

MEMORANDUM

Date:	September 16, 2025	TG:	1.25351.00
To:	Glenna Turek – Barghausen Consulting Engineers, Inc.		
From:	Kassi Leingang, PE – Transpo Group		
Subject:	Woodburn Thoroughbred Express Car Wash – Traffic Study		

This memorandum summarizes the results of the trip generation analysis completed for the proposed Thoroughbred Express Car Wash project in Woodburn, OR. Additionally, the project description and estimated Transportation System Development Charge for the project are summarized in the sections below.

Project Description

The project site is located at 1299 N Pacific Highway in Woodburn, nearby existing commercial uses with access proposed via an existing driveway along Alexandra Avenue in the northwest corner of the project site. The proposed project would construct a single carwash tunnel (approximately 3,005 square feet) with 10 vacuum stations (see Figure 1) on a currently vacant lot. Thoroughbred Express is an existing car wash service located predominantly in the Midwest.

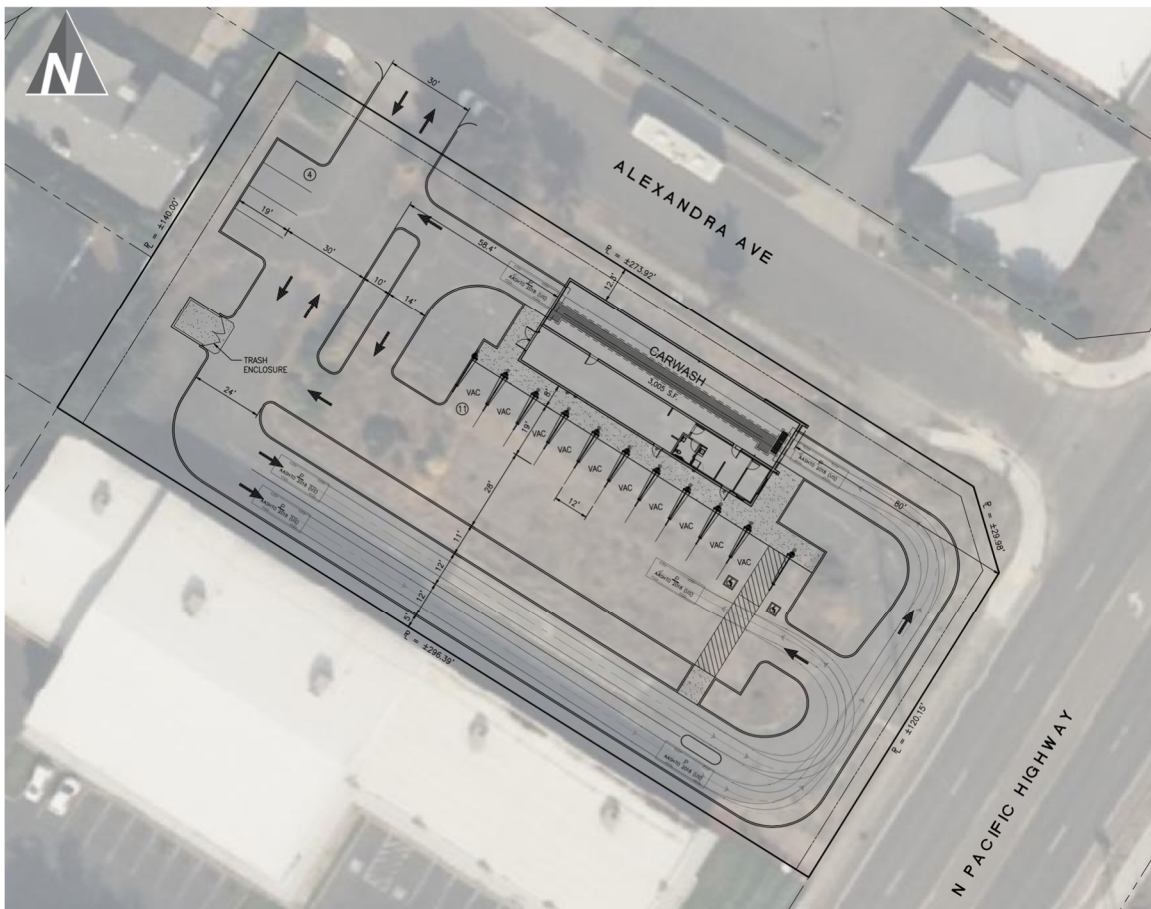


Figure 1. Site Plan

Trip Generation

As noted above, Thoroughbred Express is an existing car wash service predominantly located throughout the Midwest. The trip generation for the proposed project was estimated based on transaction data provided from an existing Thoroughbred Express site with similar features and site vicinity in Russellville, Kentucky¹. The existing site includes a single car wash tunnel and detail express stalls (vacuuming stations) consistent with the proposed project and is nearby to other commercial uses and in close proximity to state routes similar to the proposed site location.

The transaction data included the hourly number of transactions from January 2, 2024, to March 30, 2024 showing an average of 272 daily transactions with 13 occurring during the weekday AM peak hour and 35 occurring during the PM peak hour.² The transaction data was translated to trips by assuming each transaction equated to one inbound and one outbound trip.³

These total trips estimated to occur at the site based on the transaction data are comprised of primary and non-primary trips. The non-primary trips include pass-by and diverted trips. Pass-by trips reflect traffic already on streets adjacent to the project site that would visit the project while driving by the site on the way to its final destination. Diverted trips are when a driver diverts from a primary route to access a nearby use and then returns to the original route to complete the trip. To identify an appropriate pass-by and diverted rates for the proposed project, surveys were conducted at the existing Russellville, Kentucky Thoroughbred Express site for one week (April 30, 2024 to May 3, 2024) per ITE's methodology. The surveys showed that the Thoroughbred Express car wash trips are approximately 33 percent for both pass-by and diverted, which were assumed for the project.

The resulting trip generation estimated for the project is summarized in Table 1. The detailed trip generation data is included in Attachment A.

Table 1. Estimated Weekday Vehicle Trip Generation

Land Use	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Thoroughbred Car Wash Local Data ¹	548	13	13	26	35	35	70
Pass-by (33%) ¹	-180	-4	-4	-8	-12	-12	-24
Diverted (33%) ¹	-180	-4	-4	-8	-12	-12	-24
New Primary Trips Total	188	5	5	10	11	11	22

1. Trip generation and pass-by/diverted based on data provided by Thoroughbred Express for the existing site in Russellville, KY.

As shown in Table 1, the proposed project is estimated to generate 188 new weekday daily primary trips with 10 trips occurring during the weekday AM peak hour and 22 trips occurring during the weekday PM peak hour. Given the observed site is similar in services and capacity, the estimated trip generation for the existing site is anticipated to be representative of the proposed project.

Transportation System Development Charge

The project will be required to pay transportation system development charges (SDC), which would help offset the impacts of the proposed project on the surrounding street system. The SDC for the City of Woodburn was identified per the *Current Schedule of Transportation System Development Charges (Resolution NO. 2188 Exhibit A)*. A base fee of \$4,192 per new PM peak hour person trip generated was identified for undefined uses within the City. For the proposed project, the project's

¹ 235 Sam Walton Dr, Russellville, KY.

² Weekday included Tuesday-Thursday data, the Weekday AM peak hour assumed the peak one-hour between 7-9 a.m. and the PM peak hour assumed the peak one-hour between 4-6 p.m.

³ For the daily trip estimate, an additional 4 trips were added to account for staff.

weekday PM peak hour estimate of 22 new trips was assumed for the calculation given the autocentric nature of car washes, resulting in an estimated SDC of \$92,224 for the proposed project. The final fee will be calculated by the City of Woodburn at the time of permit issuance.

Summary and Findings

The proposed Thoroughbred Express Car Wash is forecast to generate 188 new weekday daily primary trips with 10 trips and 22 trips occurring during the weekday AM and PM peak hours, respectively. This estimated weekday daily and peak hour trip generation falls below both the City's and ODOT's TIA thresholds as defined per Woodburn Development Ordinance Section 3.04.05.⁴ Therefore, no additional TIA is required for the proposed development. The final SDC for the project will be calculated by the City of Woodburn at the time of permit issuance.

⁴ Per 3.04.05, a Transportation Impact Analysis (TIA) is required if the proposal generates more than 100 peak-hour trips or 1,000 daily trips. ODOT requires a TIA if the proposal generates more than 50 peak-hour trips or 300 daily trips.

Attachment A: Detailed Trip Generation

Mid-Week Average Transactions/Hour	
Time of Day	Russellville
7:00 AM	7
8:00 AM	13
9:00 AM	18
10:00 AM	22
11:00 AM	22
12:00 PM	27
1:00 PM	28
2:00 PM	28
3:00 PM	36
4:00 PM	35
5:00 PM	26
6:00 PM	10
7:00 PM	0
Daily	272
Added Employees	4
Total Daily Transactions	276

Russellville, KY

Where did your trip begin immediately prior to arriving at this site?	Will you go directly back to your origin from here?	Would you have driven by this site if you had not stopped here now?	If No to Q3, how many miles out of your way did you travel to get here? (Description of route is acceptable if miles are not known)	Timestamp
Work	Yes [End Survey If Yes]			4/29/2024 5:58
Work	No	No	0.5	4/30/2024 14:17
Home	No	Yes [End Survey If Yes]	Na	4/30/2024 7:22
Work	No	No	1-2miles	4/30/2024 7:12
Home	Yes [End Survey If Yes]			4/30/2024 7:07
Home	No	No	2.5	4/30/2024 16:23
Home	Yes [End Survey If Yes]	No	Na	4/30/2024 16:21
Work	No	Yes [End Survey If Yes]	Na	4/30/2024 16:18
Other Retail	No	No	Wanted to come here	4/30/2024 16:15
Work	No	Yes [End Survey If Yes]	Na	4/30/2024 16:13
Work	No	Yes [End Survey If Yes]	Na	4/30/2024 16:11
Work	No	No	2miles	4/30/2024 16:41
Home	No	No	25miles	4/30/2024 16:26
Home	Yes [End Survey If Yes]	Yes [End Survey If Yes]	None	5/2/2024 8:50
Work	No	No	2 miles max	5/2/2024 16:05
Work	No	No	3	4/30/2024 8:01
Other Retail	No	Yes [End Survey If Yes]		4/30/2024 16:57
Home	No	Yes [End Survey If Yes]		5/2/2024 8:38
Home	Yes [End Survey If Yes]	Yes [End Survey If Yes]		5/2/2024 16:03
Home	Yes [End Survey If Yes]			5/3/2024 15:44
Work	Yes [End Survey If Yes]			5/3/2024 16:50

21

	<u>Trip Type</u>		
	Primary	Passby	Diverted
Russellville, KY	33%	33%	33%