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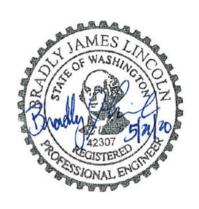


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## Front Porch Cottages Traffic Impact Analysis

Jurisdiction: City of Mukilteo

**May 2020** 



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#### 1. DEVELOPMENT IDENTIFICATION

Gibson Traffic Consultants, Inc. (GTC) has been retained to analyze the traffic impacts of the Front Porch Cottages development. The Front Porch Cottages development is proposing to construct 14 cottages on a single parcel. There is one existing single-family detached unit on the site that will be removed with the development. The site is located along the west side of 44<sup>th</sup> Avenue W, south of 78<sup>th</sup> Street SW. A site vicinity map is included in Figure 1.



Figure 1: Site Vicinity Map

Brad Lincoln, responsible for this report and traffic analysis, is a licensed professional engineer (Civil) in the State of Washington and member of the Washington State section of ITE.

#### 2. METHODOLOGY

Trip generation calculations for the Front Porch Cottages development have been performed based on data contained in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 10<sup>th</sup> Edition (2017). City of Mukilteo staff has identified that ITE Land Use Code 220, Multifamily Housing (Low-Rise), will be applicable for the proposed uses since the residential units will not be on individual lots.

The City of Mukilteo typically requires arterial-arterial intersections impacted with 10 or more PM peak-hour trips to be analyzed. Additionally, the City of Mukilteo has interlocal agreements with Snohomish County and WSDOT for the purposes of traffic mitigation fees and impacts.

#### 3. TRIP GENERATION

The trip generation calculations for the Front Porch Cottages development are based on average trip generation rates for the following ITE Land Use Codes (LUC):

- LUC 220, Multifamily Housing (Low-Rise) 14 Units
- LUC 210, Single-Family Detached Housing 1 Unit being removed

The trip generation summary with the proposed Front Porch Cottages development and the removal of the existing single-family detached unit is summarized in Table 1.

Average AM Peak-Hour Trips **PM Peak-Hour Trips** Land Use Size **Daily Total** In Out In Out Total **Trips** Multifamily Housing (Low-Rise) 14 Units 5 102 1 5 (ITE LUC 220) Single-Family Detached Housing -9 0 -1 -1 Unit -1 -1 0 -1 (ITE LUC 210) 4 5 3 7 **TOTAL** 93 1 4

**Table 1: Trip Generation Summary** 

The Front Porch Cottages development is anticipated to generate 93 new daily trips with 5 new AM peak-hour trips and 7 new PM peak-hour trips after credit for the existing single-family detached unit. The trip generation calculations are included in the attachments.

#### 4. TRIP DISTRIBUTION AND IMPACTS

The Front Porch Cottages development will have access to 44<sup>th</sup> Avenue W. It is anticipated that the trips generated by the development will ultimately split approximately 20% to and from the north and 80% to and from the south at the site access. The 80% to and from the south will split again at 84<sup>th</sup> Street with less than 75% in each direction. There are not any intersections that will be impacted by 10 PM peak-hour trips generated by the Front Porch Cottages development. Intersection analysis should therefore not be required for the Front Porch Cottages development.

The City of Mukilteo and Snohomish County have an interlocal agreement that requires any Snohomish County Key Intersections impacted with 3 or more directional peak-hour trips to be identified. An impact of 3 directional PM peak-hour trips equates to approximately 75% of the trips generated by the Front Porch Cottages development. The nearest Snohomish County Key Intersection is along Mukilteo Speedway (SR-525) south of Harbour Pointe Boulevard. It is anticipated that less than 75% of the trips generated by the Front Porch Cottages development will travel to and from the south along Mukilteo Speedway (SR-525) south of Harbour Pointe Boulevard. Snohomish County Key Intersections and roadways are therefore not anticipated to be impacted with 3 or more directional peak-hour trips.

#### 5. SITE ACCESS

The Front Porch Cottages development is proposed to have one access to 44<sup>th</sup> Avenue W along the south side of the property. The posted speed limit along 44<sup>th</sup> Avenue W is 25 mph. There is approximately 250 feet of clear sight distance south to the all-way stop-controlled intersection with 80<sup>th</sup> Street SW. There is also over 400 feet of clear sight distance to the north to the intersection with 78<sup>th</sup> Street SW. These sight distances should be adequate for an operating speed of at least 35 mph, 10 mph higher than the posted speed limit, based on data published in the American Association and State Transportation and Highway Officials' (AASHTO) *A Policy on Geometric Design of Highways and Streets*. The available sight distance should therefore be adequate for the posted 25 mph speed limit.

#### 6. TRANSPORTATION IMPACT FEES

The Washington Growth Management Act and Revised Code of Washington 82.02.050(2) authorize local jurisdictions to establish proportionate share transportation impact fees in order to fund capital facilities, such as roads and intersections. Mukilteo Municipal Code (MMC) 3.107 applies that authority to developments in order to fund road improvements that would accommodate development.

The City of Mukilteo also has interlocal agreements with Snohomish County and WSDOT for transportation impact fees. These transportation impact fees are based on the area wide traffic mitigation fee or actual impacts to improvement projects.

#### 6.1 City of Mukilteo

The City of Mukilteo assess transportation impact fees are \$1,875 per PM peak-hour trip. The Front Porch Cottages development is anticipated to generate 7 new PM peak-hour trips and the City of Mukilteo transportation impact fees will therefore be \$13,125.00.

#### **6.2** Snohomish County

Snohomish County intersections and roadways are anticipated to be impacted with less than 3 directional peak-hour trips generated by the Front Port Cottages development. Snohomish County transportation impact fees should therefore not be required for the Front Porch Cottages development based on Section Three (3) of the Snohomish County Traffic Worksheet and Traffic Study Requirements For Development in the City of Mukilteo.

#### **6.3 Washington State Department of Transportation**

WSDOT mitigation fees are based on impacts to the intersection of SR-525 at 88<sup>th</sup> Street SW, as identified in the City of Mukilteo *Transportation Concurrency Evaluation and Determination of Transportation Impact Fees* worksheet. It is anticipated that less than 75% of the trips generated by the Front Porch Cottages development will impact this intersection. This equates to less than 6 PM peak-hour trips. WSDOT transportation impact fees should therefore not be required for the Front Porch Cottages development.

#### 7. CONCLUSIONS

The Front Porch Cottages development is proposing to construct 14 cottage units on a single parcel. There is 1 existing single-family detached unit on-site that will be removed with the development. The development is anticipated to result in the generation of 93 new daily trips with 5 new AM peak-hour trips and 7 new PM peak-hour trips. The Front Porch Cottages development is not anticipated to result in significant impacts to City of Mukilteo, Snohomish County or WSDOT intersections or roadways. The transportation impacts fees to the City of Mukilteo should be \$13,125.00 for the Front Porch Cottages development.

# **Trip Generation Calculations**

Front Porch Cottages GTC #20-131

Trip Generation for: Weekday (a.k.a.): Average Weekday Daily Trips (AWDT)

										N	T EXTER	<b>NET EXTERNAL TRIPS BY TYPE</b>	S BY T	YPE				
		ı						Z	IN BOTH DIRECTIONS	RECTIO	SN		٥	<b>DIRECTIONAL ASSIGNMENTS</b>	ONAL	ASSIGN	MENTS	
				Gross	Gross Trips		TOTAL	PAS	PASS-BY	DIVE	DIVERTED LINK	NEW	PASS-BY		DIVERTED LINK	TED K	NEW	>
LAND USES	VARIABLE	ITE LU code	Trip Rate	% <b>N</b>	% OUT		In+Out In+Out (Total) (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out (Total)	In+Out (Total)	пI	Out	In Out	Out	드	Out
Multifamily Housing (Low-Rise)	14 units	220	7.32	%09	%09	102	102	%0	0	%0	0	102	0	0	0	0	51	51
Single-Family Detached Housing	-1 units	210	9.44	%09	%09	6-	6-	%0	0	%0	0	6-	0	0	0	0	-2	4-
Total						93	93		0		0	93	0	0	0	0	46	47

Front Porch Cottages GTC #20-131

Trip Generation for: Weekday, Peak Hour of Adjacent Street Traffic, One Hour between 7 and 9 AM (a.k.a.): Weekday AM Peak Hour

										¥	T EXTER	<b>NET EXTERNAL TRIPS BY TYPE</b>	S BY T	YPE				
								N	IN BOTH DIRECTIONS	RECTIO	NS		٥	<b>DIRECTIONAL ASSIGNMENTS</b>	<b>JANC</b>	ASSIGN	IMENTS	
				Gross	Gross Trips		TOTAL	PASS-BY	S-BY	DIVE	DIVERTED LINK	NEW	PASS-BY		DIVERTED LINK	TED K	NEW	>
LAND USES	VARIABLE	ITE LU code	Trip Rate	% <b>N</b>	% out	% In+Out In+Out OUT (Total) (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out In+Out (Total)	In+Out (Total)	ln	Out In Out	ㅁ	Out	u	Out
Multifamily Housing (Low-Rise)	14 units	220	0.46	23%	%22	9	9	%0	0	%0	0	9	0	0	0	0	1	2
Single-Family Detached Housing	-1 units	210	210 0.74	25%	75%	-1	-1	%0	0	%0	0	-1	0	0	0	0	0	-1
Total						2	2		0		0	2	0	0	0	0	1	4

Front Porch Cottages GTC #20-131

Trip Generation for: Weekday, Peak Hour of Adjacent Street Traffic, One Hour between 4 and 6 PM (a.k.a.): Weekday PM Peak Hour

										N	T EXTER	<b>NET EXTERNAL TRIPS BY TYPE</b>	S BY T	YPE				
								N	IN BOTH DIRECTIONS	RECTIO	NS		_	IRECTI	ONAL	ASSIG	<b>DIRECTIONAL ASSIGNMENTS</b>	<b>~</b>
				Gross	Gross Trips		TOTAL	PASS-BY	S-BY	DIVE	DIVERTED LINK	NEW	PASS-BY		DIVERTED LINK	TED K	NEW	>
LAND USES	VARIABLE	ITE LU code	Trip Rate	% NI	% OUT	% In+Out In+Out OUT (Total) (Total)	In+Out (Total)	% of Ext. Trips	In+Out (Total)	% of Ext. Trips	In+Out In+Out (Total) (Total)	In+Out (Total)	ln	Out In Out	In		띡	Out
Multifamily Housing (Low-Rise)	14 units	220	0.56	%89	32%	8	8	%0	0	%0	0	8	0	0	0	0	2	3
Single-Family Detached Housing	-1 units	210	0.99	%89	37%	-1	-1	%0	0	%0	0	-1	0	0	0	0	-1	0
Total						7	7		0		0	7	0	0	0	0	4	3