



July 26, 2011

Mr. Joe Donahue
Director of Finance
E-470 Public Highway Authority
22470 East 6th Parkway
Aurora, CO 80018

Re: E-470 Public Highway Authority, Traffic and Toll Revenue “Bring-Down” Letter

Dear Mr. Donahue:

As part of the upcoming refinancing, Wilbur Smith Associates (WSA) was requested to review and update, if necessary, the traffic and toll revenue forecasts for Alternative E contained in our November 24, 2010 letter report entitled, “Alternative Pricing Strategies Traffic and Revenue”. In the November report, WSA was asked to perform a number of preliminary assessments of several alternative pricing strategies. These strategies include:

- Alternative A: Incremental Annual Toll Increases;
- Alternative B: Axle-Based Ramp Tolls;
- Alternative C: Increased EXpressToll / License Plate Toll Differentials;
- Alternative D: Three-Tier Tolling Concept; and
- Alternative E: Increased EXpressToll / License Plate Toll Differentials combined with Incremental Annual Toll Increases.

Alternative E was ultimately adopted by the E-470 Public Highway Authority’s Board of Directors as the preferred alternative primarily because it retained the toll increase schedule of \$0.25 every three years for EXpressToll and increased the toll differential between EXpressToll and License Plate Tolling (LPT). It was hoped the latter would persuade more LPT customers to join the EXpressToll program because of its lower toll rates.

As part of our review, we examined the latest monthly traffic and revenue trend data by toll plaza through May 2011 and compared these against the Alternative E forecasts, reviewed the estimated and actual distributions of EXpressToll and License Plate Toll (LPT) transactions, performed a general assessment of the status of projects in the highway improvement program versus what was contained in our September 23, 2010 Traffic and Revenue Update Letter, and performed a general assessment of the latest socioeconomic and demographic forecasts as compared with last year’s update.

ALTERNATIVE E – INCREASED TOLL DIFFERENTIAL & ANNUAL TOLL INCREASES

In this alternative, it was assumed that beginning on January 1, 2011, the EXpressToll/LPT toll differential would be increased and that toll rates would also be increased incrementally each year. This was to be done while maintaining the current toll increase schedule of \$0.25 every three years for EXpressToll rates. All commercial vehicle toll rates were assumed to increase proportionally.

Following a review and endorsement of the toll rate and traffic and revenue estimates associated with Alternative E by the E-470 Public Highway Authority staff and its Board of Directors, a \$0.15 increase in the passenger car EXpressToll rate at the mainline plazas was implemented on January 1, 2011. The analysis also assumed an additional \$0.10 increase at the mainline plazas beginning on January 1, 2012. It was also assumed that the passenger car EXpressToll rate would be increased at the mainline plazas by \$0.10 in both 2013 and 2014 and by \$0.05 in 2015 in order to maintain the triennial \$0.25 toll increase schedule with LPT tolls adjusted to maintain a 25.0 percent toll differential. The same pattern of increase was assumed to be repeated through 2021. EXpressToll rates at the ramps were assumed to increase by \$0.05 annually beginning in 2011 with LPT tolls adjusted to maintain the assumed 25.0 percent toll differential. The resulting toll rate assumptions for Alternative E are provided in Table 1, while the resulting transaction and revenue estimates from the November 24, 2010 letter report are provided in Table 2.

Table 1
Actual and Assumed Non-Stop Tolling Toll Rates
Passenger Car-Based Rates

Year	EXpressToll			License Plate Toll		
	Mainline Plazas		Ramp Plazas	Mainline Plazas		Ramp Plazas
	A	B, C, D, E		A	B, C, D, E	
2010 ⁽¹⁾	\$ 2.00	\$ 2.25	\$ 0.90	\$ 2.25	\$ 2.50	\$ 1.00
2011	2.15	2.40	0.95	2.70	3.00	1.20
2012	2.25	2.50	1.00	2.80	3.15	1.25
2013	2.35	2.60	1.05	2.95	3.25	1.30
2014	2.45	2.70	1.10	3.05	3.40	1.40
2015	2.50	2.75	1.15	3.15	3.45	1.45
2016	2.60	2.85	1.20	3.25	3.55	1.50
2017	2.70	2.95	1.25	3.40	3.70	1.55
2018	2.75	3.00	1.30	3.45	3.75	1.65
2019	2.85	3.10	1.35	3.55	3.90	1.70
2020	2.95	3.20	1.40	3.70	4.00	1.75
2021	3.00	3.25	1.45	3.75	4.05	1.80

⁽¹⁾ Actual.

Based on the above, the purpose of this letter is to provide a review of the actual traffic and revenue experience during the subsequent six months to determine if changes to the November 2010 estimates are needed.

Table 2
Estimated Annual Toll Transactions and Revenue (in Thousands)
Alternative E - Increased Toll Differential and Annual Toll Increases
E-470

Year	Alternative E		Base Case		Difference from Base Case		Percent Difference from Base Case	
	Transactions	Net Revenue ⁽¹⁾	Transactions	Net Revenue ⁽¹⁾	Transactions	Net Revenue ⁽¹⁾	Transactions	Net Revenue ⁽¹⁾
2011	51,783	106,734	53,310	100,452	(1,527)	\$ 6,282	(2.9)	6.3
2012 ⁽²⁾	52,437	111,947	52,733	109,916	(296)	2,031	(0.6)	1.8
2013	55,679	123,023	56,828	117,699	(1,149)	5,324	(2.0)	4.5
2014	59,136	135,297	61,328	126,160	(2,192)	9,137	(3.6)	7.2
2015 ⁽²⁾⁽³⁾	60,995	141,380	61,521	138,446	(526)	2,934	(0.9)	2.1
2016	63,946	153,040	65,332	146,955	(1,386)	6,085	(2.1)	4.1
2017	66,943	166,063	69,385	155,994	(2,442)	10,069	(3.5)	6.5
2018 ⁽²⁾	67,786	170,741	68,593	167,523	(807)	3,218	(1.2)	1.9
2019	71,154	184,438	72,969	177,101	(1,815)	7,337	(2.5)	4.1
2020	75,000	199,234	77,954	187,651	(2,954)	11,583	(3.8)	6.2
2021 ⁽²⁾⁽⁴⁾	77,263	205,364	78,466	201,425	(1,203)	3,939	(1.5)	2.0
2022	79,920	217,492	81,235	213,199	(1,315)	4,293	(1.6)	2.0
2023	82,669	230,337	84,103	225,661	(1,434)	4,676	(1.7)	2.1
2024	85,512	243,941	87,071	238,851	(1,559)	5,090	(1.8)	2.1
2025	88,453	258,347	90,144	252,813	(1,691)	5,534	(1.9)	2.2
2026	91,495	273,605	93,325	267,590	(1,830)	6,015	(2.0)	2.2
2027	94,642	289,764	96,619	283,231	(1,977)	6,533	(2.0)	2.3
2028	97,897	306,877	100,029	299,787	(2,132)	7,090	(2.1)	2.4
2029	101,264	325,001	103,559	317,310	(2,295)	7,691	(2.2)	2.4
2030	104,747	344,195	107,214	335,858	(2,467)	8,337	(2.3)	2.5
2031	108,349	364,523	110,998	355,489	(2,649)	9,034	(2.4)	2.5
2032	112,076	386,051	114,916	376,268	(2,840)	9,783	(2.5)	2.6
2033	115,930	408,851	118,972	398,262	(3,042)	10,589	(2.6)	2.7
2034	119,917	432,997	123,171	421,542	(3,254)	11,455	(2.6)	2.7
2035	124,042	458,571	127,518	446,181	(3,476)	12,390	(2.7)	2.8
2036	128,309	485,654	132,018	472,261	(3,709)	13,393	(2.8)	2.8
2037	132,723	514,338	136,678	499,866	(3,955)	14,472	(2.9)	2.9
2038	137,288	544,715	141,502	529,085	(4,214)	15,630	(3.0)	3.0

⁽¹⁾ Revenue provided is net revenue and excludes uncollectable revenue, which is assumed to be 7.9 percent of total gross toll revenue.

⁽²⁾ Year of actual and/or planned toll increase.

⁽³⁾ Interchange at Potomac Street planned to open January 1, 2015.

⁽⁴⁾ Interchanges at Quebec Street, 112th Avenue, 88th Avenue, 48th Avenue planned to open January 1, 2021.

TRENDS IN MONTHLY TOLL TRANSACTIONS

Table 3 presents a comparison of monthly transaction trends from January 2008 through May 2011, the last month for which actual transaction data was available. Transactions declined consistently beginning in May 2008 through the end of 2009, a result of the national and regional economic recession. While not shown in Table 3, transactions declined by 3.8 percent in all of 2008 compared with 2007 and declined again in 2009 by 7.9 percent. However, the 2009 declines were heavily influenced by the January 1, 2009 toll increase of \$0.25 for passenger car EXpressToll customers and \$0.50 for passenger car cash and LPT customers as E-470 converted to a non-stop tolling (NST) system. Depending on the toll gantry location, this represented increases of 12.5 or 14.3 percent for EXpressToll customers and 25.0 or 28.6 percent for LPT customers. Furthermore, we believe that the impact of the toll increase was felt only from January through May 2009 when double-digit declines were experienced. Otherwise, we would have expected similar double-digit decreases for most, if not the entire year. Following the initial negative reaction to the toll increase, customers began returning to E-470, possibly appreciating its time-savings advantages over toll-free alternative routes. The single-digit declines from June through October were more in line with those in 2008, suggesting that they were more economy related.

As shown in Table 3, transactions returned to consistent positive growth in 2010. Transactions were up by 6.9 percent compared with 2009, even though weather events in January and February of 2010 tempered the final annual growth. Other than January and February, all 2010 months experienced positive growth between 4.7 and 12.2 percent. The trend of increases has continued through the first five months of 2011 even with the toll increases that took effect on January 1, 2011. Transactions have grown at a rate of 3.3 percent during the first five months of 2011 compared with the same time period in 2010. However, one could argue that this rate is slightly elevated due to the lower than expected number of transactions in January and February 2010. Had transactions not been impacted, we estimate that year to date growth in 2011 would likely be in the range of 3.0 percent.

DISTRIBUTION OF EXPRESSTOLL AND LICENSE PLATE TOLL TRANSACTIONS

Table 4 presents trends in monthly toll transactions by method of toll payment. Transaction data is presented from January 2009, the beginning of NST on E-470, through May 2011, the last month for which data was provided.

EXpressToll transactions increased from 68.7 percent in 2008, when toll payment by cash was permitted, to 72.4 percent in 2009. It was estimated that had the existing methods of toll collection remained, the percent of EXpressToll transactions in 2009 would have increased to an estimated 69.6 percent. This suggests that eliminating the cash option resulted in an increase in EXpressToll participation by about 2.8 percent.

The above analysis indicates that about 15 percent of cash customers converted to EXpressToll, with the remainder opting for the LPT alternative. It is interesting to note that cash customers responding to the stated-preference survey indicated that with a \$0.25 surcharge for LPT transactions, roughly 50 percent would convert to EXpressToll. Based on these responses, EXpressToll participation in the vicinity of 85

Table 3
Trends in Monthly Toll Transactions
E-470

Month	Total Vehicle Transactions						
	2008	Percent Change	2009	Percent Change	2010	Percent Change	2011
January	4,075,816	(12.6)	3,562,664	2.2	3,641,051	5.1	3,825,889
February	4,025,929	(17.5)	3,321,616	2.6	3,408,374	4.0	3,545,212
March	4,350,591	(12.1)	3,823,542	5.5	4,033,562	4.4	4,209,612
April	4,316,486	(13.0)	3,755,311	7.4	4,031,699	1.6	4,097,759
May	4,661,339	(10.7)	4,160,698	6.7	4,437,748	2.0	4,525,204
June	4,558,834	(5.7)	4,300,701	7.7	4,629,859	---	---
July	4,714,680	(3.6)	4,544,427	5.7	4,802,044	---	---
August	4,698,795	(5.9)	4,423,443	8.5	4,800,413	---	---
September	4,269,575	(3.5)	4,121,413	9.0	4,491,207	---	---
October	4,393,842	(7.9)	4,047,184	12.2	4,541,323	---	---
November	3,876,777	(0.7)	3,849,674	9.8	4,226,940	---	---
December	4,137,797	(1.8)	4,062,040	4.7	4,253,721	---	---
January to May	21,430,161	(13.1)	18,623,831	5.0	19,552,434	3.3	20,203,676
Total Year	52,080,461	(7.9)	47,972,713	6.9	51,297,941	---	---

Source: E-470 Authority

Table 4
Trends in Monthly Toll Transactions by Method of Payment
E-470

Month	2009					
	EXpressToll		LPT ⁽¹⁾		Total	
	Transactions	Percent	Transactions	Percent	Transactions	Percent
January	2,622,137	73.6	940,527	26.4	3,562,664	100.0
February	2,487,927	74.9	833,689	25.1	3,321,616	100.0
March	2,791,447	73.0	1,032,095	27.0	3,823,542	100.0
April	2,766,320	73.7	988,991	26.3	3,755,311	100.0
May	2,981,858	71.7	1,178,840	28.3	4,160,698	100.0
June	3,030,791	70.5	1,269,910	29.5	4,300,701	100.0
July	3,189,194	70.2	1,355,233	29.8	4,544,427	100.0
August	3,115,145	70.4	1,308,298	29.6	4,423,443	100.0
September	3,046,812	73.9	1,074,601	26.1	4,121,413	100.0
October	2,987,520	73.8	1,059,664	26.2	4,047,184	100.0
November	2,804,559	72.9	1,045,115	27.1	3,849,674	100.0
December	2,930,682	72.1	1,131,358	27.9	4,062,040	100.0
January to May	13,649,689	73.3	4,974,142	26.7	18,623,831	100.0
Total Year	34,754,392	72.4	13,218,321	27.6	47,972,713	100.0

Month	2010					
	EXpressToll		LPT		Total	
	Transactions	Percent	Transactions	Percent	Transactions	Percent
January	2,733,881	75.1	907,170	24.9	3,641,051	100.0
February	2,597,255	76.2	811,119	23.8	3,408,374	100.0
March	3,025,146	75.0	1,008,416	25.0	4,033,562	100.0
April	3,054,312	75.8	977,387	24.2	4,031,699	100.0
May	3,223,522	72.6	1,214,226	27.4	4,437,748	100.0
June	3,273,111	70.7	1,356,748	29.3	4,629,859	100.0
July	3,302,363	68.8	1,499,681	31.2	4,802,044	100.0
August	3,373,066	70.3	1,427,347	29.7	4,800,413	100.0
September	3,198,535	71.2	1,292,672	28.8	4,491,207	100.0
October	3,239,145	71.3	1,302,178	28.7	4,541,323	100.0
November	3,084,775	73.0	1,142,165	27.0	4,226,940	100.0
December	3,075,279	72.3	1,178,442	27.7	4,253,721	100.0
January to May	14,634,116	74.8	4,918,318	25.2	19,552,434	100.0
Total Year	37,180,390	72.5	14,117,551	27.5	51,297,941	100.0

Month	2011					
	EXpressToll		LPT		Total	
	Transactions	Percent	Transactions	Percent	Transactions	Percent
January	2,838,739	74.2	987,150	25.8	3,825,889	100.0
February	2,663,287	75.1	881,925	24.9	3,545,212	100.0
March	3,140,828	74.6	1,068,784	25.4	4,209,612	100.0
April	3,063,832	74.8	1,033,927	25.2	4,097,759	100.0
May	3,287,996	72.7	1,237,208	27.3	4,525,204	100.0
June	---	---	---	---	---	---
July	---	---	---	---	---	---
August	---	---	---	---	---	---
September	---	---	---	---	---	---
October	---	---	---	---	---	---
November	---	---	---	---	---	---
December	---	---	---	---	---	---
January to May	14,994,682	74.2	5,208,994	25.8	20,203,676	100.0
Total Year	---	---	---	---	---	---

Source: E-470 Authority

⁽¹⁾ License Plate Toll transactions include cash transactions from January to June 2009 and all violations

percent was expected. Lower than expected rates of EXpressToll participation would result in slightly higher gross toll revenue estimates, but could provide lower net toll revenue given higher back-office administrative fees for LPT transactions, and the potential for higher amounts of leakage in the revenue stream.

ASSESSMENT OF THE HIGHWAY IMPROVEMENT PROGRAM AND DEMOGRAPHIC FORECASTS

A detailed review of the proposed highway improvements for the immediate E-470 corridor and along principal competing and complementary freeways was conducted as part of the September 2010 update letter. A general review of those plans was conducted as part of this update. Based on this review, we are unaware of major projects that have occurred in the past year or are under way at this time with the potential to impact traffic demand on E-470. Generally, the corridor’s conditions are stable, as the Denver-metropolitan area has experienced modest employment growth in 2011 and steady, albeit modest, population and household growth that has occurred throughout the recession.

Additionally, a detailed review of the regional socioeconomic/demographic forecasts potentially impacting traffic potential to the E-470 was also performed as part of the September 2010 update letter. That study recalibrated DRCOG growth forecasts to account for the 2008 recession. Long-term growth estimates were reduced based on the contraction in employment, resulting in reduced baseline figures for 2010 and corresponding contractions for future years. As stated in the previous update by WSA, the differences between the 2015 estimates of population and employment done in 2008 and again in 2010 is relatively small and “it is our judgment that no additional short-term adjustments other than those which are described below are warranted. The 2035 forecast present greater differences. Because the current forecasts have only been developed at a regional level and not for the E-470 corridor, we do not believe it would be appropriate at this level of analysis to make adjustments to the long-term traffic growth estimates developed in 2008. Therefore, no changes to the traffic growth estimates beyond 2012 were made in developing the updated traffic and revenue estimates presented.....”

UPDATED E-470 TRANSACTION AND TOLL REVENUE ESTIMATES

Table 5 presents EXpressToll/LPT distributions used to develop the November 2010 Alternative E transactions and revenue estimates shown in Table 2, and those used to develop our updated estimates. The revised EXpressToll/LPT distributions are based on actual 2009 through May 2011 percentages from Table 4, which show very little change in EXpressToll market penetration even with the increased surcharge. It is also assumed that the recently endorsed 25.0 percent surcharge is retained throughout the forecast period.

The updated forecasts developed as part of this analysis are based on a review of the assumptions and actual data discussed above. Furthermore, nine months of additional traffic and revenue data are now available since the 2010 Alternative Pricing Strategies Traffic and Revenue analysis was conducted.

Table 5
EXpressToll and License Plate Toll Percentages

Year	Alternative E Assumptions		Revised Assumptions ⁽¹⁾	
	EXpressToll	License Plate	EXpressToll	License Plate
2009	72	28	72	28
2010	74	26	73	27
2011	79	21	74	26
2012	80	20	75	25
2015	82	18	77	23
2018	84	16	80	20
2021	85	15	80	20
2035 and Beyond	85	15	80	20

⁽¹⁾ Based on actual transaction data through May 2011.

Table 6 provides a comparison of actual versus estimated E-470 performance over the last 17 months (January 2010 through May 2011). This corresponds to the period in the 2010 Alternative E forecasts for which actual traffic and revenue data is now available.

Information is shown for all of 2010 and for January through May 2011. Over that entire period, actual traffic experience has outperformed the November 2010 Alternative E estimates by 1.6 percent. Total gross revenue for the same period has outperformed estimates by about 2.3 percent. Given the continued economic climate, these forecasts have proved reasonably accurate. As such, only relatively minor adjustments were made to the short-term forecasts as part of this update. Based on monthly traffic and revenue data provided by E-470, it was assumed that traffic and revenue growth would continue to outperform estimates from the November 2010 letter by about 2.0 and 3.8 percent, respectively, through 2011. Assumed growth rates for 2012 were also adjusted based on historic traffic trends and assumed normal growth rates. Growth rates beyond 2012 were assumed to remain relatively unchanged from those in the November 24, 2010 Alternative Pricing Strategies Traffic and Revenue letter.

Table 6
Estimated Versus Actual Monthly Transactions and Toll Revenue ⁽¹⁾
E-470

Year	Transactions (000s)			Revenue (000s)		
	Estimated	Actual	Percent Difference	Estimated Gross	Actual Gross	Percent Difference
2010	50,635	51,298	1.3	\$ 103,973	\$ 105,718	1.7
2011 ⁽²⁾	19,737	20,204	2.4	\$ 44,172	\$ 45,853	3.8
Total Since 2010 ⁽³⁾	70,372	71,502	1.6	\$ 148,145	\$ 151,571	2.3

⁽¹⁾ All estimated figures shown in this table are from Alternative E of the 2010 Alternative Pricing Strategies Traffic and Revenue Study.

⁽²⁾ Transactions and revenue from January 1, 2011 to May 31, 2011.

⁽³⁾ Transactions and revenue from January 1, 2010 to May 31, 2011.

The resulting revised annual transaction and gross and net toll revenue estimates for E-470 are provided in Table 7, as well as a comparison with the Alternative E forecasts previously shown in Table 2. In the short term, transactions on E-470 are estimated to increase from 51,398,000 in 2010 to 54,938,000 in 2012. This places the revised transaction estimates for the total E-470 system between 2010 and 2012 almost one year ahead of the November 2010 Alternative E forecasts, with a difference of about 4.8 percent in 2012. Systemwide transactions on E-470 are estimated to be 81,226,000 by 2021 and 160,935,000 by 2041, which is 5.1 and 5.7 percent above the 2010 forecast, respectively. Overall transaction growth during the 2011-2041 forecast period is estimated to be 3.8 percent per annum, including the impacts of the planned toll increases.

Revenues are also estimated to be impacted by the changes to the study assumptions. Between 2010 and 2012, gross toll revenue is estimated to increase from \$105,718,000 to \$130,711,000. The primary differences between the November 2010 Alternative E forecasts and the current update forecasts are the result of increased traffic growth rates, lower rates of EXpressToll customers participation and a greater percentage of commercial vehicles based on recent actual traffic data. Of the \$1,745,000 difference in the two forecasts in 2010, roughly \$1,361,000 is a result of the increase in actual traffic growth rates in 2010 above those originally assumed in the 2010 forecast. The remaining \$384,000 is a result of the increased average toll rate resulting from lower than expected EXpressToll participation and an increase in the percent of commercial vehicle traffic. In 2011, \$2,060,000 of the \$4,411,000 difference in the forecasts is the result of the higher growth rates, while the remaining \$2,351,000 is the result of the increase in the average toll rate. As a result of these changes, the current revenue estimates are 4.8 percent higher in 2012, compared to the November 2010 Alternative E forecast. Systemwide gross toll revenues are

Table 7
Estimated Annual Toll Transactions and Revenue (in Thousands)
E-470

Year	Current Update				November 2010 Letter		Difference ⁽¹⁾	
	Transactions	Toll Revenue			Transactions	Gross Toll Revenue	Transactions	Gross Toll Revenue
		Gross ⁽²⁾	Uncollectable ⁽³⁾	Net ⁽⁴⁾				
2010	51,298	105,718	10,043	95,675	50,635	103,973	663	1,745
2011 ⁽⁵⁾	52,822	120,300	11,429	108,871	51,783	115,889	1,039	4,411
2012	54,938	130,711	12,418	118,293	52,437	121,549	2,501	9,162
2013	58,290	143,257	13,609	129,648	55,679	133,575	2,611	9,682
2014	61,896	157,331	14,946	142,385	59,136	146,902	2,760	10,429
2015 ⁽⁶⁾	63,699	163,952	15,575	148,377	60,995	153,507	2,704	10,445
2016	66,822	177,556	16,868	160,688	63,946	166,167	2,876	11,389
2017	69,992	192,804	18,316	174,488	66,943	180,307	3,049	12,497
2018	70,842	198,252	18,834	179,418	67,786	185,387	3,056	12,865
2019	74,478	214,383	20,366	194,017	71,154	200,258	3,324	14,125
2020	78,655	231,846	22,025	209,821	75,000	216,324	3,655	15,522
2021 ⁽⁷⁾	81,226	239,128	22,717	216,411	77,263	222,979	3,963	16,149
2022	84,051	253,272	24,061	229,211	79,920	236,148	4,131	17,124
2023	86,974	268,254	25,484	242,770	82,669	250,094	4,305	18,160
2024	89,999	284,121	26,992	257,129	85,512	264,865	4,487	19,256
2025	93,129	300,927	28,588	272,339	88,453	280,507	4,676	20,420
2026	96,368	318,728	30,279	288,449	91,495	297,074	4,873	21,654
2027	99,719	337,581	32,070	305,511	94,642	314,619	5,077	22,962
2028	103,188	357,549	33,967	323,582	97,897	333,200	5,291	24,349
2029	106,776	378,699	35,976	342,723	101,264	352,878	5,512	25,821
2030	110,490	401,099	38,104	362,995	104,747	373,719	5,743	27,380
2031	114,333	424,825	40,358	384,467	108,349	395,790	5,984	29,035
2032	118,309	449,954	42,746	407,208	112,076	419,165	6,233	30,789
2033	122,424	476,569	45,274	431,295	115,930	443,921	6,494	32,648
2034	126,682	504,759	47,952	456,807	119,917	470,138	6,765	34,621
2035	131,088	534,616	50,788	483,828	124,042	497,905	7,046	36,711
2036	135,647	566,239	53,793	512,446	128,309	527,312	7,338	38,927
2037	140,365	599,733	56,975	542,758	132,723	558,456	7,642	41,277
2038	145,247	635,208	60,345	574,863	137,288	591,439	7,959	43,769
2039	150,298	672,781	63,914	608,867	-	-	-	-
2040	155,526	712,577	67,695	644,882	-	-	-	-
2041	160,935	754,727	71,699	683,028	-	-	-	-

⁽¹⁾ The difference shown is between the current and previous 2010 gross revenue forecasts.

⁽²⁾ Calculated based on estimated vehicle transactions and the associated toll rates.

⁽³⁾ Uncollectable revenue is assumed to be 9.5 percent of total gross toll revenue.

⁽⁴⁾ Net Revenue is referenced in Table 2 of the 2011 Bond Offering Statement.

⁽⁵⁾ Beginning in 2011, tolls are assumed to increase each year.

⁽⁶⁾ Interchange at Potomac Street planned to open January 1, 2015.

⁽⁷⁾ Interchanges at Quebec Street, 112th Avenue, 88th Avenue, 48th Avenue planned to open January 1, 2021.



estimated to be \$239,128,000 in 2021 and \$754,727,000 in 2041, which an estimated 7.2 and 7.4 percent, respectively, above the 2010 forecast. Over the forecast period, revised systemwide gross toll revenue forecasts are estimated to be about one year ahead of the November 2010 Alternative E forecast.

Using information provided by E-470, estimates of uncollectable and net toll revenues have also been provided. Uncollectable revenues consist of "rejected" transactions where the license plate cannot be read and "LPT unpaid" transactions where the license plate can be read, and the customer has been billed, but the bill is unpaid. Based on data from January 2010 through March 2011, rejected transactions represent 7.7 percent of gross toll revenue, while LPT unpaid transactions represent 1.8 percent of gross toll revenue. As calculated by E-470, the uncollectable rate is 9.5 percent of gross toll revenue. Although this uncollectable rate will most likely be reduced in future years through improvements to technology and enforcement, WSA assumed the current uncollectable rate throughout the forecast period. Between 2010 and 2012, total net toll revenues for E-470 are estimated to increase from \$95,675,000 to \$118,293,000. Net toll revenues for E-470 are estimated to increase to \$216,411,000 by 2021 and \$683,028,000 by 2041.

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DISCLAIMER

Current professional practices and procedures were used in the development of these findings. However, there is considerable uncertainty inherent in future traffic and revenue forecasts for any toll facility. There may sometimes be differences between forecasted and actual results caused by events and circumstances beyond the control of the forecasters. These differences could be material. Also, it should be recognized that traffic and revenue forecasts in this document are intended to reflect the overall estimated long-term trend. Actual experience in any given year may vary due to economic conditions and other factors.

Respectfully submitted,

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