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May 17, 2017

Ms. Jaclyn Hartman  
Chief Financial Officer  
Maryland Transportation Authority  
Division of Finance  
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Subject: Traffic and Revenue Forecast Update, Legacy Facilities

Dear Ms. Hartman:

As requested via email dated May 1, 2017, we are pleased to submit this “high-level” update of systemwide traffic and revenue projections for the seven Legacy bridges, tunnels and highways operated by the Maryland Transportation Authority. It is our understanding that these updated forecasts may be provided to the Maryland legislature and could be the basis for annual surveillance reviews with rating agencies.

This update has been based on actual FY 2017 in-lane transaction and revenue data contained within the Traffic Volume and Toll Income (TVI) reports from July 2016 through March 2017 provided by the Authority. We have used this data to adjust the FY 2017 forecasts contained in our December 2016 report and with this “re-benchmarking”, adjusted the FY 2017 through FY 2026 forecasts using the year-over-year growth rates developed during the more in-depth facility-by-facility analyses conducted in developing the forecasts in the December report. As requested in your email, these “high-level” forecasts are being provided on a systemwide basis and not individually for each of the seven Legacy facilities. Also, in addition to the toll revenue forecasts, we have developed forecasts of total revenue, by “re-benchmarking” our “Other Revenue” forecast from our December 2016 study based on FY 2017 Other Revenue experience through March 2017.

The product of this work effort is presented in the three tables. These include **Table 1**, Historical and Forecasted Transaction and In-Lane Toll Revenue, **Table 2**, In-Lane and Other Toll Revenue Forecasts, and **Table 3**, Comparison of our December 2016 forecasts versus these updated Forecasts of Total Revenue.

Based on nine months of actual data, FY 2017 systemwide transactions are now forecasted at 121.43 million, an increase of 0.1 percent or 167,800 transactions over our December forecast. Annual transactions in each of the subsequent years have also been estimated to increase about 0.1 percent over our prior forecast. FY 2017 in-lane toll revenue has been forecasted at \$599.67 million, an increase of around 1.7 percent or \$10.0 million over the forecast in our December report.



**Table 1**  
**Historical and Forecasted Transactions and In-Lane Toll Revenue**  
**Total Legacy System**

Fiscal Year	Transactions (Millions)	Percent Growth	In-Lane	
			Toll Revenue (\$ Millions)	Percent Growth
2006	118.65		\$ 278.80	
2007	120.10	1.2	282.29	1.3
2008	119.91	(0.2)	279.33	(1.0)
2009	116.45	(2.9)	276.63	(1.0)
2010 <sup>(1)</sup>	116.33	(0.1)	308.47	11.5
2011	121.47	4.4	311.93	1.1
2012 <sup>(1)</sup>	118.09	(2.8)	372.98	19.6
2013 <sup>(1)</sup>	113.61	(3.8)	411.63	10.4
2014 <sup>(1)</sup>	112.53	(1.0)	574.08	39.5
2015	115.67	2.8	594.58	3.6
2016 <sup>(2)</sup>	119.03	2.9	581.41	(2.2)
2017 <sup>(3)</sup>	121.43	2.0	599.67	3.1
2018	122.99	1.3	605.68	1.0
2019	123.63	0.5	608.82	0.5
2020	124.52	0.7	613.24	0.7
2021	124.82	0.2	614.62	0.2
2022	126.19	1.1	620.37	0.9
2023	127.04	0.7	624.37	0.6
2024	128.11	0.8	629.54	0.8
2025	128.49	0.3	631.30	0.3
2026	129.23	0.6	634.80	0.6

<sup>(1)</sup> Year of toll increase.  
<sup>(2)</sup> Year of toll decrease.  
<sup>(3)</sup> Includes actual data through March 2017.  
 - Represents actual data.

The higher percent increase in toll revenue is the combined result of a higher growth in commercial vehicle transactions than in the prior forecast and slight differences in the method of payment (MOP) distributions between those assumed in mid-2016 when the forecasts in the December report were prepared and those that have occurred year-to-date. FY 2017 transaction growth year-to-date shows an average increase of 1.9 percent over the prior year, with passenger cars increasing by 1.5 percent and commercial vehicles increasing by 7.3 percent. This return to normal growth is a function of the low and stable motor fuel prices as well as the impacts of the FY 2016 toll reductions having been fully incorporated into transaction totals. In addition to the large commercial vehicle growth, the percent split among the various methods of payment have shifted. E-ZPass customers increased around 2.0 percent over FY 2016, commuter discount customers decreased just under 2.0 percent, and Maryland E-ZPass customers increased around 1.5 percent. These shifts in methods of payment, in addition to larger commercial vehicle growth, caused the effect of increasing average toll rates and the larger toll revenue growth.

Table 2 provides both In-Lane and Other Toll Revenue. The in-lane toll revenue from Table 1 was carried forward into Table 2, along with the forecasts of Other Toll Revenue from the January report.

**Table 2**  
**In-Lane and Other Toll Revenue Forecasts**

Fiscal Year	In-Lane Toll Revenue	Other Toll Revenue																		
	Total for Legacy Facilities	Legacy Facilities (\$ millions)											New Facilities Other Revenue <sup>(5) (6)</sup> (\$ millions)						Total Other Revenue	Total Revenue <sup>(7)</sup>
		Service Fees and Sales					Violation Recovery			Commercial Vehicles			Service Fees and Sales			Violation Recovery				
		Unused Pre-Paid Trip Revenue	Transponder Sales	Monthly Account Fees	Hattem E-Z Pass Program	Notice of Toll Due Fees	Civil Penalties <sup>(3)</sup>	Violation Fees	Post-Usage Discount	High Frequency Discount	Over-size Permit Fee	Concession Revenue <sup>(4)</sup>	Total Legacy Other Revenue	Transponder Sales	Monthly Account Fees	Violation Fees	Civil Penalties	Total Other Revenue		
2006	\$ 278.80	\$ 3.50	\$ -	\$ -	\$ -	\$ -	\$ 2.80	\$ (4.50)	\$ -	\$ -	\$ 7.80	\$ 9.60	\$ -	\$ -	\$ -	\$ -	\$ 9.60	\$ 288.40		
2007	282.29	4.00	-	-	-	-	3.00	(4.80)	-	-	8.10	10.30	-	-	-	-	10.30	292.59		
2008	279.33	4.30	-	-	-	-	3.00	(5.00)	-	-	8.00	10.30	-	-	-	-	10.30	289.63		
2009	276.63	4.50	-	-	-	-	1.90	(4.80)	-	-	8.00	9.60	-	-	-	-	9.60	286.23		
2010 <sup>(1)</sup>	308.47	6.60	1.40	9.60	-	1.10	2.30	(6.60)	(0.20)	1.00	8.20	23.40	-	-	-	-	23.40	331.87		
2011	311.93	6.50	1.90	9.90	-	1.30	1.30	(6.70)	(0.30)	1.20	7.90	23.00	-	-	-	-	23.00	334.93		
2012 <sup>(1)</sup>	372.98	9.10	1.70	4.70	0.30	0.80	2.80	(5.90)	(0.20)	1.30	7.60	22.20	-	-	-	-	22.20	395.18		
2013 <sup>(1)</sup>	411.63	11.50	1.30	5.30	0.80	0.10	4.00	(4.60)	(0.70)	1.30	4.10	23.10	-	-	-	-	23.10	434.73		
2014 <sup>(1)</sup>	574.08	18.69	1.22	5.75	1.49	-	4.55	0.04	(5.89)	(0.64)	1.04	3.23	29.48	0.16	0.76	0.10	2.35	32.85	606.93	
2015	594.58	16.81	1.44	5.87	1.52	-	10.75	0.01	(6.34)	(0.62)	1.15	5.07	35.66	0.19	0.79	0.01	5.73	42.38	636.96	
2016 <sup>(2)</sup>	581.41	14.82	1.75	1.37	1.60	-	14.02	-	(6.39)	(1.06)	1.13	6.21	33.46	0.18	0.14	-	4.27	38.04	619.45	
2017 <sup>(8)</sup>	599.67	13.93	1.24	1.32	1.62	-	17.31	-	(6.75)	(1.16)	0.84	6.36	34.70	0.17	0.20	-	10.72	45.79	645.46	
2018	605.68	14.00	1.25	1.34	1.62	-	17.48	-	(6.79)	(1.17)	0.85	6.40	34.98	0.18	0.20	-	10.78	46.13	651.81	
2019	608.82	14.07	1.25	1.35	1.63	-	17.66	-	(6.82)	(1.17)	0.86	6.44	35.26	0.18	0.20	-	10.83	46.47	655.29	
2020	613.24	14.14	1.26	1.36	1.64	-	17.83	-	(6.85)	(1.18)	0.87	6.48	35.55	0.18	0.20	-	10.89	46.81	660.05	
2021	614.62	14.21	1.26	1.38	1.65	-	18.01	-	(6.89)	(1.19)	0.88	6.53	35.84	0.18	0.20	-	10.94	47.16	661.77	
2022	620.37	14.28	1.27	1.39	1.66	-	18.19	-	(6.92)	(1.19)	0.88	6.61	36.17	0.18	0.20	-	11.00	47.54	667.92	
2023	624.37	14.35	1.28	1.40	1.67	-	18.37	-	(6.96)	(1.20)	0.89	7.07	36.88	0.18	0.20	-	11.05	48.31	672.68	
2024	629.54	14.42	1.28	1.42	1.67	-	18.56	-	(6.99)	(1.20)	0.90	7.12	37.18	0.18	0.20	-	11.11	48.67	678.21	
2025	631.30	14.50	1.29	1.43	1.68	-	18.74	-	(7.03)	(1.21)	0.91	7.17	37.48	0.18	0.20	-	11.16	49.03	680.33	
2026	634.80	14.57	1.30	1.45	1.69	-	18.93	-	(7.06)	(1.22)	0.92	7.22	37.79	0.18	0.20	-	11.22	49.39	684.19	

Source: Historical data from MDTA

Note: "In-Lane Toll Revenue" is based on the current updated estimate; "Other Toll Revenue" has not been updated and is the same as in the January 2016 Traffic and Toll Revenue Forecast Update Report.

<sup>(1)</sup> Year of toll increase.

<sup>(2)</sup> Year of toll decrease.

<sup>(3)</sup> Civil Penalties actuals provided by MDTA. Estimated FY 2017 civil penalties is 70% of calculated revised value due to high YTD penalties compared to FY 2016.

<sup>(4)</sup> Concession Revenue Forecast provided by Maryland Transportation Authority; other projections by CDM Smith.

<sup>(5)</sup> InterCounty Connector and I-95 ETLs

<sup>(6)</sup> Notice of toll due fees were not collected to date, and therefore no revenue was forecasted through the study period.

<sup>(7)</sup> Summation of individual categories may not equal total due to rounding.

<sup>(8)</sup> Includes actual data through March 2017.

 - Represents actual data.



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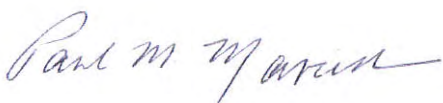
For purposes of this traffic and revenue update, it was determined that given the relatively small portion of overall revenue generated by Other Toll Revenue sources, a detailed analysis of these trends was not warranted. Instead, except for concession revenue forecasts which were provided by the Authority, FY 2017 Other Revenue data through March were reviewed and minor adjustments to our December 2016 forecasts were made, either positive or negative, to reflect actual experience.

Finally, Table 3 presents a comparison of the 10-year total revenue forecast from the December report versus those in this update. Revenues presented in the table include both in-lane and "other" toll revenue. From FY 2017 to FY 2026, the latest forecast of total revenue is 2.7 percent or \$175.17 million higher than the December forecast.

**Table 3**  
**Comparison of December 2016 versus Revised May 2017 Forecasts**  
**of Total Revenue (In-Lane and "Other" Toll Revenue)**

Fiscal Year	Total Revenue			
	December 2016	Revised May 2017	Difference	Percent Difference
2017	\$ 628.33	\$ 645.46	\$ 17.14	2.7
2018	634.50	651.81	17.31	2.7
2019	637.86	655.29	17.44	2.7
2020	642.46	660.05	17.58	2.7
2021	644.09	661.77	17.68	2.7
2022	650.10	667.92	17.82	2.7
2023	655.33	672.68	17.36	2.6
2024	660.70	678.21	17.51	2.7
2025	662.72	680.33	17.60	2.7
2026	666.47	684.19	17.73	2.7
<b>Total</b>	<b>\$ 6,482.55</b>	<b>\$ 6,657.72</b>	<b>\$ 175.17</b>	<b>2.7</b>

Respectfully submitted,



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