

# November 2016

## Monthly Operations Report



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# INTRODUCTION

Pursuant to Schedule 6, Section 1.8.2(a) of the Concession Agreement, Plenary Roads Denver (“PRD”) is required to submit a monthly report covering all essential statistics related to the Managed Lanes. The following data covers the month of November 2016. Operationally, November was a positive month. Several routine maintenance tasks were completed, there were minimal incidents to maintained elements, and traffic volumes were consistent with expectations.

## 1.0 VOLUMES AND LANE USAGE

In July 2015, the Managed Lanes for Phase 1 on US36 began toll operations. At the same time, HOV vehicles were required to use a switchable transponder in order to travel the I-25 and US36 Managed Lanes at no charge. The traffic patterns immediately shifted towards more ExpressToll™ (AVI) and License Plate (LPT) vehicles and fewer HOV transactions. Over the last several months as more commuters use the transponders for either AVI or HOV travel, LPT transactions have consistently decreased as a percentage of total traffic volume. The total monthly gantry traffic volume for November 2016 in the I-25 Central and US 36 Managed Lanes was 265,578 and 1,174,088, respectively.

The table below provides the monthly summary for each Managed Lanes roadway, along with a detailed breakdown of weekday volumes. For reference, the AM Peak Period is considered to be weekdays from 6:45 am – 8:45 am. The PM Peak Period is considered to be weekdays from 4:30pm – 6:00pm. It should be noted that the I-25 Managed Lane traffic reflects traffic counts from a single gantry and US 36 Managed Lane counts reflect fourteen gantries, seven gantries in each direction. Therefore, US 36 data will indicate far greater traffic counts that are not comparative to those of I-25.

The following charts depict the distribution of traffic by type (Figure 1) and the daily traffic counts (Figure 2) and for the month.

Traffic Summary (I-25C)						
	AVI	LPT	HOV	Non-Rev & Hybrid	Total	Hybrid
<b>Total Monthly Traffic</b>	118,130	63,942	70,004	13,502	265,578	2,470
<b>Maximum Weekday Traffic</b>	6,443	3,201	3,069	676	12,983	142
<b>Average Weekday Traffic</b>	5,252	2,615	2,747	608	10,614	113
<b>Average Hourly AM Peak Traffic</b>	750	347	412	88	1,509	N/A
<b>Average Hourly PM Peak Traffic</b>	686	335	367	85	1,388	N/A

Traffic Summary (US 36)						
	AVI	LPT	HOV	Non-Rev & Hybrid	Total	Hybrid
Total Monthly Traffic	539,920	272,655	321,477	40,036	1,174,088	7,792
Maximum Weekday Traffic	29,152	14,947	16,682	1,942	60,143	421
Average Weekday Traffic	23,171	10,709	10,670	1,786	46,336	334
Average Hourly AM Peak Traffic	3,465	1,319	1,114	236	6,134	N/A
Average Hourly PM Peak Traffic	3,506	1,510	1,411	241	6,668	N/A

Table 1 – Monthly Traffic Summaries

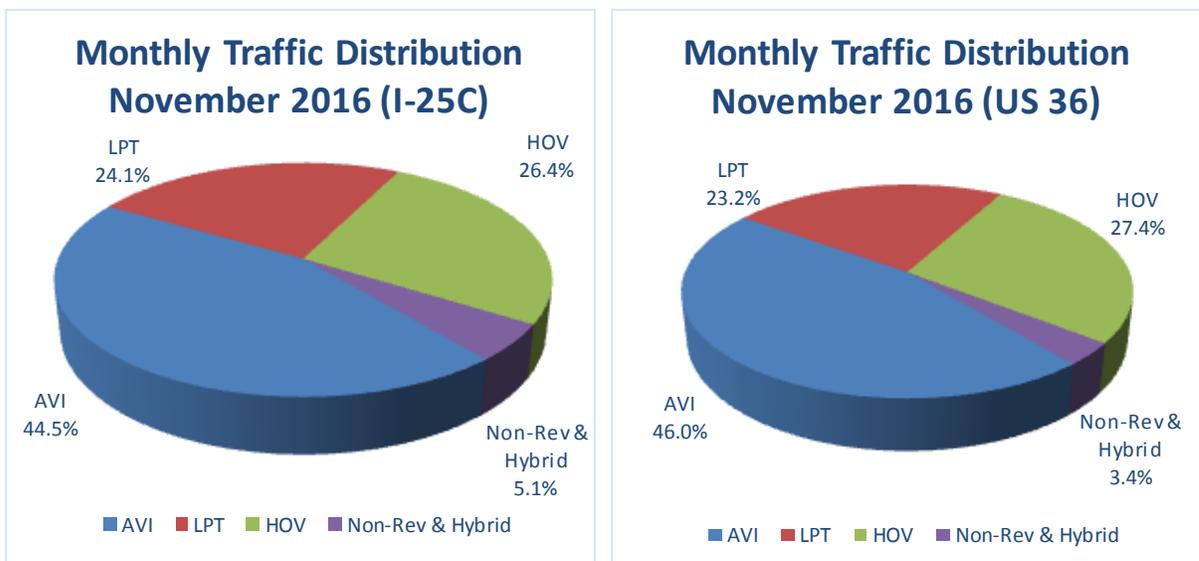
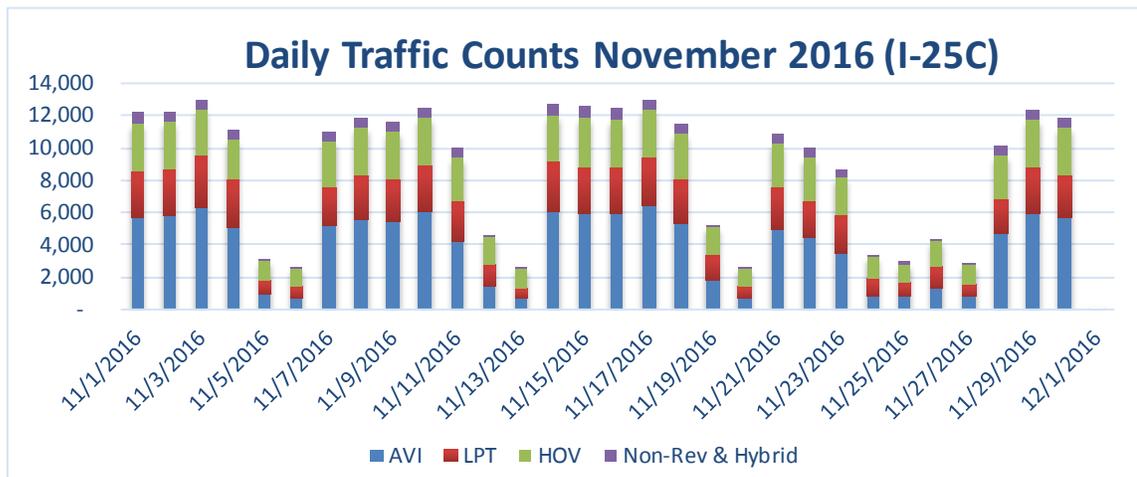


Figure 1 – Monthly Traffic Distribution



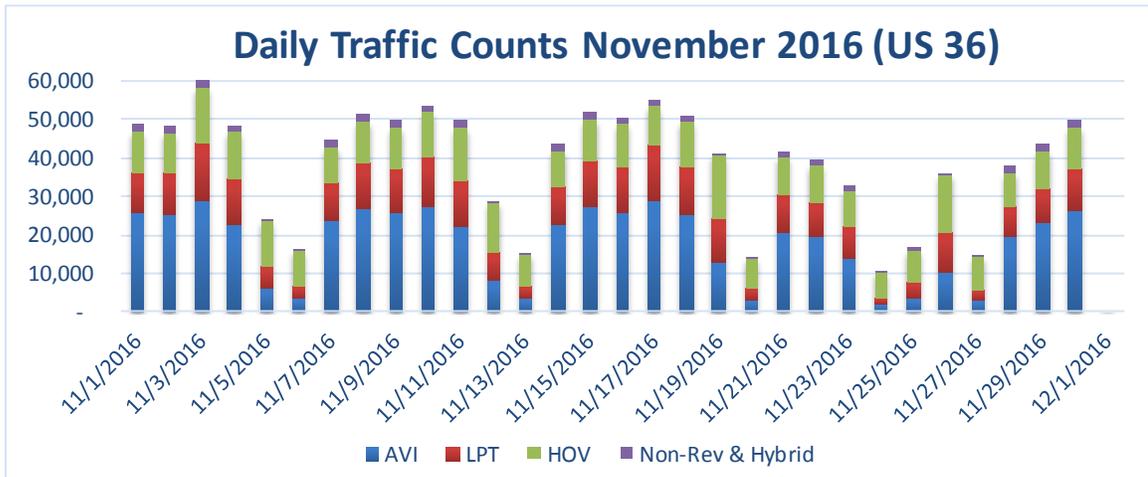


Figure 2 – Daily Traffic Counts

## 2.0 REVENUES

During the month of November 2016, PRD collected \$506,977 and \$401,788 from users of the I-25 Central and US36 Managed Lanes, respectively. For purposes of this report, revenues are recognized at the time of collection, which is typically sometime after they have been incurred for those customers who are billed based on their license plate. For example, if a single-occupant vehicle uses the lanes in October but pays in January, the associated revenue is attributed to January.

## 3.0 OPERATIONAL INCIDENTS, ISSUES, AND CLOSURES

The project had numerous routine debris removals, lighting incidents, and graffiti control during the month. The routine lighting incidents are planned for repair within the allowable response period and several previously identified lighting incidents were repaired in October. All incidents were responded to and rectified within the allowable timeframes. The managed lanes were closed for four incidents during the month for a total of two hours and forty three minutes. Closures have exceeded the twelve hour limit and will be treated according to Section 29.7 (b) of the Concession Agreement.

Date	Start	Stop	Duration
July 6, 2016	06:53	07:05	0:12
July 12, 2016	16:32	16:54	0:22
July 14, 2016	08:27	08:39	0:12
July 15, 2016	15:47	16:32	0:45
July 20, 2016	17:45	20:15	2:30

July 23, 2016	13:30	14:10	0:40
August 5, 2016	09:13	10:11	0:58
August 26, 2016	16:25	17:36	1:11
September 16, 2016	09:00	09:20	0:20
September 16, 2016	09:54	10:35	0:41
September 28, 2016	09:20	09:31	0:11
October 4, 2016	08:15	08:58	0:43
October 4, 2016	08:26 (8:59 due to overlap)	09:14	0:15
October 26, 2016	08:33	08:57	0:24
November 8, 2016	10:05	10:40	0:35
November 10, 2016	07:30	08:12	0:42
November 21, 2016	06:54	07:19	0:25
November 23, 2016	15:14	16:15	1:01
<b>Total</b>			<b>12:07</b>
Remaining Closure Hours Available (Ref: CA 29.7)			<b>-00:07</b>

Table 2 – Managed Lanes Closures to Date

On April 8, 2016 the eastbound toll points were set to \$0.00 from 4:00 PM to 6:00 PM at the direction of HPTE. This is the first closure case within the last twelve months and it will expire on April 8, 2017.

Table 3 provides a listing of ETCS items recorded this month, consistent with Appendix 6-2 of Schedule 6.

Element Category	Reference	Element	Performance Item	PRD Notified	Contractual Cure Period	Cure Achieved
ETCS	1.1	No Heartbeat in Lane Health Report – Lowell East	ETCS equipment is fully functional	11/4/2016 17:01	14 Days	11/4/2016 22:37 (Duration 5:36)
ETCS	1.1	Sheridan East-AVI Reboot	ETCS equipment is fully functional	11/26/2016 18:44	14 Days	11/26/16 21:01 (Duration 2:17)
ETCS	1.1	No Heartbeat in Lane Health Report – Promenade East	ETCS equipment is fully functional	11/28/2016 06:01	14 Days	11/28/2016 08:06 (Duration 2:05)

Table 3 – ETCS Issues per CA Schedule 6 Appendix 6-2

Table 4 provides a status of all Noncompliance categories in accordance with paragraph 1.2 of Schedule 10.

Non-compliance Location	Nature	Cause	Cure Date	Uncured Non-compliance Point	Unexpired Non-compliance Point	365 Day Expiration Date	1095 Day Expiration Date
Promenade West Toll Point	Incorrect toll schedule	Incorrect Toll Schedule was applied during a software update on 3/7/16	3/16/16 (Period II) Customer Accounts Corrected	0	3	3/16/17	3/16/19

Table 4 – Status of Noncompliance Categories

#### 4.0 MEAN TIME BETWEEN FAILURE (MTBF) AND MEAN TIME TO REPAIR (MTTR)

Mean Time Between Failure (MTBF) and Mean Time To Repair (MTTR) data is provided in the table below. Only Maintained Elements that were repaired during the reporting period and had a failure type breakdown are listed in the table. We consider a breakdown to be a failure when the element cannot be used for its intended purpose until repaired.

Maintained Element	Mean Time Between Failure (MTBF) (Hours)	Mean Time To Repair (MTTR) (Hours)
None	N/A	N/A

Table 5 – Mean Time Between Failure & Mean Time To Repair

#### 5.0 HYBRID UTILIZATION

Total Hybrid Trips	
I-25 Central	2,470
US 36	7,792

Table 6 – Hybrid Utilization

Fuel efficient “Hybrid” vehicles are permitted to access the Express Lanes free of charge, regardless of occupant numbers, provided that they have obtained a permit from CDOT, obtained a Hybrid transponder from E-470, and display an E-470 Hybrid decal on the vehicle’s windshield.