Hour	6		0				1	1			2	6					16
Survey Total	12		0				2	1			3	11					29
7:00	0		0				0	0			0	0					0
7:15	1		0				0	0			0	2					3
7:30	2		0				0	0			0	0					2
7:45	0		0				0	0			1	1					2
8:00	1		0				1	1			1	1					5
8:15	2		0				1	0			1	3					7
8:30	4		0				0	0			0	2					6
8:45	2		0				0	0			0	2					4

Project: #5623: Golden Ears Business Park Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Light snow
Vehicle Class: Bicycles

Morning Peak Period

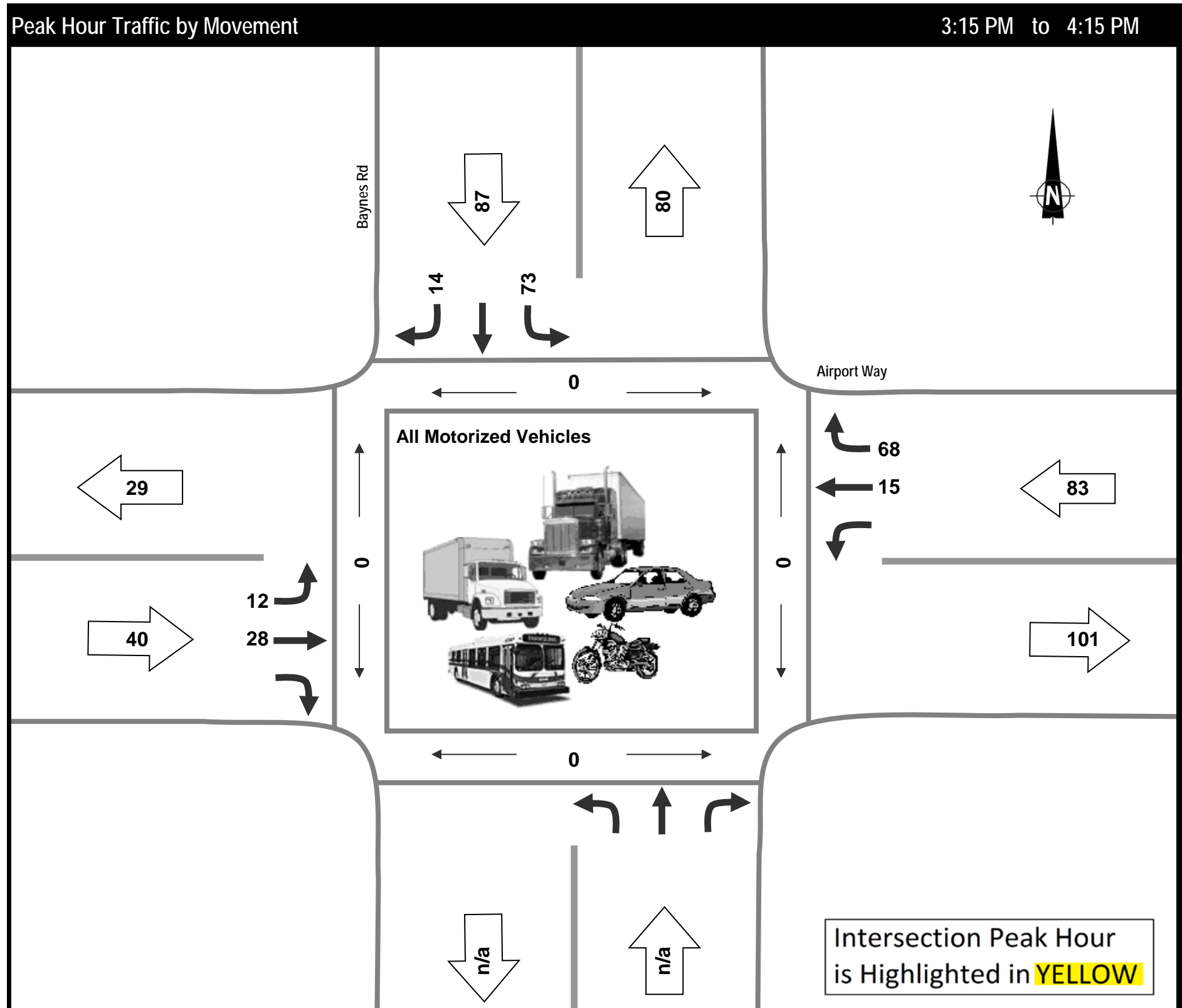
Note: Crosswalk bike volumes shown are cyclists who rode their bike across the crosswalk and are not included in the pedestrian volume totals



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			BIKES in X-WALKS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0		0				0	0			0	0	0	0	0	0	0
PHF	0.00		0.00				0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00
Peak 15 X 4	0		0				0	0			0	0	0	0	0	0	0
Average Hour	0		0				0	0			0	0	0	0	0	0	0
Survey Total	0		0				0	0			0	0	0	0	0	0	0
7:00	0		0				0	0			0	0	0	0	0	0	0
7:15	0		0				0	0			0	0	0	0	0	0	0
7:30	0		0				0	0			0	0	0	0	0	0	0
7:45	0		0				0	0			0	0	0	0	0	0	0
8:00	0		0				0	0			0	0	0	0	0	0	0
8:15	0		0				0	0			0	0	0	0	0	0	0
8:30	0		0				0	0			0	0	0	0	0	0	0
8:45	0		0				0	0			0	0	0	0	0	0	0

Project: #5623: Golden Ears Business Park Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Light snow
Vehicle Class: All Motorized Vehicles

Afternoon Peak Period



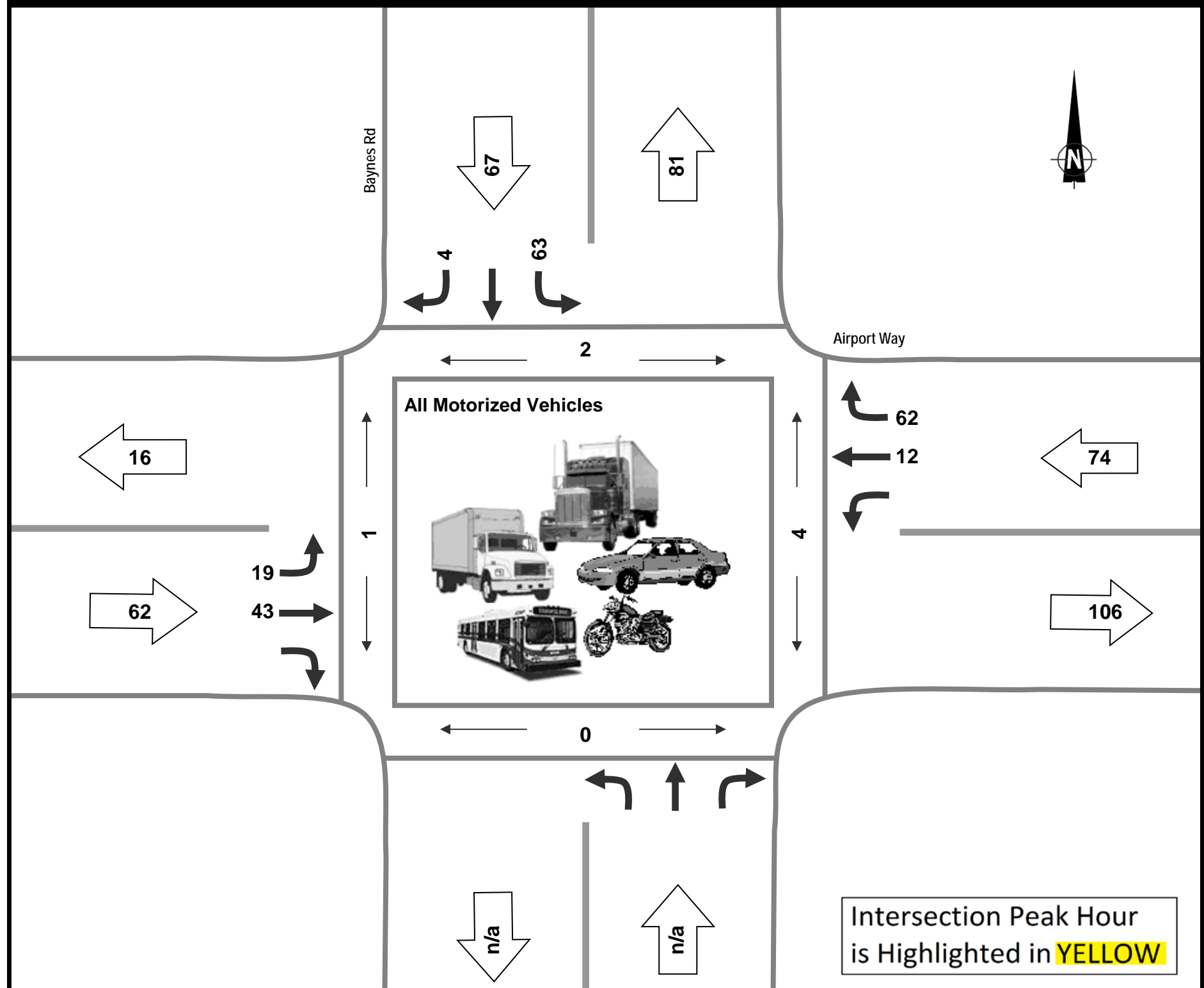
Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	73		14				12	28			15	68	0	0	0	0	210
PHF	0.79		0.70				0.50	0.54			0.94	0.85	0.00	0.00	0.00	0.00	0.81
Peak 15 X 4	92		20				24	52			16	80	0	0	0	0	260
Average Hour	65		8				13	31			10	62	1	0	0	2	189
Survey Total	194		23				38	93			31	187	2	0	1	6	566
15:00	15		2				3	6			2	17	0	0	0	0	45
15:15	19		5				6	7			4	18	0	0	0	0	59
15:30	23		3				2	13			4	20	0	0	0	0	65
15:45	11		3				1	2			3	11	0	0	0	0	31
16:00	20		3				3	6			4	19	0	0	0	0	55
16:15	13		1				7	3			6	10	1	0	0	0	40
16:30	20		0				4	15			3	21	0	0	0	2	63
16:45	11		2				1	7			1	19	0	0	0	0	41
17:00	19		1				7	18			2	12	1	0	1	2	59
17:15	19		0				2	4			1	15	0	0	0	1	41
17:30	12		2				2	5			1	13	0	0	0	0	35
17:45	12		1				0	7			0	12	0	0	0	1	32

Project: #5623: Golden Ears Business Park Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Light snow
Vehicle Class: All Motorized Vehicles
Note: Shifted peak hour

Afternoon Peak Period

Peak Hour Traffic by Movement

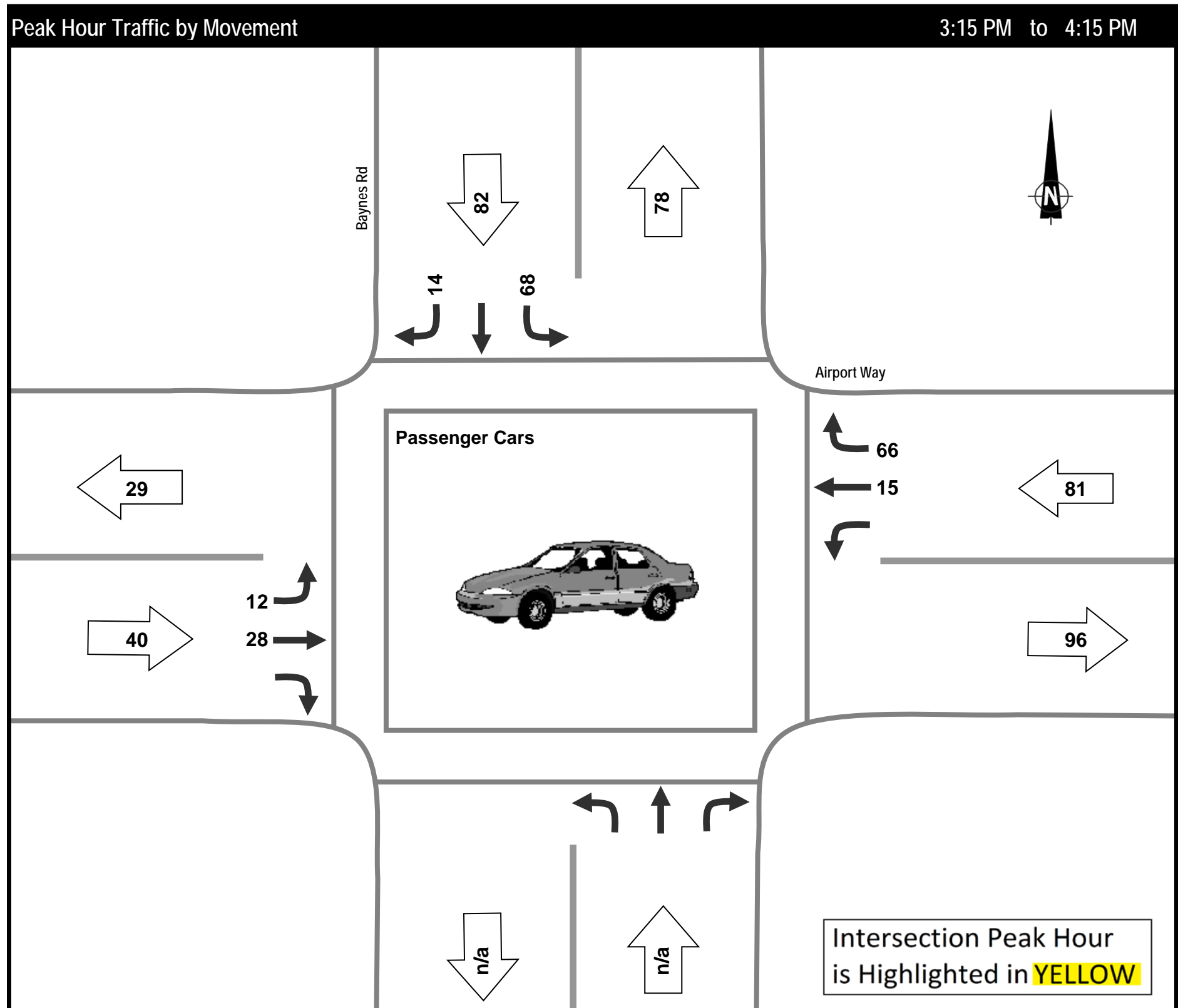
4:15 PM to 5:15 PM



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	63		4				19	43			12	62	2	0	1	4	203
PHF	0.79		0.50				0.68	0.60			0.50	0.74	0.50	0.00	0.25	0.50	0.81
Peak 15 X 4	80		8				28	72			24	84	4	0	4	8	252
Average Hour	65		8				13	31			10	62	1	0	0	2	189
Survey Total	194		23				38	93			31	187	2	0	1	6	566
15:00	15		2				3	6			2	17	0	0	0	0	45
15:15	19		5				6	7			4	18	0	0	0	0	59
15:30	23		3				2	13			4	20	0	0	0	0	65
15:45	11		3				1	2			3	11	0	0	0	0	31
16:00	20		3				3	6			4	19	0	0	0	0	55
16:15	13		1				7	3			6	10	1	0	0	0	40
16:30	20		0				4	15			3	21	0	0	0	2	63
16:45	11		2				1	7			1	19	0	0	0	0	41
17:00	19		1				7	18			2	12	1	0	1	2	59
17:15	19		0				2	4			1	15	0	0	0	1	41
17:30	12		2				2	5			1	13	0	0	0	0	35
17:45	12		1				0	7			0	12	0	0	0	1	32

Project: #5623: Golden Ears Business Park Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Light snow
Vehicle Class: Passenger Cars

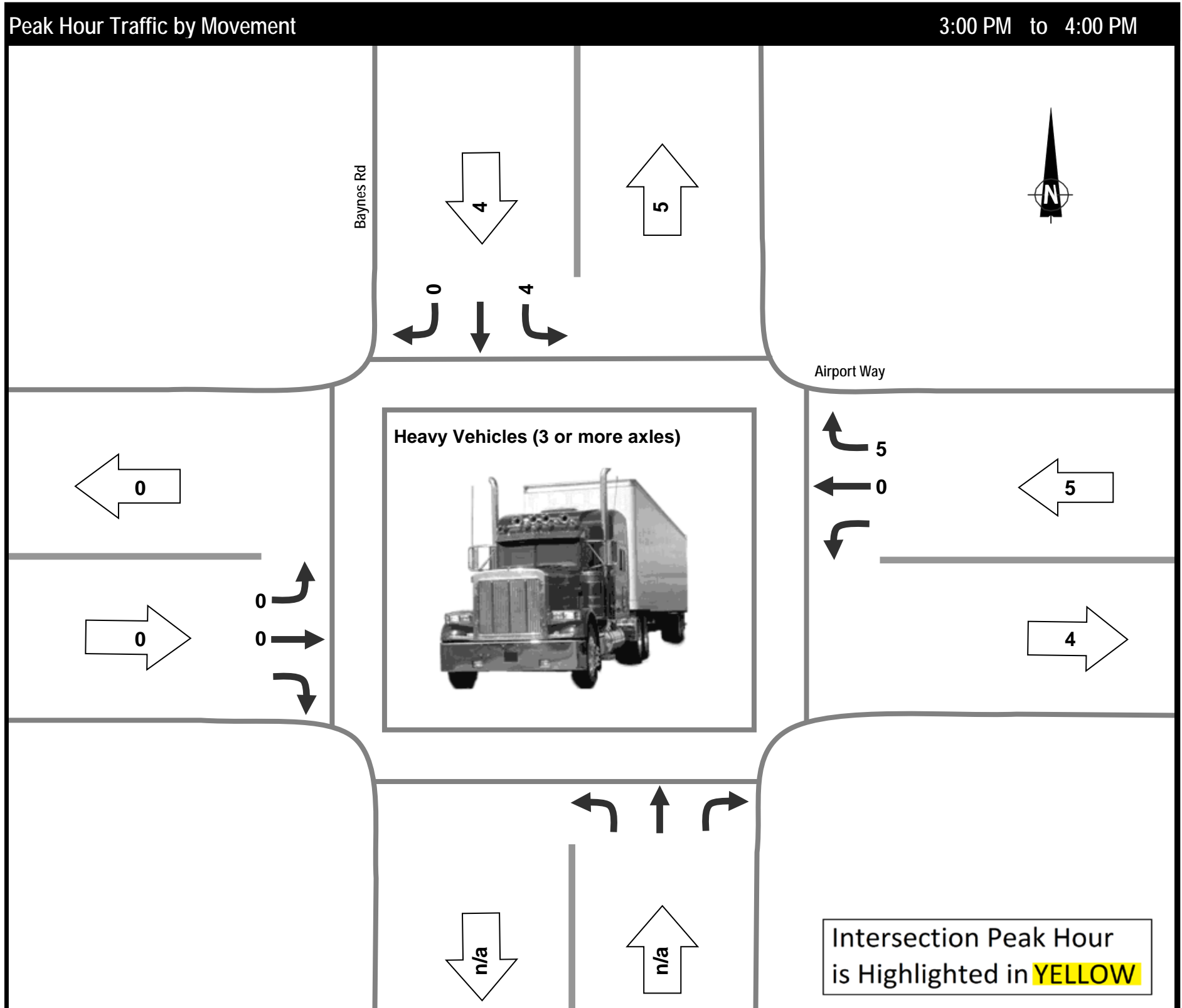
Afternoon Peak Period



Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	68		14				12	28			15	66					203
PHF	0.85		0.70				0.50	0.54			0.94	0.87					0.85
Peak 15 X 4	80		20				24	52			16	76					240
Average Hour	63		8				13	31			10	61					186
Survey Total	188		23				38	93			31	182					555
15:00	15		2				3	6			2	14					42
15:15	18		5				6	7			4	18					58
15:30	20		3				2	13			4	18					60
15:45	11		3				1	2			3	11					31
16:00	19		3				3	6			4	19					54
16:15	13		1				7	3			6	10					40
16:30	20		0				4	15			3	21					63
16:45	10		2				1	7			1	19					40
17:00	19		1				7	18			2	12					59
17:15	19		0				2	4			1	15					41
17:30	12		2				2	5			1	13					35
17:45	12		1				0	7			0	12					32

Project: #5623: Golden Ears Business Park Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Light snow
Vehicle Class: Heavy Vehicles (3 or more axles)

Afternoon Peak Period

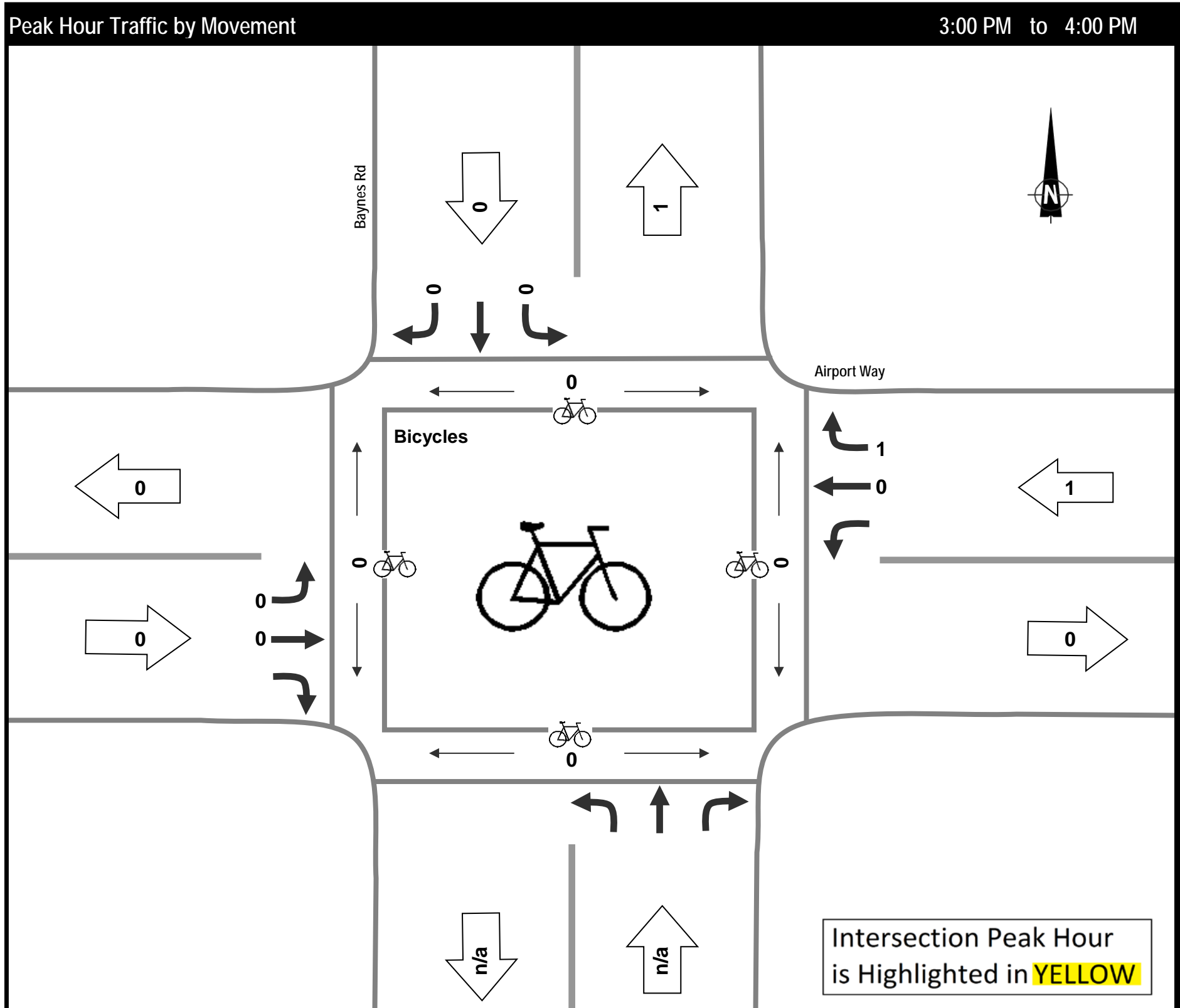


Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			PEDESTRIANS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	4		0				0	0			0	5					9
PHF	0.33		0.00				0.00	0.00			0.00	0.42					0.45
Peak 15 X 4	12		0				0	0			0	12					20
Average Hour	2		0				0	0			0	2					4
Survey Total	6		0				0	0			0	5					11
15:00	0		0				0	0			0	3					3
15:15	1		0				0	0			0	0					1
15:30	3		0				0	0			0	2					5
15:45	0		0				0	0			0	0					0
16:00	1		0				0	0			0	0					1
16:15	0		0				0	0			0	0					0
16:30	0		0				0	0			0	0					0
16:45	1		0				0	0			0	0					1
17:00	0		0				0	0			0	0					0
17:15	0		0				0	0			0	0					0
17:30	0		0				0	0			0	0					0
17:45	0		0				0	0			0	0					0

Project: #5623: Golden Ears Business Park Traffic Engineering Services
Municipality: Pitt Meadows
Weather: Light snow
Vehicle Class: Bicycles

Afternoon Peak Period

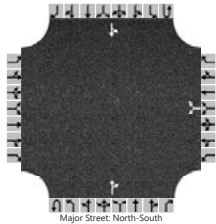
Note: Crosswalk bike volumes shown are cyclists who rode their bike across the crosswalk and are not included in the pedestrian volume totals

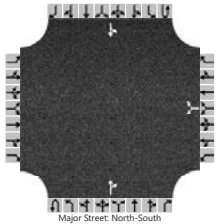


Time	NORTH Approach			SOUTH Approach			WEST Approach			EAST Approach			BIKES in X-WALKS				Total Volumes
	left	thru	right	left	thru	right	left	thru	right	left	thru	right	N	S	W	E	
Peak Hour	0		0				0	0			0	1	0	0	0	0	1
PHF	0.00		0.00				0.00	0.00			0.00	0.25	0.00	0.00	0.00	0.00	0.25
Peak 15 X 4	0		0				0	0			0	4	0	0	0	0	4
Average Hour	0		0				0	0			0	0	0	0	0	0	0
Survey Total	0		0				0	0			0	1	0	0	0	0	1
15:00	0		0				0	0			0	1	0	0	0	0	1
15:15	0		0				0	0			0	0	0	0	0	0	0
15:30	0		0				0	0			0	0	0	0	0	0	0
15:45	0		0				0	0			0	0	0	0	0	0	0
16:00	0		0				0	0			0	0	0	0	0	0	0
16:15	0		0				0	0			0	0	0	0	0	0	0
16:30	0		0				0	0			0	0	0	0	0	0	0
16:45	0		0				0	0			0	0	0	0	0	0	0
17:00	0		0				0	0			0	0	0	0	0	0	0
17:15	0		0				0	0			0	0	0	0	0	0	0
17:30	0		0				0	0			0	0	0	0	0	0	0
17:45	0		0				0	0			0	0	0	0	0	0	0

APPENDIX F

Intersection Capacity Analysis Summary Sheets

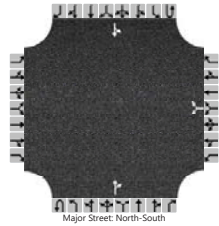
HCS7 Two-Way Stop-Control Report																
General Information								Site Information								
Analyst	RC							Intersection	Harris Rd & Phase 3 N Acc							
Agency/Co.	CTS							Jurisdiction	Pitt Meadows, BC							
Date Performed	Base+Site							East/West Street	North Access - Phase 3							
Analysis Year	2024							North/South Street	Harris Road							
Time Analyzed	Wkdy AM Peak Hr							Peak Hour Factor	0.93							
Intersection Orientation	North-South							Analysis Time Period (hrs)	0.25							
Project Description	Golden Ears Business Park Access Study															
Lanes																
																
Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						8		3			372	36		12	525	
Percent Heavy Vehicles (%)						0		0						0		
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized																
Median Type Storage					Undivided											
Critical and Follow-up Headways																
Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.40		6.20						4.10		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.50		3.30						2.20		
Delay, Queue Length, and Level of Service																
Flow Rate, v (veh/h)							12							13		
Capacity, c (veh/h)							314							1132		
v/c Ratio							0.04							0.01		
95% Queue Length, Q ₉₅ (veh)							0.1							0.0		
Control Delay (s/veh)							16.9							8.2		
Level of Service (LOS)							C							A		
Approach Delay (s/veh)					16.9								0.3			
Approach LOS					C											

HCS7 Two-Way Stop-Control Report																
General Information								Site Information								
Analyst	RC							Intersection				Harris Rd & Phase 3 N Acc				
Agency/Co.	CTS							Jurisdiction				Pitt Meadows, BC				
Date Performed	Base+Site							East/West Street				North Access - Phase 3				
Analysis Year	2035							North/South Street				Harris Road				
Time Analyzed	Wkdy AM Peak Hr							Peak Hour Factor				0.93				
Intersection Orientation	North-South							Analysis Time Period (hrs)				0.25				
Project Description	Golden Ears Business Park Access Study															
Lanes																
																
Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						8		3			449	36		12	623	
Percent Heavy Vehicles (%)						0		0						0		
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized																
Median Type Storage					Undivided											
Critical and Follow-up Headways																
Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.40		6.20						4.10		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.50		3.30						2.20		
Delay, Queue Length, and Level of Service																
Flow Rate, v (veh/h)							12							13		
Capacity, c (veh/h)							247							1055		
v/c Ratio							0.05							0.01		
95% Queue Length, Q ₉₅ (veh)							0.2							0.0		
Control Delay (s/veh)							20.3							8.5		
Level of Service (LOS)							C							A		
Approach Delay (s/veh)					20.3								0.3			
Approach LOS					C											

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Harris Rd & Phase 3 N Acc
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base+Site	East/West Street	North Access - Phase 3
Analysis Year	2024	North/South Street	Harris Road
Time Analyzed	Wkdy PM Peak Hr	Peak Hour Factor	0.86
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR						TR		LT	
Volume (veh/h)						35		12				614	9		3	421
Percent Heavy Vehicles (%)						0		0						0		
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)					7.1		6.2						4.1			
Critical Headway (sec)					6.40		6.20						4.10			
Base Follow-Up Headway (sec)					3.5		3.3						2.2			
Follow-Up Headway (sec)					3.50		3.30						2.20			

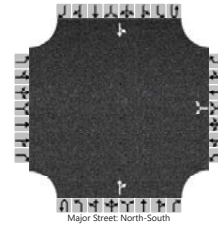
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						55							3			
Capacity, c (veh/h)						233							887			
v/c Ratio						0.23							0.00			
95% Queue Length, Q ₉₅ (veh)						0.9							0.0			
Control Delay (s/veh)						25.2							9.1			
Level of Service (LOS)						D							A			
Approach Delay (s/veh)					25.2								0.1			
Approach LOS					D											

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Harris Rd & Phase 3 N Acc
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base+Site	East/West Street	North Access - Phase 3
Analysis Year	2035	North/South Street	Harris Road
Time Analyzed	Wkdy PM Peak Hr	Peak Hour Factor	0.86
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						35		12			717	9		3	498	
Percent Heavy Vehicles (%)						0		0						0		
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)					7.1		6.2						4.1			
Critical Headway (sec)					6.40		6.20						4.10			
Base Follow-Up Headway (sec)					3.5		3.3						2.2			
Follow-Up Headway (sec)					3.50		3.30						2.20			

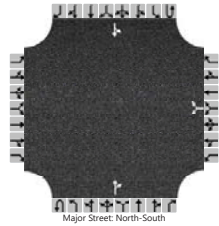
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						55							3			
Capacity, c (veh/h)						177							801			
v/c Ratio						0.31							0.00			
95% Queue Length, Q ₉₅ (veh)						1.2							0.0			
Control Delay (s/veh)						34.2							9.5			
Level of Service (LOS)						D							A			
Approach Delay (s/veh)					34.2								0.1			
Approach LOS					D											

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Harris Rd & Ph3 Mid Acc
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base+Site	East/West Street	Middle Access - Phase 3
Analysis Year	2024	North/South Street	Harris Road
Time Analyzed	Wkdy AM Peak Hr	Peak Hour Factor	0.93
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	10	11	12		7	8	9		1U	1	2	3	4U	4	5	6
Number of Lanes	0	0	0		0	1	0		0	0	1	0	0	0	1	0
Configuration						LR					TR			LT		
Volume (veh/h)					3		1				407	13		4	529	
Percent Heavy Vehicles (%)					0		0							0		
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized																
Median Type Storage					Undivided											

Critical and Follow-up Headways

Base Critical Headway (sec)					7.1		6.2							4.1		
Critical Headway (sec)					6.40		6.20							4.10		
Base Follow-Up Headway (sec)					3.5		3.3							2.2		
Follow-Up Headway (sec)					3.50		3.30							2.20		

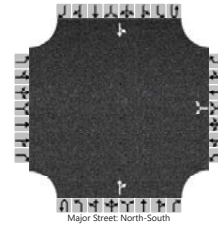
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						4								4		
Capacity, c (veh/h)						306								1120		
v/c Ratio						0.01								0.00		
95% Queue Length, Q ₉₅ (veh)						0.0								0.0		
Control Delay (s/veh)						16.9								8.2		
Level of Service (LOS)						C								A		
Approach Delay (s/veh)					16.9								0.1			
Approach LOS					C											

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Harris Rd & Ph3 Mid Acc
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base+Site	East/West Street	Middle Access - Phase 3
Analysis Year	2035	North/South Street	Harris Road
Time Analyzed	Wkdy AM Peak Hr	Peak Hour Factor	0.93
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	10	11	12		7	8	9		1U	1	2	3	4U	4	5	6
Number of Lanes	0	0	0		0	1	0		0	0	1	0	0	0	1	0
Configuration						LR					TR			LT		
Volume (veh/h)					3		1				484	13		4	627	
Percent Heavy Vehicles (%)					0		0							0		
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized																
Median Type Storage					Undivided											

Critical and Follow-up Headways

Base Critical Headway (sec)					7.1		6.2							4.1		
Critical Headway (sec)					6.40		6.20							4.10		
Base Follow-Up Headway (sec)					3.5		3.3							2.2		
Follow-Up Headway (sec)					3.50		3.30							2.20		

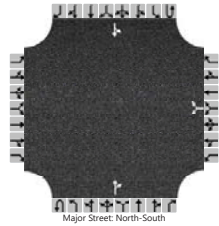
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						4								4		
Capacity, c (veh/h)						240								1044		
v/c Ratio						0.02								0.00		
95% Queue Length, Q ₉₅ (veh)						0.1								0.0		
Control Delay (s/veh)						20.2								8.5		
Level of Service (LOS)						C								A		
Approach Delay (s/veh)					20.2								0.1			
Approach LOS					C											

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Harris Rd & Ph3 Mid Acc
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base+Site	East/West Street	Middle Access - Phase 3
Analysis Year	2024	North/South Street	Harris Road
Time Analyzed	Wkdy PM Peak Hr	Peak Hour Factor	0.86
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR						TR		LT	
Volume (veh/h)						12		4				619	3		1	455
Percent Heavy Vehicles (%)						0		0						0		
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)					7.1		6.2						4.1			
Critical Headway (sec)					6.40		6.20						4.10			
Base Follow-Up Headway (sec)					3.5		3.3						2.2			
Follow-Up Headway (sec)					3.50		3.30						2.20			

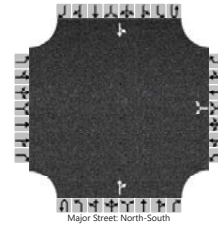
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						19							1			
Capacity, c (veh/h)						222							888			
v/c Ratio						0.08							0.00			
95% Queue Length, Q ₉₅ (veh)						0.3							0.0			
Control Delay (s/veh)						22.7							9.1			
Level of Service (LOS)						C							A			
Approach Delay (s/veh)					22.7								0.0			
Approach LOS					C											

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Harris Rd & Ph3 Mid Acc
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base+Site	East/West Street	Middle Access - Phase 3
Analysis Year	2035	North/South Street	Harris Road
Time Analyzed	Wkdy PM Peak Hr	Peak Hour Factor	0.86
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						12		4			722	3		1	532	
Percent Heavy Vehicles (%)						0		0						0		
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)					7.1		6.2						4.1			
Critical Headway (sec)					6.40		6.20						4.10			
Base Follow-Up Headway (sec)					3.5		3.3						2.2			
Follow-Up Headway (sec)					3.50		3.30						2.20			

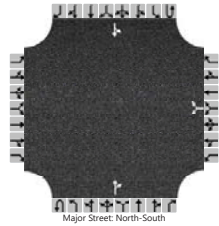
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						19							1			
Capacity, c (veh/h)						169							802			
v/c Ratio						0.11							0.00			
95% Queue Length, Q ₉₅ (veh)						0.4							0.0			
Control Delay (s/veh)						29.0							9.5			
Level of Service (LOS)						D							A			
Approach Delay (s/veh)					29.0								0.0			
Approach LOS					D											

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Harris Rd & Phase 3 S Acc
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base+Site	East/West Street	South Access - Phase 3
Analysis Year	2024	North/South Street	Harris Road
Time Analyzed	Wkdy AM Peak Hr	Peak Hour Factor	0.93
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR			LT	
Volume (veh/h)						6		2			418	24		8	524	
Percent Heavy Vehicles (%)						15		15						15		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type Storage																

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.55		6.35						4.25		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.64		3.44						2.34		

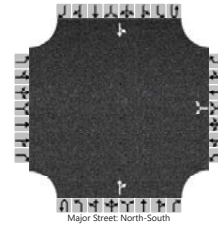
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							9							9		
Capacity, c (veh/h)							278							1022		
v/c Ratio							0.03							0.01		
95% Queue Length, Q ₉₅ (veh)							0.1							0.0		
Control Delay (s/veh)							18.4							8.6		
Level of Service (LOS)							C							A		
Approach Delay (s/veh)							18.4							0.2		
Approach LOS							C									

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Harris Rd & Phase 3 S Acc
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base+Site	East/West Street	South Access - Phase 3
Analysis Year	2035	North/South Street	Harris Road
Time Analyzed	Wkdy AM Peak Hr	Peak Hour Factor	0.93
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR			LT	
Volume (veh/h)						6		2			495	24		8	622	
Percent Heavy Vehicles (%)						15		15						15		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type Storage																

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.55		6.35						4.25		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.64		3.44						2.34		

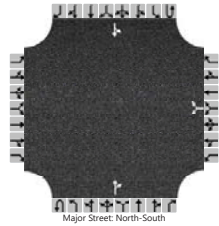
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							9							9		
Capacity, c (veh/h)							217							951		
v/c Ratio							0.04							0.01		
95% Queue Length, Q ₉₅ (veh)							0.1							0.0		
Control Delay (s/veh)							22.3							8.8		
Level of Service (LOS)							C							A		
Approach Delay (s/veh)							22.3							0.2		
Approach LOS							C									

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Harris Rd & Phase 3 S Acc
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base+Site	East/West Street	South Access - Phase 3
Analysis Year	2024	North/South Street	Harris Road
Time Analyzed	Wkdy PM Peak Hr	Peak Hour Factor	0.86
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	10	11	12		7	8	9		1U	1	2	3	4U	4	5	6
Number of Lanes	0	0	0		0	1	0		0	0	1	0	0	1	0	
Configuration							LR					TR			LT	
Volume (veh/h)						24		8			614	7		2	465	
Percent Heavy Vehicles (%)						15		15						15		
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2							4.1	
Critical Headway (sec)						6.55		6.35							4.25	
Base Follow-Up Headway (sec)						3.5		3.3							2.2	
Follow-Up Headway (sec)						3.64		3.44							2.34	

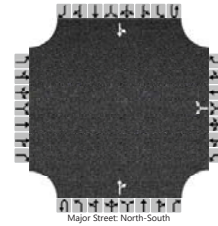
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						37								2		
Capacity, c (veh/h)						204								823		
v/c Ratio						0.18								0.00		
95% Queue Length, Q ₉₅ (veh)						0.6								0.0		
Control Delay (s/veh)						26.5								9.4		
Level of Service (LOS)						D								A		
Approach Delay (s/veh)					26.5								0.1			
Approach LOS					D											

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Harris Rd & Phase 3 S Acc
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base+Site	East/West Street	South Access - Phase 3
Analysis Year	2035	North/South Street	Harris Road
Time Analyzed	Wkdy PM Peak Hr	Peak Hour Factor	0.86
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	10	11	12		7	8	9		1U	1	2	3	4U	4	5	6
Number of Lanes	0	0	0		0	1	0		0	0	1	0	0	1	0	
Configuration							LR					TR			LT	
Volume (veh/h)						24		8			717	7		2	542	
Percent Heavy Vehicles (%)						15		15						15		
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized																
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2							4.1	
Critical Headway (sec)						6.55		6.35							4.25	
Base Follow-Up Headway (sec)						3.5		3.3							2.2	
Follow-Up Headway (sec)						3.64		3.44							2.34	

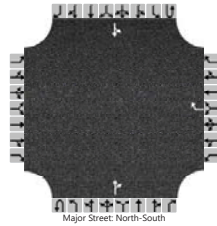
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						37								2		
Capacity, c (veh/h)						154								741		
v/c Ratio						0.24								0.00		
95% Queue Length, Q ₉₅ (veh)						0.9								0.0		
Control Delay (s/veh)						35.7								9.9		
Level of Service (LOS)						E								A		
Approach Delay (s/veh)					35.7								0.1			
Approach LOS					E											

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Harris Rd & Ph 4 Sit Acc
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base+Site	East/West Street	Site Access - Phase 4
Analysis Year	2024	North/South Street	Harris Road
Time Analyzed	Wkdy AM Peak Hr	Peak Hour Factor	0.93
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	10	11	12		7	8	9		1U	1	2	3	4U	4	5	6
Number of Lanes	0	0	0		0	0	1		0	0	1	0	0	1	0	
Configuration							R					TR		LT		
Volume (veh/h)							20				170	12		85	149	
Percent Heavy Vehicles (%)							0							0		
Proportion Time Blocked																
Percent Grade (%)							0									
Right Turn Channelized							No									
Median Type Storage							Undivided									

Critical and Follow-up Headways

Base Critical Headway (sec)							6.2							4.1		
Critical Headway (sec)							6.20							4.10		
Base Follow-Up Headway (sec)							3.3							2.2		
Follow-Up Headway (sec)							3.30							2.20		

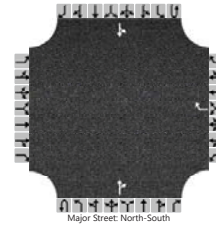
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							22							91		
Capacity, c (veh/h)							858							1389		
v/c Ratio							0.03							0.07		
95% Queue Length, Q ₉₅ (veh)							0.1							0.2		
Control Delay (s/veh)							9.3							7.8		
Level of Service (LOS)							A							A		
Approach Delay (s/veh)							9.3							3.2		
Approach LOS							A									

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Harris Rd & Ph 4 Site Acc
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base+Site	East/West Street	Site Access - Phase 4
Analysis Year	2035	North/South Street	Harris Road
Time Analyzed	Wkdy AM Peak Hr	Peak Hour Factor	0.93
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	10	11	12		7	8	9		1U	1	2	3	4U	4	5	6
Number of Lanes	0	0	0		0	0	1		0	0	1	0	0	1	0	
Configuration							R					TR		LT		
Volume (veh/h)							20				199	12		85	177	
Percent Heavy Vehicles (%)							0							0		
Proportion Time Blocked																
Percent Grade (%)							0									
Right Turn Channelized							No									
Median Type Storage							Undivided									

Critical and Follow-up Headways

Base Critical Headway (sec)							6.2							4.1		
Critical Headway (sec)							6.20							4.10		
Base Follow-Up Headway (sec)							3.3							2.2		
Follow-Up Headway (sec)							3.30							2.20		

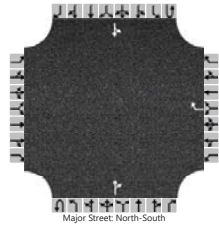
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							22							91		
Capacity, c (veh/h)							824							1353		
v/c Ratio							0.03							0.07		
95% Queue Length, Q ₉₅ (veh)							0.1							0.2		
Control Delay (s/veh)							9.5							7.9		
Level of Service (LOS)							A							A		
Approach Delay (s/veh)							9.5							2.9		
Approach LOS							A									

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Harris Rd & Ph 4 Site Acc
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base+Site	East/West Street	Site Access - Phase 4
Analysis Year	2024	North/South Street	Harris Road
Time Analyzed	Wkdy PM Peak Hr	Peak Hour Factor	0.86
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	1	0	0	1	0	0	0	1	0
Configuration								R					TR		LT	
Volume (veh/h)								83				171	3		22	148
Percent Heavy Vehicles (%)								0						0		
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized					No											
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)							6.2							4.1		
Critical Headway (sec)							6.20							4.10		
Base Follow-Up Headway (sec)							3.3							2.2		
Follow-Up Headway (sec)							3.30							2.20		

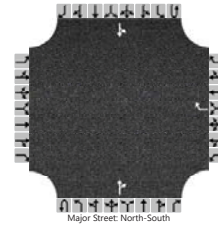
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							97							26		
Capacity, c (veh/h)							845							1382		
v/c Ratio							0.11							0.02		
95% Queue Length, Q ₉₅ (veh)							0.4							0.1		
Control Delay (s/veh)							9.8							7.7		
Level of Service (LOS)							A							A		
Approach Delay (s/veh)							9.8							1.1		
Approach LOS							A									

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Harris Rd & Ph 4 Site Acc
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base+Site	East/West Street	Site Access - Phase 4
Analysis Year	2035	North/South Street	Harris Road
Time Analyzed	Wkdy PM Peak Hr	Peak Hour Factor	0.86
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	1	0	0	1	0	0	0	1	0
Configuration								R					TR		LT	
Volume (veh/h)								83				203	3		22	175
Percent Heavy Vehicles (%)								0						0		
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized					No											
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)							6.2							4.1		
Critical Headway (sec)							6.20							4.10		
Base Follow-Up Headway (sec)							3.3							2.2		
Follow-Up Headway (sec)							3.30							2.20		

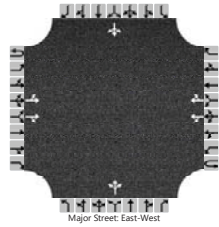
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							97							26		
Capacity, c (veh/h)							806							1339		
v/c Ratio							0.12							0.02		
95% Queue Length, Q ₉₅ (veh)							0.4							0.1		
Control Delay (s/veh)							10.1							7.7		
Level of Service (LOS)							B							A		
Approach Delay (s/veh)							10.1							1.0		
Approach LOS							B									

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Airport Way & Ph 3/4 Acc
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base + Site	East/West Street	Airport Way (4 lanes)
Analysis Year	2024	North/South Street	West Access-Phase 3 & 4
Time Analyzed	Wkdy AM Peak Hr	Peak Hour Factor	0.93
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	0	2	0		0	1	0		0	1	0
Configuration		LT		TR		LT		TR			LTR				LTR	
Volume (veh/h)		6	441	34		63	806	10		10	0	15		2	0	2
Percent Heavy Vehicles (%)		0				15				15	0	15		0	0	0
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Undivided															

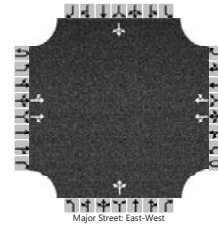
Critical and Follow-up Headways																
Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.10				4.40				7.80	6.50	7.20		7.50	6.50	6.90
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.20				2.35				3.65	4.00	3.45		3.50	4.00	3.30

Delay, Queue Length, and Level of Service															
Flow Rate, v (veh/h)		6				68				27				4	
Capacity, c (veh/h)		778				965				270				189	
v/c Ratio		0.01				0.07				0.10				0.02	
95% Queue Length, Q ₉₅ (veh)		0.0				0.2				0.3				0.1	
Control Delay (s/veh)		9.7				9.0				19.8				24.5	
Level of Service (LOS)		A				A				C				C	
Approach Delay (s/veh)		0.2				1.1				19.8				24.5	
Approach LOS										C				C	

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Airport Way & Ph 3/4 Acc
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base+Site	East/West Street	Airport Way (4 lanes)
Analysis Year	2035	North/South Street	West Access - Phase 3 & 4
Time Analyzed	Wkdy AM Peak Hr	Peak Hour Factor	0.93
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	0	2	0		0	1	0		0	1	0
Configuration		LT		TR		LT		TR			LTR				LTR	
Volume (veh/h)		6	494	34		63	948	10		10	0	15		2	0	2
Percent Heavy Vehicles (%)		0				15				15	0	15		0	0	0
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Undivided															

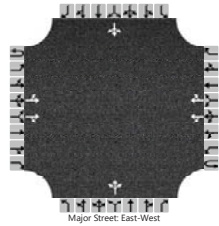
Critical and Follow-up Headways																
Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.10				4.40				7.80	6.50	7.20		7.50	6.50	6.90
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.20				2.35				3.65	4.00	3.45		3.50	4.00	3.30

Delay, Queue Length, and Level of Service															
Flow Rate, v (veh/h)		6				68				27				4	
Capacity, c (veh/h)		682				916				218				139	
v/c Ratio		0.01				0.07				0.12				0.03	
95% Queue Length, Q ₉₅ (veh)		0.0				0.2				0.4				0.1	
Control Delay (s/veh)		10.3				9.2				23.9				31.6	
Level of Service (LOS)		B				A				C				D	
Approach Delay (s/veh)		0.2				1.2				23.9				31.6	
Approach LOS										C				D	

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Airport Way & Ph 3/4 Acc
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base+Site	East/West Street	Airport Way (4 lanes)
Analysis Year	2024	North/South Street	West Access - Phase 3 & 4
Time Analyzed	Wkdy PM Peak Hr	Peak Hour Factor	0.86
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	0	2	0		0	1	0		0	1	0
Configuration		LT		TR		LT		TR			LTR				LTR	
Volume (veh/h)		1	932	9		16	498	3		39	0	62		11	0	5
Percent Heavy Vehicles (%)		0				15				15	0	15		0	0	0
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Undivided															

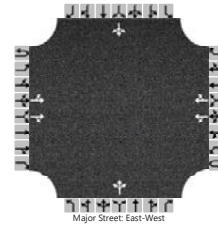
Critical and Follow-up Headways																	
Base Critical Headway (sec)			4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)			4.10				4.40				7.80	6.50	7.20		7.50	6.50	6.90
Base Follow-Up Headway (sec)			2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)			2.20				2.35				3.65	4.00	3.45		3.50	4.00	3.30

Delay, Queue Length, and Level of Service															
Flow Rate, v (veh/h)		1				19				117				19	
Capacity, c (veh/h)		1002				563				165				166	
v/c Ratio		0.00				0.03				0.71				0.11	
95% Queue Length, Q ₉₅ (veh)		0.0				0.1				4.3				0.4	
Control Delay (s/veh)		8.6				11.6				68.0				29.4	
Level of Service (LOS)		A				B				F				D	
Approach Delay (s/veh)		0.0				0.6				68.0				29.4	
Approach LOS										F				D	

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Airport Way & Ph 3/4 Acc
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base+Site	East/West Street	Airport Way (4 lanes)
Analysis Year	2035	North/South Street	West Access - Phase 3 & 4
Time Analyzed	Wkdy PM Peak Hr	Peak Hour Factor	0.86
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	0	2	0		0	1	0		0	1	0
Configuration		LT		TR		LT		TR			LTR				LTR	
Volume (veh/h)		1	1087	9		16	584	3		39	0	62		11	0	5
Percent Heavy Vehicles (%)		0				15				15	0	15		0	0	0
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Undivided															

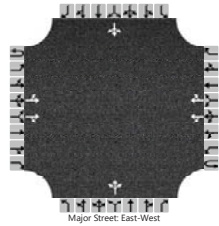
Critical and Follow-up Headways																
Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.10				4.40				7.80	6.50	7.20		7.50	6.50	6.90
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.20				2.35				3.65	4.00	3.45		3.50	4.00	3.30

Delay, Queue Length, and Level of Service															
Flow Rate, v (veh/h)		1				19				117				19	
Capacity, c (veh/h)		920				475				114				118	
v/c Ratio		0.00				0.04				1.03				0.16	
95% Queue Length, Q ₉₅ (veh)		0.0				0.1				6.8				0.5	
Control Delay (s/veh)		8.9				12.9				163.7				41.3	
Level of Service (LOS)		A				B				F				E	
Approach Delay (s/veh)		0.0				0.7				163.7				41.3	
Approach LOS										F				E	

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Airport Way & Ph 3/4 Acc
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base+Site	East/West Street	Airport Way (4 lanes)
Analysis Year	2024	North/South Street	East Access-Phase 3 & 4
Time Analyzed	Wkdy AM Peak Hr	Peak Hour Factor	0.93
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	0	2	0		0	1	0		0	1	0
Configuration		LT		TR		LT		TR			LTR				LTR	
Volume (veh/h)		16	395	17		32	871	32		5	0	7		8	0	3
Percent Heavy Vehicles (%)		15				15				15	0	15		15	0	15
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Undivided															

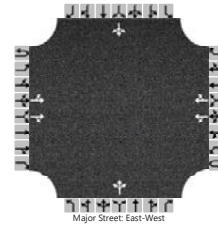
Critical and Follow-up Headways															
Base Critical Headway (sec)		4.1				4.1			7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.40				4.40			7.80	6.50	7.20		7.80	6.50	7.20
Base Follow-Up Headway (sec)		2.2				2.2			3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.35				2.35			3.65	4.00	3.45		3.65	4.00	3.45

Delay, Queue Length, and Level of Service															
Flow Rate, v (veh/h)		17				34				13				12	
Capacity, c (veh/h)		631				1027				300				131	
v/c Ratio		0.03				0.03				0.04				0.09	
95% Queue Length, Q ₉₅ (veh)		0.1				0.1				0.1				0.3	
Control Delay (s/veh)		10.9				8.6				17.6				35.3	
Level of Service (LOS)		B				A				C				E	
Approach Delay (s/veh)		0.6				0.6				17.6				35.3	
Approach LOS										C				E	

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Airport Way & Ph 3/4 Acc
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base+Site	East/West Street	Airport Way (4 lanes)
Analysis Year	2035	North/South Street	East Access-Phase 3 & 4
Time Analyzed	Wkdy AM Peak Hr	Peak Hour Factor	0.93
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	0	2	0		0	1	0		0	1	0
Configuration		LT		TR		LT		TR			LTR				LTR	
Volume (veh/h)		16	478	17		32	1013	32		5	0	7		8	0	3
Percent Heavy Vehicles (%)		15				15				15	0	15		15	0	15
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Undivided															

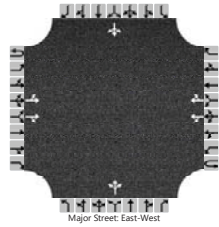
Critical and Follow-up Headways															
Base Critical Headway (sec)		4.1				4.1			7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.40				4.40			7.80	6.50	7.20		7.80	6.50	7.20
Base Follow-Up Headway (sec)		2.2				2.2			3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.35				2.35			3.65	4.00	3.45		3.65	4.00	3.45

Delay, Queue Length, and Level of Service															
Flow Rate, v (veh/h)		17				34				13				12	
Capacity, c (veh/h)		547				946				231				91	
v/c Ratio		0.03				0.04				0.06				0.13	
95% Queue Length, Q ₉₅ (veh)		0.1				0.1				0.2				0.4	
Control Delay (s/veh)		11.8				8.9				21.5				50.2	
Level of Service (LOS)		B				A				C				F	
Approach Delay (s/veh)		0.6				0.6				21.5				50.2	
Approach LOS										C				F	

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Airport Way & Ph 3/4 Acc
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base+Site	East/West Street	Airport Way (4 lanes)
Analysis Year	2024	North/South Street	East Access - Phase 3 & 4
Time Analyzed	Wkdy PM Peak Hr	Peak Hour Factor	0.86
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	0	2	0		0	1	0		0	1	0
Configuration		LT		TR		LT		TR			LTR				LTR	
Volume (veh/h)		4	996	5		8	479	8		22	0	31		31	0	16
Percent Heavy Vehicles (%)		15				15				15	0	15		15	0	15
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Undivided															

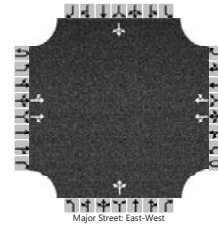
Critical and Follow-up Headways																
Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.40				4.40				7.80	6.50	7.20		7.80	6.50	7.20
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.35				2.35				3.65	4.00	3.45		3.65	4.00	3.45

Delay, Queue Length, and Level of Service															
Flow Rate, v (veh/h)		5				9				62				55	
Capacity, c (veh/h)		917				527				144				165	
v/c Ratio		0.01				0.02				0.43				0.33	
95% Queue Length, Q ₉₅ (veh)		0.0				0.1				1.9				1.3	
Control Delay (s/veh)		8.9				12.0				47.6				37.2	
Level of Service (LOS)		A				B				E				E	
Approach Delay (s/veh)		0.1				0.3				47.6				37.2	
Approach LOS										E				E	

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Airport Way & Ph 3/4 Acc
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base+Site	East/West Street	Airport Way (4 lanes)
Analysis Year	2035	North/South Street	East Access - Phase 3 & 4
Time Analyzed	Wkdy PM Peak Hr	Peak Hour Factor	0.86
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	0	2	0		0	1	0		0	1	0
Configuration		LT		TR		LT		TR			LTR				LTR	
Volume (veh/h)		4	1151	5		8	565	8		22	0	31		31	0	16
Percent Heavy Vehicles (%)		15				15				15	0	15		15	0	15
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Undivided															

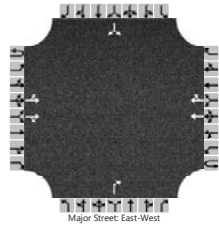
Critical and Follow-up Headways																
Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.40				4.40				7.80	6.50	7.20		7.80	6.50	7.20
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.35				2.35				3.65	4.00	3.45		3.65	4.00	3.45

Delay, Queue Length, and Level of Service															
Flow Rate, v (veh/h)		5				9				62				55	
Capacity, c (veh/h)		837				445				99				118	
v/c Ratio		0.01				0.02				0.62				0.46	
95% Queue Length, Q ₉₅ (veh)		0.0				0.1				3.0				2.1	
Control Delay (s/veh)		9.3				13.3				88.4				59.6	
Level of Service (LOS)		A				B				F				F	
Approach Delay (s/veh)		0.1				0.4				88.4				59.6	
Approach LOS										F				F	

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Airport Way & Townhouse
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base+Site	East/West Street	Airport Way
Analysis Year	2024	North/South Street	Sutton Access / Park Acc
Time Analyzed	Wkdy AM Peak Hr	Peak Hour Factor	0.93
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	0	2	0		0	0	1		0	1	0
Configuration		LT		TR			T	TR				R			LR	
Volume (veh/h)		7	396	7			928	13				20		13		7
Percent Heavy Vehicles (%)		2										2		2		2
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized									No							
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1							6.9			7.5			6.9	
Critical Headway (sec)		4.14							6.94			7.54			6.94	
Base Follow-Up Headway (sec)		2.2							3.3			3.5			3.3	
Follow-Up Headway (sec)		2.22							3.32			3.52			3.32	

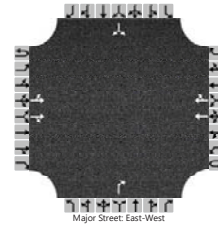
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		8								22			22	
Capacity, c (veh/h)		681								788			174	
v/c Ratio		0.01								0.03			0.12	
95% Queue Length, Q ₉₅ (veh)		0.0								0.1			0.4	
Control Delay (s/veh)		10.3								9.7			28.6	
Level of Service (LOS)		B								A			D	
Approach Delay (s/veh)	0.2								9.7				28.6	
Approach LOS									A				D	

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Airport Way & Townhouse
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base+Site	East/West Street	Airport Way
Analysis Year	2035	North/South Street	Sutton Access / Park Acc
Time Analyzed	Wkdy AM Peak Hr	Peak Hour Factor	0.93
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	0	2	0		0	0	1		0	1	0
Configuration		LT		TR			T	TR				R			LR	
Volume (veh/h)		7	479	7			1070	13				20		13		7
Percent Heavy Vehicles (%)		2										2		2		2
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized									No							
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1							6.9			7.5			6.9	
Critical Headway (sec)		4.14							6.94			7.54			6.94	
Base Follow-Up Headway (sec)		2.2							3.3			3.5			3.3	
Follow-Up Headway (sec)		2.22							3.32			3.52			3.32	

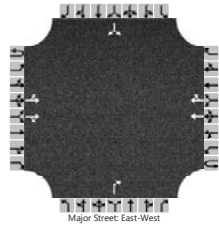
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		8							22			22		
Capacity, c (veh/h)		596							737			126		
v/c Ratio		0.01							0.03			0.17		
95% Queue Length, Q ₉₅ (veh)		0.0							0.1			0.6		
Control Delay (s/veh)		11.1							10.0			39.2		
Level of Service (LOS)		B							B			E		
Approach Delay (s/veh)	0.2								10.0				39.2	
Approach LOS									B				E	

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Airport Way & Townhouse
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base+Site	East/West Street	Airport Way
Analysis Year	2024	North/South Street	Sutton Access / Park Acc
Time Analyzed	Wkdy PM Peak Hr	Peak Hour Factor	0.86
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	0	2	0		0	0	1		0	1	0
Configuration		LT		TR			T	TR				R			LR	
Volume (veh/h)		7	1033	18			488	13				13		13		7
Percent Heavy Vehicles (%)		2										2		2		2
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized									No							
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1							6.9		7.5		6.9			
Critical Headway (sec)		4.14							6.94		7.54		6.94			
Base Follow-Up Headway (sec)		2.2							3.3		3.5		3.3			
Follow-Up Headway (sec)		2.22							3.32		3.52		3.32			

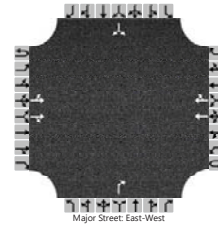
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		8								15			23	
Capacity, c (veh/h)		988								437			189	
v/c Ratio		0.01								0.03			0.12	
95% Queue Length, Q ₉₅ (veh)		0.0								0.1			0.4	
Control Delay (s/veh)		8.7								13.5			26.7	
Level of Service (LOS)		A								B			D	
Approach Delay (s/veh)	0.2								13.5				26.7	
Approach LOS					B								D	

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Airport Way & Townhouse
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base+Site	East/West Street	Airport Way
Analysis Year	2035	North/South Street	Sutton Access / Park Acc
Time Analyzed	Wkdy PM Peak Hr	Peak Hour Factor	0.86
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	0	2	0		0	0	1		0	1	0
Configuration		LT		TR			T	TR				R			LR	
Volume (veh/h)		7	1188	18			574	13				13		13		7
Percent Heavy Vehicles (%)		2										2		2		2
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized									No							
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1							6.9		7.5		6.9			
Critical Headway (sec)		4.14							6.94		7.54		6.94			
Base Follow-Up Headway (sec)		2.2							3.3		3.5		3.3			
Follow-Up Headway (sec)		2.22							3.32		3.52		3.32			

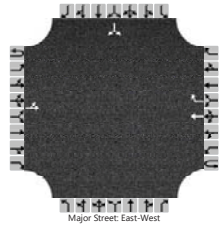
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		8							15			23	
Capacity, c (veh/h)		906							381			138	
v/c Ratio		0.01							0.04			0.17	
95% Queue Length, Q ₉₅ (veh)		0.0							0.1			0.6	
Control Delay (s/veh)		9.0							14.8			36.4	
Level of Service (LOS)		A							B			E	
Approach Delay (s/veh)	0.2				14.8					36.4			
Approach LOS					B					E			

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Airport Way & Baynes Rd
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base+Site	East/West Street	Airport Way
Analysis Year	2024	North/South Street	Baynes Rd
Time Analyzed	Wkdy AM Peak Hr	Peak Hour Factor	0.93
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	1		0	0	0		0	1	0
Configuration		LT						T	R						LR	
Volume (veh/h)		8	9					49	115					89		24
Percent Heavy Vehicles (%)		2												15		2
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized					No											
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.1		6.2
Critical Headway (sec)		4.12												6.55		6.22
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.22												3.64		3.32

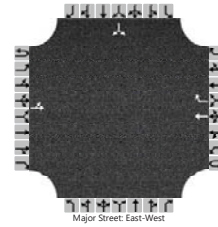
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		9													122
Capacity, c (veh/h)		1400													911
v/c Ratio		0.01													0.13
95% Queue Length, Q ₉₅ (veh)		0.0													0.5
Control Delay (s/veh)		7.6													9.6
Level of Service (LOS)		A													A
Approach Delay (s/veh)	3.6													9.6	
Approach LOS														A	

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Airport Way & Baynes Rd
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base+Site	East/West Street	Airport Way
Analysis Year	2035	North/South Street	Baynes Rd
Time Analyzed	Wkdy AM Peak Hr	Peak Hour Factor	0.93
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	1		0	0	0		0	1	0
Configuration		LT					T	R							LR	
Volume (veh/h)		9	11				59	138						105		28
Percent Heavy Vehicles (%)		2												15		2
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized					No											
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1													7.1		6.2
Critical Headway (sec)		4.12													6.55		6.22
Base Follow-Up Headway (sec)		2.2													3.5		3.3
Follow-Up Headway (sec)		2.22													3.64		3.32

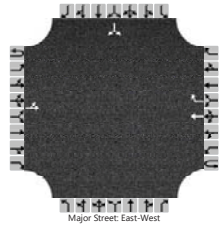
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		10														143	
Capacity, c (veh/h)		1359														893	
v/c Ratio		0.01														0.16	
95% Queue Length, Q ₉₅ (veh)		0.0														0.6	
Control Delay (s/veh)		7.7														9.8	
Level of Service (LOS)		A														A	
Approach Delay (s/veh)		3.5												9.8			
Approach LOS														A			

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Airport Way & Baynes Rd
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base+Site	East/West Street	Airport Way
Analysis Year	2024	North/South Street	Baynes Road
Time Analyzed	Wkdy PM Peak Hr	Peak Hour Factor	0.86
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	1		0	0	0		0	1	0
Configuration		LT						T	R						LR	
Volume (veh/h)		21	48					15	108						131	6
Percent Heavy Vehicles (%)		2												15		2
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized					No											
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1											7.1		6.2	
Critical Headway (sec)		4.12											6.55		6.22	
Base Follow-Up Headway (sec)		2.2											3.5		3.3	
Follow-Up Headway (sec)		2.22											3.64		3.32	

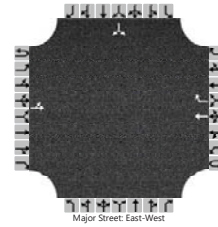
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		24											159	
Capacity, c (veh/h)		1440											836	
v/c Ratio		0.02											0.19	
95% Queue Length, Q ₉₅ (veh)		0.1											0.7	
Control Delay (s/veh)		7.5											10.3	
Level of Service (LOS)		A											B	
Approach Delay (s/veh)	2.4												10.3	
Approach LOS													B	

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	RC	Intersection	Airport Way & Baynes Rd
Agency/Co.	CTS	Jurisdiction	Pitt Meadows, BC
Date Performed	Base+Site	East/West Street	Airport Way
Analysis Year	2035	North/South Street	Baynes Road
Time Analyzed	Wkdy PM Peak Hr	Peak Hour Factor	0.86
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Golden Ears Business Park Access Study		

Lanes



Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	1		0	0	0		0	1	0
Configuration		LT					T	R							LR	
Volume (veh/h)		25	58				17	126						156		7
Percent Heavy Vehicles (%)		2												15		2
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized					No											
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1											7.1		6.2	
Critical Headway (sec)		4.12											6.55		6.22	
Base Follow-Up Headway (sec)		2.2											3.5		3.3	
Follow-Up Headway (sec)		2.22											3.64		3.32	

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		29											190	
Capacity, c (veh/h)		1412											808	
v/c Ratio		0.02											0.23	
95% Queue Length, Q ₉₅ (veh)		0.1											0.9	
Control Delay (s/veh)		7.6											10.8	
Level of Service (LOS)		A											B	
Approach Delay (s/veh)	2.4												10.8	
Approach LOS													B	

Lanes, Volumes, Timings
2: Bonson Road & Airport Way

2024 Base
Timing Plan: Wkday AM Peak Hr

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱	↲	↰	↱	↲	↰	↱	↲	↰	↱	↲
Traffic Volume (vph)	34	317	21	106	541	139	34	109	191	186	50	93
Future Volume (vph)	34	317	21	106	541	139	34	109	191	186	50	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	60.0		0.0	60.0		0.0	15.0		0.0	60.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		0.99	1.00		0.99	0.99		1.00	0.99	
Frnt		0.991			0.969			0.905			0.903	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1719	3127	0	1770	3083	0	1770	1671	0	1719	1629	0
Flt Permitted	0.286			0.477			0.659			0.266		
Satd. Flow (perm)	517	3127	0	882	3083	0	1219	1671	0	481	1629	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			45			124			100	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		835.3			379.9			225.7			216.1	
Travel Time (s)		60.1			27.4			16.3			15.6	
Confl. Peds. (#/hr)	1		8	8		1	9		1	1		9
Confl. Bikes (#/hr)			1					1				
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	5%	15%	2%	2%	15%	5%	2%	2%	2%	5%	2%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	37	364	0	114	731	0	37	322	0	200	154	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		pm+pt	NA	
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	7.0		4.0	7.0		7.0	7.0		4.0	7.0	
Minimum Split (s)	8.5	28.5		8.5	28.5		28.5	28.5		8.5	28.5	
Total Split (s)	8.5	28.5		8.5	28.5		28.6	28.6		9.4	38.0	
Total Split (%)	11.3%	38.0%		11.3%	38.0%		38.1%	38.1%		12.5%	50.7%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes		
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effect Green (s)	18.0	14.9		20.0	18.8		13.0	13.0		23.0	23.0	
Actuated g/C Ratio	0.33	0.28		0.37	0.35		0.24	0.24		0.43	0.43	
v/c Ratio	0.14	0.42		0.29	0.66		0.13	0.65		0.62	0.21	
Control Delay	11.8	18.0		13.2	18.6		19.1	19.1		23.6	6.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	11.8	18.0		13.2	18.6		19.1	19.1		23.6	6.1	
LOS	B	B		B	B		B	B		C	A	
Approach Delay		17.4			17.9			19.1			16.0	

7255 - Golden Ears Business Park
Creative Transportation Solutions Ltd.

Synchro 10 Report
Page 1

Lanes, Volumes, Timings
2: Bonson Road & Airport Way

2024 Base
Timing Plan: Wkday AM Peak Hr

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			B			B	
Queue Length 50th (m)	2.1	15.8		6.9	26.3		2.7	15.9		11.3	2.8	
Queue Length 95th (m)	7.8	30.7		18.3	63.5		10.5	47.0		#38.6	14.8	
Internal Link Dist (m)		811.3			355.9			201.7			192.1	
Turn Bay Length (m)	60.0			60.0			15.0			60.0		
Base Capacity (vph)	267	1486		397	1483		579	859		324	1110	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.14	0.24		0.29	0.49		0.06	0.37		0.62	0.14	

Intersection Summary

Area Type: Other

Cycle Length: 75

Actuated Cycle Length: 54

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.66

Intersection Signal Delay: 17.7

Intersection LOS: B

Intersection Capacity Utilization 65.7%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Bonson Road & Airport Way

Ø1	Ø2	Ø3	Ø4
8.4 s	28.6 s	8.5 s	28.5 s
Ø5	Ø6	Ø7	Ø8
8.4 s	28.6 s	8.5 s	28.5 s

7255 - Golden Ears Business Park
Creative Transportation Solutions Ltd.

Synchro 10 Report
Page 2

Lanes, Volumes, Timings
2: Bonson Road & Airport Way

2024 Base + Site
Timing Plan: Wkday AM Peak Hr

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰	↰	↰	↰	↰	↰	↰	↰	↰	↰	↰
Traffic Volume (vph)	49	464	21	106	744	139	34	109	191	186	50	153
Future Volume (vph)	49	464	21	106	744	139	34	109	191	186	50	153
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	60.0		0.0	60.0		0.0	15.0		0.0	60.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		0.99	1.00		0.99	0.99		1.00	0.98	
Frt		0.993			0.976			0.905			0.887	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3128	0	1770	3109	0	1770	1671	0	1770	1627	0
Flt Permitted	0.190			0.387			0.621			0.240		
Satd. Flow (perm)	354	3128	0	717	3109	0	1150	1671	0	447	1627	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			30			126			165	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		835.3			379.9			225.7			216.1	
Travel Time (s)		60.1			27.4			16.3			15.6	
Confl. Peds. (#/hr)	1		8	8		1	9		1	1		9
Confl. Bikes (#/hr)			1					1				
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	15%	2%	2%	15%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	53	522	0	114	949	0	37	322	0	200	219	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		pm+pt	NA	
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	7.0		4.0	7.0		7.0	7.0		4.0	7.0	
Minimum Split (s)	8.5	28.5		8.5	28.5		28.5	28.5		8.5	28.5	
Total Split (s)	8.5	28.5		8.5	28.5		29.4	29.4		8.6	38.0	
Total Split (%)	11.3%	38.0%		11.3%	38.0%		39.2%	39.2%		11.5%	50.7%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes		
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effect Green (s)	23.1	20.0		24.2	22.1		12.9	12.9		21.9	21.9	
Actuated g/C Ratio	0.40	0.35		0.42	0.38		0.22	0.22		0.38	0.38	
v/c Ratio	0.22	0.48		0.30	0.79		0.14	0.68		0.75	0.31	
Control Delay	11.9	17.6		12.5	23.4		20.7	21.2		36.4	5.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	11.9	17.6		12.5	23.4		20.7	21.2		36.4	5.8	
LOS	B	B		B	C		C	C		D	A	
Approach Delay		17.0			22.2			21.1			20.4	

Lanes, Volumes, Timings
2: Bonson Road & Airport Way

2024 Base + Site
Timing Plan: Wkday AM Peak Hr

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			C			C			C	
Queue Length 50th (m)	3.0	24.0		6.7	51.0		3.8	21.8		17.8	4.4	
Queue Length 95th (m)	9.7	43.8		17.8	#100.1		10.4	46.2		#43.0	16.8	
Internal Link Dist (m)		811.3			355.9			201.7			192.1	
Turn Bay Length (m)	60.0			60.0			15.0			60.0		
Base Capacity (vph)	243	1360		375	1365		517	821		267	1049	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.22	0.38		0.30	0.70		0.07	0.39		0.75	0.21	

Intersection Summary

Area Type: Other

Cycle Length: 75

Actuated Cycle Length: 57.8

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 20.5

Intersection LOS: C

Intersection Capacity Utilization 71.3%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Bonson Road & Airport Way

Lanes, Volumes, Timings
2: Bonson Road & Airport Way

2035 Base
Timing Plan: Wkday AM Peak Hr

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Traffic Volume (vph)	39	375	43	154	645	166	52	137	249	222	68	110
Future Volume (vph)	39	375	43	154	645	166	52	137	249	222	68	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	60.0		0.0	60.0		0.0	15.0		0.0	60.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		0.99	1.00		0.99	0.99		1.00	0.99	
Frt		0.985			0.969			0.903			0.907	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3117	0	1770	3100	0	1770	1667	0	1770	1668	0
Flt Permitted	0.193			0.377			0.637			0.180		
Satd. Flow (perm)	359	3117	0	698	3100	0	1178	1667	0	335	1668	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			42			119			118	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		835.3			379.9			225.7			216.1	
Travel Time (s)		60.1			27.4			16.3			15.6	
Confl. Peds. (#/hr)	1		8	8		1	9		1	1		9
Confl. Bikes (#/hr)			1					1				
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	15%	2%	2%	15%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	449	0	166	872	0	56	415	0	239	191	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		pm+pt	NA	
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	7.0		4.0	7.0		7.0	7.0		4.0	7.0	
Minimum Split (s)	8.5	28.5		8.5	28.5		28.5	28.5		8.5	28.5	
Total Split (s)	8.5	29.4		9.1	30.0		29.5	29.5		12.0	41.5	
Total Split (%)	10.6%	36.8%		11.4%	37.5%		36.9%	36.9%		15.0%	51.9%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effect Green (s)	22.6	18.4		25.8	23.4		17.5	17.5		30.0	30.0	
Actuated g/C Ratio	0.34	0.27		0.38	0.35		0.26	0.26		0.45	0.45	
v/c Ratio	0.20	0.52		0.48	0.79		0.18	0.80		0.76	0.24	
Control Delay	15.3	22.4		20.0	27.0		21.9	29.0		32.4	6.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.3	22.4		20.0	27.0		21.9	29.0		32.4	6.3	
LOS	B	C		B	C		C	C		C	A	
Approach Delay		21.8			25.9			28.2			20.8	

Lanes, Volumes, Timings
2: Bonson Road & Airport Way

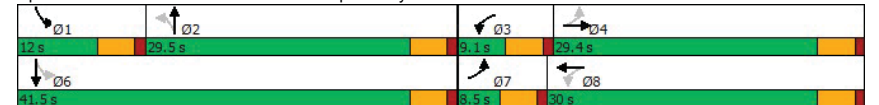
2035 Base
Timing Plan: Wkday AM Peak Hr

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			C			C	
Queue Length 50th (m)	3.3	25.3		13.9	57.0		6.4	40.9		22.8	6.3	
Queue Length 95th (m)	9.7	42.6		29.2	#98.9		15.2	73.7		#54.6	17.9	
Internal Link Dist (m)		811.3			355.9			201.7			192.1	
Turn Bay Length (m)	60.0			60.0			15.0			60.0		
Base Capacity (vph)	207	1212		344	1249		456	718		316	1006	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.20	0.37		0.48	0.70		0.12	0.58		0.76	0.19	

Intersection Summary

Area Type:	Other
Cycle Length:	80
Actuated Cycle Length:	67.3
Natural Cycle:	80
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	24.6
Intersection LOS:	C
Intersection Capacity Utilization:	76.3%
ICU Level of Service:	D
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 2: Bonson Road & Airport Way



Lanes, Volumes, Timings
2: Bonson Road & Airport Way

2035 Base + Site
Timing Plan: Wkday AM Peak Hr

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Traffic Volume (vph)	54	422	43	154	848	166	52	137	249	222	68	170
Future Volume (vph)	54	422	43	154	848	166	52	137	249	222	68	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	60.0		0.0	60.0		0.0	15.0		0.0	60.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		0.99	1.00		0.99	0.99		1.00	0.98	
Frt	0.986			0.976			0.903			0.893		
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3117	0	1770	3110	0	1770	1667	0	1770	1637	0
Flt Permitted	0.158			0.315			0.601			0.159		
Satd. Flow (perm)	294	3117	0	583	3110	0	1112	1667	0	296	1637	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			28			102			171	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		835.3			379.9			225.7			216.1	
Travel Time (s)		60.1			27.4			16.3			15.6	
Confl. Peds. (#/hr)	1		8	8		1	9		1	1		9
Confl. Bikes (#/hr)			1					1				
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	15%	2%	2%	15%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	58	500	0	166	1090	0	56	415	0	239	256	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		pm+pt	NA	
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	7.0		4.0	7.0		7.0	7.0		4.0	7.0	
Minimum Split (s)	8.5	28.5		8.5	28.5		28.5	28.5		8.5	28.5	
Total Split (s)	8.6	31.3		14.3	37.0		30.4	30.4		14.0	44.4	
Total Split (%)	9.6%	34.8%		15.9%	41.1%		33.8%	33.8%		15.6%	49.3%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effect Green (s)	28.2	24.0		37.5	31.1		20.6	20.6		34.8	34.8	
Actuated g/C Ratio	0.35	0.29		0.46	0.38		0.25	0.25		0.43	0.43	
v/c Ratio	0.33	0.54		0.42	0.91		0.20	0.84		0.80	0.32	
Control Delay	19.1	26.6		17.3	37.2		26.7	38.1		38.9	7.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	19.1	26.6		17.3	37.2		26.7	38.1		38.9	7.0	
LOS	B	C		B	D		C	D		D	A	
Approach Delay		25.8			34.5			36.7			22.4	

Lanes, Volumes, Timings
2: Bonson Road & Airport Way

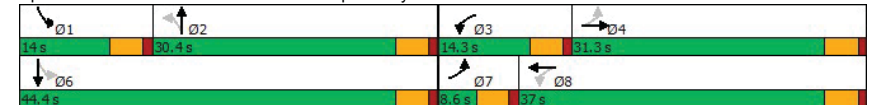
2035 Base + Site
Timing Plan: Wkday AM Peak Hr

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			D			C	
Queue Length 50th (m)	5.3	36.5		16.2	91.8		7.6	52.0		27.1	8.8	
Queue Length 95th (m)	12.6	54.8		30.4	143.6		17.6	91.8		63.5	23.7	
Internal Link Dist (m)		811.3			355.9			201.7			192.1	
Turn Bay Length (m)	60.0			60.0			15.0			60.0		
Base Capacity (vph)	177	1068		414	1288		362	612		302	906	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.33	0.47		0.40	0.85		0.15	0.68		0.79	0.28	

Intersection Summary

Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 81.6	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 31.0	Intersection LOS: C
Intersection Capacity Utilization 81.9%	ICU Level of Service D
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 2: Bonson Road & Airport Way



Lanes, Volumes, Timings
2: Bonson Road & Airport Way

2024 Base
Timing Plan: Wkday PM Peak Hr

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Traffic Volume (vph)	124	640	43	150	366	203	19	63	131	99	66	44
Future Volume (vph)	124	640	43	150	366	203	19	63	131	99	66	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	60.0		0.0	60.0		0.0	15.0		0.0	60.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	0.99	0.99	0.99	0.99		1.00	0.99	
Frt	0.991			0.947			0.899			0.940		
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1719	3127	0	1770	3044	0	1770	1659	0	1719	1717	0
Flt Permitted	0.363			0.224			0.675			0.325		
Satd. Flow (perm)	657	3127	0	416	3044	0	1248	1659	0	588	1717	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			150			148			51	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		835.3			379.9			225.7			216.1	
Travel Time (s)		60.1			27.4			16.3			15.6	
Confl. Peds. (#/hr)	1		8	8		1	9		1	1		9
Confl. Bikes (#/hr)			1					1				
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	5%	15%	2%	2%	15%	5%	2%	2%	2%	5%	2%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	144	794	0	174	662	0	22	225	0	115	128	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		pm+pt	NA	
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	7.0		4.0	7.0		7.0	7.0		4.0	7.0	
Minimum Split (s)	8.5	28.5		8.5	28.5		28.5	28.5		8.5	28.5	
Total Split (s)	8.8	28.5		9.2	28.9		28.8	28.8		8.5	37.3	
Total Split (%)	11.7%	38.0%		12.3%	38.5%		38.4%	38.4%		11.3%	49.7%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes		
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effct Green (s)	23.1	18.6		25.1	21.6		9.3	9.3		15.7	15.7	
Actuated g/C Ratio	0.43	0.35		0.47	0.41		0.17	0.17		0.30	0.30	
v/c Ratio	0.39	0.72		0.54	0.50		0.10	0.55		0.44	0.24	
Control Delay	11.4	19.7		16.2	12.0		21.7	14.4		20.5	10.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	11.4	19.7		16.2	12.0		21.7	14.4		20.5	10.9	
LOS	B	B		B	B		C	B		C	B	
Approach Delay		18.4			12.9			15.0			15.4	

Lanes, Volumes, Timings
2: Bonson Road & Airport Way

2024 Base
Timing Plan: Wkday PM Peak Hr

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			B			B	
Queue Length 50th (m)	6.9	35.5		8.5	20.6		2.0	7.2		8.6	5.7	
Queue Length 95th (m)	16.6	57.2		#20.1	36.8		7.3	23.3		19.5	16.1	
Internal Link Dist (m)		811.3			355.9			201.7			192.1	
Turn Bay Length (m)	60.0			60.0			15.0			60.0		
Base Capacity (vph)	374	1471		320	1529		592	865		261	1118	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.39	0.54		0.54	0.43		0.04	0.26		0.44	0.11	

Intersection Summary

Area Type: Other

Cycle Length: 75

Actuated Cycle Length: 53.2

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 15.7

Intersection LOS: B

Intersection Capacity Utilization 59.8%

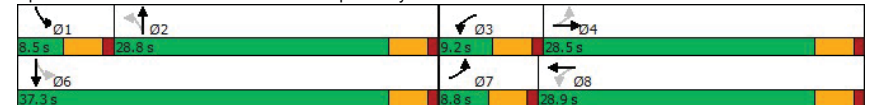
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Bonson Road & Airport Way



Lanes, Volumes, Timings
2: Bonson Road & Airport Way

2024 Base + Site
Timing Plan: Wkday PM Peak Hr

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Traffic Volume (vph)	184	837	43	150	419	203	19	63	131	99	66	59
Future Volume (vph)	184	837	43	150	419	203	19	63	131	99	66	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	60.0		0.0	60.0		0.0	15.0		0.0	60.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	0.99		0.99	0.99		1.00	0.99	
Frt	0.993			0.951			0.899			0.929		
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1719	3129	0	1770	3051	0	1770	1659	0	1719	1690	0
Flt Permitted	0.264			0.172			0.664			0.292		
Satd. Flow (perm)	477	3129	0	320	3051	0	1228	1659	0	528	1690	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			107			137			69	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		835.3			379.9			225.7			216.1	
Travel Time (s)		60.1			27.4			16.3			15.6	
Confl. Peds. (#/hr)	1		8	8		1	9		1	1		9
Confl. Bikes (#/hr)			1					1				
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	5%	15%	2%	2%	15%	5%	2%	2%	2%	5%	2%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	214	1023	0	174	723	0	22	225	0	115	146	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		pm+pt	NA	
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	7.0		4.0	7.0		7.0	7.0		4.0	7.0	
Minimum Split (s)	8.5	28.5		8.5	28.5		28.5	28.5		8.5	28.5	
Total Split (s)	12.0	31.4		10.1	29.5		29.9	29.9		8.6	38.5	
Total Split (%)	15.0%	39.3%		12.6%	36.9%		37.4%	37.4%		10.8%	48.1%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes		
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effect Green (s)	33.3	25.7		29.5	23.8		9.7	9.7		16.2	16.2	
Actuated g/C Ratio	0.54	0.42		0.48	0.39		0.16	0.16		0.26	0.26	
v/c Ratio	0.52	0.78		0.60	0.58		0.11	0.60		0.52	0.29	
Control Delay	12.4	21.8		19.6	15.5		24.3	18.0		26.7	11.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	12.4	21.8		19.6	15.5		24.3	18.0		26.7	11.8	
LOS	B	C		B	B		C	B		C	B	
Approach Delay		20.2			16.3			18.5			18.3	

Lanes, Volumes, Timings
2: Bonson Road & Airport Way

2024 Base + Site
Timing Plan: Wkday PM Peak Hr

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B			B			B	
Queue Length 50th (m)	11.2	54.2		8.9	29.7		2.4	10.1		11.0	7.2	
Queue Length 95th (m)	24.4	83.5		#27.0	49.1		7.7	26.4		21.1	17.9	
Internal Link Dist (m)		811.3			355.9			201.7			192.1	
Turn Bay Length (m)	60.0			60.0			15.0			60.0		
Base Capacity (vph)	413	1403		288	1330		518	779		220	985	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.52	0.73		0.60	0.54		0.04	0.29		0.52	0.15	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 61.4

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 18.5

Intersection LOS: B

Intersection Capacity Utilization 65.1%

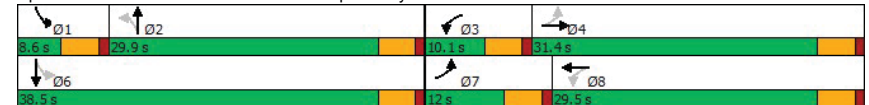
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Bonson Road & Airport Way



Lanes, Volumes, Timings
2: Bonson Road & Airport Way

2035 Base
Timing Plan: Wkday PM Peak Hr

	←	→	↖	↗	←	→	↖	↗	←	→	↖	↗
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (vph)	147	762	54	178	436	243	26	77	161	118	78	53
Future Volume (vph)	147	762	54	178	436	243	26	77	161	118	78	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	60.0		0.0	60.0		0.0	15.0		0.0	60.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	0.99		0.99	0.99		1.00	0.99	
Frt		0.990			0.946			0.899			0.939	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1719	3124	0	1770	3041	0	1770	1659	0	1719	1714	0
Flt Permitted	0.247			0.166			0.660			0.247		
Satd. Flow (perm)	447	3124	0	308	3041	0	1220	1659	0	447	1714	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			141			136			53	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		835.3			379.9			225.7			216.1	
Travel Time (s)		60.1			27.4			16.3			15.6	
Confl. Peds. (#/hr)	1		8	8		1	9		1	1		9
Confl. Bikes (#/hr)			1					1				
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	5%	15%	2%	2%	15%	5%	2%	2%	2%	5%	2%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	171	949	0	207	790	0	30	277	0	137	153	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		pm+pt	NA	
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	7.0		4.0	7.0		7.0	7.0		4.0	7.0	
Minimum Split (s)	8.5	28.5		8.5	28.5		28.5	28.5		8.5	28.5	
Total Split (s)	12.0	30.0		12.0	30.0		29.4	29.4		8.6	38.0	
Total Split (%)	15.0%	37.5%		15.0%	37.5%		36.8%	36.8%		10.8%	47.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes		
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effct Green (s)	32.1	24.7		32.5	24.9		11.7	11.7		18.2	18.2	
Actuated g/C Ratio	0.50	0.38		0.51	0.39		0.18	0.18		0.28	0.28	
v/c Ratio	0.46	0.79		0.63	0.63		0.14	0.67		0.66	0.29	
Control Delay	12.7	24.9		20.8	16.7		23.8	21.7		33.8	13.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	12.7	24.9		20.8	16.7		23.8	21.7		33.8	13.2	
LOS	B	C		C	B		C	C		C	B	
Approach Delay		23.1			17.6			22.0			22.9	

Lanes, Volumes, Timings
2: Bonson Road & Airport Way

2035 Base
Timing Plan: Wkday PM Peak Hr

	←	→	↖	↗	←	→	↖	↗	←	→	↖	↗
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			B			C			C	
Queue Length 50th (m)	9.7	54.9		12.0	34.4		3.4	16.8		13.4	9.6	
Queue Length 95th (m)	22.2	#94.0		#37.8	57.5		9.4	35.9		24.3	20.5	
Internal Link Dist (m)		811.3			355.9			201.7			192.1	
Turn Bay Length (m)	60.0			60.0			15.0			60.0		
Base Capacity (vph)	376	1269		329	1314		482	737		209	935	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.45	0.75		0.63	0.60		0.06	0.38		0.66	0.16	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 64.3

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 20.9

Intersection LOS: C

Intersection Capacity Utilization 68.4%

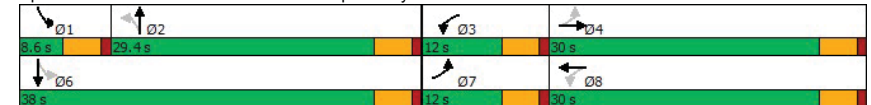
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Bonson Road & Airport Way



Lanes, Volumes, Timings
2: Bonson Road & Airport Way

2035 Base + Site
Timing Plan: Wkday PM Peak Hr

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰	↰	↰	↰	↰	↰	↰	↰	↰	↰	↰
Traffic Volume (vph)	207	959	54	178	489	243	26	77	161	118	78	68
Future Volume (vph)	207	959	54	178	489	243	26	77	161	118	78	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	60.0		0.0	60.0		0.0	15.0		0.0	60.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	1.00		1.00	0.99		0.99	0.99		1.00	0.99	
Frt		0.992			0.950			0.899			0.930	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1719	3127	0	1770	3049	0	1770	1659	0	1719	1692	0
Flt Permitted	0.201			0.127			0.650			0.222		
Satd. Flow (perm)	364	3127	0	236	3049	0	1201	1659	0	401	1692	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			103			115			55	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		835.3			379.9			225.7			216.1	
Travel Time (s)		60.1			27.4			16.3			15.6	
Confl. Peds. (#/hr)	1		8	8		1	9		1	1		9
Confl. Bikes (#/hr)			1					1				
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	5%	15%	2%	2%	15%	5%	2%	2%	2%	5%	2%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	241	1178	0	207	852	0	30	277	0	137	170	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		pm+pt	NA	
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	7.0		4.0	7.0		7.0	7.0		4.0	7.0	
Minimum Split (s)	8.5	28.5		8.5	28.5		28.5	28.5		8.5	28.5	
Total Split (s)	17.5	39.0		13.0	34.5		29.2	29.2		8.8	38.0	
Total Split (%)	19.4%	43.3%		14.4%	38.3%		32.4%	32.4%		9.8%	42.2%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effct Green (s)	44.4	33.6		39.9	31.4		13.5	13.5		22.4	22.4	
Actuated g/C Ratio	0.57	0.43		0.51	0.40		0.17	0.17		0.29	0.29	
v/c Ratio	0.61	0.87		0.72	0.66		0.14	0.73		0.73	0.33	
Control Delay	15.6	30.0		31.9	20.9		28.3	29.1		46.7	16.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.6	30.0		31.9	20.9		28.3	29.1		46.7	16.3	
LOS	B	C		C	C		C	C		D	B	
Approach Delay		27.5			23.0			29.0			29.8	

Lanes, Volumes, Timings
2: Bonson Road & Airport Way

2035 Base + Site
Timing Plan: Wkday PM Peak Hr

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			C			C	
Queue Length 50th (m)	15.7	83.8		14.2	48.5		4.1	23.8		16.7	13.8	
Queue Length 95th (m)	32.4	#136.2		#51.7	78.1		10.7	45.4		#32.6	27.1	
Internal Link Dist (m)		811.3			355.9			201.7			192.1	
Turn Bay Length (m)	60.0			60.0			15.0			60.0		
Base Capacity (vph)	444	1395		289	1287		382	607		187	762	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.54	0.84		0.72	0.66		0.08	0.46		0.73	0.22	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 78.1

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 26.4

Intersection LOS: C

Intersection Capacity Utilization 73.9%

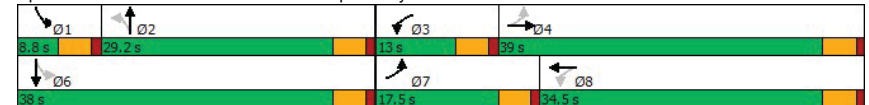
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Bonson Road & Airport Way



Lanes, Volumes, Timings
1: Harris Road & Airport Way

2024 Base
Timing Plan: Wkday AM Peak Hr

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱	↲	↰	↱	↲	↰	↱	↲	↰	↱	↲
Traffic Volume (vph)	38	118	16	36	411	225	28	89	45	185	92	159
Future Volume (vph)	38	118	16	36	411	225	28	89	45	185	92	159
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.1	3.3	3.3	3.1	3.3	3.3	3.1	3.3	3.3	3.1	3.3	3.3
Storage Length (m)	75.0		0.0	30.0		0.0	15.0		0.0	0.0		60.0
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frnt		0.982			0.947			0.950			0.905	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1624	3011	0	1624	2965	0	1624	1662	0	1624	1583	0
Flt Permitted	0.276			0.661			0.593			0.580		
Satd. Flow (perm)	472	3011	0	1130	2965	0	1013	1662	0	991	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			154			38			130	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		745.8			835.3			256.0			225.1	
Travel Time (s)		53.7			60.1			18.4			16.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	5%	15%	5%	5%	15%	5%	5%	5%	5%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	41	144	0	39	684	0	30	144	0	199	270	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	7.0		4.0	7.0		4.0	7.0		4.0	7.0	
Minimum Split (s)	8.5	26.5		8.5	26.5		8.5	26.5		8.5	26.5	
Total Split (s)	8.5	26.5		8.5	26.5		8.5	26.5		8.5	26.5	
Total Split (%)	12.1%	37.9%		12.1%	37.9%		12.1%	37.9%		12.1%	37.9%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effct Green (s)	15.9	14.7		15.9	14.7		13.9	10.9		16.0	14.9	
Actuated g/C Ratio	0.35	0.33		0.35	0.33		0.31	0.24		0.36	0.33	
v/c Ratio	0.14	0.14		0.09	0.64		0.08	0.33		0.47	0.44	
Control Delay	10.6	12.1		9.8	14.1		11.7	15.9		17.2	11.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	10.6	12.1		9.8	14.1		11.7	15.9		17.2	11.6	
LOS	B	B		A	B		B	B		B	B	
Approach Delay		11.8			13.9			15.2			14.0	
Approach LOS		B			B			B			B	
Queue Length 50th (m)	1.9	3.1		1.8	15.2		1.2	6.7		9.2	6.2	

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Creative Transportation Solutions Ltd.

Synchro 10 Report
Page 1

Lanes, Volumes, Timings
1: Harris Road & Airport Way

2024 Base
Timing Plan: Wkday AM Peak Hr

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (m)	7.6	11.8		7.3	46.3		6.8	24.1		31.3	34.9	
Internal Link Dist (m)		721.8			811.3			232.0			201.1	
Turn Bay Length (m)	75.0			30.0			15.0					
Base Capacity (vph)	284	1697		450	1731		377	949		419	945	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.14	0.08		0.09	0.40		0.08	0.15		0.47	0.29	

Intersection Summary

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 44.8

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 13.8

Intersection LOS: B

Intersection Capacity Utilization 54.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: Harris Road & Airport Way

Ø1	Ø2	Ø3	Ø4
8.5 s	26.5 s	8.5 s	26.5 s
Ø5	Ø6	Ø7	Ø8
8.5 s	26.5 s	8.5 s	26.5 s

7255 - Golden Ears Business Park
Creative Transportation Solutions Ltd.

Synchro 10 Report
Page 2

Lanes, Volumes, Timings
1: Harris Road & Airport Way

2024 Base + Site
Timing Plan: Wkday AM Peak Hr

	←	→	↖	↗	←	↖	↗	↖	↗	↖	↗	↖	↗
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↖	↗	↖	↖	↗	↖	↖	↗	↖	↖	↗	↖	
Traffic Volume (vph)	43	128	21	105	414	299	29	100	61	262	108	160	
Future Volume (vph)	43	128	21	105	414	299	29	100	61	262	108	160	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (m)	3.1	3.3	3.3	3.1	3.3	3.3	3.1	3.3	3.3	3.1	3.3	3.3	
Storage Length (m)	75.0		0.0	30.0		0.0	15.0		0.0	0.0		60.0	
Storage Lanes	1		0	1		0	1		0	1		1	
Taper Length (m)	7.5			7.5			7.5			7.5			
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.979			0.937			0.943			0.910		
Flt Protected	0.950			0.950			0.950			0.950			
Satd. Flow (prot)	1624	3008	0	1624	2951	0	1624	1650	0	1624	1592	0	
Flt Permitted	0.272			0.579			0.583			0.461			
Satd. Flow (perm)	465	3008	0	990	2951	0	996	1650	0	788	1592	0	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)		23			271			46			111		
Link Speed (k/h)		50			50			50			50		
Link Distance (m)		745.8			835.3			256.0			225.1		
Travel Time (s)		53.7			60.1			18.4			16.2		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	
Heavy Vehicles (%)	5%	15%	5%	5%	15%	5%	5%	5%	5%	5%	5%	5%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	46	161	0	113	767	0	31	174	0	282	288	0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA		
Protected Phases	7	4		3	8		5	2		1	6		
Permitted Phases	4			8			2			6			
Detector Phase	7	4		3	8		5	2		1	6		
Switch Phase													
Minimum Initial (s)	4.0	7.0		4.0	7.0		4.0	7.0		4.0	7.0		
Minimum Split (s)	8.5	26.5		8.5	26.5		8.5	26.5		8.5	26.5		
Total Split (s)	8.5	26.5		8.5	26.5		8.5	26.5		8.5	26.5		
Total Split (%)	12.1%	37.9%		12.1%	37.9%		12.1%	37.9%		12.1%	37.9%		
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5		
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0		
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5		
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		
Recall Mode	None	Min		None	Min		None	None		None	None		
Act Effct Green (s)	15.6	12.6		17.6	16.5		13.5	11.7		16.8	15.6		
Actuated g/C Ratio	0.33	0.27		0.37	0.35		0.29	0.25		0.36	0.33		
v/c Ratio	0.17	0.20		0.26	0.64		0.09	0.39		0.74	0.48		
Control Delay	11.5	14.2		12.3	12.4		11.8	16.3		31.6	13.3		
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0		
Total Delay	11.5	14.2		12.3	12.4		11.8	16.3		31.6	13.3		
LOS	B	B		B	B		B	B		C	B		
Approach Delay		13.6			12.4			15.6			22.4		
Approach LOS		B			B			B			C		
Queue Length 50th (m)	2.2	5.0		5.7	14.6		1.3	8.4		14.3	8.3		

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Creative Transportation Solutions Ltd.

Synchro 10 Report
Page 1

Lanes, Volumes, Timings
1: Harris Road & Airport Way

2024 Base + Site
Timing Plan: Wkday AM Peak Hr

	←	→	↖	↗	←	↖	↗	↖	↗	↖	↗	↖	↗
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Queue Length 95th (m)	8.6	13.2		17.5	47.7		7.0	28.1		#63.0	40.8		
Internal Link Dist (m)		721.8			811.3			232.0			201.1		
Turn Bay Length (m)	75.0			30.0			15.0						
Base Capacity (vph)	265	1607		430	1693		345	897		380	897		
Starvation Cap Reductn	0	0		0	0		0	0		0	0		
Spillback Cap Reductn	0	0		0	0		0	0		0	0		
Storage Cap Reductn	0	0		0	0		0	0		0	0		
Reduced v/c Ratio	0.17	0.10		0.26	0.45		0.09	0.19		0.74	0.32		

Intersection Summary

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 47.3

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 15.9

Intersection LOS: B

Intersection Capacity Utilization 62.9%

ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Harris Road & Airport Way

↖ Ø1	↗ Ø2	↖ Ø3	↗ Ø4
8.5 s	26.5 s	8.5 s	26.5 s
↖ Ø5	↗ Ø6	↖ Ø7	↗ Ø8
8.5 s	26.5 s	8.5 s	26.5 s

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Creative Transportation Solutions Ltd.

Synchro 10 Report
Page 2

Lanes, Volumes, Timings
1: Harris Road & Airport Way

2035 Base
Timing Plan: Wkday AM Peak Hr

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱	↲	↰	↱	↲	↰	↱	↲	↰	↱	↲
Traffic Volume (vph)	46	144	19	43	493	278	33	105	53	234	110	190
Future Volume (vph)	46	144	19	43	493	278	33	105	53	234	110	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.1	3.3	3.3	3.1	3.3	3.3	3.1	3.3	3.3	3.1	3.3	3.3
Storage Length (m)	75.0		0.0	30.0		0.0	15.0		0.0	0.0		60.0
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.983			0.946			0.950			0.905	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1624	3013	0	1624	2964	0	1624	1662	0	1624	1583	0
Flt Permitted	0.231			0.641			0.566			0.468		
Satd. Flow (perm)	395	3013	0	1095	2964	0	967	1662	0	800	1583	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			164			38			130	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		745.8			835.3			256.0			225.1	
Travel Time (s)		53.7			60.1			18.4			16.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	5%	15%	5%	5%	15%	5%	5%	5%	5%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	49	175	0	46	829	0	35	170	0	252	322	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	7.0		4.0	7.0		4.0	7.0		4.0	7.0	
Minimum Split (s)	8.5	26.5		8.5	26.5		8.5	26.5		8.5	26.5	
Total Split (s)	8.5	26.5		8.5	26.5		8.5	26.5		8.5	26.5	
Total Split (%)	12.1%	37.9%		12.1%	37.9%		12.1%	37.9%		12.1%	37.9%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effct Green (s)	19.3	17.3		19.3	17.3		14.2	12.4		17.4	16.2	
Actuated g/C Ratio	0.38	0.34		0.38	0.34		0.28	0.25		0.34	0.32	
v/c Ratio	0.19	0.17		0.10	0.74		0.11	0.39		0.68	0.54	
Control Delay	11.8	13.5		10.6	18.4		12.8	17.8		27.9	14.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	11.8	13.5		10.6	18.4		12.8	17.8		27.9	14.5	
LOS	B	B		B	B		B	B		C	B	
Approach Delay		13.1			17.9			16.9			20.4	
Approach LOS		B			B			B			C	
Queue Length 50th (m)	2.4	5.7		2.2	30.6		2.4	12.4		20.1	14.8	

7255 - Golden Ears Business Park
Creative Transportation Solutions Ltd.

Synchro 10 Report
Page 1

Lanes, Volumes, Timings
1: Harris Road & Airport Way

2035 Base
Timing Plan: Wkday AM Peak Hr

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (m)	9.5	15.0		9.0	#66.6		7.5	28.1		#47.9	44.6	
Internal Link Dist (m)		721.8			811.3			232.0			201.1	
Turn Bay Length (m)	75.0			30.0		15.0						
Base Capacity (vph)	262	1520		465	1568	330	852			370	858	
Starvation Cap Reductn	0	0		0	0	0	0			0	0	
Spillback Cap Reductn	0	0		0	0	0	0			0	0	
Storage Cap Reductn	0	0		0	0	0	0			0	0	
Reduced v/c Ratio	0.19	0.12		0.10	0.53	0.11	0.20			0.68	0.38	

Intersection Summary

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 50.6

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 18.0 Intersection LOS: B

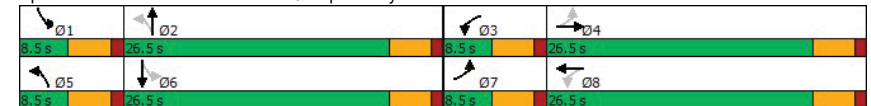
Intersection Capacity Utilization 62.6% ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Harris Road & Airport Way



7255 - Golden Ears Business Park
Creative Transportation Solutions Ltd.

Synchro 10 Report
Page 2

Lanes, Volumes, Timings
1: Harris Road & Airport Way

2035 Base + Site
Timing Plan: Wkday AM Peak Hr

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱	↱	↰	↱	↱	↰	↱	↱	↰	↱	↱
Traffic Volume (vph)	51	154	24	112	496	352	34	116	69	311	126	191
Future Volume (vph)	51	154	24	112	496	352	34	116	69	311	126	191
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.1	3.3	3.3	3.1	3.3	3.3	3.1	3.3	3.3	3.1	3.3	3.3
Storage Length (m)	75.0		0.0	30.0		0.0	15.0		0.0	0.0		60.0
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.938			0.944			0.910	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1624	3009	0	1624	2953	0	1624	1651	0	1624	1592	0
Flt Permitted	0.220			0.598			0.556			0.444		
Satd. Flow (perm)	376	3009	0	1022	2953	0	950	1651	0	759	1592	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			245			41			113	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		745.8			835.3			256.0			225.1	
Travel Time (s)		53.7			60.1			18.4			16.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	5%	15%	5%	5%	15%	5%	5%	5%	5%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	55	192	0	120	911	0	37	199	0	334	340	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	7.0		4.0	7.0		4.0	7.0		4.0	7.0	
Minimum Split (s)	8.5	26.5		8.5	26.5		8.5	26.5		8.5	26.5	
Total Split (s)	8.5	27.0		8.5	27.0		8.5	27.5		12.0	31.0	
Total Split (%)	11.3%	36.0%		11.3%	36.0%		11.3%	36.7%		16.0%	41.3%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effct Green (s)	20.1	17.1		21.3	19.2		16.2	12.0		24.3	21.8	
Actuated g/C Ratio	0.35	0.30		0.37	0.33		0.28	0.21		0.42	0.38	
v/c Ratio	0.25	0.21		0.29	0.79		0.12	0.53		0.76	0.51	
Control Delay	13.8	15.0		13.7	20.1		13.2	22.9		29.6	14.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	13.8	15.0		13.7	20.1		13.2	22.9		29.6	14.9	
LOS	B	B		B	C		B	C		C	B	
Approach Delay		14.7			19.4			21.4			22.2	
Approach LOS		B			B			C			C	
Queue Length 50th (m)	3.4	7.2		7.6	36.9		2.9	17.9		31.8	20.0	

7255 - Golden Ears Business Park
Creative Transportation Solutions Ltd.

Synchro 10 Report
Page 1

Lanes, Volumes, Timings
1: Harris Road & Airport Way

2035 Base + Site
Timing Plan: Wkday AM Peak Hr

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (m)	10.8	16.6		20.2	#80.4		7.8	35.8		#67.4	51.0	
Internal Link Dist (m)		721.8			811.3			232.0			201.1	
Turn Bay Length (m)	75.0			30.0			15.0					
Base Capacity (vph)	221	1247		420	1354		316	715		437	826	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.25	0.15		0.29	0.67		0.12	0.28		0.76	0.41	

Intersection Summary

Area Type: Other

Cycle Length: 75

Actuated Cycle Length: 57.7

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 19.9

Intersection LOS: B

Intersection Capacity Utilization 70.9%

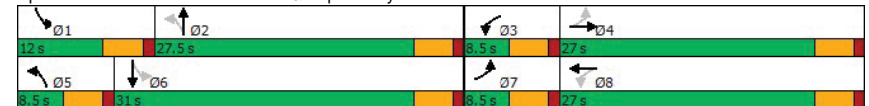
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Harris Road & Airport Way



7255 - Golden Ears Business Park
Creative Transportation Solutions Ltd.

Synchro 10 Report
Page 2

Lanes, Volumes, Timings
1: Harris Road & Airport Way

2024 Base
Timing Plan: Wkday PM Peak Hr

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Traffic Volume (vph)	195	477	31	13	169	245	14	88	67	257	84	57
Future Volume (vph)	195	477	31	13	169	245	14	88	67	257	84	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.1	3.3	3.3	3.1	3.3	3.3	3.1	3.3	3.3	3.1	3.3	3.3
Storage Length (m)	75.0		0.0	30.0		0.0	15.0		0.0	0.0		60.0
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.991			0.911			0.935			0.940	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1624	3023	0	1624	2914	0	1624	1636	0	1624	1644	0
Flt Permitted	0.309			0.429			0.653			0.428		
Satd. Flow (perm)	528	3023	0	733	2914	0	1116	1636	0	731	1644	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			285			53			49	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		745.8			835.3			256.0			225.1	
Travel Time (s)		53.7			60.1			18.4			16.2	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	5%	15%	5%	5%	15%	5%	5%	5%	5%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	227	591	0	15	482	0	16	180	0	299	164	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	7.0		4.0	7.0		4.0	7.0		4.0	7.0	
Minimum Split (s)	8.5	26.5		8.5	26.5		8.5	26.5		8.5	26.5	
Total Split (s)	10.0	28.0		8.5	26.5		8.5	27.5		11.0	30.0	
Total Split (%)	13.3%	37.3%		11.3%	35.3%		11.3%	36.7%		14.7%	40.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effct Green (s)	20.8	20.0		14.9	10.7		12.1	9.9		18.0	17.0	
Actuated g/C Ratio	0.42	0.41		0.30	0.22		0.25	0.20		0.37	0.35	
v/c Ratio	0.64	0.48		0.05	0.56		0.05	0.48		0.76	0.27	
Control Delay	22.6	14.0		10.2	10.2		11.4	19.1		28.7	11.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	22.6	14.0		10.2	10.2		11.4	19.1		28.7	11.4	
LOS	C	B		B	B		B	B		C	B	
Approach Delay		16.4			10.2			18.4			22.6	
Approach LOS		B			B			B			C	
Queue Length 50th (m)	13.6	19.5		0.8	8.2		0.8	10.1		17.9	6.0	

7255 - Golden Ears Business Park
Creative Transportation Solutions Ltd.

Synchro 10 Report
Page 1

Lanes, Volumes, Timings
1: Harris Road & Airport Way

2024 Base
Timing Plan: Wkday PM Peak Hr

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (m)	#35.1	44.5		3.6	18.8		4.4	29.0		#60.5	25.0	
Internal Link Dist (m)		721.8			811.3			232.0			201.1	
Turn Bay Length (m)	75.0			30.0			15.0					
Base Capacity (vph)	354	1533		300	1529		318	836		395	924	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.64	0.39		0.05	0.32		0.05	0.22		0.76	0.18	

Intersection Summary

Area Type: Other

Cycle Length: 75

Actuated Cycle Length: 49

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 16.5

Intersection LOS: B

Intersection Capacity Utilization 61.3%

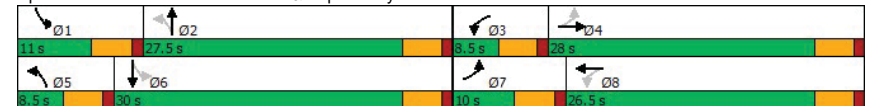
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Harris Road & Airport Way



7255 - Golden Ears Business Park
Creative Transportation Solutions Ltd.

Synchro 10 Report
Page 2

Lanes, Volumes, Timings
1: Harris Road & Airport Way

2024 Base + Site
Timing Plan: Wkday PM Peak Hr

	←	→	↖	↗	←	↖	↗	→	↖	↗	→	↖	↗
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗		
Traffic Volume (vph)	196	481	31	45	179	318	19	107	128	333	94	62	
Future Volume (vph)	196	481	31	45	179	318	19	107	128	333	94	62	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (m)	3.1	3.3	3.3	3.1	3.3	3.3	3.1	3.3	3.3	3.1	3.3	3.3	
Storage Length (m)	75.0		0.0	30.0		0.0	15.0		0.0	0.0		60.0	
Storage Lanes	1		0	1		0	1		0	1		1	
Taper Length (m)	7.5			7.5			7.5			7.5			
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.991			0.904			0.918			0.940		
Flt Protected	0.950			0.950			0.950			0.950			
Satd. Flow (prot)	1624	3023	0	1624	2905	0	1624	1606	0	1624	1644	0	
Flt Permitted	0.194			0.427			0.643			0.313			
Satd. Flow (perm)	332	3023	0	730	2905	0	1099	1606	0	535	1644	0	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)		7			370			65			44		
Link Speed (k/h)		50			50			50			50		
Link Distance (m)		745.8			835.3			256.0			225.1		
Travel Time (s)		53.7			60.1			18.4			16.2		
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	
Heavy Vehicles (%)	5%	15%	5%	5%	15%	5%	5%	5%	5%	5%	5%	5%	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	228	595	0	52	578	0	22	273	0	387	181	0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA		
Protected Phases	7	4		3	8		5	2		1	6		
Permitted Phases	4			8			2			6			
Detector Phase	7	4		3	8		5	2		1	6		
Switch Phase													
Minimum Initial (s)	4.0	7.0		4.0	7.0		4.0	7.0		4.0	7.0		
Minimum Split (s)	8.5	26.5		8.5	26.5		8.5	26.5		8.5	26.5		
Total Split (s)	15.0	31.1		10.4	26.5		8.5	27.5		21.0	40.0		
Total Split (%)	16.7%	34.6%		11.6%	29.4%		9.4%	30.6%		23.3%	44.4%		
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5		
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0		
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0		
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5		
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag		
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		
Recall Mode	None	Min		None	Min		None	None		None	None		
Act Effct Green (s)	29.1	23.6		19.9	13.9		19.2	15.0		35.0	32.2		
Actuated g/C Ratio	0.40	0.32		0.27	0.19		0.26	0.20		0.48	0.44		
v/c Ratio	0.72	0.61		0.19	0.68		0.07	0.72		0.80	0.24		
Control Delay	32.3	26.4		17.6	14.6		13.7	32.9		29.4	12.8		
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0		
Total Delay	32.3	26.4		17.6	14.6		13.7	32.9		29.4	12.8		
LOS	C	C		B	B		B	C		C	B		
Approach Delay		28.0			14.8			31.5			24.1		
Approach LOS		C			B			C			C		
Queue Length 50th (m)	23.3	42.6		4.7	14.3		1.7	29.1		37.6	11.0		

7255 - Golden Ears Business Park
Creative Transportation Solutions Ltd.

Synchro 10 Report
Page 1

Lanes, Volumes, Timings
1: Harris Road & Airport Way

2024 Base + Site
Timing Plan: Wkday PM Peak Hr

	←	→	↖	↗	←	↖	↗	→	↖	↗	→	↖	↗
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Queue Length 95th (m)	#52.0	63.8		12.2	29.5		5.6	55.5		#73.7	29.4		
Internal Link Dist (m)		721.8			811.3			232.0			201.1		
Turn Bay Length (m)	75.0			30.0			15.0						
Base Capacity (vph)	322	1136		272	1155		316	563		508	847		
Starvation Cap Reductn	0	0		0	0		0	0		0	0		
Spillback Cap Reductn	0	0		0	0		0	0		0	0		
Storage Cap Reductn	0	0		0	0		0	0		0	0		
Reduced v/c Ratio	0.71	0.52		0.19	0.50		0.07	0.48		0.76	0.21		

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 73.5

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 23.9

Intersection LOS: C

Intersection Capacity Utilization 73.0%

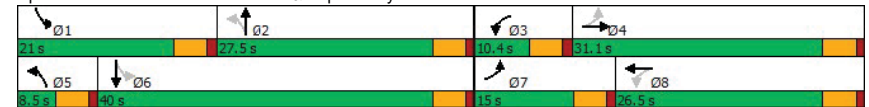
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Harris Road & Airport Way



7255 - Golden Ears Business Park
Creative Transportation Solutions Ltd.

Synchro 10 Report
Page 2

Lanes, Volumes, Timings
1: Harris Road & Airport Way

2035 Base
Timing Plan: Wkday PM Peak Hr

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱	↱	↰	↱	↱	↰	↱	↱	↰	↱	↱
Traffic Volume (vph)	233	570	38	16	203	294	17	104	80	306	101	68
Future Volume (vph)	233	570	38	16	203	294	17	104	80	306	101	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.1	3.3	3.3	3.1	3.3	3.3	3.1	3.3	3.3	3.1	3.3	3.3
Storage Length (m)	75.0		0.0	30.0		0.0	15.0		0.0	0.0		60.0
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.991			0.911			0.935			0.940	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1624	3024	0	1624	2914	0	1624	1636	0	1624	1644	0
Flt Permitted	0.196			0.383			0.634			0.380		
Satd. Flow (perm)	335	3024	0	655	2914	0	1084	1636	0	649	1644	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)	8				342			41			42	
Link Speed (k/h)	50				50			50			50	
Link Distance (m)	745.8				835.3			256.0			225.1	
Travel Time (s)	53.7				60.1			18.4			16.2	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	5%	15%	5%	5%	15%	5%	5%	5%	5%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	271	707	0	19	578	0	20	214	0	356	196	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	7.0		4.0	7.0		4.0	7.0		4.0	7.0	
Minimum Split (s)	8.5	26.5		8.5	26.5		8.5	26.5		8.5	26.5	
Total Split (s)	18.0	36.0		8.5	26.5		8.5	27.5		18.0	37.0	
Total Split (%)	20.0%	40.0%		9.4%	29.4%		9.4%	30.6%		20.0%	41.1%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effct Green (s)	30.4	27.5		16.9	12.7		17.2	13.0		30.8	27.9	
Actuated g/C Ratio	0.43	0.39		0.24	0.18		0.24	0.18		0.44	0.40	
v/c Ratio	0.71	0.60		0.09	0.72		0.07	0.64		0.77	0.29	
Control Delay	27.1	21.0		14.9	16.6		14.6	31.5		28.9	15.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	27.1	21.0		14.9	16.6		14.6	31.5		28.9	15.0	
LOS	C	C		B	B		B	C		C	B	
Approach Delay		22.7			16.5			30.0			24.0	
Approach LOS		C			B			C			C	
Queue Length 50th (m)	24.4	36.0		1.5	15.5		1.5	21.8		33.1	12.4	

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Creative Transportation Solutions Ltd.

Synchro 10 Report
Page 1

Lanes, Volumes, Timings
1: Harris Road & Airport Way

2035 Base
Timing Plan: Wkday PM Peak Hr

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (m)	#57.9	69.0		5.4	31.5		5.8	45.5		#74.3	34.6	
Internal Link Dist (m)		721.8			811.3			232.0			201.1	
Turn Bay Length (m)	75.0			30.0			15.0					
Base Capacity (vph)	399	1396		213	1169		295	576		475	802	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.68	0.51		0.09	0.49		0.07	0.37		0.75	0.24	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 70.5

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 22.2

Intersection LOS: C

Intersection Capacity Utilization 70.3%

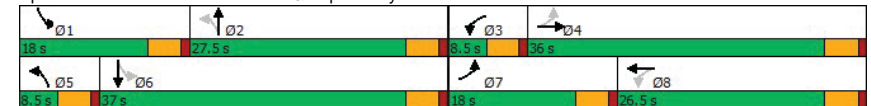
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Harris Road & Airport Way



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Creative Transportation Solutions Ltd.

Synchro 10 Report
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Lanes, Volumes, Timings
1: Harris Road & Airport Way

2035 Base + Site
Timing Plan: Wkday PM Peak Hr

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱	↱	↰	↱	↱	↰	↱	↱	↰	↱	↱
Traffic Volume (vph)	234	574	38	48	213	367	22	123	141	382	111	73
Future Volume (vph)	234	574	38	48	213	367	22	123	141	382	111	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (m)	3.1	3.3	3.3	3.1	3.3	3.3	3.1	3.3	3.3	3.1	3.3	3.3
Storage Length (m)	75.0		0.0	30.0		0.0	15.0		0.0	0.0		60.0
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.991			0.905			0.920			0.940	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1624	3023	0	1624	2906	0	1624	1609	0	1624	1644	0
Flt Permitted	0.183			0.346			0.624			0.269		
Satd. Flow (perm)	313	3023	0	591	2906	0	1066	1609	0	460	1644	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)	8				427			61			43	
Link Speed (k/h)	50				50			50			50	
Link Distance (m)	745.8				835.3			256.0			225.1	
Travel Time (s)	53.7				60.1			18.4			16.2	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	5%	15%	5%	5%	15%	5%	5%	5%	5%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	272	711	0	56	675	0	26	307	0	444	214	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	7.0		4.0	7.0		4.0	7.0		4.0	7.0	
Minimum Split (s)	8.5	26.5		8.5	26.5		8.5	26.5		8.5	26.5	
Total Split (s)	15.4	33.3		8.6	26.5		8.5	27.1		21.0	39.6	
Total Split (%)	17.1%	37.0%		9.6%	29.4%		9.4%	30.1%		23.3%	44.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effct Green (s)	30.9	26.2		19.3	15.1		21.1	17.0		38.4	35.5	
Actuated g/C Ratio	0.39	0.33		0.25	0.19		0.27	0.22		0.49	0.45	
v/c Ratio	0.88	0.70		0.28	0.75		0.08	0.78		0.93	0.28	
Control Delay	50.8	28.3		20.2	16.2		14.2	37.9		47.5	14.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	50.8	28.3		20.2	16.2		14.2	37.9		47.5	14.0	
LOS	D	C		C	B		B	D		D	B	
Approach Delay		34.6			16.5			36.1			36.6	
Approach LOS		C			B			D			D	
Queue Length 50th (m)	30.6	54.4		5.4	18.2		2.1	37.7		49.2	15.4	

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Creative Transportation Solutions Ltd.

Synchro 10 Report
Page 1

Lanes, Volumes, Timings
1: Harris Road & Airport Way

2035 Base + Site
Timing Plan: Wkday PM Peak Hr

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (m)	#73.3	75.6		12.8	34.7		6.4	65.5		#108.0	35.9	
Internal Link Dist (m)		721.8			811.3			232.0			201.1	
Turn Bay Length (m)	75.0			30.0			15.0					
Base Capacity (vph)	309	1138		200	1136		315	516		475	791	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.88	0.62		0.28	0.59		0.08	0.59		0.93	0.27	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 78.5

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.93

Intersection Signal Delay: 30.4

Intersection LOS: C

Intersection Capacity Utilization 81.9%

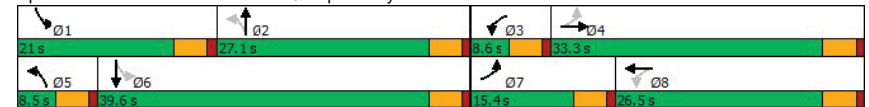
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Harris Road & Airport Way



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Creative Transportation Solutions Ltd.

Synchro 10 Report
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MOVEMENT SUMMARY

Site: Airport Way & Golden Ears Way SB Ramps (AM 2024 Base)

7255 - Golden Ears Business Park Access Study
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Golden Ears Way SB Ramp											
3	L2	423	17.0	1.133	90.8	LOS F	52.5	447.0	1.00	2.30	26.1
18	R2	373	4.0	1.133	83.3	LOS F	52.5	447.0	1.00	2.30	25.9
Approach		796	10.9	1.133	87.3	LOS F	52.5	447.0	1.00	2.30	26.0
East: 113B Ave											
1	L2	373	4.0	1.107	80.1	LOS F	47.6	384.7	1.00	2.19	28.2
6	T1	423	4.0	1.107	74.4	LOS F	47.6	384.7	1.00	2.19	28.4
Approach		796	4.0	1.107	77.1	LOS E	47.6	384.7	1.00	2.19	28.3
West: Airport Way											
2	T1	373	4.0	1.022	44.0	LOS F	33.7	286.4	1.00	1.67	37.1
12	R2	373	17.0	1.022	45.3	LOS F	33.7	286.4	1.00	1.67	36.1
Approach		746	10.5	1.022	44.6	LOS D	33.7	286.4	1.00	1.67	36.6
All Vehicles		2338	8.4	1.133	70.2	LOS E	52.5	447.0	1.00	2.06	29.5

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: Airport Way & Golden Ears Way SB Ramps (AM 2024 Base+Site)

7255 - Golden Ears Business Park Access Study
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Golden Ears Way SB Ramp											
3	L2	531	17.0	1.412	209.3	LOS F	111.6	951.4	1.00	3.69	14.3
18	R2	452	4.0	1.412	201.7	LOS F	111.6	951.4	1.00	3.69	14.3
Approach		983	11.0	1.412	205.8	LOS F	111.6	951.4	1.00	3.69	14.3
East: 113B Ave											
1	L2	452	4.0	1.374	191.6	LOS F	105.1	848.9	1.00	3.58	15.5
6	T1	532	4.0	1.374	185.9	LOS F	105.1	848.9	1.00	3.58	15.5
Approach		984	4.0	1.374	188.5	LOS F	105.1	848.9	1.00	3.58	15.5
West: Airport Way											
2	T1	453	4.0	1.221	118.4	LOS F	74.6	633.2	1.00	2.75	21.3
12	R2	452	17.0	1.221	119.7	LOS F	74.6	633.2	1.00	2.75	21.0
Approach		904	10.5	1.221	119.1	LOS F	74.6	633.2	1.00	2.75	21.1
All Vehicles		2871	8.5	1.412	172.6	LOS F	111.6	951.4	1.00	3.36	16.4

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: Airport Way & Golden Ears Way SB Ramps (AM 2035 Base)

7255 - Golden Ears Business Park Access Study
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Vehicles veh	Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Golden Ears Way SB Ramp											
3	L2	519	17.0	1.391	200.0	LOS F	107.6	916.8	1.00	3.60	14.9
18	R2	455	4.0	1.391	192.4	LOS F	107.6	916.8	1.00	3.60	14.8
Approach		974	10.9	1.391	196.5	LOS F	107.6	916.8	1.00	3.60	14.8
East: 113B Ave											
1	L2	455	4.0	1.355	183.6	LOS F	101.3	818.2	1.00	3.50	16.0
6	T1	519	4.0	1.355	177.8	LOS F	101.3	818.2	1.00	3.50	16.0
Approach		974	4.0	1.355	180.5	LOS F	101.3	818.2	1.00	3.50	16.0
West: Airport Way											
2	T1	455	4.0	1.240	126.4	LOS F	78.0	662.5	1.00	2.86	20.4
12	R2	455	17.0	1.240	127.7	LOS F	78.0	662.5	1.00	2.86	20.1
Approach		910	10.5	1.240	127.1	LOS F	78.0	662.5	1.00	2.86	20.2
All Vehicles		2858	8.4	1.391	168.9	LOS F	107.6	916.8	1.00	3.33	16.6

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: Airport Way & Golden Ears Way SB Ramps (AM 2035 Base+Site)

7255 - Golden Ears Business Park Access Study
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Vehicles veh	Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Golden Ears Way SB Ramp											
3	L2	628	17.0	1.618	300.6	LOS F	155.0	1325.2	1.00	4.45	10.6
18	R2	480	4.0	1.618	293.0	LOS F	155.0	1325.2	1.00	4.45	10.6
Approach		1108	11.4	1.618	297.3	LOS F	155.0	1325.2	1.00	4.45	10.6
East: 113B Ave											
1	L2	480	4.0	1.572	279.4	LOS F	148.0	1195.6	1.00	4.34	11.4
6	T1	628	4.0	1.572	273.6	LOS F	148.0	1195.6	1.00	4.34	11.4
Approach		1108	4.0	1.572	276.1	LOS F	148.0	1195.6	1.00	4.34	11.4
West: Airport Way											
2	T1	481	4.0	1.266	137.1	LOS F	87.0	739.1	1.00	2.96	19.2
12	R2	480	17.0	1.266	138.4	LOS F	87.0	739.1	1.00	2.96	19.0
Approach		960	10.5	1.266	137.7	LOS F	87.0	739.1	1.00	2.96	19.1
All Vehicles		3175	8.5	1.618	241.6	LOS F	155.0	1325.2	1.00	3.96	12.6

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: Airport Way & Golden Ears Way SB Ramps (PM 2024 Base)

7255 - Golden Ears Business Park Access Study
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Golden Ears Way SB Ramp											
3	L2	417	17.0	1.244	135.5	LOS F	79.8	674.6	1.00	2.88	19.9
18	R2	506	4.0	1.244	128.0	LOS F	79.8	674.6	1.00	2.88	19.8
Approach		923	9.9	1.244	131.4	LOS F	79.8	674.6	1.00	2.88	19.9
East: 113B Ave											
1	L2	506	4.0	1.223	125.8	LOS F	75.4	609.3	1.00	2.82	21.1
6	T1	419	4.0	1.223	120.0	LOS F	75.4	609.3	1.00	2.82	21.2
Approach		924	4.0	1.223	123.2	LOS F	75.4	609.3	1.00	2.82	21.1
West: Airport Way											
2	T1	506	4.0	1.518	249.4	LOS F	129.4	1098.6	1.00	4.09	12.2
12	R2	506	17.0	1.518	250.8	LOS F	129.4	1098.6	1.00	4.09	12.1
Approach		1012	10.5	1.518	250.1	LOS F	129.4	1098.6	1.00	4.09	12.1
All Vehicles		2859	8.2	1.518	170.7	LOS F	129.4	1098.6	1.00	3.29	16.5

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: Airport Way & Golden Ears Way SB Ramps (PM 2024 Base+Site)

7255 - Golden Ears Business Park Access Study
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Golden Ears Way SB Ramp											
3	L2	449	17.0	1.411	207.6	LOS F	121.2	1020.8	1.00	3.66	14.4
18	R2	620	4.0	1.411	200.1	LOS F	121.2	1020.8	1.00	3.66	14.3
Approach		1069	9.5	1.411	203.2	LOS F	121.2	1020.8	1.00	3.66	14.4
East: 113B Ave											
1	L2	620	4.0	1.380	192.8	LOS F	115.1	929.2	1.00	3.59	15.4
6	T1	449	4.0	1.380	187.1	LOS F	115.1	929.2	1.00	3.59	15.4
Approach		1069	4.0	1.380	190.4	LOS F	115.1	929.2	1.00	3.59	15.4
West: Airport Way											
2	T1	621	4.0	1.942	438.5	LOS F	211.7	1797.5	1.00	5.24	7.5
12	R2	620	17.0	1.942	439.9	LOS F	211.7	1797.5	1.00	5.24	7.5
Approach		1241	10.5	1.942	439.2	LOS F	211.7	1797.5	1.00	5.24	7.5
All Vehicles		3378	8.1	1.942	285.9	LOS F	211.7	1797.5	1.00	4.22	11.0

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: Airport Way & Golden Ears Way SB Ramps (PM 2035 Base)

7255 - Golden Ears Business Park Access Study
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Vehicles veh	Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Golden Ears Way SB Ramp											
3	L2	498	17.0	1.486	241.3	LOS F	136.5	1153.9	1.00	3.98	12.8
18	R2	605	4.0	1.486	233.8	LOS F	136.5	1153.9	1.00	3.98	12.7
Approach		1102	9.9	1.486	237.2	LOS F	136.5	1153.9	1.00	3.98	12.7
East: 113B Ave											
1	L2	605	4.0	1.455	226.5	LOS F	130.8	1056.7	1.00	3.93	13.6
6	T1	499	4.0	1.455	220.7	LOS F	130.8	1056.7	1.00	3.93	13.6
Approach		1103	4.0	1.455	223.9	LOS F	130.8	1056.7	1.00	3.93	13.6
West: Airport Way											
2	T1	606	4.0	1.816	381.7	LOS F	193.5	1642.9	1.00	5.00	8.5
12	R2	605	17.0	1.816	383.1	LOS F	193.5	1642.9	1.00	5.00	8.4
Approach		1210	10.5	1.816	382.4	LOS F	193.5	1642.9	1.00	5.00	8.5
All Vehicles		3416	8.2	1.816	284.3	LOS F	193.5	1642.9	1.00	4.32	11.0

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: Airport Way & Golden Ears Way SB Ramps (PM 2035 Base+Site)

7255 - Golden Ears Business Park Access Study
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Vehicles veh	Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Golden Ears Way SB Ramp											
3	L2	529	17.0	1.656	316.4	LOS F	180.1	1518.2	1.00	4.57	10.2
18	R2	720	4.0	1.656	308.8	LOS F	180.1	1518.2	1.00	4.57	10.1
Approach		1249	9.5	1.656	312.0	LOS F	180.1	1518.2	1.00	4.57	10.1
East: 113B Ave											
1	L2	720	4.0	1.618	298.3	LOS F	173.5	1401.4	1.00	4.53	10.8
6	T1	529	4.0	1.618	292.6	LOS F	173.5	1401.4	1.00	4.53	10.8
Approach		1249	4.0	1.618	295.9	LOS F	173.5	1401.4	1.00	4.53	10.8
West: Airport Way											
2	T1	720	4.0	2.251	576.9	LOS F	276.0	2344.1	1.00	5.84	5.9
12	R2	720	17.0	2.251	578.2	LOS F	276.0	2344.1	1.00	5.84	5.9
Approach		1440	10.5	2.251	577.5	LOS F	276.0	2344.1	1.00	5.84	5.9
All Vehicles		3937	8.1	2.251	404.0	LOS F	276.0	2344.1	1.00	5.02	8.2

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.