



**Traffic Solutions**  
William J. Bray, P.E.  
235 Bancroft Street  
Portland, ME 04102  
(207) 774-3603  
(207) 400-6890 mobile  
[trafficsolutions@maine.rr.com](mailto:trafficsolutions@maine.rr.com)

January 16, 2016

Stephen R. Bushey, P.E., Associate  
Stantec Consulting Engineers  
778 Main Street, Suite 8  
South Portland, Maine 04106

RE: Second Tee Business Park – Existing Traffic Generation

Dear Steve:

Pursuant to your request, manual turning movement counts were conducted at the entrance drive(s) to the Second Tee Business Park on Wednesday, January 6, 2016. All vehicle traffic entering and exiting the three business park entrances (Walsh Drive, Caddie Lane and Driveway at 1055 Riverside Street) were recorded in 15-minute intervals between the hours of 7:00 to 9:00 AM and, again, between 3:00 and 6:00 PM. The data was summarized and a peak hour of traffic determined for both the morning and afternoon peak time periods. Copies of the traffic data are attached for reference. Table 1, as follows, presents the results of the traffic survey:

**Table 1**  
**2016 Peak Hour Traffic Generation**  
**Second Tee Business Park**

Time Period	Walsh Drive		XXXX Driveway		Caddie Lane		Total Trips		
	Entry Trips	Exit Trips	Entry Trips	Exit Trips	Entry Trips	Exit Trips	Entry Trips	Exit Trips	Total Trips
AM Peak Hour	23	27	16	1	6	7	45	35	80
PM Peak Hour	12	37	3	10	6	13	21	60	81

As presented in Table 1, the Second Tee Business Park generates a total of 80 vehicle trips during the morning peak hour and an additional 81 trips during the PM peak hour.

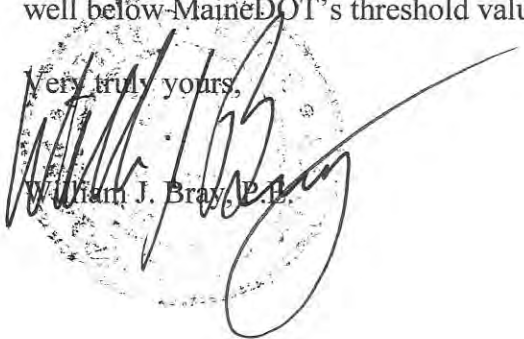
Please recall that vehicle trips generated by existing buildings #12 and #13, the former Douglass Brothers complex (a total of approximately 57,920 square feet of building area), are exempt from consideration in determining the volume of trips subject to review under the Maine Department

of Transportation's Traffic Movement Permit regulations. The prior October 10, 2005 letter from my office (copy attached) estimated that the prior Douglass Brothers site generated a total of 42 trips in the morning peak hour and an additional 43 trips during the afternoon peak hour. Accordingly, current development within the Second Tee Business Park generates a total of **38** "new" vehicle trips [80 trips - 42 trips = 38 trips AM Peak Hour and 81 trips - 43 trips = 38 trips PM Peak Hour] during both the AM and PM peak hour time periods.

The Maine Department of Transportation's Chapter 305 Rules and Regulations require any development project whose peak hour trip generation exceeds 100 passenger car equivalent trips for any peak hour time period to file for and receive a Traffic Movement Permit for the proposed project.

In summary, the level of present peak hour trip generation of the Second Tee Business Park is well below MaineDOT's threshold value of 100 vehicle trips per hour.

Very truly yours,

  
William J. Bray, P.E.

# Turn by Turn Traffic Data Services

P.O. Box 1203  
Westbrook, Maine 04098

Portland: Drive #2 & Riverside  
Wednesday January 6, 2016  
Clear & Cold  
Count By: Patrick

File Name : Portland Diveway #2 and Riverside AM 010616  
Site Code : 00000022  
Start Date : 1/6/2016  
Page No : 5

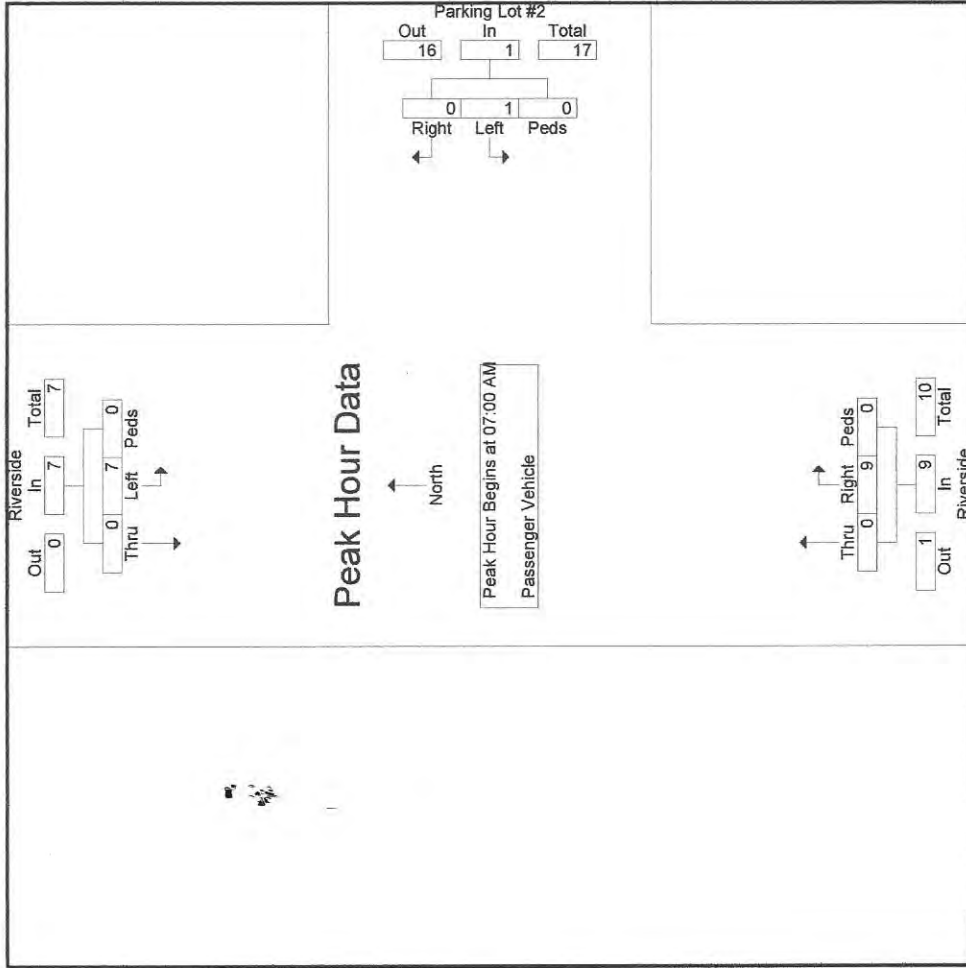
Start Time	Riverside From North			Parking Lot #2 From East			Riverside From South			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
Peak Hour Analysis From 07:00 AM to 09:00 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	3	0	0	0	0	0	0	0	0
07:15 AM	0	2	0	0	0	0	0	0	0	0
07:30 AM	0	1	0	0	1	0	4	0	0	3
07:45 AM	0	1	0	0	0	0	2	0	0	2
Total Volume	0	7	0	0	1	0	9	0	0	9
% App. Total	0	100	0	0	100	0	100	0	0	100
PHF	.000	.583	.000	.000	.250	.000	.563	.000	.000	.563
					.250		.250			.708

# Turn by Turn Traffic Data Services

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Clear & Cold  
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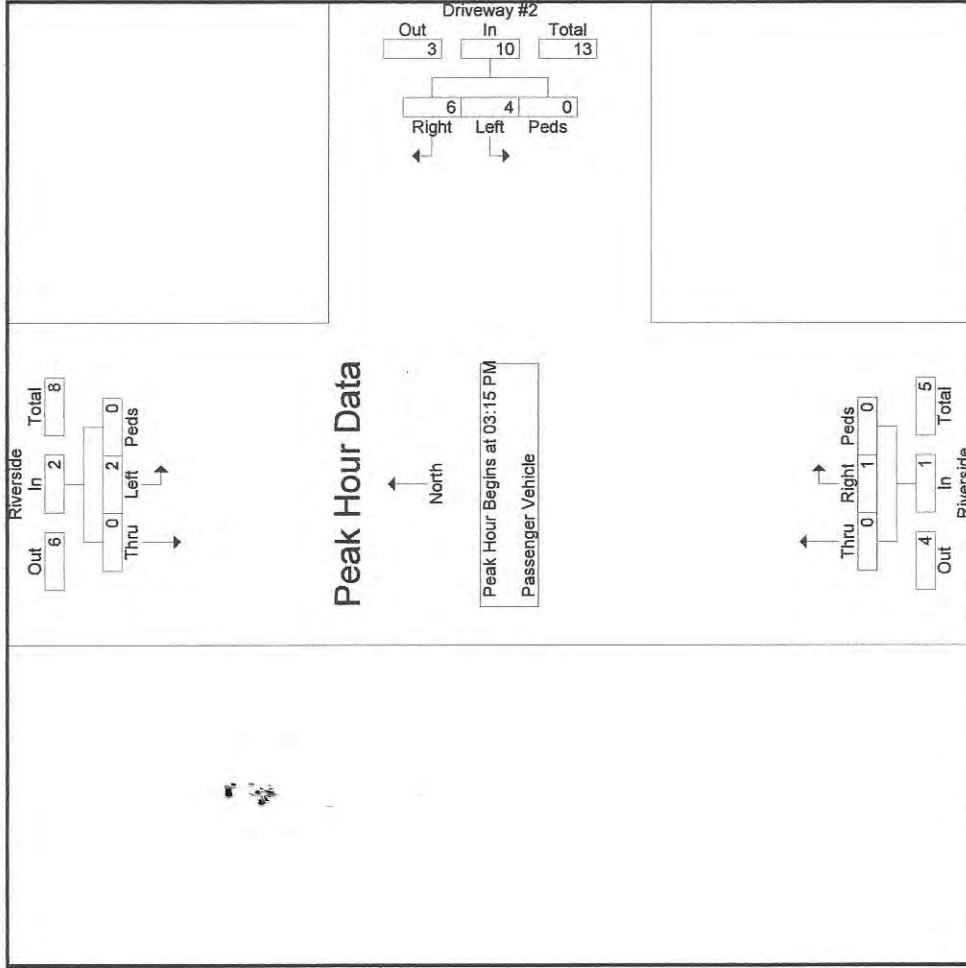


# Turn by Turn Traffic Data Services

P.O. Box 1203  
Westbrook, Maine 04098

Portland: Driveway #2 & Riverside  
Wednesday January 6, 2016  
Clear & Cold  
Count by: Patrick Frie

File Name : Portland Driveway #2 and Riverside PM 010616  
Site Code : 00000077  
Start Date : 1/6/2016  
Page No : 6









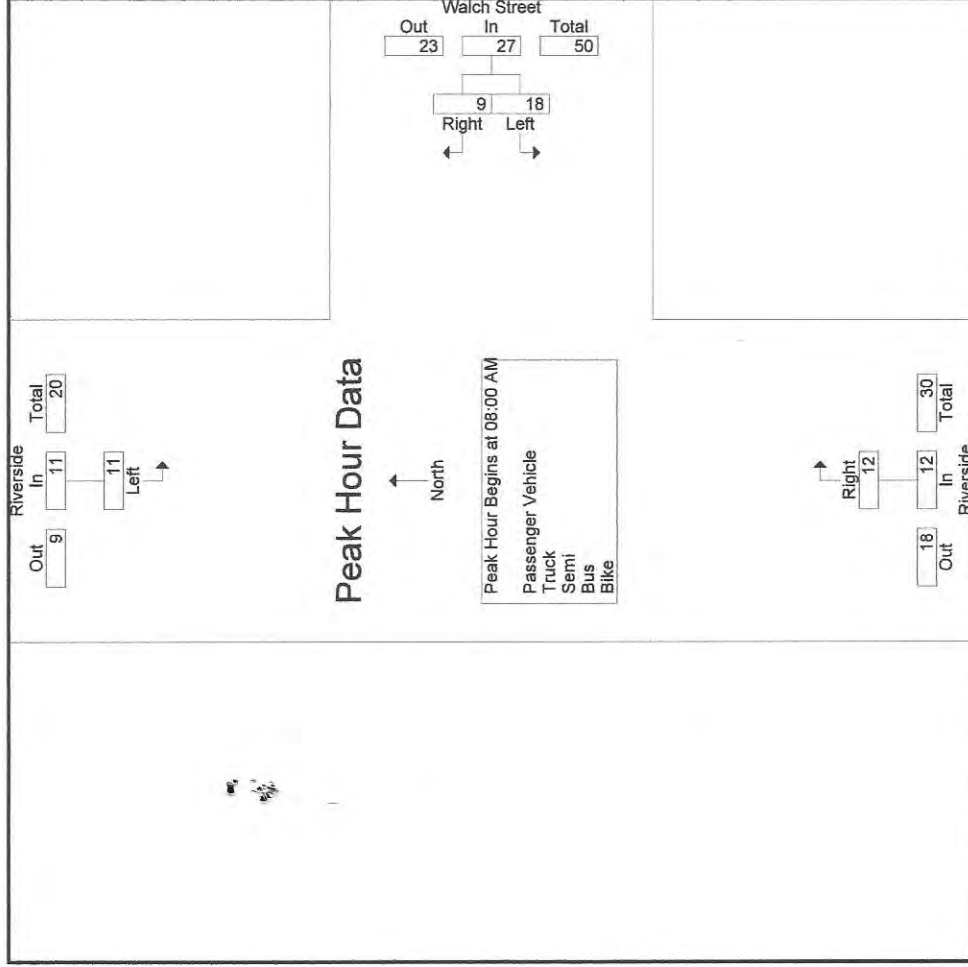


# Turn by Turn Traffic Data Services

P.O. Box 1203  
Westbrook, Maine 04098

Portland, Walch & Riverside  
Wednesday January 6, 2016  
Clear & Cold  
Count by: Dawn-Marie Fahey

File Name : Portland Walch & Riverside AM Part2 010616  
Site Code : 111111116  
Start Date : 1/6/2016  
Page No : 6

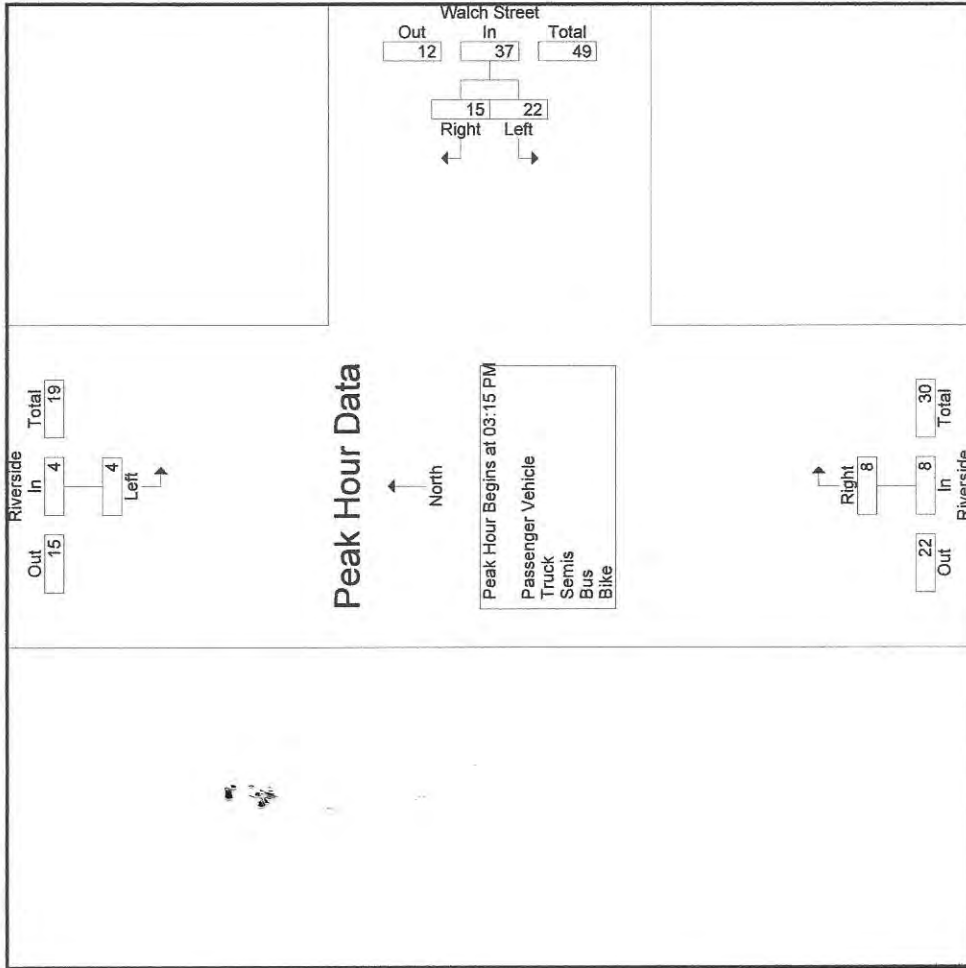


# Turn by Turn Traffic Data Services

P.O. Box 1203  
Westbrook, Maine 04098

Portland: Walch & Riverside  
Wednesday January 6, 2016  
Clear & Cold  
Count By: Dawn-Marie Fahey

File Name : Portland Walch & Riverside PM Part2 010616  
Site Code : 11111118  
Start Date : 1/6/2016  
Page No : 6



# Turn by Turn Traffic Data Services

P.O. Box 1203  
Westbrook, Maine 04098

Portland, Walch & Riverside  
Wednesday January 6, 2016  
Clear & Cold  
Count by: Dawn-Marie Fahey

File Name : Portland Walch & Riverside AM Part2 010616  
Site Code : 111111116  
Start Date : 1/6/2016  
Page No : 5

Start Time	Riverside From North		App. Total	Walch Street From East		Riverside From South		Int. Total
	Left	Right		Left	Right	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1								
Peak Hour for Entire Intersection Begins at 08:00 AM								
08:00 AM	1	0	1	1	5	5	7	
08:15 AM	2	5	7	6	3	9	16	
08:30 AM	5	2	7	7	3	10	16	
08:45 AM	3	2	5	4	3	7	12	
Total Volume	11	9	20	18	12	30	50	
% App. Total	100	33.3	66.7	66.7	100	100	100	
PHF	.550	.450	.550	.643	.614	.600	.781	



# Turn by Turn Traffic Data Services

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Westbrook, Maine 04098

Portland: Walch & Riverside  
Wednesday January 6, 2016  
Clear & Cold  
Count By: Dawn-Marie Fahey

File Name : Portland Walch & Riverside PM Part2 010616  
Site Code : 11111118  
Start Date : 1/6/2016  
Page No : 5

Start Time	Riverside From North		Walch Street From East		Riverside From South		Int. Total
	Left	App. Total	Right	Left	Right	App. Total	
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1							
Peak Hour for Entire Intersection Begins at 03:15 PM							
03:15 PM	0	0	0	5	4	4	9
03:30 PM	1	1	6	8	2	2	17
03:45 PM	1	1	4	3	2	2	10
04:00 PM	2	2	5	6	0	0	13
Total Volume	4	4	15	22	8	8	49
% App. Total	100	59.5	40.5	59.5	100	500	.721
PHF	.500	.500	.625	.688	.500	.500	.721

# William J. Bray, P.E.

235 Bancroft Street  
Portland, Maine 04102  
Phone (207) 774-3603  
[wbray@yorkmaine.org](mailto:wbray@yorkmaine.org)

October 10, 2005

Mr. Thomas Errico, P.E.  
Wilbur Smith and Associates  
59 Middle Street  
Portland, Maine 04101

RE: 1039 Riverside Street, LLC – Proposed Expansion Traffic Impact

Dear Tom:

1039 Riverside Street, LLC, owners of the Second Tee Condominium Business Park, is proposing development activities on the present business park lot and an adjoining 2.06 acre lot. (Refer to attached copy of the latest site plan for the project.) The total square footage represented for all structures both existing and proposed, as depicted on the enclosed site plan, is approximately 197,722 square feet. The total square foot area of buildings occupying the present site is 122,857 square feet and the remaining 74,865 is proposed for development. As noted in the following table, existing site buildings #12 and #13 were constructed pre-1997 and were formerly occupied by Douglass Brothers a manufacturer of metal pipe, etc. The total building area of these structures, as noted in the table, is 57,920 square feet. The following text presents an estimate of “new” site trips generated by the proposed site development project and an estimate of total site trips, both existing and proposed, that are subject to review under the Maine Department of Transportation’s Traffic Movement Permit process.

**Site Development**, the following table references by number, each of the existing or proposed structures depicted on the plan, the building size in square feet and the development status of the building:

<u>Building Number</u>	<u>Square Foot Area</u>	<u>Development Status</u>	<u>Special Remarks</u>
1	7,500sf	proposed	none
2	7,500sf	proposed	none
3	7,500sf	proposed	none
4	10,000sf	proposed	none
5	25,137sf	existing	constructed post-1997
7	30,000sf	existing	constructed post-1997
8	9,800sf	existing	constructed post-1997
9	6,000sf	proposed	none
10	4,800sf	proposed	none
11	8,885sf	proposed	none



12	53,120sf	existing	constructed pre-1997 (Douglass Brothers)
13	4,800sf	existing	constructed pre-1997 (Douglass Brothers)
14A/14B	13,900sf	proposed	none
15	8,780sf	proposed	none

<b>TOTAL Existing/Approved Building Area Pre-1997</b>	<b>= 57,920 sf</b>
<b>TOTAL Existing/Approved Building Area Post-1997</b>	<b>= 64,937 sf</b>
<b>TOTAL Proposed Building Area</b>	<b>= 74,865 sf</b>
<b>TOTAL SITE BUILDING AREA</b>	<b>= 197,722 sf</b>

**Existing Site - Trip Generation,** Existing site entrance traffic data was gathered on August 8, 2005 during both the AM and PM peak commuter hours for the purpose of determining an appropriate trip rate for the proposed site expansion project. (A copy of the collected data for both peak periods is attached.) All vehicular traffic entering/exiting the site driveway (Walsh Drive) was recorded in 15-minute intervals between the hours of 7:00 to 9:00AM and again between 3:00 to 6:00PM. A separate peak hour of traffic was selected for each time period from a summary of the data. The morning peak hour occurred between 7:30 and 8:30 AM when a total of **73** vehicles were recorded (46 entering and 27 exiting). The afternoon peak hour was determined to fall between 4:30 and 5:30PM when a total of **75** vehicles were recorded (27 entering site and 48 trips leaving site). Accordingly, the vehicle trip rate per square feet of building area is estimated at 0.59 trips ( $73/122,857/1000 = 0.59$ ) during the AM peak hour and 0.61 trips ( $75/122,857/1000 = 0.61$ ) in the PM peak hour.

**Proposed Site Expansion Project - Trip Generation,** 1039 Riverside Street, LLC is proposing to expand the existing Second Tee Condominium Business Park site by an additional 74,865 square feet of building area with the construction of nine new buildings. The proposed building space will be marketed as general office/warehouse space, which is consistent with the present site use. The proposed site can, therefore, be expected to generate a total of **44** ( $74,865/1000 \times 0.59 = 44$  trips) additional site trips during the AM peak hour and **46** trips ( $74,865/1000 \times 0.61 = 46$  trips) in the PM peak hour.

**Total Site - Trip Generation,** The Second Tee Condominium Business Park, with full occupation of the proposed development expansion project, can be expected to generate a total of **117** site trips in the morning peak hour and **121** trips during the evening peak hour.

**Trip Generation - Former Douglass Brothers Site,** Existing site buildings #12 and #13, which were constructed pre-1997, were formerly occupied by Douglass Brothers a manufacturer of metal pipe, etc. Trip generation of the Douglass Brothers site was estimated based upon trip generation rates presented in the seventh edition of the Institute of Transportation Engineer's (ITE) "**TRIP GENERATION**" publication. The ITE manual provides the following peak hour trip rates for Land Use Code #140 - Manufacturing:



- **AM Peak Hour = 0.73**
- **PM Peak Hour = 0.74**

Based upon these trip rates the previous Douglass Brothers site generated a total of **42** trips in the morning peak hour and **43** trips in the evening peak hour.

**Total "Net" Site Trips - Subject to MDOT Traffic Permit Requirements.** The January 2000 MDOT Chapter 305 Rules and Regulations pertaining to Traffic Movement Permits states in Section 4E that all site trips generated after July 1, 1997 are subject to review and determination as to the total number of site trips generated by the site. The regulations further state that any development whose peak hour trip generation exceeds 100 passenger car equivalent trips is required to file for and obtain a MDOT issued Traffic Movement Permit. Based upon MDOT's regulations, the Second Tee Condominium Business Park site will generate a total of **75** ( $117 - 42 = 75$  trips) peak hour trips in the AM peak hour and **78** ( $121 - 43 = 78$  trips) during the PM peak hour that are subject to review under MDOT's Chapter 305.

It would be most helpful if you would review the findings presented above and provide your direction as to what level of further traffic review, if any, is required for the proposed expansion project.

You can reach me at 363-1011 with questions and/or additional information needs. Your prompt response would be appreciated.

Very truly yours,

William J. Bray, P.E.

C.c.: Katherine Earley, P.E.  
Stephen Bushey, P.E.