

#### **TECHNICAL MEMORANDUM**

To: Manny Polanco Treeman, Inc.

Cc: Francoise Carrier BBS&G
Soo Lee-Cho BBS&G

From: Maribel Donahue

Katie Wagner, P.E., PTOE

Date: September 28, 2023

Subject: 2230 Spencerville Road – LATR Transportation Study Exemption Statement

## Introduction

This memorandum serves as an LATR Transportation Study Exemption Statement for the future operations of the existing landscaping business located at 2230 Spencerville Road in Spencerville, Maryland within the Rural East (Green) policy area of Montgomery County.

The proposed future operations of the landscaping business include a maximum number of 24 employees. Future shift hours and employee and crew arrival and departure patterns will remain consistent with existing operations which are described below.

This memorandum identifies the number of person trips and vehicular trips expected to be generated by the proposed landscaping business. The person trip generation methodology is based on the staff size while the vehicular trip generation methodology is based on traffic counts collected at the subject site driveway and existing trip generation rates.

As discussed below, the project generates less than 50 person trips in the morning and afternoon peak hours and therefore, the project does not meet the 50-person peak hour trip threshold, where Montgomery County requires a Local Area Transportation Review (LATR). Given that this business will not exceed 24 employees during future operations, and that the site generates less than 50 person trips, an LATR not required.

# **Existing and Future Operations**

The existing operations of the landscaping business include 19 employees. Employees of the landscaping business arrive at the site in their personal vehicles prior to beginning the working shift and then they carpool in company-provided trucks to and from various locations. Crews return to the site in the company trucks where employees finish their shift and depart in their personal vehicles.

Typical operations run Monday to Thursday from 7:00 am and end between 5:00 and 6:30 pm. Approximately half of the employees work on Friday and all employees are off weekends excluding emergencies which may occur three (3) to five (5) times a year.

Future operations will not exceed 24 employees. Business hours will remain consistent with existing operations. In the future, employees will similarly arrive before their shift and depart the site after the shift in their personal vehicles. Employees will also continue to travel as crews in company trucks during their shifts.

Exhibit 5
OZAH Case No: CU 24-09

# **Trip Generation**

Trip generation was evaluated to determine the number of new person and vehicle trips generated by the proposed operations.

### Person Trip Generation

Person trip generation was calculated by assuming a one (1) to one (1) employee to person trip ratio. Thus, the maximum amount of person trips that could occur during either the morning or afternoon peak hours is 48 trips (with 24 inbound and 24 outbound trips for either peak hour). Table 1 provides a comparison between existing and future trip generation.

**Table 1: Person Trip Generation** 

Land Use	Mode	Size	А	M Peak	Hour	P	M Peak	Hour
			ln	Out	Total	ln	Out	Total
Existing Landscaping Business	Person Trips	19 employees	19	19	38	19	19	38
Future Landscaping Business	Person Trips	24 employees	24	24	48	24	24	48
Net Person Trips		+ 5 employees	5	5	10	5	5	10

#### Vehicle Trip Generation

To forecast future vehicle trip generation based on existing vehicle trip generation rates, turning movement counts were collected at the site driveway's intersection with Spencerville Road on Tuesday May 23, 2023, a typical weekday which reflected typical business operations. At the time of data collection, existing operations included 19 employees.

Table 2 shows the existing peak vehicle trip generation in the morning and in the afternoon, the existing vehicle trip generation rate per employee, the future peak vehicle trip generation with 24 employees. As Table 2 shows, the proposed operations with 24 employees will generate 36 peak vehicle trips in the morning and 21 peak vehicle trips in the afternoon and the future operations result in less than 10 additional vehicle trips during either peak hour.

It should be noted that the landscaping business peak hours 6:45 to 7:45 AM and 5:30 to 6:30 PM do not coincide with the commuter peak hours on Spencerville Road. Spencerville Road's commuter peak hours are 7:15 to 8:15 AM and 4:00 to 5:00 PM. As such, the vehicle trips generated by the proposed operations during the commuter peak hours are anticipated to be below the trip generation presented in Table 2 and the project will have negligible impact on roadway conditions in the area.

Table 2: Vehicle Trip Generation Comparison Calculation<sup>1</sup>

Land Use	Mode	Size		<b>AM Pea</b> 45 - 7:45			<b>PM Pea</b> 30 - 6:30	
			ln	Out	Total	ln	Out	Total
Existing Landscaping Business	Vehicle Trips	Existing 19 employees	14	14	28	8	9	17
		Trip generation rate per employee	0.74	0.74	1.47	0.47	0.42	0.89
Future Landscaping Business	Vehicle Trips	Proposed 24 employees	18	18	36	11	10	21
Net Vehicle Trips		+ 5 employees	4	4	8	3	1	4

<sup>1.</sup> The presented trip generation is based on the landscaping business' peak hours as captured in data collection, which are different from the adjacent roadway's peak hours.

As the shown in Table 1 and Table 2, even with the maximum number of employees, the proposed operations and land use do not trigger a traffic study based on the LATR Guidelines.

## **TECHNICAL ATTACHMENTS**

(Note: Click on heading to navigate directly to each section of the Technical Attachments)

A. Traffic Count Data

# A. Traffic Count Data

#### Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : 2230 Spencerville Road

10:30 AM to 10:45 AM 10:45 AM to 11:00 AM Analysis Period: STUDY\_PERIOD

06:30 AM to 09:30 AM

Intersection Peak Hour (all vehicles): 07:15 AM to 08:15 AM
System Peak Hour (all vehicles): 07:15 AM to 08:15 AM

SBR SBT

Volumes Displayed as: 3. User-Defined User-Defined Peak Hour: 06:45 AM to 07:45 AM

> SBU SBL

0.63 n/a

VEHICLE PEAK HOUR VOLS AND PHF: User-Defined (06:45 AM-07:45 AM)

n/a → ←

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	Data Source:	Gorov	e/Slade	Associa	tes, Inc.																
	Intersection:	1.	Site Dr	iveway	/ & Spe	ncerville	e Road														
	Direction:		Sc	outhbou	ınd			W	estbou	nd			N	orthbou	ınd			Е	astbour	nd	
ALL	Roadway:		Sit	e Drive	way			Spend	cerville	Road								Spen	cerville	Road	
VEHICLES	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM t	o 06:45 AM	0	0	0	0	0	0	0	181	1	0	0	0	0	0	0	0	1	146	0	0
06:45 AM t	o 07:00 AM	0	1	0	0	0	0	0	196	5	0	0	0	0	0	0	0	4	148	0	0
07:00 AM t	o 07:15 AM	0	0	0	4	0	0	0	198	1	0	0	0	0	0	0	0	3	139	0	0
07:15 AM t	o 07:30 AM	0	2	0	5	0	0	0	238	0	0	0	0	0	0	0	0	1	176	0	0
07:30 AM t	o 07:45 AM	0	2	0	0	0	0	0	262	0	0	0	0	0	0	0	0	0	187	0	0
07:45 AM t	o 08:00 AM	0	0	0	0	0	0	0	205	0	0	0	0	0	0	0	0	0	175	0	0
08:00 AM t	o 08:15 AM	0	0	0	0	0	0	0	223	0	0	0	0	0	0	0	0	0	193	0	0
08:15 AM t	o 08:30 AM	0	0	0	0	0	0	0	184	0	0	0	0	0	0	0	0	0	168	0	0
08:30 AM t	o 08:45 AM	0	0	0	0	0	0	0	156	0	0	0	0	0	0	0	0	0	159	0	0
08:45 AM t	o 09:00 AM	0	0	0	0	0	0	0	179	0	0	0	0	0	0	0	0	0	143	0	0
09:00 AM t	o 09:15 AM	0	0	0	0	0	0	0	144	0	0	0	0	0	0	0	0	0	138	0	0
09:15 AM t	o 09:30 AM	0	0	0	0	0	0	0	133	0	0	0	0	0	0	0	0	0	136	0	0

08:00 AM to 08:15 AM	0	0	0	0	0	0	0	223	0	0	0	0	0	0	0	0	0	193	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	184	0	0	0	0	0	0	0	0	0	168	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	0	156	0	0	0	0	0	0	0	0	0	159	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	0	179	0	0	0	0	0	0	0	0	0	143	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	0	144	0	0	0	0	0	0	0	0	0	138	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	0	133	0	0	0	0	0	0	0	0	0	136	0
09:30 AM to 09:45 AM																			
09:45 AM to 10:00 AM																			
10:00 AM to 10:15 AM																			
10:15 AM to 10:30 AM																			

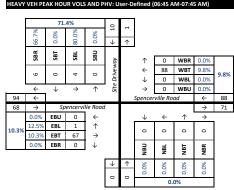
11:00 AM to	11:15 AM																				
11:15 AM to	11:30 AM																				
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06:45 AM to	07:45 AM	0	5	0	9	U	0	0	894	6	U	0	0	0	0	U	0	8	650	0	U
Peak Hour	Overall	U	Left	Thru	Right	SB	U	Left	Thru	Right	WB	U	Left	Thru	Right	NB	U	Left	Thru	Right	EB
Factor (PHF)	0.87	n/a	0.63	n/a	0.45	0.50	n/a	n/a	0.85	0.30	0.86	n/a	n/a	n/a	n/a	n/a	n/a	0.50	0.87	n/a	0.88

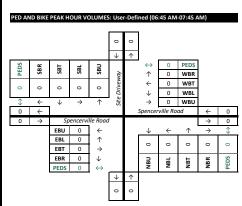
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06:45 AM	to 07:00 AM	0	0	0	0	0	0	25	0	0	0	0	0	0	0	20	0
07:00 AM	to 07:15 AM	0	0	0	3	0	0	21	0	0	0	0	0	0	1	15	0
07:15 AM	to 07:30 AM	0	2	0	3	0	0	23	0	0	0	0	0	0	0	20	0
07:30 AM	to 07:45 AM	0	2	0	0	0	0	19	0	0	0	0	0	0	0	12	0
07:45 AM	to 08:00 AM	0	0	0	0	0	0	14	0	0	0	0	0	0	0	15	0
08:00 AM	to 08:15 AM	0	0	0	0	0	0	15	0	0	0	0	0	0	0	8	0
08:15 AM	to 08:30 AM	0	0	0	0	0	0	8	0	0	0	0	0	0	0	15	0
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08:45 AM	to 09:00 AM	0	0	0	0	0	0	14	0	0	0	0	0	0	0	11	0
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11:00 AM to 11:15 AN	1																				
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07:30 AM	to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:45 AM	to 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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08:15 AM	to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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DATA COLLECTION NOTES:

#### Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name: 2230 Spencerville Road

Project #: 3274-001 Location Montgomery County, MD Data Source: Gorove/Slade Associates, Inc. Analysis Period: STUDY\_PERIOD

04:00 PM to 07:00 PM Date of Counts: Tuesday, May 23, 2023

Weather: Partly Cloudy

Volumes Displayed as: 3. User-Defined

Intersection Peak Hour (all vehicles): 04:00 PM to 05:00 PM

System Peak Hour (all vehicles): 04:00 PM to 05:00 PM

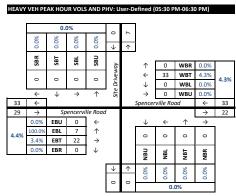
CS:20 PM

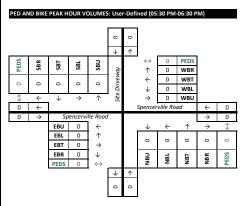
CS:20 PM

CS:20 PM User-Defined Peak Hour: 05:30 PM to 06:30 PM

Intersection: 1. Site Driveway/ & Spencerville Road Direction: Southbound Westbound Eastbound ALL VEHICLES Spencerville Road Thru Right Peds Thru Right Peds Left Thru Right Left Thru Right Peds 04:00 PM to 04:15 PM to 04:30 PM 04:15 PM 04:30 PM to 04:45 PM 04:45 PM to 05:00 PM 05:00 PM to 05:15 PM 05:15 PM to 05:30 PM 05:30 PM to 05:45 PM 05:45 PM to 06:00 PM 06:00 PM to 06:15 PM 06:15 PM to 06:30 PM 06:30 PM to 06:45 PM 06:45 PM to 07:00 PM Ω 07:00 PM to 07:15 PM 07:15 PM to 07:30 PM 07:30 PM to 07:45 PM 07:45 PM to 08:00 PM 08:00 PM to 08:15 PM 08:15 PM to 08:30 PM 08:30 PM to 08:45 PM 08:45 PM to 09:00 PM USER-DEFINED PEAK HE 0 3 0 6 0 0 0 0 0 7 652 0 05:30 PM to 06:30 PM 0 0 770 1 WB 0.86 Peak Hour Thru Right n/a 0.50 SB Thru Right 0.86 0.25 Left Thru NB Left Thru 0.58 0.95 ЕВ Factor (PHF) 0.90 n/a n/a n/a n/a n/a Direction Southbound Westbound Eastbound VEHICLES Site Driveway Spencerville Road (FHWA 4+) Movement Thru Right Right Right 04:00 PM to 04:15 PM 04:15 PM to 04:30 PM 04:30 PM to 04:45 PM 04:45 PM to 05:00 PM 05:00 PM to 05:15 PM O 05:15 PM to 05:30 PM 05:30 PM to 05:45 PM 05:45 PM to 06:00 PM 06:00 PM to 06:15 PM 06:15 PM to 06:30 PM 06:30 PM to 06:45 PM Ω Ω Ω 06:45 PM to 07:00 PM 07:00 PM to 07:15 PM 07:15 PM to 07:30 PM 07:30 PM to 07:45 PM 07:45 PM to 08:00 PM 08:00 PM to 08:15 PM 08:15 PM to 08:30 PM 08:30 PM to 08:45 PM 08:45 PM to 09:00 PM USER-DEFINED PEAK HE 0 0 33 0 0.0% 0.0% 4.3% 0.0% 4.3% 0 0 0 0 0 0.0% 0.0% 0.0% 0.0% **0.0%** 0 0 7 22 0 05:30 PM to 06:30 PM Heavy Vehicle % (PHV 0.0% 0.0% 0.0% 0.0% 100.0% 3.4% 0.0% 4.4% INT. PEAK HR (HV ONLY) 0 0 0 39 0 0.0% 5.2% 0.0% 0 0 05:15 PM to 06:15 PM 7 25 0 0 0 0 100.0% 3.5% 0.0% Heavy Vehicle % (PHV Direction Southbound Westbound Northbound Eastbound Spencerville Road BICYCLES Right 04:00 PM to 04:15 PM 04:15 PM to 04:30 PM 04:30 PM to 04:45 PM 04:45 PM to 05:00 PM 05:00 PM to 05:15 PM 05:15 PM to 05:30 PM 05:30 PM to 05:45 PM 05:45 PM to 06:00 PM 06:00 PM to 06:15 PM 06:15 PM to 06:30 PM 06:30 PM to 06:45 PM Λ n n Λ n n Λ 06:45 PM to 07:00 PM 07:00 PM to 07:15 PM 07:15 PM to 07:30 PM 07:30 PM to 07:45 PM 07:45 PM to 08:00 PM 08:00 PM to 08:15 PM 08:15 PM to 08:30 PM 08:45 PM to 09:00 PM USER-DEFINED PEAK HR

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04:00 PM to 05:00 PM DATA COLLECTION NOTES:

INT. PEAK HR (BIKES)