



DISTRICT OF COLDSTREAM

REPORT TO COUNCIL

FILE: 3200-20 (24-007-PRJ)
DATE: April 28, 2025
FROM: Development Services
SUBJECT: OCP and Zoning Map Amendment for Development Application 24-007-PRJ for 10050 Middleton Drive (Lot 2 Plan 40254)

1. PURPOSE

To present Council with a Development Application for 10050 Middleton Drive, an Official Community Plan (OCP) Map Amendment to change the land use designation of the parcel from Residential to Civic, and to Rezone the lot from R2 – Urban Large Lot Residential Zone to P1 – Civic One Zone, to allow for the construction of a new Elementary School.

2. RECOMMENDATION

Recommendation 1:

THAT the report titled “OCP and Zoning Map Amendment for Development Application 24-007-PRJ for 10050 Middleton Drive (Lot 2 Plan 40254),” dated April 28th, 2025, submitted by the Planner, be received;

AND THAT “District of Coldstream Official Community Plan Bylaw No. 1673, 2015, Amendment Bylaw No. 1850, 2024, Amendment No. 4,” a bylaw to amend the land use designation from Residential to Civic, for Lot 2 Section 24 Township 9 Osoyoos Division Yale District Plan 40254, located at 10050 Middleton Drive, be read a second time by title only, this 28th day of April 2025;

AND THAT Council authorize administration to schedule a Public Hearing for “District of Coldstream Official Community Plan Bylaw No. 1673, 2015, Amendment Bylaw No. 1850, 2024, Amendment No. 4”.

Recommendation 2:

THAT “District of Coldstream Zoning Bylaw No. 1838, 2024, Amendment Bylaw No. 1851, 2024, Amendment No. 1,” a bylaw to rezone Lot 2 Section 24 Township 9 Osoyoos Division Yale District Plan 40254, located at 10050 Middleton Drive, from R2 – Urban Large Lot Residential Zone to P1 – Civic One Zone, be read a second time by title only, this 28th day of April 2025;

AND THAT Council authorize administration to schedule a Public Hearing for “District of Coldstream Zoning Bylaw No. 1838, 2024, Amendment Bylaw No. 1851, 2024, Amendment No. 1”.

3. ALTERNATIVES & IMPLICATIONS

Alternative: Deny Second Reading for both OCP Amendment and Rezoning applications

Should Council wish to deny second reading considerations for both the OCP Amendment and Rezoning application, the following resolution is suggested:

THAT the report titled “Development Application 24-007-PRJ for 10050 Middleton Drive (Lot 2 Plan 40254),” dated May 13, 2025, submitted by the Planner be received;

*AND THAT Administration advise the Applicant that Development Application 24-007-PRJ is denied for the following reasons: **(to be cited by Council)**.*

If the development proposal is denied, it is recommended that District Council provide a rationale in writing to the Applicant.

In accordance with the Development Application Procedures Bylaw 1747, 2019, the Applicant may not re-apply for a period of six (6) months from the date of refusal.

4. PREVIOUS COUNCIL MOTION / COMMITTEE RESOLUTION(S)

At the meeting held December 9, 2024, Council passed the following resolution:

THAT the report titled “OCP and Zoning Map Amendment for Development Application 24-007-PRJ for the property legally described as Lot 2, Plan 40254 (“10050 Middleton Drive”),” dated December 9, 2024, submitted by the Planner, be received;

AND THAT “District of Coldstream Official Community Plan Bylaw No. 1673, 2015, Amendment Bylaw No. 1850, 2024, Amendment No. 4,” a bylaw to amend the land use designation from Residential to Civic, for the property legally described as Lot 2 Section 24 Township 9 Osoyoos Division Yale District Plan 40254 (10050 Middleton Drive), be read a first time by title only, this 9th day of December, 2024;

AND FURTHER THAT a Traffic Impact Assessment be prepared by a Qualified Professional and submitted to the District prior to second reading of “District of Coldstream Official Community Plan Bylaw No. 1673, 2015, Amendment Bylaw No. 1850, 2024, Amendment No. 4”.

THAT “District of Coldstream Zoning Bylaw No. 1838, 2024, Amendment Bylaw No. 1851, 2024, Amendment No. 1,” a bylaw to rezone the property legally described as Lot 2 Section 24 Township 9 Osoyoos Division Yale District Plan 40254 (10050 Middleton Drive), from R2 – Urban Large Lot Residential Zone to P1 – Civic One Zone, be read a first time by title only, this 9th day of December, 2024;

AND THAT a Traffic Impact Assessment be prepared by a Qualified Professional and submitted to the District prior to second reading of “District of Coldstream Zoning Bylaw No. 1838, 2024, Amendment Bylaw No. 1851, 2024, Amendment No. 1”.

5. DISCUSSION/ANALYSIS

Property Information	
	
Applicant	Brian Monaghan, P. Eng. Project Manager Monaghan Engineering & Consulting Ltd.
Registered Owner	Roman Catholic Bishop of Kamloops
Civic Address	10050 Middleton Drive
Legal Description	Lot 2 Section 24 Township 9 Osoyoos Division Yale District Plan 40254
PID	012-101-885
Parcel Size	2 hectares
OCP Designation	Agriculture
Development Permit Area (DPA)	<input type="checkbox"/> Farm Protection Development Permit
Current Zone	R2 – Urban Large Lot Residential Zone
Existing Use	<input type="checkbox"/> Undeveloped
Proposal	<input type="checkbox"/> Official Community Plan (OCP) Map Amendment , to change the land use designation from Residential to Civic.

	<ul style="list-style-type: none"> □ To Rezone the lot from R2 – Urban Large Lot Residential Zone to P1 – Civic One Zone, to allow for an Elementary School. □ Development Permit for the purposes of Farm Protection along the southerly lot boundary.
Surrounding Land Uses	<ul style="list-style-type: none"> □ North – Rural Residential □ South – ALR Agricultural □ East – ALR Agricultural □ West – Rural Residential
Water	Greater Vernon Water
Sewer	Onsite Sewage

The undeveloped lot is currently zoned R2 – Urban Large Lot Residential Zone and is located next to Our Lady of the Valley Coldstream, directly west of the parcel. The surrounding land uses are primarily Rural Residential and Agriculture.

The development proposal is consistent with policies under Section 9 of the OCP, which states:

“Allow institutional uses such as educational, health care, administrative, recreational and cultural facilities in suitable locations within any OCP land use designation.”

The lot is suitable for the intended use, with sufficient parking and public road access. The lot is located approximately 90 m west of a Collector Road (Aberdeen Road).



Figure 4.1: Proposed Elementary School and Church, south facing view.

Local traffic is anticipated from residential subdivisions located along Sarsons Road, located northwesterly of the subject property, and Middleton Drive (“Middleton Mountain”), located westerly of the subject property. North-South traffic is anticipated from the controlled-access highway intersection, at Aberdeen Road and Highway 6.

The lot is approximately 550 m south of the controlled-access highway intersection (Highway 6). Therefore, the BC Ministry of Transportation will need to approve the proposed OCP Amendment and Zoning Amendment Bylaw prior to 4th Reading and final adoption. The Ministry has been consulted

during Technical Review and has granted a preliminary approval.

The Developer has provided a Traffic Impact Assessment (TIA), as requested by the Director of Infrastructure, and in accordance with OCP policies. The TIA has been given preliminary approval by the Director of Infrastructure Services.

The lot is located approximately 1,050 m north of the District's Town Centre. Therefore, the location of the Elementary School is consistent with OCP policies, in this regard.



Figure 4.2: Preliminary Site Plan for 24-007-PRJ. Proposed sports field is shown in **GREEN**, with the proposed Basketball Court shown in **GREY**, and the entryway into the Main Building is shown in **YELLOW**, with the hatched area indicating 'No Parking.' Playground equipment is depicted above the Basketball Court, east of the Main Building. For further details, please see ATTACHMENT C.

The proposed P1 – Civic One Zone permits the Owner to build an Elementary School on the lot. An institutional use is not subject to a Development Permit for the purposes of establishing form and character under the *Local Government Act* (LGA).

The lot is adjacent to lands located within the Agricultural Land Reserve (ALR). Therefore, a Development Permit for the purposes of farm protection would be required in conjunction with the OCP Map Amendment and Rezoning.

The lot is currently designated as 'Residential' under the OCP. The change in land use designation to 'Civic' to allow for an Elementary School will remove a 2 hectare residential parcel within 100 m of a future sanitary sewer connection along Aberdeen Road. If fully serviced, the residential lot would be able to accommodate multi-family residential development in the form of ground-orientated multi-family development, low-rise apartments, or a combination thereof.

The removal of these lands from residential would likely require increasing urban density in other areas of the District in order to compensate for the loss. Further, the removal of such lands may make it more challenging to reach the prescribed housing targets established under the Housing Needs Assessment (HNA) for Coldstream, and to be incorporated into the new OCP in 2025.

Nevertheless, a new Elementary School would be an important community asset and would be beneficial for current and future households with young children. The school would provide opportunities to foster community building, and to act as a place of community gathering and community service.

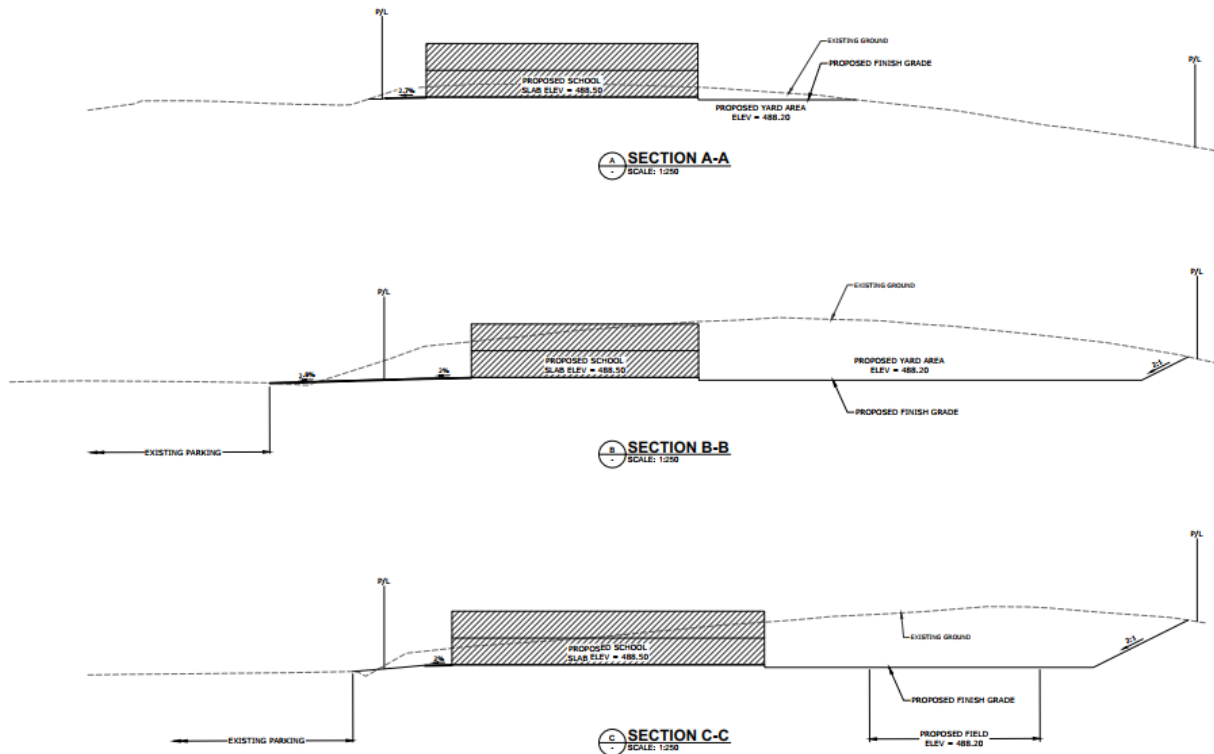


Figure 4.3: Cross Section and Elevation Drawings for the proposed Elementary School. For further details, please see ATTACHMENT C.

The Applicant has provided the **Traffic Impact Assessment (TIA)** as requested by Administration and Council, refer to ATTACHMENT D. The Director of Infrastructure Services has accepted the TIA as proposed by the Qualified Professional and Engineer of Record (EOR).

In summary, Administration recommends that the proposal be given second reading for both the OCP and Zoning Text Amendment Bylaws and proceed to a Public Hearing for Council consideration on the proposal.

6. LEGAL ENCUMBRANCES

It is recommended that the following legal encumbrance registered on the title of Lot 1 Plan 40254, located at 10050 Middleton Drive, be discharged as a condition of Rezoning, at time of Third Reading:

- **Restrictive Covenant KC23367** (1989) for the purposes of establishing parking restrictions on

the use and lands.

Off-Street Parking is enforced under **Zoning Bylaw 1838, 2024** and on-street parking is enforced under the **Traffic and Highways Regulation Bylaw 1549, 2009**. Therefore, the regulatory provisions under District Bylaws may be a more effective tool, as the District can issue fines and penalties for potential offences, whereas under a registered charge on title, the District would be required to take legal action to enforce the conditions of the covenant.

7. LEGISLATIVE AUTHORITY

The *Local Government Act* (LGA) allows a Local Government to adopt a bylaw to establish land use zoning, and to regulate the use of the land, buildings, and other structures under the zone. However, since the lands under consideration for development are located within 800 m of a controlled-access highway intersection (Highway 6), the Zoning Amendment Bylaw will require Provincial Crown approval prior to final adoption being granted by District Council, in accordance with Section 52 of the *Transportation Act*.

The LGA outlines what may and must be included in an Official Community Plan (OCP), establishes requirements for public consultation, and procedures for adoption.

Under the LGA, a Public Hearing is required for an amendment to the OCP.

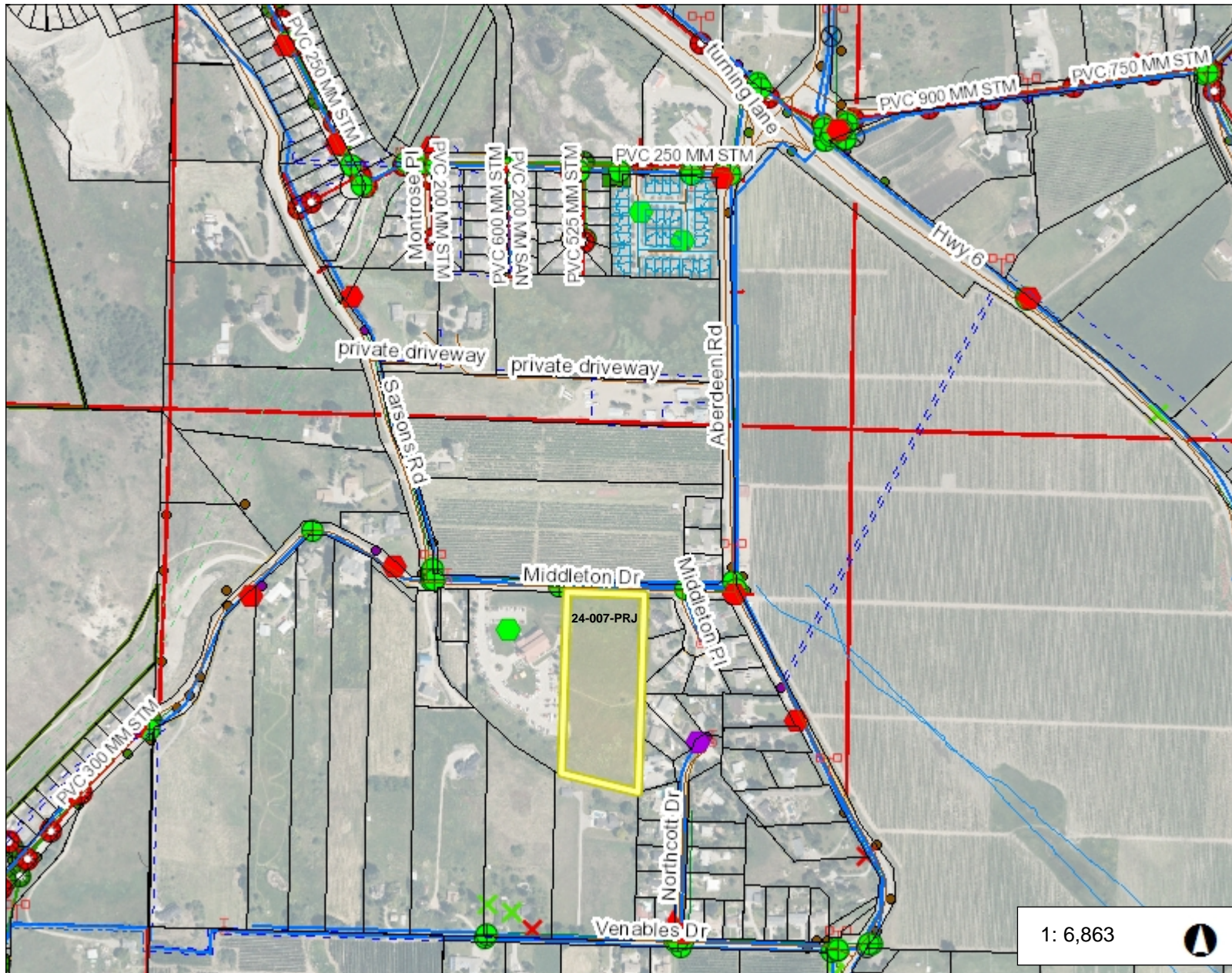
A Public Hearing is also required for the proposed rezoning of the lot. The proposal does not involve housing, where a Public Hearing for a rezoning proposal may be waived.

8. FINANCIAL IMPLICATIONS

No financial implications are anticipated at this time.



District of Coldstream



Legend

- PARCELS
- DoC CAD Lines
 - Easement RW
 - Electrical RW
 - Gas RW
 - NOWA RW
 - Railway RW
 - Roadway RW
 - Utility RW
 - RDNO SRW
 - Creeks
 - Hooks
 - LD_DL_LS
 - Lease Lot
 - Lot Lines
 - River
 - Strata Lot
 - Strata Rd
 - Stream
 - Swamp
 - Trailer Lot
 - Trailer Rds
 - TWP_RGE_LINE
 - Water Body
 - Int Bdry
 - Des Area Bdry
 - IR Bdry
 - Park Bdry

1: 6,863



348.6 0 174.32 348.6 Meters

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© Regional District of North Okanagan

Date and Time Printed: 11/28/2024 1:13 PM

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

Notes

ATTACHMENT "A"



July 1, 2024

File: 9000

District of Coldstream
9901 Kalamalka Road
Coldstream, BC V1B 1L6
Attn: Ryan Roycroft, Director of Development Services

Dear Mr. Roycroft

Re: OCP and Rezoning Application for proposed School at 10050 Middleton Drive

We are submitting, on behalf of the Roman Catholic Diocese of Kamloops, an application to amend the OCP and zoning of the above caption property to allow for an elementary school on the property. The proposed school would be adjacent to Our Lady of the Valley church which is at 10020 Middleton Drive and would share common parking facilities. The integration of the church, school and community is an import concept in the Catholic faith, and we believe the construction of a school at this site will be a benefit and enrichment to the parishioners of the church, the students at the school and their communities.

The intent of the application currently is to obtain the land use changes such that there is certainty regarding the future use of the land for a school. This will allow the community to raise funds for the future construction. The proposed school would be an elementary school consisting of classes for kindergarten through grade 7 and would include a childcare facility for 30 kids.

The attached site layout plan has been prepared for the property based on a 2-storey building to accommodate the school and daycare. The site layout also includes a soccer field for kids of elementary age, a basketball court and additional play areas. The footprint of the school was developed using the plans of an elementary school constructed in North Vancouver within the last 10 years but has been modified and enlarged to accommodate the daycare space and a gym with a commercial kitchen.

As part of our submission, we are including the following:

- District of Coldstream development application form and a cheque in the amount of \$1,500 for the rezoning and OCP amendments
- Copies of titles of both the subject property and church property, including copy of covenant on title of church property, and original subdivision plan for site
- Plans showing existing and proposed zoning and OCP designations, proposed site plan with detailed contours, proposed site plan with aerial photo background and property boundaries and dimensions.

Due to the uncertainty of the land use decision and the costs to prepare design plans for the site, we are requesting that the application proceed based on the site plan as submitted. As more certainty is achieved through the municipal approval process, additional works can be undertaken to further develop the site plan and building concepts, with final building plans and architectural drawings completed at the building permit stage of the project.

We look forward to your favourable response to our application and look forward to working with the District of Coldstream to achieve our goal of being able to build the new school.

Yours Truly,

Monaghan Engineering & Consulting Ltd.



Brian Monaghan, P. Eng.
Project Manager

Cc: Michael Donelson, RCDK
Father Peter Nguyen, St James Parish
Attachments



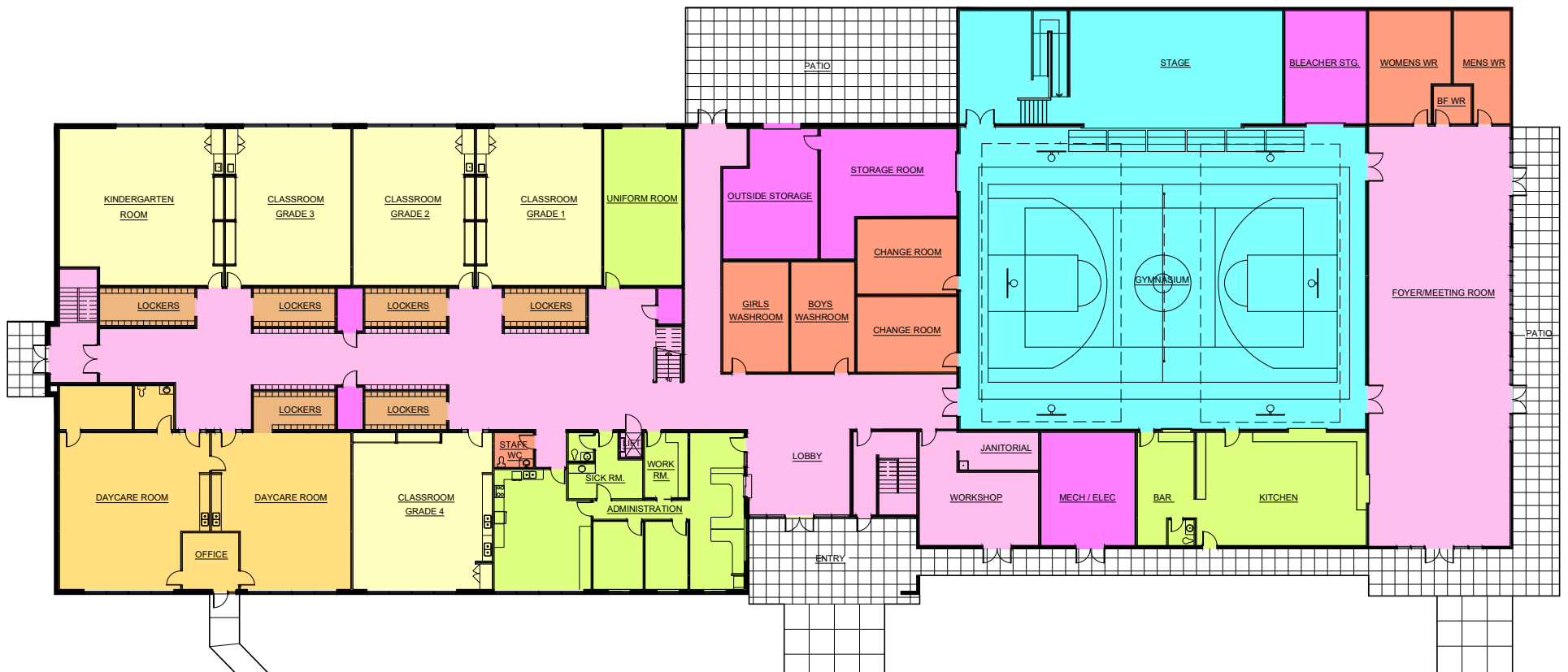
PROPOSED ST. JAMES SCHOOL



PROPOSED ST. JAMES SCHOOL



PROPOSED ST. JAMES SCHOOL



MAIN FLOOR

PROPOSED ST. JAMES SCHOOL



SECOND FLOOR

PROPOSED ST. JAMES SCHOOL

Date: March 25, 2025
Our File No: 9427-01

BY EMAIL

Roman Catholic Diocese of Kamloops
c/o: Brian Monaghan, P. Eng
Monaghan Engineering & Consulting Ltd.
3710B – 28th Street
Vernon, BC
V1T 9X2

Dear Mr. Monaghan:

**Re: St James Elementary School Development Traffic Engineering Services,
Coldstream, BC**

Creative Transportation Solutions Ltd. (CTS) is pleased to submit this **FINAL** report summarising our work on the above noted project. CTS was retained by Monaghan Engineering & Consulting Ltd. to provide a traffic engineering services for a proposed independent school development at 10050 Middleton Drive, Coldstream, BC. The primary objectives of this report were as follows:

1. To prepare a Transportation Impact Assessment for the proposed elementary school development; and,
2. Prepare a comprehensive report that summarizes our findings suitable for submission to the District of Coldstream.

This report documents our analyses and findings.

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1.0 BACKGROUND

1.1 The Site

The Roman Catholic Diocese of Kamloops is proposing to construct an independent elementary school development at 10050 Middleton Drive, Coldstream BC.

The proposed development will consist of an elementary school and day care centre, it will accommodate 240 elementary school students and 30 daycare centre students. Vehicular access is located to the north of the development.

The study area and the existing roadways are illustrated in **FIGURE 1**. The referenced site plan and preliminary drawings are included in **APPENDIX A**.

FIGURE 1
STUDY AREA AND INTERSECTIONS



1.2 Existing Road Network

The following summarized the existing road network:

Middleton Drive

- Middleton Drive is a two-lane collector road posted at 50 km/h east of Sarsons Road, and 30 km/h west of Sarsons Road
- There is no on-street parking
- There are no bike lanes or sidewalks
- The road is partially illuminated at some intersections
- No curb and gutter, rural cross section

Sarsons Road

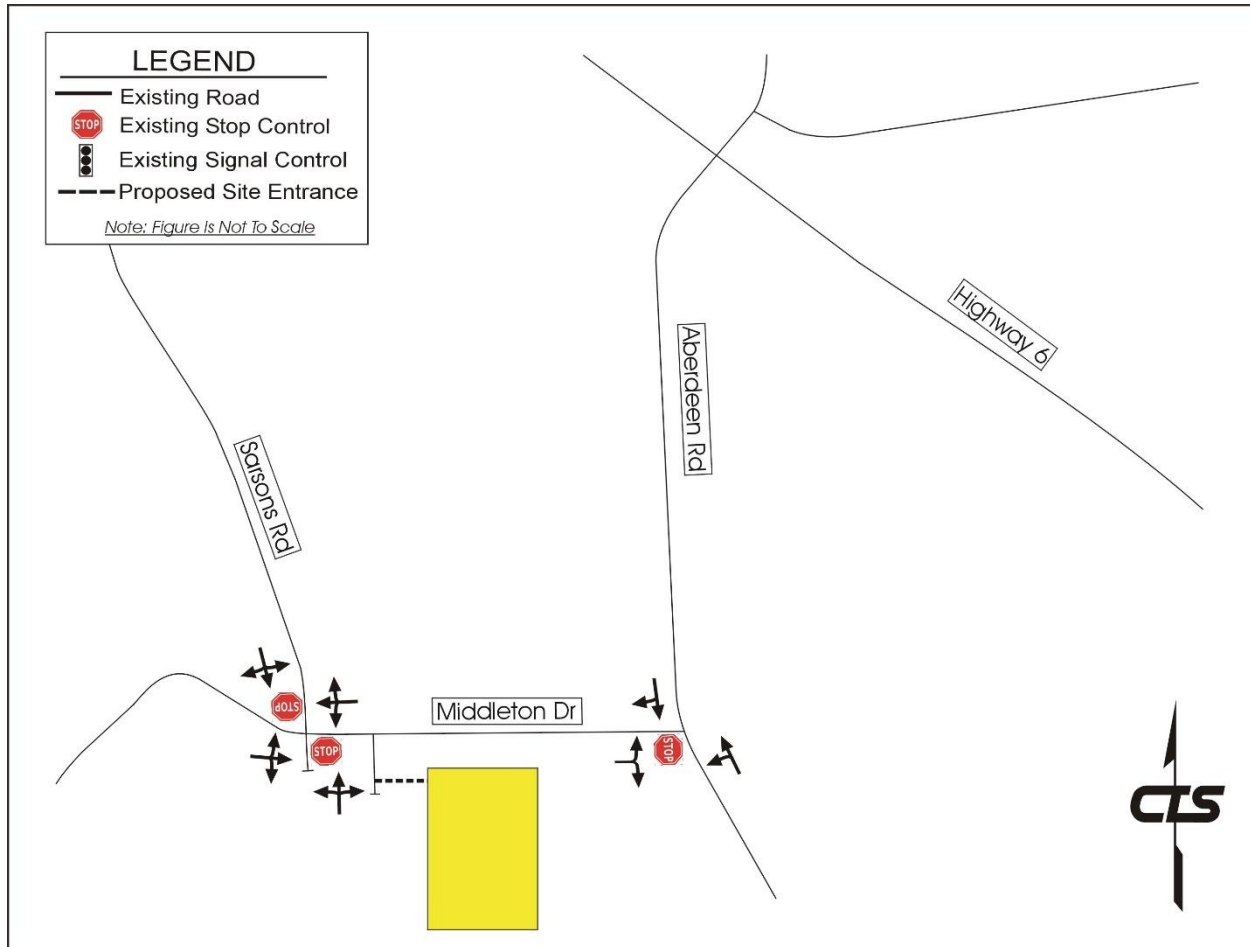
- Sarsons Road is a two-lane collector road posted at 50 km/h
- There is no on-street parking
- There are no bike lanes or sidewalks
- The road is not illuminated
- No curb and gutter, rural cross section

Aberdeen Road

- Aberdeen is a two-lane arterial road posted at 50km/h
- There is no on-street parking
- There are no bike lanes or sidewalks, there are shoulders and signs to share the road with cyclists and pedestrians
- The road partially illuminated at some intersections
- No curb and gutter, rural cross section

The existing laning configuration for each of the study intersections is illustrated in **FIGURE 2**.

**FIGURE 2
EXISTING LANING CONFIGURATION**



1.3 Alternative Modes of Travel

Transit Network

There is a bus stop within a walking distance of 400 metres from the site and therefore the development could be considered transit accessible if there was a pedestrian walkway to connect the site to the bus stop. The closest bus route to the site is listed below.

- Route #1 Coldstream / Downtown: service approximately once per hour throughout the day

Bus stops are illustrated in **FIGURE 3**.

Bicycle Network

There are no dedicated bike lanes adjacent to the proposed development. There are shoulders and share the road signs along Aberdeen Road.

Bike lanes are illustrated in **FIGURE 3**.

Pedestrian Network

There are no sidewalks adjacent to the proposed development. There are share the road signs along Aberdeen Road.

Sidewalks are illustrated in **FIGURE 3**.

**FIGURE 3
ALTERNATIVE MODES**



1.4 Scope of Work

The weekday morning and afternoon peak hours were selected as the design hours of analysis for this study.

The following scenarios were used in this traffic impact assessment:

1. 2025 (existing base)
2. 2030 (future base, expected opening day)
3. 2030 (future base + traffic from the proposed development)

2.0 BASE TRAFFIC VOLUMES

2.1 Current Road Network

2025 Base Traffic Volumes

CTS conducted turning movement counts on Wednesday, January 29, 2025 from 07:00 to 09:00 and 14:00 to 18:00 to document the typical weekday morning and afternoon peak hour traffic volumes for the following intersections:

- Aberdeen Road & Middleton Drive
- Sarsons Road & Middleton Drive

The traffic count data was summarized and reviewed to ensure data integrity and validity. The summarized traffic data sheets are included in **APPENDIX B**.

The following peak hours were selected, based on the peak hours observed by the study intersection:

- Weekday Morning Peak Hour – 07:45 – 08:45
- Weekday Afternoon Peak Hour – 14:15 – 15:15

The 2025 base traffic volumes for the weekday morning and weekday afternoon peak hours are illustrated in **FIGURE 4** and **FIGURE 5**, respectively.

FIGURE 4
2025 WEEKDAY MORNING PEAK HOUR BASE TRAFFIC VOLUMES

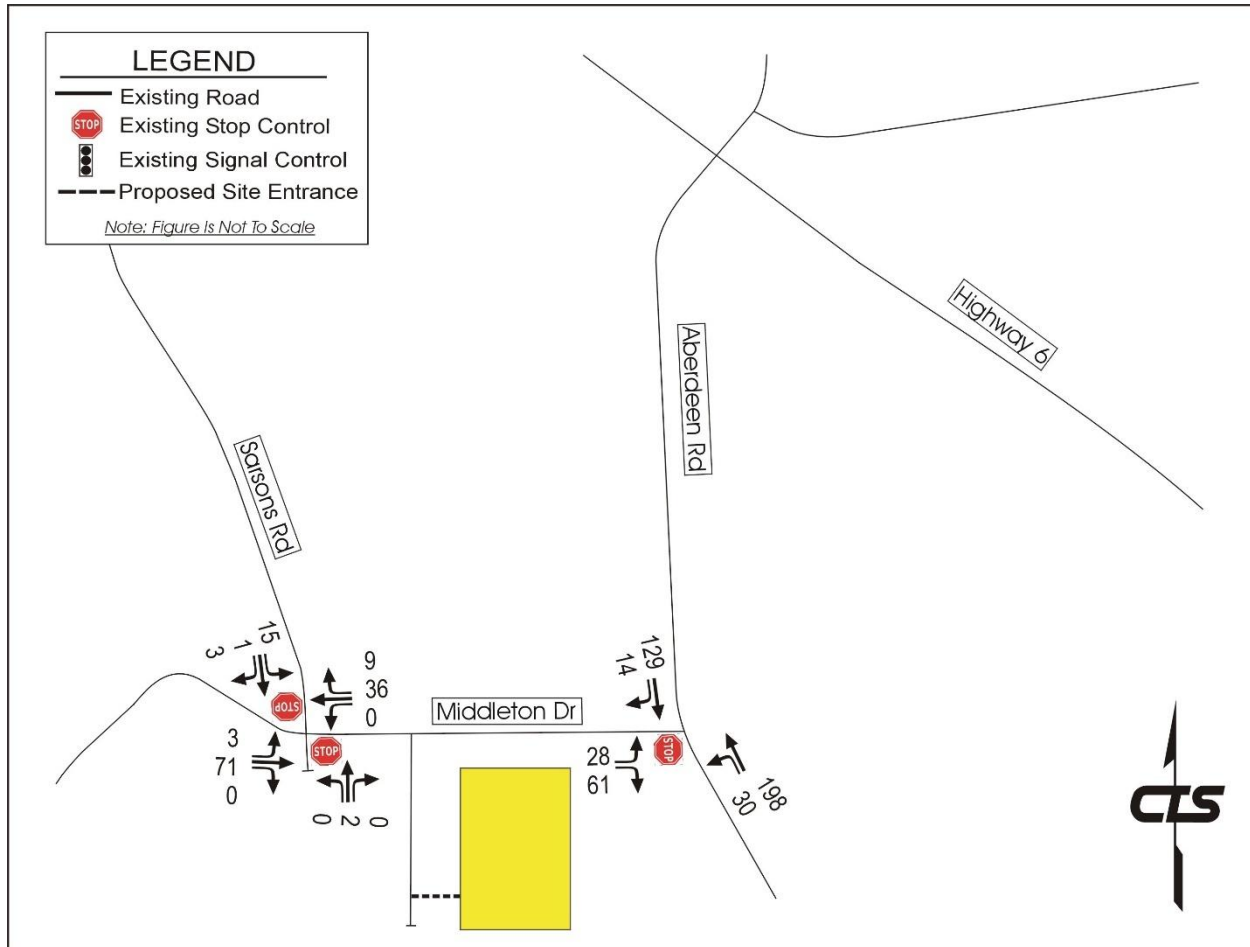
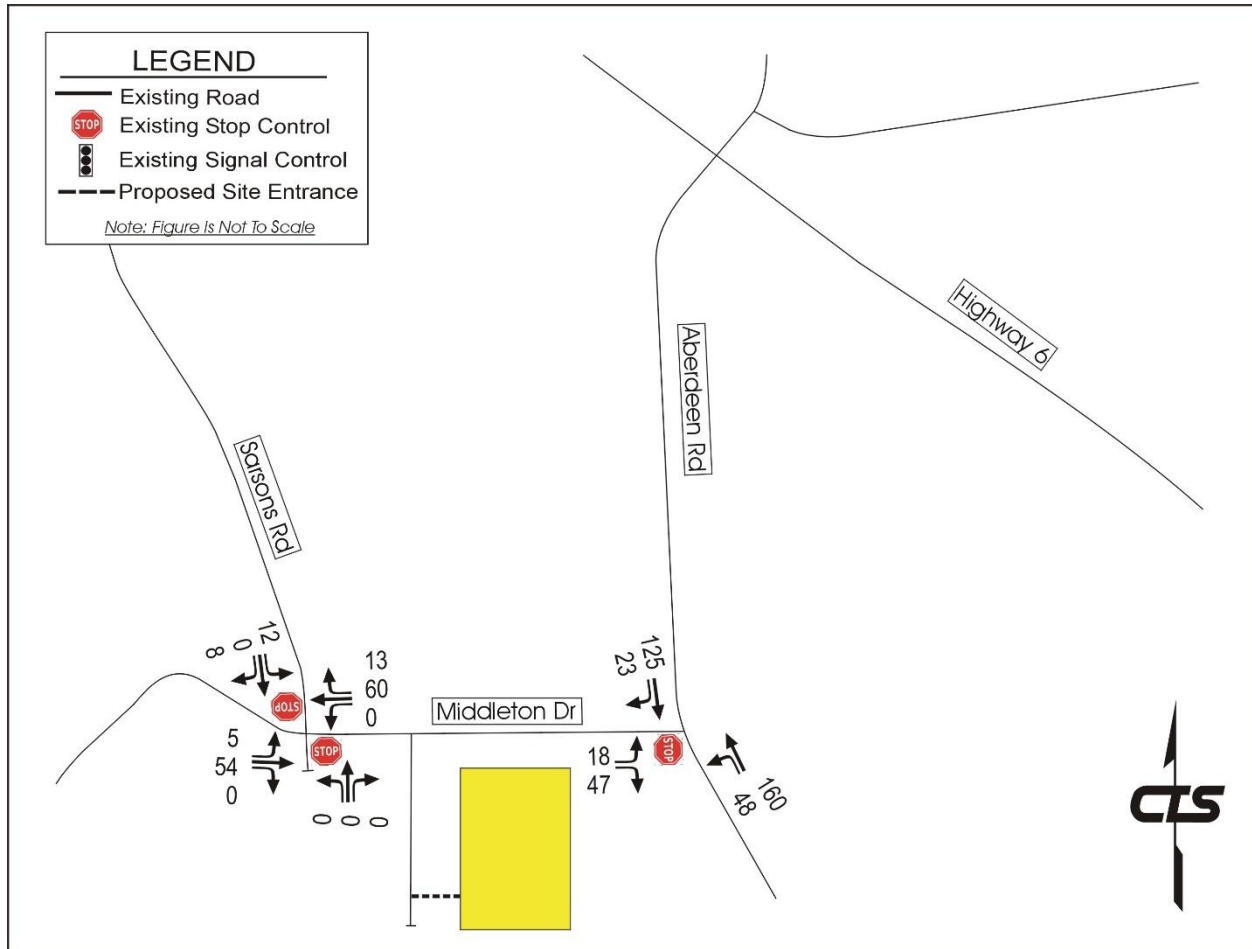


FIGURE 5
2025 WEEKDAY AFTERNOON PEAK HOUR BASE TRAFFIC VOLUMES



2.2 Future Base Traffic Volumes

2030 Future Base Traffic Volumes

2030 is the horizon year when construction will be completed on the proposed development. The 2025 base traffic volumes were factored up by a traffic volumes growth rate of 2.0% per annum (simple straight line) represent the base 2030 volumes.

FIGURE 6 and **FIGURE 7** illustrate the weekday morning and weekday afternoon respectively.

FIGURE 6
2030 WEEKDAY MORNING PEAK HOUR BASE TRAFFIC VOLUMES

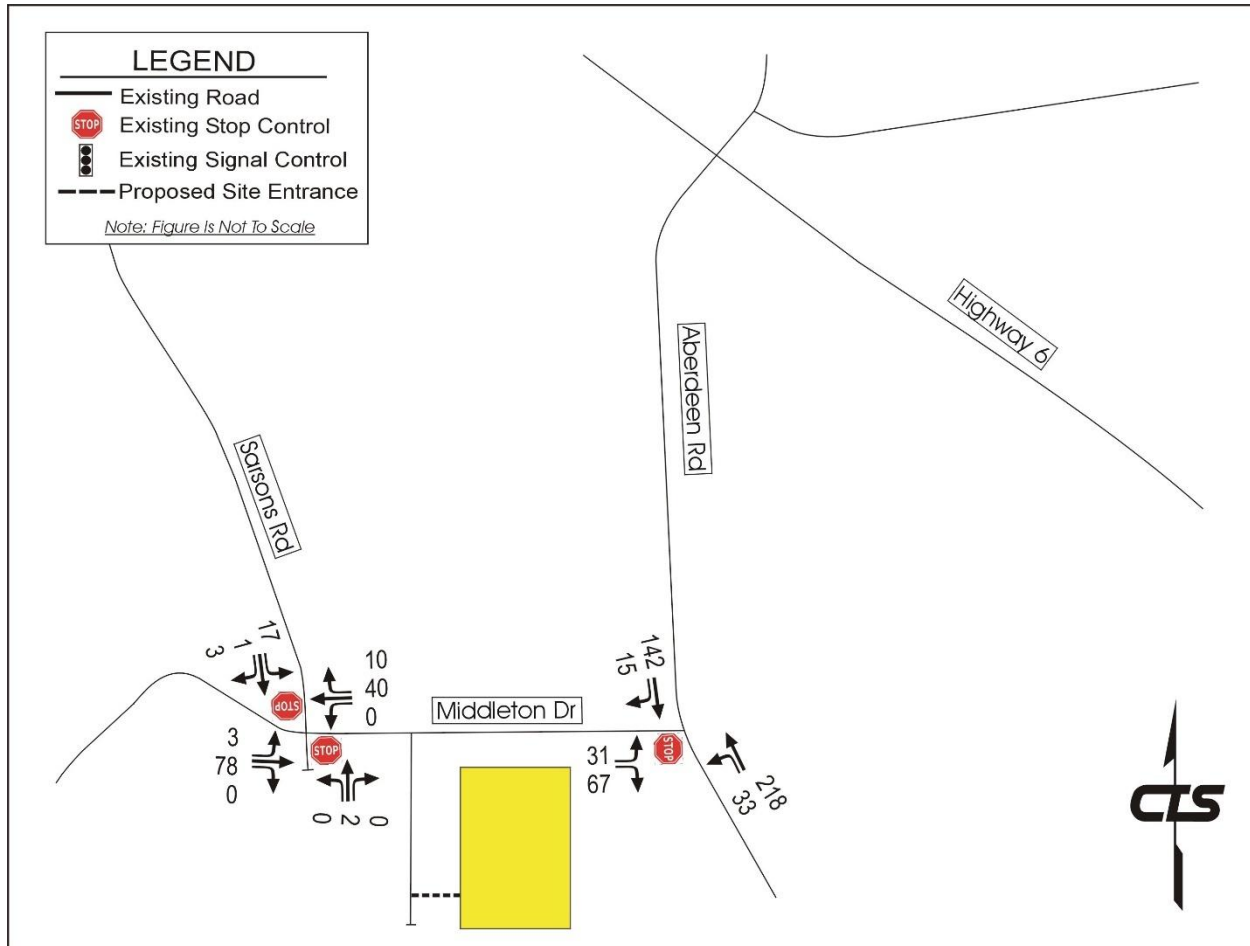
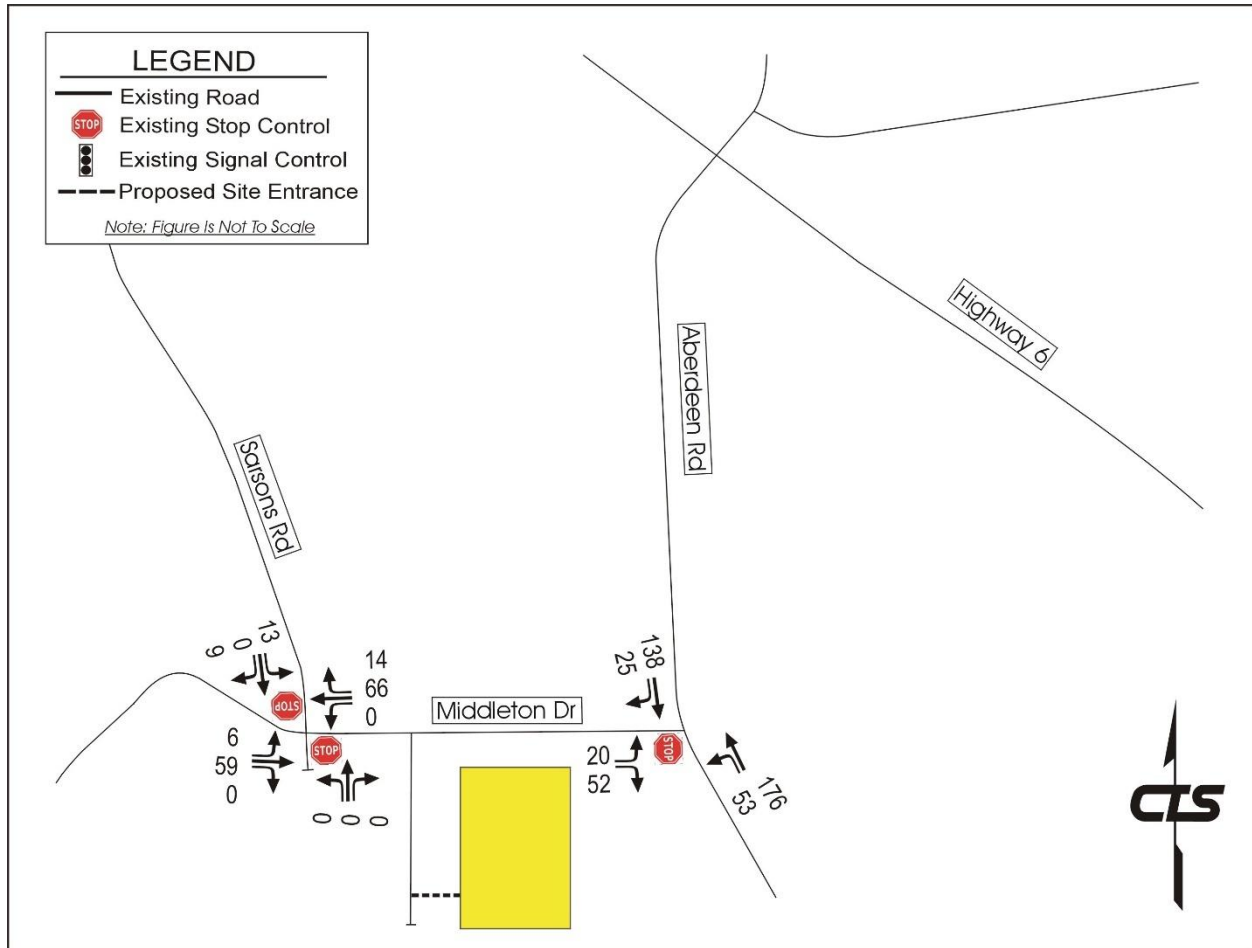


FIGURE 7
2030 WEEKDAY AFTERNOON PEAK HOUR BASE TRAFFIC VOLUMES



3.0 SITE TRAFFIC VOLUMES

3.1 Trip Generation

The published vehicle trip rates from *the Institute of Transportation Engineers (ITE) Trip Generation Manual 11th Edition* were used to forecast the site generated traffic volumes. **TABLE 1** summarizes the forecast site generated traffic for the proposed development.

TABLE 1
SUMMARY OF SITE GENERATED TRAFFIC

Land Use	Trip Generation Variable	Scope of Development	Trip Rate Source	Peak Hour	Vehicle Trip Generation Rate	Directional Split		Peak Hour Volumes (vph)		
						% in	% out	in	out	total
Elementary School	Students	240	ITE 11th Edition Code 520	Weekday Morning	0.74	54%	46%	96	82	178
				Weekday Afternoon	0.45	46%	54%	49	59	108
Day Care Center	Students	30	ITE 11th Edition Code 565	Weekday Morning	0.78	53%	47%	12	11	23
				Weekday Afternoon	0.79	47%	53%	11	13	24
Weekday AM Peak Hour Total								108	93	201
Weekday PM Peak Hour Total								60	72	132

Elementary School (ITE Land Use Code – 520) is a public school that typically serves students attending kindergarten to the fifth or sixth grade.

Day Care Center (ITE Land Use Code – 565) is a facility where care for pre-school age children is provided, normally during day-time hours.

From **TABLE 1**, the current proposed site is forecasted to generate a total of 201 vehicle trips (108 inbound, and 93 outbound) during the weekday morning peak hour and 132 vehicle trips (60 inbound and 72 outbound) during the weekday afternoon peak hour.

3.2 Trip Distribution

The trip distribution percentages can be found in **TABLE 2** and were utilized during analysis. These percentages were found from the data collected with adjustments made for the proposed land uses to represent a real-life traffic split found in the field.

TABLE 2
TRIP DISTRIBUTION PERCENTAGES

From / To	Weekday AM Peak Hour		Weekday PM Peak Hour	
	Inbound	Outbound	Inbound	Outbound
Middleton Dr W	13.9%	7.5%	10.0%	11.1%
Sarsons Rd N	6.5%	4.3%	8.3%	6.9%
Aberdeen Rd N	67.6%	75.3%	71.7%	70.8%
Aberdeen Rd S	12.0%	12.9%	10.0%	11.1%
TOTAL	100.0%	100.0%	100.0%	100.0%

The trip distribution parameters for distributing site generated vehicle trips to / from the site were developed from the trip distribution percentages found in **TABLE 2**. The traffic volume assignment is summarized in **TABLE 3**.

TABLE 3
SITE GENERATED TRAFFIC TRIP DISTRIBUTION

From / To	Weekday AM Peak Hour		Weekday PM Peak Hour	
	Inbound	Outbound	Inbound	Outbound
Middleton Dr W	15	7	6	8
Sarsons Rd N	7	4	5	5
Aberdeen Rd N	73	70	43	51
Aberdeen Rd S	13	12	6	8
TOTAL	108	93	60	72
	201		132	

3.3 Traffic Assignment

The vehicle trips generated from the development were assigned to the road network using the trip distribution parameters in **TABLE 3**. **FIGURE 8** and **FIGURE 9** illustrate the site generated traffic volumes on the existing road network for the weekday morning and afternoon peak hours, respectively.

FIGURE 8
SITE TRAFFIC VOLUMES FOR WEEKDAY MORNING PEAK HOUR

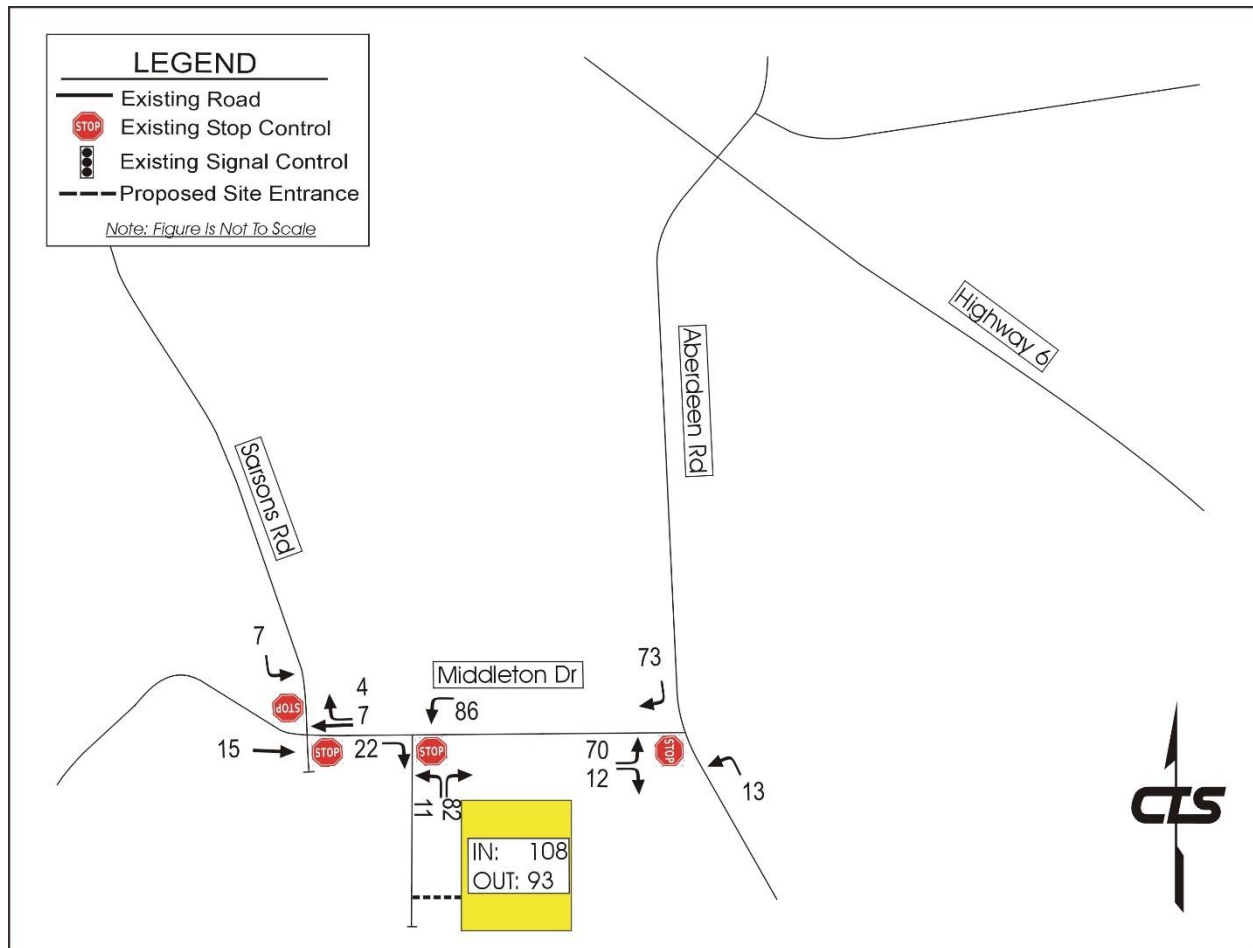
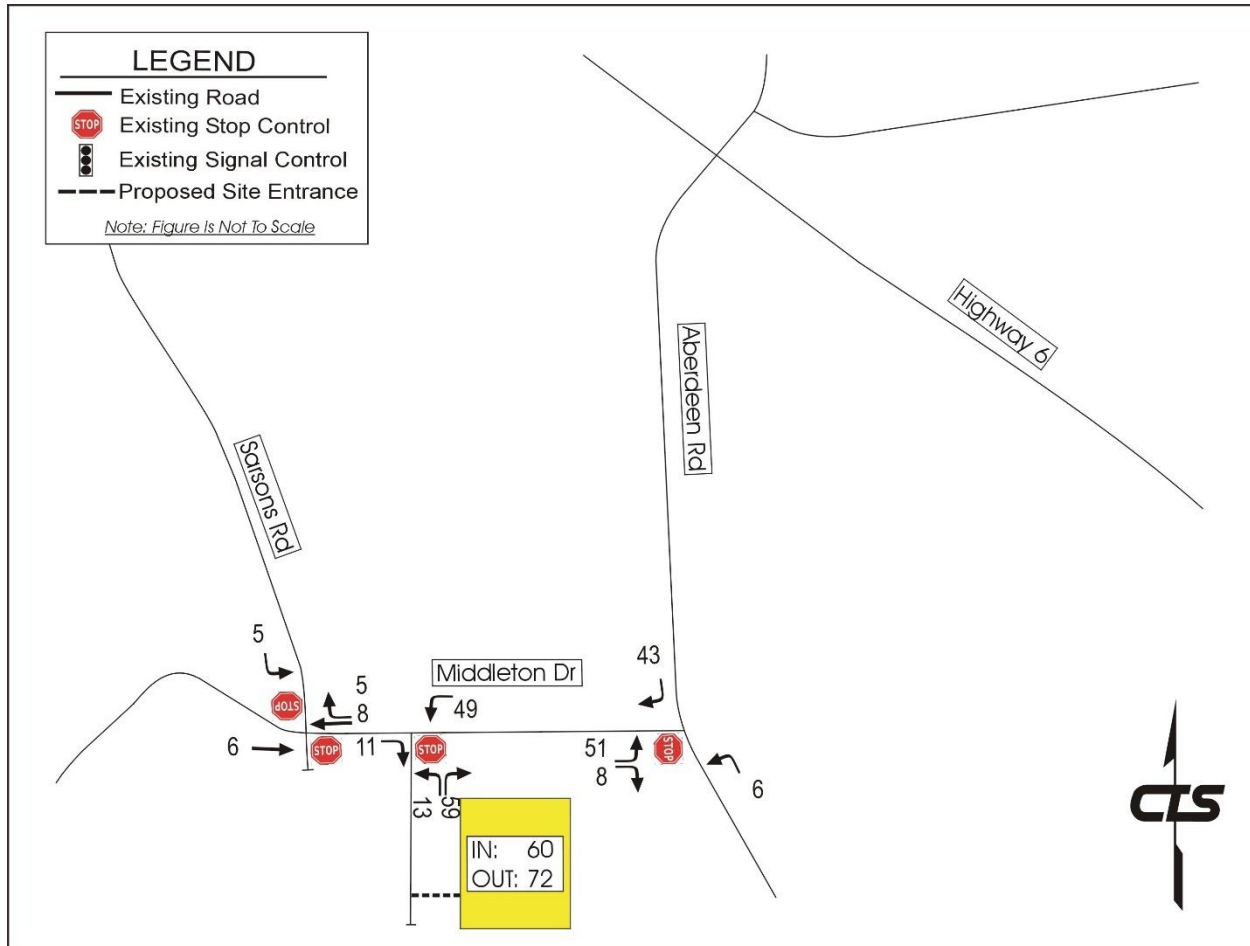


FIGURE 9
SITE TRAFFIC VOLUMES FOR WEEKDAY AFTERNOON PEAK HOUR



4.0 BASE + SITE TRAFFIC VOLUMES

2030 Base + Site Volumes

FIGURE 10 illustrates the total projected traffic for the year 2030 weekday morning peak hour consisting of both base and site traffic resulting from the proposed development. It is the result of superimposing **FIGURE 8** onto **FIGURE 6**.

FIGURE 11 illustrates the total projected traffic for the year 2030 weekday afternoon peak hour consisting of both base and site traffic resulting from the proposed development. It is the result of superimposing **FIGURE 9** onto **FIGURE 7**.

FIGURE 10
2030 WEEKDAY MORNING PEAK HOUR BASE + SITE TRAFFIC VOLUMES

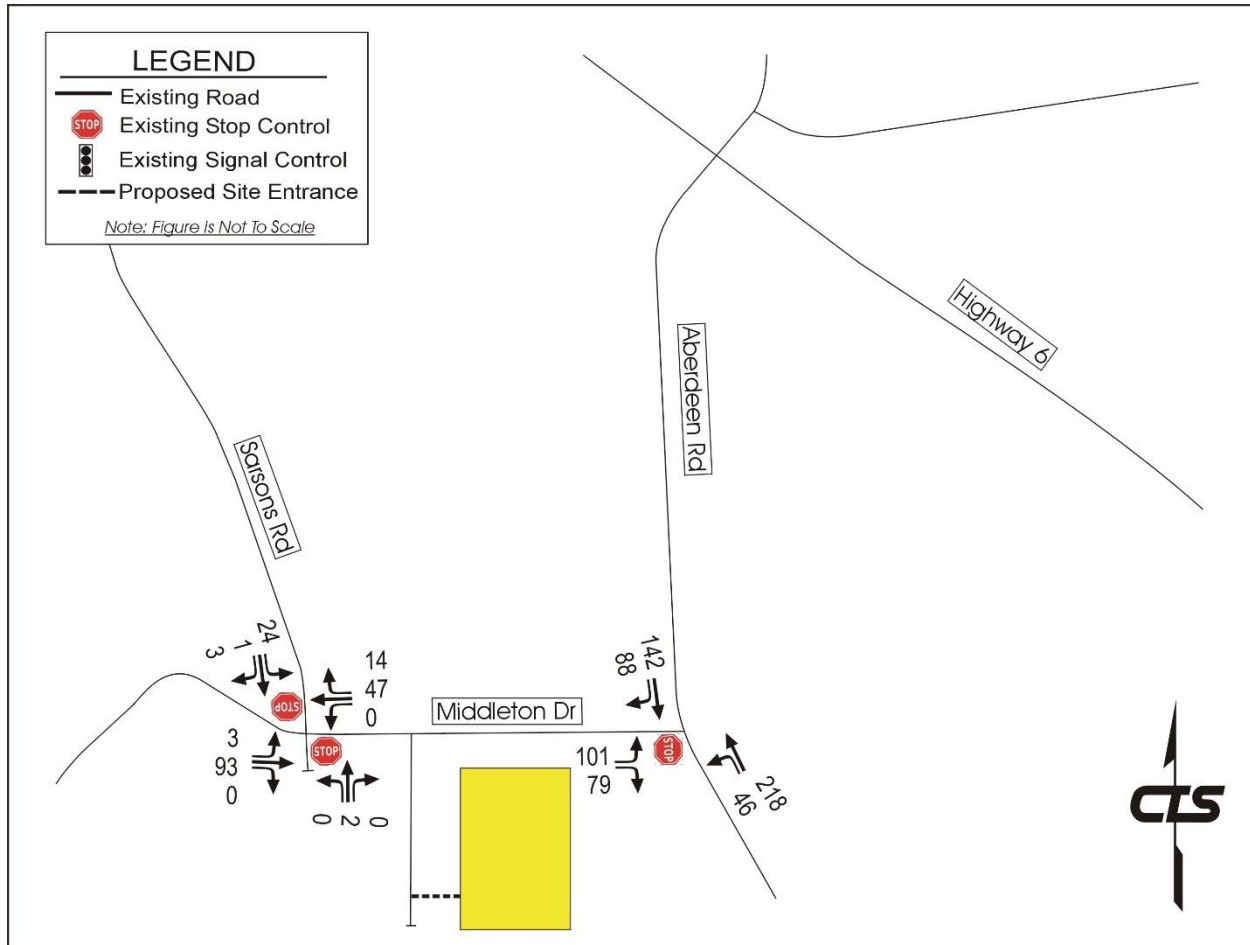
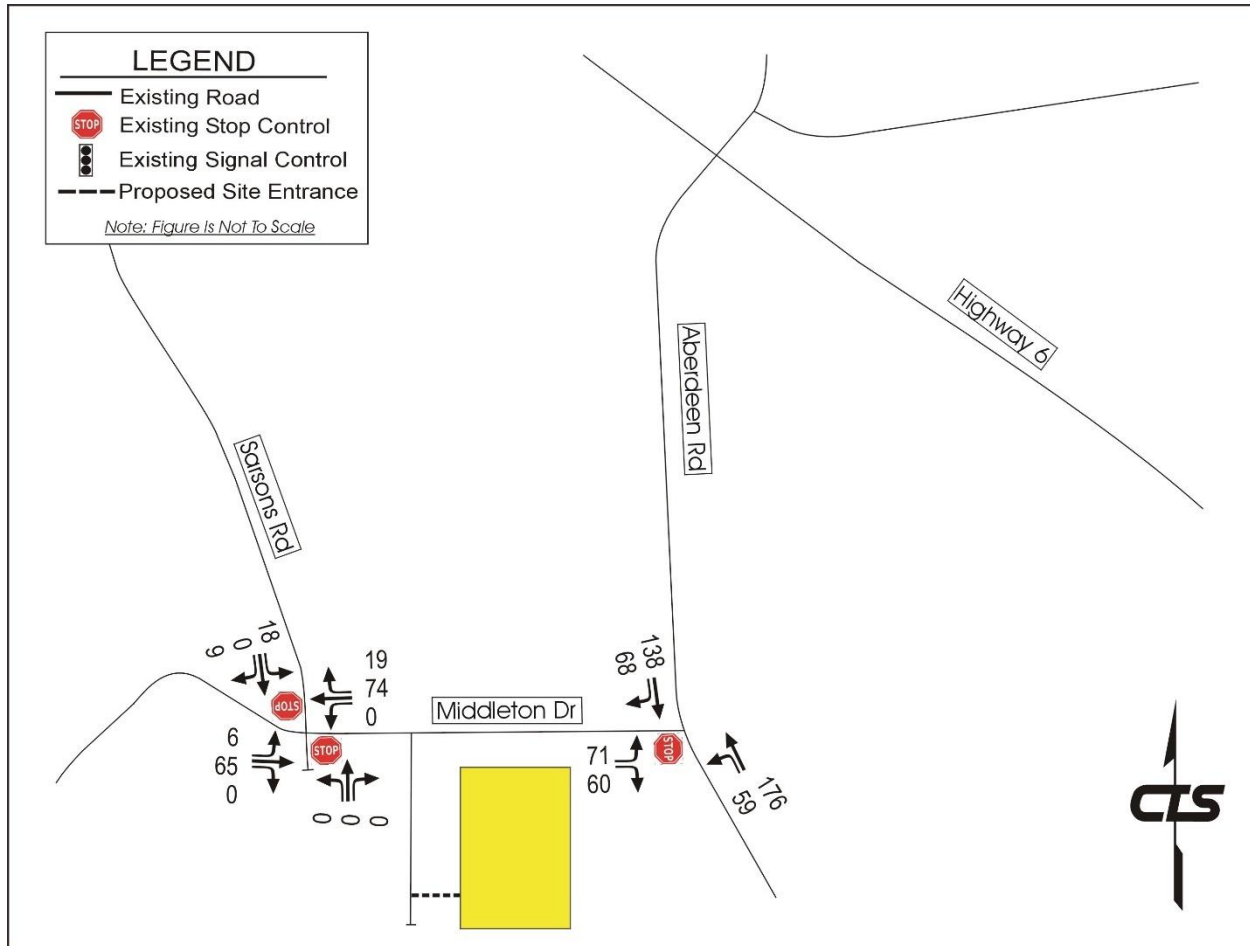


FIGURE 11
2030 WEEKDAY AFTERNOON PEAK HOUR BASE + SITE TRAFFIC VOLUMES



5.0 TRAFFIC ENGINEERING ANALYSIS

5.1 Capacity Analysis

Capacity analysis was performed at the location in order to determine the intersection levels 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 "F" (Fail). See **Table 4**. A LOS of "F" (Fail) indicates that an intersection or movement is failing because the intersection or movement is over capacity and delays are considered excessive. A LOS of "D" during the critical peak hours is considered acceptable by many public agencies in large urban areas for overall intersection operation and a LOS of "E" or better is considered acceptable for left turn movements as it recognizes that the intersections normally perform much better the remaining 90% of the day.

**TABLE 4
LEVEL OF SERVICE DESCRIPTIONS**

Level of Service	Description
A	Excellent
B	Good
C	Fair
D	Poor
E	Very Poor
F	Fail

Highway Capacity Software (HCS 7) was used for the analysis of the unsignalized intersections, Synchro 11 was used for the analysis of signalized intersections.

The following assumptions were made with respect to the intersection capacity analysis:

- *Saturation flow rate* = 1,800 passenger cars/hour of green time/lane (pcphgpl)
- *Peak hour factor* (PHF) = 0.85 (weekday morning peak) and 0.92 (weekday afternoon peak) which is the factor observed from the surveyed intersections.
- Heavy vehicle percentage for roads are adjusted for each intersection according to the collected data with a minimum of 2% being used.

Saturation flow rate is the equivalent hourly rate at which previously queued vehicles can traverse an intersection approach under prevailing conditions, assuming that the green signal is available at all times and no lost times are experienced. It is a base rate to which adjustment factors are applied.

Peak Hour Factor is a measure of traffic demand fluctuation within the analysis hour. The closer the number is to 1.00, the less fluctuation during the hour.

5.3 Unsignalized Intersections

TABLE 5 and **TABLE 6** summarizes and compares the main performance parameters of the intersection capacity analysis for unsignalized intersections.

For unsignalized intersections, the delay time in seconds for each lane group is summarized. Delay is additional travel time experienced by a driver, passenger, bicyclist, or pedestrian beyond that required to travel at the desired speed.

The capacity analysis worksheets with Levels of Service for each individual movement are included in **APPENDIX C**.

TABLE 5
UNSIGNALIZED CAPACITY ANALYSIS FOR SARSONS ROAD AND MIDDLETON DRIVE

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		
Sarsons Rd (N/S) & Middleton Dr (E/W)	Weekday Morning Peak Hour	2025 Base	Volumes	3	71	0	0	36	9	0	2	0	15	1	3	A	Okay.
			Delay	7.3	0.0		7.4	0.0		9.8			9.4				
			95% Queue (m)	0.0	0.0		0.0	0.0		0.0			0.7				
		2030 Base	Volumes	3	78	0	0	40	10	0	2	0	17	1	3	A	Okay.
			Delay	7.3	0.0		7.4	0.0		9.9			9.5				
			95% Queue (m)	0.0	0.0		0.0	0.0		0.0			0.7				
		2030 Base + Site	Volumes	3	93	0	0	47	14	0	2	0	24	1	3	A	Okay.
			Delay	7.4	0.0		7.4	0.0		10.1			9.7				
			95% Queue (m)	0.0	0.0		0.0	0.0		0.0			0.7				
	Weekday Evening Peak Hour	2025 Base	Volumes	5	54	0	0	60	13	0	0	0	12	0	8	A	Okay.
			Delay	7.4	0.0		7.3	0.0		0.0			9.2				
			95% Queue (m)	0.0	0.0		0.0	0.0		0.0			0.7				
		2030 Base	Volumes	6	59	0	0	66	14	0	0	0	13	0	9	A	Okay.
			Delay	7.4	0.0		7.3	0.0		0.0			9.3				
			95% Queue (m)	0.0	0.0		0.0	0.0		0.0			0.7				
		2030 Base + Site	Volumes	6	65	0	0	74	19	0	0	0	18	0	9	A	Okay.
			Delay	7.4	0.0		7.4	0.0		0.0			9.5				
			95% Queue (m)	0.0	0.0		0.0	0.0		0.0			0.7				

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)

From **TABLE 5**, the following observations can be made:

Sarsons Road and Middleton Drive

- During all analysis scenarios the intersection operates at LOS A (Excellent).
- Comparing the capacity results between the Base and Base + Site scenarios, the traffic added by the proposed development does not pose a significant increase in traffic impact.
- The addition of site traffic in 2030 represents a 21% (33 vehicles) increase in the weekday morning peak hour intersection volume, and a 14% (24 vehicles) increase in the weekday afternoon peak hour intersection volume.
- No operational or geometric improvements are recommended for this intersection.

TABLE 6
UNSIGNALIZED CAPACITY ANALYSIS FOR ABERDEEN ROAD AND MIDDLETON DRIVE

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		
Aberdeen Rd (N/S) & Middleton Dr (E/W)	Weekday Morning Peak Hour	2025 Base	Volumes	28		61				30	198			129	14	A	Okay.
			Delay			10.7				7.6	0.2				0.0		
			95% Queue (m)			3.5				0.7	0.0				0.0		
		2030 Base	Volumes	31		67				33	218			142	15	A	Okay.
			Delay			11.1				7.7	0.2				0.0		
			95% Queue (m)			4.2				0.7	0.0				0.0		
		2030 Base + Site	Volumes	101		79				46	218			142	88	A	Okay.
			Delay			15.2				7.9	0.4				0.0		
			95% Queue (m)			11.9				0.7	0.0				0.0		
	Weekday Evening Peak Hour	2025 Base	Volumes	18		47				48	160			125	23	A	Okay.
			Delay			10.1				7.6	0.3				0.0		
			95% Queue (m)			2.1				0.7	0.0				0.0		
		2030 Base	Volumes	20		52				53	176			138	25	A	Okay.
			Delay			10.4				7.7	0.4				0.0		
			95% Queue (m)			2.8				0.7	0.0				0.0		
		2030 Base + Site	Volumes	71		60				59	176			138	68	A	Okay.
			Delay			11.5				7.7	0.4				0.0		
			95% Queue (m)			4.2				0.7	0.0				0.0		

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)

From **TABLE 6**, the following observations can be made:

Aberdeen Road and Middleton Drive

- During all analysis scenarios the intersection operates at LOS A (Excellent).
- Comparing the capacity results between the Base and Base + Site scenarios, the traffic added by the proposed development does not pose a significant increase in traffic impact.
- The addition of site traffic in 2030 represents a 33% (168 vehicles) increase in the weekday morning peak hour intersection volume, and a 23% (108 vehicles) increase in the weekday afternoon peak hour intersection volume.
- No operational or geometric improvements are recommended for this intersection.

As the operational level of service was “A”, CTS deemed it unnecessary to undertake a warrant analysis for either an all-way stop or a roundabout at this intersection.

6.0 PARKING ANALYSIS

6.1 Off-Street Parking Requirements

In referencing the District of Coldstream Zoning Bylaw No. 1838 Section 321.5, CTS calculated the total number of required parking spaces for the proposed development and is summarized in **TABLE 7**, below. An updated site plan and details from the client, dated January 20, 2025, was used for the calculations.

TABLE 7
OFF-STREET PARKING REQUIREMENTS

Use	District of Coldstream Parking Rate	Scope	Requirement
Public School	1.5 parking spaces per classroom 9 parking spaces for drop-off/pick-up 1 parking space per 10 m ² of GFA for gymnasium 1 bicycle parking space per classroom	14 Classrooms 510 m ² GFA gymnasium	72 parking spaces 14 bicycle spaces
Daycare	1 parking space per 30 m ² of GFA or 4 parking spaces, whichever is greater 2 parking spaces must be dedicated for drop-off/pick-up	190 m ² GFA	19 parking spaces
TOTAL PARKING SPACES REQUIRED			91 parking spaces 14 bicycle spaces

The District of Coldstream Off-Street Parking requirements as set out in the Zoning Bylaw, requires 91 vehicle parking spaces and 14 bicycle spaces for the proposed development. It is the understanding of CTS that the applicant will provide the required quantity of parking spaces. There is an opportunity for the parking requirements of the school and adjacent church to be shared.

7.0 CONCLUSIONS & RECOMMENDATIONS

7.1 Conclusions

- 1) The Roman Catholic Diocese of Kamloops is proposing to develop an elementary school and day care centre, serving 240 elementary school students and 30 day care students.
- 2) The proposed development is not serviced by alternative modes of travel. There is a bus route within 400 metres walking distance. The proposed development does not have any adjacent bike lanes or sidewalks.
- 3) CTS conducted turning movement counts on Wednesday, January 29 from 07:00 to 09:00 and 14:00 to 18:00 to document the typical weekday morning and afternoon peak hour traffic volumes for the following study intersections:
 - Sarsons Road & Middleton Drive
 - Aberdeen Road & Middleton Drive
- 4) The following peak hours were selected, based on the peak hours observed by the study intersections:
 - Weekday Morning Peak Hour – 07:45 – 08:45
 - Weekday Afternoon Peak Hour – 14:15 – 15:15
- 5) The proposed development is forecasted generate a total of 201 vehicle trips (108 inbound, and 93 outbound) during the weekday morning peak hour and 62 vehicle trips (28 inbound and 34 outbound) during the weekday afternoon peak hour.
- 6) The capacity analysis was conducted of the unsignalized study intersections with the following results:
 - Sarsons Road and Middleton Drive: LOS A (Excellent) during all analysis scenarios.
 - Aberdeen Road and Middleton Drive: LOS A (Excellent) during all analysis scenarios.
- 7) The District of Coldstream Zoning Bylaw requires 91 parking spaces and 14 bicycle parking spaces for the proposed development. CTS is of the understanding that the applicant will provide adequate parking.

7.2 Recommendations

Based on this transportation impact assessment study, CTS recommends the following:

- 1) The applicant to work with the District of Coldstream and BC Transit to consider implementing a transit stop on Middleton Drive near the property access.

We would like to take this opportunity to thank you for this unique project and we look forward to working with you again in the future. Please call the undersigned should you have any questions or comments.

Yours truly,

CREATIVE TRANSPORTATION SOLUTIONS LTD.

Permit to Practice No. 1000697

Reviewed by:

Prepared by:

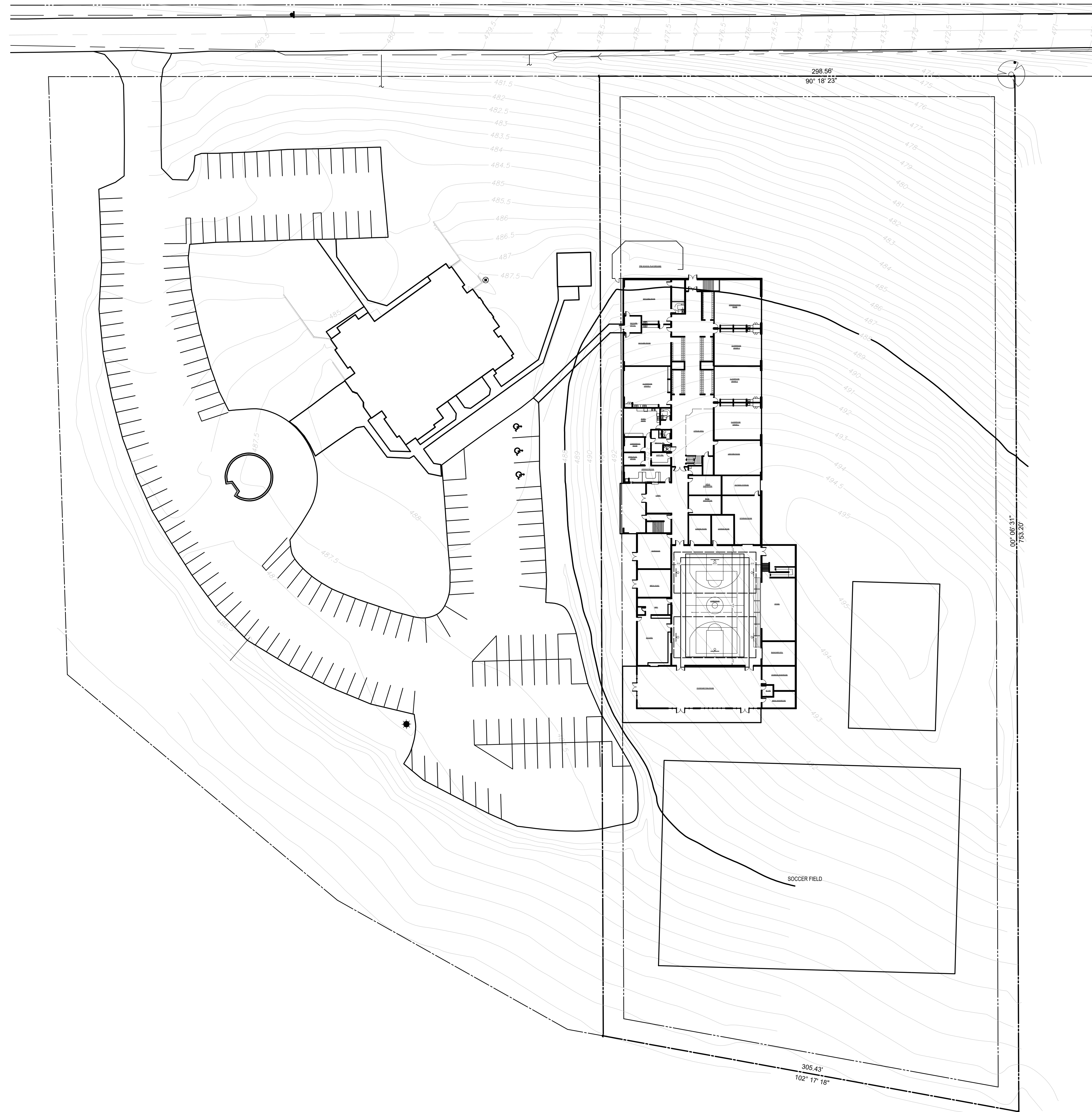
Gary Vlieg, M.Sc., P.Eng. FEC
Vice President

Maciej Wysocki, EIT
Junior Traffic Engineer

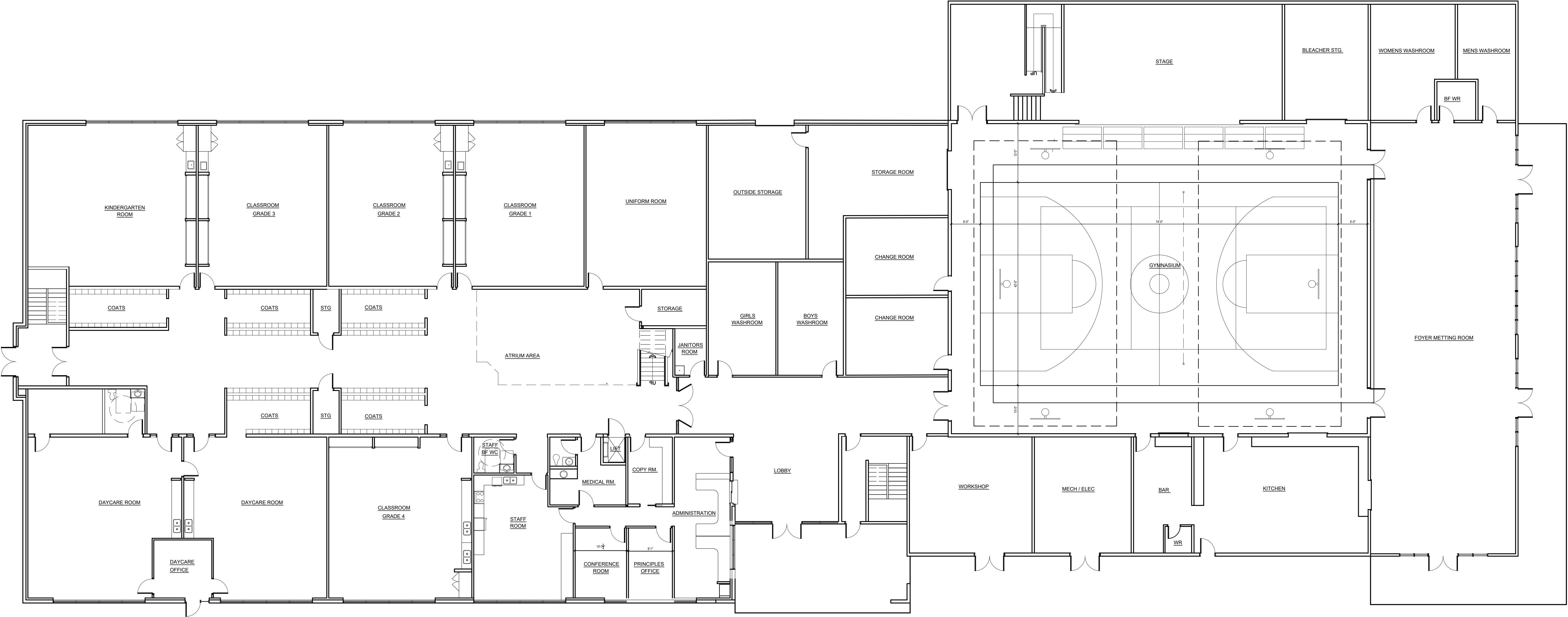
Attachment

Appendix A

Architectural Drawing



SITE PLAN



MAIN FLOOR

AREA 16,000sf



SECOND FLOOR

AREA 9200sf









Appendix B

Turning Movement Counts



Aberdeen Rd & Middleton Dr

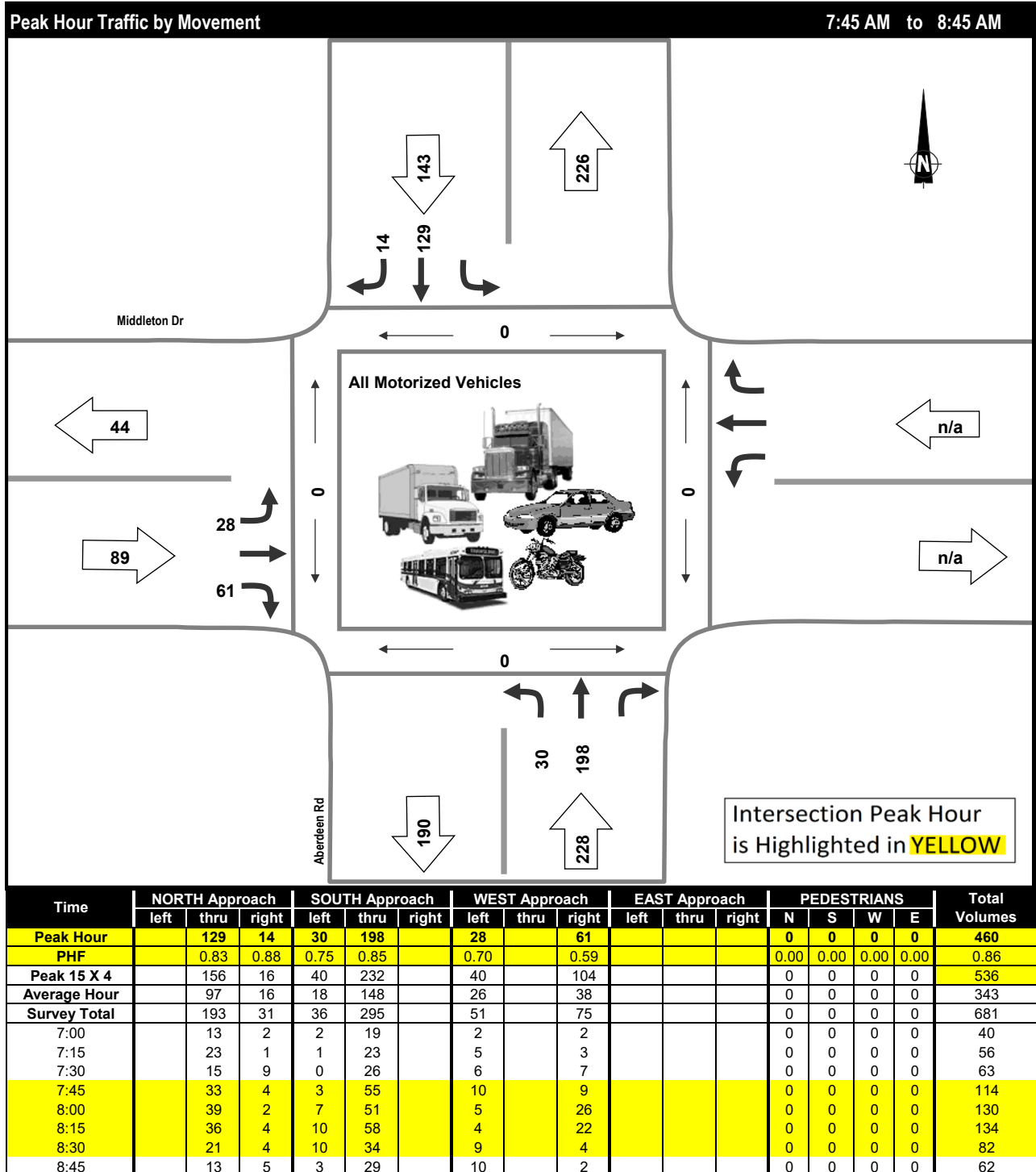
Wednesday, January 29, 2025

Vehicle Classification Summary

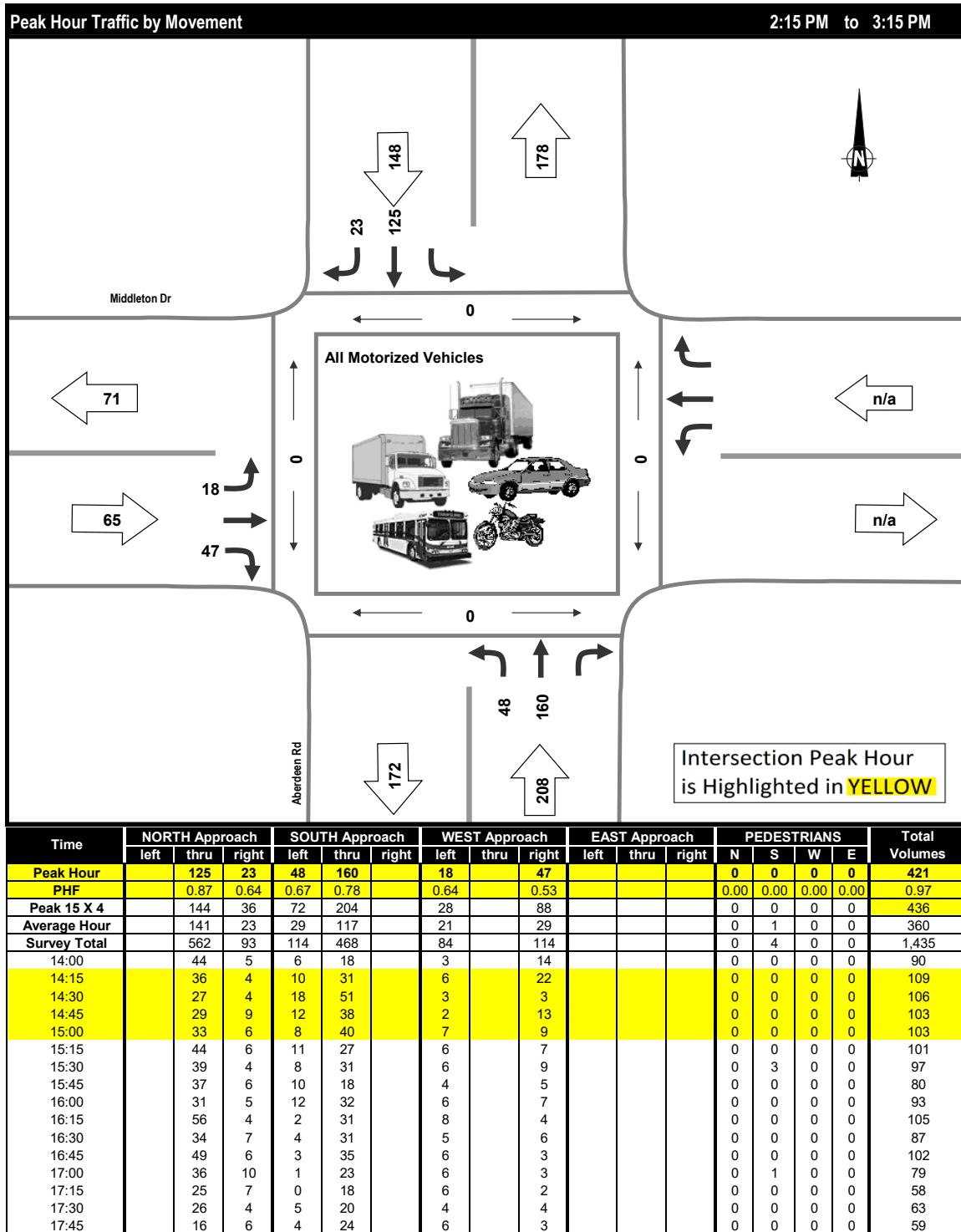
Project: #9427: St. James Elementary School TES
Municipality: District of Coldstream
Weather: Clear

Time Period	Entering Intersection	Vehicle Classification					Total
		Passenger Cars	Heavy Vehicles (3 or more axles)				
Morning (07:00 - 09:00)	Volume	681	0				681
	%	100.0%	0.0%				100.0%
Afternoon (14:00 - 18:00)	Volume	1,434	1				1,435
	%	99.9%	0.1%				100.0%
	Volume						
	%						
Total (6 Hours)	Volume	2,115	1				2,116
	%	100.0%	0.0%				100.0%

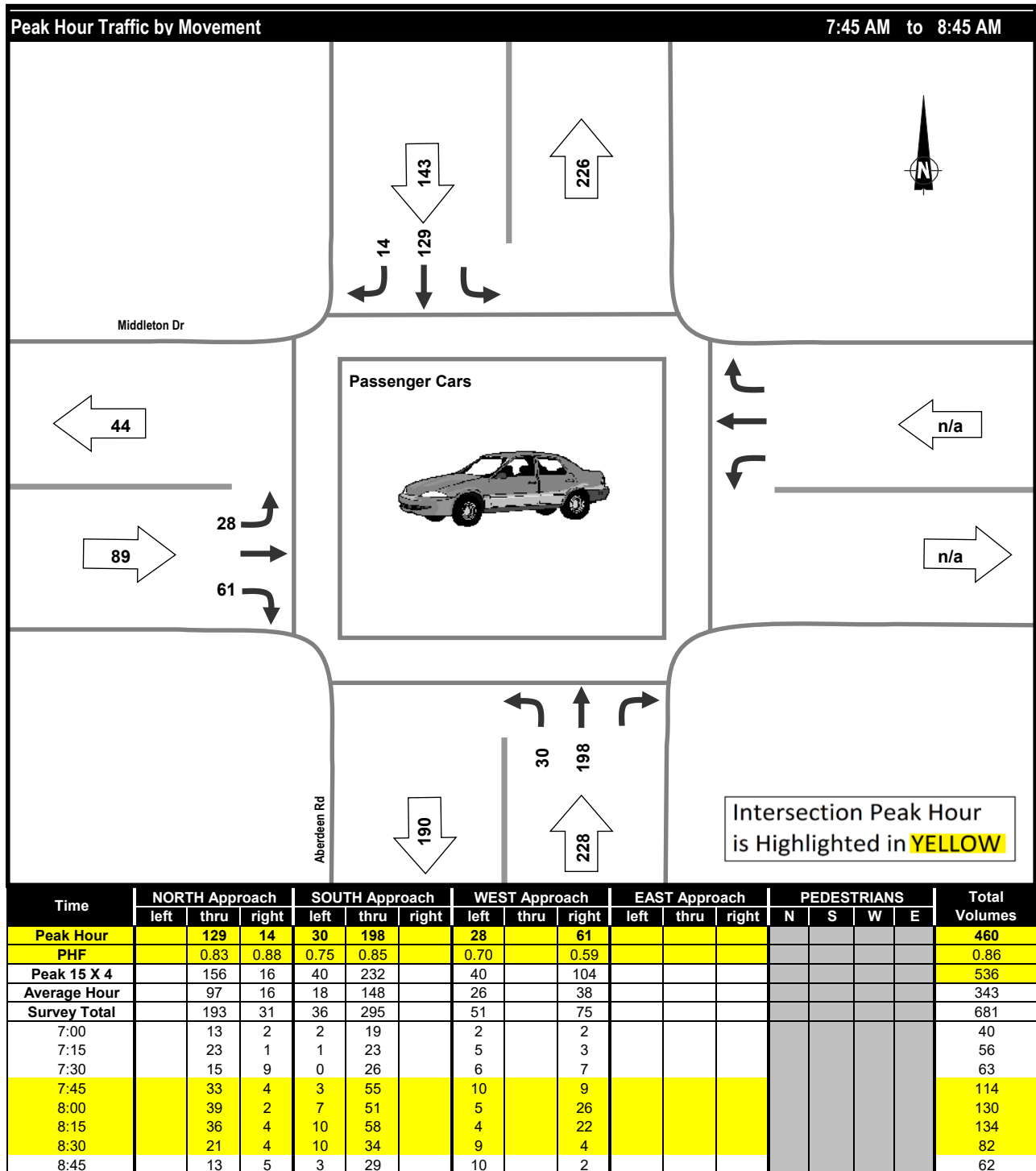
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 Municipality: District of Coldstream
 Weather: Clear
 Vehicle Class: All Motorized Vehicles



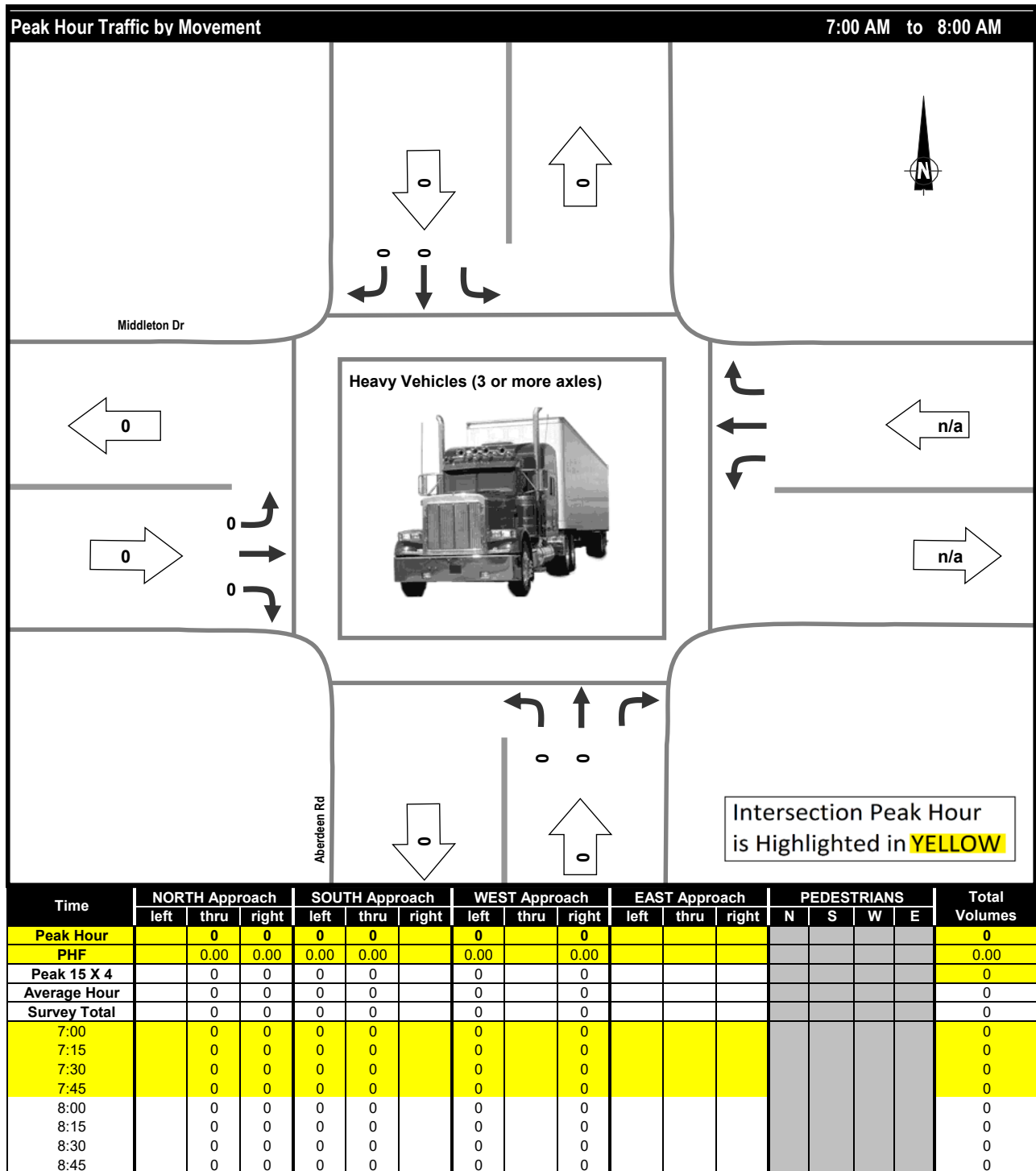
Project: #9427: St. James Elementary School TES
 Municipality: District of Coldstream
 Weather: Clear
 Vehicle Class: All Motorized Vehicles



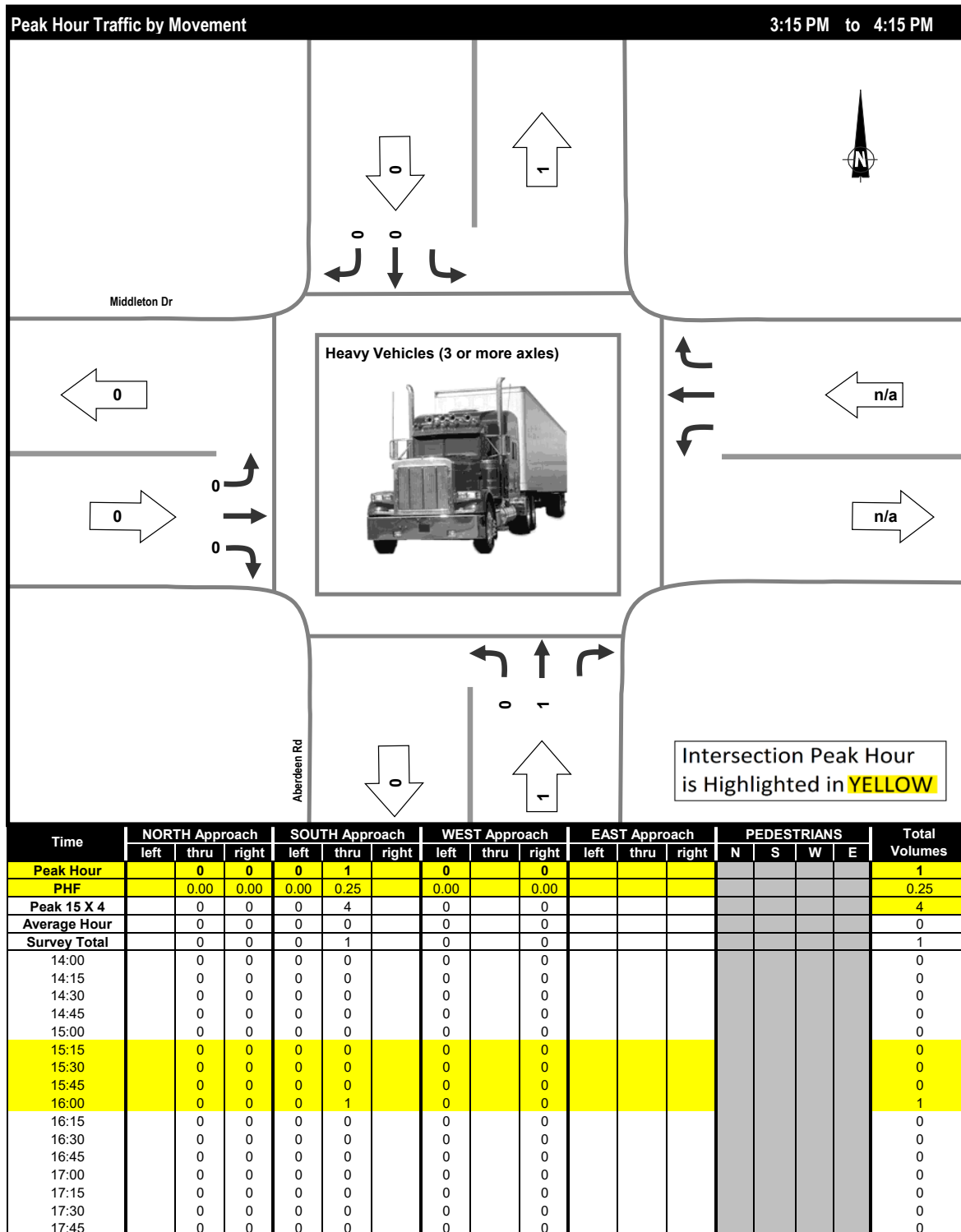
Morning Peak Period



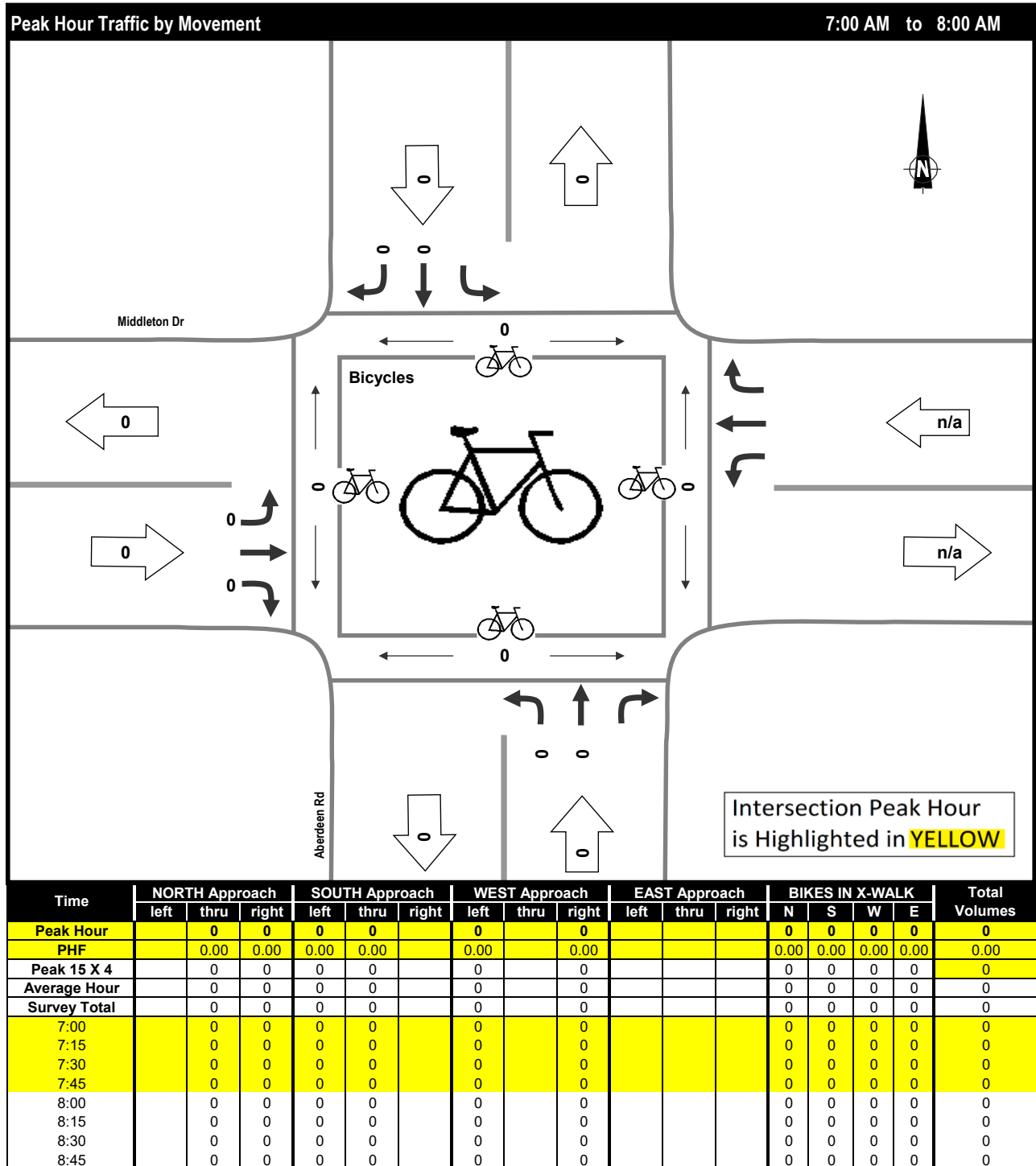
Morning Peak Period



Afternoon Peak Period

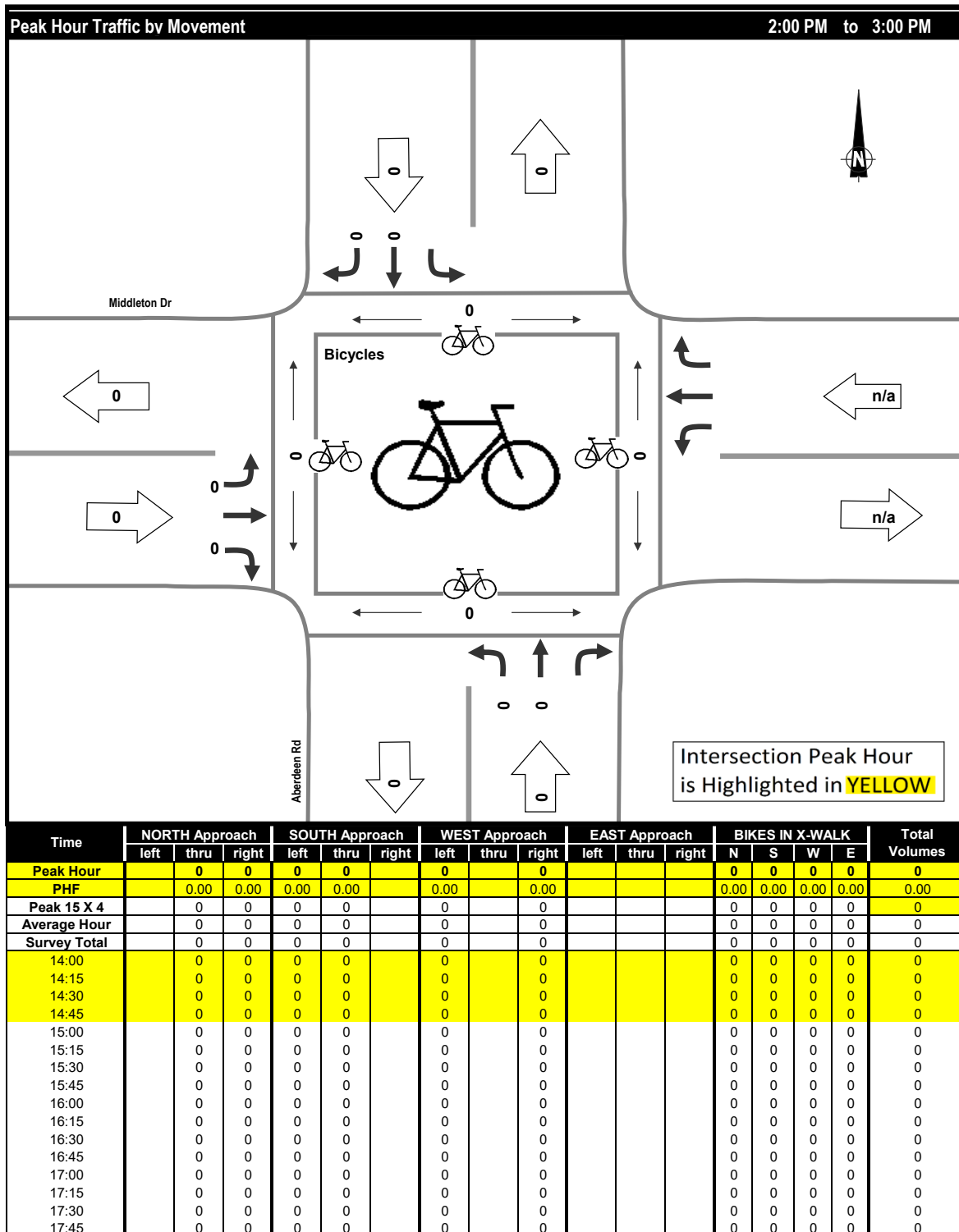


Project: #9427: St. James Elementary School TES
 Municipality: District of Coldstream
 Weather: Clear
 Vehicle Class: Bicycles

Morning Peak Period


Project: #9427: St. James Elementary School TES
Municipality: District of Coldstream
Weather: Clear
Vehicle Class: Bicycles

Afternoon Peak Period





Sarsons Rd & Middleton Dr

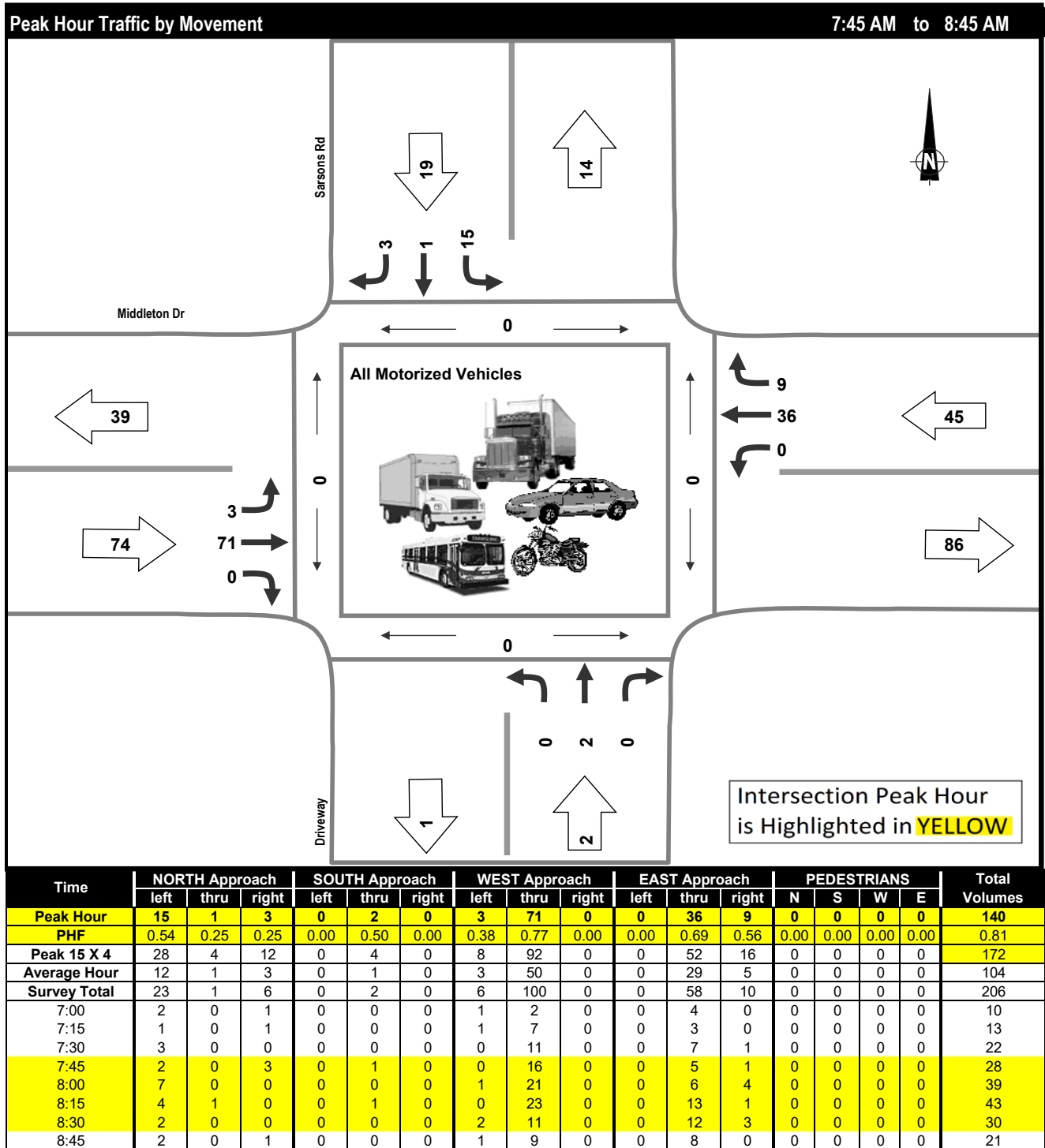
Wednesday, January 29, 2025

Vehicle Classification Summary

Project: #9427: St. James Elementary School TES
Municipality: District of Coldstream
Weather: Clear

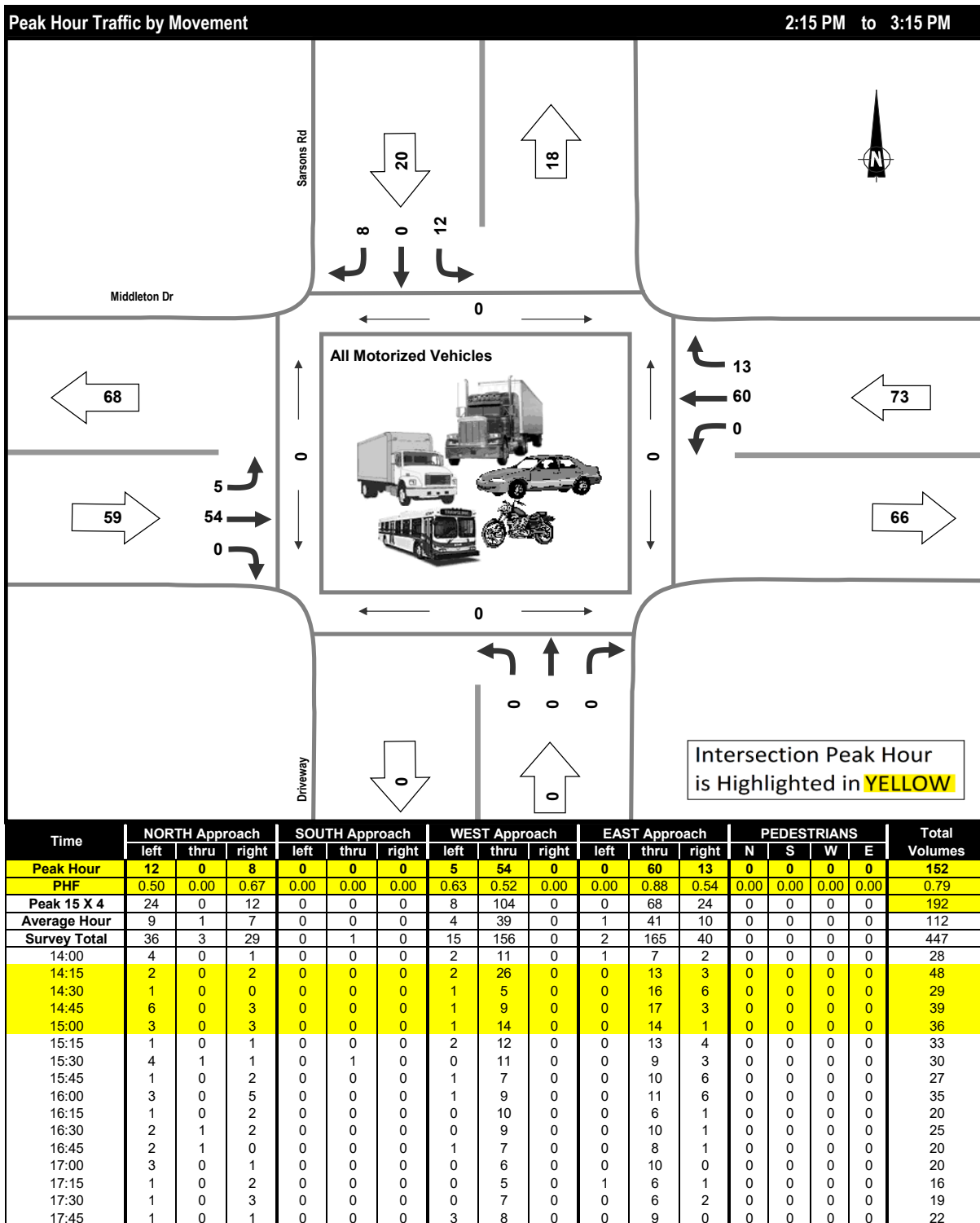
Time Period	Entering Intersection	Vehicle Classification					Total
		Passenger Cars	Heavy Vehicles (3 or more axles)				
Morning (07:00 - 09:00)	Volume	206	0				206
	%	100.0%	0.0%				100.0%
Afternoon (14:00 - 18:00)	Volume	447	0				447
	%	100.0%	0.0%				100.0%
	Volume						
	%						
Total (6 Hours)	Volume	653	0				653
	%	100.0%	0.0%				100.0%

Project: #9427: St. James Elementary School TES
Municipality: District of Coldstream
Weather: Clear
Vehicle Class: All Motorized Vehicles

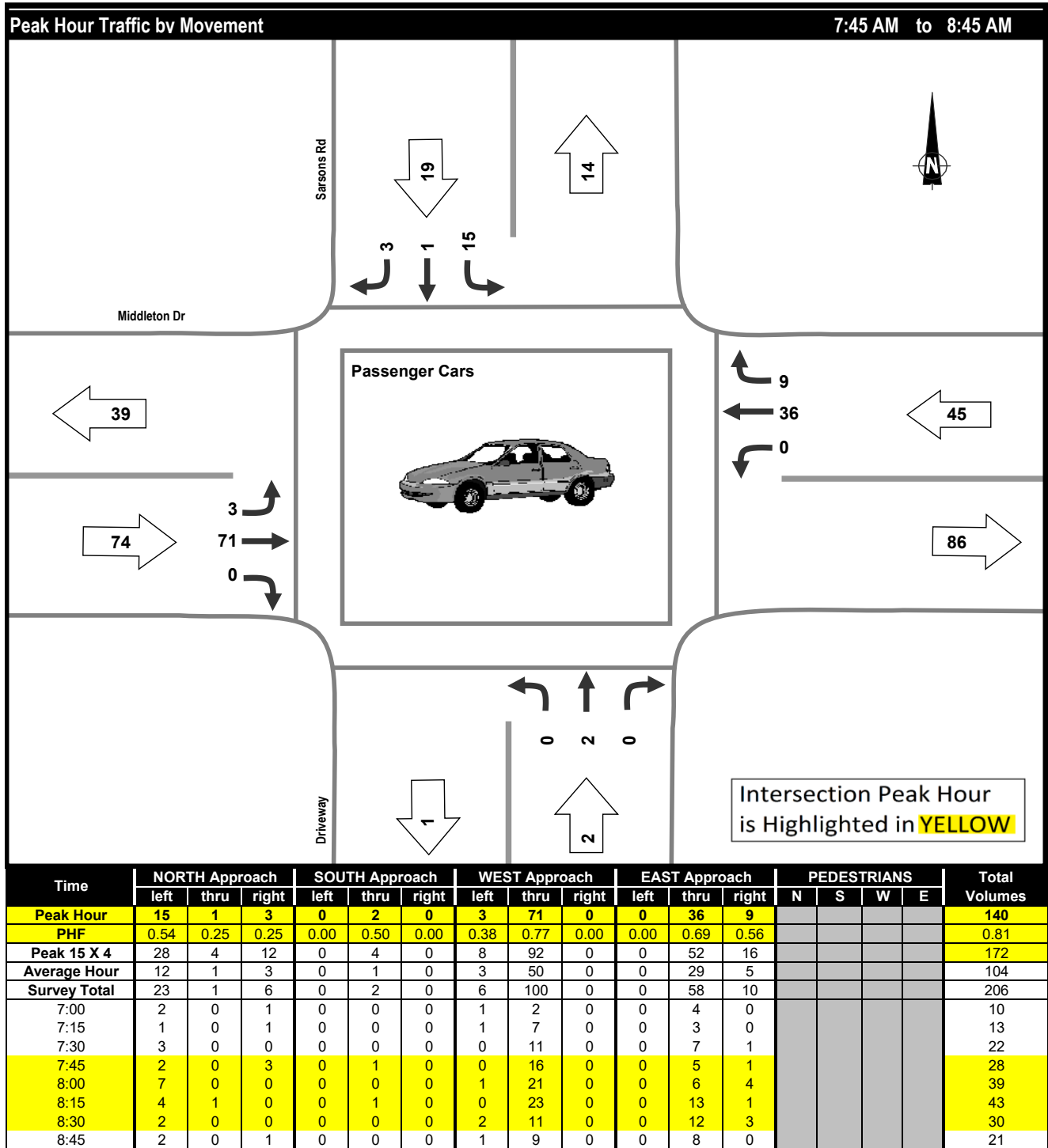
Morning Peak Period


Project: #9427: St. James Elementary School TES
Municipality: District of Coldstream
Weather: Clear
Vehicle Class: All Motorized Vehicles

Afternoon Peak Period

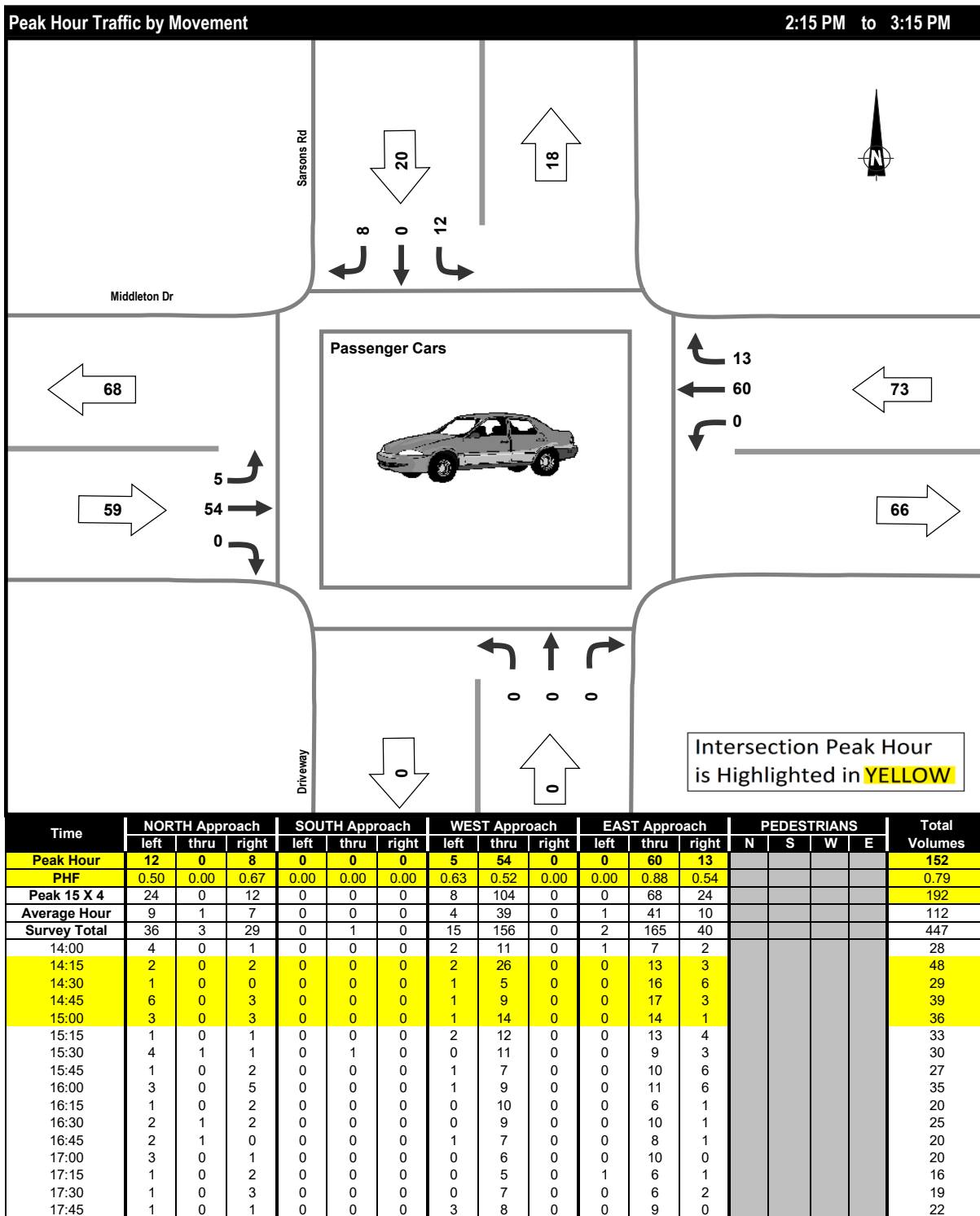


Project: #9427: St. James Elementary School TES
Municipality: District of Coldstream
Weather: Clear
Vehicle Class: Passenger Cars

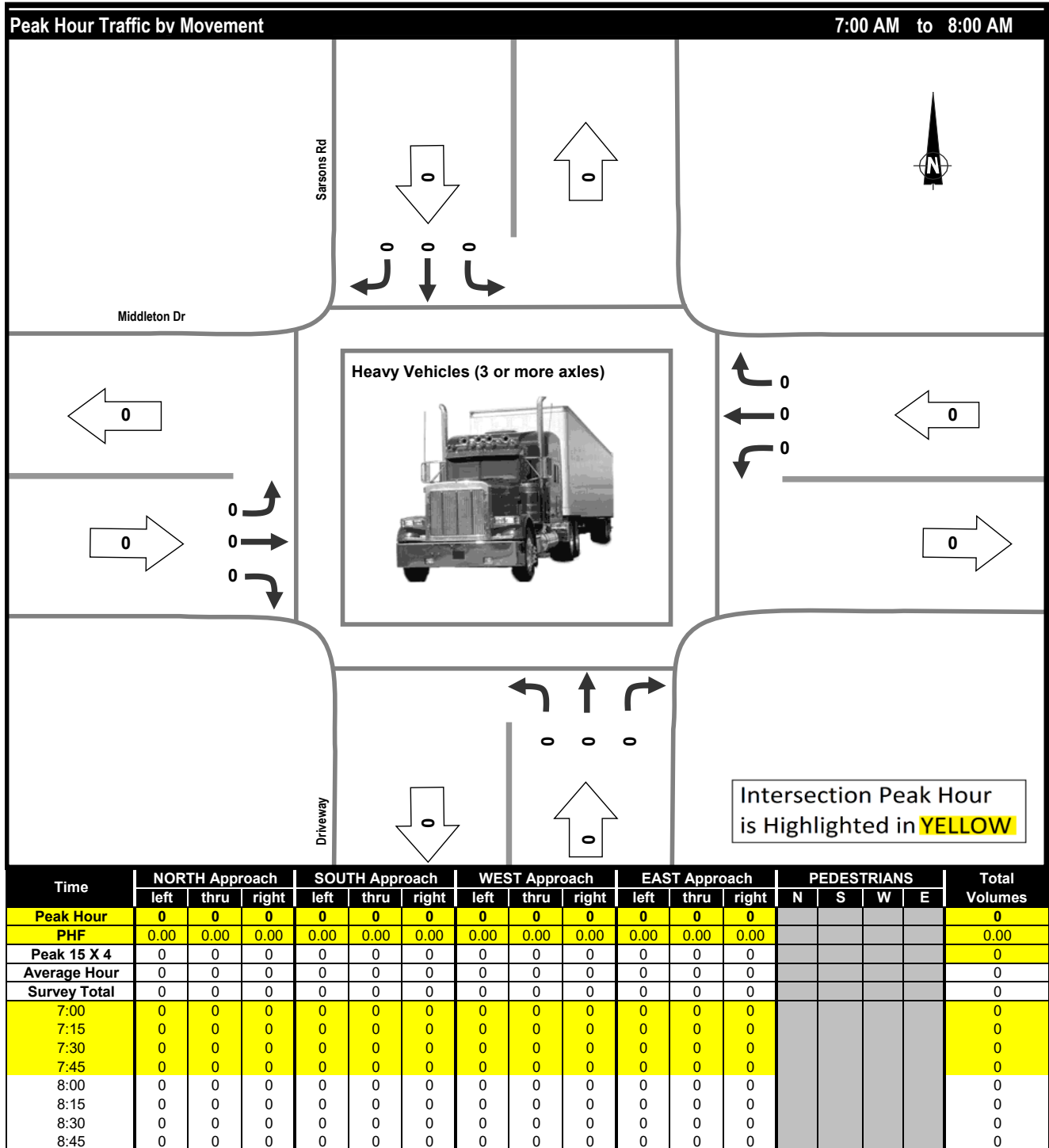
Morning Peak Period


Project: #9427: St. James Elementary School TES
Municipality: District of Coldstream
Weather: Clear
Vehicle Class: Passenger Cars

Afternoon Peak Period



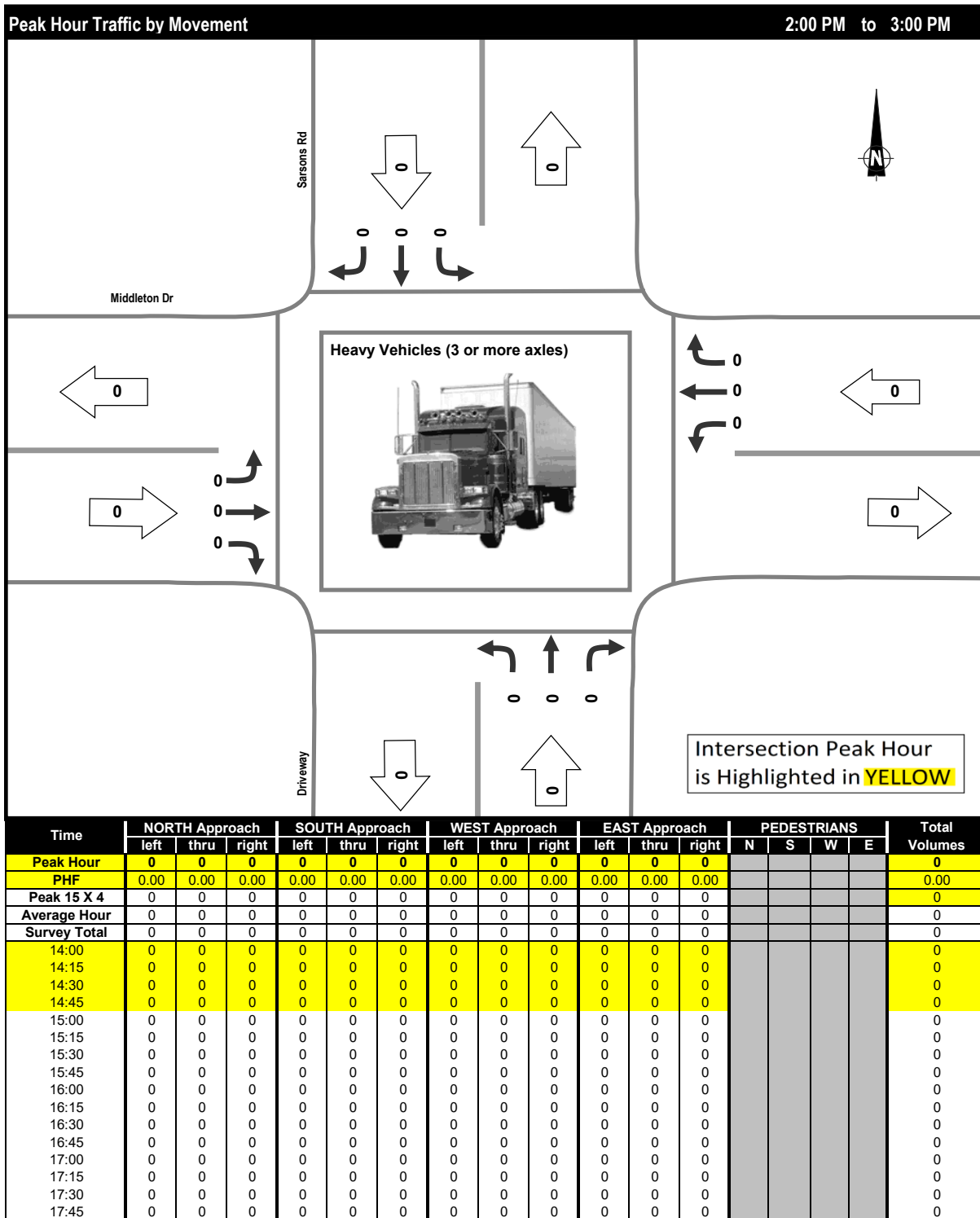
Project: #9427: St. James Elementary School TES
 Municipality: District of Coldstream
 Weather: Clear
 Vehicle Class: Heavy Vehicles (3 or more axles)

Morning Peak Period




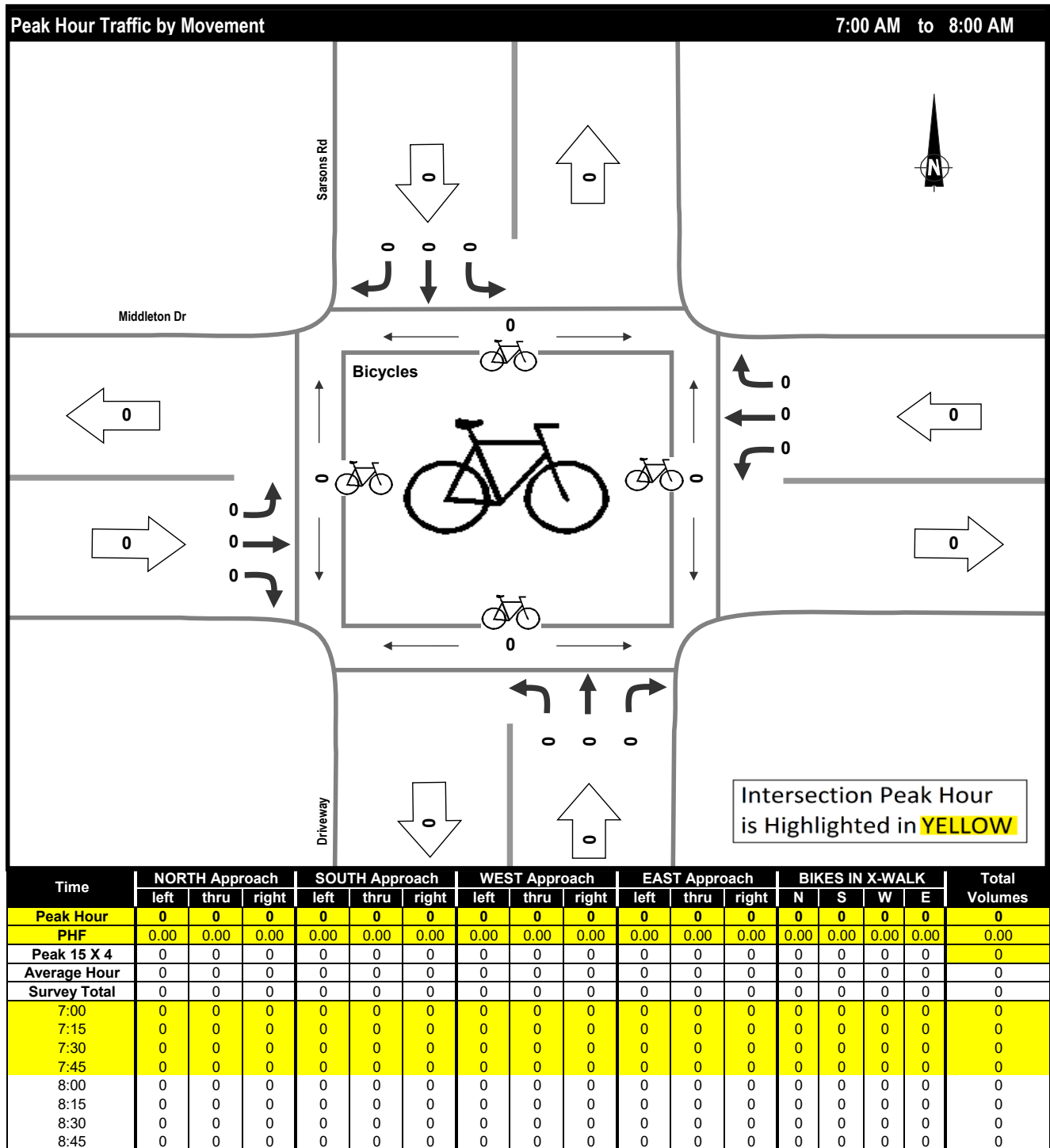
Project: #9427: St. James Elementary School TES
Municipality: District of Coldstream
Weather: Clear
Vehicle Class: Heavy Vehicles (3 or more axes)

Afternoon Peak Period



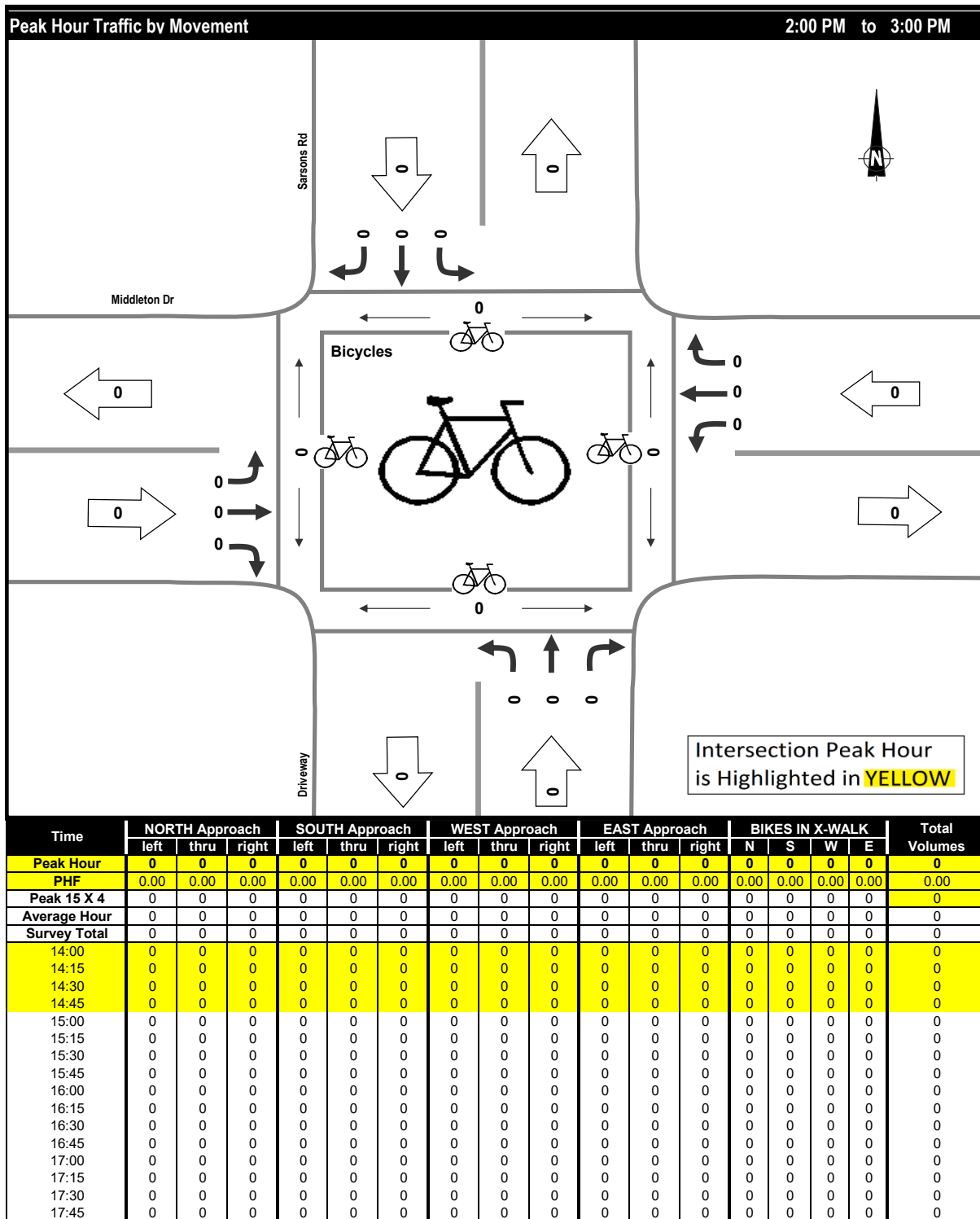
Project: #9427: St. James Elementary School TES
Municipality: District of Coldstream
Weather: Clear
Vehicle Class: Bicycles

Morning Peak Period



Project: #9427: St. James Elementary School TES
Municipality: District of Coldstream
Weather: Clear
Vehicle Class: Bicycles

Afternoon Peak Period

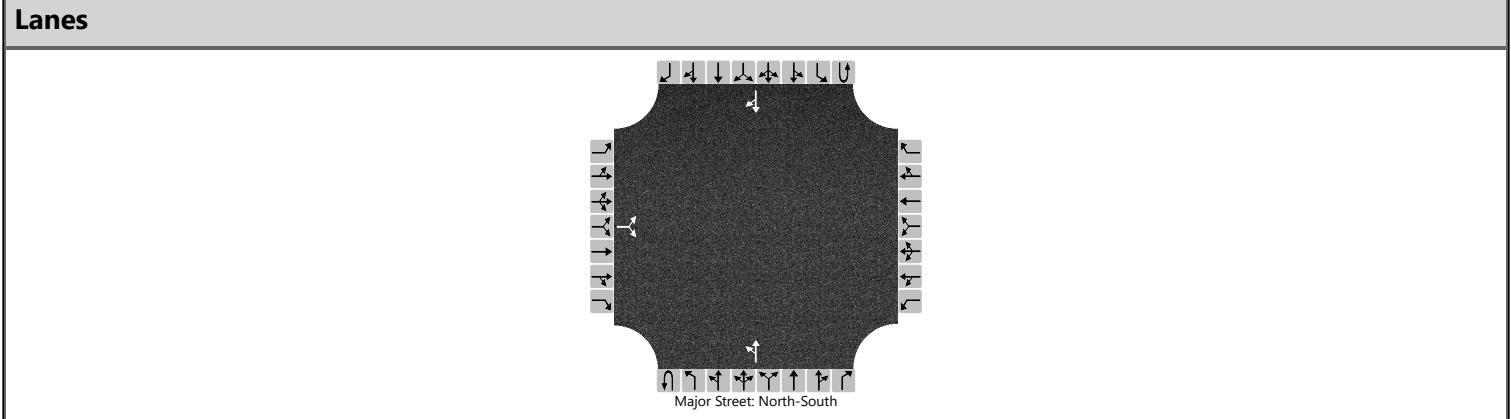


Appendix C

Capacity Analysis

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	MW	Intersection	Aberdeen Rd & Middleton Dr
Agency/Co.	CTS	Jurisdiction	District of Coldstream
Date Performed	2/14/2025	East/West Street	Middleton Dr
Analysis Year	2025	North/South Street	Aberdeen Rd
Time Analyzed	2025 Base AM	Peak Hour Factor	0.85
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	9427		



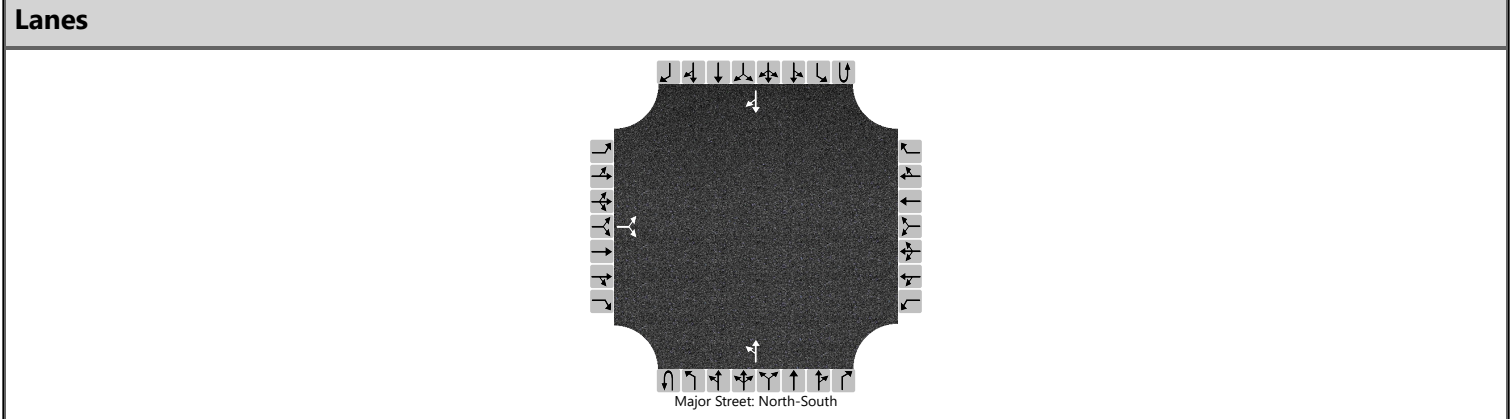
Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		28		61						30	198				129	14
Percent Heavy Vehicles (%)		2		2						2						
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)		6.42		6.22						4.12						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.52		3.32						2.22						

Delay, Queue Length, and Level of Service																
Flow Rate, v (veh/h)			105							35						
Capacity, c (veh/h)			737							1409						
v/c Ratio			0.14							0.03						
95% Queue Length, Q ₉₅ (veh)			0.5							0.1						
95% Queue Length, Q ₉₅ (ft)			12.7							2.5						
Control Delay (s/veh)			10.7							7.6	0.2					
Level of Service (LOS)			B							A	A					
Approach Delay (s/veh)	10.7								1.2							
Approach LOS	B								A							

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	MW	Intersection	Aberdeen Rd & Middleton Dr
Agency/Co.	CTS	Jurisdiction	District of Coldstream
Date Performed	2/14/2025	East/West Street	Middleton Dr
Analysis Year	2025	North/South Street	Aberdeen Rd
Time Analyzed	2025 Base PM	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	9427		



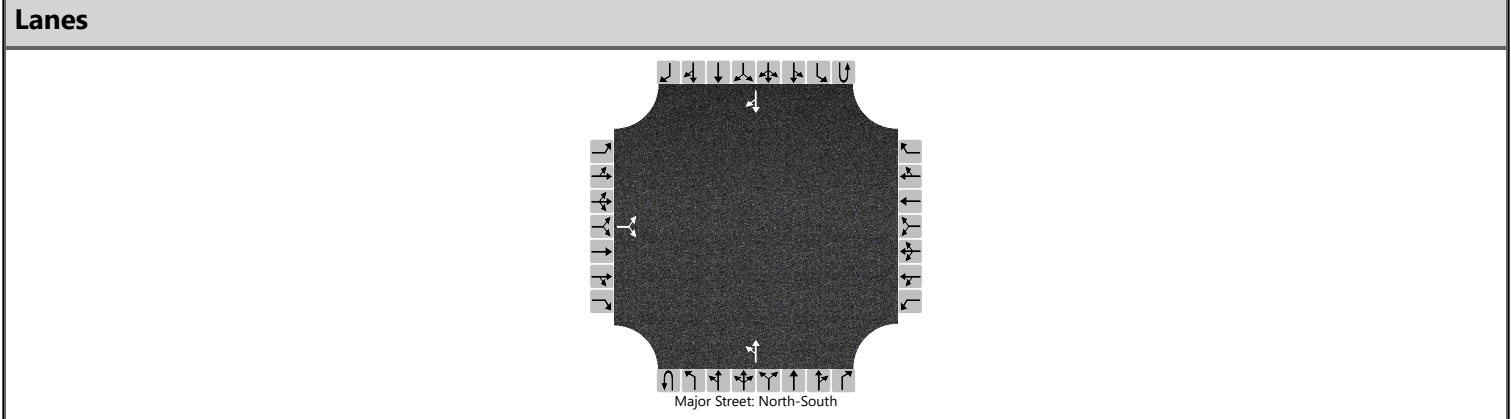
Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		18		47						48	160				125	23
Percent Heavy Vehicles (%)		2		2						2						
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)		6.42		6.22						4.12						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.52		3.32						2.22						

Delay, Queue Length, and Level of Service																
Flow Rate, v (veh/h)			71							52						
Capacity, c (veh/h)			770							1418						
v/c Ratio			0.09							0.04						
95% Queue Length, Q ₉₅ (veh)			0.3							0.1						
95% Queue Length, Q ₉₅ (ft)			7.6							2.5						
Control Delay (s/veh)			10.1							7.6	0.3					
Level of Service (LOS)			B							A	A					
Approach Delay (s/veh)	10.1								2.0							
Approach LOS	B								A							

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	MW	Intersection	Aberdeen Rd & Middleton Dr
Agency/Co.	CTS	Jurisdiction	District of Coldstream
Date Performed	2/14/2025	East/West Street	Middleton Dr
Analysis Year	2030	North/South Street	Aberdeen Rd
Time Analyzed	2030 Base AM	Peak Hour Factor	0.85
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	9427		



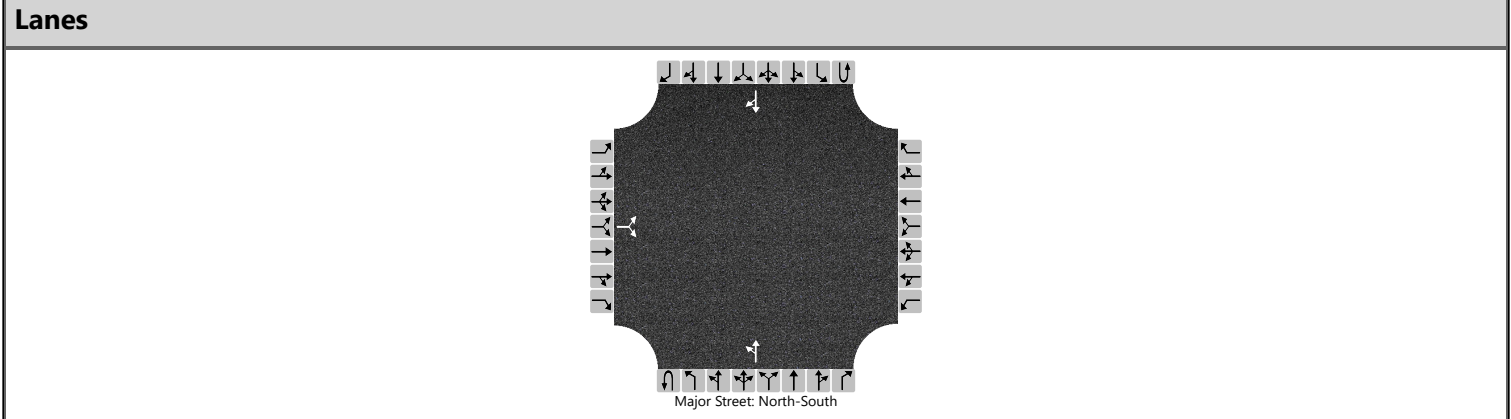
Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		31		67						33	218				142	15
Percent Heavy Vehicles (%)		2		2						2						
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)		6.42		6.22						4.12						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.52		3.32						2.22						

Delay, Queue Length, and Level of Service																
Flow Rate, v (veh/h)			115							39						
Capacity, c (veh/h)			708							1390						
v/c Ratio			0.16							0.03						
95% Queue Length, Q ₉₅ (veh)			0.6							0.1						
95% Queue Length, Q ₉₅ (ft)			15.2							2.5						
Control Delay (s/veh)			11.1							7.7	0.2					
Level of Service (LOS)			B							A	A					
Approach Delay (s/veh)	11.1								1.2							
Approach LOS	B								A							

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	MW	Intersection	Aberdeen Rd & Middleton Dr
Agency/Co.	CTS	Jurisdiction	District of Coldstream
Date Performed	2/14/2025	East/West Street	Middleton Dr
Analysis Year	2030	North/South Street	Aberdeen Rd
Time Analyzed	2030 Base PM	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	9427		



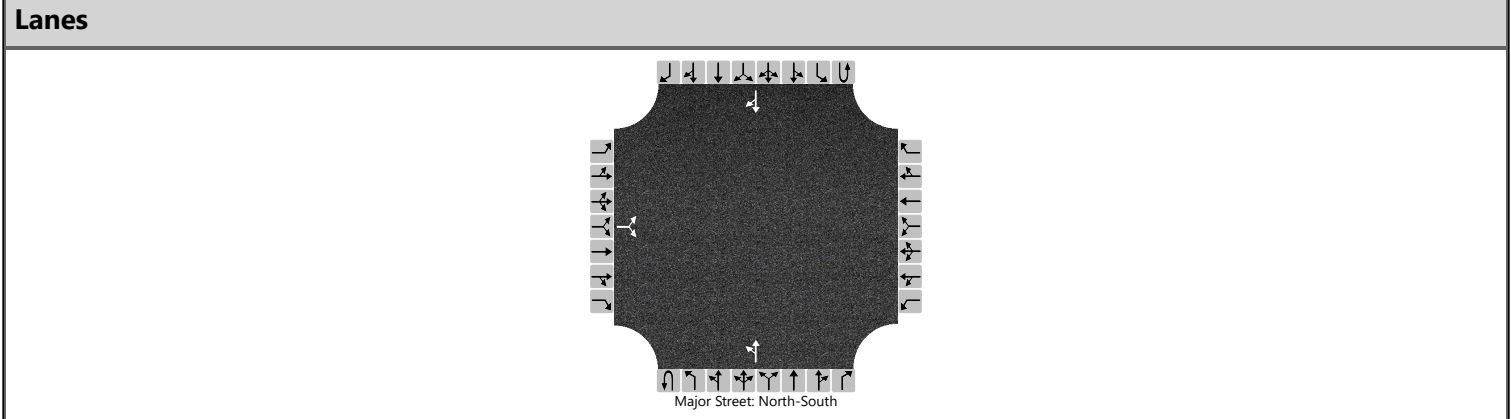
Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		20		52						53	176				138	25
Percent Heavy Vehicles (%)		2		2						2						
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)		6.42		6.22						4.12						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.52		3.32						2.22						

Delay, Queue Length, and Level of Service																
Flow Rate, v (veh/h)			78							58						
Capacity, c (veh/h)			742							1399						
v/c Ratio			0.11							0.04						
95% Queue Length, Q ₉₅ (veh)			0.4							0.1						
95% Queue Length, Q ₉₅ (ft)			10.2							2.5						
Control Delay (s/veh)			10.4							7.7	0.4					
Level of Service (LOS)			B							A	A					
Approach Delay (s/veh)	10.4								2.1							
Approach LOS	B								A							

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	MW	Intersection	Aberdeen Rd & Middleton Dr
Agency/Co.	CTS	Jurisdiction	District of Coldstream
Date Performed	2/14/2025	East/West Street	Middleton Dr
Analysis Year	2030	North/South Street	Aberdeen Rd
Time Analyzed	2030 Base+Site AM	Peak Hour Factor	0.85
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	9427		



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	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		101		79						46	218				142	88
Percent Heavy Vehicles (%)		2		2						2						
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)		6.42		6.22						4.12						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.52		3.32						2.22						

Delay, Queue Length, and Level of Service																
Flow Rate, v (veh/h)			212							54						
Capacity, c (veh/h)			562							1293						
v/c Ratio			0.38							0.04						
95% Queue Length, Q ₉₅ (veh)			1.7							0.1						
95% Queue Length, Q ₉₅ (ft)			43.2							2.5						
Control Delay (s/veh)			15.2							7.9	0.4					
Level of Service (LOS)			C							A	A					
Approach Delay (s/veh)	15.2								1.7							
Approach LOS	C								A							

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	MW	Intersection	Aberdeen Rd & Middleton Dr
Agency/Co.	CTS	Jurisdiction	District of Coldstream
Date Performed	2/14/2025	East/West Street	Middleton Dr
Analysis Year	2030	North/South Street	Aberdeen Rd
Time Analyzed	2030 Base+Site PM	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	9427		

Lanes

Major Street: North-South

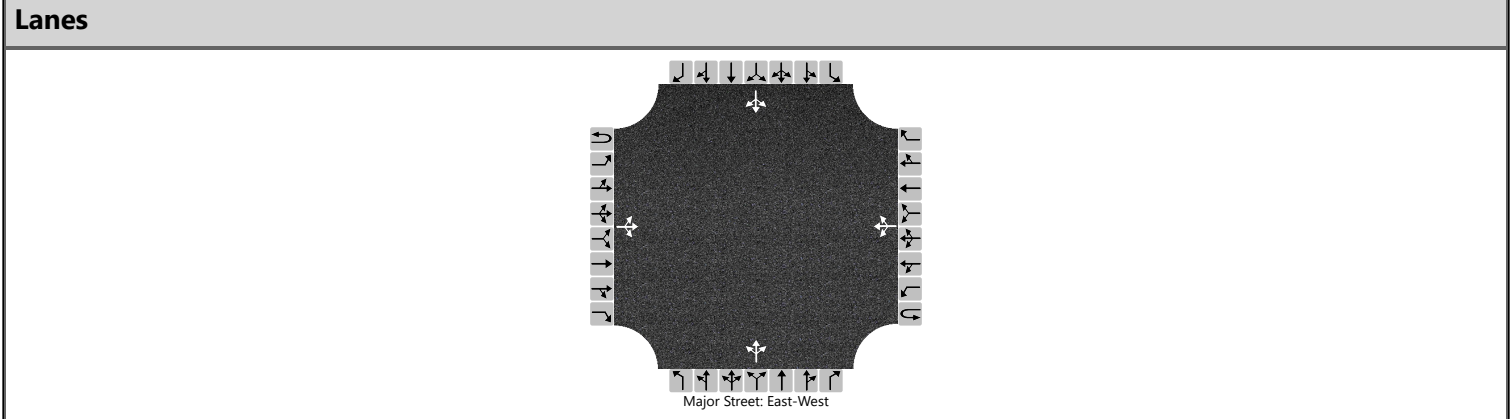
Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume (veh/h)		71		60						59	176				138	68
Percent Heavy Vehicles (%)		2		2						2						
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)		6.42		6.22						4.12						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.52		3.32						2.22						

Delay, Queue Length, and Level of Service																
Flow Rate, v (veh/h)			142							64						
Capacity, c (veh/h)			616							1345						
v/c Ratio			0.23							0.05						
95% Queue Length, Q ₉₅ (veh)			0.9							0.2						
95% Queue Length, Q ₉₅ (ft)			22.9							5.1						
Control Delay (s/veh)			12.6							7.8	0.4					
Level of Service (LOS)			B							A	A					
Approach Delay (s/veh)	12.6								2.3							
Approach LOS	B								A							

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	MW	Intersection	Sarsons Rd & Middleton Dr
Agency/Co.	CTS	Jurisdiction	District of Coldstream
Date Performed	2/14/2025	East/West Street	Middleton Dr
Analysis Year	2025	North/South Street	Sarsons Rd
Time Analyzed	2025 Base AM	Peak Hour Factor	0.85
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	9427		



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	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		3	71	0		0	36	9		0	2	0		15	1	3
Percent Heavy Vehicles (%)		2				2				2	2	2		2	2	2
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Undivided															

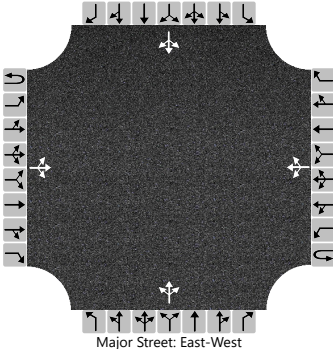
Critical and Follow-up Headways																
Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.12				4.12				7.12	6.52	6.22		7.12	6.52	6.22
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.22				2.22				3.52	4.02	3.32		3.52	4.02	3.32

Delay, Queue Length, and Level of Service																
Flow Rate, v (veh/h)		4				0					2				22	
Capacity, c (veh/h)		1553				1513					746				847	
v/c Ratio		0.00				0.00					0.00				0.03	
95% Queue Length, Q ₉₅ (veh)		0.0				0.0					0.0				0.1	
95% Queue Length, Q ₉₅ (ft)		0.0				0.0					0.0				2.5	
Control Delay (s/veh)		7.3	0.0	0.0		7.4	0.0	0.0			9.8				9.4	
Level of Service (LOS)		A	A	A		A	A	A			A				A	
Approach Delay (s/veh)	0.3				0.0				9.8				9.4			
Approach LOS	A				A				A				A			

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	MW	Intersection	Sarsons Rd & Middleton Dr
Agency/Co.	CTS	Jurisdiction	District of Coldstream
Date Performed	2/14/2025	East/West Street	Middleton Dr
Analysis Year	2025	North/South Street	Sarsons Rd
Time Analyzed	2025 Base PM	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	9427		

Lanes



Major Street: East-West

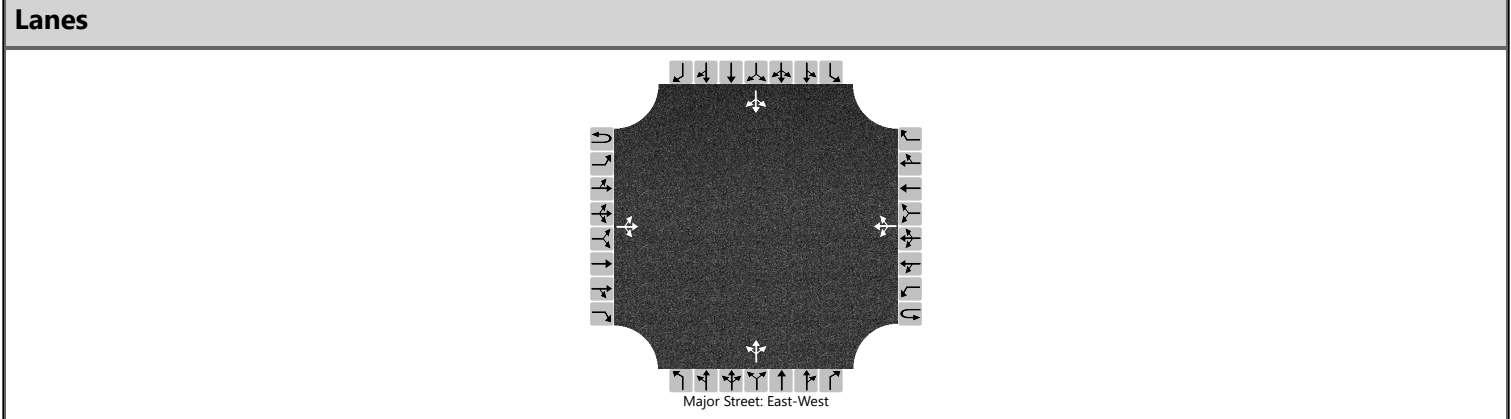
Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		5	54	0		0	60	13		0	0	0		12	0	8
Percent Heavy Vehicles (%)		2				2				2	2	2		2	2	2
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				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.12				4.12				7.12	6.52	6.22		7.12	6.52	6.22
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)		2.22				2.22				3.52	4.02	3.32		3.52	4.02	3.32

Delay, Queue Length, and Level of Service																
Flow Rate, v (veh/h)		5				0					0				22	
Capacity, c (veh/h)		1519				1545					0				884	
v/c Ratio		0.00				0.00									0.02	
95% Queue Length, Q ₉₅ (veh)		0.0				0.0									0.1	
95% Queue Length, Q ₉₅ (ft)		0.0				0.0									2.5	
Control Delay (s/veh)		7.4	0.0	0.0		7.3	0.0	0.0							9.2	
Level of Service (LOS)		A	A	A		A	A	A							A	
Approach Delay (s/veh)	0.7				0.0								9.2			
Approach LOS	A				A								A			

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	MW	Intersection	Sarsons Rd & Middleton Dr
Agency/Co.	CTS	Jurisdiction	District of Coldstream
Date Performed	2/14/2025	East/West Street	Middleton Dr
Analysis Year	2030	North/South Street	Sarsons Rd
Time Analyzed	2030 Base AM	Peak Hour Factor	0.85
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	9427		



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	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		3	78	0		0	40	10		0	2	0		17	1	3
Percent Heavy Vehicles (%)		2				2				2	2	2		2	2	2
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type Storage	Undivided															

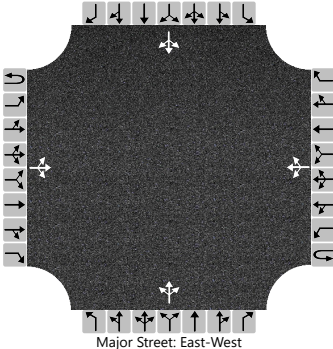
Critical and Follow-up Headways																
Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.12				4.12				7.12	6.52	6.22		7.12	6.52	6.22
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.22				2.22				3.52	4.02	3.32		3.52	4.02	3.32

Delay, Queue Length, and Level of Service																
Flow Rate, v (veh/h)		4				0					2				25	
Capacity, c (veh/h)		1545				1503					733				830	
v/c Ratio		0.00				0.00					0.00				0.03	
95% Queue Length, Q ₉₅ (veh)		0.0				0.0					0.0				0.1	
95% Queue Length, Q ₉₅ (ft)		0.0				0.0					0.0				2.5	
Control Delay (s/veh)		7.3	0.0	0.0		7.4	0.0	0.0			9.9				9.5	
Level of Service (LOS)		A	A	A		A	A	A			A				A	
Approach Delay (s/veh)	0.3				0.0				9.9				9.5			
Approach LOS	A				A				A				A			

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	MW	Intersection	Sarsons Rd & Middleton Dr
Agency/Co.	CTS	Jurisdiction	District of Coldstream
Date Performed	2/14/2025	East/West Street	Middleton Dr
Analysis Year	2030	North/South Street	Sarsons Rd
Time Analyzed	2030 Base PM	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	9427		

Lanes



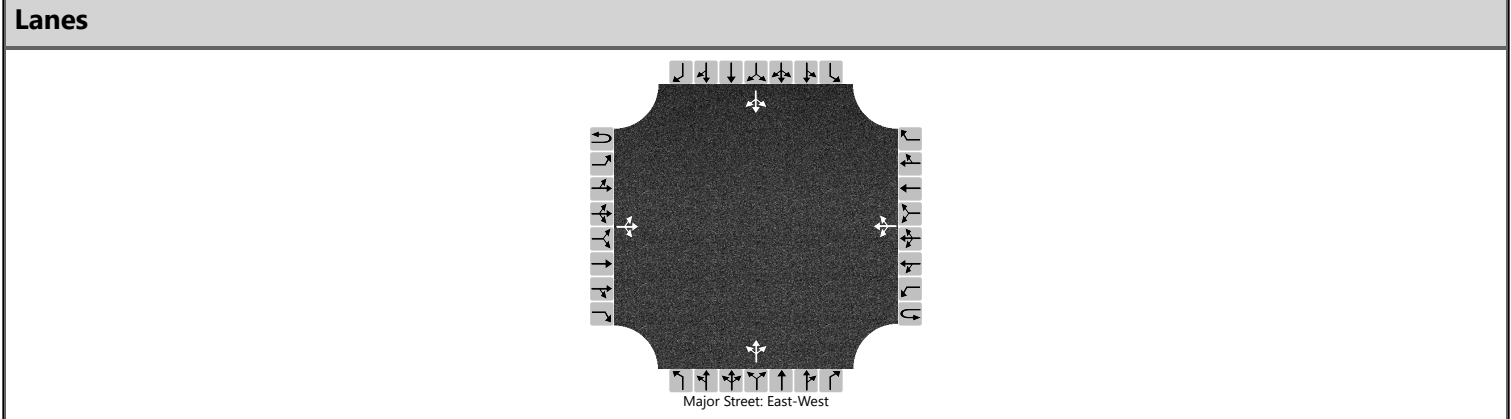
Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		6	59	0		0	66	14		0	0	0		13	0	9
Percent Heavy Vehicles (%)		2				2				2	2	2		2	2	2
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				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.12				4.12				7.12	6.52	6.22		7.12	6.52	6.22
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)		2.22				2.22				3.52	4.02	3.32		3.52	4.02	3.32

Delay, Queue Length, and Level of Service																
Flow Rate, v (veh/h)		7				0					0				24	
Capacity, c (veh/h)		1509				1538					0				870	
v/c Ratio		0.00				0.00									0.03	
95% Queue Length, Q ₉₅ (veh)		0.0				0.0									0.1	
95% Queue Length, Q ₉₅ (ft)		0.0				0.0									2.5	
Control Delay (s/veh)		7.4	0.0	0.0		7.3	0.0	0.0							9.3	
Level of Service (LOS)		A	A	A		A	A	A							A	
Approach Delay (s/veh)	0.7				0.0								9.3			
Approach LOS	A				A								A			

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	MW	Intersection	Sarsons Rd & Middleton Dr
Agency/Co.	CTS	Jurisdiction	District of Coldstream
Date Performed	2/14/2025	East/West Street	Middleton Dr
Analysis Year	2030	North/South Street	Sarsons Rd
Time Analyzed	2030 Base+Site AM	Peak Hour Factor	0.85
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	9427		



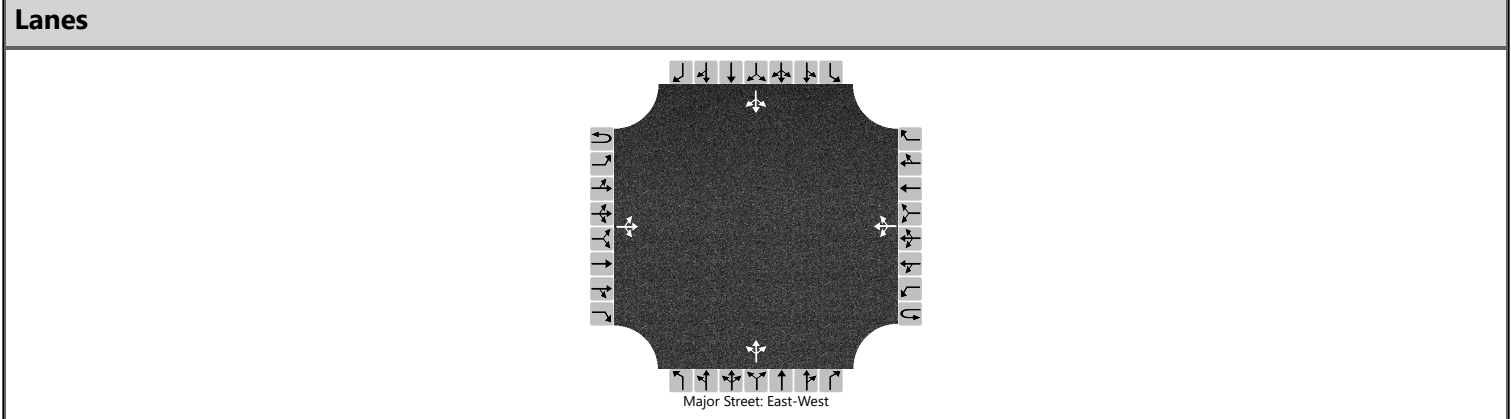
Vehicle Volumes and Adjustments																
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		3	93	0		0	47	14		0	2	0		24	1	3
Percent Heavy Vehicles (%)		2				2				2	2	2		2	2	2
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				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.12				4.12				7.12	6.52	6.22		7.12	6.52	6.22
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)		2.22				2.22				3.52	4.02	3.32		3.52	4.02	3.32

Delay, Queue Length, and Level of Service																
Flow Rate, v (veh/h)		4				0					2				33	
Capacity, c (veh/h)		1528				1481					705				792	
v/c Ratio		0.00				0.00					0.00				0.04	
95% Queue Length, Q ₉₅ (veh)		0.0				0.0					0.0				0.1	
95% Queue Length, Q ₉₅ (ft)		0.0				0.0					0.0				2.5	
Control Delay (s/veh)		7.4	0.0	0.0		7.4	0.0	0.0			10.1				9.7	
Level of Service (LOS)		A	A	A		A	A	A			B				A	
Approach Delay (s/veh)	0.2				0.0				10.1				9.7			
Approach LOS	A				A				B				A			

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	MW	Intersection	Sarsons Rd & Middleton Dr
Agency/Co.	CTS	Jurisdiction	District of Coldstream
Date Performed	2/14/2025	East/West Street	Middleton Dr
Analysis Year	2030	North/South Street	Sarsons Rd
Time Analyzed	2030 Base+Site PM	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	9427		



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	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		6	65	0		0	74	19		0	0	0		18	0	9
Percent Heavy Vehicles (%)		2				2				2	2	2		2	2	2
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				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.12				4.12				7.12	6.52	6.22		7.12	6.52	6.22
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)		2.22				2.22				3.52	4.02	3.32		3.52	4.02	3.32

Delay, Queue Length, and Level of Service																
Flow Rate, v (veh/h)		7				0					0				29	
Capacity, c (veh/h)		1491				1530					0				837	
v/c Ratio		0.00				0.00									0.04	
95% Queue Length, Q ₉₅ (veh)		0.0				0.0									0.1	
95% Queue Length, Q ₉₅ (ft)		0.0				0.0									2.5	
Control Delay (s/veh)		7.4	0.0	0.0		7.4	0.0	0.0							9.5	
Level of Service (LOS)		A	A	A		A	A	A							A	
Approach Delay (s/veh)	0.7				0.0								9.5			
Approach LOS	A				A								A			

**DISTRICT OF COLDSTREAM
BYLAW NO. 1850, 2024**

A BYLAW TO AMEND DISTRICT OF COLDSTREAM OFFICIAL COMMUNITY PLAN BYLAW NO. 1673, 2015

The Council of the District of Coldstream, in open meeting assembled, enacts that the District of Coldstream Official Community Plan Bylaw No. 1673, 2015, be amended as follows:

TITLE

1. This Bylaw may be cited as “DISTRICT OF COLDSTREAM OFFICIAL COMMUNITY PLAN BYLAW NO. 1673, 2015, AMENDMENT BYLAW NO. 1850, 2024, AMENDMENT NO. 4”.

INTERPRETATION

2. Unless otherwise provided in this Bylaw, words and phrases used herein have the same meanings as in the *Community Charter*, *Local Government Act* and the *Interpretation Act* as the context and circumstances may require.
3. A reference to an Act in this Bylaw refers to a statute of British Columbia, and a reference to any statute, regulation, bylaw or other enactment refers to that enactment as it may be amended or replaced from time to time.
4. Headings are for convenience only and must not be construed as defining or limiting the scope or intent of the provisions.

SEVERABILITY

5. If any part of this Bylaw is held to be invalid by a court of competent jurisdiction, the invalid part is severed and the remainder of the Bylaw continues to be valid.

AMENDMENT

6. District of Coldstream Official Community Plan Bylaw No. 1673, 2015 is amended by changing the land use designation of Lot 1 Section 24 Township 9 Osoyoos Division Yale District Plan 40254, located at 10050 Middleton Drive, from Residential to Civic.

READ A FIRST TIME this	9 th	day of	December	2024
READ A SECOND TIME this		day of		2025
A PUBLIC HEARING was held this		day of		2025
READ A THIRD TIME this		day of		2025
APPROVAL of the MINISTRY OF TRANSPORTATION		day of		2025
AND INFRASTRUCTURE was received this		day of		2025
ADOPTED this		day of		2025

Corporate Officer

Mayor

Notice of the Public Hearing was posted on the bulletin board at the District of Coldstream Municipal Office from DATE to DATE, 2025.

Notice of the Public Hearing was published in the DATE and DATE, 2025 issues of the Vernon Morning Star and distributed in the District of Coldstream.

**DISTRICT OF COLDSTREAM
BYLAW NO. 1851, 2024**

A BYLAW TO AMEND DISTRICT OF COLDSTREAM ZONING BYLAW NO. 1838, 2024

The Council of the District of Coldstream, in open meeting assembled, enacts that the District of Coldstream Zoning Bylaw 1838, 2024, be amended as follows:

TITLE

1. This Bylaw may be cited as “DISTRICT OF COLDSTREAM ZONING AMENDMENT BYLAW NO. 1851, 2024, AMENDMENT NO. 1”.

INTERPRETATION

2. Unless otherwise provided in this Bylaw, words and phrases used herein have the same meanings as in the *Community Charter*, *Local Government Act* and the *Interpretation Act* as the context and circumstances may require.
3. A reference to an Act in this Bylaw refers to a statute of British Columbia, and a reference to any statute, regulation, bylaw or other enactment refers to that enactment as it may be amended or replaced from time to time.
4. Headings are for convenience only and must not be construed as defining or limiting the scope or intent of the provisions.

SEVERABILITY

5. If any part of this Bylaw is held to be invalid by a court of competent jurisdiction, the invalid part is severed and the remainder of the Bylaw continues to be valid.

AMENDMENT

6. Schedule ‘B’ of District of Coldstream Zoning Bylaw No. 1838, 2024 is amended by changing the land use zone of Lot 1 Section 24 Township 9 Osoyoos Division Yale District Plan 40254, located at 10050 Middleton Drive, from R2 – Urban Large Lot Residential Zone to P1 – Civic One Zone.

READ A FIRST TIME this	9 th	day of	December	2024
READ A SECOND TIME this		day of		2025
READ A THIRD TIME this		day of		2025
APPROVAL of the MINISTRY OF TRANSPORTATION		day of		2025
AND INFRASTRUCTURE was received this		day of		2025
ADOPTED this		day of		2025

Corporate Officer

Mayor

Notice of the Public Hearing was posted on the bulletin board at the District of Coldstream Municipal Office from DATE to DATE, 2025.

Notice of the Public Hearing was published in the DATE and DATE, 2025 issues of the Vernon Morning Star and distributed in the District of Coldstream.

9. ATTACHMENTS

- A. Site Context Map
- B. Letter of Intent (LOI)
- C. Preliminary Site Plan & Architectural Renderings
- D. Traffic Impact Assessment (TIA)
- E. District of Coldstream Official Community Plan Bylaw No. 1673, 2015, Amendment Bylaw No. 1850, 2024, Amendment No. 4 [DRAFT]
- F. District of Coldstream Zoning Bylaw No. 1838, 2024, Amendment Bylaw No. 1851, 2024, Amendment No. 1 [DRAFT]

Prepared by:

Reviewed By:

Howie Choy

Howie Choy
Planner, Development Services

Ryan Roycroft

Ryan Roycroft
Director, Development Services

REVIEWED WITH:

Financial Admin
Corporate Admin
Infrastructure Services
Development Services
Other: _____

DATE:

April 22, 2025

Approved for submission to Council:

Keri-Ann Austin

Keri-Ann Austin, MMC
Chief Administrative Officer