

# November 2015

## 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 2015. Operationally, November was a good month. Several major maintenance tasks were completed along with routine maintenance tasks, there were minimal incidents to maintained elements, and traffic volumes were consistent with expectations.

## 1.0 VOLUMES AND LANE USAGE

On July 22, 2015, the Managed Lanes for Phase 1 on US 36 began toll operations. These Managed Lanes had been open to the public at no charge for several weeks prior to that date for toll equipment testing. The total monthly gantry traffic volume for November 2015 in the I-25 Central and US 36 Managed Lanes was 212,943 and 517,358, 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 ten gantries, five gantries in each direction. Therefore, US 36 data will indicate higher 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
Total Monthly Traffic	87,452	73,312	45,031	7,148	212,943	3,054
Maximum Weekday Traffic	4,967	4,116	2,256	434	11,203	188
Average Weekday Traffic	3,960	2,870	1,936	332	8,766	146
Average Hourly AM Peak Traffic	613	362	338	53	1,313	N/A
Average Hourly PM Peak Traffic	571	384	296	51	1,251	N/A

Traffic Summary (US 36)						
	AVI	LPT	HOV	Non-Rev & Hybrid	Total	Hybrid
Total Monthly Traffic	213,360	154,140	128,723	21,135	517,358	7,373
Maximum Weekday Traffic	12,816	9,144	6,720	1,239	28,909	443
Average Weekday Traffic	9,957	6,543	4,691	994	22,185	344
Average Hourly AM Peak Traffic	1,522	798	541	141	3,002	N/A
Average Hourly PM Peak Traffic	1,653	970	666	137	3,426	N/A

Table 1 – Monthly Traffic Summaries

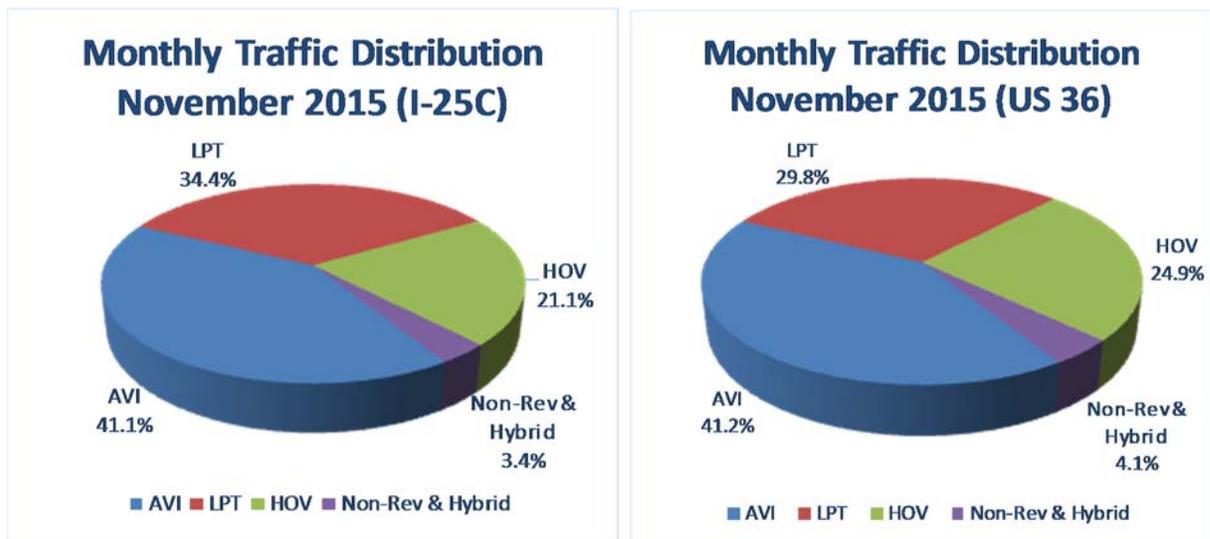
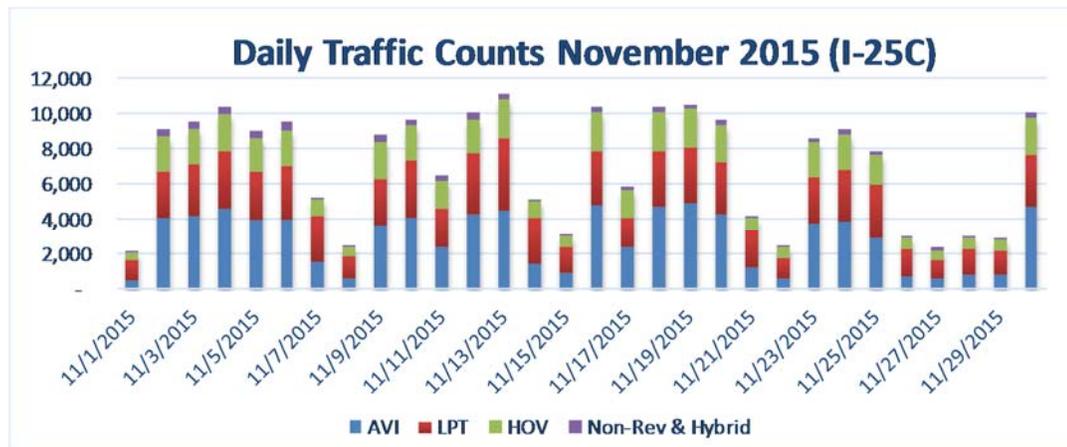


Figure 1 – Monthly Traffic Distribution



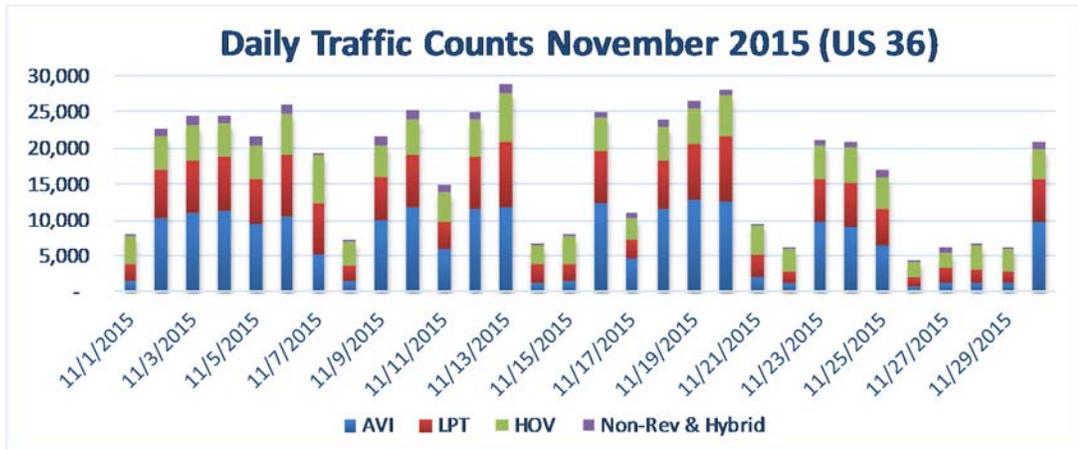


Figure 2 – Daily Traffic Counts

## 2.0 REVENUES

During the month of November 2015, PRD collected \$402,952 and \$174,460 from users of the I-25 Central and US 36 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 debris removals, graffiti removals, and litter removals during the month. All were cured within the allowable response period. Guardrail was damaged and is in the process of being repaired within the allowable response period. Westbound US36 had three accidents during the month in which traffic was either diverted into the Managed Lane or the Managed Lane was closed. All traffic diverted into the Managed Lane during this time was not tolled. This resulted in a total of 1 hour 27 minutes of closure.

Date	Start	Stop	Duration
July 3, 2015	12:58:00	13:39:00	0:41
July 6, 2015	05:00:00	06:30:00	1:30
October 2, 2015	10:12:00	12:47:00	2:35
November 10, 2015	07:00:00	08:00:00	1:00
November 16, 2015	06:48:00	07:04:00	0:16
November 19, 2015	07:30:00	07:41:00	0:11

Total			6:13
Remaining Closure Hours Available (Ref: CA 29.7)			5:47

Table 2 – Managed Lanes Closures to Date

The table below 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
1. ETCS Equipment	1.3	VTMS 72 and 73- Lost Communications (Phase 1 Contractor Power Supply Failure)	Toll Message Sign is free from faults	11/12/2015 10:03:00	N/A Phase 1 Contractor created the defect.	11/12/15 08:10:10 (Duration: 16:25:00) Tolls Waived
1. ETCS Equipment	1.4	Wadsworth EB Loop was cut. (Phase 1 Contractor)	All equipment is free of defects and operational problems such as i.) inoperable loops	11/13/15 10:30:00	N/A Phase 1 Contractor created the defect.	11/14/15 11:30:00 (Duration: 25 Hours)
1. ETCS Equipment	1.1	Wadsworth EB-“No Heartbeat” in Lane Health Report	ETCS equipment is fully functional	11/16/2015 16:30:00	14 Days	11/17/15 19:09:00 (Duration: 26:39:00)
1. ETCS Equipment	1.3	VTMS 81 and 82- Lost Communications (Phase 1 Contractor Melted Wires)	Toll Message Sign is free from faults	11/28/2015 12:29:00	N/A Phase 1 Contractor created the defect.	11/28/15 10:51:00 (Duration: 21:21:00) Tolls Waived
1. ETCS Equipment	1.3	VTMS 81 and 82- Lost Communications (Phase 1 Contractor Water Entered Cabinet)	Toll Message Sign is free from faults	11/30/2015 08:06:00	N/A Phase 1 Contractor created the defect.	11/30/15 07:03:00 (Duration: 01:04:00) Tolls Waived

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

#### 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 4 – Mean Time Between Failure & Mean Time To Repair

#### 5.0 HYBRID UTILIZATION

Total Hybrid Trips	
I-25 Central	3,054
US 36	7,373

Table 5 – 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.