

May 2021

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 May 2021. Operationally, May 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 May 2021 in the I-25 Central and US 36 Managed Lanes was 190,149 and 691,520, 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 4:15pm – 5:45pm. 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 (US 36)						
	AVI	LPT	HOV	Non-Rev & Hybrid	Total	Hybrid
Total Monthly Traffic	313,619	252,844	120,146	4,911	691,520	-
Maximum Weekday Traffic	16,285	18,895	6,056	279	33,405	-
Average Weekday Traffic	12,820	9,004	3,885	210	25,919	-
Average Hourly AM Peak Traffic	1,079	658	291	20	2,048	N/A
Average Hourly PM Peak Traffic	2,053	1,402	528	20	4,003	N/A

Traffic Summary (I-25C)						
	AVI	LPT	HOV	Non-Rev & Hybrid	Total	Hybrid
Total Monthly Traffic	60,338	94,156	33,289	2,366	190,149	-
Maximum Weekday Traffic	3,116	4,693	1,467	120	9,055	-
Average Weekday Traffic	2,552	3,754	1,225	97	7,531	-
Average Hourly AM Peak Traffic	340	557	153	8	1,050	N/A
Average Hourly PM Peak Traffic	331	451	151	9	933	N/A

Table 1 – Monthly Traffic Summaries

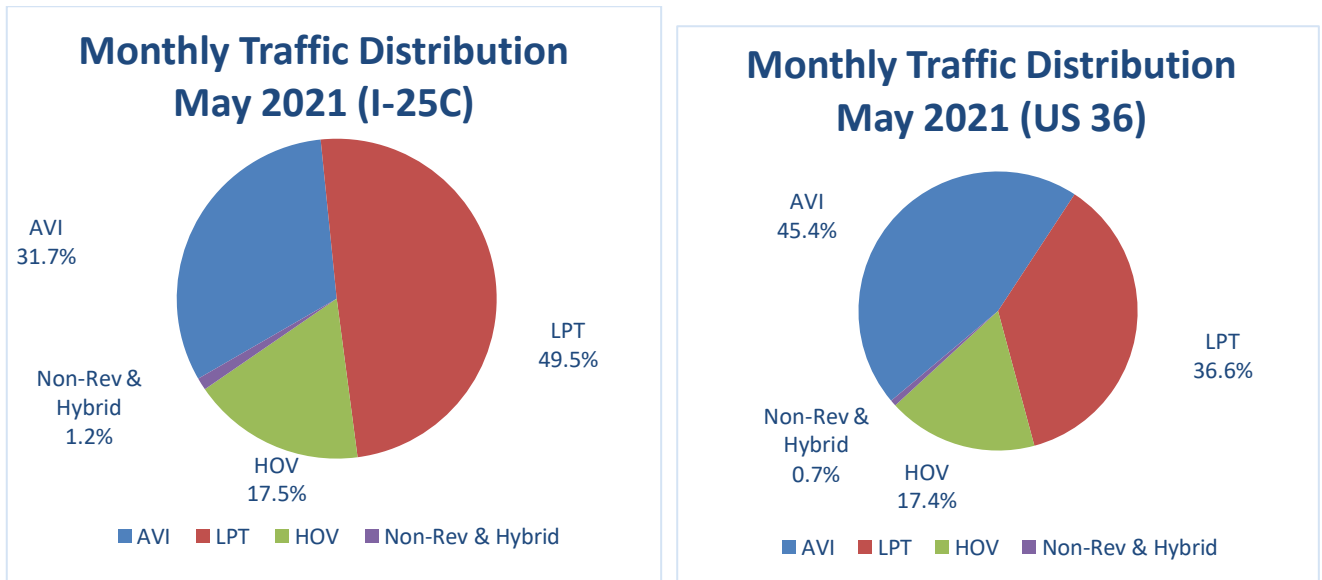
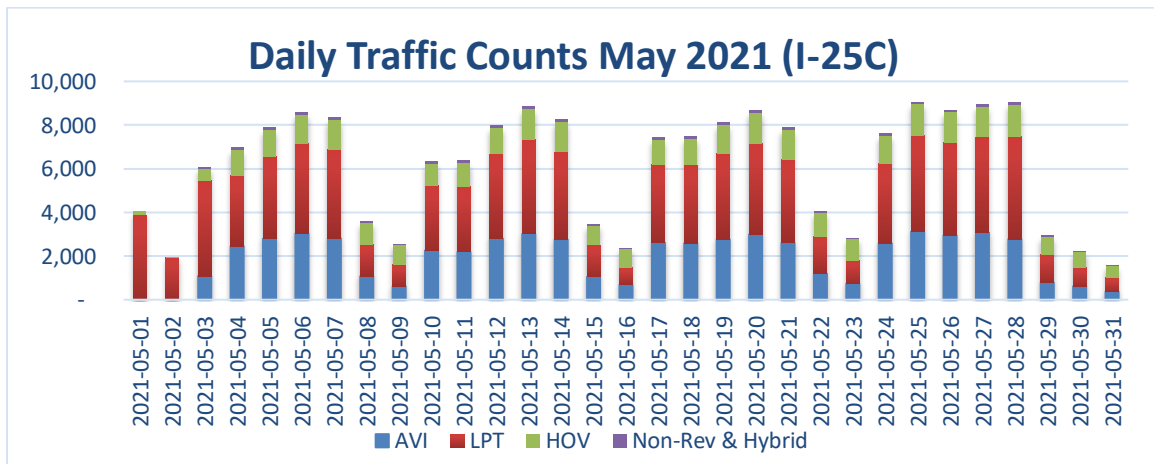


Figure 1 – Monthly Traffic Distribution



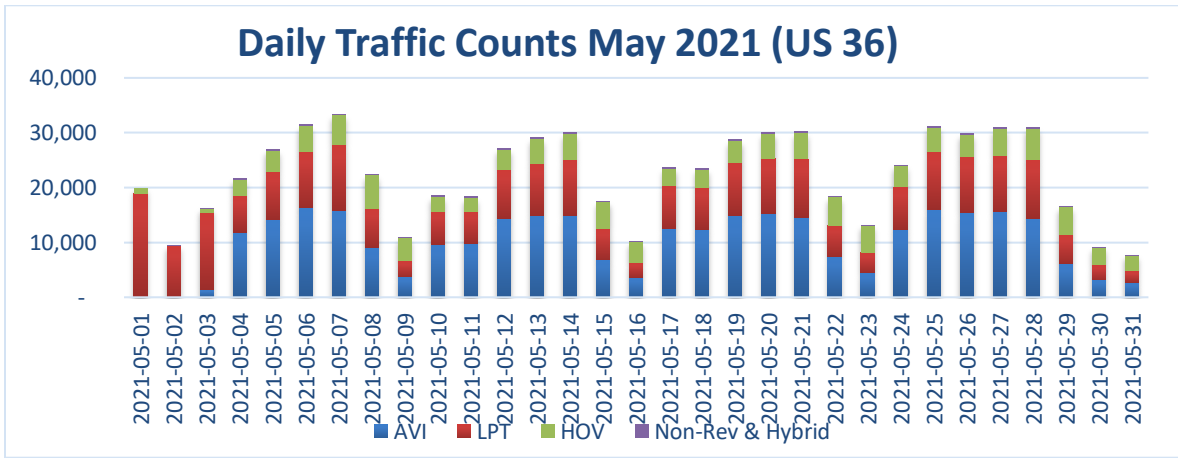


Figure 2 – Daily Traffic Counts

2.0 REVENUES

During the month of May 2021, PRD collected \$443,276 and \$341,238 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, roadway markings 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.

Date	Start	Stop	Duration
July 27, 2020	10:45	11:27	0:42
September 30, 2020	16:24	17:10	0:46
October 2, 2020	17:10	18:42	1:32
October 13, 2020	05:38	06:23	0:45
October 28, 2020	08:38	10:06	1:58
October 30, 2020	08:32	09:57	1:25
November 15, 2020	20:20	01:40	5:20
November 17, 2020	15:07	15:42	0:35

November 19, 2020	18:42	19:40	0:58
November 20, 2020	17:22	18:54	1:32
November 24, 2020	08:44	09:40	0:56
December 11, 2020	14:15	14:44	0:29
December 16, 2020	17:13	17:33	0:20
December 16, 2020	17:47	18:21	0:34
December 18, 2020	18:03	18:34	0:30
January 8, 2021	12:21	13:09	0:48
January 21, 2021	07:45	09:19	1:34
January 26, 2021	15:28	16:17	0:49
February 16, 2021	07:34	08:16	0:44
February 24, 2021	16:27	17:00	0:33
March 9, 2021	06:30	06:50	0:20
March 30, 2021	05:57	07:00	1:03
March 30, 2021	07:07	07:55	0:48
April 1, 2021	16:01	16:58	0:57
April 2, 2021	13:17	13:52	0:35
April 6, 2021	07:41	08:49	1:08
April 16, 2021	06:52	07:32	0:40
April 16, 2021	07:03	07:48	0:45
April 28, 2021	16:43	17:33	0:50
April 29, 2021	08:05	08:41	0:36
April 30, 2021	18:38	19:34	0:56
May 13, 2021	18:50	19:30	0:40
May 21, 2021	16:24	17:57	1:33
May 24, 2021	18:37	19:11	0:34
May 26, 2021	16:02	17:04	1:02
May 28, 2021	10:35	11:07	0:32
Total			34 hours 40 minutes
Remaining Closure Hours Available (Ref: CA 29.7)			0 hours 0 minutes

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 ID	Cat	Element	Performance Item	PRD Notified	Contractual Cure Period	Cure Achieved
None						

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
None							

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	0
US 36	0

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.

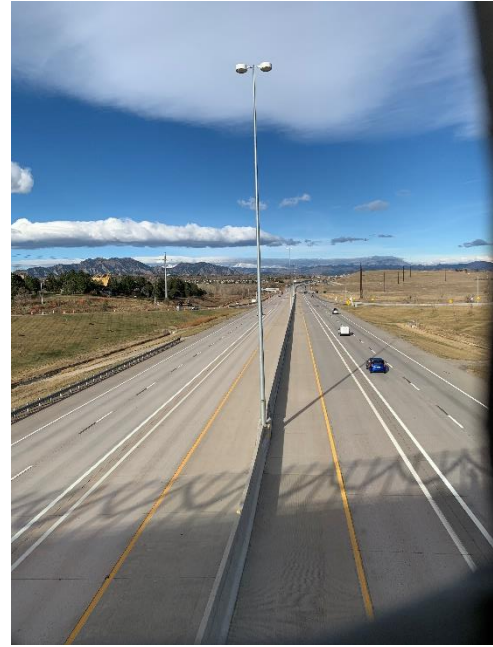
OPERATIONS AND
MAINTENANCE
MONTHLY REPORT
MAY 2021

US 36 and I-25 Express
Lanes Project

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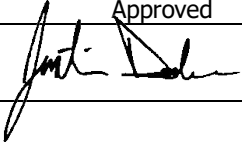


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OPERATIONS AND MAINTENANCE – MONTHLY REPORT MAY 2021 US 36 and I-25 Express Lanes Project

Revision	Date	Approved
Rev. 0	06/10/2021	

This report titled *Operations and Maintenance Monthly Report, May 2021* has been prepared by Ferrovial Services 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 Ferrovial Services.

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 Ferrovial Services 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 Ferrovial Services, 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. Ferrovial Services continues ongoing and preventive maintenance activities for the I-25 and US36 Managed Lanes Project.

Ferrovial Services Commitment to Safety

Ferrovial Services conducted weekly toolbox talk meetings during the month. The purpose of the toolbox 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, Ferrovial Services 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:

- Overhead Powerlines
- Poisonous Plants
- Heat Stress

A. Summary of the Planned Maintenance Activities for the Upcoming Month

Ferrovial Services 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 are included below.

Fig. A-1 Planned Maintenance Activities for the Upcoming Month

X – Indicates the day the task is planned.

Performance Standard Identification Number (Table 6.1)	Work Activity-Description	Frequency	Jun-21																													
			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
			T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W
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	X	
ML-1	FLEXIBLE PAVEMENT OBSERVATION / REPAIR	F-52						X						X							X			X					X			
ML-1	RIGID PAVEMENT OBSERVATION / REPAIR	F-52						X						X							X			X					X			
ML-2	DRAINAGE (INLET) OBSERVE/ CLEAN / REPAIR	F-12																						X								
ML-2	DRAINAGE (PIPE/CULVERT) OBSERVE / CLEAN / RPR	F-12																						X								
ML-4	DELINEATORS & MARKERS OBSERVE / CLEAN / REPAIR	F-12			X																											
ML-5	GUARDRAIL, SAFETY BARRIER	F-12						X	X																							
ML-6	SIGN OBSERVATION / REPAIR	F-52			X					X									X													
ML-8	STREET LIGHTING OBSERVATION /REPAIR	F-52			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			
ML-12	GRAFFITI OBSERVATION / REMOVAL	F-52			X						X								X					X								
ML-14	MECHANICAL ROAD SWEEPING	F-12						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	X	
ML-15	NODE BUILDING 2 MAINTENANCE	F-1													X																	
ML-15	SAND STORAGE DOME MAINTENANCE	F-1													X																	
ML-15	LIQUID STORAGE FACILITY MAINTENANCE	F-1													X																	
	REVERSIBLE LANE OPERATIONS	Daily	X	X	X	X		X	X	X	X	X			X	X	X	X	X			X	X	X	X	X			X	X	X	

Frequency of Activity:

Daily – Daily Activity

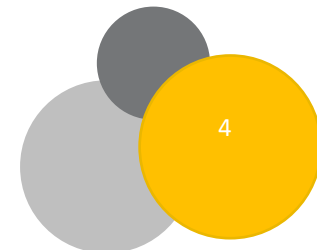
F-4 – Quarterly Activity

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 Prior Month

Performance Standard Identification Number (Table 6.1)	Work Activity-Description	Frequency	May-21																														
			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	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M
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
ML-1	FLEXIBLE PAVEMENT OBSERVATION / REPAIR	F-52				X	X	X											X										X				
ML-1	RIGID PAVEMENT OBSERVATION / REPAIR	F-52					X					X										X								X			
ML-2	DRAINAGE (INLET) OBSERVE / CLEAN / REPAIR	F-12			X	X			X				X	X	X			X	X	X													
ML-2	DRAINAGE (PIPE/CULVERT) OBSERVE / CLEAN / RPR	F-12																										X					
ML-4	DELINEATORS & MARKERS OBSERVE / CLEAN / REPAIR	F-12						X																									
ML-5	GUARDRAIL, SAFETY BARRIER	F-12						X														X											
ML-6	SIGN OBSERVATION / REPAIR	F-52				X			X			X		X											X		X		X				
ML-8	STREET LIGHTING OBSERVATION / REPAIR	F-52						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	X						X	X	X			X	X	X					
ML-12	GRAFFITI OBSERVATION / REMOVAL	F-52				X									X									X						X			
ML-14	MECHANICAL ROAD SWEEPING	F-12																X	X	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			
ML-15	NODE BUILDING 2 MAINTENANCE	F-1			X																												
ML-15	SAND STORAGE DOME MAINTENANCE	F-1			X																												
ML-15	LIQUID STORAGE FACILITY MAINTENANCE	F-1			X																												
	REVERSIBLE LANE OPERATIONS	Daily			X	X	X	X	X			X	X	X	X	X		X	X	X	X	X				X	X	X	X	X			

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



Fig. B-2 Work Accomplished This Month

TASK,COURTESY,ASSISTANCE,329.00,CDOT,HR	360.0
TASK,DELINEATOR,MAINT,304.00,CDOT,EA	97
TASK,FENCE,GATE,MAINT,216.00,CDOT,LF	1,150
TASK,FLEX,PAVEMT,PATCH,152.00,CDOT,YD2	6.5
TASK,GRAFFITI,REMOVE,218.98,CDOT,FT2	92
TASK,LITTER,TRASH,CLEAN,218.00,CDOT,YD3	11
TASK,METAL,GRDRAIL,MAINT,306.00,CDOT,FT	810
TASK,MINOR,DRAINSTR,MAINT,202.00,CDOT,EA	124
TASK,RDWY,ATTENUATR,MAINT,316.00,CDOT,EA	2
TASK,RIGID,PAVEMT,PATCH,152.10,CDOT,YD2	56
TASK,ROADWAY,DEBRIS,HAZD,218.99,CDOT,YD3	4
TASK,SIGN,MULTPOST,MAINT,303.00,CDOT,EA	1
TASK,SIGN,SSGLPOST,MAINT,302.00,CDOT,EA	8
TASK,SWEEPING,MACHINE,220.00,CDOT,MI	78.3
TASK,TRAFFIC,TOLL,OPERAT,314.97,CDOT,HR	280
TASK,TRAINING,MEETING,103.00,CDOT,HR	13.0
TASK,VEG,CTRL,PESTICD,256.00,CDOT,AC	38

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

Ferrovial Services completed all scheduled maintenance activities for the month. 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: None

Courtesy Patrol: None

Hazardous Materials Incidents: None

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

This section provides a summary of Ferrovial Services 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 Category	Description	Location	Notified	Response to Defects		
				Category 1		Category 2
				Hazard Mitigation	Permanent Remedy	Permanent Repair
GP6.1	SIGN (Sign Turned)	MP 51.6 WB	4/12/2021 16:31:00	N/A	N/A	Reqd: 6 Months Resp: 5/7/2021 09:30 Actual: 0.82 Months
GP6.1	SIGN (Sign Down)	MP 41.4 EB	4/19/2021 13:51:00	N/A	N/A	Reqd: 6 Months Resp: 5/18/2021 01:00 Actual: 0.94 Months
GP5.2	ATTENUATOR (Impact Damage)	MP 55.1 WB	4/22/2021 03:05:00	N/A	N/A	Reqd: 6 Months Resp: 5/7/2021 03:00 Actual: 0.49 Months
GP5.1	GUARDRAIL (Impact Damage)	MP 43.3 EB	4/22/2021 07:30:00	N/A	N/A	Reqd: 6 Months Resp: 5/6/2021 13:00 Actual: 0.47 Months
GP9.2	FENCE (Fence Stays Replaced)	MP 40.8 EB	4/29/2021 15:45:00	N/A	N/A	Reqd: 6 Months Resp: 4/29/2021 20:30 Actual: 0.01 Months
GP6.1	SIGN (Sign Down)	MP 41.2 WB	4/29/2021 14:01:00	N/A	N/A	Reqd: 6 Months Resp: 5/4/2021 16:00 Actual: 0.16 Months
GP12.1	GRAFFITI	MP 56.4 WB	5/3/2021 15:39:00	N/A	Reqd: 10 Days Resp: -- Actual: In Progress	N/A
GP1.1	DEBRIS (Removed Mattress from Lanes)	MP 55.9 EB	5/6/2021 11:54:00	Reqd: 1 Hours Resp: 5/6/2021 12:30 Actual: 0.60 Hours	N/A	N/A
GP1.1	DEBRIS (Removed Trash Can From Lanes)	MP 48.2 WB	5/6/2021 07:15:00	Reqd: 1 Hours Resp: 5/6/2021 08:00 Actual: 0.75 Hours	N/A	N/A
GP6.1	SIGN (Sign Turned)	MP 46.2 WB	5/6/2021 13:43:00	N/A	N/A	Reqd: 6 Months Resp: 5/7/2021 09:30 Actual: 0.02 Months
GP6.1	DELINEATORS (Replace Guardrail Delineators)	MP 42.3 WB	5/7/2021 14:40:00	N/A	N/A	Reqd: 6 Months Resp: -- Actual: In Progress
GP1.1	DEBRIS (Removed Rubber Mat from Lanes)	MP 55.9 WB	5/7/2021 07:30:00	Reqd: 1 Hours Resp: 5/7/2021 08:00 Actual: 0.50 Hours	N/A	N/A
GP5.1	GUARDRAIL (Impact Damage)	MP 43.3 EB RAMP	5/10/2021 08:05:00	N/A	N/A	Reqd: 6 Months Resp: 5/20/2021 12:00 Actual: .33 Months
GP6.1	SIGN (Sign Down)	MP 57.1 WB	5/10/2021 16:37:00	N/A	N/A	Reqd: 6 Months Resp: 5/10/2021 18:30 Actual: 0.01 Months
GP6.1	SIGN (Sign Straightened)	MP 41.9 WB	5/10/2021 19:14:00	N/A	N/A	Reqd: 6 Months Resp: 5/13/2021 00:30 Actual: 0.07 Months
GP12.1	GRAFFITI	MP 0.8	5/12/2021 20:21:00	N/A	Reqd: 10 Days Resp: -- Actual: In Progress	N/A
GP12.1	GRAFFITI	MP 42.8 EB	5/13/2021 11:22:00	N/A	Reqd: 10 Days Resp: -- Actual: In Progress	N/A

Element Category	Description	Location	Notified	Response to Defects		
				Category 1		Category 2
				Hazard Mitigation	Permanent Remedy	Permanent Repair
GP12.1	DEBRIS (Debris Not Found)	MP 51.6 EB	5/17/2021 14:37:00	Reqd: 1 Hours Respd: 5/17/2021 15:00 Actual: 0.38 Hours	N/A	N/A
GP5.1	GUARDRAIL (Impact Damage)	MP 48.8 WB	5/17/2021 07:15:00	N/A	N/A	Reqd: 6 Months Respd: 5/24/2021 10:00 Actual: .23 Months
GP1.2	POTHOLE	MP 46.4 WB	5/19/2021 17:00:00	N/A	N/A	Reqd: 6 Months Respd: -- Actual: In Progress
GP1.1	DEBRIS (Removed Ladder from Lanes)	MP 39.1 EB	5/25/2021 10:37:00	Reqd: 1 Hours Respd: 5/25/2021 11:00 Actual: 0.38 Hours	N/A	N/A
GP6.1	SIGN (Sign Down)	MP 43.3 EB	5/28/2021 15:00:00	N/A	N/A	Reqd: 6 Months Respd: 6/1/2021 23:00 Actual: 0.14 Months
GP5.1	GUARDRAIL (Guardrail)	MP 45.0 EB	5/28/2021 10:35:00	N/A	N/A	Reqd: 6 Months Respd: 6/7/2021 12:30 Actual: 0.33 Months
GP1.1	DEBRIS (Removed Vehicle Debris from Lanes)	MP 47.0 EB	5/30/2021 12:50:00	Reqd: 1 Hours Respd: 5/30/2021 13:50 Actual: 1.00 Hours	N/A	N/A
GP1.1	DEBRIS (Removed Tire from Lanes)	MP 57.3 EB	5/31/2021 16:00:00	Reqd: 1 Hours Respd: 5/31/2021 16:30 Actual: 0.50 Hours	N/A	N/A

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 Ferrovial Services 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. Ferrovial Services considers a breakdown to be a failure when the element cannot be used for its intended purpose until repaired.