

LETTER OF TRANSMITTAL

To: Town of Perinton
Attn: Lori Stid
1350 Turk Hill Road
Fairport, NY 14450

Date: 9/10/25

- ☐ FOR APPROVAL
- ☐ AS REVISED
- ☒ AS REQUESTED
- ☐ INFORMATION & USE
- ☐ COMMENT/RETURN
- ☐ APPROVED AS NOTED

From: David Cox, PE
President of Cox Engineering

Re: Ayrault Townhomes

**Enclosed
Are:**

(5) Traffic Impact Analysis

RECEIVED

SEP 11 2025

TOWN OF PERINTON

Remarks:

Please contact me directly with any questions. Thank you.

Copies to:

Sincerely,

P.N.: 20182575.0003

Signature David Cox PE, MBA

TRAFFIC IMPACT ANALYSIS

AYRAULT TOWNHOMES

Town of Perinton
Monroe County

RECEIVED
SEP 11 2025
TOWN OF PERINTON

Prepared For
DTST Erie Holdings, LLC
105 Despatch Drive
East Rochester, NY 14445

20182575.0003

CONTENTS

EXECUTIVE SUMMARY	1
INTRODUCTION	2
1.0 EXISTING CONDITIONS	3
2.0 DEVELOPED CONDITIONS	4
3.0 FINDINGS & OBSERVATIONS	5
Sight Distance Evaluation	5
4.0 CONCLUSIONS	5

APPENDICES

- A. Traffic Counts
- B. Trip Generation
- C. Gap Study
- D. Crash Data

Traffic Impact Study

Ayrault Road Townhomes – Perinton, NY

EXECUTIVE SUMMARY

The proposed project is located at 347 Ayrault Road (CR 21) (11,172 AADT) with the proposed entrance on the south side of the road \pm 400 FT west of the intersection of Ayrault Rd & Jefferson Avenue in the town of Perinton. The parcel borders the Erie Canal to the East, a Monroe County Water Authority transmission station to the South, single-family homes along Sandle Drive to the West, and a single family home on Ayrault Road, which the project surrounds. The parcel is approximately 6.8 acres and consists of 33 duplex units (16 duplexes and 1 single family) with connected driveways and garages. A new entrance off Ayrault Road will be used for this development.

Existing traffic was counted by Cox Engineering on September 4, 2025. Trip generations for the project were calculated using the ITE Traffic Generation Manual (11th Edition).

Ayrault Road and Sandle Drive Intersection

This intersection was studied for traffic movements and counts. 13 vehicles entered or exited Sandle Drive during the AM peak hour and 15 vehicles entered or exited Sandle Drive during the PM peak hour. There were no issues or delays observed with vehicles entering or exiting Sandle Drive onto Ayrault Rd.

Ayrault Road and Jefferson Avenue Intersection

This intersection operated efficiently during traffic counts. Vehicles were able to get through the intersection within one light cycle. The eastbound left turn pocket on Ayrault is approximately 135' long. The majority queue was 1-2 cars. There was one instance where 5 cars queued, all of which were within the left turn pocket. A large percentage of the traffic for the intersection was taking a right onto Jefferson Rd or a left onto Ayrault.

The Proposed Project Entrance

The proposed entrance is approximately 375' from the stop bar. At no point did vehicles queue anywhere close to this proposed entrance. Sight distance to the left is over 1,000' and to the right is 760'. Both are above the recommended distances.

A gap study was performed at the proposed intersection (see appendix). There is adequate gaps in traffic due to the close proximity of the traffic signal for vehicles to exit or enter the property without delays.

Crash data was collected for the last 5 years for the Ayrault and Jefferson Rd intersection. In 5 years there has been 14 accidents. Approximately half being during snowy conditions. 0 fatalities and 0 serious injuries. There was only 1 injury involving a bicycle. The most common reason was failure to yield to right of way. This is an accident rate of 0.69 accidents per million vehicles entering. This is a low accident rate. Average accident rate is typically over 2 accidents per million vehicles.

Traffic Impact Study

Ayrault Road Townhomes – Perinton, NY

INTRODUCTION



The proposed project is located at 347 Ayrault Road (CR 21) with the proposed entrance on the south side of the road \pm 400 FT west of the intersection of Ayrault Rd & Jefferson Avenue in the town of Perinton. The parcel borders the Erie Canal to the east, a Monroe County Water Authority transmission station to the south, single-family homes along Sandle Drive to the west, and a single family home on Ayrault Road, which the project surrounds. The parcel is approximately 6.8 acres and consists of 33 duplex units with connected driveways and garages (16 duplexes and 1 single family). A new entrance off Ayrault Road will be used for this development.

Trip generations for the project are calculated and analyzed in this traffic analysis.

The scope of the traffic study includes analysis of the following intersections:

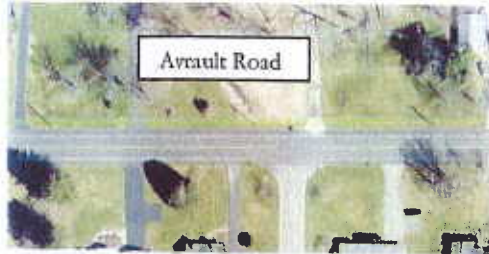
- Ayrault Road and Sandle Drive Intersection
- Ayrault Road and Jefferson Avenue Intersection

Traffic Impact Study

Ayrault Road Townhomes – Perinton, NY

1.0 EXISTING CONDITIONS

Roadways:



Ayrault Road (County Road 21) is generally oriented east-west in the vicinity of the project with an ADT of 11,172

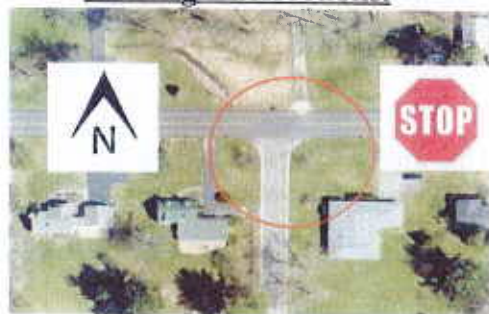


Sandle Drive is generally oriented north-south. The road serves as an access road for residents of Sandle Drive. It is located west of the site.



Jefferson Avenue (County Road 40) is generally oriented north-south. The road runs between NY Rt 31F and Ayrault Road with an ADT of 6,653

Existing Intersections:



Intersection #1 (Ayrault Road and Sandle Drive) The intersection is un-signalized with Ayrault Road orientated east-west and Sandle Drive oriented north-south.



Intersection #2 (Ayrault Road and Jefferson Avenue) The intersection is signalized with Ayrault Road orientated east-west and Jefferson Avenue oriented north-south. Approaching from the north along Jefferson Ave has a designated right and the following area map shows the existing roadways and intersections:

Traffic Impact Study

Ayrault Road Townhomes – Perinton, NY

When conducting a traffic study, it is necessary to use engineering judgment, as well as, proven well defined methods to draw conclusions about the information gathered. This section explains the judgments, approaches, and methodologies used to prepare this analysis:

1. Intersections listed previously in the report were observed in the field during the hours of 7:00-9:00 AM and 4:00-6:00 PM. A two-hour timeframe in both AM and PM scenarios was needed to determine the peak hour of the intersections. The peak hour for the AM scenario is 7:15-8:15 and the PM scenario is 4:30-5:30.
2. Traffic counts were performed by Cox Engineering on September 4, 2025
3. Sight distance evaluations were conducted at the proposed project entrance and compared the results to NYSDOT recommendations.

Existing traffic volumes counted are attached within the appendix.

2.0 DEVELOPED CONDITIONS

There is one proposed project entrance located off Ayrault Rd. Traffic generated from the proposed project is listed below:

Single Family Attached (ITE Use 215): Dependent Factor (X) = Dwelling Units [X=33]

	Rate/Formula	Total	Exiting	Entering
AM Peak Hour	0.48 Trips/dwelling	16	12 (75%)	4 (25%)
PM Peak Hour	0.57 Trips/dwelling	19	8 (41%)	11 (59%)

In summary, the project will generate 16 AM trips and 19 PM trips. There are two destinations for motorists traveling near the project site:

- West on Ayrault Road towards the I-490 On-ramp. This will be the route that motorists take to get to the City of Rochester to the NW, or down towards Victor / Finger Lakes Region to the SE.
- East on Ayrault Road towards NY Route 250. This will be the route that motorists take to get to large nearby shopping area surrounding the intersection of Route 250 and Route 31.

3.0 FINDINGS & OBSERVATIONS

Gap Study:

A gap study was performed at the proposed intersection (see appendix). There is adequate gaps in traffic due to the close proximity of the traffic signal for vehicles to exit or enter the property without delays.

Crash Data:

Crash data was collected for the last 5 years for the Ayrault and Jefferson Rd intersection. In 5 years there has been 14 accidents. Approximately half being during snowy conditions. 0 fatalities and 0 serious injuries. There was only 1 injury involving a bicycle. The most common reason was failure to yield to right of way. This is an accident rate of 0.69 accidents per million vehicles entering. This is a low accident rate. Average accident rate is typically over 2 accidents per million vehicles.

Sight Distance Evaluation

Site distances were measured at the proposed project entrances using the NYSDOT criteria of a speed limit of 30 mph. The results of these evaluations are summarized below:

<u>Intersection</u>	<u>Speed Limit (mph)</u>	<u>Recommended Sight Distance (L/R)</u>	<u>Actual (L/R) Sight Distance (Ft)</u>
Project Site Entrance	35mph (40mph design)	530'/440'	>1,000'/760'

As shown above, the project entrance will have adequate sight distance.

4.0 CONCLUSIONS

This Traffic Impact Study analyzed two existing intersection immediately adjacent to the proposed project. The study determined that the trips generated by the project are minimal when compared to the existing traffic generation at the intersection and poses no detrimental impact to the intersection or adjacent road networks.

APPENDIX A

Traffic Counts

Totals of All Approaches Shown

	#1	#2	#3	#4	#5	15 MIN. TOTALS
TIME						
7:00-7:15	133	203	0	0	0	336
7:15-7:30	183	271	0	0	0	454
7:30-7:45	198	336	0	0	0	534
7:45-8:00	197	344	0	0	0	541
8:00-8:15	170	281	0	0	0	451
8:15-8:30	136	227	0	0	0	363
8:30-8:45	170	283	0	0	0	453
8:45-9:00	131	243	0	0	0	374
4:00-4:15	120	271	0	0	0	391
4:15-4:30	149	297	0	0	0	446
4:30-4:45	172	345	0	0	0	517
4:45-5:00	155	349	0	0	0	504
5:00-5:15	152	310	0	0	0	462
5:15-5:30	143	332	0	0	0	475
5:30-5:45	137	317	0	0	0	454
5:45-6:00	141	310	0	0	0	451

Peak Hour Determination

Total	Time AM	Total	Time PM
1865	7:00-8:00	1858	4:00-5:00
1980	7:15-8:15	1929	4:15-5:15
1889	7:30-8:30	1958	4:30-5:30
1808	7:45-8:45	1895	4:45-5:45
1641	8:00-9:00	1842	5:00-6:00

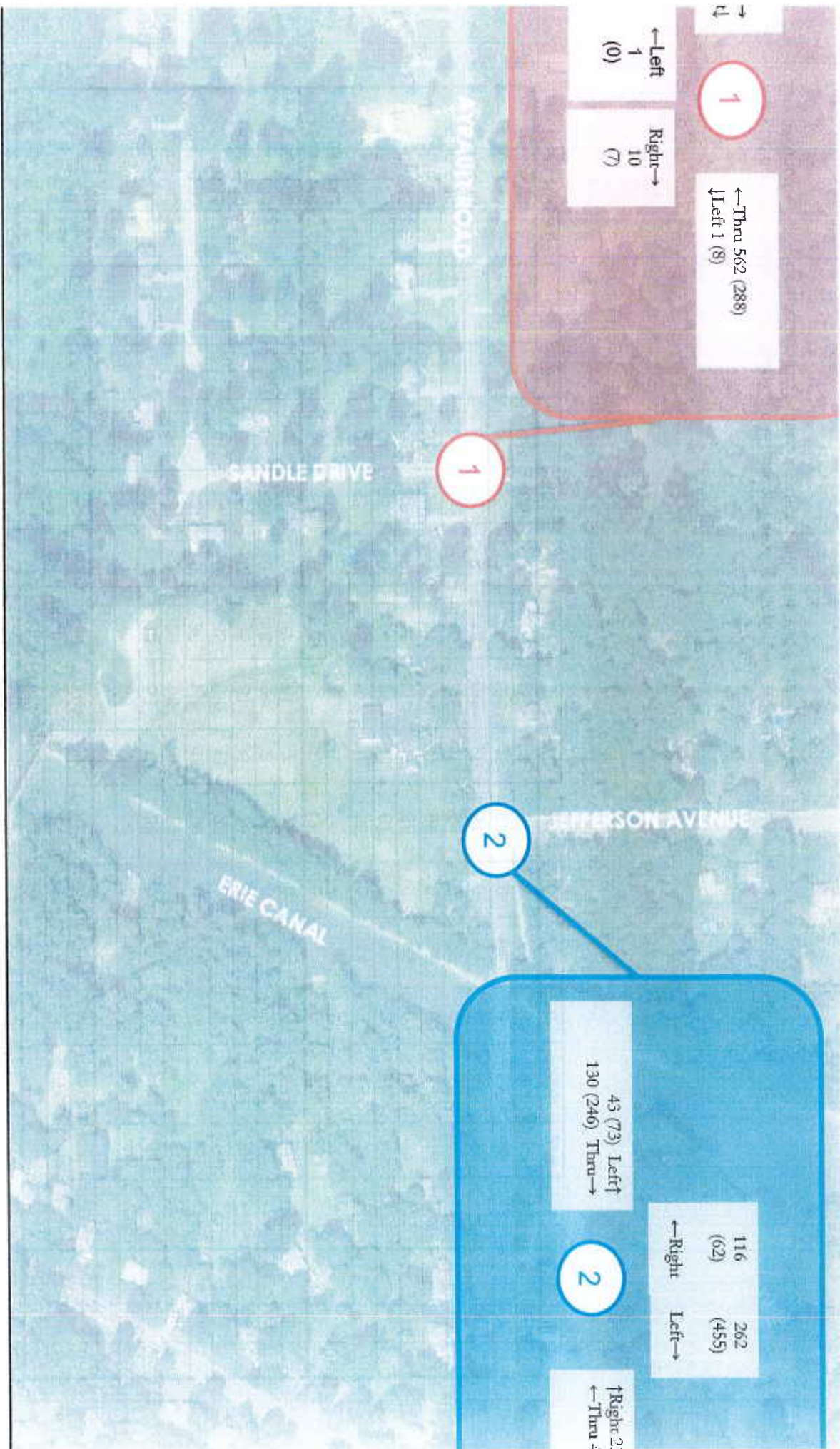
Peak Hour Determination

1980	7:15-8:15	1958	4:30-5:30
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Peak Hour Determination

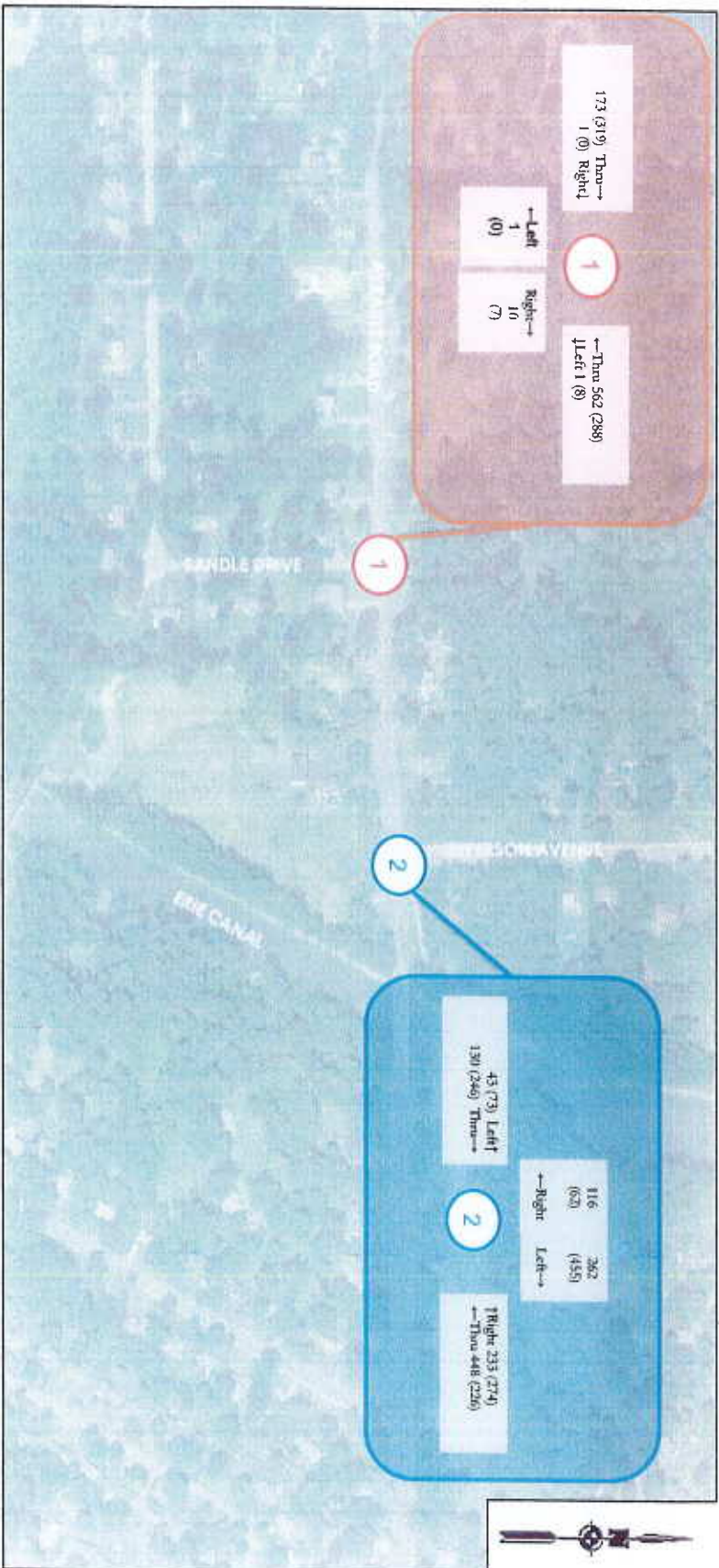
AYRAULT RD AND SANDLE DR															Total of all Approaches
TIME AM	Northbound			Southbound			Eastbound			Westbound					
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right			
7:00-7:15	0	0	1				0	37	0	37	0	95	0	95	133
7:15-7:30	1	0	2				0	50	0	50	0	130	0	130	183
7:30-7:45	0	0	2				0	36	1	37	0	159	0	159	198
7:45-8:00	0	0	4				0	50	0	50	1	142	0	143	197
8:00-8:15	0	0	2				0	37	0	37	0	131	0	131	170
8:15-8:30	0	0	3				0	30	0	30	0	103	0	103	136
8:30-8:45	0	0	1				0	33	1	34	2	133	0	135	170
8:45-9:00	1	0	1				0	35	0	35	0	94	0	94	131
Peak HR	1	0	10	0	0	0	0	173	1	1	562	0			
TIME PM															
4:00-4:15	0	0	3				0	54	0	54	0	63	0	63	120
4:15-4:30	0	0	1				0	78	0	78	0	70	0	70	149
4:30-4:45	0	0	1				0	85	0	85	2	84	0	86	172
4:45-5:00	0	0	1				0	86	0	86	4	64	0	68	155
5:00-5:15	0	0	2				0	77	0	77	2	71	0	73	152
5:15-5:30	0	0	3				0	71	0	71	0	69	0	69	143
5:30-5:45	0	0	2				0	73	0	73	1	61	0	62	137
5:45-6:00	0	0	0				0	62	0	62	2	77	0	79	141
Peak HR	0	0	7	0	0	0	0	319	0	8	288	0			

AYRAULT RD AND JEFFERSON AVE																	
Northbound				Southbound				Eastbound				Westbound				Total of all Approaches	
Left	Through	Right	TOTAL	Left	Through	Right	TOTAL	Left	Through	Right	TOTAL	Left	Through	Right	TOTAL		
TIME AM																	
7:00-7:15				0	27	0	11	38	7	30	0	37	0	84	44	128	203
7:15-7:30				0	37	0	16	53	12	38	0	50	0	114	54	168	271
7:30-7:45				0	69	0	29	98	9	27	0	36	0	130	72	202	336
7:45-8:00				0	82	0	36	118	11	39	0	50	0	108	68	176	344
8:00-8:15				0	74	0	35	109	11	26	0	37	0	96	39	135	281
8:15-8:30				0	56	0	25	81	6	24	0	30	0	78	38	116	227
8:30-8:45				0	75	0	16	91	8	25	0	33	0	117	42	159	283
8:45-9:00				0	64	0	17	81	7	28	0	35	0	77	50	127	243
Peak HR	0	0	0	262	0	116			43	130	0		0	448	233		
TIME PM																	
4:00-4:15				0	83	0	18	101	19	35	0	54	0	45	71	116	271
4:15-4:30				0	85	0	14	99	11	67	0	78	0	56	64	120	297
4:30-4:45				0	119	0	18	137	17	68	0	85	0	66	57	123	345
4:45-5:00				0	124	0	11	135	17	69	0	86	0	53	75	128	349
5:00-5:15				0	95	0	15	110	19	58	0	77	0	56	67	123	310
5:15-5:30				0	117	0	18	135	20	51	0	71	0	51	75	126	332
5:30-5:45				0	95	0	10	105	13	60	0	73	0	51	88	139	317
5:45-6:00				0	105	0	13	118	5	57	0	62	0	64	66	130	310
Peak HR	0	0	0	455	0	62	73	246	0	0	226	274					



1 AYRAULT RD AND SANDLE DR

2 AYRAULT RD AND JEFFERSON AVE



COX
ENGINEERING

AREA MAP

- 1 AYRAULT RD AND SANDIE DR
- 2 AYRAULT RD AND JEFFERSON AVE

AYRAULT

APPENDIX B

Trip Generation

Land Use: 215

Single-Family Attached Housing

Description

Single-family attached housing includes any single-family housing unit that shares a wall with an adjoining dwelling unit, whether the walls are for living space, a vehicle garage, or storage space.

Additional Data

The database for this land use includes duplexes (defined as a single structure with two distinct dwelling units, typically joined side-by-side and each with at least one outside entrance) and townhouses/rowhouses (defined as a single structure with three or more distinct dwelling units, joined side-by-side in a row and each with an outside entrance).

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (<https://www.ite.org/technical-resources/topics/trip-and-parking-generation/>).

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in British Columbia (CAN), California, Georgia, Illinois, Maryland, Massachusetts, Minnesota, New Jersey, Ontario (CAN), Oregon, Pennsylvania, South Dakota, Utah, Virginia, and Wisconsin.

Source Numbers

168, 204, 211, 237, 305, 306, 319, 321, 357, 390, 418, 525, 571, 583, 638, 735, 868, 869, 870, 896, 912, 959, 1009, 1046, 1056, 1058, 1077

Single-Family Attached Housing (215)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 46

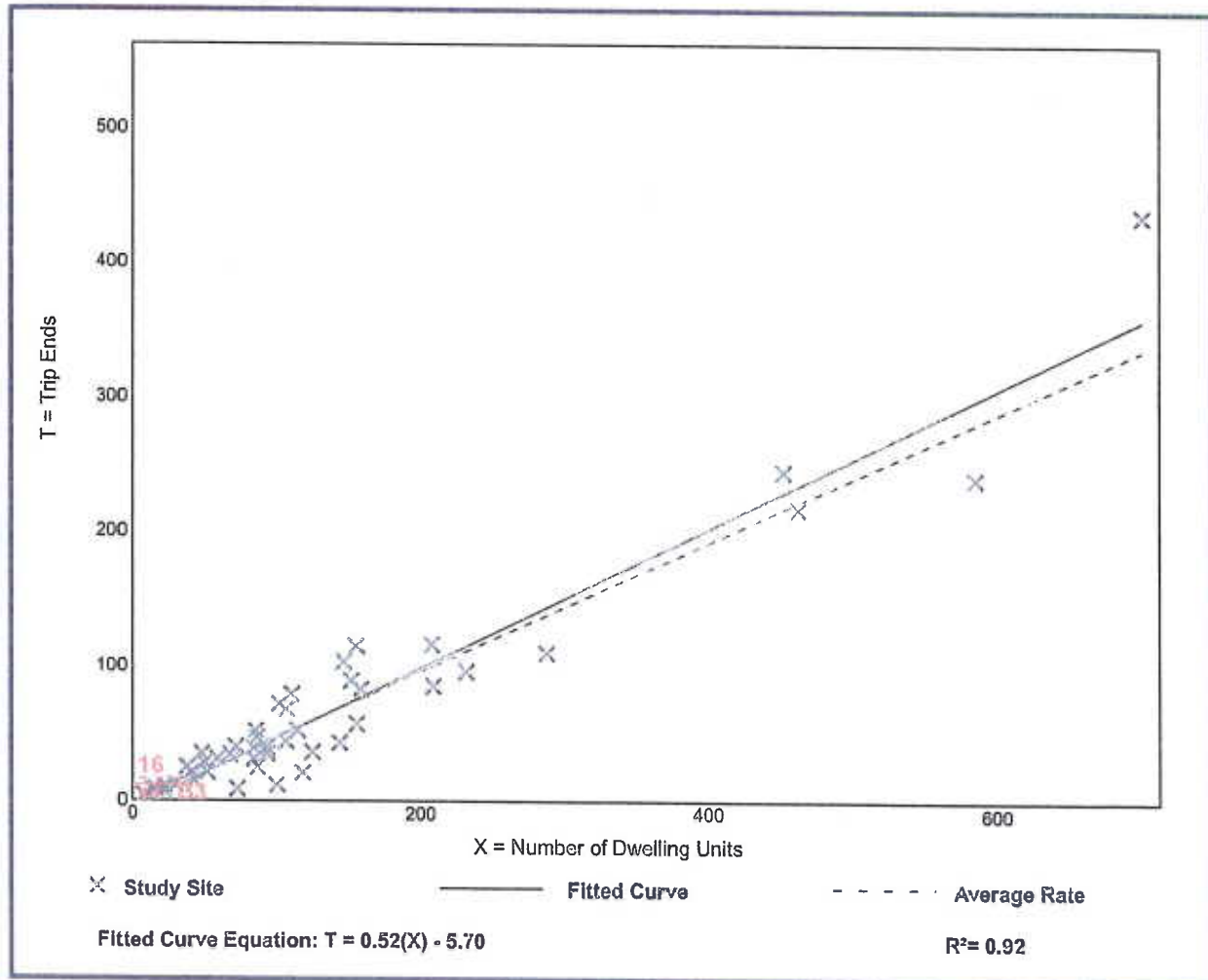
Avg. Num. of Dwelling Units: 135

Directional Distribution: 25% entering, 75% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.48	0.12 - 0.74	0.14

Data Plot and Equation



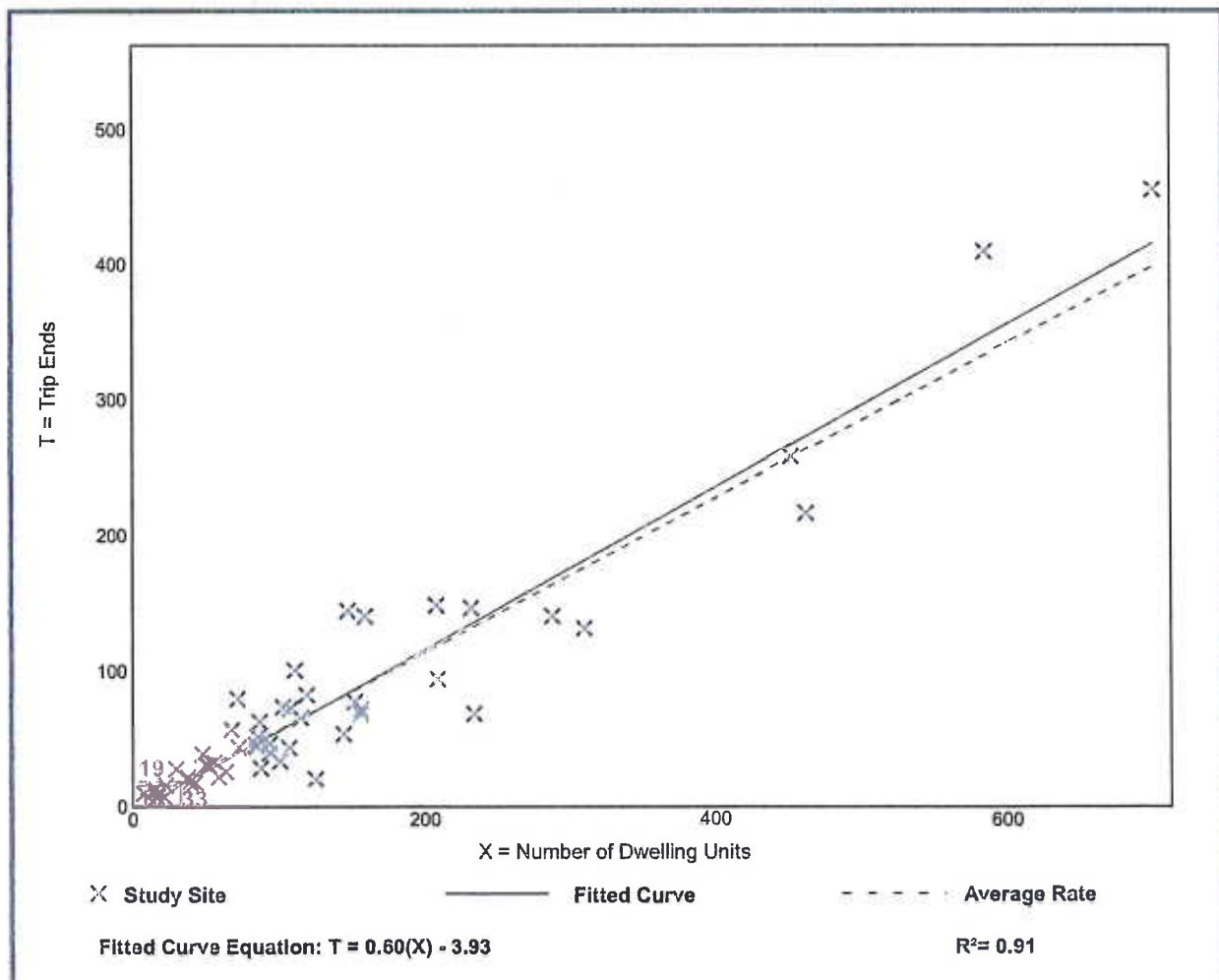
Single-Family Attached Housing (215)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 51
 Avg. Num. of Dwelling Units: 136
 Directional Distribution: 59% entering, 41% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.57	0.17 - 1.25	0.18

Data Plot and Equation



APPENDIX C

Gap Study

Ayrault Townhomes

GAP ANALYSIS - AM Peak (Left out of Project Entrance)

9/4/2025

P.N. 20182575.0003

DC

DATE OF STUDY: 9/4/25

Measured Eastbound & Westbound Ayrault Rd Gaps

TIME:7:45-8:14 AM 2 WAY GAPS	NUMBER OF GAPS (5-7 Sec)	NUMBER OF GAPS (8-10 Sec)	NUMBER OF GAPS (11-13 Sec)	NUMBER OF GAPS (14-16 Sec)	NUMBER OF GAPS (17-19 Sec)	NUMBER OF GAPS (20-22 Sec)	NUMBER OF GAPS (23-25 Sec)	LEFT TURNS ALLOWED
7:45		2			1			9
7:46	1		1	1				8
7:47		1				1		8
7:48			1		1			8
7:49	1			1				5
7:50	1	1	1					6
7:51		1	1		1			10
7:52		1				1		8
7:53			1		1			8
7:54	2							2
7:55			1	1				7
7:56							1	7
7:57						1		6
7:58	1			1				5
7:59	3		1					6
								0
8:00	2							2
8:01		1					1	9
8:02	3	1						5
8:03	1				1			6
8:04	2		1					5
8:05	1							1
8:06	4							4
8:07	3							3
8:08	2		1					5
8:09	1	1	2					9
8:10	1							1
8:11	1	1						3
8:12	1	1	1					6
8:13	1							1
8:14	2			1				6
TURNS ALLOWED FROM 7:45-8:14								159

Total Left Turns Projected from Entrance (hr) =

6

Total Left Turns Allowed from Entrance (hr) =

338

Ayrault Townhomes

GAP ANALYSIS - PM Peak (Left out of Project Entrance)

9/4/2025

P.N. 20182575.0003

BY: DC

DATE OF STUDY: 9/4/25

Measured Eastbound & Westbound Ayrault Rd Gaps

TIME :5:00-5:29 PM -2 WAY GAPS	NUMBER OF GAPS (5-7 Sec)	NUMBER OF GAPS (8-10 Sec)	NUMBER OF GAPS (11-13 Sec)	NUMBER OF GAPS (14-16 Sec)	NUMBER OF GAPS (17-19 Sec)	NUMBER OF GAPS (20-22 Sec)	NUMBER OF GAPS (23-25 Sec)	TOTAL LEFT TURNS ALLOWED
5:00	2	1						4
5:01	2		1					5
5:02	1						1	8
5:03	1	2	1					8
5:04			1					3
5:05	2	2						6
5:06	1	1						3
5:07	2	1						4
5:08	3	1						5
5:09	2							2
5:10							1	7
5:11		1				1		8
5:12	1	3						7
5:13	1	1					1	10
5:14	2	1						4
5:15	1		1			1		10
5:16					1			5
5:17	2	2						6
5:18	1	2						5
5:19	1	2	1					8
5:20	1		1			1		10
5:21		1				1		8
5:22							1	7
5:23		2		1				8
5:24	1	1	1			1		12
5:25	1					1		7
5:26	2	3						8
5:27						1		6
5:28	2	1						4
5:29		1	2					8
Turns Allowed From 5:00-5:29								196

Total Left Turns Projected from Entrance (hr) =

4

Total Left Turns Allowed from Entrance (hr) =

392

APPENDIX D

Crash Data

Crash Level Details

Collision Type	Crash Date	Crash Time	Crash Type	Light Conditions	Road Surface Conditions	Weather Conditions	# of Fatalities	# of Injuries	# of Serious Injuries
OTHER	2020-12-17T 4:15 AM		COLLISION WITH CURBING	DARK-ROAD LIGHTED	SNOW/ICE	SNOW	0	0	0
RIGHT ANGLE	2021-01-29T 10:20 AM		COLLISION WITH MOTOR VEHICLE	DAYLIGHT	SLUSH	SNOW	0	0	0
OTHER	2020-12-10T 10:20 AM		COLLISION WITH BICYCLIST	DAYLIGHT	DRY	CLOUDY	0	1	0
OVERTAKING	2021-02-12T 10:53 AM		COLLISION WITH MOTOR VEHICLE	DAYLIGHT	DRY	CLOUDY	0	0	0
SIDESWIPE	2022-01-04T 7:55 AM		COLLISION WITH MOTOR VEHICLE	DAYLIGHT	SNOW/ICE	CLOUDY	0	0	0
RIGHT ANGLE	2022-01-27T 4:45 PM		COLLISION WITH MOTOR VEHICLE	DAYLIGHT	DRY	CLEAR	0	0	0
REAR END	2022-10-13T 4:47 PM		COLLISION WITH MOTOR VEHICLE	DAYLIGHT	WET	CLEAR	0	0	0
REAR END	2023-06-08T 6:00 PM		COLLISION WITH MOTOR VEHICLE	DAYLIGHT	DRY	CLEAR	0	0	0
OTHER	2023-08-27T 8:30 PM		COLLISION WITH DEER	DARK-ROAD UNLIGHTED	DRY	CLEAR	0	0	0
RIGHT ANGLE	2024-02-13T 6:39 PM		COLLISION WITH MOTOR VEHICLE	DARK-ROAD LIGHTED	WET	SNOW	0	0	0
OVERTAKING	2024-05-16T 5:20 PM		COLLISION WITH MOTOR VEHICLE	DAYLIGHT	DRY	CLEAR	0	0	0
REAR END	2024-09-17T 12:00 PM		COLLISION WITH MOTOR VEHICLE	DAYLIGHT	DRY	CLEAR	0	0	0
RIGHT ANGLE	2024-12-12T 7:45 AM		COLLISION WITH MOTOR VEHICLE	DAYLIGHT	SNOW/ICE	SNOW	0	0	0
RIGHT ANGLE	2025-01-31T 11:25 PM		COLLISION WITH MOTOR VEHICLE	DARK-ROAD LIGHTED	SNOW/ICE	SNOW	0	0	0

Apparent Contributing Factor

V1:(NOT ENTERED,NOT ENTERED)
V1:(FAILURE TO YIELD RIGHT OF WAY,DRIVER INATTENTION) / V2:(NOT APPLICABLE,NOT APPLICABLE)
V1:(FAILURE TO YIELD RIGHT OF WAY,NOT APPLICABLE)
V1:(UNSAFE LANE CHANGE,REACTION TO OTHER UNINVOLVED VEHICL) / V2:(PASSING OR LANE USAGE IMPROPERLY,REACTION TO OTHER UNINVOLVED VEHICL)
V1:(PAVEMENT SLIPPERY,TURNING IMPROPER) / V2:(NOT APPLICABLE,NOT APPLICABLE)
V1:(FAILURE TO YIELD RIGHT OF WAY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
V1:(FAILURE TO YIELD RIGHT OF WAY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
V1:(FAILURE TO YIELD RIGHT OF WAY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
V1:(DRIVER INATTENTION,FOLLOWING TOO CLOSELY) / V2:(NOT APPLICABLE,NOT APPLICABLE)
V1:(ANIMALS ACTION,NOT APPLICABLE)
V1:(UNSAFE SPEED,PAVEMENT SLIPPERY) / V2:(NOT APPLICABLE,NOT APPLICABLE)
V1:(PASSING OR LANE USAGE IMPROPERLY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
V1:(UNSAFE SPEED,PAVEMENT SLIPPERY) / V2:(NOT APPLICABLE,NOT APPLICABLE)
V1:(PAVEMENT SLIPPERY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)