# January 2017 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 January 2017. Operationally, January 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

Over the last several months as more commuters use the transponders for either ExpressToll™ (AVI) or HOV travel, License Plate (LPT) transactions have consistently decreased as a percentage of total traffic volume. The total monthly gantry traffic volume for January 2017 in the I-25 Central and US 36 Managed Lanes was 223,188 and 870,344, 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.

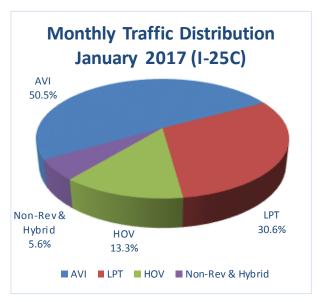
	Traff	ic Summary (	(I-25C)			
	AVI	LPT	HOV	Non-Rev & Hybrid	Total	Hybrid
Total Monthly Traffic	112,805	68,305	29,599	12,479	223,188	2,059
Maximum Weekday Traffic	6,806	3,930	1,396	643	11,475	126
Average Weekday Traffic	5,226	2,864	1,198	562	9,288	97
Average Hourly AM Peak Traffic	850	314	208	89	1,372	N/A
Average Hourly PM Peak Traffic	724	386	173	81	1,283	N/A





	Traffic	Summary (	<b>US 36</b> )			
	AVI	LPT	HOV	Non-Rev & Hybrid	Total	Hybrid
Total Monthly Traffic	501,041	199,772	128,714	40,817	870,344	6,669
Maximum Weekday Traffic	27,775	10,171	8,145	2,008	44,437	401
Average Weekday Traffic	22,756	8,551	4,120	1,822	37,249	304
Average Hourly AM Peak Traffic	3,677	1,199	497	249	5,622	N/A
Average Hourly PM Peak Traffic	3,564	1,204	570	246	5,584	N/A

**Table 1 – Monthly Traffic Summaries** 



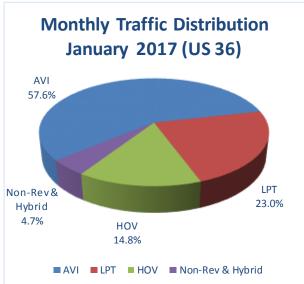
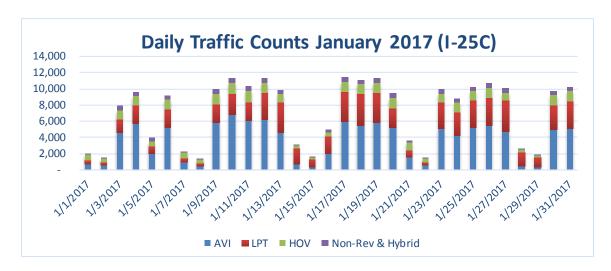


Figure 1 – Monthly Traffic Distribution







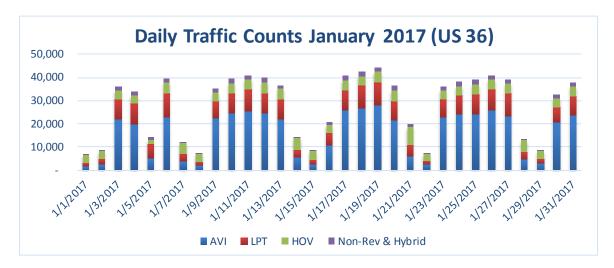


Figure 2 - Daily Traffic Counts

### 2.0 REVENUES

During the month of January 2017, PRD collected \$523,107 and \$359,202 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, guardrail incidents, sign incidents, and graffiti control during the month. The routine lighting, guardrail, and sign incidents are all planned for repair within the allowable response period and several previously identified lighting incidents were repaired. 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 three hours and fifty-six minutes.

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
December 8, 2016	08:58	09:47	0:49
December 9, 2016	07:06	07:22	0:16
December 9, 2016	08:10	08:16	0:06
January 3, 2017	09:10	10:05	0:55
January 5, 2017	14:50	15:10	0:20
January 5, 2017	15:40	16:58	1:18
January 24, 2017	10:50	12:13	1:23
Total			17:14
Remaining Closure Hours Available (Ref: CA 29.7)			-05:14

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.

The table below provides a listing of ETCS items recorded this month, consistent with Appendix 6-2 of Schedule 6. This month's issue was caused by the integration and testing of CDOT's I-25 North project, requiring I-25 Central tolls to be voided for 53 minutes. This will be treated as an event pursuant to CA Section 29.7(c).





Element Category	Refer- ence	Element	Performance Item	PRD Notified	Contractual Cure Period	Cure Achieved
ETCS	ID 18	VMS 4 & 5 (I-25 North)	Display incorrect toll	1/24/17 06:45	3 days	1/24/17 07:38
		,	rate			

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

The table below 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	2,059
US 36	6,669

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.





# OPERATIONS AND MAINTENANCE MONTHLY REPORT JANUARY 2017

US 36 and I-25 Express Lanes Project



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# OPERATIONS AND MAINTENANCE – MONTHLY REPORT JANUARY 2017

# US 36 and I-25 Express Lanes Project

Revision	Date	Approved
Rev. 0	02/08/2017	Int. De

This report titled Operations and Maintenance Monthly Report, January 2017 has been prepared by Broadspectrum for the exclusive use of Plenary Roads Denver, LLC (PRD). No other party is an intended beneficiary of this report or the information, opinions, and conclusions contained herein. Any use by any party other than PRD of any of the information, opinions, or conclusions is the sole responsibility of said party. The use of this report shall be at the sole risk of the user regardless of any fault or negligence of PRD or Broadspectrum.

The information and analyses contained herein have been completed to a level of detail commensurate with the objectives of the assignment and in light of the information made available to Broadspectrum at the time of preparation. This report and its supporting documentation have been reviewed and/or checked for conformance with industry-accepted norms. To the best of the information and belief of Broadspectrum, the information presented in this report is accurate to within the limitations specified herein.

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The O&M Monthly Report contains all relevant information for the month of January 2017. Broadspectrum continues ongoing and preventive maintenance activities for the I-25 and US36 Express Lanes Project.

# Broadspectrum's Commitment to Safety

Broadspectrum conducted weekly toolbox talk meetings during the month. The purpose of the tool box talks is to cover important safety items that relate to the project such as near misses, "better ways" as to how safety is conducted for the Project, and discussion on safety procedures for maintenance activities. In addition to the toolbox talks, Broadspectrum conducts a weekly progress meeting. This is a forum for feedback from staff on Operations, Incident Response, and Maintenance activities.

Toolbox Talks this month included:

- Fork Lift Safety
- Small Tool Safety
- Vehicle Awareness
- Working at Heights
- Electrical Safety

# A. Summary of the Planned Maintenance Activities for the Upcoming Month – February 2017

Broadspectrum has identified the upcoming planned maintenance activities as described in Table 1.7.1.3 of The Maintenance Management Plan. These activities include preventative and routine maintenance in order to successfully operate and maintain the Project. A listing of the planned maintenance activities for the month of February 2017 is included below.







# Fig. A-1 Planned Maintenance Activities for February 2017

X – Indicates the day the task is planned.

Performance Standard Identification Number (Table	Work Activity- Description	Description	Description	Frequency														Feb														
6.1)			1 W	2 T	3 F	4 S	5 S	6 M	7 T	8 W	9 T	10 F	11 S	12 S	13 M	14 T	15 W	16 T	17 F	18 S	19 S	20 M	21 T	22 W	23 T	24 F	25 S	26 S	27 M	28 T		
ML-1	MAINTENANCE PATROL	Daily	х		х	Ü		х	х	х	х	х	J		х	x	х	Х	х			х	х	х	х	х		J	х	х		
ML-1	FLEXIBLE PAVEMENT OBSERVATION / REPAIR	F-52		х						х							х							х								
ML-1	RIGID PAVEMENT OBSERVATION / REPAIR	F-52	х						х							х							х							х		
ML-4	DELINEATORS & MARKERS OBSERVE / CLEAN / REPAIR	F-12														х																
ML-2	DRAINAGE (INLET) OBSERVE/ CLEAN / REPAIR	F-12	х																													
ML-2	DRAINAGE (PIPE/CULVERT) OBSERVE / CLEAN / RPR	F-12								х																						
ML-6	SIGN CLEANING	F-1																				х										
ML-6	SIGN OBSERVATION / REPAIR	F-52		х						х						х									х				х			
ML-8	STREET LIGHTING OBSERVATION /REPAIR	F-52			х							х							х							х						
ML-8	ELECTRICAL SUPPLY INSPECTION / REPAIR	F-12	х																													
ML-8	ACCESS PANEL OBSERVATION / REPAIR	F-12									х																					
ML-10	HERBICIDE & WEED CONTROL MAINTENANCE	F-52		х				х							х							х							х			
ML-12	GRAFFITI OBSERVATION / REMOVAL	F-52	х						х							х							х							х		
ML-14	MECHANICAL ROAD SWEEPING	F-12													х	х	х	х														
ML-14	LITTER OBSERVATION / REMOVAL	Daily	х	х	х			х	х	х	х	х			х	х	х	х	х			х	х	х	х	х			х	х		
	REVERSIBLE LANE OPERATIONS	Daily	х	Х	х			х	х	х	х	Х			х	х	х	х	х			х	Х	х	х	Х			х	х		

Frequency of Activity:

Daily – Daily Activity F-4 – Quarterly Activity F-52 – Weekly Activity F-2 – Semi-Annual Activity

F-12 – Monthly Activity F-1 – Annual Activity







# B. Summary of Performed and Completed Maintenance Activities

# Fig. B-1 Performed and Complete Maintenance Activities for January 2017,

X Indicates the day of the month that the task was completed.

Performance Standard Identification Number (Table	Work Activity-	Frequency															J	an-1	7														
6.1)			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
			S	M	Т	W	Т	F	S	S	М	Т	W	Т	F	S	S	М	Т	W	Т	F	S	S	M	Т	W	Т	F	S	S	M	T
ML-1	MAINTENANCE PATROL	Daily			X	X	X	x			X	X	X	X	X			X	X	X	X	X			X	X	X	X	X			X	X
ML-1	FLEXIBLE PAVEMENT OBSERVATION / REPAIR	F-52			X						X							X							X		X	X	X			X	
ML-1	RIGID PAVEMENT OBSERVATION / REPAIR	F-52			x						X							X							X							X	
ML-4	DELINEATORS & MARKERS OBSERVE / CLEAN / REPAIR	F-12				X																			X	X	X	X	X			X	X
ML-2	DRAINAGE STRUCTURE (INLET) INSPECTION	F-1					x																				X						
ML-2	DRAINAGE (INLET) OBSERVE/ CLEAN / REPAIR	F-12						X																				X					
ML-6	SIGN CLEANING	F-1											X														X	X					
ML-6	SIGN OBSERVATION / REPAIR	F-52				х					X	X	X	X	X			X		x	x	X					X						
ML-8	STREET LIGHTING OBSERVATION /REPAIR	F-52					x							X						x	x	X						X					
ML-8	ELECTRICAL SUPPLY INSPECTION / REPAIR	F-12						X																									
ML-8	ACCESS PANEL OBSERVATION / REPAIR	F-12						X																									
ML-10	HERBICIDE & WEED CONTROL MAINTENANCE	F-52			X						X							X							X							X	
ML-12	GRAFFITI OBSERVATION / REMOVAL	F-52			x	x					X							X			x				X							X	
ML-14	LITTER OBSERVATION / REMOVAL	Daily			X	X	X	X			X	X	X	X	X			X	X	X	X	X			X	X	X	X	X			X	X
	REVERSIBLE LANE OPERATIONS	Daily			х	X	X	X			X	X	X	X	X			X	X	X	X	X			X	X	X	X	X			x	X
	GATE MAINTENANCE & REPAIR																	X											X			X	x
	SNOW & ICE CONTROL				X	X	x	X									X	X	X							X	X						







Fig. B-2 Work Accomplished This Month

	Actual
Activity	Work
153 Concrete Pavement Surface Rpr (YD2)	7
218 Debris in Roadway (HR)	4.1
218 Litter Barrel Trash Cleanup (YD3)	30.6
222 Sweeping - Hand (HR)	20
301 Misc Sign Maint (EA)	89
304 Del Post Maintenance (EA)	489
307 Direction Gate Maint (EA)	3
311 High Mast Lighting (EA)	6
314 Reversible Lane Ops (HR)	280
329 Courtesy Assistance (HR)	429
402 Snow Plowing & Spreading (MI)	440
540 Grafitti Removal (SF)	317
601 Incident Management (HR)	16

# C. Summary of Planned Maintenance that was Not Completed for the Month

Due to weather and snow removal efforts, scheduled mechanical sweeping maintenance was not performed during the period of January 2017. Broadspectum completed all other scheduled maintenance activities for the period of January 2017. Frequencies and/or actual date of the month of some activities may have been adjusted based on actual conditions.

# D. Summary of the Maintenance Activities and Results Performed for the Month Beyond Planned Maintenance

A summary of unplanned maintenance activities provided below:

### Snow and Ice Control:

Precipitation Event Start Equipment Deployed		Precipitation Event End		Service Level "A" Achieved in ML		Service Level "B" Achieved in GP			
1/3/2017	04:45	1/3/2017	04:30	1/6/2017	01:30	1/6/2017	01:15	1/6/2017	02:50
1/15/2017	17:00	1/15/2017	15:15	1/16/2017	23:55	1/16/2017	09:30	1/16/2017	09:30

Courtesy Patrol: None

Hazardous Materials Incidents: None







# E. Operating Contractor's Incident Response Logs Related to Maintenance Activities

This section provides a summary of Broadspectrum's performance related to the Performance and Measurement Criteria listed in Appendix 6-1.1 of the Operating Contract.

The table below provides a listing of items recorded this month:

Element	Description	Location	BRS Notified	Response to Defects			
Category				Category 1		Category 2	
				Hazard Mitigation	Permanent Remedy	Permanent Repair	
GP 8.2	Sign Lighting (All Lights Out)		1/26/2017 17:00:00			Reqd: 6 Months	
		MP 56.76		N/A	N/A	Respd:	
			17100.00			Actual: In Progress	
	Sign Lighting		1/26/2017	N/A	N/A	Reqd: 6 Months	
GP 8.2	(2 Lights Out)	MP 56.98 EB	17:00:00			Respd:	
	( 3 ,					Actual: In Progress	
00.00	Sign Lighting		1/26/2017 17:00:00	N/A	N/A	Reqd: 6 Months	
GP 8.2	(All Lights Out)	MP 0.01				Respd:	
						Actual: In Progress	
GP 8.2	Sign Lighting	MP 0.445	1/26/2017 17:00:00	N/A	NI/A	Reqd: 6 Months	
GP 8.2	(All Lights Flickering)	IVIP 0.445			N/A	Respd: Actual: In Progress	
						Regd: 6 Months	
GP 8.2	Sign Lighting	MP 0.50	1/26/2017	N/A	N/A	Respd:	
01 0.2	(All Lights Out)		17:00:00			Actual: In Progress	
						Regd: 6 Months	
GP 8.2	Sign Lighting	MP 57.14 WB	1/26/2017	N/A	N/A	Respd:	
0. 0.2	(All Lights Out)	IVIF 37.14 VV B	17:00:00			Actual: In Progress	
	0					Regd: 6 Months	
GP 8.2	Sign Lighting	MP 56.37 WB	1/26/2017	N/A	N/A	Respd:	
	(Left Lights Out)		17:00:00		·	Actual: In Progress	
	Sign Lighting (All Lights Out)		4/00/0047		N/A	Regd: 6 Months	
GP 8.2		MP 56.17	1/26/2017	N/A		Respd:	
			17:00:00			Actual: In Progress	
	Sign Lighting (3 Lights Out)	MP 56.50 EB	1/26/2017			Reqd: 6 Months	
GP 8.2				N/A	N/A	Respd:	
			17:00:00			Actual: In Progress	
	Sign Lighting (All Lights Out)	MP 56.45 EB	1/26/2017	N/A	N/A	Reqd: 6 Months	
GP 8.2			17:00:00			Respd:	
						Actual: In Progress	
	Sign Lighting (All Lights Out)	MP 55.05 WB	1/26/2017 17:00:00	N/A	N/A	Reqd: 6 Months	
GP 8.2						Respd:	
						Actual: In Progress	
	Sign (45 MPH Sign)		1/19/2017 08:00:00	N/A	N/A	Reqd: 6 Months	
GP 6.1		MP 47.52 EB				Respd:	
						Actual: In Progress	
GP 6.1	Sign (45 MPH Sign)	MD 40 05 WD	1/17/2017	N/A	N/A	Reqd: 6 Months	
GP 6.1		MP 48.25 WB	09:00:00			Respd: Actual: In Progress	
						Regd: 6 Months	
GP 6.1	Sign (45 MPH Sign)	MD 40 30 W/B	1/17/2017 09:00:00	N/A	N/A	Respd:	
GF 0.1		MP 48.30 WB				Actual: In Progress	
				Regd: 28 Days		Actual. III Togress	
GP 14.2	Litter	MP 44.50-57.30	1/12/2017	Respd: 2/8/2017 11:00	N/A	N/A	
01 14.2	(Cleared from Roadside)	1011 44.30-37.30	19:00:00	Actual: 26.66 Days	IWA	14/1	
GP 1.1	5.1.		4/05/00/5	Regd: 1 Hours	N/A		
	Debris (Nothing Found)	MP 55.90 EB	1/25/2017 06:30:00	Respd: 1/25/2017 06:40		N/A	
				Actual: 0.16 Hours			
	Dobrio	Dobrio		4/04/0047	Reqd: 1 Hours		
GP 1.1	Debris	MP 43.25 EB	1/24/2017	Respd: 1/24/2017 08:40	N/A	N/A	
	(Nothing Found)	(Nothing Found)	08:25:00	Actual: 0.24 Hours			
	Graffiti		1/19/2017		Reqd: 10 Days		
GP 12.1	(On Wall)	MP 57.10 EB	13:00:00	N/A	Respd: 1/19/2017 14:00	N/A	
	(On wall)		13.00.00		Actual: 0.04 Days		





Element		Location	BRS Notified	Response to Defects			
Category	Description			Cate	Category 2		
				Hazard Mitigation	Permanent Remedy	Permanent Repair	
GP 1.1	Debris (Sign in Lanes)	MP 52.10 WB	1/11/2017 15:35:00	Reqd: 1 Hours Respd: 1/11/2017 15:40 Actual: 0.08 Hours	N/A	N/A	
GP 1.1	Debris (Cleared Ladder from Lanes)	MP 52.40 EB	1/19/2017 17:35:00	Reqd: 1 Hours Respd: 1/19/2017 18:00 Actual: 0.41 Hours	N/A	N/A	
GP 5.2	Attenuator (Impact Damage)	MP 54.65 EB	1/25/2017 07:42:00	N/A	N/A	Reqd: 6 Months Respd: Actual: In Progress	
GP 13.1	IncidentRspnd (Assisted Authorities with Traffic Control)	MP 55.14 WB	1/25/2017 10:30:00	Reqd: 1 Hours Respd: 1/25/2017 10:35 Actual: 0.08 Hours	N/A	N/A	
GP 6.1	Sign (Clean CO Sign)	MP 50.30 EB	1/20/2017 09:00:00	N/A	N/A	Reqd: 6 Months Respd: Actual: In Progress	
GP 5.1	Guardrail (Impact Damage)	MP 47.52 EB	1/19/2017 13:15:00	N/A	N/A	Reqd: 6 Months Respd: Actual: In Progress	
GP 1.1	Debris (Cleared Wood from Lanes)	MP 46.50 WB	1/21/2017 10:40:00	Reqd: 1 Hours Respd: 1/21/2017 11:30 Actual: 0.83 Hours	N/A	N/A	
GP 12.1	Graffiti (On Wall)	MP55.50 WB	1/3/2017 19:00:00	N/A	Reqd: 10 Days Respd: 1/3/2017 22:00 Actual: 0.12 Days	N/A	
GP 6.1	Sign (McCaslin Sign Damage)	MP 43.25 EB	1/19/2017 09:00:00	N/A	N/A	Reqd: 6 Months Respd: 2/1/2017 11:00 Actual: 0.43 Months	
GP 1.1	Debris (Cleared Wood from Lanes)	MP 55.10 WB	1/2/2017 11:00:00	Reqd: 1 Hours Respd: 1/2/2017 11:35 Actual: 0.58 Hours	N/A	N/A	
GP5.1	Guardrail (Missing Lag Bolt)	040-U36-GSI-ENDT- 050_920R, MP 50.92 WB	11/28/2016 13:00:00	N/A	N/A	Reqd: 6 Months Respd: Actual: In Progress	
GP5.1	Guardrail (Impact Damage)	040-U36-GSI-ENDT- 046_910R, MP 46.91 WB	11/28/2016 13:00:00	N/A	N/A	Reqd: 6 Months Respd: Actual: In Progress	
GP5.1	Guardrail (Damage to End Markers)	MP 44.60 to 57.00	11/28/2016 13:00:00	N/A	N/A	Reqd: 6 Months Respd: Actual: In Progress	
GP5.1	Guardrail (Impact Damage)	040-U36-GSI-ENDT- 054_980L, MP 54.98 EB	11/28/2016 13:00:00	N/A	N/A	Reqd: 6 Months Respd: Actual: In Progress	
GP5.1	Guardrail (Missing Lag Bolt)	040-U36-GSI-ENDT- 052_580R, MP 52.58 WB	11/28/2016 13:00:00	N/A	N/A	Reqd: 6 Months Respd: Actual: In Progress	
ML8.1	Lighting (All Dark)	040-U36-LHT-0170, MP 56.30	10/31/2016 13:00:00	N/A	N/A	Reqd: 6 Months Respd: 1/31/2017 12:00 Actual: 3.06 Months	
ML8.1	Lighting (North, South bulbs)	040-U36-LHT-0160, MP 56.20	10/31/2016 13:00:00	N/A	N/A	Reqd: 6 Months Respd: 1/31/2017 12:00 Actual: 3.06 Months	
ML8.1	Lighting (South bulb)	040-I25-LHT-0090, MP 214.90	10/31/2016 13:00:00	N/A	N/A	Reqd: 6 Months Respd: 1/31/2017 12:00 Actual: 3.06 Months	
ML8.1	Lighting (All dark)	040-I25-LHT-0050, MP 214.70	10/31/2016 13:00:00	N/A	N/A	Reqd: 6 Months Respd: 1/31/2017 12:00 Actual: 3.06 Months	
ML8.1	Lighting (North, West, East bulbs)	040-I25-LHT-0020, MP 214.50	10/31/2016 13:00:00	N/A	N/A	Reqd: 6 Months Respd: 1/31/2017 12:00 Actual: 3.06 Months	

All items were completed within the required response time. Items that are *In Progress* are still within the allowed response time.

# F. Detailed Results of All Inspections, Assessments, and Testing Activities

During this reporting period there were no special inspections, assessments, or testing results outside normal operating condition.

# G. Monthly Toll System Performance Reports







Toll system operated within proposed parameters per Broadspectrum's observations.

# H. Preventative Maintenance Plan and Progress

Preventative Maintenance work is contingent on Initial Works Package implementation.

# I, J. Mean Time between Failure (MTBF), Mean Time To Repair (MTTR)

No Maintained Elements experienced a failure type breakdown this month. Broadspectrum considers a breakdown to be a failure when the element cannot be used for its intended purpose until repaired.

