#### TECHNICAL MEMORANDUM

*To:* PNW Properties, LLC

19860 SE Highway 212 Damascus, Oregon 97089

FROM: Michael Ard, PE

**DATE:** March 24, 2017

**SUBJECT:** Doman Professional Building

1754 Willamette Falls Drive Trip Generation Analysis LANCASTER ENGINEERING

321 SW 4th Ave., Suite 400 Portland, OR 97204 phone: 503.248.0313 fax: 503.248.9251 lancasterengineering.com

This memorandum is written to address the site trip generation of the Doman Professional Building, a proposed 6,000 square foot building located at 1754 Willamette Falls Drive in West Linn, Oregon. The purpose of the analysis is to confirm whether any additional traffic impact analysis is required per City of West Linn standards.

#### Location Description

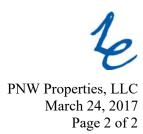
The proposed two-story office building will be located on the north side of Willamette Falls Drive between 13<sup>th</sup> Street and 14<sup>th</sup> Street in West Linn, Oregon. The building will include 3,000 square feet of ground-floor retail space and 3,000 square feet of office space on the second floor, for a gross floor area of 6,000 square feet.

#### **Trip Generation**

To estimate the number of trips that will be generated by the proposed development, trip rate data from the *Trip Generation Manual*<sup>1</sup> was used. Data corresponding to land-use codes 710, *General Office*, and 820, *Shopping Center* were referenced for the proposed building based on the gross square footage of each use.

For the shopping center land use, some pass-by trips are projected. Pass-by trips occur when a vehicle that is already traveling along an area roadway stops at the site along the way to another destination. Although these trips add traffic to the site access driveway, they do not add traffic to the adjacent streets since they would have traveled on the roadway even without site development. Accordingly, such trips are reduced from the total site trip generation in order to accurately determine the number of additional trips that will travel on public roadways in the site vicinity. Based on data from the *Trip Generation Handbook*, 3<sup>rd</sup> Edition, published by the Institute of Transportation Engineers, it is projected that 34 percent of the trips patronizing the retail facilities will be pass-by trips.

<sup>&</sup>lt;sup>1</sup> Institute of Transportation Engineers (ITE), *Trip Generation Manual*, 9th Edition, 2012.



The trip generation calculations indicate that the proposed development will generate a net increase of 6 trips during the morning peak hour with 5 entering and 1 exiting the site. During the evening peak hour, 11 new trips are projected, with 4 entering and 7 exiting the site. During a typical weekday, the development is projected to result in a net increase of 118 daily trips, with half entering and half exiting the site.

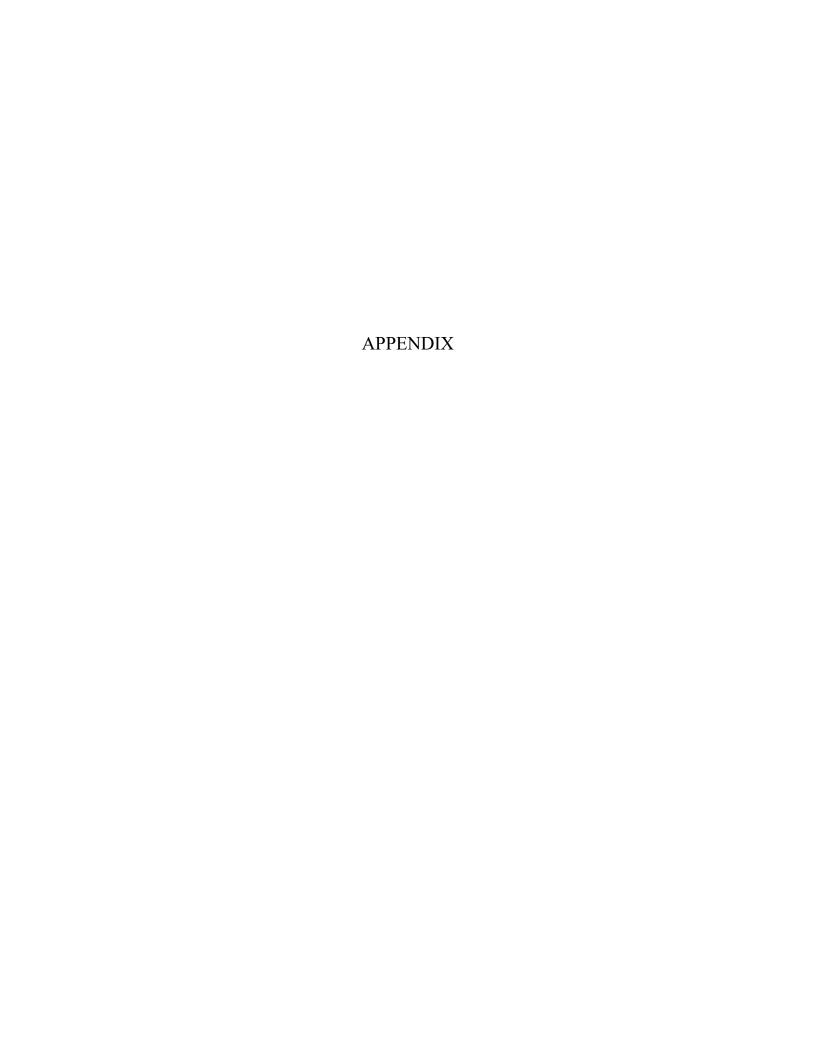
The trip generation estimates are summarized in the following table. Detailed trip generation calculations are also included in the technical appendix to this memorandum.

	ITE		A N/	Peak	Цоль	DM	Peak l	Цопт	Weekday
	Code	Size	In		Total	In		Total	<u>Total</u>
General Office Shopping Center	710 820	3,000 sq ft 3,000 sq ft	4 2	1 1	5	1 5	3	4 11	34 128
Pass-by Trips (34%)		, 1	-1	-1	-2	-2	-2	-4	-44
Total Site Trips Primary Site Trips			6 <b>5</b>	2 1	8 <b>6</b>	6 <b>4</b>	9 <b>7</b>	15 <b>11</b>	162 <b>118</b>

#### **Conclusions**

Based on the trip generation projections for the proposed development which fall well below 250 average daily trips, no further traffic analysis is required by the City of West Linn.

If you have any questions or need any further information, please don't hesitate to call.





## TRIP GENERATION CALCULATIONS

Land Use: General Office Building

Land Use Code: 710

Variable: 1000 Sq Ft Gross Floor Area

Variable Value: 3.0

## **AM PEAK HOUR**

Trip Rate: 1.56

	Enter	Exit	Total
Directional Distribution	88%	12%	
Trip Ends	4	1	5

## **PM PEAK HOUR**

Trip Rate: 1.49

	Enter	Exit	Total
Directional Distribution	17%	83%	
Trip Ends	1	3	4

## WEEKDAY

*Trip Rate:* 11.03

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	17	17	34

## **SATURDAY**

Trip Rate: 2.46

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	4	4	8

Source: TRIP GENERATION, Ninth Edition



# TRIP GENERATION CALCULATIONS

Land Use: Shopping Center

Land Use Code: 820

Variable: 1,000 Sq Ft Gross Leasable Area

Variable Value: 3.0

## **AM PEAK HOUR**

# PM PEAK HOUR

Trip Rate: 0.96

*Trip Rate:* 3.71

	Enter	Exit	Total
Directional Distribution	62%	38%	
Trip Ends	2	1	3

	Enter	Exit	Total
Directional Distribution	48%	52%	
Trip Ends	5	6	11

## WEEKDAY

**SATURDAY** 

Trip Rate: 42.7

*Trip Rate:* 49.97

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	64	64	128

	Enter	Exit	Total
Directional Distribution	50%	50%	
Trip Ends	75	75	150

Source: TRIP GENERATION, Ninth Edition